Support Canadian Small Business

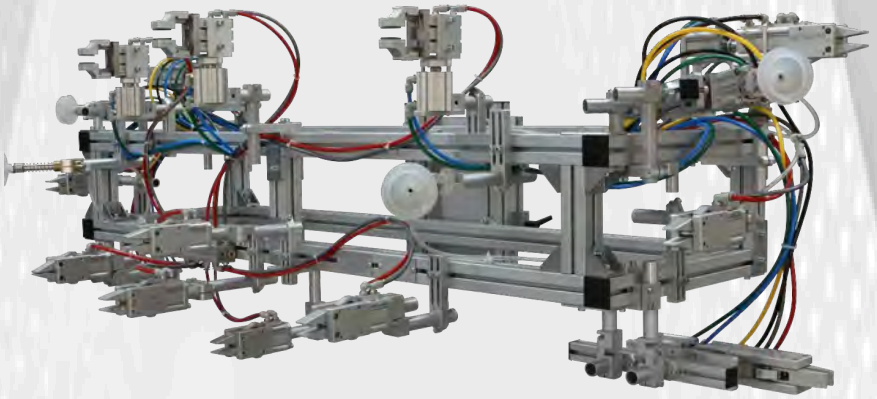
GRIPTEK

Div:Martech Sales & Associates Inc.

E.O.A.T COMPONENTS, FIXTURE CLAMPS

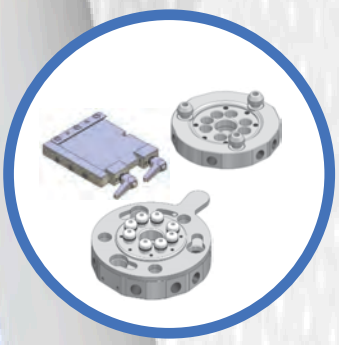
Online Shop Coming Soon

2024

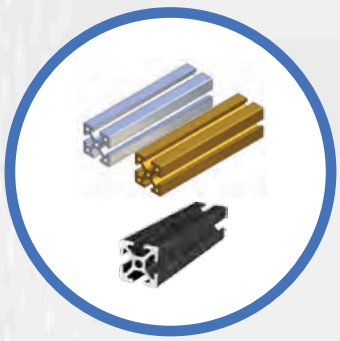


Click On Images Below To Quickly Visit Section Or Visit General Index Pg 2

TOOL CHANGERS



PROFILES & CONNECTORS

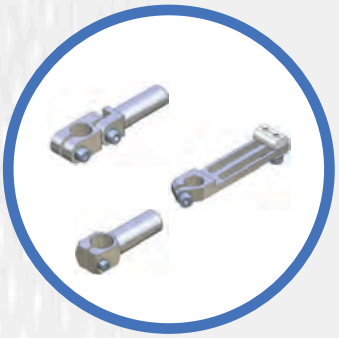


DOCKING CYLSS, PIVOT FINGERS

GRIPPER ARMS & BUFFERS

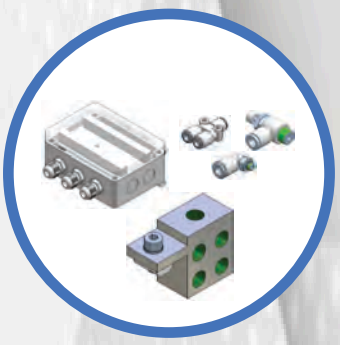
NIPPERS & BLADES

CLAMPS & BRACKETS

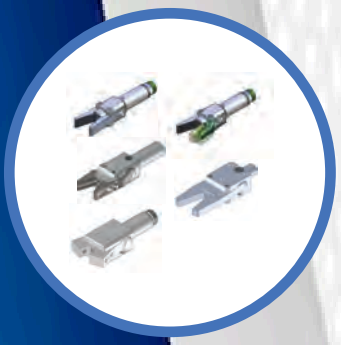


VACUUM PRODUCTS

PNEUMATIC, FITTINGS, SENSORS

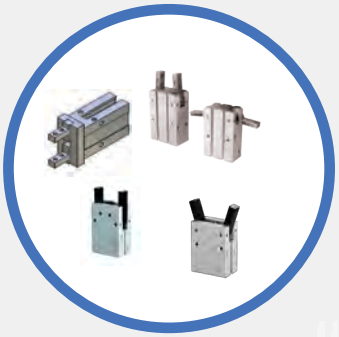


SPRUE GRIPPERS



CYLINDERS & FIXTURE CLAMPS

GRIPPERS



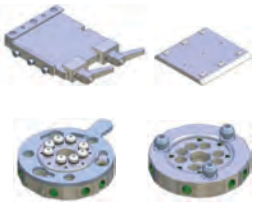
FINGER GRIPPERS, INDEX CYL

GRIPTEK
Div:Martech Sales & Associates Inc.

Contact Us For CAD Files
info@martechsales.com

General Index

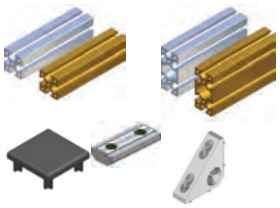
Click On Images To Quickly Visit Sections



Section 1 Pgs 4 - 22

Manual & Semi - Auto Quick Changer Systems

SWM - LAL - GPM - GPG- GPR- GHV - RS, GS, 01.01 - CUDL- CUSL



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Profiles & Accessories

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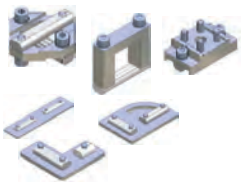
GAR - PAT



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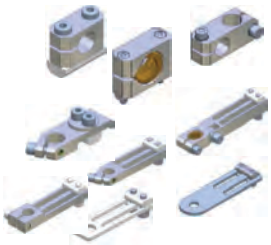
Profile Clamps & Connector Plates

KPL - KBV - SVB

VBG - VBL - VBT - VBW - EVB



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Tubular Clamps, Mounting Clamps

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Vacuum Gripper Arms, Spring Buffers, Accessories

RID
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SDN - SDR
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GGS , GGD,GGV
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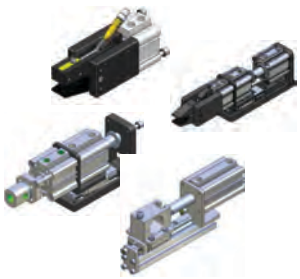
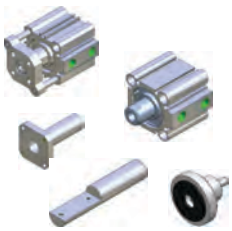
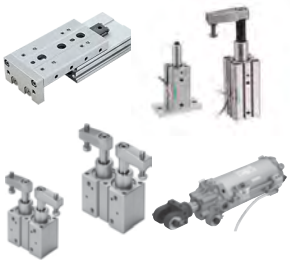
Mold Position Cyls, Internal Hole Grippers, Pivot Fingers

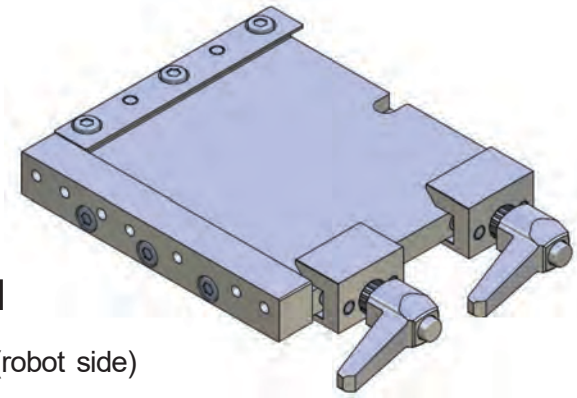
GMP20A, GMP20B
GMP30A, GMP30B
CA.GBD
CA.GOF

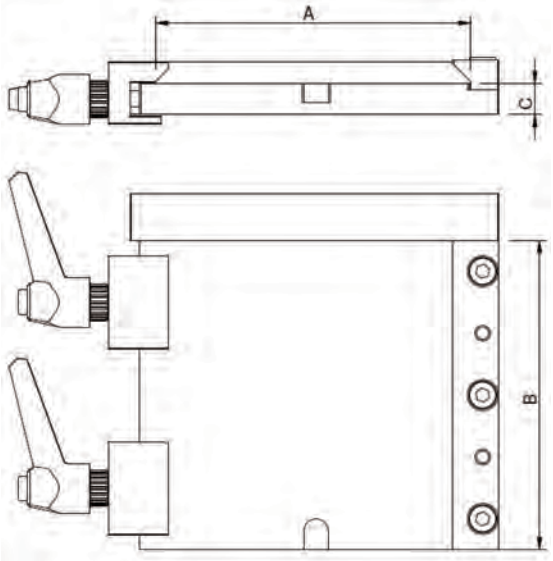
Click On Images To Quickly Visit Sections





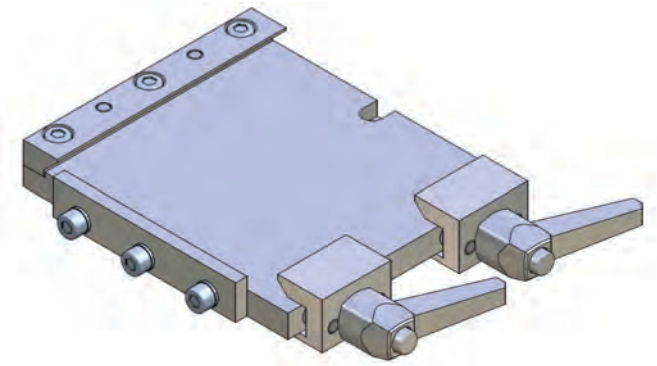






CA.01 SWM

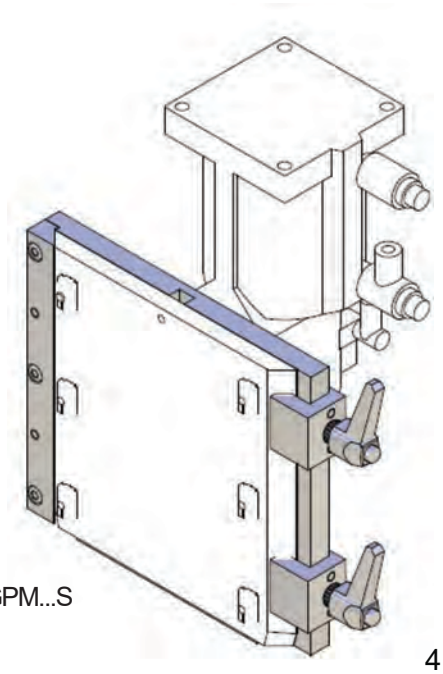
. Quick changer (robot side)



H = Handling weight as approx. value
M = Suitable for EOAT Groundplate GPM….
Material
Aluminium
Steel
Surface: Silver anodized

Article no.	A	B	C	H		M	Weight
CA.SWM0	60	60	10	5 kg	ALUMINIUM	CA.GPM0	140 g
CA.SWM1	100	100		10 kg		CA.GPM1	441 g
CA.SWM1S*				…	STEEL	CA.GPM1S	1138 g
CA.SWM2	160	160	12	20 kg	ALUMINIUM	CA.GPM2	1132 g
CA.SWM2S*				…	STEELL	CA.GPM2S	3099 g
CA.SWM3	250	250		40 kg	ALUMINIUM	CA.GPM3	2962 g
CA.SWM3S*				...	STEELL	CA.GPM3S	8173 g

Application Example

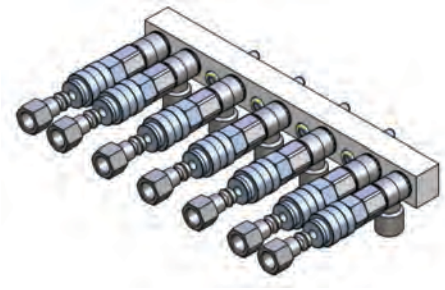


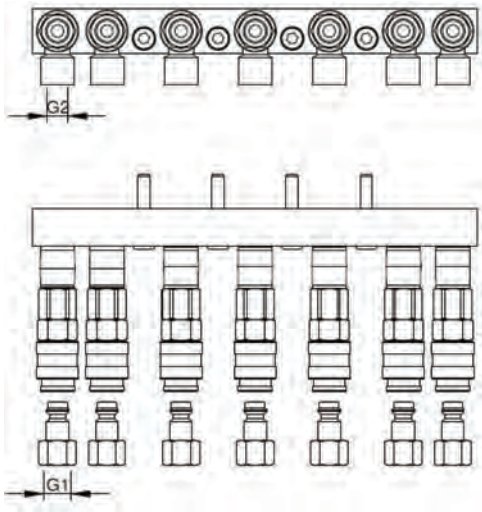
CA.GPM…

CA.GPM...S

LAL - SWM

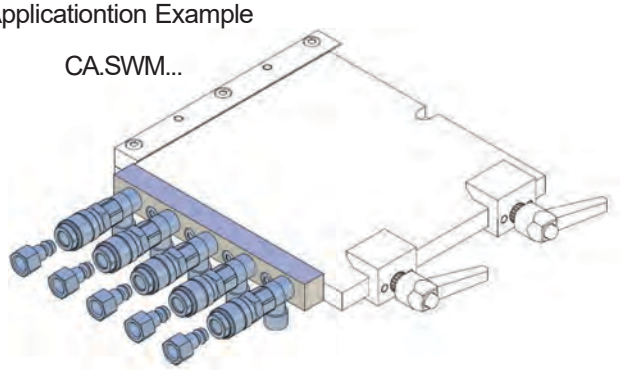
. Pneumatic connect for CA.SWM



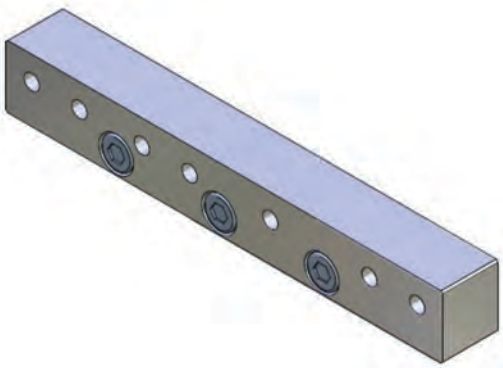


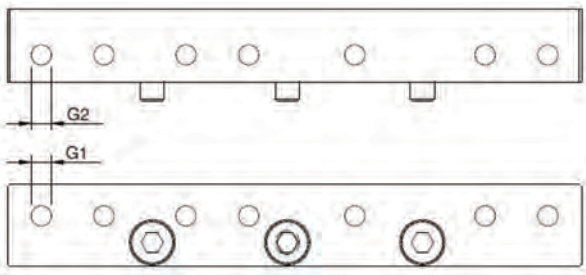
Applicationtion Example

CA.SWM...



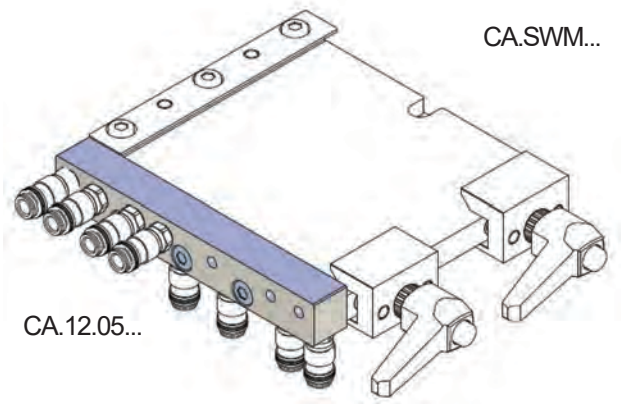
Article no.	G1	G2	L	M	Weight
CA.LAL.1.5	M5	M5	5	CA.SWM1	154 g
CA.LAL.1.7			7		225 g
CA.LAL.2.5	G 1/8	G1/8	5	CA.SWM2	631 g
CA.LAL.2.7			7		742 g
CA.LAL.3.6	G 1/4	G 1/4	6	CA.SWM3	902 g
CA.LAL.3.8			8		1504 g





Application Example

CA.SWM...



CA.12.05...

Ar!cle no.	G1	G2	L	M	Weight
SWM1.8	M5	M5	7	CA.SWM1	71 g
SWM2.8	G 1/8	G1/8		CA.SWM2	136 g
SWM3.8	G 1/4	G 1/4	8	CA.SWM3	325 g

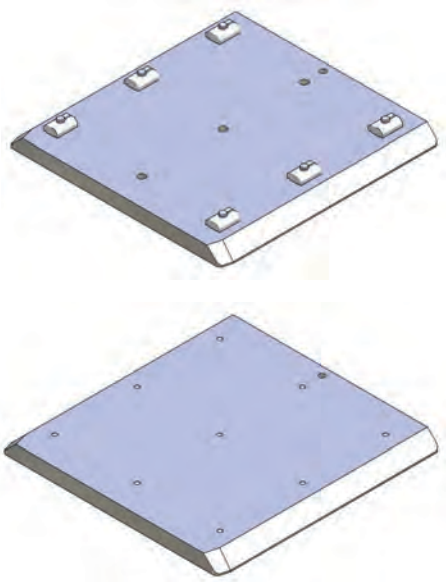
Table

M = Suitable for…

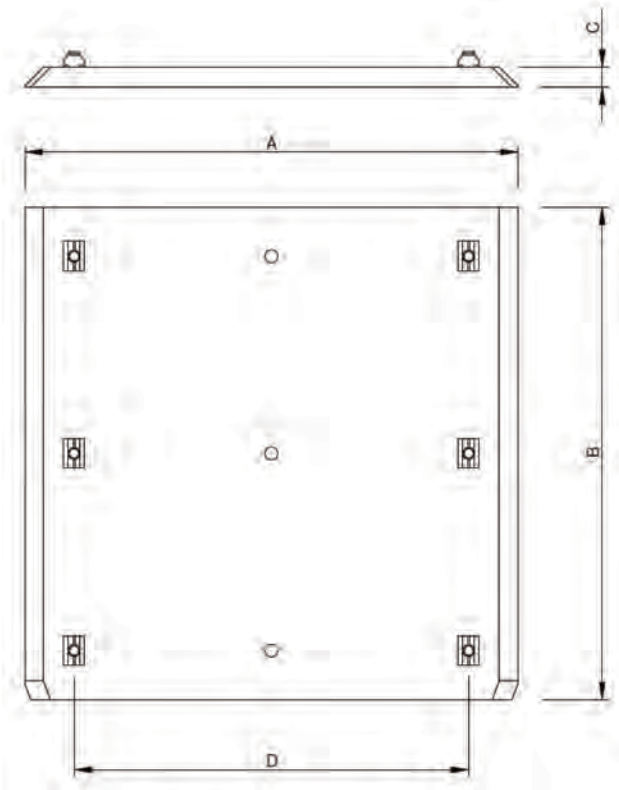
L = Number of air connections

GPM

. Quick Changer (gripper side)



L/X/JU



Table

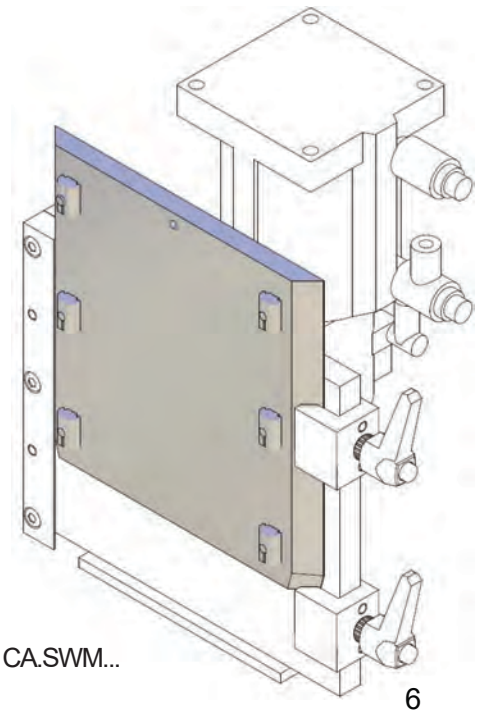
M = Suitable for Profile

Material

Aluminium
Steel

Surface: Silver Anodized

Application Example



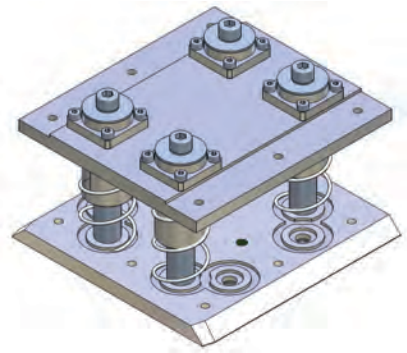
CA.SWM...

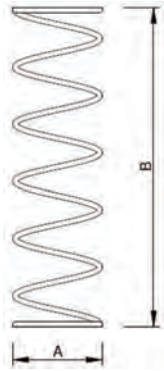
Ar!cle no.	A	B	C	D		M	Weight
CA.GPM0	60	60	8	...	ALUMINUM	...	69 g
CA.GPM0.X				35		L	104 g
CA.GPM1	100	100		...		…	201 g
CA.GPM1.X				70		L/X	242 g
CA.GPM1S*				...	STEEL	...	583 g
CA.GPM2	160	160	10	...	ALUMINUM	…	653 g
CA.GPM2.X				120		L/X/JU	695 g
CA.GPM2S*				...	STEEL	…	1892 g
CA.GPM3	250	250		...	ALUMINUM	…	1613 g
CA.GPM3.X				200		L/X/JU	1677 g
CA.GPM3S*				...	STEEL	...	4673 g

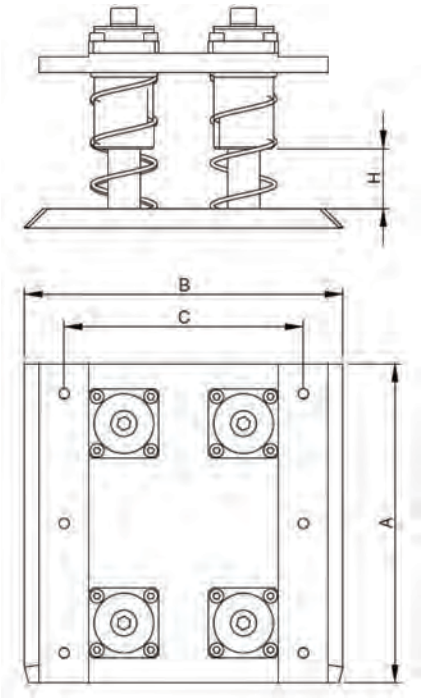
CA.01 GPG

X/JU

. Ground Plate Spring Loaded







Table

H = Stroke

L = Number of guides

Material

Aluminium

Surface: Silver Anodized

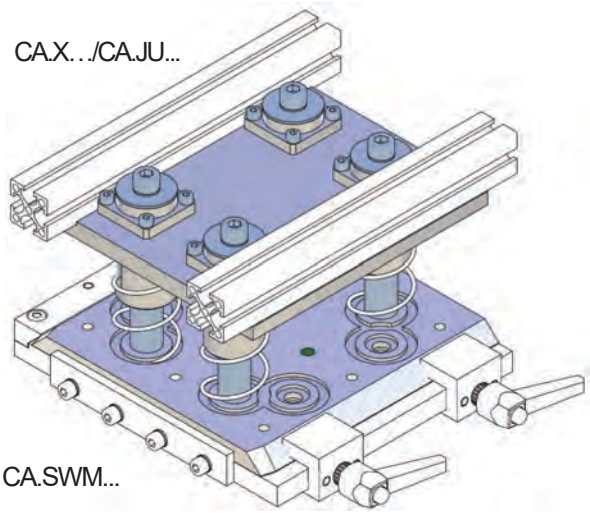
Ar!cle no.	A	B	C	H	F(N)	L	Weight
CAGPG1	100	100	70	22	36	2	486 g
CAGPG2	160	160	120	30	50	4	1345 g
CAGPG3	250	250	200				3800 g

M = Suitable for …

Ar!cle no.	A	B	F(N)	M
M28X58.24N	28	58	24	CA.GPG.1
M.33X120.35N	33	120	35	CA.GPG.2 CA.GPG.3

Application example

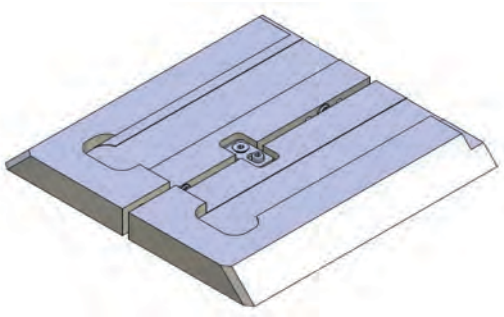
CA.X…/CA.JU...

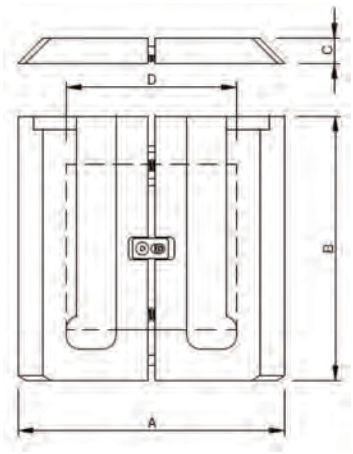


CA.SWM...

CA.01 GPR

. Ground Plate Reduc! on





Table

M = Suitable for EOATGroundplate GPM….

Ar!cle no.	A	B	C	D	M	Weight
CA.GPR1.0	100	100	15	60	CA.GPM0 CA.SWM1	263 g
CA.GPR2.1	160	160		100	CA.GPM1 CA.SWM2	703 g
CA.GPR3.2	250	250	20	160	CA.GPM2 CA.SWM3	2441 g

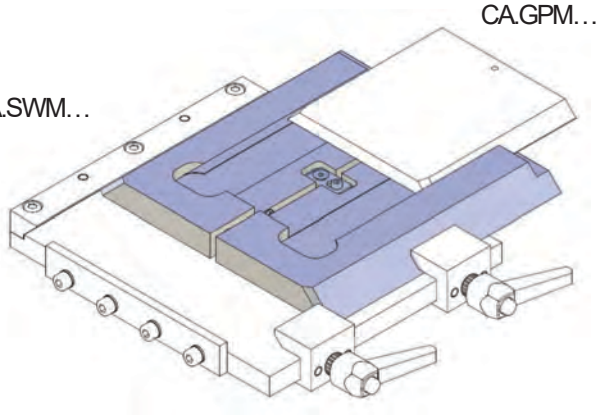
Application example

Material
Aluminium
Surface:
Silver anodized

Adapter plate allows a smaller GPMsizein a larger SWM
No need to convert the robots side

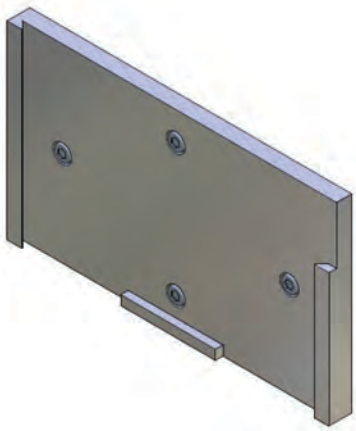
CA.GPM…

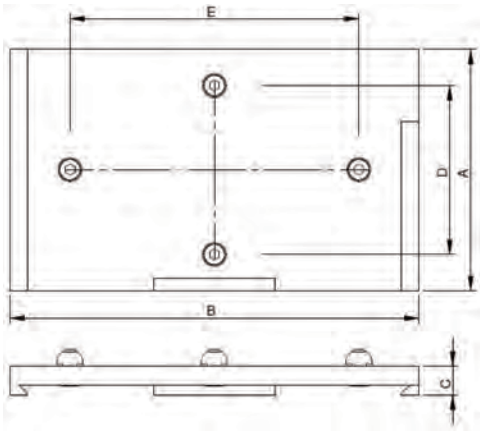
CA.SWM…



CA.01 GHV

. Holding Fixture





Table

M = Suitable for EOATGroundplate GPM…

Ar!cle no.	A	B	C	D	E	M	Weight
CA.GHV.60	60	70	10	35	30	CA.GPM0	128 g
CA.GHV.100		110			70	CA.GPM1	182 g
CA.GHV.160	100	170	12	70	120	CA.GPM2	412 g
CA.GHV.250	120	270	15	90	220	CA.GPM3	1033 g

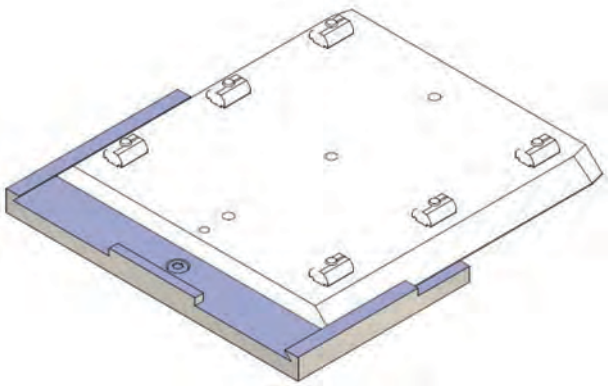
The holding fixture, once fixed to the wall or frame, is used to store your EOAT when it is not in use.

Material

Aluminium

Surface: Silver anodized

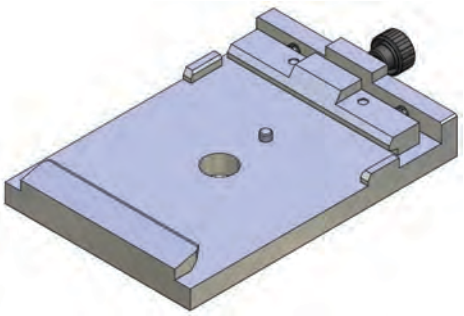
CA.GPM…

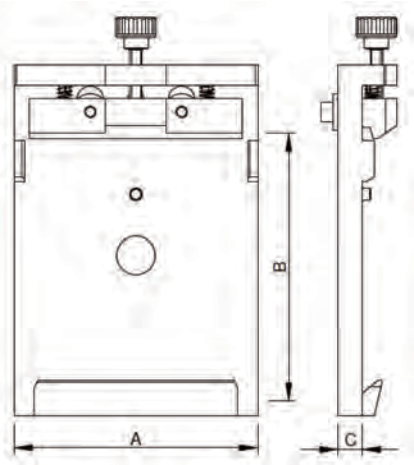


CA.01.02 (FP60-90-120)

RS

. Quick changer (robot side)





H = Handling weight as approx value

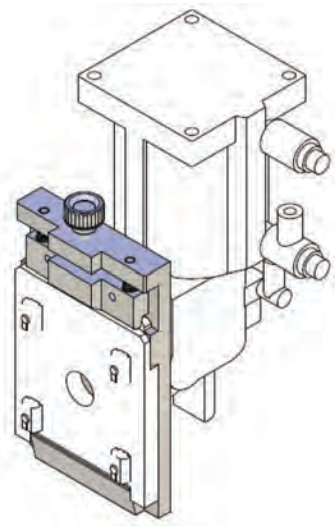
M = Suitable for EOAT Groundplate CA.01.02…

Material : Surface - Silver Anodized

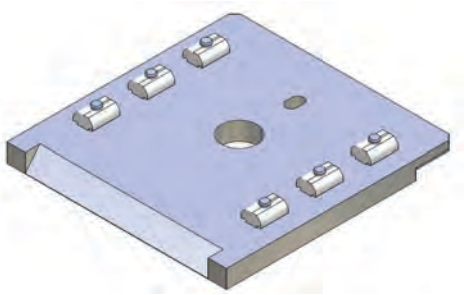
Ar!cle no.	A	B	C	H	M	Weight
CA.01.02.001	60	72	8	5 kg	CA.01.02.002	237 g
CA.01.02.003	120	130	12	20 kg	CA.01.02.004	727 g
CA.01.02.003B					CA.01.02.004A	
CA.01.02.007	90	108	8	10 kg	CA.01.02.008	390 g

CA.01... GS

Application Example



GS



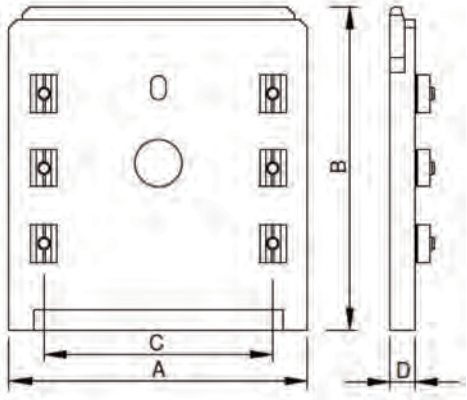
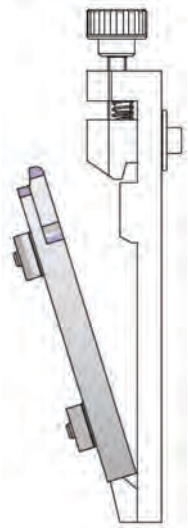


Table / Tabella
M = Suitable for EOAT Groundplate CA.01.02…
M1 = Suitable for Profile

Material: Aluminium
Surface: Silver Anodized

Ar!cle no.	A	B	C	D	M	M1	Weight
CA.01.02.002	60	72	20	10	CA.01.02.001	…	93 g
CA.01.02.002.X						L/X	130 g
CA.01.02.004	120	130	92		CA.01.02.003	…	377 g
CA.01.02.004.X						L/X/JU	432 g
CA.01.02.004A					CA.01.02.003B	…	371 g
CA.01.02.004A.X						L/X/JU	426 g
CA.01.02.008	90	108	62		CA.01.02.007	…	225 g
CA.01.02.008.X						L/X	262 g

Application Example

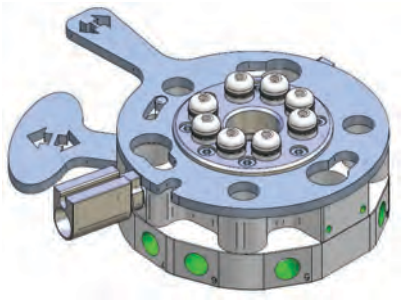


CA.01... RS

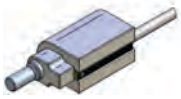
CA.CUDL.90

. Quick changer

Robot Side



Security lock

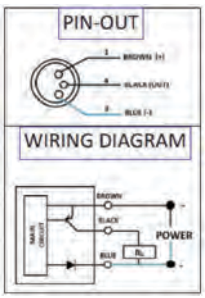


OPTIONAL

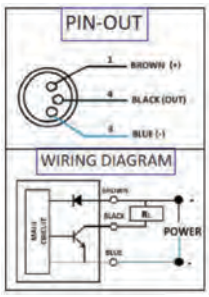
- Quick changer for easy replacement of EOAT on the robot
- Suitable for vacuum connectors as well
- Avoids mistakes in pneumatic/electrical connections
- Available with 8 ,10 or 12 pneuma"c interface
- 15 pins D-SUB electrical interface
- Robot side and Gripper side part are supplied separately
- CUDL Robot side can cut the air separately from the release lever

Ar!cle no.	Sensor with cable Optional	Weight
CA.CUDL.01	3 wires electronic PNP normally Open M8 plug connector	18 g
CA.CUDL.02	3 wires electroic NPN normally Open M8 plug connector	
CA.CUDL.03	2 wires electronic	

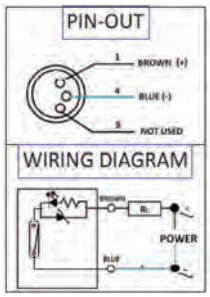
PNP



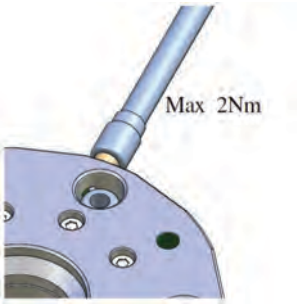
NPN



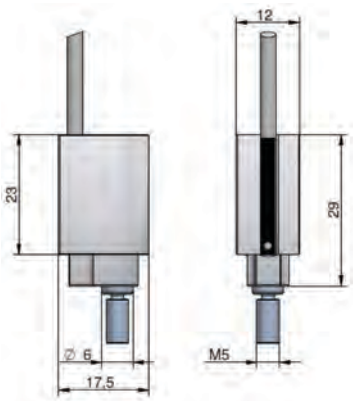
2 wires



Ar!cle no.		F	Mt	Mb	Weight
CA.CUDL.90	RS/90	400 N	100 Nm	60 Nm	520 g
CA.CUDL.150	RS/150	1000 N	250 Nm	100 Nm	…
CA.CUDL.160	RS/160				



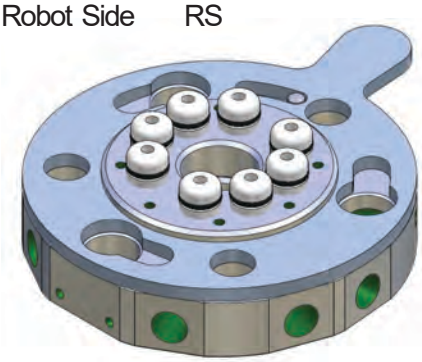
After assembly it is possible to use the screwset in order to eliminate any play between the two sides with “zero tolerance”



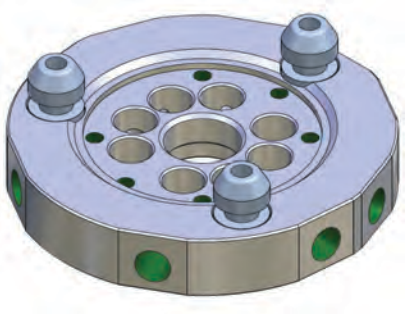
CA.01.01/CUSL

. Quick changer

Robot Side RS

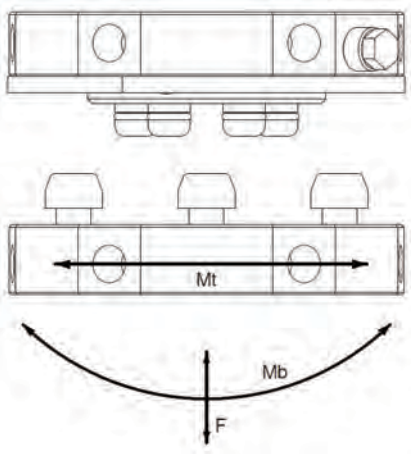


Gripper Side GS

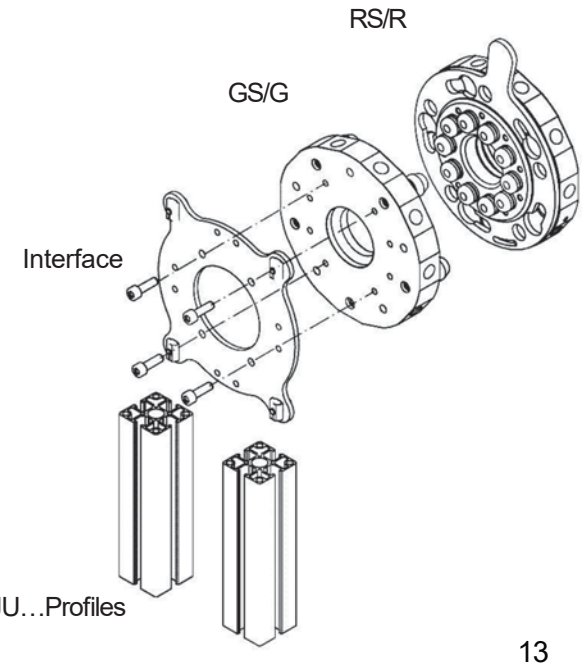


- Quick changer for easy replacement of EOAT on the robot
- Suitable for vacuum connectors as well
- Avoids mistakes in pneumati c/electrical connections
- Available with 8 ,10 or 12 pneumatic interface
- 15 pins D-SUB electrical interface
- Robot side and Gripper side part are supplied separately

Ar!cle no.	Model	F	Mt	Mb	Weight
CA.01.01.001	RS/90	400 N	100 Nm	60 Nm	317 g
CA.01.01.002	GS/90				225 g
CA.01.01.003	RS/150	1000 N	250 Nm	100 Nm	1156 g
CA.01.01.004	GS/150				842 g
CA.01.01.013	RS/160				1218 g
CA.01.01.014	GS/160				922 g
CA.CUSL.200.R	RS/200	2000 N	600 Nm	300 Nm	2496 g
CA.CUSL.200.G	GS/200				1757 g



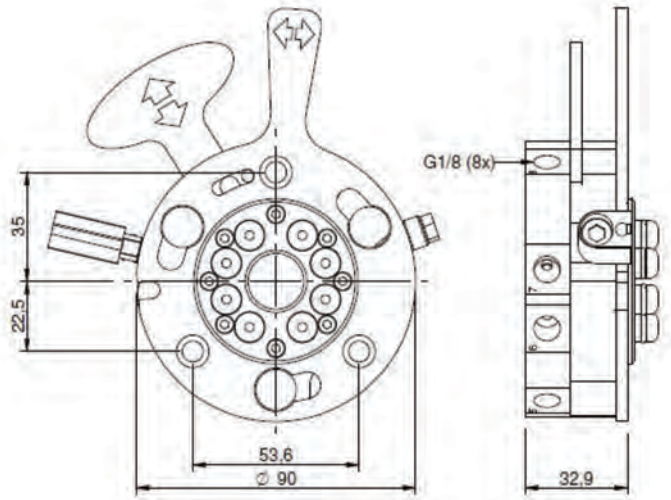
Application example

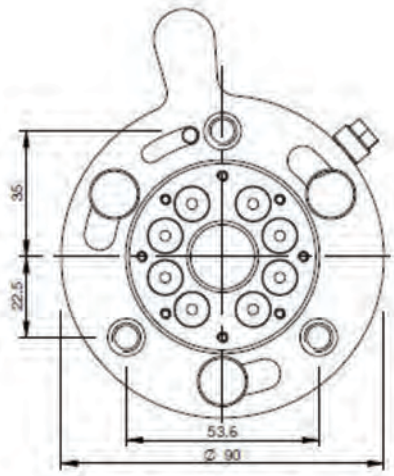


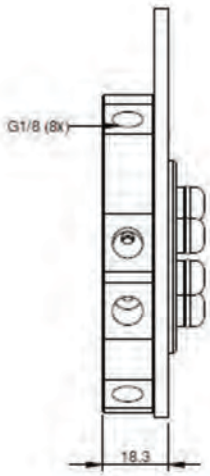
Size 90

CA.CUDL.90

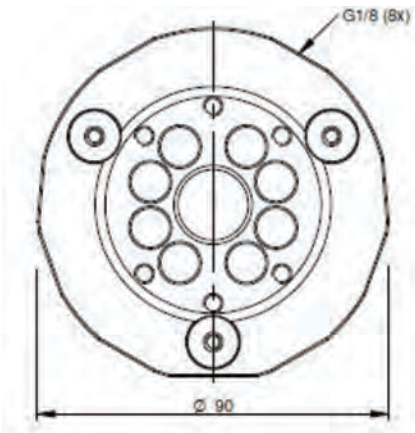
. Dimensions

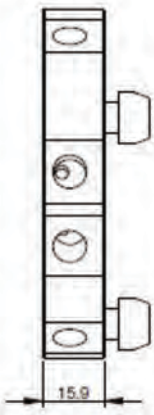






CA.01.01

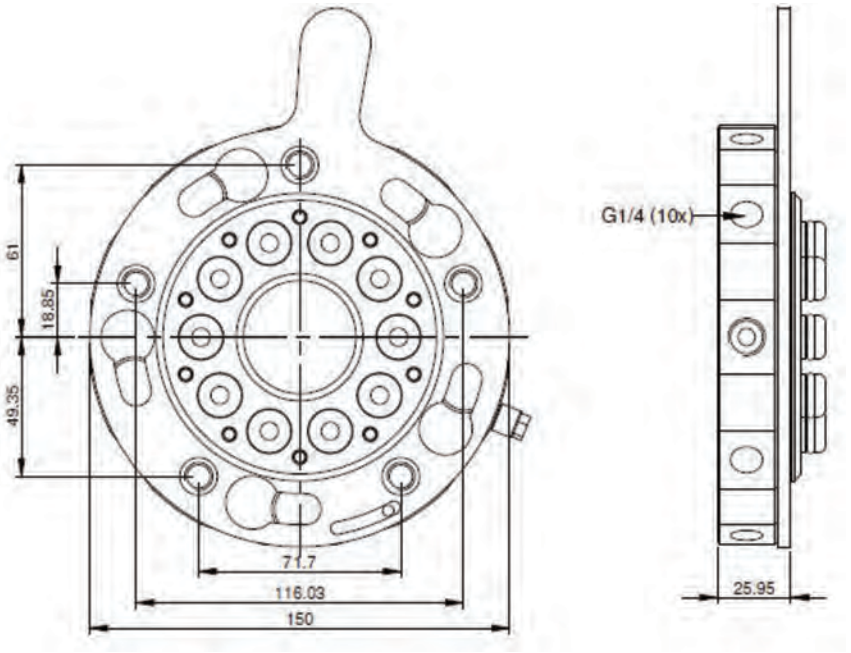


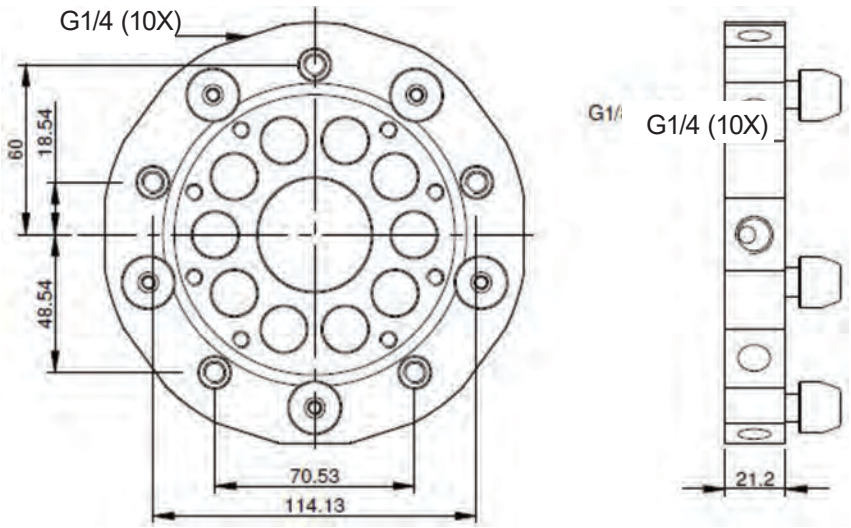


Size 150

CA.01.01

. Dimensions

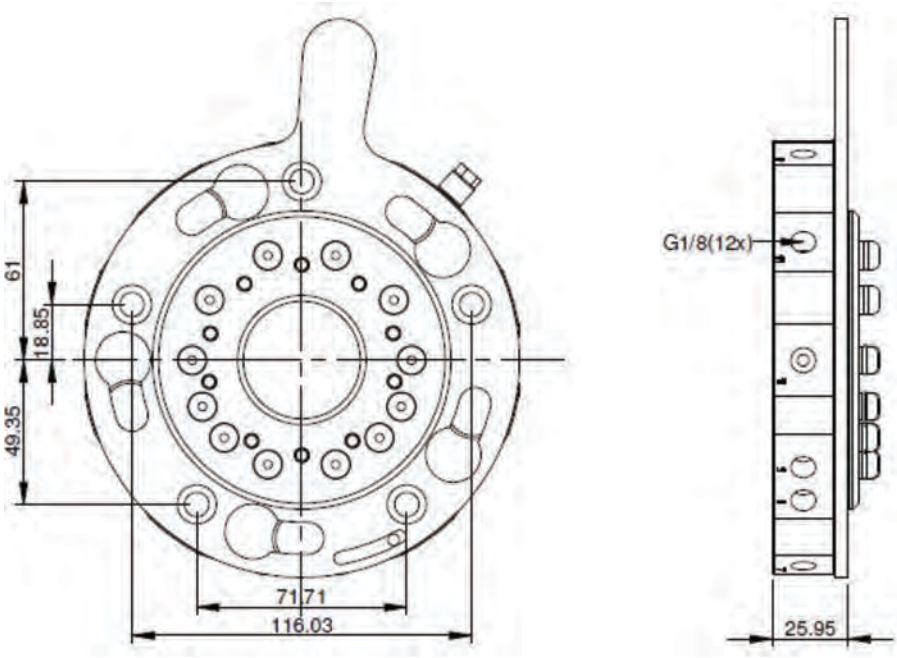


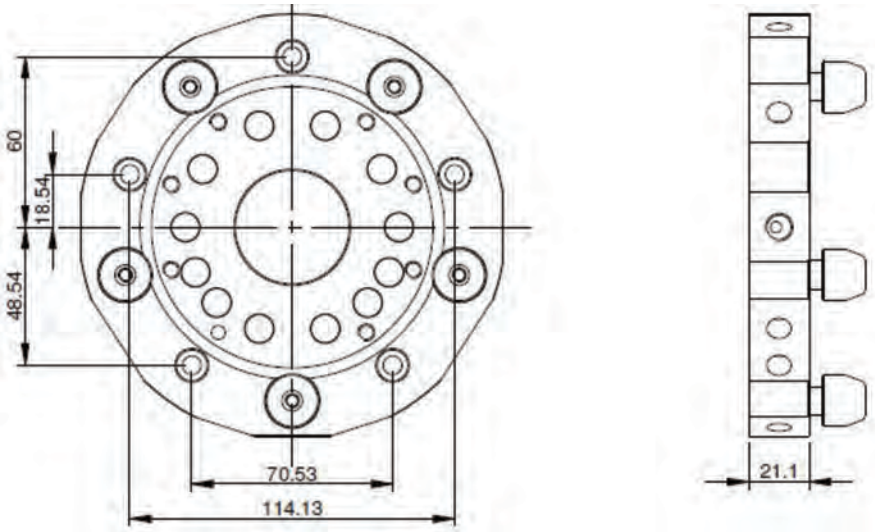


Size 160

CA.01.01

. Dimensions



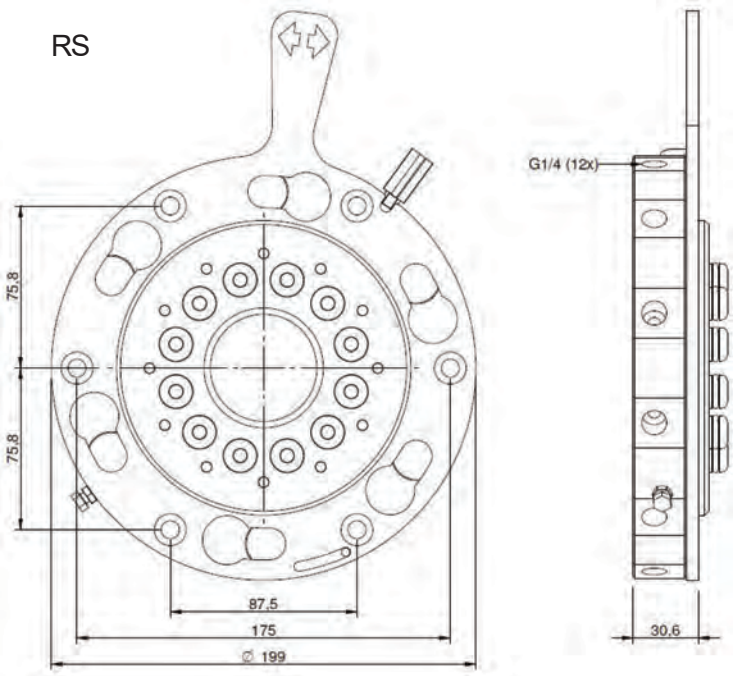


Size 200

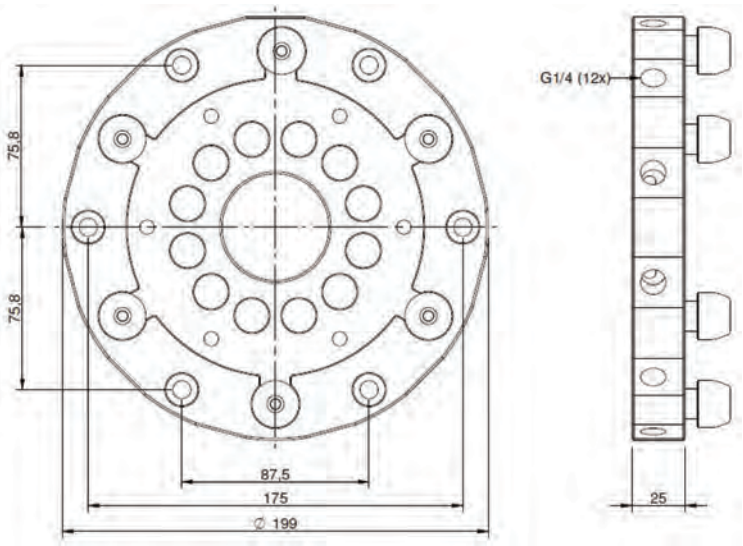
CA.CUSL.200.R/G

. Dimensions

Robot side RS



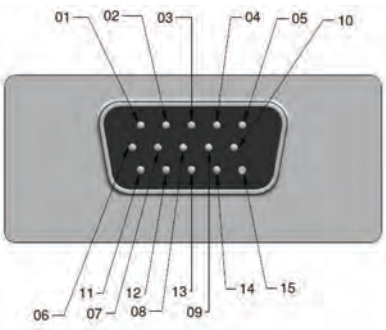
Gripper Side GS



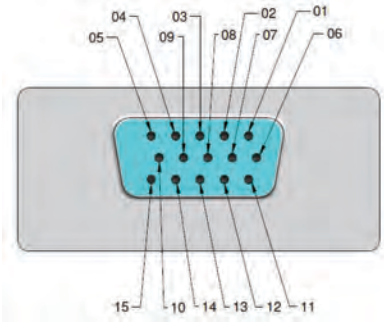
CA.01.01

. Cable

Cables are supplied separately.



Male cable



Female cable

- 15 pins Ø1 mm
- I/O quick change by VGAconnector
- Self-cleaning sliding contacts
- The two parts are supplied separately

Ar!cle no.		
CA.01.01.011	Female cable	Robot Side
CA.01.01.012	Male cable	Gripper Side

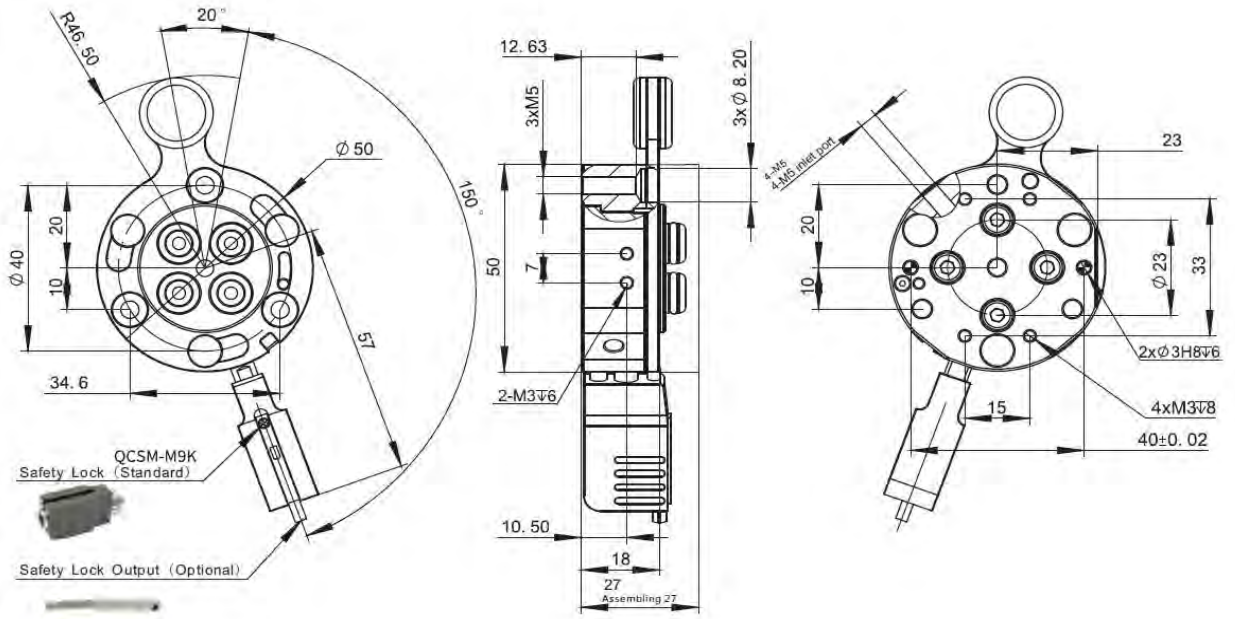
	Colour
01	BLUE
02	PURPLE
03	ORANGE
04	PINK
05	TURQUOISE
06	GREY
07	YELLOW
08	GREEN
09	RED
10	BROWN
11	BLACK
12	WHITE
13	YELLOW/RED
14	GREEN/BROWN
15	RED/ BLUE

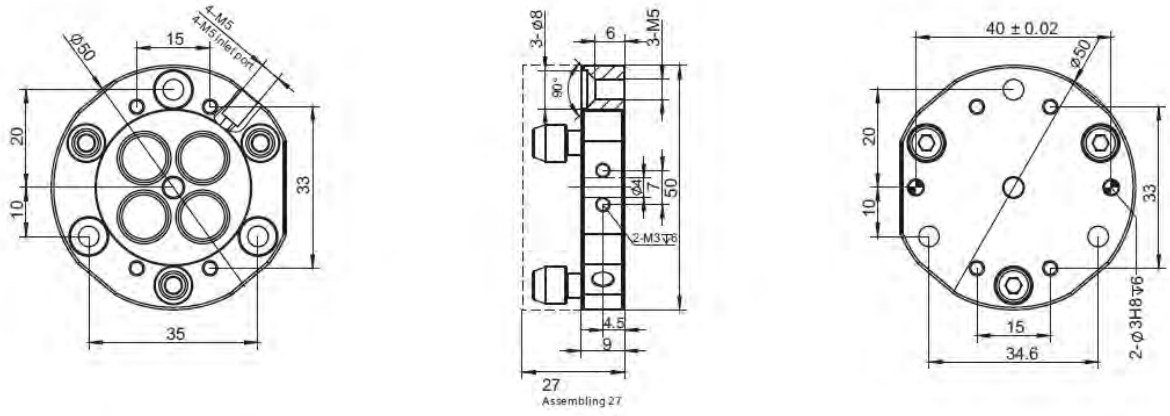
Size 50

CA.QC50

CA.QC 50 Series Manual Quick Change

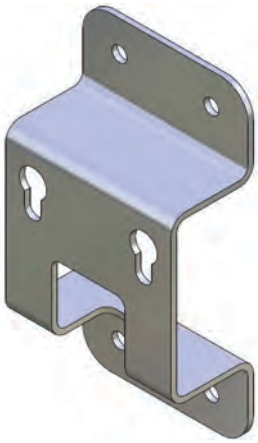
- 3Kg Payload Capacity
- Steel Ball Lock System
- Dust Proof
- Light Weight, Compact Size
- Built in Fault Mechanism - Tool will not dislodge or separate due to power loss.





CA.01.01

. Holding Fixture



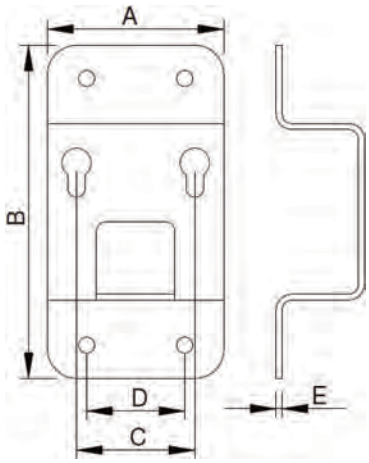


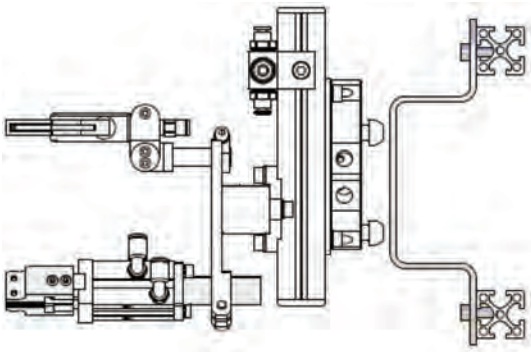
Table M =
Suitable for …

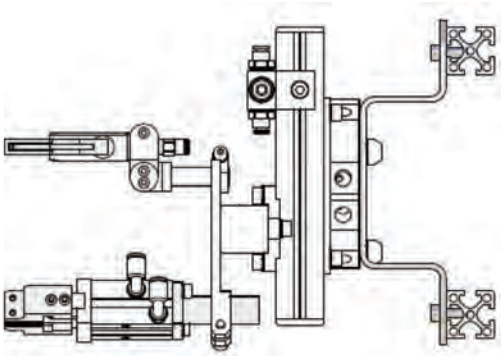
Material : Steel

Ar!cle no.	A	B	C	D	E	M	Weight
CA.01.01.015	90	170	60.3	50	3	CA.01.01.002 CA.CUDL.90	440 g
CA.01.01.016	150	230	71.7	90		CA.01.01.004 CA.01.01.014	926 g
CA.01.01.017	200	270	142.8	160		CA.CUSL.200.G	1188 g

The holding fixture, once fixed to the wall or frame, is used to store your EOAT when it is not in function

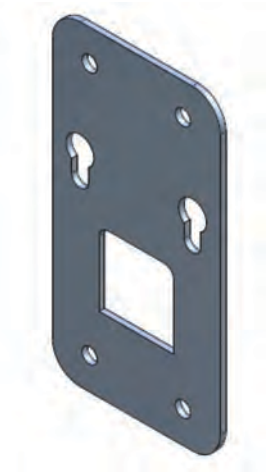
Application examples

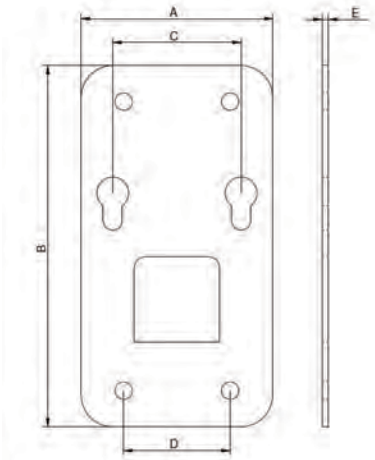




. Holding Fixture

CA.01.01



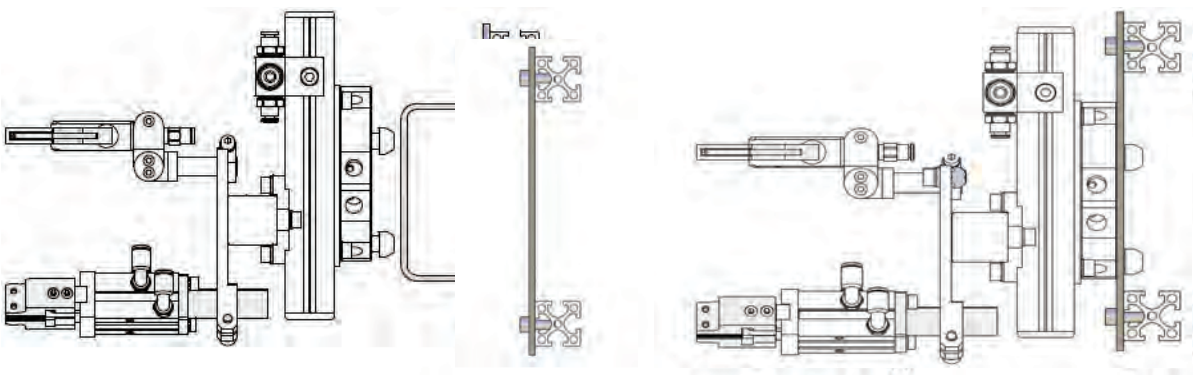


TableM =
Suitable for …

Material: Steel

Ar!cle no.	A	M	B	C	D	E	Weight
CA.01.01.015.F	90	CA.01.01.002	170	60	50	3	307 g
CA.01.01.016.F	150	CA.01.01.004 CA.01.01.014	230	71	90		720 g
CA.01.01.017.F	200	CA.CUSL.200G	300	220	142.8		1398 g

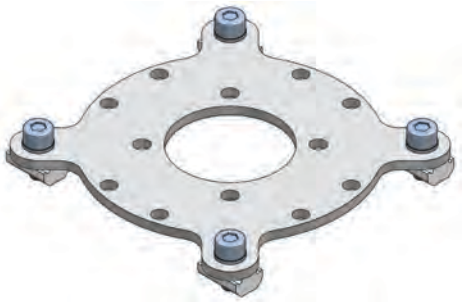
Application Example



CA.01.01

L/X/JU

. Interface for CA.01.01



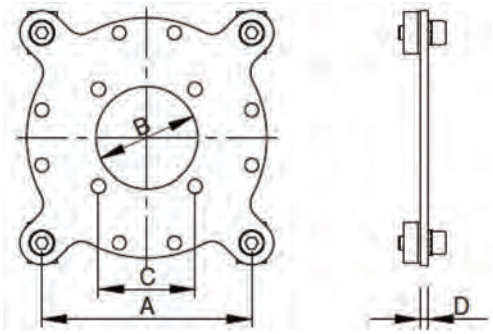


Table M =
Suitable for …

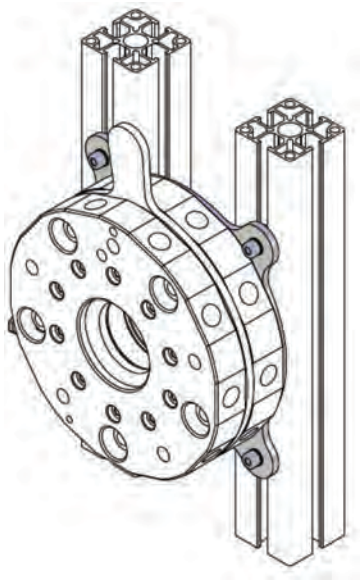
Ar!cle no.	A	B	C	D	M	Weight
CA.01.01.006	76	37	35	3	CA.01.01.002 CA.CUDL.90	170 g
CA.01.01.007	110	70	52	4	CA.01.01.004 CA.01.01.014	497 g
CA.CUSL.200.I	192	140	151.6	8	CA.CUSL.200.G	1850 g

CA.L.../CA.X.../CA.JU...

CA.01.01…GS

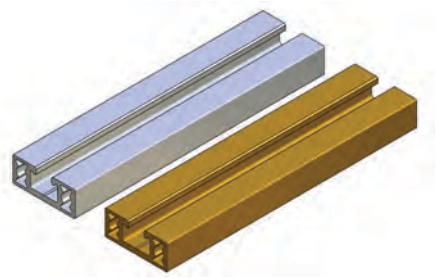
Application Example

CA.01.01…RS



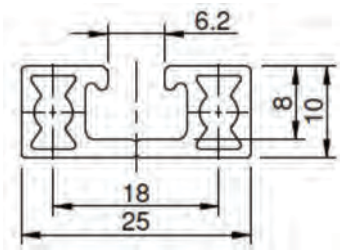
CA.02 X

. Profile X.2510



Surface: Aluminium Anodized

. Profilo X.2510



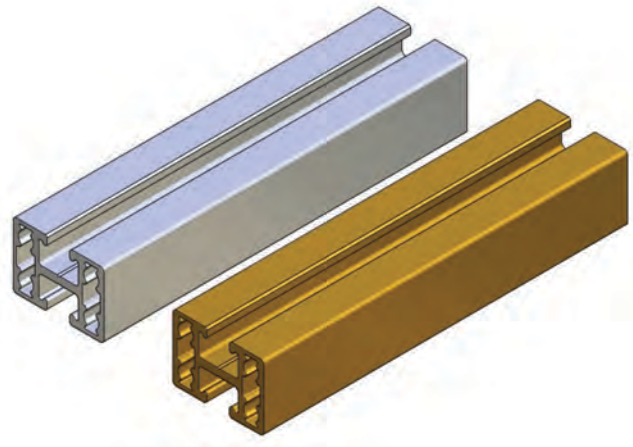
L = Length

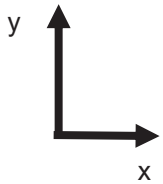
M = T-Nut

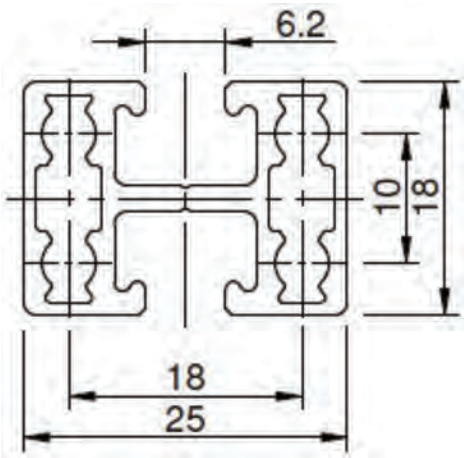
M1 = Caps

Ar!cle no.		Ix [mm^4]	Iy [mm^4]	L	M	M1	Weight
CA.X.2510.1000	Silver	1300	7280	1 m	CA.GWP	CA.ADK.X.2510	290 g
CA.X.2510.1000G	Gold						
CA.X.2510.2000	Silver			2 m			580 g
CA.X.2510.2000G	Gold						

. Profile X.2518



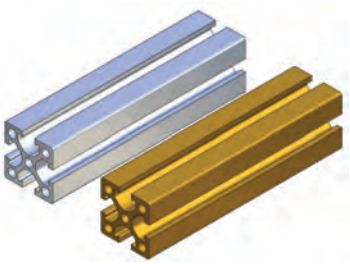


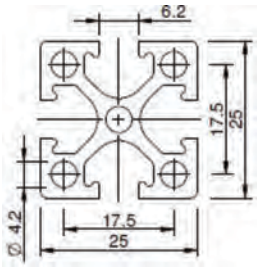


Ar!cle no.		Ix [mm^4]	Iy [mm^4]	L	M	M1	Weight
CA.X.2518.1000	Silver	5600	11500	1 m	CA.GWP	CA.ADK.X.2518	400 g
CA.X.2518.1000G	Gold						
CA.X.2518.2000	Silver			2 m			800 g
CA.X.2518.2000G	Gold						

CA.02 X

. Profile X.2525





Surface: Aluminium Anodized

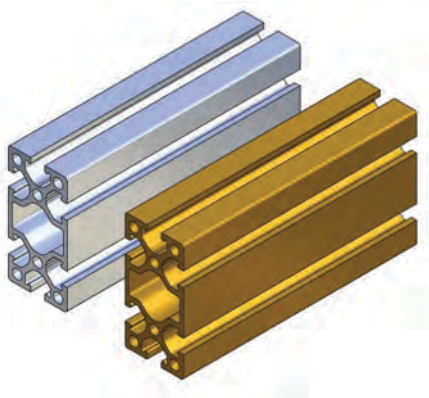
L = Length

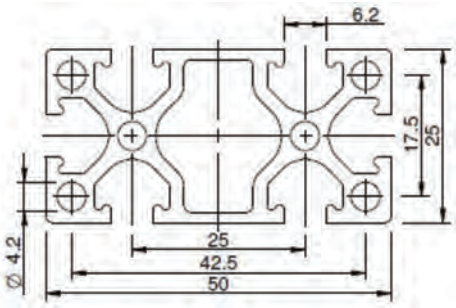
M = T-Nut

M1 = Caps

Ar!cle no.		Ix [mm^4]	Iy [mm^4]	L	M	M1	Weight
CA.X.2525.1000	Silver	16260	16260	1 m	CA.GWP	CA.ADK.X.2525	683 g
CA.X.2525.1000G	Gold						
CA.X.2525.2000	Silver			2 m			1366 g
CA.X.2525.2000G	Gold						

. Profile X.5025

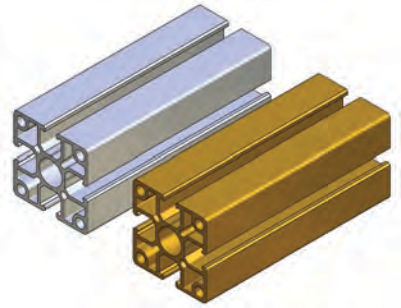




Ar!cle no.		Ix [mm^4]	Iy [mm^4]	L	M	M1	Weight
CA.X.5025.1000	Silver	28800	111100	1 m	CA.GWP	CA.ADK.X.5025	1050 g
CA.X.5025.1000G	Gold						
CA.X.5025.2000	Silver			2 m			2100 g
CA.X.5025.2000G	Gold						

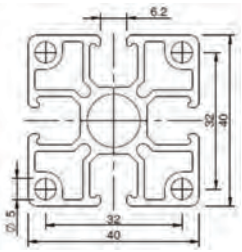
CA.02 JU

. Profile JU.4040



Surface: Aluminium Anodized

JU



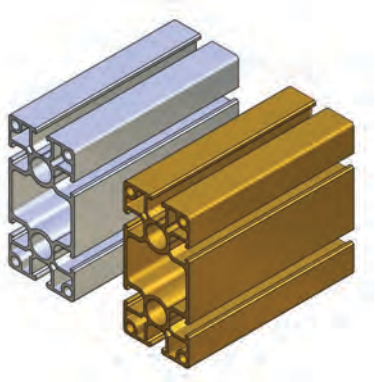
L = Length

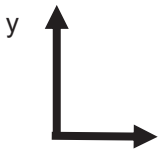
M = T-Nut

M1 = Caps

Ar!cle no.		Ix [mm^4]	Iy [mm^4]	L	M	M1	Weight
CA.JU.4040.1000	Silver	86200	86200	1 m	CA.GWP	CA.ADK.JU.4040	1408 g
CA.JU.4040.1000G	Gold						
CA.JU.4040.2000	Silver			2 m			2816 g
CA.JU.4040.2000G	Gold						

. Profile JU.8040



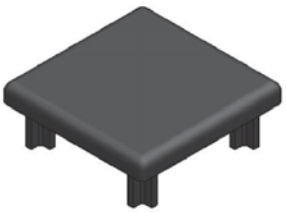


Ar!cle no.		Ix [mm^4]	Iy [mm^4]	L	M	M1	Weight
CA.JU.8040.1000	Silver	155400	587050	1 m	CA.GWP	CA.ADK.JU.8040	2303 g
CA.JU.8040.1000G	Gold						
CA.JU.8040.2000	Silver			2 m			4606 g
CA.JU.8040.2000G	Gold						

CA.02 ADK

L/X/JU

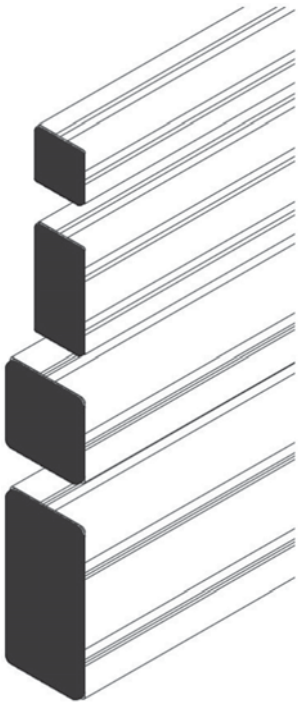
. Profile end cap



M = Suitable for Profiles

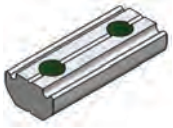
Material / PP/ Polipropilene

Ar!cle no.	A	B	M	Weight
CA.ADK.L.1810	18	10	CA.L.1810…	2 g x 10
CA.ADK.L.1818		18	CA.L.1818…	
CA.ADK.X.2510	25	10	CA.X.2510…	
CA.ADK.X.2518		18	CA.X.2518…	
CA.ADK.X.2525		25	CA.X.2525…	3 g x 10
CA.ADK.X.5025	50		CA.X.5025…	4 g x 10
CA.ADK.JU.4040	40	40	CA.JU.4040…	7 g x 10
CA.ADK.JU.8040	80		CA.JU.8040	13 g x 10



CA.02 GWP

. T-Nut



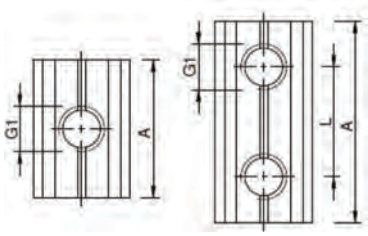
Suitable for Profiles L/X/JU

Ar!cle no.	G1	L	A	Weight
CA.GWP.3U	M3	…	15	6 g

Ar!cle no.	G1	L	A	Weight
CA.GWP.4U	M4	…	15	6 g
CA.GWP.4.8		8	16	
CA.GWP.4.9		9	19	7 g
CA.GWP.4.16		16	24	9 g
CA.GWP.4.17		17	25	10 g
CA.GWP.4.25		25	32	13 g
CA.GWP.4.LM		...	10	4 g

Ar!cle no.	G1	L	A	Weight
CA.GWP.5U	M5	…	15	6 g
CA.GWP.5.9		9	18	
CA.GWP.5.10		10	18	
CA.GWP.5.11		11	19	7 g
CA.GWP.5.12		12	22	8 g
CA.GWP.5.15		15	25	9 g
CA.GWP.5.17		17		
CA.GWP.5.20		20	30	11 g
CA.GWP.5.22		22	32	12 g
CA.GWP.5.25		25	33	12 g
CA.GWP.5.25.3		25 x 2	58	22 g
CA.GWP.5.28		28	38	13 g
CA.GWP.5.30		30	40	16 g
CA.GWP.5.35		35	45	18 g
CA.GWP.5.38		38	48	19 g
CA.GWP.5.40		40		
CA.GWP.5.40.3			88	35 g
CA.GWP.5.50		50	58	23 g
CA.GWP.5.52		52	64	26 g
CA.GWP.5.60		60	68	27 g
CA.GWP.5.75		75	83	34 g
CA.GWP.5.LM		...	10	3 g

L/X/JU



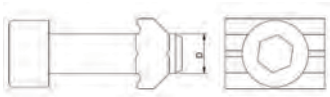
Ar!cle no.	G1	L	A	Weight
CA.GWP.6U	M6	...	15	4 g
CA.GWP.6.12		12	24	8 g
CA.GWP.6.16		16	26	9 g
CA.GWP.6.20		20	30	11 g
CA.GWP.6.22		22	32	12 g
CA.GWP.6.25		25	35	13 g
CA.GWP.6.25.3			58	22 g
CA.GWP.6.28		28	40	15 g
CA.GWP.6.35		35	45	17 g
CA.GWP.6.40		40	50	19 g
CA.GWP.6.50		50	60	24 g
CA.GWP.6.52		52	64	25 g
CA.GWP.6.90		90	100	40 g
CA.GWP.6.LM		...	10	2 g

Material : Steel galvanized

Ar!cle no.	L	Weigh t
CA.GWP.500	500	212g
CA.GWP.1000	1000	420 g

CA.02 SV- UVV

SV



Ar!cle no.	D	M	Weight
CA.SV.X.5	M5	X	9 g
CA.SV.JU.6	M6	JU	12 g

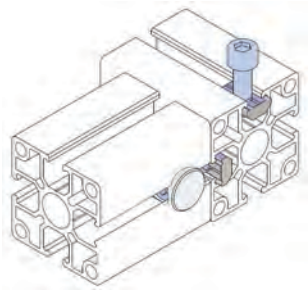
Table / Tabella

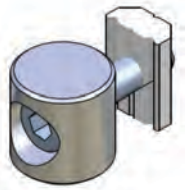
M = Suitable for Profiles

Shipping unit: VE= 10 pieces

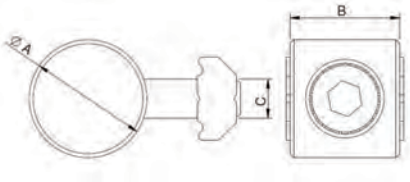
Material : Steel galvanized

X/JU





UVV

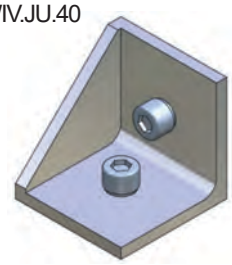


Ar!cle no.	A	B	C	M	Weight
CA.UVV.X.25.S	10	10	M4	X	7 g
CA.UVV.JU.40.S	15	14	M5	JU	10 g

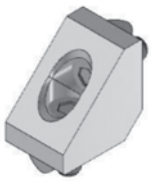
CA.02 WIV

. Corner Connector

CA.WIV.JU.40



CA.WIV.X.25.0



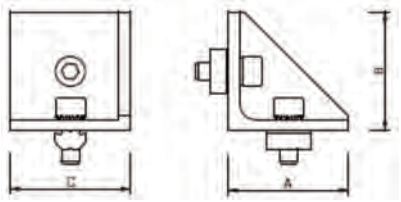
CA.WIV.X.50.25

CA.WIV….Eor M

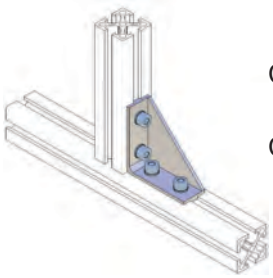
Material

Aluminium

Surface: Silver Anodized



Application example



CA.X.../CA.JU...

CA.WIV...

Ar!cle no.	A	B	C	M	Weight
CA.WIV.X.25.0	22	22	16	X	28 g
CA.WIV.X.50.25	50	50			80 g
CA.WIV.X.25.M	18	18	18		21 g
CA.WIV.X.25.E	38	38			51 g
CA.WIV.JU.40	40	40	40	JU	60 g
CA.WIV.JU.40.E	38	38	38		68 g
CA.WIV.JU.80.E	78	78	37		184 g

CA.03 KPL

. CrossJoint Connector

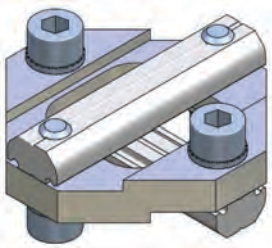
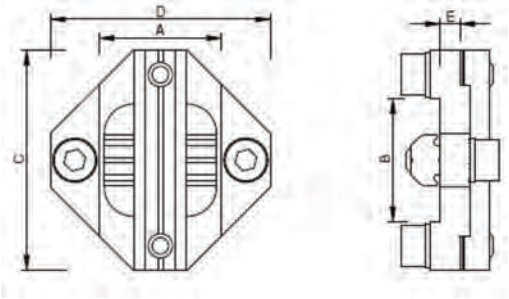


Table / Tabella
M = Suitable for Profiles

L/X/JU

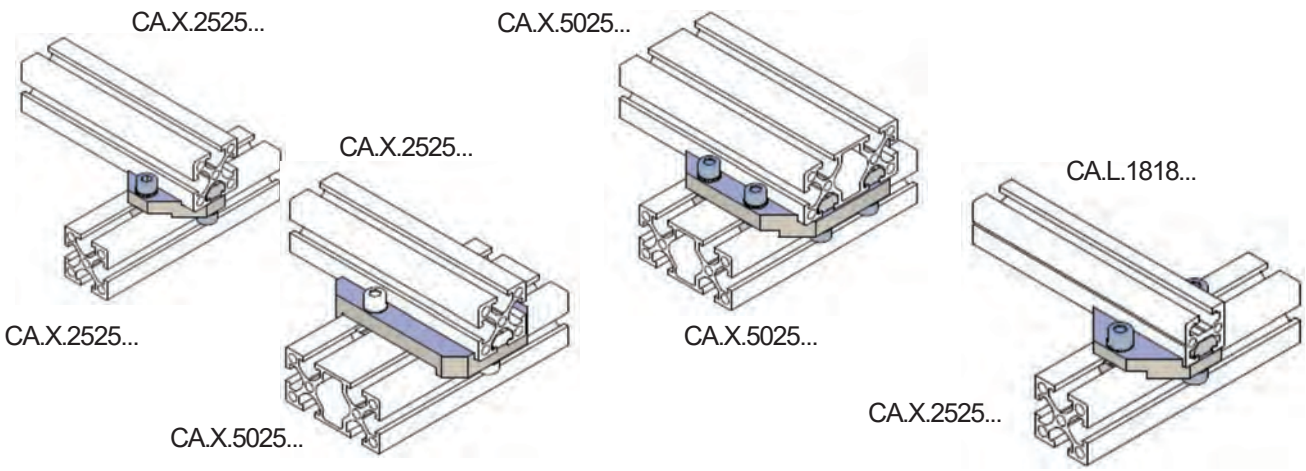


Material

Aluminium Surface: Silver anodized

Ar!cle no.	A	B	C	D	E	M	Weight
CA.KPLL.1818	18	18	38	38	4	L	55 g
CA.KPLX.2518	25		45	45		L/X	72 g
CA.KPLX.2525		25		45		X	67 g
CA.KPLX.5025	50		45	70			76 g
CA.KPLX.5050		50	70				192 g
CA.KPLJU.4040	40	40	65	65		JU	81 g
CA.KPLJU.4025		25	45	60		JU/X	77 g
CA.KPLJU.8040	80	40	100			JU	156 g
CA.KPLJU.8080		80		100			268 g

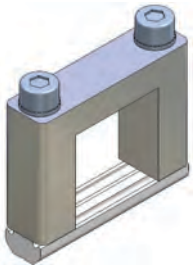
Applica! on examples



CA.03 KBV

L/X/JU

. Square Joint Connector



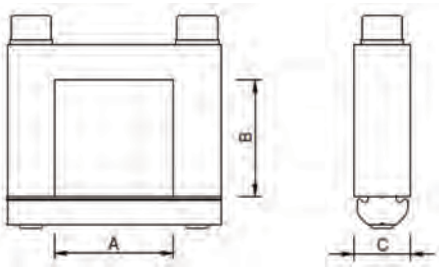


Table / Tabella

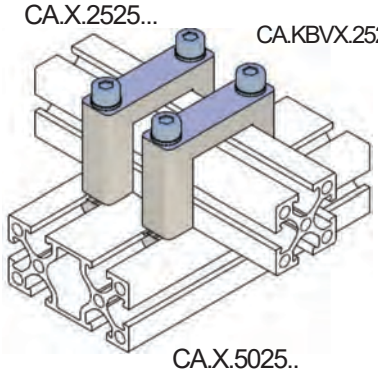
M = Suitable for Profiles

Material

Aluminium Surface: Silver Anodized

Ar!cle no.	A	B	C	M	Weight
CA.KBVL.1810	18	10	10	L	26 g
CA.KBVL.1818		18			30 g
CA.KBVX.2510	25	10	12	X	42 g
CA.KBVX.2518		18			48 g
CA.KBVX.2525		25			58 g
CA.KBVX.2550		50			79 g
CA.KBVX.5025	50	25			74 g
CA.KBVJU.4040	40	40	15	JU	107 g
CA.KBVJU.4080		80			150 g
CA.KBVJU.8040	80	40			140 g

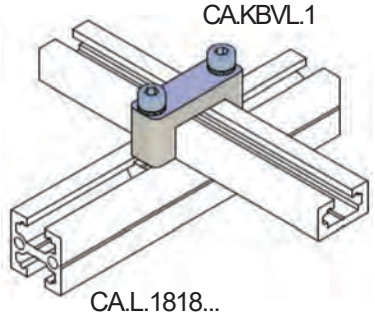
CA.X.2525...
CA.KBVX.2525



CA.X.5025..

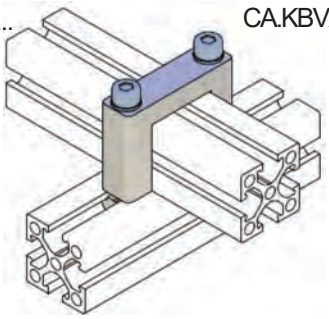
Applica! on examples

CA.L.1810...
CA.KBVL.1



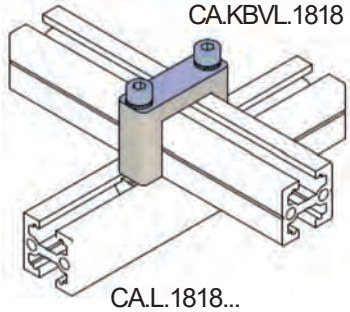
CA.L.1818...

CA.X.2525...
CA.KBVX.2525



CA.X.2525...

CA.L.1818...
CA.KBVL.1818



CA.L.1818...

CA.03 SVB

. Profile Endconnector 25

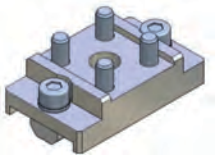


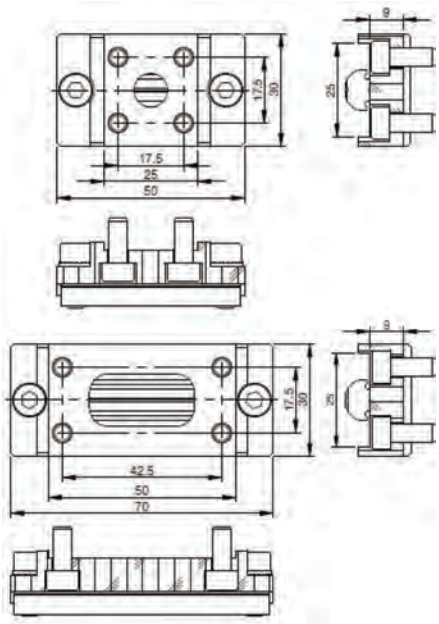
Table / Tabella

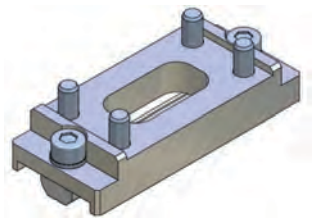
M = Suitable for Profiles

Material Aluminium

Surface: Silver Anodized

X

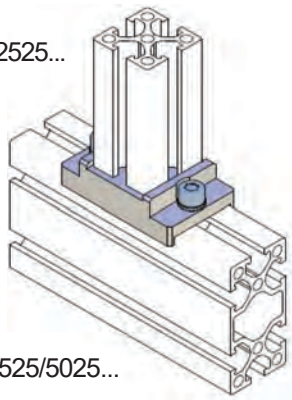




Ar!cle no.	M	Weight
CA.SVB.X.25.25	X	69 g
CA.SVB.X.25.50		87 g

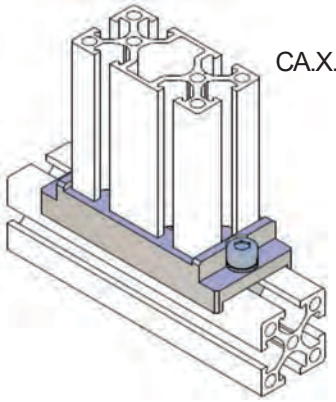
Applica! on examples

CA.X.2525...



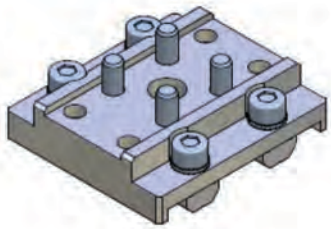
CA.X.2525/5025...

CA.X.2550...



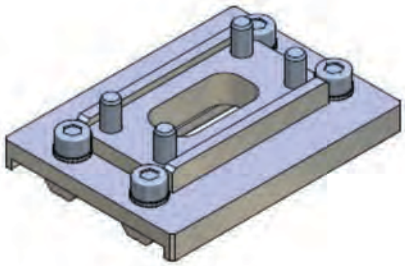
CA.03 SVB

. Profile End connector 50

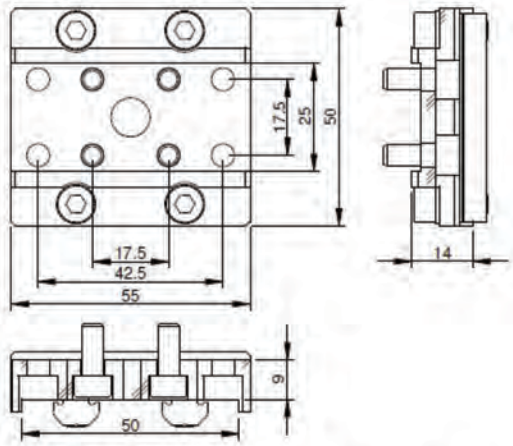


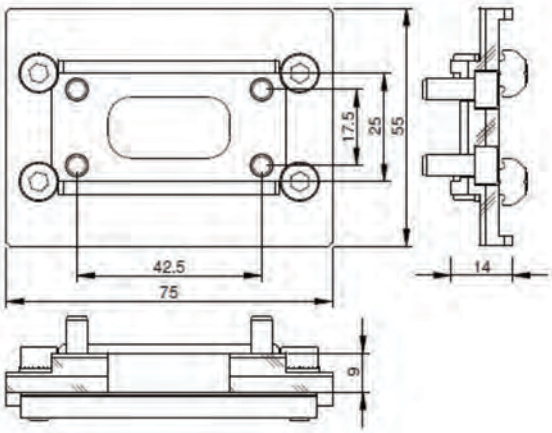
M = Suitable for Profiles

Material : Aluminium
Surface: Silver anodized



X

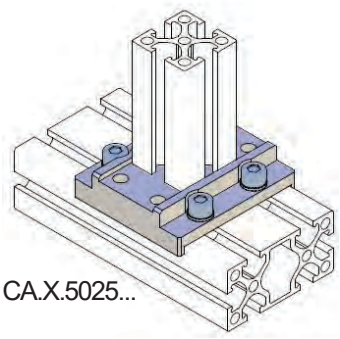




Ar!cle no.	M	Weight
CA.SVB.X.50.25	X	114 g
CA.SVB.X.50.50		149 g

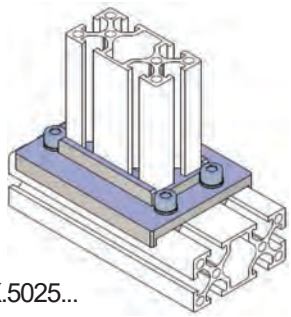
Application Examples

CA.X.2525/5025...



CA.X.5025...

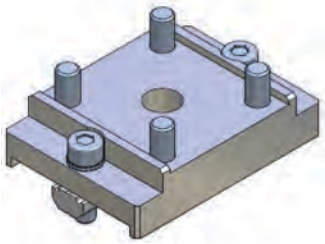
CA.X.5025...

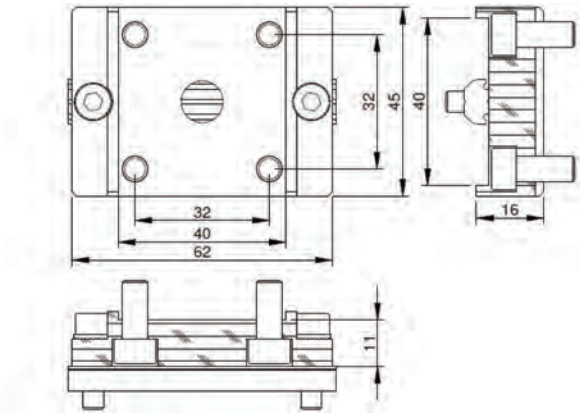


JU

CA.03 SVB

. Profile Endconnector 40





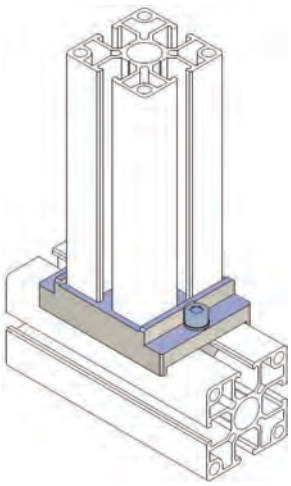
M = Suitable for Profiles

Material :Aluminium Surface:
Silver Anodized

Ar!cle no.	M	Weight
CA.SVB.JU.40.40	JU	129 g

Application Example

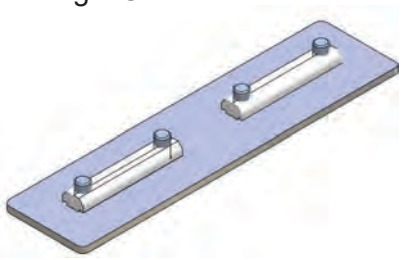
CA.JU.4040...

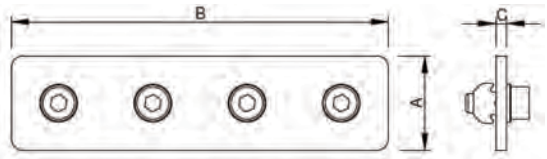


CA.03 VBG

X/JU

. Straight Connector





M = Suitable for Profiles

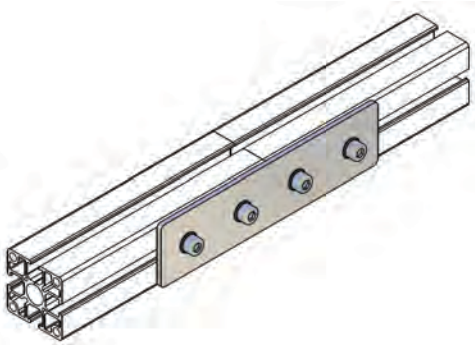
Material : Steel Galvanized

Ar!cle no.	A	B	C	M	Weight
CA.VBG.X.25.50	25	50	3	X	48 g
CA.VBG.X.50.50	50				94 g
CA.VBG.X.25.100	25	100			99 g
CA.VBG.JU.40.80	40	80		JU	97 g
CA.VBG.JU.40.160		160			215 g

Application Example

CA.X.../CA.JU...

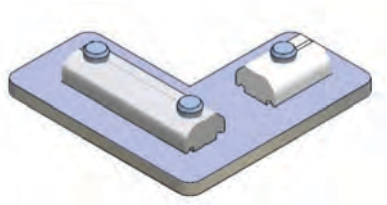
CA.X.../CA.JU...



CA.03 VBL - VBT

X/JU

. Connector L-Style



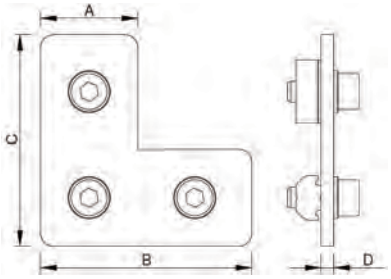


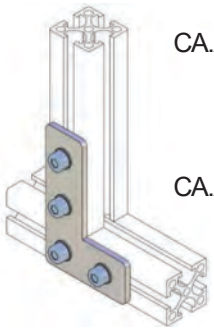
Table / Tabella

M = Suitable for Profiles

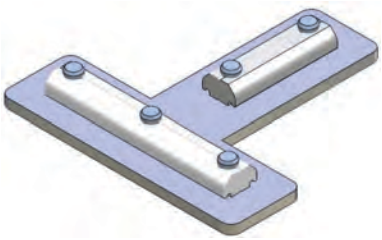
Material : Steel Galvanized

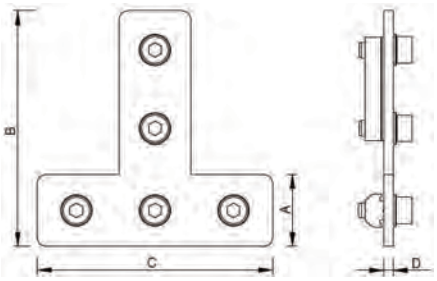
Ar!cle no.	A	B	C	D	M	Weight
CA.VBL.50.50	23	50	50	3	X	71 g
CA.VBL.50.75			75			96 g
CA.VBL.80.80.JU	40	80	80		JU	145 g
CA.VBL.80.120.JU			120			200 g

Application Example



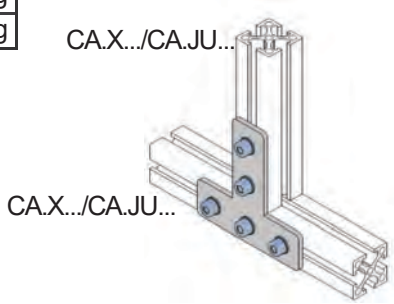
. Connector T-Style





Ar!cle no.	A	B	C	D	M	Weight
CA.VBT.X.50.75	25	75	75	3	X	123 g
CA.VBT.X.75.100			100			149 g
CA.VBT.JU.120	40	120	120		JU	261 g

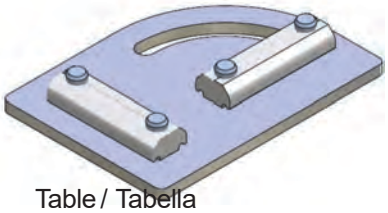
Application example



CA.03 VBW - EVB

X/JU

. Adjustable Connector 0-90°



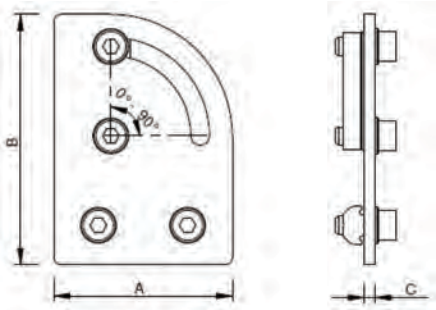
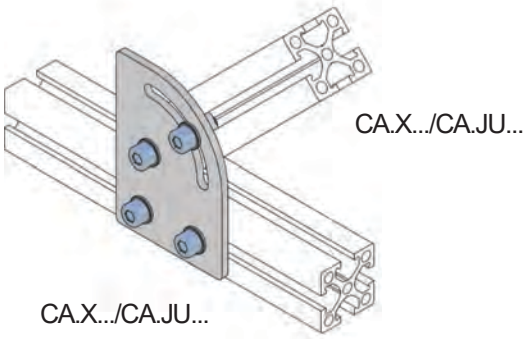


Table / Tabella

M = Suitable for Profiles
Applicabile ai profili

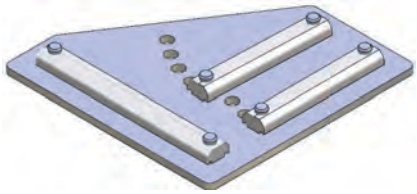
Application Example

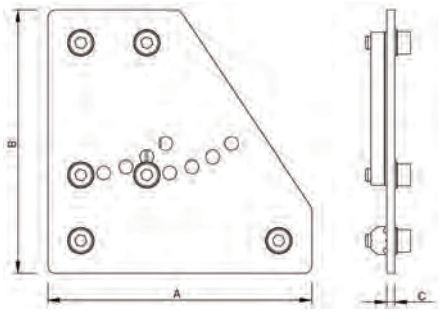
Ar!cle no.	A	B	C	M	Weight
CA.VBW.X.0.90	50	70	3	X	112 g
CA.VBW.JU.0.90	80	120		JU	249 g



Material : Steel Galvanized

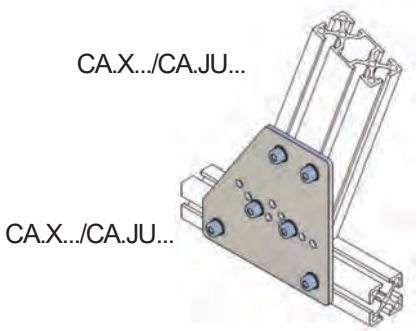
. Corner Joint Plate





Application example

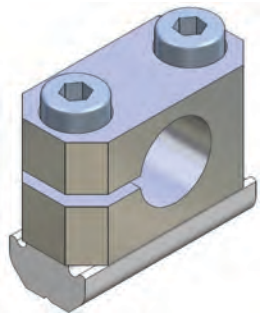
Ar!cle no.	A	B	C	M	Weight
CA.EVB.75.X	75	100	3	X	193 g
CA.EVB.100.X	100				292 g
CA.EVB.100.JU	80			JU	206 g

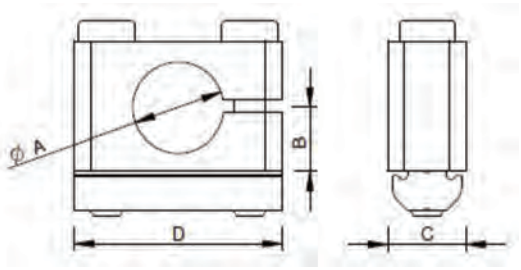


CA.03 KVB

L/X/JU

. Cross Connector Round





M = Suitable for Profiles

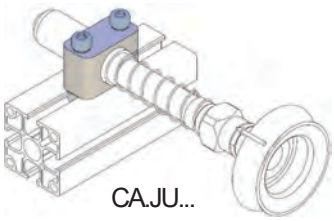
Material : Aluminium

Surface: Silver anodized

Ar!cle no.	A	B	C	D	M	Weight
CA.KVB.L10	10	8	12	25	L	17 g
CA.KVB.X14	14	10		32	X	36 g
CA.KVB.X20	20	13		40		45 g
CA.KVB.JU20			20		JU	68 g
CA.KVB.JU30	30	18		52		70 g

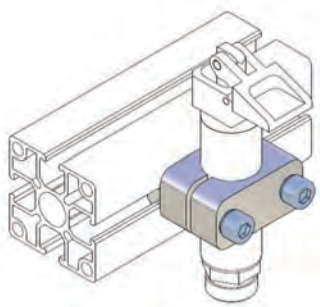
Application Examples

CA.GGD...

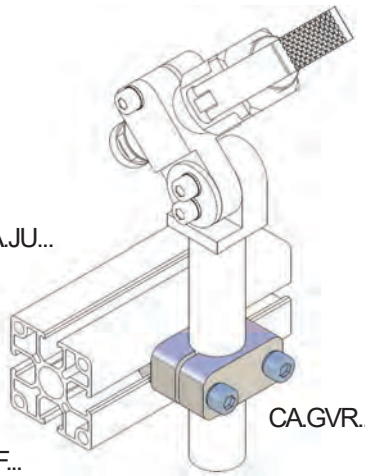


CA.JU...

CA.JU...



CA.PAC...



CA.JU...

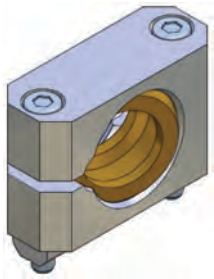
CA.GVR...

CA.GRF...

CA.03 KVB.KG

X/JU

. CrossConnector Round With Ball Joint



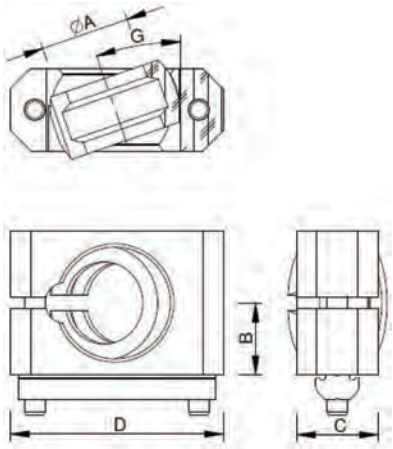


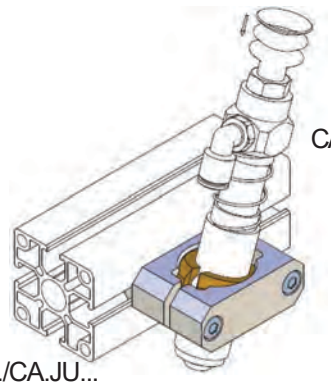
Table / Tabella

M = Suitable for Profiles

Ar!cle no.	A	B	C	D	G°	M	Weight
CA.KVB.KG.X10	10	10	12	32	0°-13°	X	42 g
CA.KVB.KG.X14	14	12.5	15	40	0°-17°		60 g
CA.KVB.KG.JU20	20	17.5	20	52	0°-19°	JU	113 g

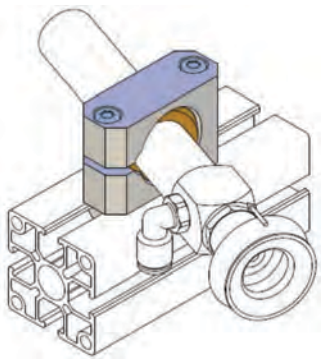
Application Examples

CA.GGD...



CA.L.../ CA.X.../CA.JU...

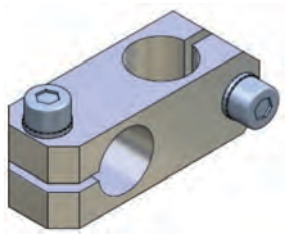
CA.GSE...

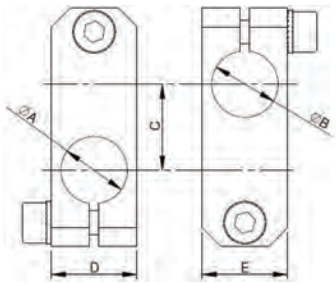


CA.L.../ CA.X.../CA.JU...

CA.03 KKS

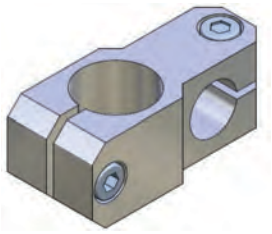
. Crossconnector Tube

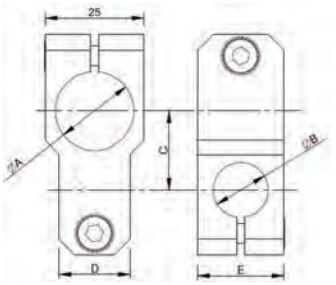




Material
Aluminium

Surface: Silver Anodized





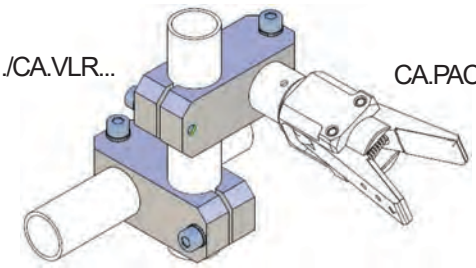
Ar!cle no.	A	B	C	D	E	Weight
CA.KKS.10.10	10	10	16	14	14	17 g
CA.KKS.14.14	14	14	18	18	18	35 g
CA.KKS.20.20	20	20	26	25	25	71 g
CA.KKS.20.10		10	20	14	20	41 g
CA.KKS.20.14		14		18	22	48 g

Application Examples

CA.GAR../CA.VLR...

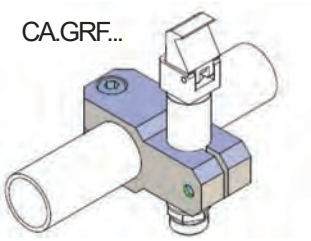
CA.GAR.../CA.VLR...

CA.PAC20...



CA.GRF...

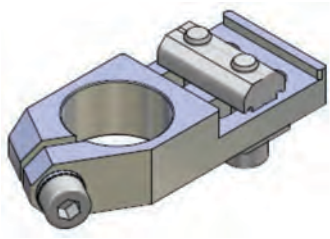
CA.GAR.../CA.VLR...



CA.04 WST

L/X/JU

. Adjustable Clamp



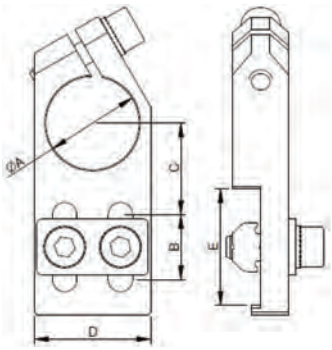


Table / Tabella

M = Suitable for Profiles

Material :Aluminium

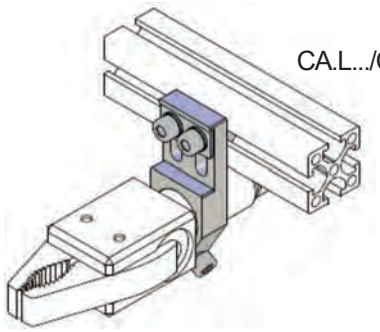
Surface: Silver Anodized

Ar!cle no.	A	B	C	D	E	M	Weight
CA.WST.1010.L	10	10	12	16	18	L	20 g
CA.WST.1014.X		14	13.5		25	X	21 g
CA.WST.1414.X	14		15.5	20			33 g
CA.WST.2014.X	20		19.5	25			46 g
CA.WST.2022.JU		22	23		40	JU	51 g

Application Example

CA.L.../CA.X.../CA.JU...

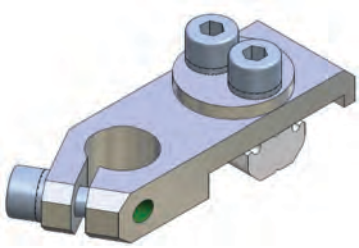
CA.GRZ...

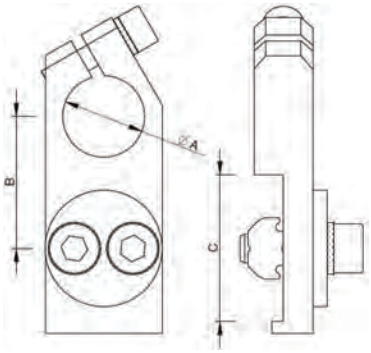


L/X/JU

CA.04 WST

. Adjustable Clamp



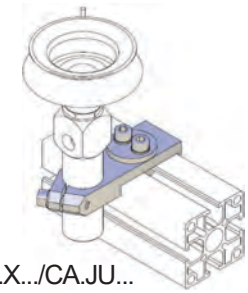


M = Suitable for Profiles

Ar!cle no.	A	B	C	M	Weight
CA.WST.10.L	10	17	18	L	20 g
CA.WST.10.X		21	25	X	
CA.WST.14.L	14	19	18	L	31 g
CA.WST.14.X		23	25	X	34 g
CA.WST.20.X	20	27			49 g
CA.WST.20.JU		34	40	JU	55 g
CA.WST.30.X	30	30	25	X	95 g
CA.WST.30.JU		38	40	JU	109 g

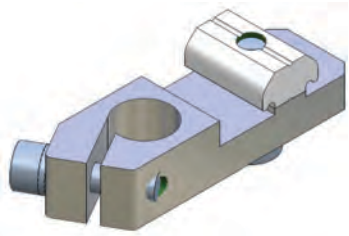
Applica! on example / Esempioapplica! vo

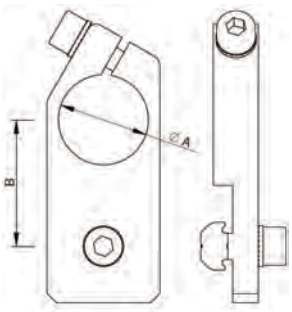
CA.GSE...



CA.L.../CA.X.../CA.JU...

CA.04 WST (easy)





Material : Aluminum

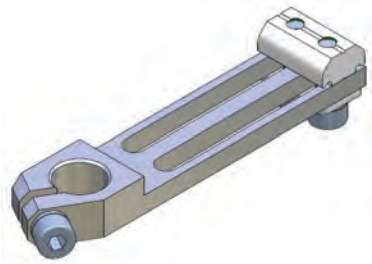
Surface: Silver Anodized

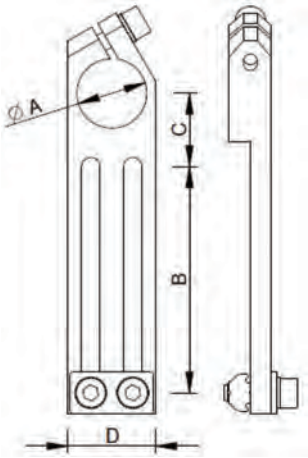
Ar!cle no.	A	B	M	Weight
CA.WST.10	10	21	X	23 g
CA.WST.14	14	24		31 g
CA.WST.20	20	28		36 g

CA.04 WSL.U

L/X/JU

. Universal Long Angle Clamp





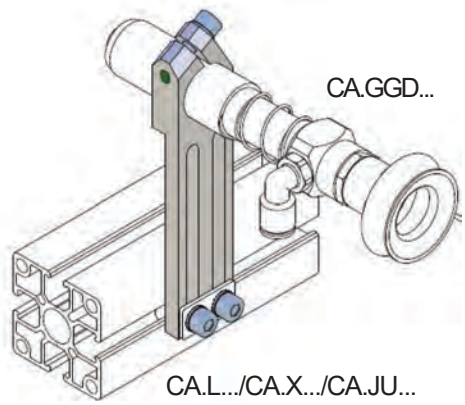
M = Suitable for Profiles

Material: Aluminium

Surface: Silver Anodized

Ar!cle no.	A	B	C	D	M	Weight
CA.WSL.1040.U.L	10	40	17.5	16	L	23 g
CA.WSL.1040.U.X					X	
CA.WSL.1440.U.L	14		19	20	L	32 g
CA.WSL.1440.U.X					X	33 g
CA.WSL.1450.U.X		50				39 g
CA.WSL.2060.U.X	20	65	21	25	X/JU	58 g
CA.WSL.2070.U.X		70	25.5		JU	64 g
CA.WSL.2070.U.JU						67 g
CA.WSL.3070.U.JU	30		30	35		118 g

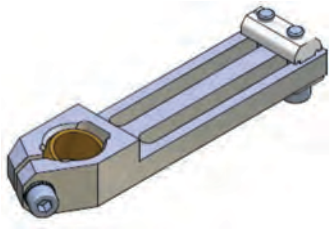
Application Example



X/JU

CA.04 WSL.G

. Long Angle Clamp With Ball joint



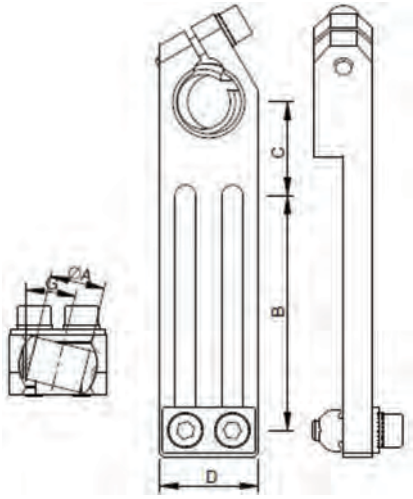


Table / Tabella

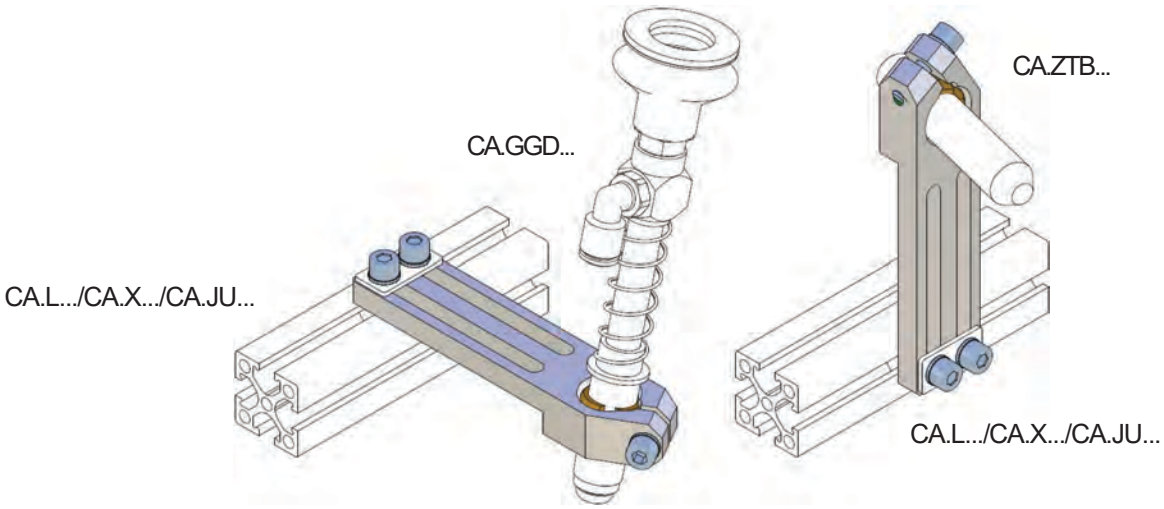
M = Suitable for Profiles

Material :Aluminium

Surface: Silver Anodized

Ar!cle no.	A	B	C	D	G°	M	Weight
CA.WSL.1050.G.X	10	50	20	20	0°-13°	X	51 g
CA.WSL.1460.G.X	14	60		25	0°-17°		78 g
CA.WSL.2060.G.X	20		29	35	0°-19°	X/JU	159 g

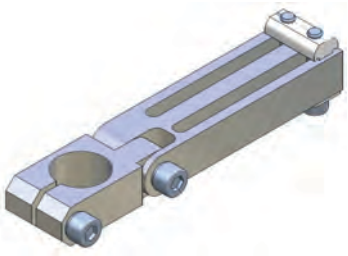
Application Examples

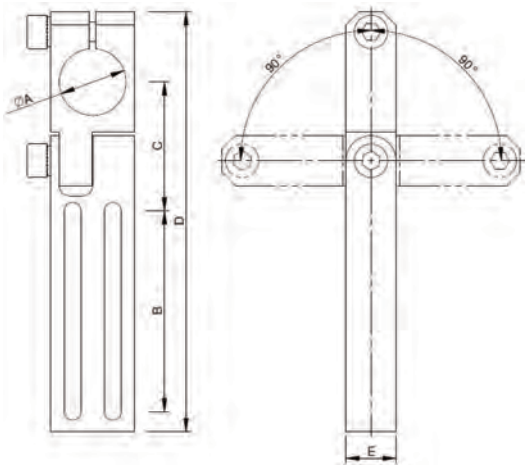


L/X/JU

CA.04 WSL.GA

. Long Angle Clamp - Swivel Head





M = Suitable for Profiles

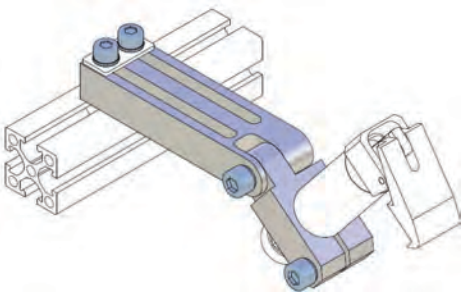
Ar!cle no.	A	B	C	D	E	M	Weight
CA.WSL.GA.10.X	10	40	32	93	10	L/X	57 g
CA.WSL.GA.14.X	14		33	96		X	
CA.WSL.GA.20.X	20	60	38.5	125.5	15	X/JU	118 g
CA.WSL.GA.30.X	30	82	53	168.5	20	JU	261 g

Material: Aluminium

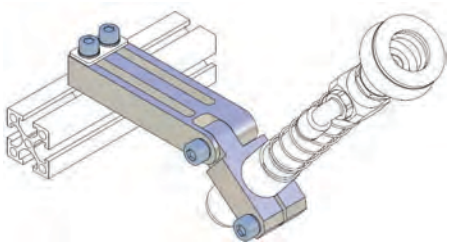
Surface: Silver Anodized

Application Examples

CA.L.../CA.X.../CA.JU...



CA.GRF…

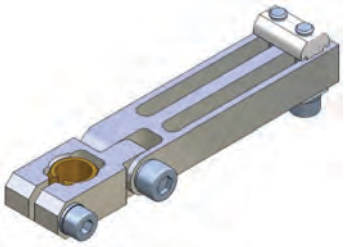


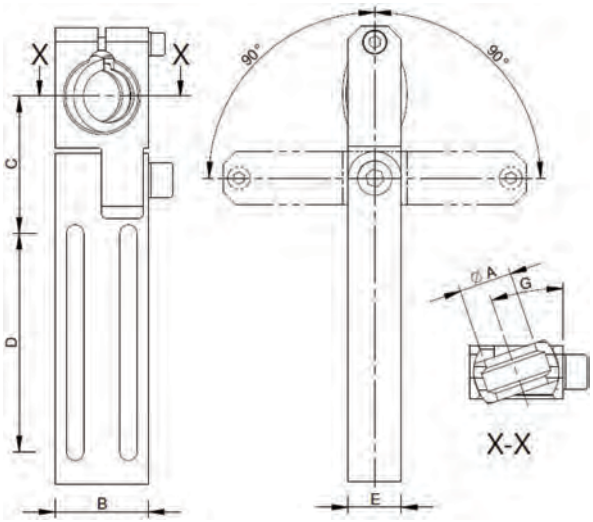
CA.GGD...

X/JU

CA.04 WSL.KG

. Long Angle Clamp Swivel Head and Ball Joint





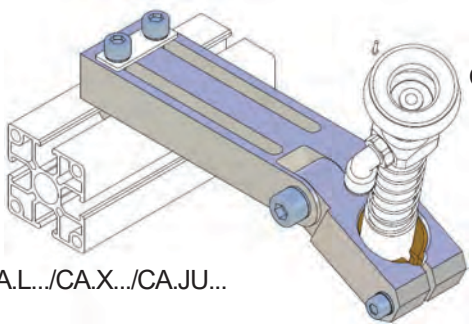
M = Suitable for Profiles

Material: Aluminium

Surface: Silver Anodized

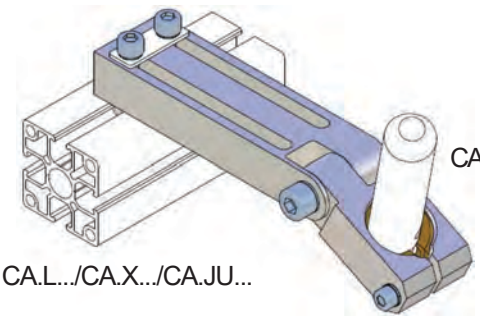
Ar!cle no.	A	B	C	D	E	G°	M	Weight
CA.WSL.KG.X.10	10	20	325	50	12	0°-13°	X	78 g
CA.WSL.KG.X.14	14	25	395	60	15	0°-17°		117 g
CAWSLKGJU20	20	35	515	82	20	0°-19°	XJU	320 g

Application Examples



CA.GGD...

CA.L.../CA.X.../CA.JU...



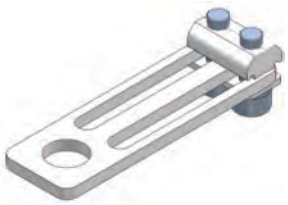
CA.ZTB...

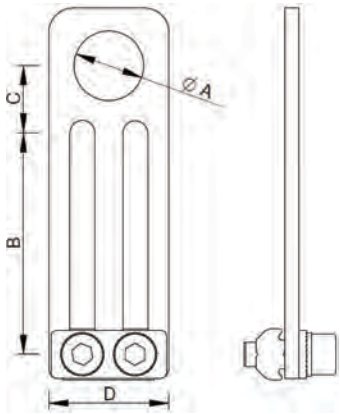
CA.L.../CA.X.../CA.JU...

X/JU

CA.04.20

. Moun! ng Bracket





M = Suitable for Profiles

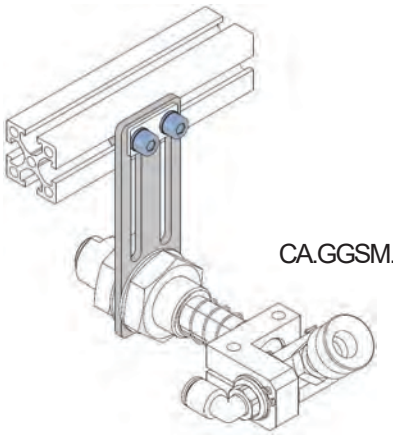
Material: Steel

Surface: Steel Galvanized

Ar!cle no.	A	B	C	D	M	Weight
CA.04.20.10.X	10	40	11	20	X	35 g
CA.04.20.12.X	12					
CA.04.20.14.X	14	46	14	25		47 g
CA.04.20.20.X	20	515	19	30	X/JU	65 g

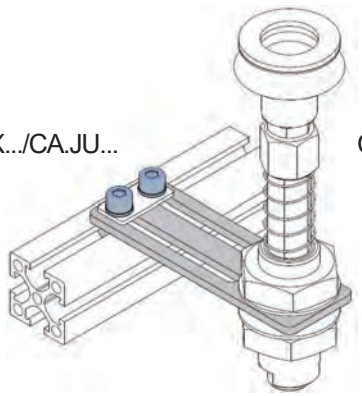
Application Examples

CA.L.../CA.X.../CA.JU...



CA.GGSM...

CA.L.../CA.X.../CA.JU...

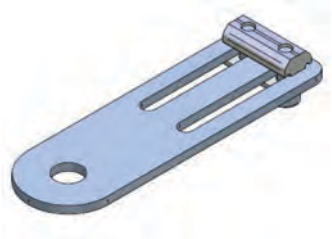


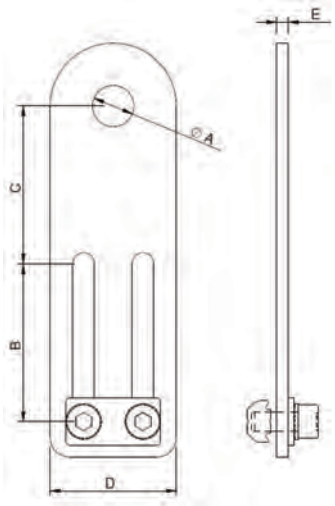
CA.05.01...

CA.04 SCM

X/JU

. Short Mounting Bracket





M = Suitable for Profiles

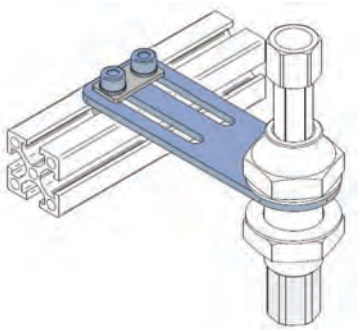
Material: Steel

Surface: Steel Galvanized

Ar!cle no.	A	B	C	D	E	M	Weight
CA.SCM.10.X	10.5	40	40	32	3	X	84 g
CA.SCM.12.X	12.5						83 g
CA.SCM.14.X	14.5					X/JU	82 g
CA.SCM.20.X	20.5						78 g

Application Example

CA.L.../CA.X.../CA.JU

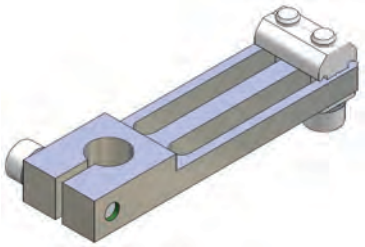


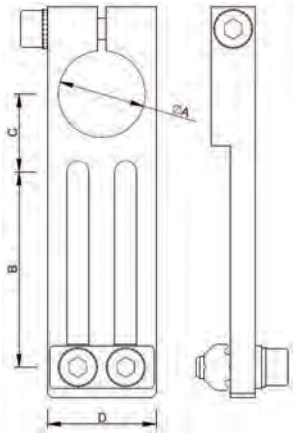
CA.SDNG...

CA.04.02

. Long Angle Clamp

X/JU





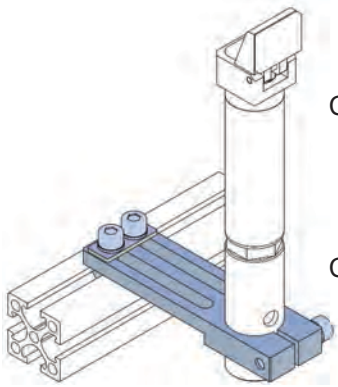
M = Suitable for Profiles

Material :Aluminium

Surface: Silver Anodized

Ar!cle no.	A	B	C	D	M	Weight
CA.04.02.10.X	10	40	155	20	X	41 g
CA.04.02.14.X	14	45	16.5	25		53 g
CA.04.02.20.X	20		18		X/JU	51 g
CA.04.02.30.X	30	70	34	35	JU	128 g

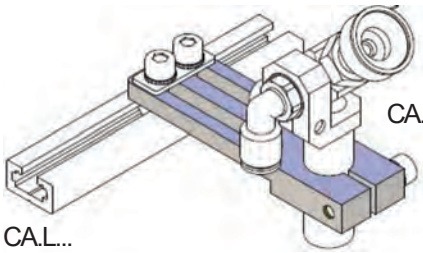
Application Examples



CA.GRF...

CA.VLR...

CA.L.../CA.X.../CA.JU...



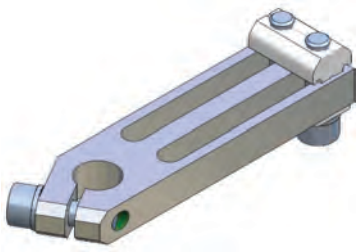
CA.GGB...

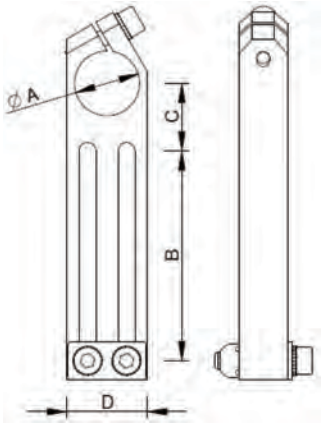
CA.L...

CA.04 WSL.VU

L/X/JU

. Long Angle Clamp Heavy Duty





M = Suitable for Profiles

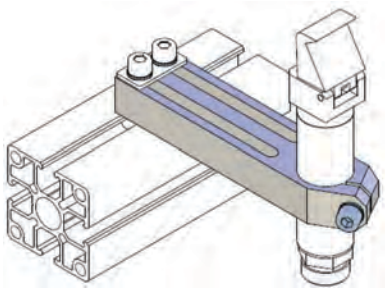
Ar!cle no.	A	B	C	D	M	Weight
CA.WSL.1040.VU.X	10	40	15	20	L	41 g
CA.WSL.1060.VU.X		60			L/X	48 g
CA.WSL.1080.VU.X		80				49 g
CA.WSL.1440.VU.X	14	40	19			38 g
CA.WSL.1450.VU.X		50	22		X	59 g
CA.WSL.2060.VU.X	20	65	21	25	X/JU	94 g
CA.WSL.2070.VU.X		70	25.5		JU	93 g
CA.WSL.2080.VU.X		80				98 g
CA.WSL.2570.VU.X	25	70	21	30		120 g
CA.WSL.3060.VU.J	30	60	30	35		188 g
CA.WSL.3070.VU.J		70				200 g

Material: Aluminium

Surface: Silver Anodized

Application Example

CA.L/CA.X../CA.JU...

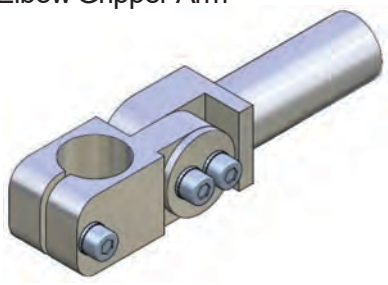


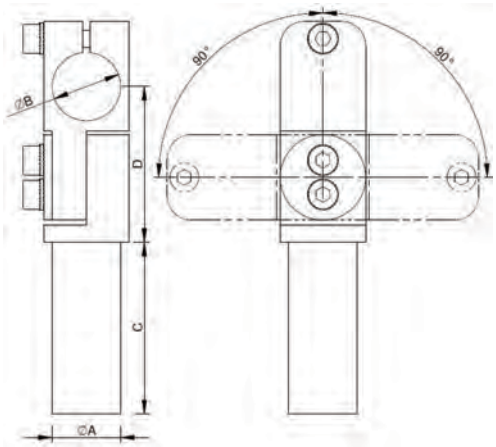
CA.GRF...

CA.04 GVR

Ø 10 -14 -20 -30

. Elbow Gripper Arm





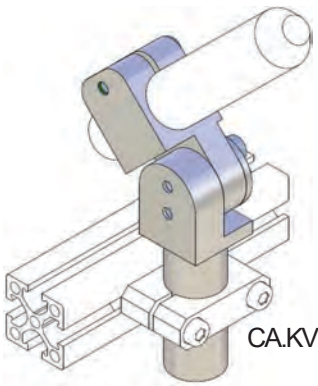
Material: Aluminium

Surface: Silver Anodized

Ar!cle no.	A	B	C	D	Weight
CA.GVR.1010.30	10	10	30	30	27 g
CA.GVR.1010.60			60		31 g
CA.GVR.1010.90			90		37 g
CA.GVR.1414.40	14	14	40	36	56 g
CA.GVR.1414.80			80		66 g
CA.GVR.1414.120			120		83 g
CA.GVR.2020.50	20	20	50	45.5	111 g
CA.GVR.2020.100			100		127 g
CA.GVR.2020.150			150		169 g
CA.GVR.3030.80	30	30	80	60	302 g
CA.GVR.3030.140			140		394 g
CA.GVR.3030.200			200		509 g

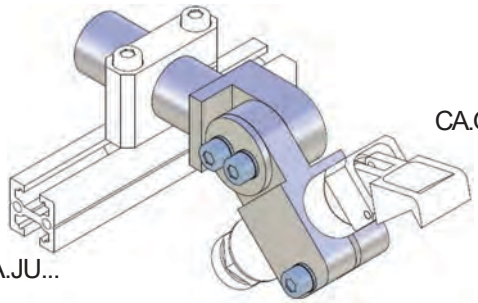
Application Examples

CA.ZTB...



CA.L.../CA.X.../CA.JU...

CA.KVB...



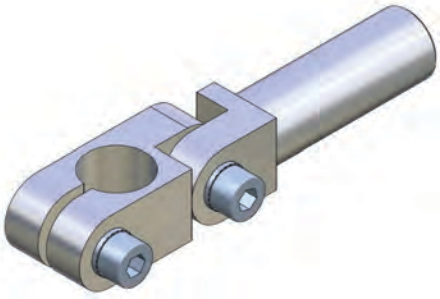
CA.GRF...

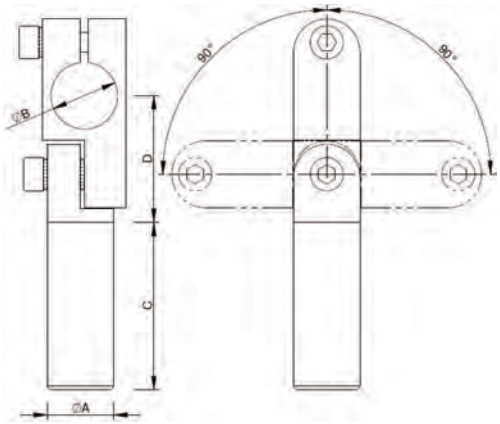
CA.L.../CA.X.../CA.JU...

CA.04 GLA

Ø 10 -14 -20 -30

. Elbow gripper arm





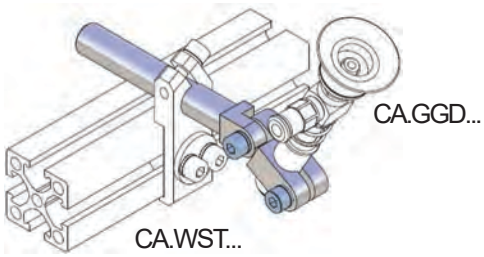
Material: Aluminium

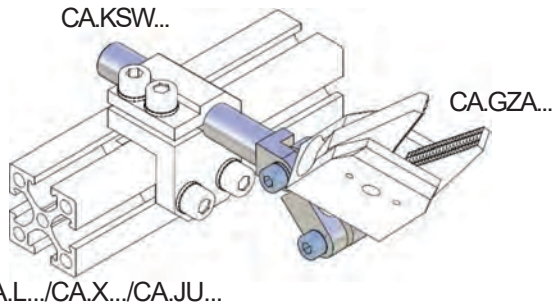
Surface: Silver Anodized

Ar!cle no.	A	B	C	D	Weight
CA.GLA.1010.30	10	10	30	22	17 g
CA.GLA.1010.60			60		21 g
CA.GLA.1010.90			90		28 g
CA.GLA.1414.40	14	14	40	30	43 g
CA.GLA.1414.80			80		51 g
CA.GLA.1414.120			120		70 g
CA.GLA.2020.50	20	20	50	38	99 g
CA.GLA.2020.100			100		106 g
CA.GLA.2020.150			150		165 g
CA.GLA.2030	20	30	100	47	315 g
CA.GLA.3030	30			52.5	

Application Examples

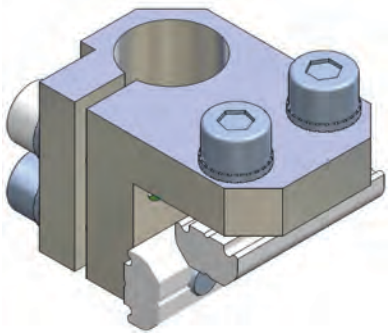
CA.L.../CA.X.../CA.JU...

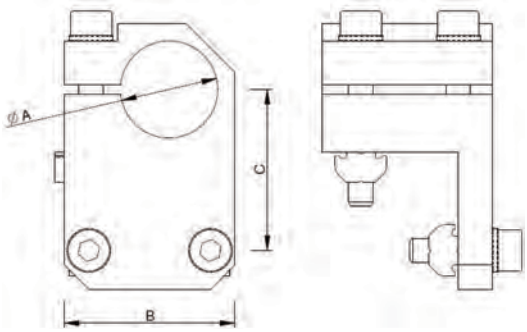




CA.04 KSW L/X/JU

. Clamp angle





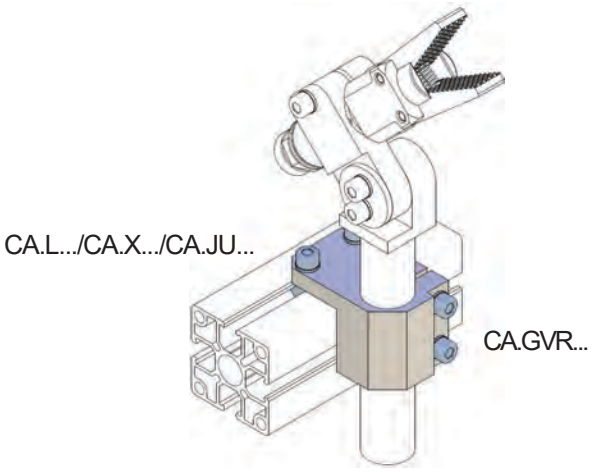
M = Suitable for Profiles

Material :Aluminium

Surface: Silver Anodized

Ar!cle no.	A	B	C	M	Weight
CA.KSW.10.L	10	20	16,5	L	27 g
CA.KSW.10.X		25	19.5	X	56 g
CA.KSW.14.X	14		21.5		59 g
CA.KSW.20.X	20	32	24.5		80 g
CA.KSW.20.JU		35	33	JU	103 g
CA.KSW.30.JU	30	45	39		148 g

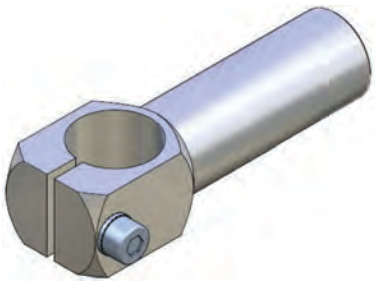
Application Example

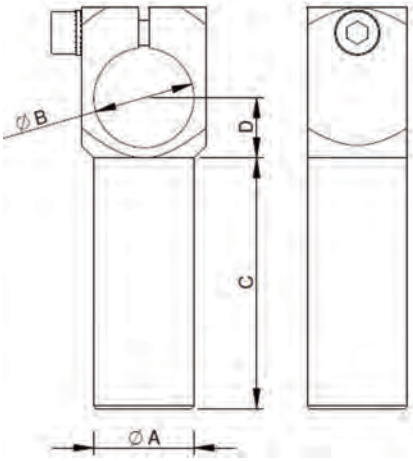


Ø 10 -14 -20 -30

CA.04 WKA

. Angle gripper arm



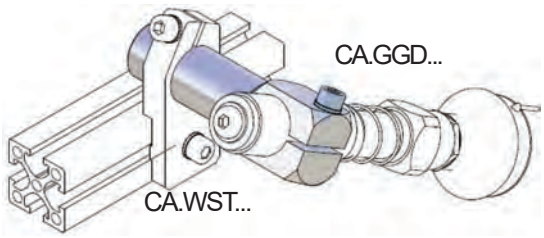


Material: Aluminium

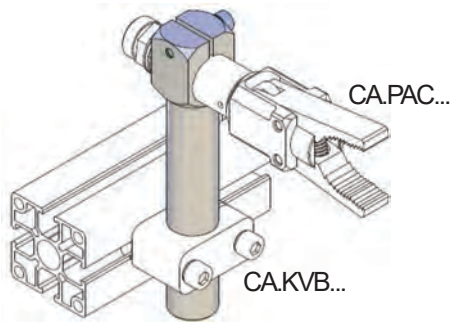
Surface: Silver Anodized

Ar!cle no.	A	B	C	D	Weight
CA.WKA.10.10.30	10	10	30	8	13 g
CA.WKA.10.10.60			60		17 g
CA.WKA.10.10.90			90		22 g
CA.WKA.14.14.40	14	14	40	10	
CA.WKA.14.14.80			80		35 g
CA.WKA.14.14.120			120		48 g
CA.WKA.20.20.50	20	20	50	12	47 g
CA.WKA.20.20.100			100		78 g
CA.WKA.20.20.150			150		96 g
CA.WKA.30.30.80	30	30	80	17	136 g
CA.WKA.30.30.140			140		178 g
CA.WKA.30.30.200			200		278 g

Application Examples



CA.L.../CA.X.../CA.JU...

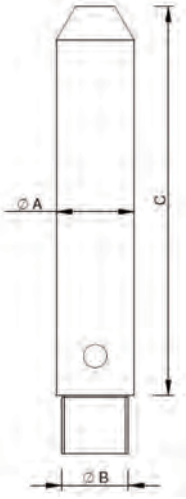


CA.L.../CA.X.../CA.JU...

Ø 10 -14 -20 - 30

ZTB

. Centering pin



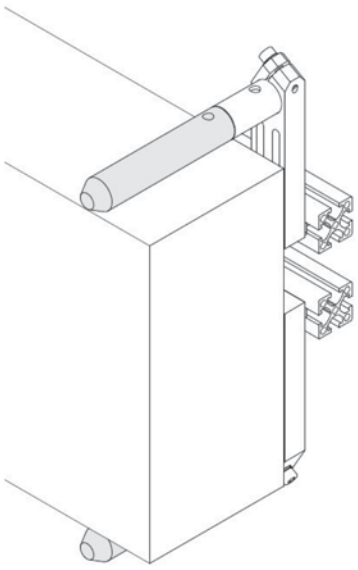
M = Suitable for...

Centering pin made of POM
Thread D2 allows the ZTB to connect to a VLR extension tube

Material : POM

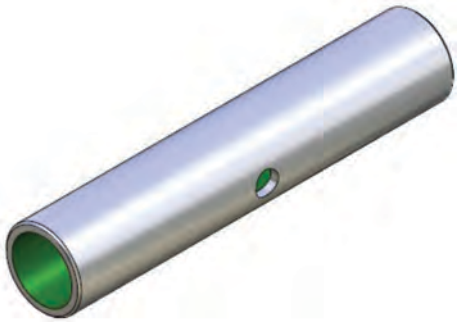
	A	B	C	M	Weight
CA.ZTB.1040	10	M8X1	40	CA.VLR.10	5 g
CA.ZTB.1060			60		7 g
CA.ZTB.1460	14	M12X1		CA.VLR.14	16 g
CA.ZTB.1480			80		18 g
CA.ZTB.20100	20	M17X1	100	CA.VLR.20	47 g
CA.ZTB.30100	30		100		104 g

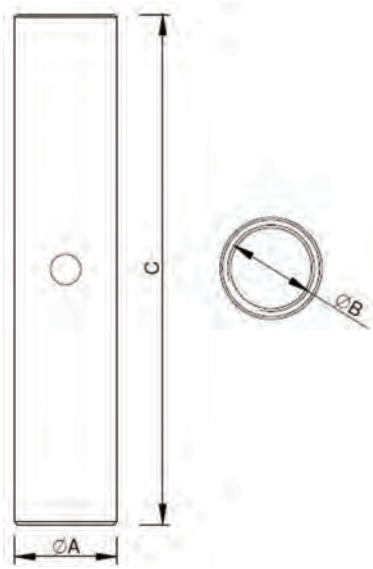
Application Example



VLR

Ø 10 -14 -20 -30



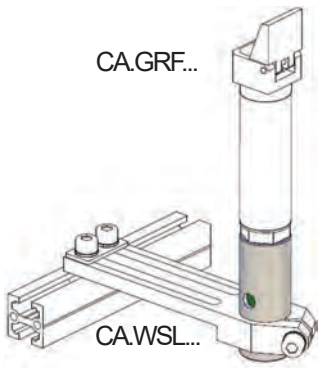


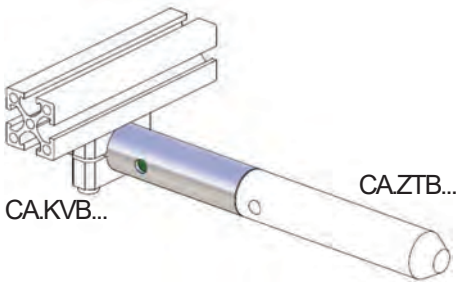
Extension tubes are compatable with:
CA.ZTB - CA.GRF - CA.PAC - CA.APG - CA.GRZ - CA.PMA

Material:Aluminium

Surface: Silver Anodized

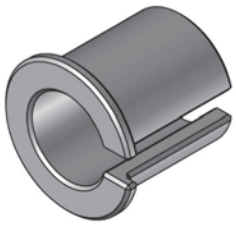
Ar!cle no.	A	B	C	Weight
CA.VLR.10.30	10	M8X1	30	3 g
CA.VLR.10.60			60	6 g
CA.VLR.10.90			90	10 g
CA.VLR.14.40	14	M12X1	40	6 g
CA.VLR.14.80			80	13 g
CA.VLR.14.120			120	19 g
CA.VLR.20.50	20	M17X1	50	15 g
CA.VLR.20.100			100	31 g
CA.VLR.20.150			150	46 g
CA.VLR.30.80	30	M27X1	80	38 g
CA.VLR.30.140			140	67 g
CA.VLR.30.200			200	97 g

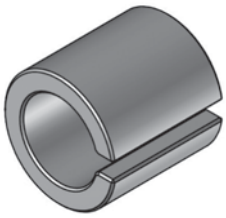


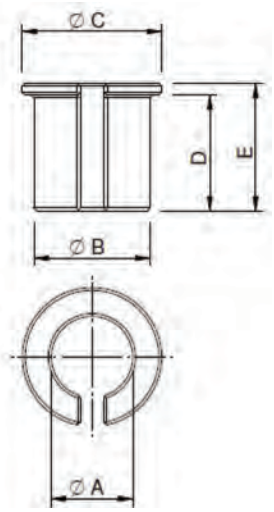


RID

. Reducer

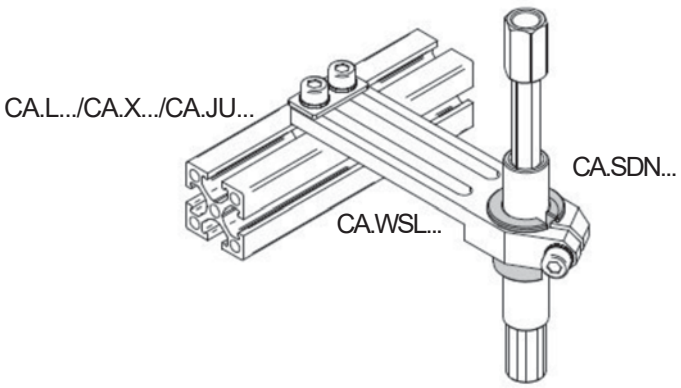






Ar!cle no.	A	B	C	D	E	Weight
CA.RID.1410	10	14	18	14	16	4 g
CA.RID.2014	14	20	24	20	22	9 g
CA.RID.3020	20	30	30	30	30	30 g

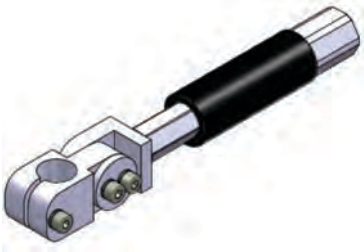
Application Example

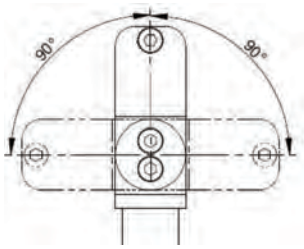


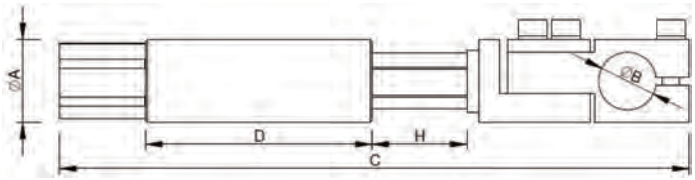
Ø 14 - 20

SMN

. Smooth-body non-rotational suspension







Material: Aluminium

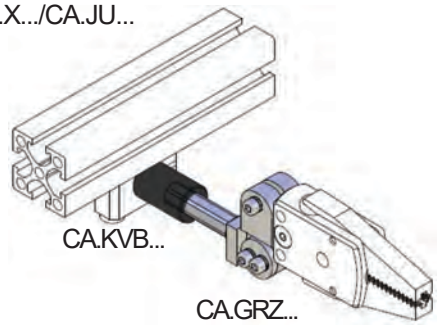
Guide (Tube and shaft) hard coated

Non rotational

Article no.	A	B	C	D	H	Weight
CA.SMN.142010	14	10	129	42	20	43 g
CA.SMN.143510			160	60	35	50 g
CA.SMN.202514	20	14	150	55	25	95 g
CA.SMN.202520		20	163.5			103 g
CA.SMN.205014		14	208	82.5	50	100 g
CA.SMN.205020		20	221.5			109 g

Application Examples

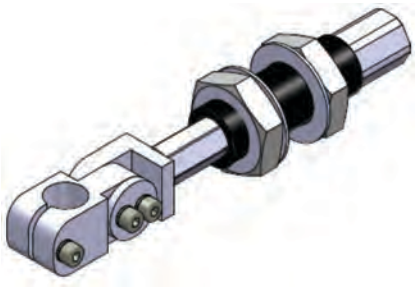
CA.L.../CA.X.../CA.JU...

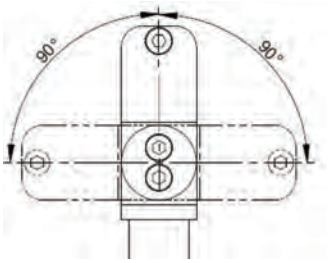


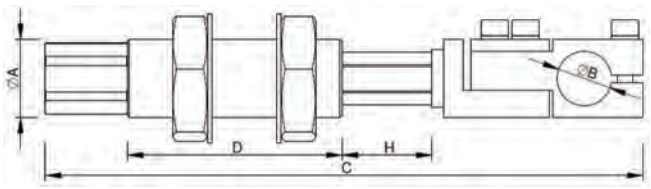
SMNG

Ø 14 - 20

. Threaded-body non-rotative suspension







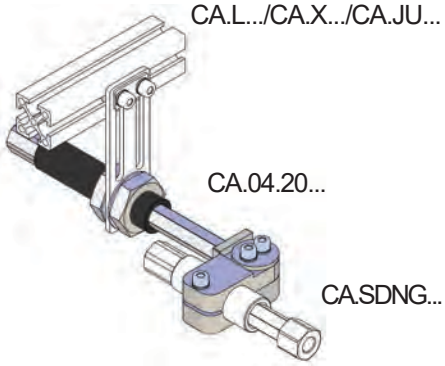
Material: Aluminium

Guide (Tube and shaft) hard coated

Non rotational

Article no.	A	B	C	D	H	Weight
CA.SMNG.142010	M14x1.5	10	129	42	20	55 g
CA.SMNG.143510			160	60	35	61 g
CA.SMNG.202514	M20x1.5	14	150	55	25	129 g
CA.SMNG.205014			208	825	50	134 g

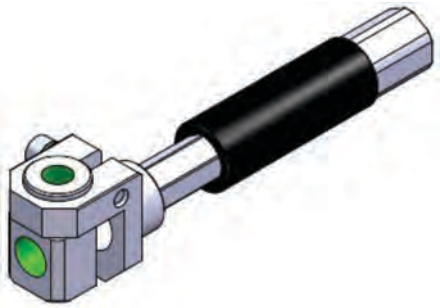
Application Example

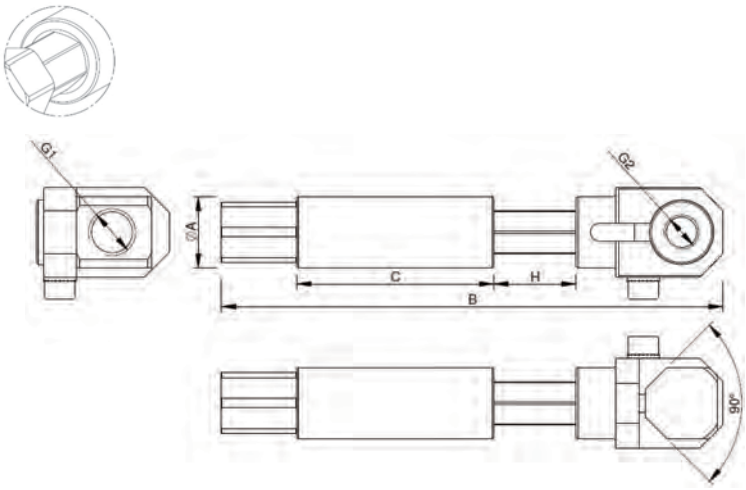


Ø 10 - 14 - 20

SSN

. Smooth-body non-rotative





Material: Aluminium

Guide (Tube and shaft) hard coated

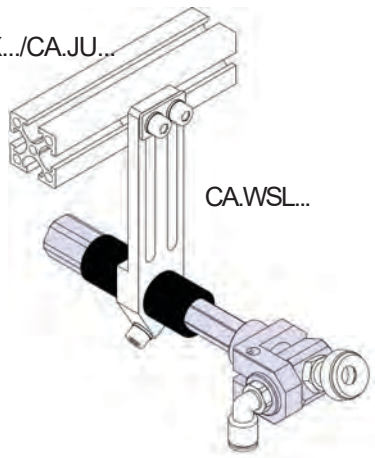
Non rotational

H = Spring Deflection

Ar!cle no.	A	B	C	G1	G2	H	F(N)	Weight
CA.SSN.10100505	10	56	21	M5	M5	10	3.6	19 g
CA.SSN.10250505		90.5	40.5			25	3.7	22 g
CA.SSN.14201818	14	98.5	38.5	G 1/8	G 1/8	20	8.9	45 g
CA.SSN.14351818		148	60			35	9.5	51 g
CA.SSN.20251418	20	110	49	G 1/4		25	11	105 g
CA.SSN.20501418		167.5	81.5			50	11.4	110 g

Application Example

CA.L.../CA.X.../CA.JU...

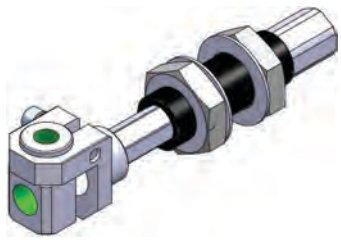


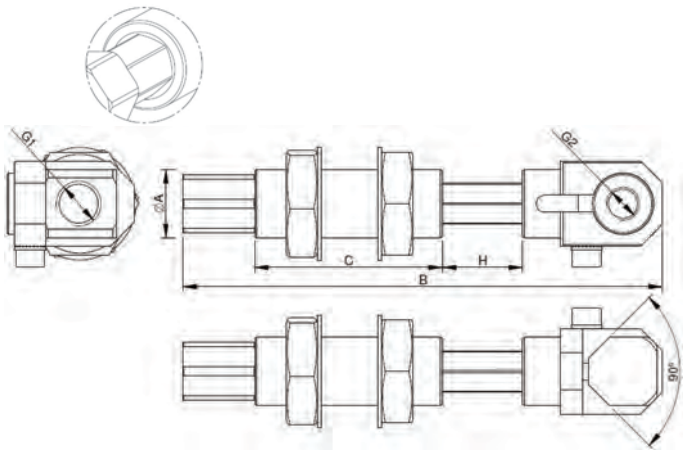
CA.WSL...

SSNG

Ø 10 - 14 - 20

. Threaded-body non-rotative suspension





Material: Aluminium

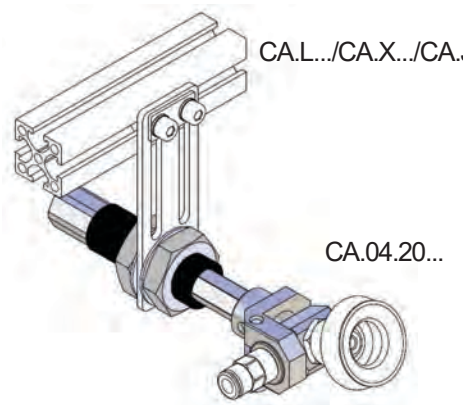
Guide (Tube and shaft) hard coated

H = Spring deflection

Non rotational

Ar!cle no.	A	B	C	G1	G2	H	F(N)	Weight
CA.SSNG.10100505	M10X1	56	21	M5	M5	10	3.6	25 g
CA.SSNG.10250505		90.5	40.5			25	3.7	28 g
CA.SSNG.14201818	M14X1.5	98.5	38.5	G 1/8	G 1/8	20	8.9	57 g
CA.SSNG.14351818		148	60			35	9.5	63 g
CA.SSNG.20251418	M20X1.5	110	49	G 1/4		25	11	139 g
CA.SSNG.20501418		167.5	81.5			50	11.4	144 g

Application Example



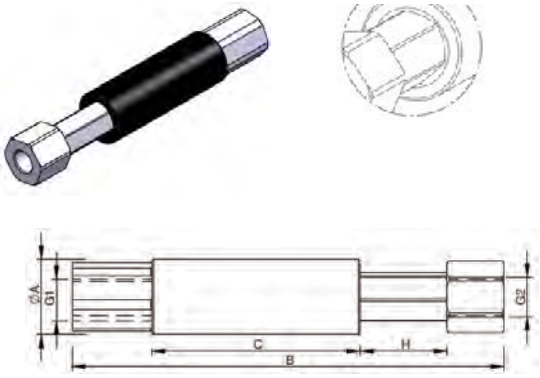
CA.L.../CA.X.../CA.JU...

CA.04.20...

SDN

Non Rotative Suspension

Smooth-body

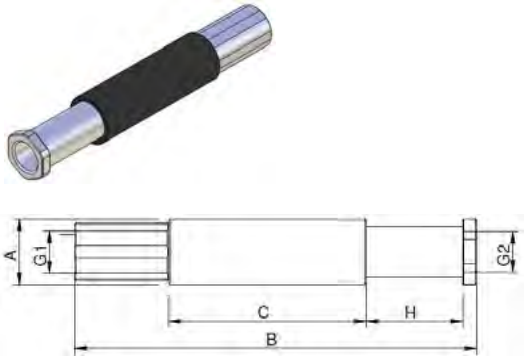


	A	B	C	G1	G2	H	F(N)	
CA.SDN.1010	10	61	26	M5	M5	10	3.6	8 g
CA.SDN.1025		91	41			25	3.7	11 g
CA.SDN.1420	14	103	42	G 1/8	G 1/8	20	8.9	25 g
CA.SDN.1435		135	60			35	9.5	32 g
CA.SDN.2025	20	1	55			25	11	63 g
CA.SDN.2050		167	82			50	11.4	81 g
CA.SDN.2025.14		114	55	G 1/4	G1/4	25	11	59 g
CA.SDN.2050.14		161	82			50	11.4	77 g

SDR

Rotative Suspension

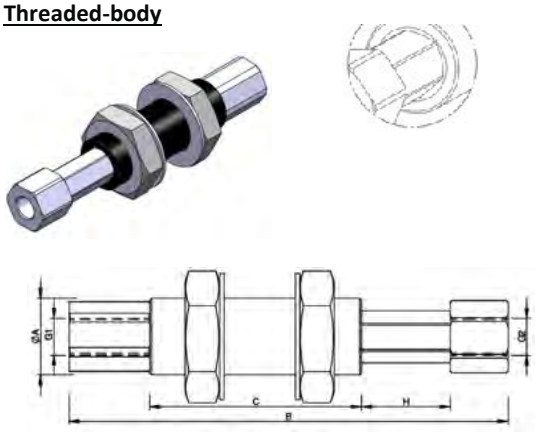
Smooth-body



	A	B	C	G1	G2	H	F(N)	
CA.SDR.1010	10	51	20	M5	M5	10	3.6	7 g
CA.SDR.1025		86	40			25	3.7	11 g
CA.SDR.1420	14	85	42	G 1/8	G 1/8	20	8.9	19 g
CA.SDR.1435		120	62			35	9.5	26 g
CA.SDR.2025	20	97	47			25	11	54 g
CA.SDR.2050		147	72		M10	50	11.4	74 g
CA.SDR.2025.14		107	47	G1/4	G1/4	25	11	56 g
CA.SDR.2050.14		157	72			50	11.4	76 g

SDNG

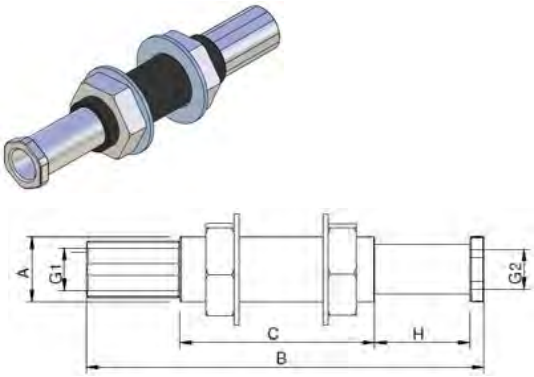
Threaded-body



	A	B	C	G1	G2	H	F(N)	
CA.SDNG.1010	M10X1	61	26	M5	M5	10	3.6	13 g
CA.SDNG.1025		91	41			25	3.7	16 g
CA.SDNG.1420	M14X1.5	103	42	G 1/8	G 1/8	20	8.9	36 g
CA.SDNG.1435		135	60			35	9.5	42 g
CA.SDNG.2025	M20X1.5	114	55			25	11	96 g
CA.SDNG.2050		174	82			50	11.4	115 g
CA.SDNG.2025.14		114	55	G 1/4	G1/4	25	11	92 g
CA.SDNG.2050.14		167	82			50	11.4	111 g

SDRG

Threaded-body

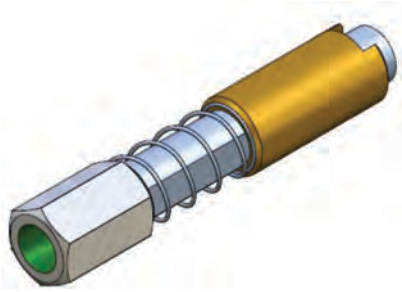


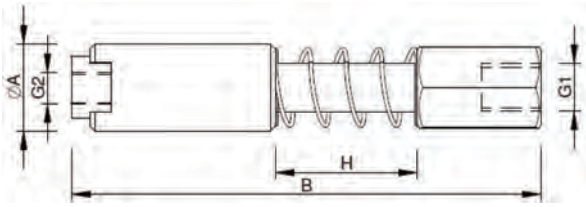
	A	B	C	G1	G2	H	F(N)	
CA.SDRG.1010	M10X1	51	20	M5	M5	10	3.6	12 g
CA.SDRG.1025		86	40			25	3.7	16 g
CA.SDRG.1420	M14X1.5	85	42	G 1/8	G 1/8	20	8.9	30 g
CA.SDRG.1435		120	62			35	9.5	37 g
CA.SDRG.1620	M16X1	85				20	8.9	37 g
CA.SDRG.2025	M20X1.5	97	47			25	11	88 g
CA.SDRG.2050		147	72			50	11.4	108 g
CA.SDRG.2025.14		107	47	G1/4	G1/4	25	11	90 g
CA.SDRG.2050.14		157	72			50	11.4	110 g

CA.05.02

Ø 10 -14 -20

. Spring loaded Vacuum Cup Arm (Non-Rotative)





H = Spring Deflection

F = Spring Force

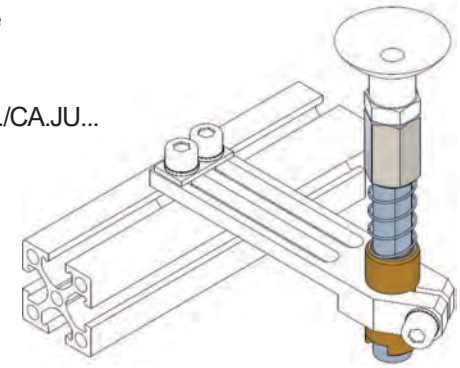
Material: Brass

Non Rotational

Ar!cle no.	A	B	G1	G2	H	F(N)	Weight
CA.05.02.002	20	125	G 1/4	G 1/8	48	16.6	155 g
CA.05.02.004		100			25	18.4	135 g
CA.05.02.009	10	69	M5	M5	20	3.4	26 g
CA.05.02.009.6N						6	
CA.05.02.010		59			10	4.8	23 g
CA.05.02.010.6N						6	
CA.05.02.011	14	100	G 1/8		38	23.3	63 g
CA.05.02.012		76			17	20.7	52 g

Application Example

CA.L.../CA.X.../CA.JU...

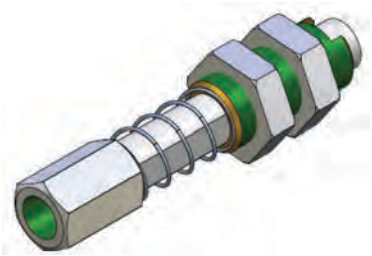


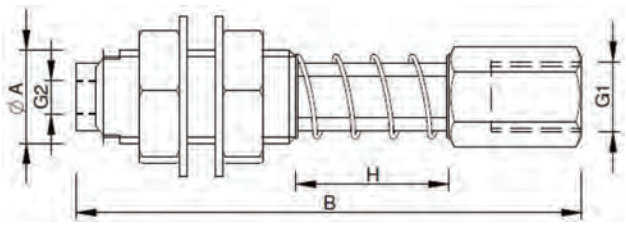
CA.WSL...

CA.05.01

Ø 10 -14 -20

. Spring loaded Vacuum Cup Arm (Non-Rotative Shaft) Threaded Sleeve)





H = Spring Deflection

F = Spring Force

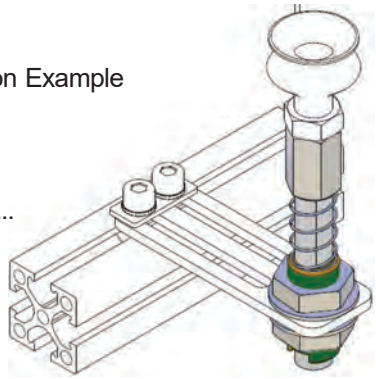
Material: Brass

Non rotational

Ar!cle no.	A	B	G1	G2	H	F(N)	Weight
CA.05.01.001	M14x1.5	100	G 1/8	M5	38	23.2	71 g
CA.05.01.002	M20x1.5	125	G 1/4	G 1/8	48	16.7	183 g
CA.05.01.003	M14x1.5	76	G 1/8	M5	17	20.7	58 g
CA.05.01.004	M20x1.5	100	G 1/4	G 1/8	25	18.4	163 g
CA.05.01.005	M10x1	70	M5	M5	20	3.4	36 g
CA.05.01.005.6N						6	
CA.05.01.006		59			10	4.8	33 g
CA.05.01.006.6N						6	
CA.05.01.010	M16x1.5	76	G 1/8		17	20.7	56 g
CA.05.01.011		97			38	23.2	95 g
CA.05.01.50	M14x1.5	123			50	17	81 g
CA.05.01.75		153			75	19	91 g
CA.05.01.100		193			100	18	95 g

Applica! on Example

CA.L.../CA.X.../CA.JU...

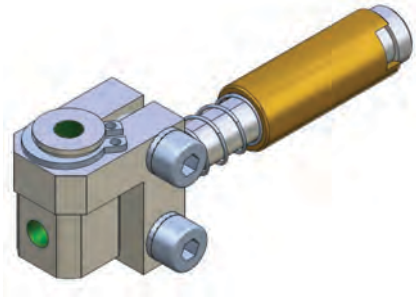


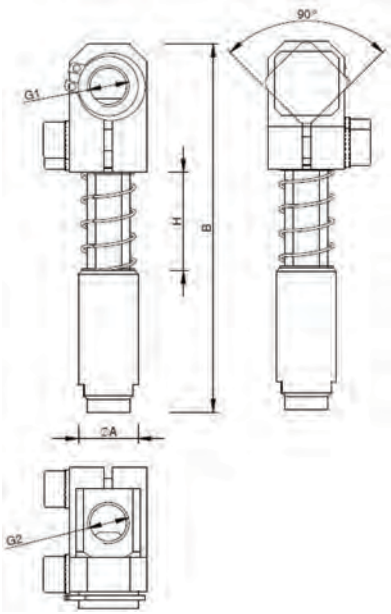
CA.04.20...

Ø 10 -14 -20

GGS

. Spring loaded vacuum cup arm (Non-Rotative)





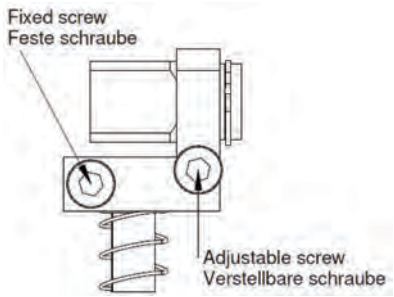
H = Spring deflection

F = Spring Force

Material: Brass

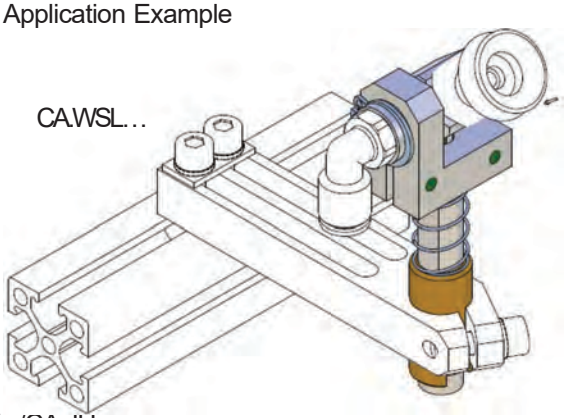
Non Rotational Shaft

Ar!cle no.	A	B	G1	G2	H	F(N)	Weight
CA.GGS100515	10	69	M5	M5	10	3.6	37 g
CA.GGS100520		79			20	6	40 g
CA.GGS100530		98			30	8.6	45 g
CA.GGS141815	14	86	G 1/8	G 1/8	17	20.7	82 g
CA.GGS141840		110			38	23.3	89 g
CA.GGS201425	20	116	G 1/8	G 1/4	23	18.4	196 g
CA.GGS201445		141			45	16.7	206 g



Application Example

CA.WSL...

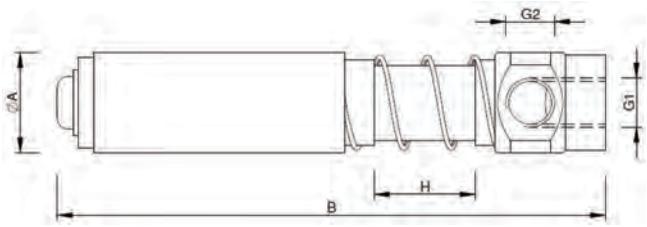


CA.L.../CA.X.../CA.JU...

GGD

Ø 10 -14 -20

. Spring loaded Rotative Vacuum Cup Arm



H = Spring deflection

F = Spring Force

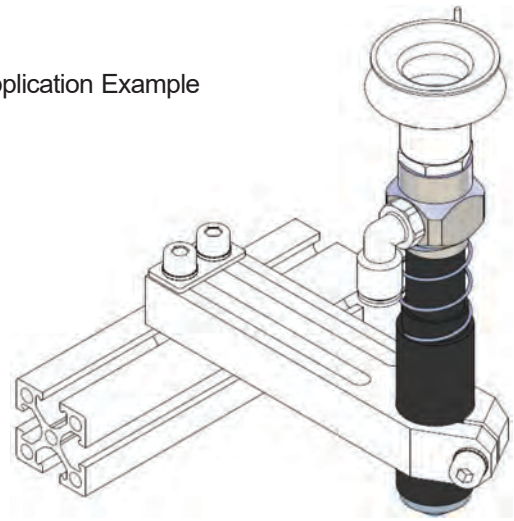
Extremelylight weight (Material Aluminium)

Guide (Tube and Shaft) hard coated

Ar!cle no.	A	B	G1	G2	H	F(N)	Weight
CA.GGD.10050510	10	59	M5	M5	10	8	11 g
CA.GGD.10050530		85			30	11	15 g
CA.GGD.14181815	14	86	G 1/8	G 1/8	15	9	33 g
CA.GGD.14181840		111			40	14.6	38 g
CA.GGD.20141820	20	109	G 1/4		20	11.7	76 g
CA.GGD.20141850		147			50	16.8	92 g

Application Example

CA.L.../CA.X.../CA.JU...

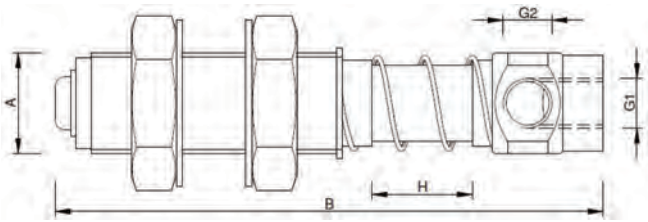


CA.WSL...

GGDG

Ø 10 -14 -20

. Spring loaded Vacuum Cup Arm (Threaded Sleeve)



H = Spring Deflection

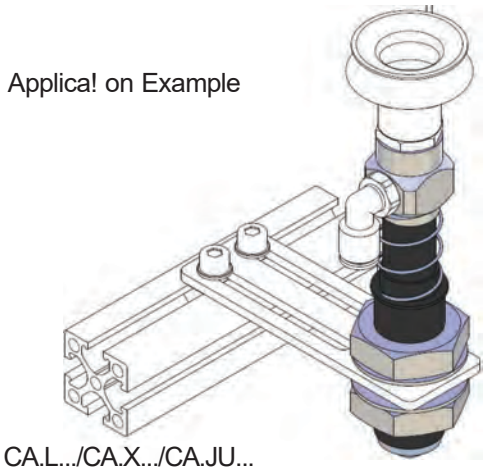
F = Spring Force

Extremely light Weight (Material Aluminium)

Guide (Tube and shaft) hard coated

Ar!cle no.	A	B	G1	G2	H	F(N)	Weight
CA.GGDG.10050510	M10x1	59	M5	M5	10	8	17 g
CA.GGDG.10050530		85			30	11	20 g
CA.GGDG.14181815	M14x1.5	86	G 1/8	G 1/8	15	9	43 g
CA.GGDG.14181840		111			40	14.6	48 g
CA.GGDG.20141820	M20x1.5	109	G 1/4		20	11.7	110 g
CA.GGDG.20141850		147			50	16.8	126 g

Applica! on Example



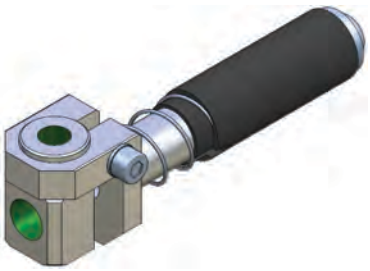
CA.04.20...

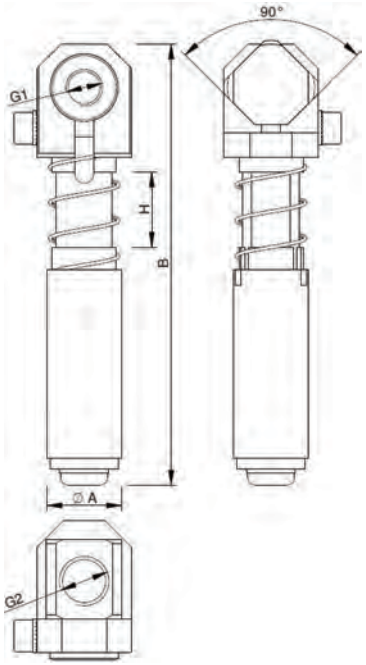
CA.L.../CA.X.../CA.JU...

Ø 10 -14 -20

GGV

. Spring loaded vacuum cup arm (Non-Rotational shaft)





H = Spring Deflection

F = Spring Force

Extremely light Weight (Material Aluminium)

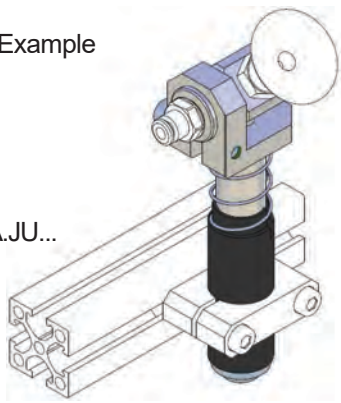
Guide (Tube and shaft) Hard Coated

Non rotational Shaft

Ar!cle no.	A	B	G1	G2	H	F(N)	Weight
CA.GGV.10050510	10	64	M5	M5	10	8	19 g
CA.GGV.10050530		90			30	11	22 g
CA.GGV.14181815	14	91	G 1/8	G 1/8	15	9	45 g
CA.GGV.14181840		116			40	14.6	49 g
CA.GGV.20141820	20	117		G 1/4	20	11.7	104 g
CA.GGV.20141850		155			50	16.8	124 g

Application Example

CA.L.../CA.X.../CA.JU...

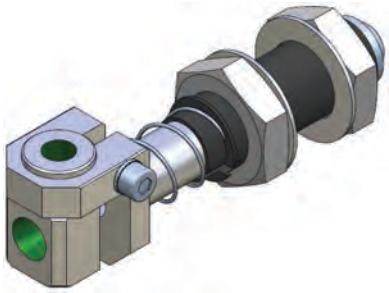


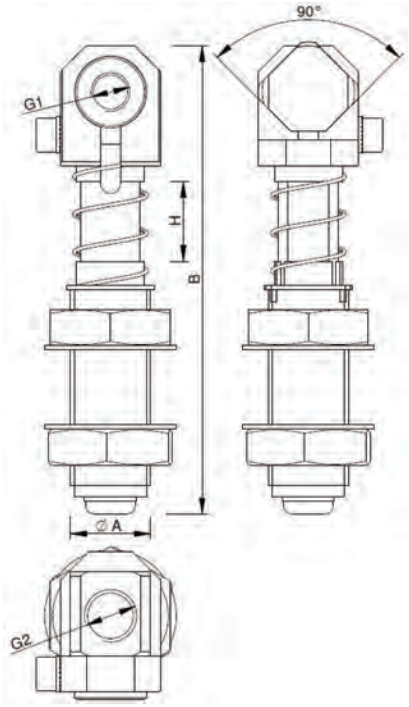
CA.KVB..

GGVG

Ø 10 -14 -20

. Spring loaded vacuum cup arm - Threaded Sleeve





H = Spring Deflection
F = Spring Force

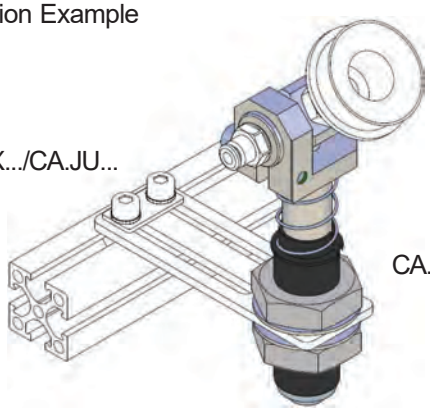
Extremely light Weight (Material Aluminium)
Guide (Tube and shaft) Hard Coated

Non rotational Shaft

Ar!cle no.	A	B	G1	G2	H	F(N)	Weight
CA.GGVG.10050510	M10x1	64	M5	M5	10	8	24 g
CA.GGVG.10050530		90			30	11	26 g
CA.GGVG.14181815	M14x1.5	91	G 1/8	G 1/8	15	9	49 g
CA.GGVG.14181840		116			40	14.6	57 g
CA.GGVG.20141820	M20x1.5	117		G 1/4	20	11.7	138 g
CA.GGVG.20141850		155			50	16.8	157 g

Application Example

CA.L.../CA.X.../CA.JU...

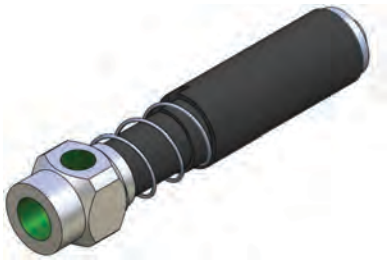


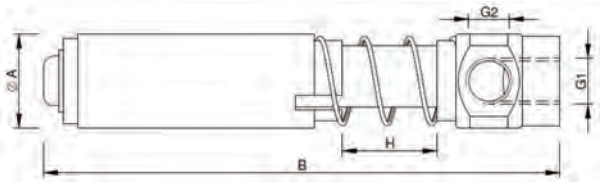
CA.04.20...

Ø 10 -14 -20

GGVE

. Spring loaded vacuum cup arm easy (Non-rota! onal sha$)





H = Spring Deflection

F = Spring Force
Extremelylight Weight (Material Aluminium)

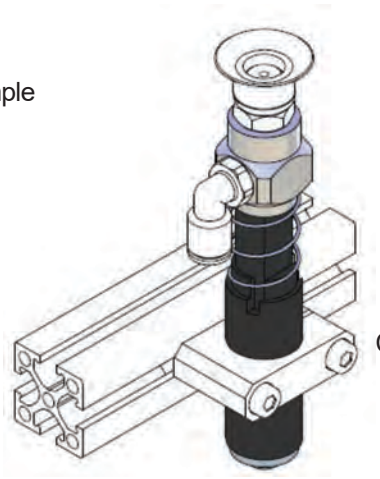
Guide (Tube and shaft) Hard Coated

Non Rotational Shaft

Ar!cle no.	A	B	G1	G2	H	F(N)	Weight
CA.GGVE.10050510	10	59	M5	M5	10	8	11 g
CA.GGVE.10050530		85			30	11	15 g
CA.GGVE.14181815	14	86	G 1/8	G 1/8	15	9	33 g
CA.GGVE.14181840		111			40	14.6	37 g
CA.GGVE.20141820	20	109	G 1/4		20	11.7	75 g
CA.GGVE.20141850		147			50	16.8	95 g

Application Example

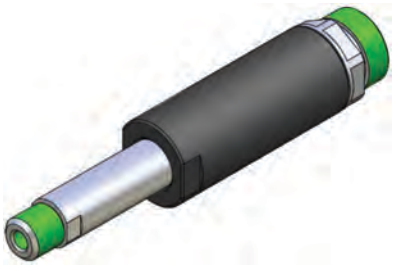
CA.L.../CA.X.../CA.JU...

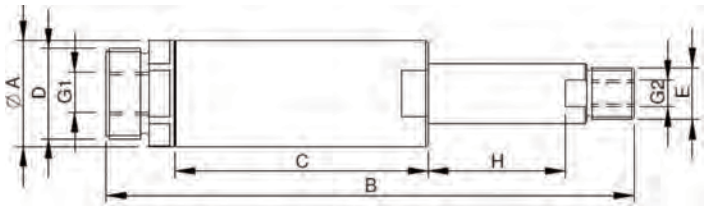


CA.KVB...

SAR

. Telescopic self-retracting suspension





H = Spring deflection

F = Spring Force

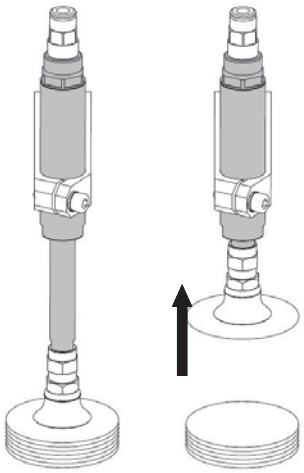
Ar!cle no.	A	B	C	D	E	G1	G2	H	F(N)	Weight
CA.SAR.2025	20	100	48	M17x1	G 1/8	G 1/8	M5	25	3.6	42 g
CA.SAR.2050		150	73					50	4.2	68 g

Extremely leight Weight (Material Aluminium)

Guide (Tube and shaft) Hard Coated

Only for Vacuum Applications

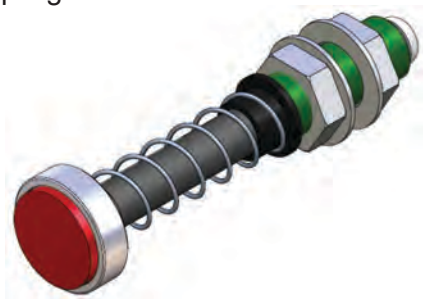
The speed of the retraction movement can be adjusted by a standard throttle valve
When vacuum is removed the part is released and the internal spring resets the rod
Pressure range: -1 ÷ 0 bar

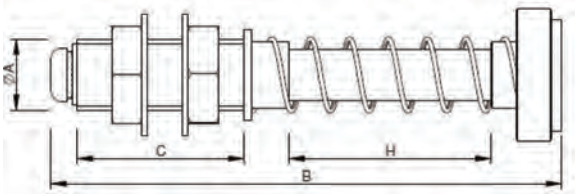


VSX

Ø 14

. Spring Rod





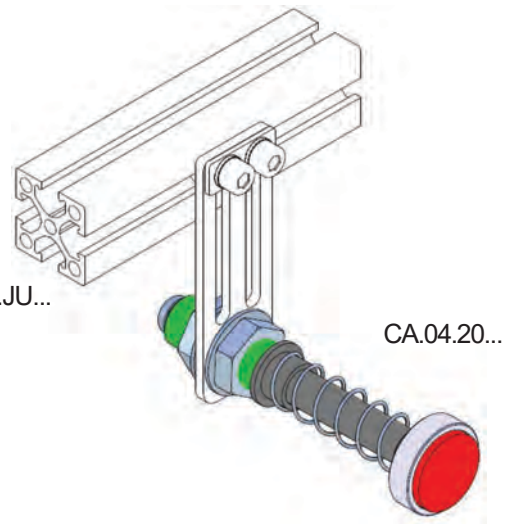
H = Spring Deflection

Extremely light weight (Material Aluminium)

Guide (Tube and shaft) Hard Coated

Ar!cle no.	A	B	C	H	Weight
CA.VSX.1440	M14X1.5	101	33	40	47 g

Application Example

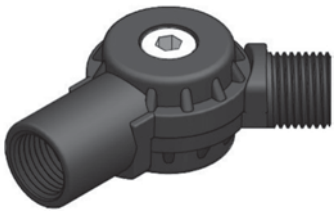


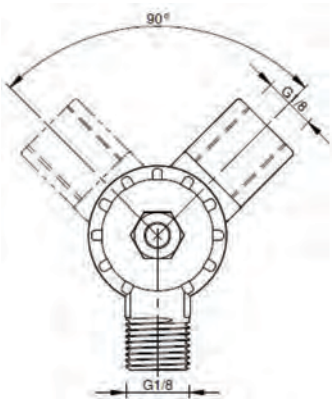
CA.L.../CA.X.../CA.JU...

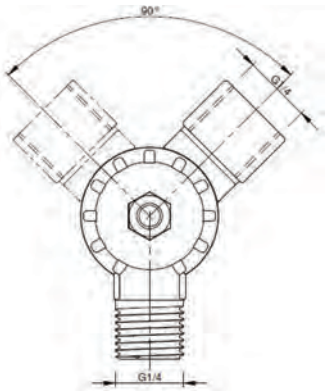
CA.04.20...

CA.07.01

. Adjustable Elbow Arm





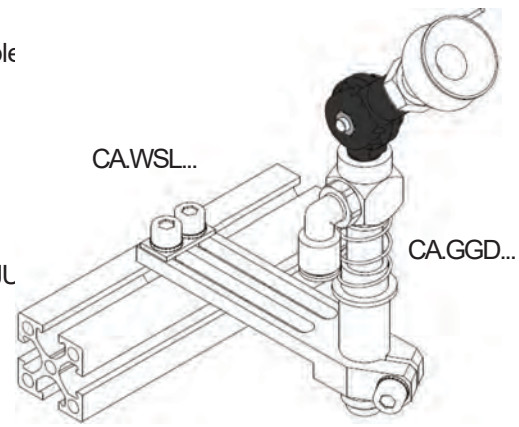


Materiale / Material: POM
Not for compressedair (only vacuum).

It is possibleto set continuously the angle from 0° to +/- 90°

Ar!cle no.	G1	G2	Weight
CA.07.01.001	G 1/8	G 1/8	7 g
CA.07.01.002	G 1/4	G 1/4	15 g

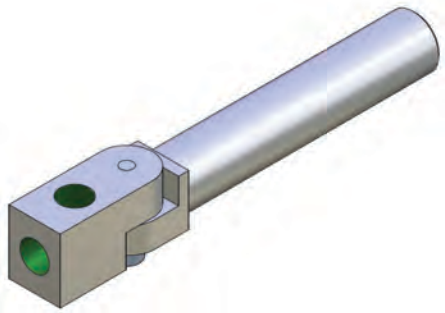
Application Example

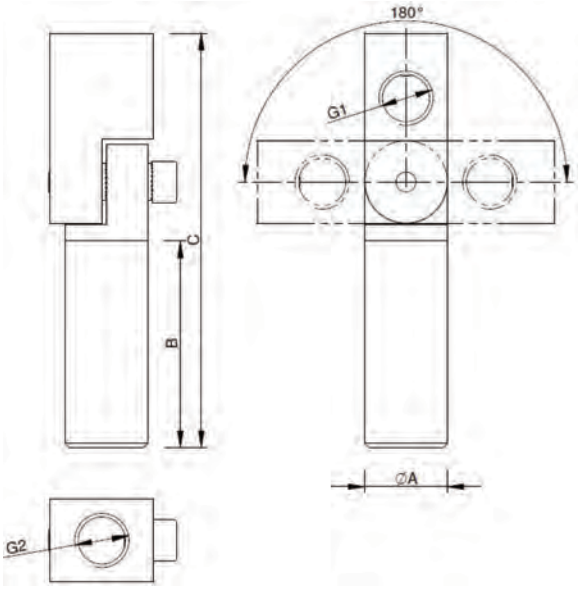


GGE

. Swivel Gripper Arm for Vacuum Cups

Ø 10 -14 -20





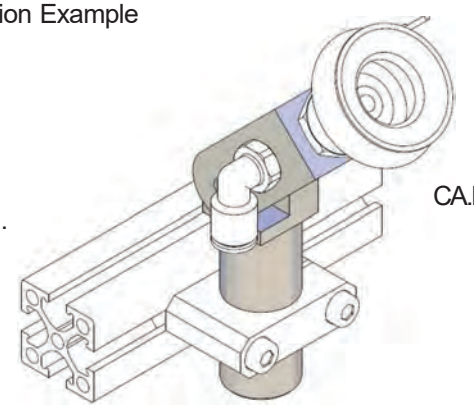
Material Aluminum

Surface: Silver Anodized

Ar!cle no.	A	B	C	G1	G2	Weight
CA.GGE.10.M5.M5	10	60	90	M5	M5	22 g
CA.GGE.14.18.18	14	80	120	G 1/8	G 1/8	42 g
CA.GGE.20.14.18	20	100	150	G 1/8	G 1/4	85 g
CA.GGE.20.14.14				G 1/4		84 g
CA.GGE.201414150		150	200			122 g
CA.GGE.201818150				G 1/8	G 1/8	124g

Application Example

CA.L.../CA.X.../CA.JU...

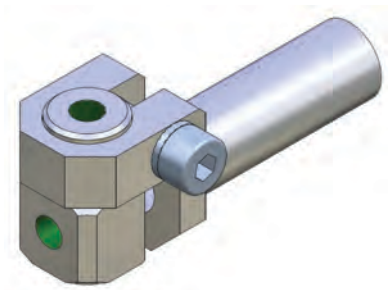


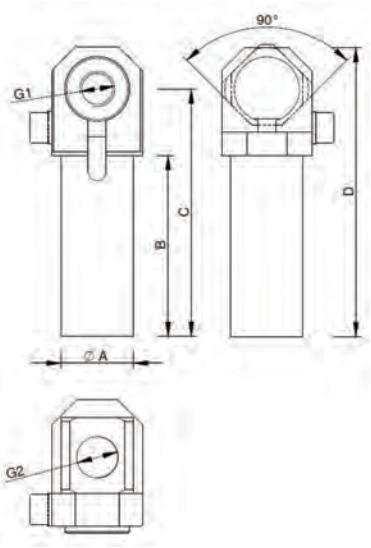
CA.KVB...

Ø 10 -14 -20

GGB

. Swivel Gripper Arm for Vacuum Cups



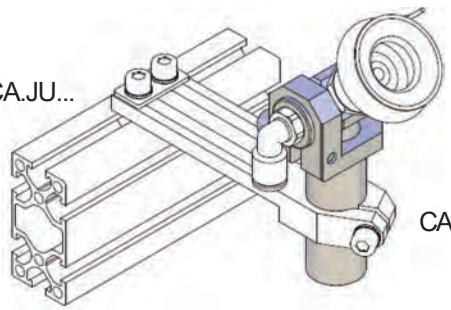


Material Aluminium
Surface: Silver Anodized

Ar!cle no.	A	B	C	D	G1	G2	Weight
CA.GGB.10050530	10	30	41	48	M5	M5	14 g
CA.GGB.10050560		60	71	78			17 g
CA.GGB.10050590		90	101	108			20 g
CA.GGB.14181840	14	40	56	65	G 1/8	G 1/8	29 g
CA.GGB.14181880		80	96	105			38 g
CA.GGB.141818120		120	136	145			45 g
CA.GGB.20141850	20	50	68	80		G 1/4	56 g
CA.GGB.201418100		100	118	130			70 g
CA.GGB.201418150		150	168	180			87 g
CA.GGB.20141450		50	68	80	G 1/4		55 g
CA.GGB.201414100		100	118	130			69 g
CA.GGB.201414150		150	168	180			86 g

Application Example

CA.L.../CA.X.../CA.JU...

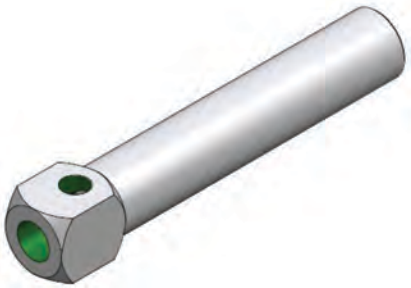


CA.WSL...

GSE

Ø 10 -14 -20 -30

. Gripper Arm for Vacuum Cups



Material: Aluminium

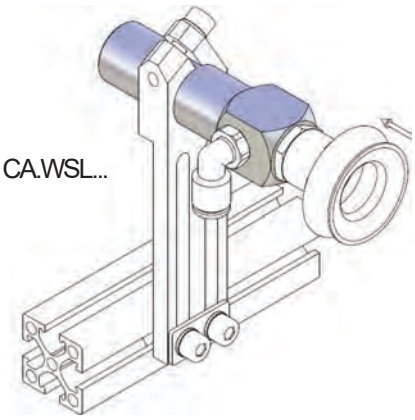
Surface: Silver Anodized

Ar!cle no.	A	B	C	G1	G2	Weight
CA.GSE.1018M530	10	30	52	M5	G 1/8	15 g
CA.GSE.1018M560		60	82			18 g
CA.GSE.1018M590		90	112			25 g
CA.GSE.10M5M530		30	46		M5	9 g
CA.GSE.10M5M560		60	76			15 g
CA.GSE.10M5M590		90	106			24 g
CA.GSE.14181840	14	40	62	G 1/8	G 1/8	18 g
CA.GSE.14181880		80	102			30 g
CA.GSE.141818120		120	142			43 g
CA.GSE.20141850	20	50	73		G 1/4	44 g
CA.GSE.201418100		100	123			63 g
CA.GSE.201418150		150	173			78 g
CA.GSE.30141480	30	80	108	G 1/4		155 g
CA.GSE.301414140		140	168			219 g
CA.GSE.301414200		200	228			283 g

Application Example

CA.WSL...

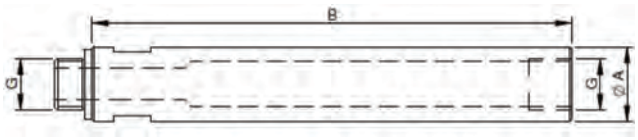
CA.L.../CA.X.../CA.JU...



GSEG

Ø 10 -12 -14 -20

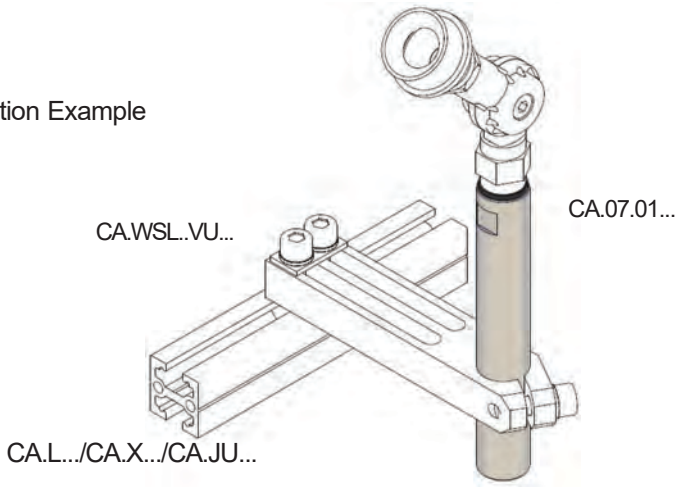
. Extensiontube with air lead



Material Aluminum

Ar!cle no.	A	B	G	Weight
CA.GSEG.100515	10	15	M5	3 g
CA.GSEG.100530		30		6 g
CA.GSEG.100545		45		9 g
CA.GSEG.100590		90		16 g
CA.GSEG.120545	12	45		12 g
CA.GSEG.120590		90		24 g
CA.GSEG.141815	14	15	G 1/8	5 g
CA.GSEG.141830		30		10 g
CA.GSEG.141845		45		14 g
CA.GSEG.141890		90		26 g
CA.GSEG.201445	20	45	G 1/4	30 g
CA.GSEG.201490		90		58 g

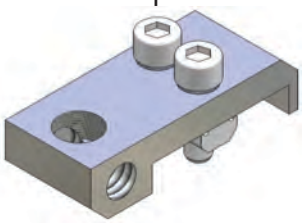
Application Example



WSS

L/X/JU

. Threadclamp fixed



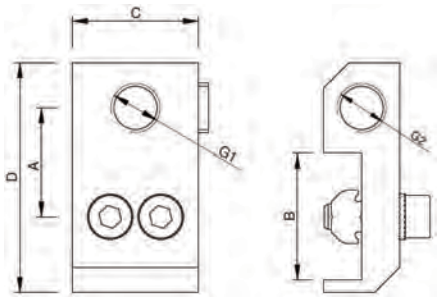


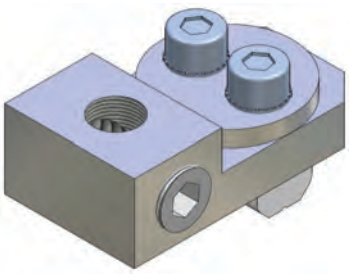
Table / Tabella

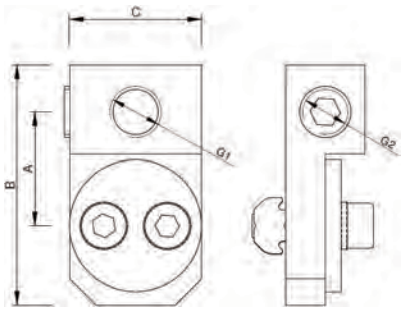
M = Suitable for Profiles
Applicabile ai Profili

Ar!cle no.	A	B	C	D	G1	G2	M	Weight
CA.WSS.L.M5.M5	17	18	16	32	M5	M5	L	18 g
CA.WSS.X.18.18	22	25	25	46	G 1/8	G 1/8	X	46 g
CA.WSS.X.14.18					G 1/4			
CA.WSS.JU.14.18	29	40		60			JU	49 g

WSD

. Adjustable connector for vacuum cups

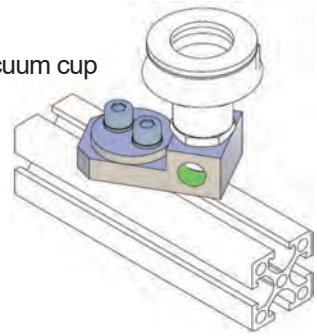




Material : Aluminium

Surface: Silver Anodized

Vacuum cup



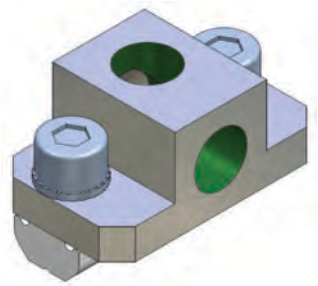
CA.L.../CA.X.../CA.JU...

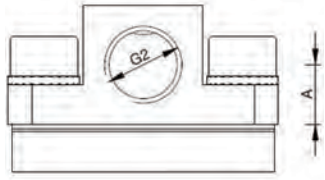
Ar!cle no.	A	B	C	G1	G2	M	Weight
CA.WSD.L.M5.M5	14	28	16	M5	M5	L	19 g
CA.WSD.X.18.18	21	46	25	G 1/8	G 1/8	X	44 g
CA.WSD.X.14.18				G 1/4			

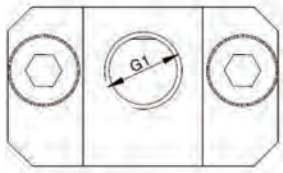
CA.05 SGB

. Clamp for Vacuum Cups

L/X/JU







M = Suitable for Profiles

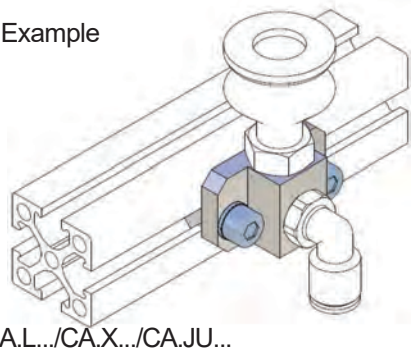
Material : Aluminum

Surface: Silver Anodized

Ar!cle no.	A	G1	G2	M	Weight
CA.SGB.5.5.X	4	M5	M5	L	27g
CA.SGB.18.18.X	7.5	G 1/8	G 1/8	X/JU	35g
CA.SGB.14.14.X	10	G 1/4	G 1/4		39g

Vacuum cup

Application Example

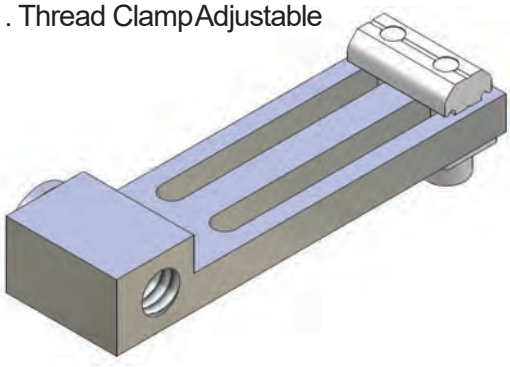


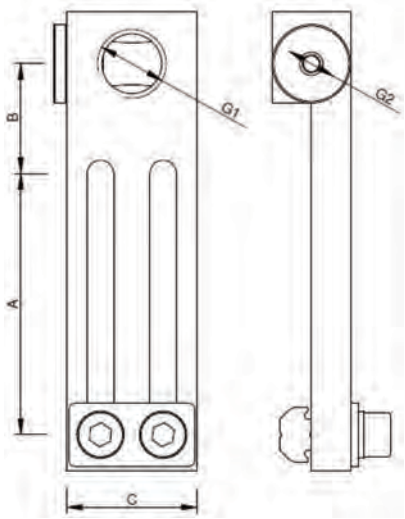
CA.L.../CA.X.../CA.JU...

WLS

L/X/JU

. Thread Clamp Adjustable



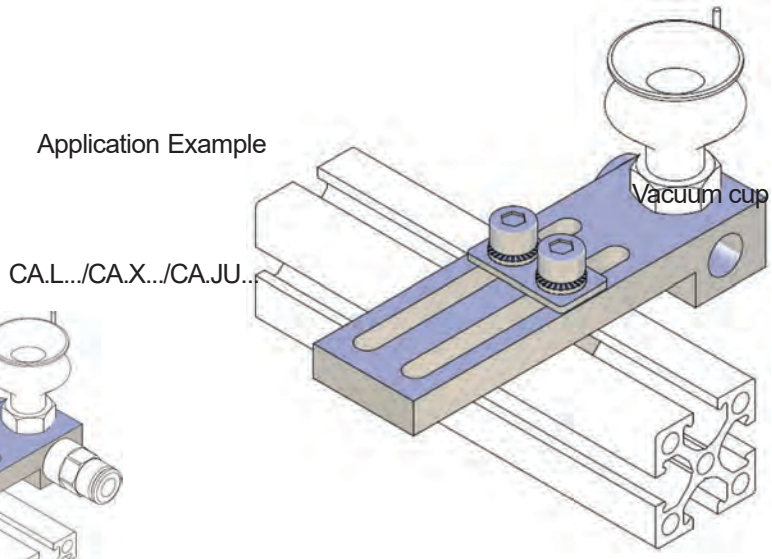


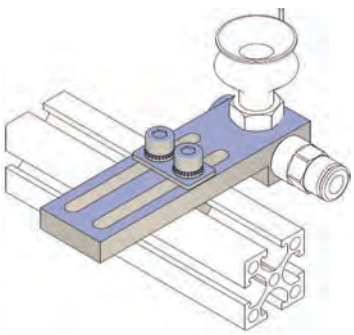
M = Suitable for Profiles

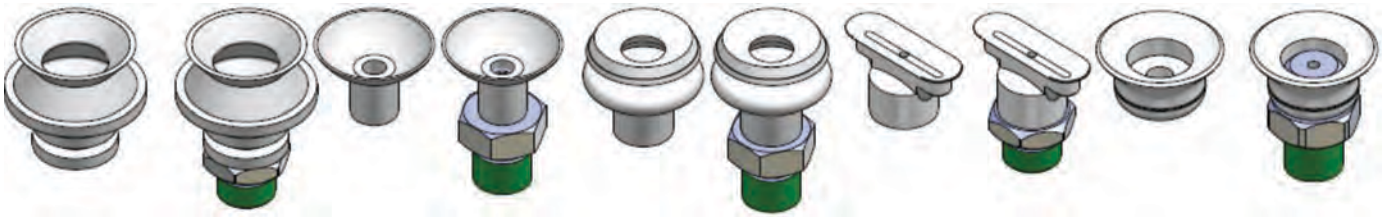
Material : Aluminum
Surface: Silver Anodized

Ar!cle no.	G1	G2	A	B	C	M	Weight
CA.WLS.M5.M5.X	M5	M5	40	14	16	L/X	24 g
CA.WLS.18.18.X	G 1/8	G 1/8	50	21	25	X/JU	65 g
CA.WLS.14.18.X	G 1/4						
CA-WLS.14.14.JU		G 1/4		23		JU	73 g

Application Example







Styles	Series	Applications
Oval Vacuum Cup	CA.08.27..	The oval series of suction cups is used for handling oblong products, such as pens, tubes and bottles, and flat or cylindrical objects.
Flat	CA.08.03.. CA.08.28.. CA.08.29..	The suction cups with flat profile provide accuracy in load gripping and Speeds up throughput rates These suction cups are used for flat surfaces
With 1.5 Bellows	CA.08.01.. CA.08.30.. CA.08.31..	Suction cups with 1.5 bellows combine the advantages of flat suction cups (precision and positioning) with the freedom of bellows (angle and flexibility). They provide flexibility, precision and low internal volume suitable for high-speed applications.
With 2.5 Bellows	CA.08.32.. CA.08.33.. CA.08.36..	The suction cups with 2.5 bellows are recommended for gripping products On different planes (large deflection) - thus replacing spring systems - and For gripping spherical or cylindrical objects at an angle (ball-joint effect).
With 1.5 Bellows and Foam Seal	CA.08.26..	The suction cups with foam seal is designed for gripping products with an uneven or ridged surface, Ex. Sawn wood, sheet metal, flat surfaces with bumps or hollows. All granular surfaces to which suction cups cannot adhere correctly and therefore cannot be air tight. They can also be used for food rated applciations.

The holding force of the suction pads increases proportionally with the difference between the ambient pressure and the pressure inside the pad.

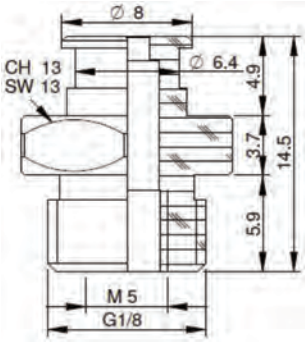
The holding force of a suction pad is calculated with the formula:
F = Δp x A
F = Holding force
Δp = Difference between ambient pressure and pressure of the system
A = Effective suction area (the effective area of a suction pad under vacuum)

This means the holding force is proportional to the pressure difference and the suction area. The greater the difference between ambient pressure and pressure in the suction pad or the larger the effective suction area, the greater the holding force. The force can vary depending on a change of the pressure difference and area parameters.

	HT1	SILICONE (translucid)	POLYURETHANE
Ozone resistance	J J J	J	L
Oil resistance	J J J	L	J
Wear resistance	J J	L	J J J
Tensile strength	J	L	L
Temperature Resistance Short-term in °C(< 30 sec.) Longer-term in °C	 -25° to +170° -10° to +140°	 -50° to +220° -30° to +180°	 +10° to +50°
Leaving few marks	J	L	J
Absence of PWIS(paint -we- ng impairment substances)	J	L	J

CA.08.09

. Adapters for vacuum cups



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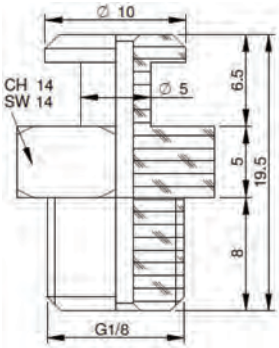

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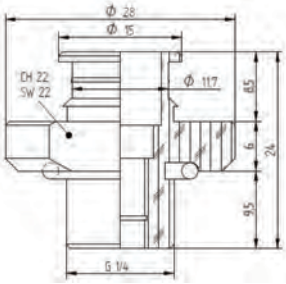

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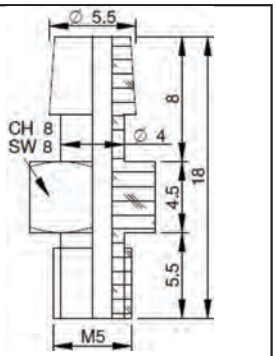

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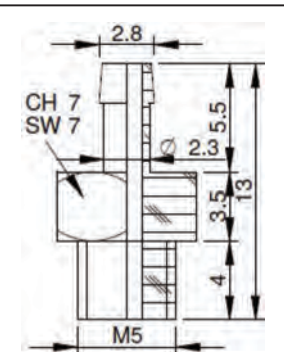

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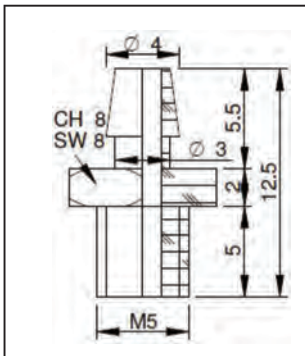

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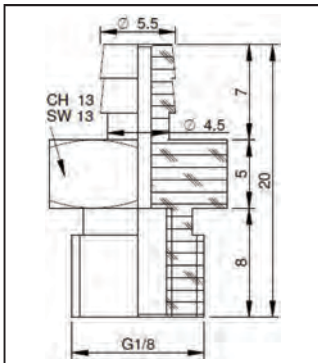

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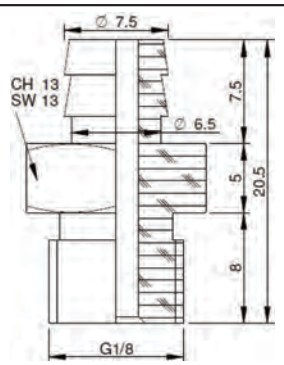

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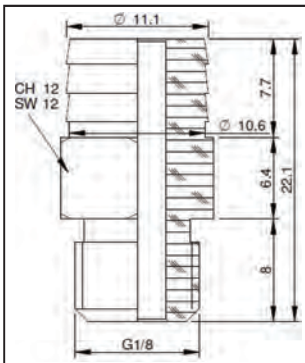

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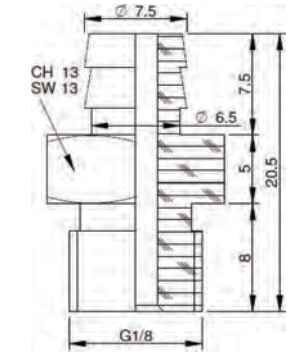

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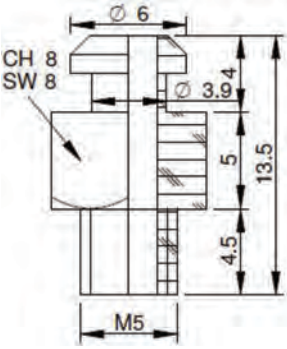

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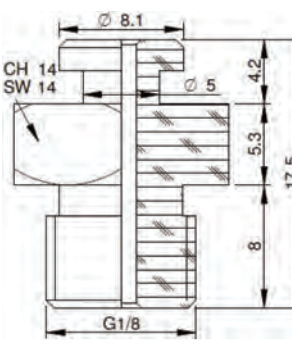
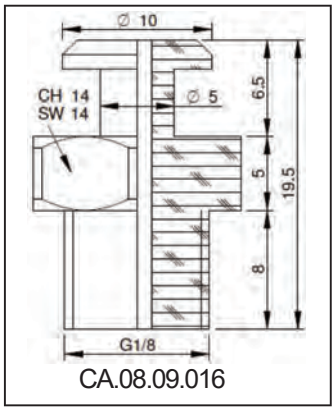


CA.08.09.015

CA.08.09

. Adapters for vacuum cups



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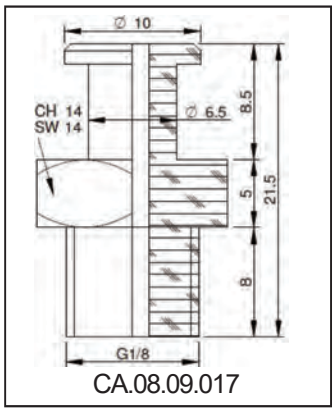

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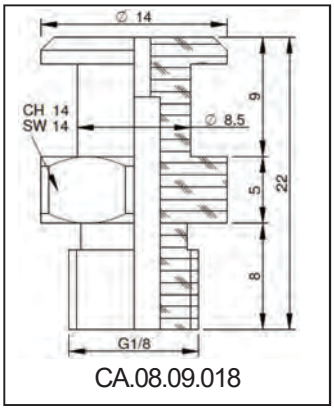

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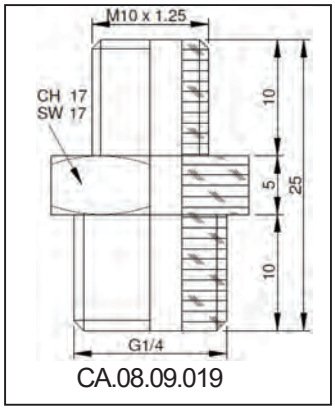

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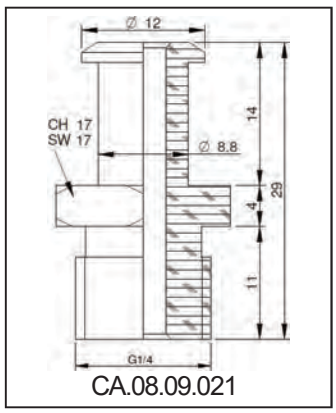

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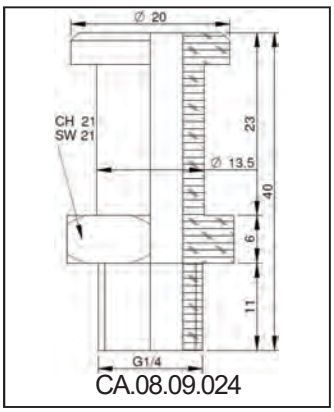

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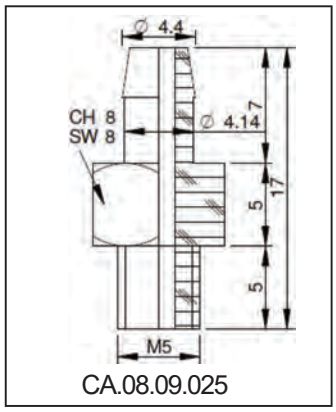

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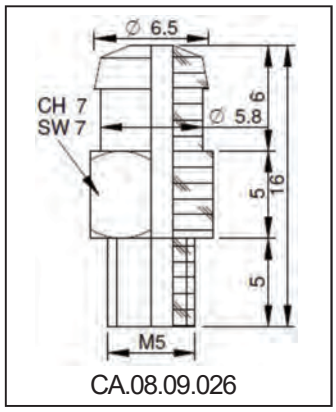

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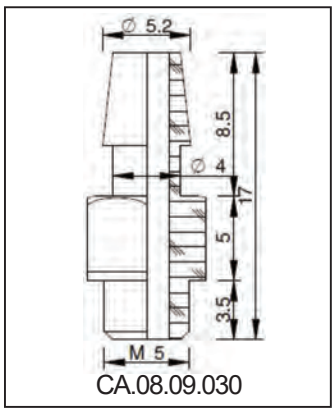

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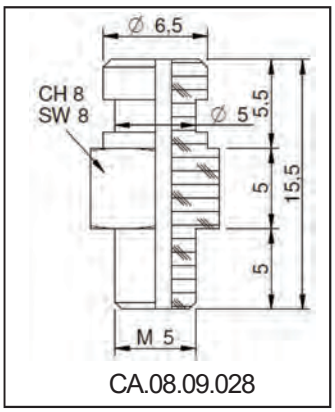

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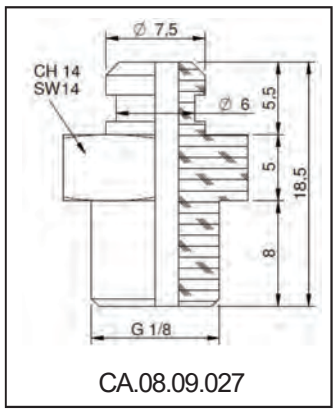

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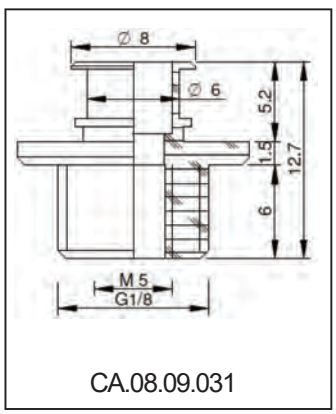

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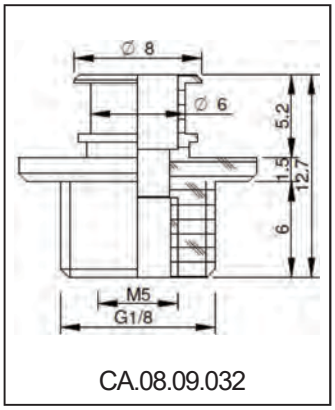
CA.08.09

. Adapters for vacuum cups



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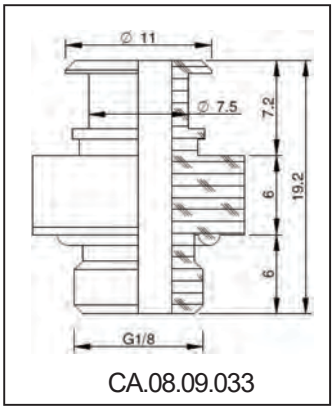

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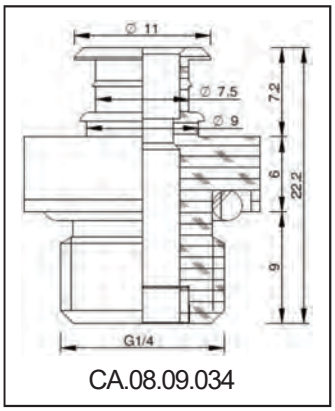

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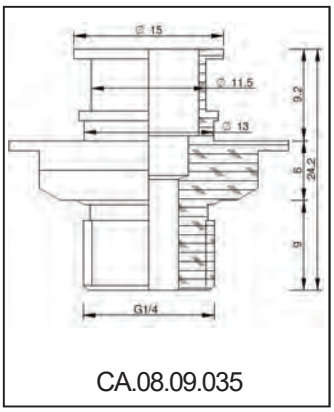

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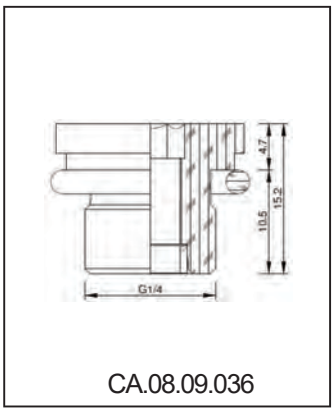

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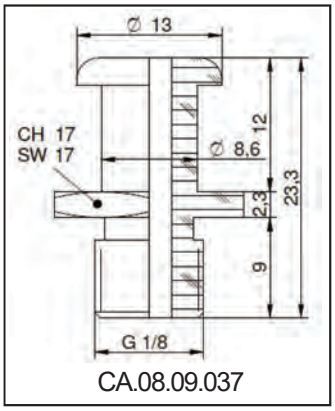

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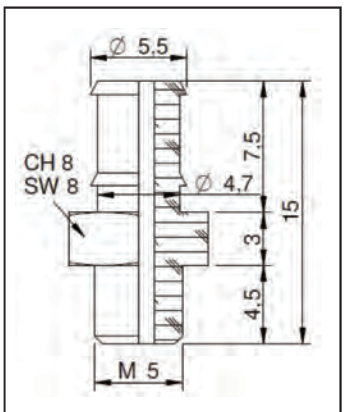

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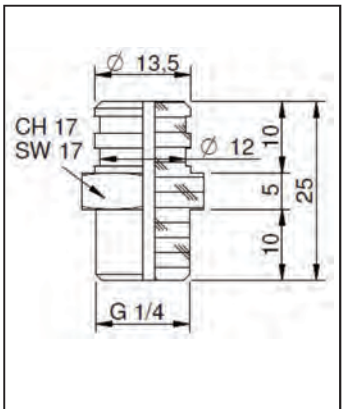
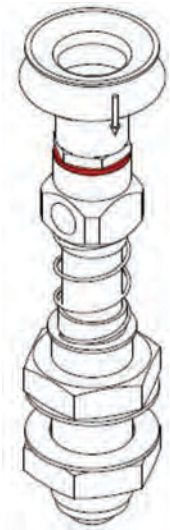


CA.08.09.041

. Adapter Chart

Ar!cle no.	Vacuum cups	Weight
CA.08.09.001.AL	CA.08.01.003 CA.08.27.001 CA.08.27.002 CA.08.27.003	3 g
CA.08.09.002.AL	CA.08.01.004 CA.08.01.005	12 g
CA.08.09.003	CA.08.01.006	3 g
CA.08.09.004	CA.08.01.001 CA.08.01.002 CA.08.03.003 CA.08.03.004 CA.08.03.005 CA.08.03.006 CA.08.26.D20.AS CA.08.26.D25.AS CA.08.30.001 CA.08.30.002 CA.08.30.003 CA.08.30.004 CA.08.30.005 CA.08.31.001 CA.08.31.002 CA.08.31.003 CA.08.31.004 CA.08.31.005 CA.08.32.D12 CA.08.32.D14 CA.08.32.D20 CA.08.32.D25 CA.08.33.D12 CA.08.33.D14 CA.08.33.D20 CA.08.33.D25	1 g
CA.08.09.005	CA.08.03.001	2 g
CA.08.09.006	CA.08.03.002	1 g



Ar!cle no.	Vacuum cups	Weight
CA.08.09.009	CA.08.01.001 CA.08.01.002 CA.08.03.003 CA.08.03.004 CA.08.03.005 CA.08.09.006 CA.08.26.D20.AS CA.08.26.D25.AS CA.08.30.001 CA.08.30.002 CA.08.30.003 CA.08.30.004 CA.08.30.005 CA.08.31.001 CA.08.31.002 CA.08.31.003 CA.08.31.004 CA.08.31.005 CA.08.32.D12 CA.08.32.D14 CA.08.32.D20 CA.08.32.D25 CA.08.33.D12 CA.08.33.D14 CA.08.33.D20 CA.08.33.D25	3 g
CA.08.09.010	CA.08.03.007 CA.08.03.008	4 g

Ar!cle no.	Vacuum cups	Weight
CA.08.09.016	CA.08.28.006 CA.08.29.006	4 g
CA.08.09.017	CA.08.28.007 CA.08.28.008 CA.08.28.009 CA.08.28.010 CA.08.29.007 CA.08.29.008 CA.08.29.009 CA.08.29.010	5 g
CA.08.09.018	CA.08.29.011 CA.08.28.011	5 g
CA.08.09.019	CA.08.28.012 CA.08.28.013 CA.08.29.012 CA.08.29.013	8 g
CA.08.09.021	CA.08.26.D33.AS CA.08.26.D43.AS CA.08.26.D53.AS CA.08.26.D63.AS CA.08.30.006 CA.08.30.007 CA.08.30.008 CA.08.30.009 CA.08.31.006 CA.08.31.007 CA.08.31.008 CA.08.31.009 CA.08.32.D32 CA.08.32.D42 CA.08.33.D32 CA.08.33.D42 CA.08.33.D52	8 g
CA.08.09.024	CA.08.26.D78.AS CA.08.30.010 CA.08.31.011	15 g
CA.08.09.025	CA.08.33.D5 CA.08.33.D9	1 g
CA.08.09.026	CA.08.32.D09 CA.08.33.D07	

Ar!cle no.	Vacuum cups	Weight
CA.08.09.011	CA.08.03.009 CA.08.03.010 CA.08.03.011 CA.08.26.D33.AS CA.08.26.D43.AS CA.08.26.D53.AS CA.08.26.D63.AS CA.08.30.006 CA.08.30.007 CA.08.30.008 CA.08.30.009 CA.08.31.006 CA.08.31.007 CA.08.31.008 CA.08.32.D32 CA.08.32.D42 CA.08.33.D32 CA.08.33.D42 CA.08.33.D52	4 g
CA.08.09.013	CA.08.27.004 CA.08.27.005 CA.08.27.006	19 g
CA.08.09.014	CA.08.28.001 CA.08.28.002 CA.08.28.003 CA.08.28.004 CA.08.29.001 CA.08.29.002 CA.08.29.003 CA.08.29.004	1 g
CA.08.09.015	CA.08.28.005 CA.08.29.005	4 g

Ar!cle no.	Vacuum cups	Weight
CA.08.09.030	CA.08.36.D10 CA.08.36.D10.60 CA.08.36.D15 CA.08.36.D15.60	1 g
CA.08.09.031	CA.08.36.D20 CA.08.36.D20.60	2 g
CA.08.09.032	CA.08.36.D25 CA.08.36.D25.60	
CA.08.09.033	CA.08.36.D35	5 g
CA.08.09.034	CA.08.36.D35 CA.08.36.D35.60	8 g
CA.08.09.035	CA.08.36.D52 CA.08.36.D52.60	11 g
CA.08.09.036	CA.08.36.D75 CA.08.36.D75.60	18 g
CA.08.09.037	CA.08.01.005	19 g

Table / Tabella

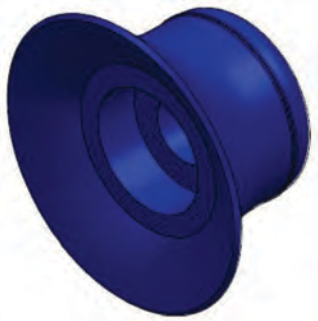
M = Suitable for...
Applicabile a...

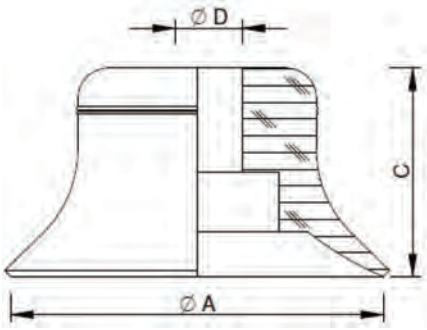
Ar!cle no.	M
CA.08.09.05	M5
CA.08.09.18	G 1/8
CA.08.09.14	G 1/4

CA.08.29

HT1 Type

. Vacuum Cup with Flat Surface





F= Holding Force

Ar!cle no.	A	C	D	F(N)	Weight
CA.08.29.001	Ø5	6.5	Ø4	0.75	0.2 g
CA.08.29.002	Ø6			1.2	
CA.08.29.003	Ø8	7		2.3	
CA.08.29.004	Ø10	7.5		4	0.3 g
CA.08.29.005	Ø15	8	Ø4.5	9	0.7 g
CA.08.29.006	Ø20	10		15.5	1.4 g
CA.08.29.007	Ø25	14	Ø6	26.5	2.4 g
CA.08.29.008	Ø30	12		34	3.5 g
CA.08.29.009	Ø35	14		44	5.9 g
CA.08.29.010	Ø40			57.7	7.6 g
CA.08.29.011	Ø50	15	Ø8	91	10.6 g
CA.08.29.012	Ø60	18	M10x1.25	125	24.2 g
CA.08.29.013	Ø80	20.5		260	51.2 g

Temperature Resistance

Short-term in °C

-25° to +170°

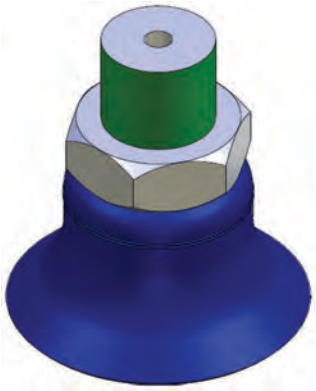
Longer-term in °C

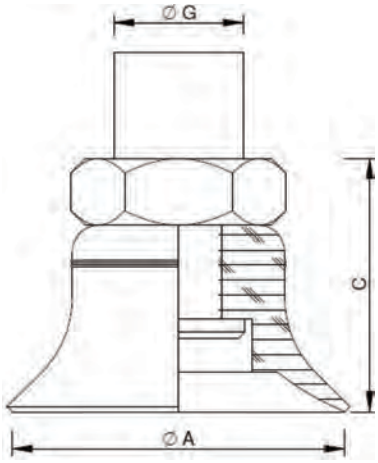
-10° to +140°

CA.08.29

HT1

. Flat Series Vacuum Cups With Fitting

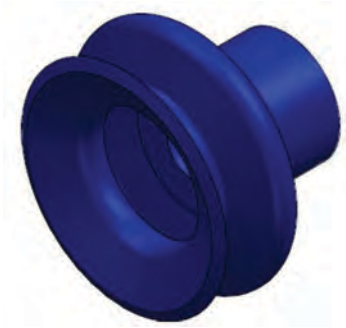


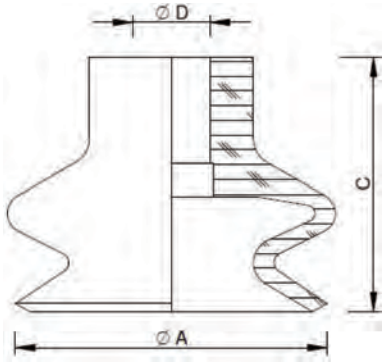


Ar!cle no.	VACUUM CUP	NIPPLE	A	C	G	Weight
KIT.08.29.D05	CA.08.29.001	CA.08.09.014	Ø5	9.5	M5	5 g
KIT.08.29.D06	CA.08.29.002		Ø6			
KIT.08.29.D08	CA.08.29.003		Ø8	12		
KIT.08.29.D10	CA.08.29.004		Ø10	12.5		6 g
KIT.08.29.D15	CA.08.29.005	CA.08.09.015	Ø15	13.3	G 1/8	
KIT.08.29.D20	CA.08.29.006	CA.08.09.016	Ø20	15		
KIT.08.29.D25	CA.08.29.007	CA.08.09.017	Ø25	19		7 g
KIT.08.29.D30	CA.08.29.008		Ø30	17		8 g
KIT.08.29.D35	CA.08.29.009		Ø35	19		10 g
KIT.08.29.D40	CA.08.29.010		Ø40			12 g
KIT.08.29.D50	CA.08.29.011	CA.08.09.018	Ø50	20		20 g
KIT.08.29.D60	CA.08.29.012	CA.08.09.019	Ø60	23	G 1/4	24 g
KIT.08.29.D80	CA.08.29.013		Ø80	25		43 g

CA.08.31

HT1





F = Holding Force

Ar!cle no.	A	C	D	F(N)	Weight
CA.08.31.012	Ø 6	9	Ø 3.7	1.5	1 g
CA.08.31.001	Ø 11	16	Ø 5	2.4	
CA.08.31.002	Ø 14			3.5	
CA.08.31.003	Ø 16	19		3.7	3 g
CA.08.31.004	Ø 20	16	Ø 4.7	7.7	4 g
CA.08.31.005	Ø 22	20		9	5 g
CA.08.31.006	Ø 25	23		11	
CA.08.31.007	Ø 33	27.5	Ø 8	19.2	7 g
CA.08.31.008	Ø 43	28		28	12 g
CA.08.31.009	Ø 53	34		59	18 g
CA.08.31.010	Ø 63			82	23 g
CA.08.31.011	Ø 78	468	Ø 12	152	32 g

Temperature resistance -25° to +170°
Longer-term in °C\

-10° to +140°

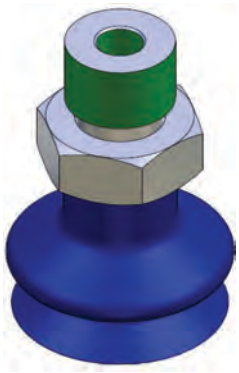
Non- Marking

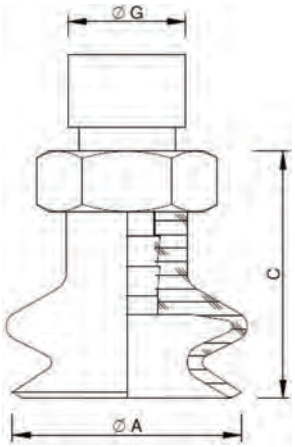
The suction cups with 1.5 bellows combine the advantages of flat suction cups (precision and positioning) with the
freedom of bellows (angle and flexibility). They provide flexibility, precision and low internal volume suitable for high-speed applications.

CA.08.31

HT1

. Vacuum Cupwith 1.5 bellows with Fitting



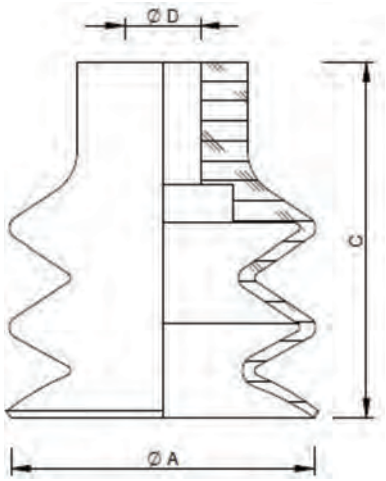


Ar!cle no.	VACUUM CUP	NIPPLE	A	C	G	Weight
KIT.08.31.D06.14	CA.08.31.012	CA.08.09.014	Ø 6	14	M5	2 g
KIT.08.31.D11.4	CA.08.31.001	CA.08.09.004	Ø 11	20.5	M5	2 g
KIT.08.31.D11.9		CA.08.09.009		21	G 1/8	4 g
KIT.08.31.D14.4	CA.08.31.002	CA.08.09.004	Ø 14	20.5	M5	2 g
KIT.08.31.D14.9		CA.08.09.009		21	G 1/8	4 g
KIT.08.31.D16.4	CA.08.31.003	CA.08.09.004	Ø 16	23.5	M5	4 g
KIT.08.31.D16.9		CA.08.09.009		24	G 1/8	6 g
KIT.08.31.D20.4	CA.08.31.004	CA.08.09.004	Ø 20	20.5	M5	5 g
KIT.08.31.D20.9		CA.08.09.009		21	G 1/8	7 g
KIT.08.31.D22.4	CA.08.31.005	CA.08.09.004	Ø 22	20.5	M5	6 g
KIT.08.31.D22.9		CA.08.09.009		21	G 1/8	8 g
KIT.08.31.D25.4	CA.08.31.006	CA.08.09.004	Ø 25	27.5	M5	6 g
KIT.08.31.D25.9		CA.08.09.009		28	G 1/8	8 g
KIT.08.31.D33.11	CA.08.31.007	CA.08.09.011	Ø 33	33.5	G 1/8	11 g
KIT.08.31.D33.21		CA.08.09.021		31.5	G 1/4	15 g
KIT.08.31.D43.11	CA.08.31.008	CA.08.09.011	Ø 43	34	G 1/8	16 g
KIT.08.31.D43.21		CA.08.09.021		32	G 1/4	20 g
KIT.08.31.D53.11	CA.08.31.009	CA.08.09.011	Ø 53	40.5	G 1/8	22 g
KIT.08.31.D53.21		CA.08.09.021		38	G 1/4	26 g
KIT.08.31.D63.21	CA.08.31.010	CA.08.09.021	Ø 63	38	G 1/4	31 g
KIT.08.31.D78.24	CA.08.31.011	CA.08.09.024	Ø 78	52.8		47 g

CA.08.32

HT1

. Vacuum Cup with 2 . 5 bellows only



F = Holding Force

Ar!cle no.	A	C	D	F(N)	Weight
CA.08.32.D09	Ø9	15	Ø4	0.7	2 g
CA.08.32.D12	Ø12	21		0.9	3 g
CA.08.32.D14	Ø14	23		1.2	4 g
CA.08.32.D20	Ø20	22		3.8	6 g
CA.08.32.D25	Ø25	34		4.5	7 g
CA.08.32.D32	Ø32	37	Ø8	12	8 g
CA.08.32.D42	Ø42	46		13.6	10 g
CA.08.32.D52	Ø52	49		28.5	25 g
CA.08.32.D62	Ø62	54		41	39 g

Temperature resistance

Short-term °C
-25° to +170°
Longer-term °C
-10° to +140°

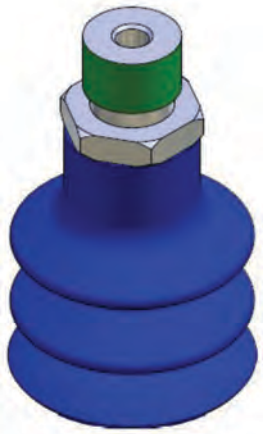
Leaving few marks

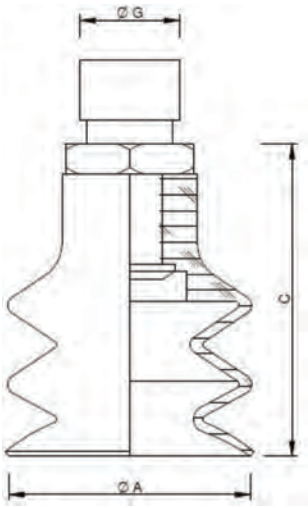
Absence of PWIS

The suction cups with 3 bellows are recommended for gripping products on different planes (large deflection) - thus replacing spring systems- and for gripping spherical or cylindrical objects at an angle (ball-joint effect).

CA.08.32 HT1

. Vacuum Cup with 3 bellows (complete)



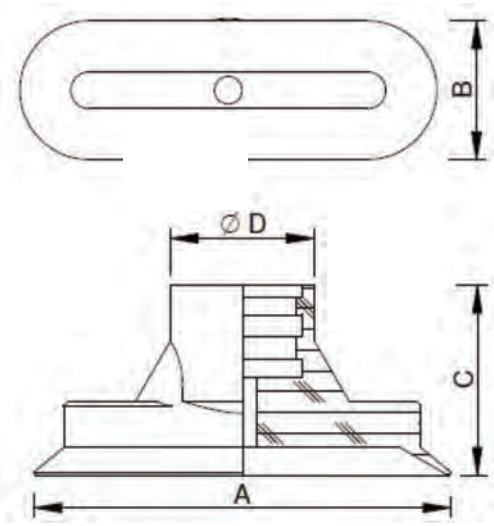


Ar!cle no.	VACUUM CUP	NIPPLE	A	C	G	Weight
KIT.08.32.D09.26	CA.08.32.D09	CA.08.09.026	Ø 9	20	M5	3 g
KIT.08.32.D12.4	CA.08.32.D12	CA.08.09.004	Ø 12	25.5	M5	4 g
KIT.08.32.D12.9		CA.08.09.009		26	G 1/8	6 g
KIT.08.32.D14.4	CA.08.32.D14	CA.08.09.004	Ø 14	27.5	M5	5 g
KIT.08.32.D14.9		CA.08.09.009		28	G 1/8	7 g
KIT.08.32.D20.4	CA.08.32.D20	CA.08.09.004	Ø 20	26.5	M5	10 g
KIT.08.32.D20.9		CA.08.09.009		27	G 1/8	12 g
KIT.08.32.D25.4	CA.08.32.D25	CA.08.09.004	Ø 25	38.5	M5	11 g
KIT.08.32.D25.9		CA.08.09.009		39	G 1/8	13 g
KIT.08.32.D32.11	CA.08.32.D32	CA.08.09.011	Ø 32	43.3	G 1/8	12 g
KIT.08.32.D32.21		CA.08.09.021		41	G 1/4	16 g
KIT.08.32.D42.11	CA.08.32.D42	CA.08.09.011	Ø 42	52.3	G 1/8	14 g
KIT.08.32.D42.21		CA.08.09.021		50	G 1/4	18 g
KIT.08.32.D52.21	CA.08.32.D52	CA.08.09.021	Ø 52	64	G1/4	33 g
KIT.08.32.D62.21	CA.08.32.D62		Ø 62	59		50 g

CA.08.39

. Vacuum Cup Oval

HT1



F = Holding Force

Ar!cle no.	A	B	C	D	F(N)	Weight
CA.08.39.001	12	4	15	4	1.8 N	0.5 g
CA.08.39.002	14		12	4.5	3.1 N	
CA.08.39.003	17	5			4.5 N	
CA.08.39.004	23	7		7	8.0 N	1.0 g
CA.08.39.005	29	9			12.2 N	1.1 g
CA.08.39.006	44	14	21	13	28.2 N	3.4 g
CA.08.39.007	59	19			50.1 N	6.4 g
CA.08.39.008	74	24			73.3 N	17.9 g

Temperature resistance
Short-term °C

-25° to +170°
Longer-term °C

-10° to +140°
Leaving few marks J

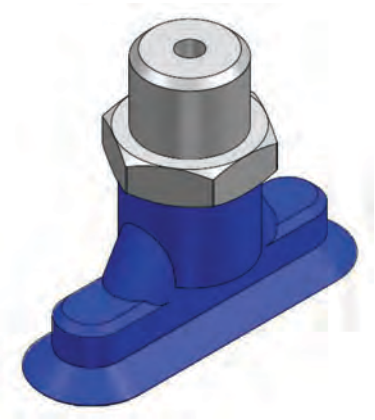
Absence of PWIS

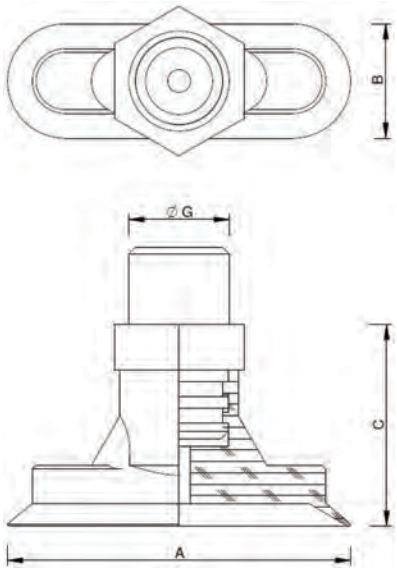
The oval series of suction cups is used for handling oblong products, such as pens, tubes and bottles, and flat or cylindrical objects.

HT1

CA.08.39

. Vacuum Cup Oval (complete)



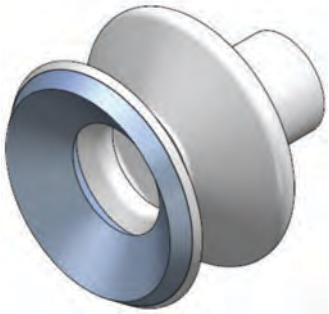


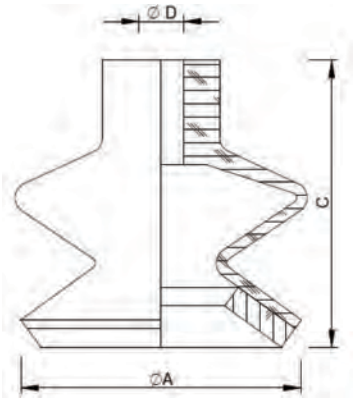
Ar!cle no.	VACUUM CUP	NIPPLE	A	B	C	G	Weight
KIT.08.39.L12.40	CA.08.39.001	CA.08.09.040	12	5	18	M5	2.9 g
KIT.08.39.L15.28	CA.08.39.002	CA.08.09.028	14	4	17		3,4 g
KIT.08.39.L18.28	CA.08.39.003	CA.08.09.028	17	5			3.7 g
KIT.08.39.L24.27	CA.08.39.004	CA.08.09.027	23	7		G1/8	6.7 g
KIT.08.39.L30.27	CA.08.39.005	CA.08.09.027	29	9			6.8 g
KIT.08.39.L45.41	CA.08.39.006	CA.08.09.041	44	14	26	G1/4	14.8 g
KIT.08.39.L60.41	CA.08.39.007	CA.08.09.041	59	19			19.0 g
KIT.08.39.L75.41	CA.08.39.008	CA.08.09.041	74	24			26.9 g

CA.08.26

SILICONE FOAM SEAL

. Vacuum Cup with 1.5 bellows and foam seal





F = Holding Force

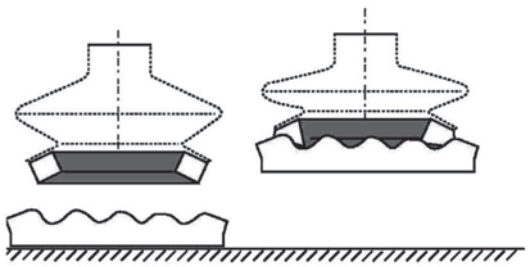
Ar!cle no.	A	C	D	F(N)	Weight
CA.08.26.D16.AS	Ø16	21	Ø3.8	7	2 g
CA.08.26.D20.AS	Ø20	18		9	
CA.08.26.D25.AS	Ø25	25		11	3 g
CA.08.26.D33.AS	Ø33	29	Ø8	19.2	7 g
CA.08.26.D43.AS	Ø43	32		28	13 g
CA.08.26.D53.AS	Ø53	38		59	22 g
CA.08.26.D63.AS	Ø63	37		82	26 g
CA.08.26.D78.AS	Ø78	51	Ø12	152	51 g

Temperature Resistance

Short-term °C-50° to +220°

Longer-term °C
-30° to +180°
Leaving Few Marks

Absence of PWIS



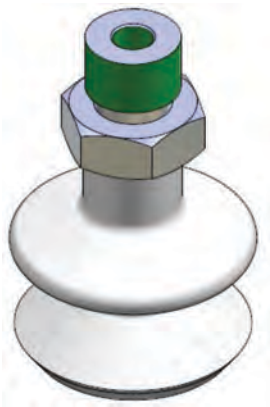
The suction cups with foam ring are designed for gripping products with an uneven or ridged surface, Ex. Sawnwood, sheet metal, flat surfaces with bumps or hollows. Those suction cups cannot adhere correctly to any granular surface and therefore cannot be airtight.

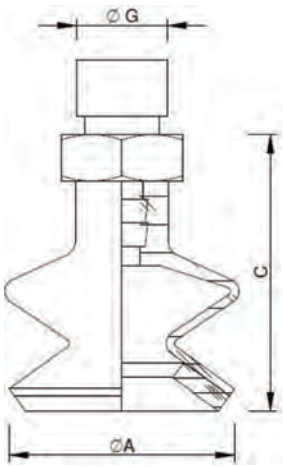
CA.08.26

SILICONE FOAM SEAL

.

Vacuum Cupwith 1.5 bellows
and foam seal (complete)



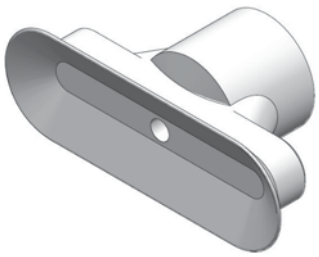


Ar!cle no.	VACUUM CUP	NIPPLE	A	C	G	Weight
KIT.08.26.D16.4 KIT.08.26.D16.9	CA.08.26.D16.AS	CA.08.09.004 CA.08.09.009	Ø16	25.5 26	M5 G 1/8	3 g 6 g
KIT.08.26.D20.4 KIT.08.26.D20.9	CA.08.26.D20.AS	CA.08.09.004 CA.08.09.009	Ø20	22.5 23	M5 1/8	3 g 6 g
KIT.08.26.D25.4 KIT.08.26.D25.9	CA.08.26.D25.AS	CA.08.09.004 CA.08.09.009	Ø25	29.5 30	M5 1/8”	4 g 6 g
KIT.08.26.D33.11 KIT.08.26.D33.21	CA.08.26.D33.AS	CA.08.09.011 CA.08.09.021	Ø33	35.3 33	1/8” 1/4”	11 g 15 g
KIT.08.26.D43.11 KIT.08.26.D43.21	CA.08.26.D43.AS	CA.08.09.011 CA.08.09.021	Ø43	38.3 36	1/8” 1/4”	17 g 21 g
KIT.08.26.D53.11 KIT.08.26.D53.21	CA.08.26.D53.AS	CA.08.09.011 CA.08.09.021	Ø53	44.3 42	1/8” 1/4”	26 g 30 g
KIT.08.26.D63.11 KIT.08.26.D63.21	CA.08.26.D63.AS	CA.08.09.011 CA.08.09.021	Ø63	43.3 41	1/8” 1/4”	30 g 34 g
KIT.08.26.D78.24	CA.08.26.D78.AS	CA.08.09.024	Ø78	57	1/4”	57 g

SILICONE OVAL CUP

CA.08.40

. Vacuum Cupoval only



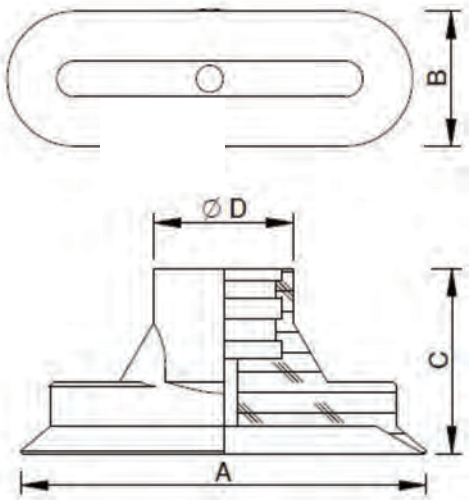


Table / Tabella

F = Holding force
Forzadi tenuta

Ar!cle no.	A	B	C	D	F(N)	Weight
CA.08.40.001	12	4	15	Ø4	1.8	0.5 g
CA.08.40.002	15	5	12	Ø4.5	3.1	
CA.08.40.003	18	6			4.5	
CA.08.40.004	24	8		Ø7	8	1.0 g
CA.08.40.005	30	10			12.2	1.1 g
CA.08.40.006	45	15	21	Ø13	28.2	3.4 g
CA.08.40.007	60	20			50.1	6.4 g
CA.08.40.008	75	25			78.3	17.9 g

Temperature Resistance /

Short-term °C

-50° to +220°
Long-term °C

-30° to +180°
Leaving few marks

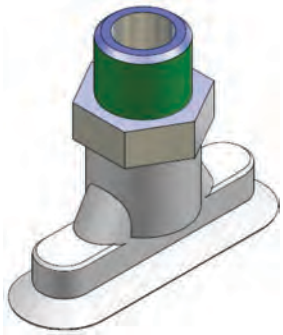
Absence of PWIS(paint impairment substances)

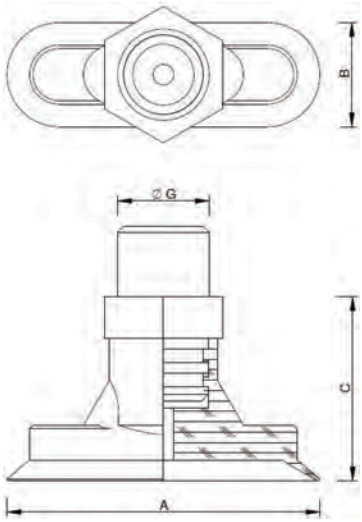
The oval series of suction cups is used for handling oblong products, such as pens, tubes and bottles, and flat or cylindrical objects.

SILICONE OVAI CUP

CA.08.40

. Vacuum CupOval (complete)

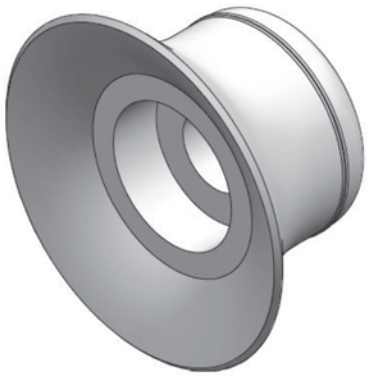


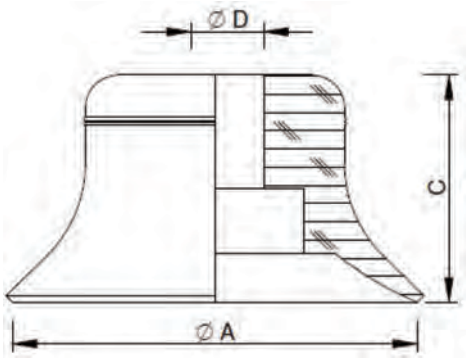


Ar!cle no.	VACUUM CUP	NIPPLE	A	B	C	G	Weight
KIT.08.40.L12.40	CA.08.40.001	CA.08.09.040	12	4	18	M5	2.9 g
KIT.08.40.L15.28	CA.08.40.002	CA.08.09.028	15	5	17		3.4 g
KIT.08.40.L18.28	CA.08.40.003		18	6			3.7 g
KIT.08.40.L24.27	CA.08.40.004	CA.08.09.027	24	8		G 1/8	6.7 g
KIT.08.40.L30.27	CA.08.40.005		30	10			6.8 g
KIT.08.40.L45.41	CA.08.40.006	CA.08.09.041	45	15	26	G 1/4	14.8 g
KIT.08.40.L60.41	CA.08.40.007		60	20			19 g
KIT.08.40.L75.41	CA.08.40.008		75	25			26.9 g

CA.08.28

. Vacuum Cup Silicon - Flat





F= Holding Force

Ar!cle no.	A	C	D	F(N)	Weight
CA.08.28.001	Ø5	6.5	Ø4	0.75	1 g
CA.08.28.002	Ø6			1.2	
CA.08.28.003	Ø8	7		2.3	
CA.08.28.004	Ø10	7.5		4	
CA.08.28.005	Ø15	8	Ø4.5	9	
CA.08.28.006	Ø20	10		15.5	
CA.08.28.007	Ø25	14	Ø6	26.5	2 g
CA.08.28.008	Ø30	12		34	3 g
CA.08.28.009	Ø35	14		44	5 g
CA.08.28.010	Ø40			57.7	7 g
CA.08.28.011	Ø50	15	Ø8	91	15 g
CA.08.28.012	Ø60	18	M10x1.25	125	19 g
CA.08.28.013	Ø80	20		260	38 g

Temperature resistance
Short-term °C

-50° to +220°
Long-term°C

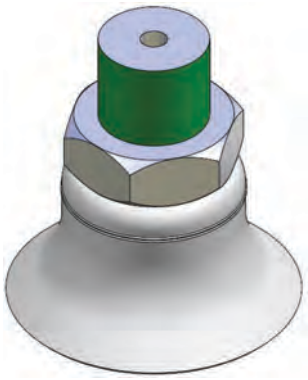
-30° to +180°
Leaving few marks

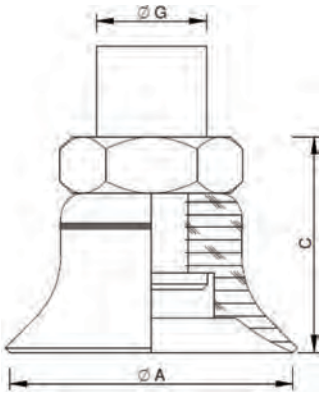
Absence of PWIS(paint - impairment substances) L

Flat suction cups with provide accuracy in load gripping and speed up throughput rates. Thesesuc"on cups are used for flat surfaces only.

CA.08.28

. Flat Vacuum Cup Silicon Material With Fitting

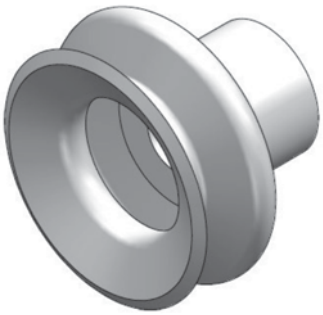


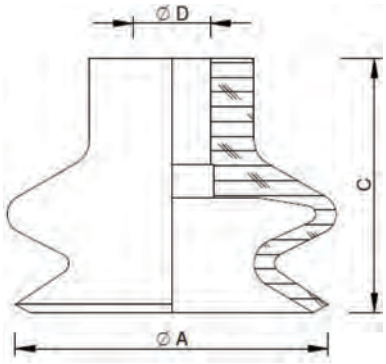


Ar!cle no.	VACUUM CUP	NIPPLE	A	C	G	Weight
KIT.08.28.D05	CA.08.28.001	CA.08.09.014	Ø5	9.5	M5	6 g
KIT.08.28.D06	CA.08.28.002		Ø6			
KIT.08.28.D08	CA.08.28.003		Ø8	12		
KIT.08.28.D10	CA.08.28.004		Ø10	12.5		
KIT.08.28.D15	CA.08.28.005	CA.08.09.015	Ø15	13.3	G 1/8	
KIT.08.28.D20	CA.08.28.006	CA.08.09.016	Ø20	15		
KIT.08.28.D25	CA.08.28.007	CA.08.09.017	Ø25	19		7 g
KIT.08.28.D30	CA.08.28.008		Ø30	17		8 g
KIT.08.28.D35	CA.08.28.009		Ø35	19		10 g
KIT.08.28.D40	CA.08.28.010		Ø40			12 g
KIT.08.28.D50	CA.08.28.011		Ø50	20		20 g
KIT.08.28.D60	CA.08.28.012	CA.08.09.019	Ø60	23	G 1/4	24 g
KIT.08.28.D80	CA.08.28.013		Ø80	25		43 g

CA.08.30

1.5 Bellows Silicone Vacuum Cup





F= Holding Force

Ar!cle no.	A	C	D	F(N)	Weight
CA.08.30.012	Ø6	9	Ø3.7	1.5	1 g
CA.08.30.001	Ø10	16	Ø4.5	1.2	
CA.08.30.002	Ø12				
CA.08.30.003	Ø16	19		2.3	
CA.08.30.004	Ø18	15		4.7	1.5 g
CA.08.30.005	Ø23	23		5.3	3 g
CA.08.30.006	Ø30	27	Ø8	13.6	7 g
CA.08.30.007	Ø38	28		23	11 g
CA.08.30.008	Ø50	34		51	19 g
CA.08.30.009	Ø60			85	24 g
CA.08.30.010	Ø74	47	Ø12	137	56 g

Temperature Resistance
Short-term °C

-50° to +220°
Long-term°C

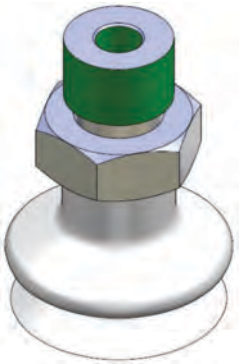
-30° to +180°
Leaving few marks

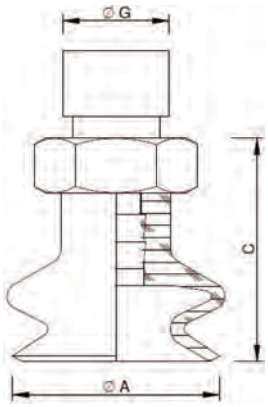
Absence of PWIS(paint impairment substances)

The suction cups with 1.5 bellows combine the advantages of flat suction cups (precision and positioning) with the freedom of bellows (angle and flexibility). They provide flexibility, precision and low internal volume suitable for high-speed applications.

CA.08.30

. Silicone Vacuum Cupwith 1.5 Bellows With Fitting

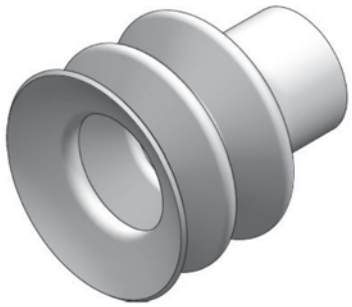


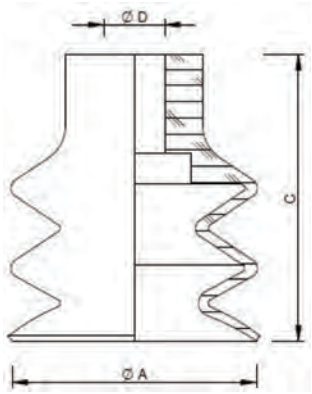


Ar!cle no.	VACUUM CUP	NIPPLE	A	C	G	Weight
KIT.08.30.D06.14	CA.08.30.012	CA.08.09.014	Ø6	14	M5	2 g
KIT.08.30.D11.4	CA.08.30.001	CA.08.09.004	Ø11	20.5	M5	2 g
KIT.08.30.D11.9		CA.08.09.009		21	G 1/8	4 g
KIT.08.30.D14.4	CA.08.30.002	CA.08.09.004	Ø14	20.5	M5	2 g
KIT.08.30.D14.9		CA.08.09.009		21	G 1/8	4 g
KIT.08.30.D16.4	CA.08.30.003	CA.08.09.004	Ø16	23.5	M5	4 g
KIT.08.30.D16.9		CA.08.09.009		24	G 1/8	6 g
KIT.08.30.D20.4	CA.08.30.004	CA.08.09.004	Ø20	20.5	M5	5 g
KIT.08.30.D20.9		CA.08.09.009		21	G 1/8	7 g
KIT.08.30.D25.4	CA.08.30.005	CA.08.09.004	Ø25	27.5	M5	6 g
KIT.08.30.D25.9		CA.08.09.009		28	G 1/8	8 g
KIT.08.30.D33.11	CA.08.30.006	CA.08.09.011	Ø33	33.5	G 1/8	11 g
KIT.08.30.D33.21		CA.08.09.021		31.5	G 1/4	15 g
KIT.08.30.D43.11	CA.08.30.007	CA.08.09.011	Ø43	34	G 1/8	16 g
KIT.08.30.D43.21		CA.08.09.021		32	G 1/4	20 g
KIT.08.30.D53.11	CA.08.30.008	CA.08.09.011	Ø53	40.5	G 1/8	22 g
KIT.08.30.D53.21		CA.08.09.021		38	G 1/4	26 g
KIT.08.30.D63.11	CA.08.30.009	CA.08.09.011	Ø63	40.5	G 1/8	27 g
KIT.08.30.D63.21		CA.08.09.021		38	G 1/4	31 g
KIT.08.30.D78.24	CA.08.30.010	CA.08.09.024	Ø78	52.8	G 1/4	47 g

CA.08.33

. Silicone Vacuum Cup with 1.5 Bellows





F = Holding Force

Ar!cle no.	A	C	D	F(N)	Weight
CA.08.33.D5	Ø5	14	Ø3.5	0.15	1 g
CA.08.33.D7	Ø7		Ø4	0.1	
CA.08.33.D9	Ø9	15		0.68	2 g
CA.08.33.D12	Ø12	21		0.9	3 g
CA.08.33.D14	Ø14	23		1.2	4 g
CA.08.33.D20	Ø20	22		3.8	6 g
CA.08.33.D25	Ø25	34		4.5	7 g
CA.08.33.D32	Ø32	37	Ø8	12.0	8 g
CA.08.33.D42	Ø42	46		13.6	10 g
CA.08.33.D52	Ø52	49		27	20 g
CA.08.33.D60	Ø60	55		32	60 g

Temperature Resistance
Short-term °C

-50° to +220°
Long-term°C

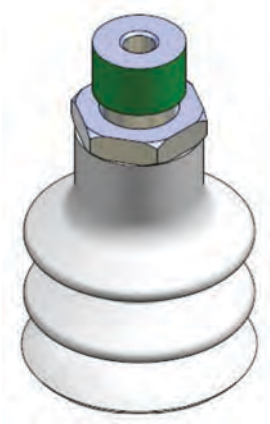
-30° to +180°
Leaving few Marks

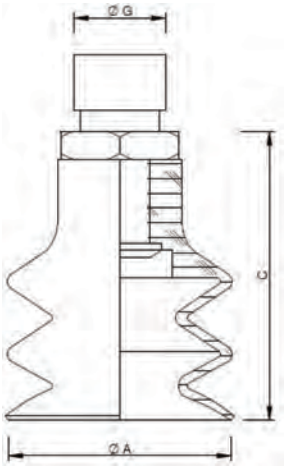
Absence of PWIS(paint impairment substances)

The suction cups with 2.5 bellows are recommended for gripping products on different planes (large deflection) - thus replacing spring systems- and for gripping spherical or cylindrical objects at an angle (ball-joint effect).

CA.08.33

. Silicone Vacuum Cup 2.5 bellows With Fitting

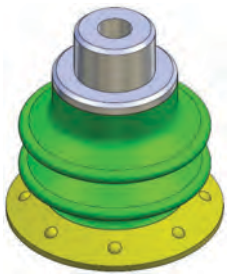


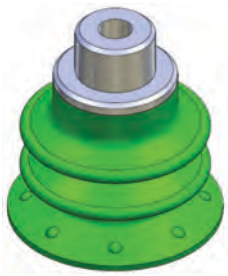


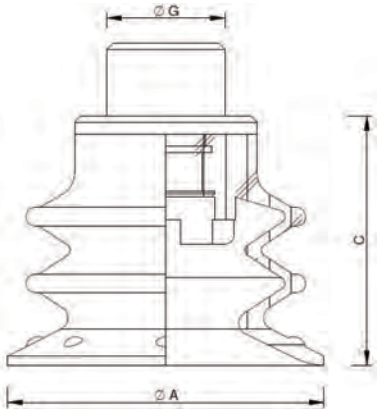
Ar!cle no.	VACUUM CUP	NIPPLE	A	C	B	Weight
KIT.08.33.D5.25	CA.08.33.D5	CA.08.09.025	Ø5	8.5	M5	2 g
KIT.08.33.D7.26	CA.08.33.D7	CA.08.09.026	Ø7	9		
KIT.08.33.D9.26	CA.08.33.D9	CA.08.09.026	Ø9	20		3 g
KIT.08.33.D12.4	CA.08.33.D12	CA.08.09.004	Ø12	25.5	M5	4 g
KIT.08.33.D12.9		CA.08.09.009		26	G1/8	6 g
KIT.08.33.D14.4	CA.08.33.D14	CA.08.09.004	Ø14	27.5	M5	5 g
KIT.08.33.D14.9		CA.08.09.009		28	G1/8	7 g
KIT.08.33.D20.4	CA.08.33.D20	CA.08.09.004	Ø20	26.5	M5	10 g
KIT.08.33.D20.9		CA.08.09.009		27	G1/8	12 g
KIT.08.33.D25.4	CA.08.33.D25	CA.08.09.004	Ø25	38.5	M5	11 g
KIT.08.33.D25.9		CA.08.09.009		39	G1/8	13 g
KIT.08.33.D32.11	CA.08.33.D32	CA.08.09.011	Ø32	43.3	G1/8	12 g
KIT.08.33.D32.21		CA.08.09.021		41	G1/4	16 g
KIT.08.33.D42.11	CA.08.33.D42	CA.08.09.011	Ø42	52.3	G1/8	14 g
KIT.08.33.D42.21		CA.08.09.021		50	G1/4	18 g
KIT.08.33.D52.11	CA.08.33.D52	CA.08.09.011	Ø52	55.3	G1/8	24 g
KIT.08.33.D52.21		CA.08.09.021		53	G1/4	28 g
KIT.08.33.D60.21	CA.08.33.D60	CA.08.09.021	Ø60	59	G1/4	68 g

CA.08.36

. Polyurathane Dual Duro Vacuum Cup 2.5 Bellows With Fitting







F = Holding Force

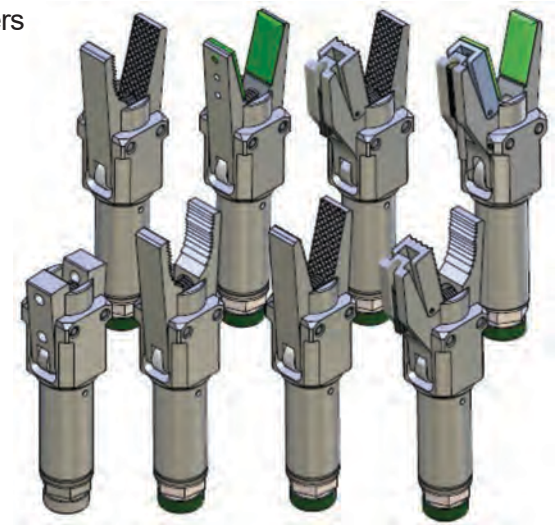
Ar!cle no.	VACUUM CUP	NIPPLE	A	C	G	Cod. PIAB	Weight
KIT.08.36.D10	CA.08.36.D10	CA.08.09.030 3107030	10	21	M5 M	0122869	2 g
KIT.08.36.D10.60	CA.08.36.D10.60	CA.08.09.030 3107030				0122967	
KIT.08.36.D15	CA.08.36.D15	CA.08.09.030 3107030	15	23		0124344	3 g
KIT.08.36.D15.60	CA.08.36.D15.60	CA.08.09.030 3107030				0124345	
KIT.08.36.D20	CA.08.36.D20	CA.08.09.031 0101152	20	20.2	G1/8 M - M5 F	0125105	
KIT.08.36.D20.60	CA.08.36.D20.60	CA.08.09.031 0101152				0125110	
KIT.08.36.D25	CA.08.36.D25	CA.08.09.032 3250004	25	25		0109402	5 g
KIT.08.36.D25.60	CA.08.36.D25.60	CA.08.09.032 3250004				0109398	65 g
KIT.08.36.D35.1	CA.08.36.D35	CA.08.09.033 0200714	35	32.8	G 1/8 M	9912151	10 g
KIT.08.36.D35.2		CA.08.09.034 3250091			G 1/4 M	0114449	13 g
KIT.08.36.D35.60	CA.08.36.D35.60	CA.08.09.034 3250091			G 1/4 M	9912152	13 g
KIT.08.36.D52	CA.08.36.D52	CA.08.09.035 3250092	52	45		0106045	35 g
KIT.08.36.D52.60	CA.08.36.D52.60	CA.08.09.035 3250092				0107385	
KIT.08.36.D75	CA.08.36.D75	CA.08.09.036 0201077	75	60.4		0201073	90 g
KIT.08.36.D75.60	CA.08.36.D75.60	CA.08.09.036 0201077				0101074	

Temperature resistance
+10° to +50°
Leaving few Marks

CA.09 PAC

. Self Centering Sprue Grippers

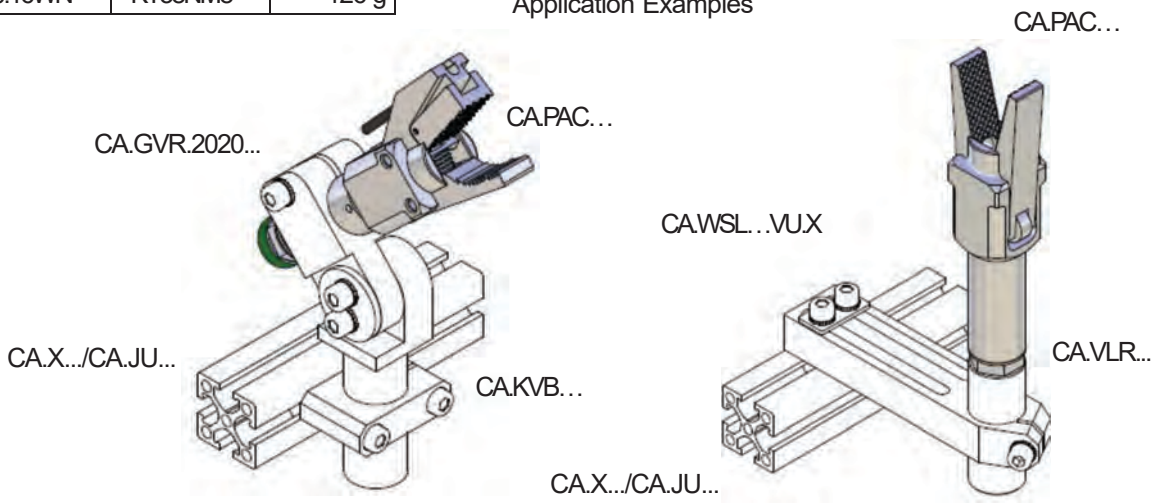
Size 20



Article no.	Sensor	Weight
CA.PAC20.169		153 g
CA.PAC20.16A		95 g
CA.PAC20.16E		104 g
CA.PAC20.16K		135 g
CA.PAC20.16P		102 g
CA.PAC20.16R		165 g
CA.PAC20.16S	KT58PM8	157 g
CA.PAC20.16S9		187 g
CA.PAC20.16SN	KT58NM8	192 g
CA.PAC20.16S9N		187 g
CA.PAC20.16SP	KT58PM8	111 g
CA.PAC20.16SPN	KT58NM8	
CA.PAC20.16W	KT58PM8	162 g
CA.PAC20.16WN	KT58NM8	126 g

Stroke	2 x 15°
Closingforce (at 6 bar)	65 N
Maximum working frequency	2 Hz
Cycle air consumption	3.6 cm7
ClosingTime-No load	0.01 s

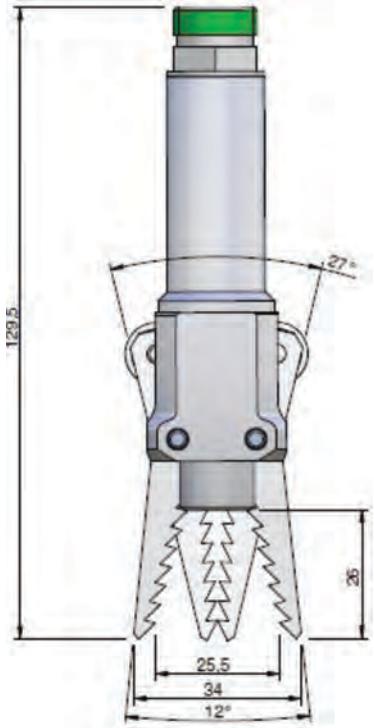
Application Examples



CA.09 PAC

Dimensions

CA.PAC20.169



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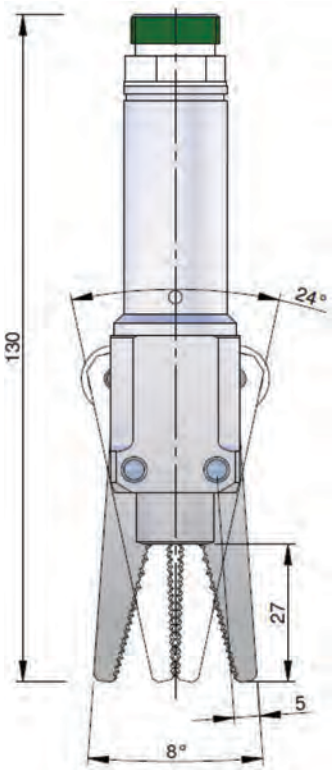

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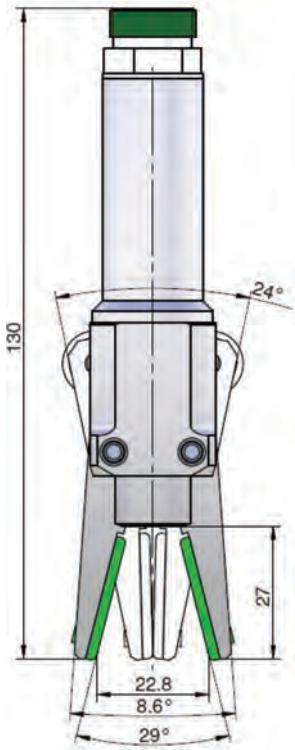
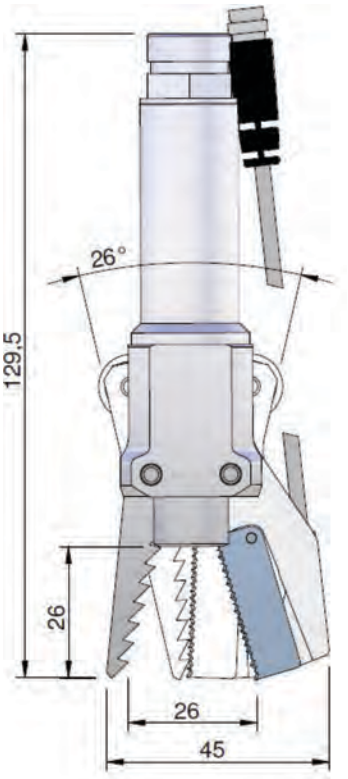
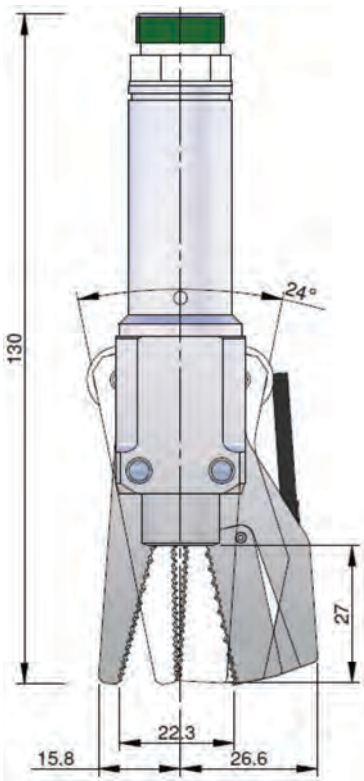


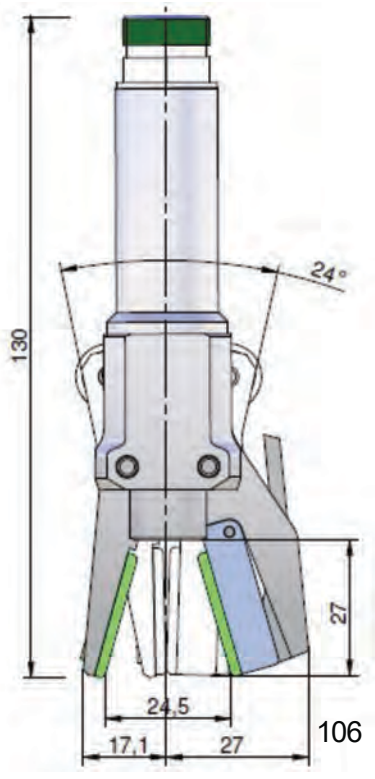
CA.PAC20.16S9/S9N



CA.PAC20.16S/SN



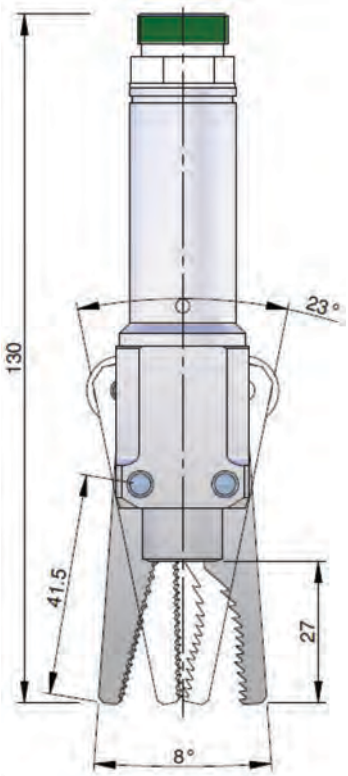
CA.PAC20.16SP/SPN



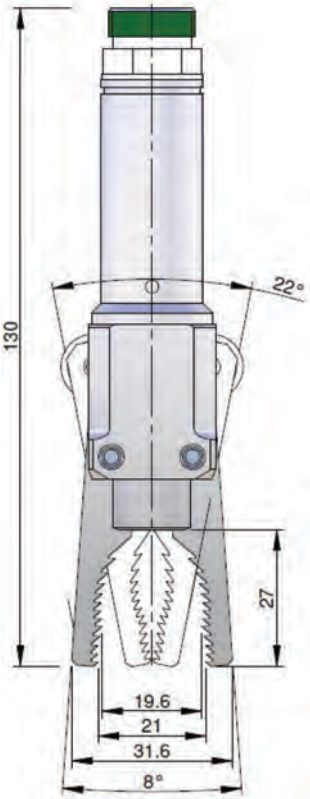
CA.09 PAC

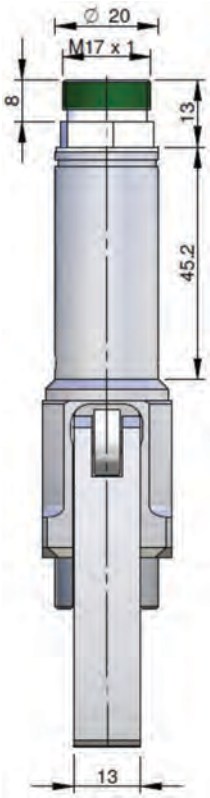
. Dimensions

CA.PAC20.16K

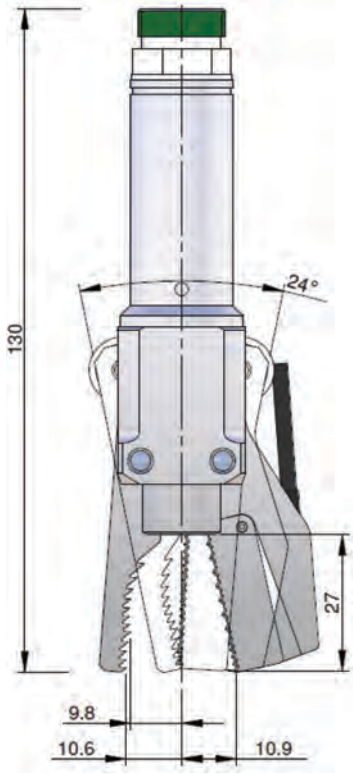


CA.PAC20.16E

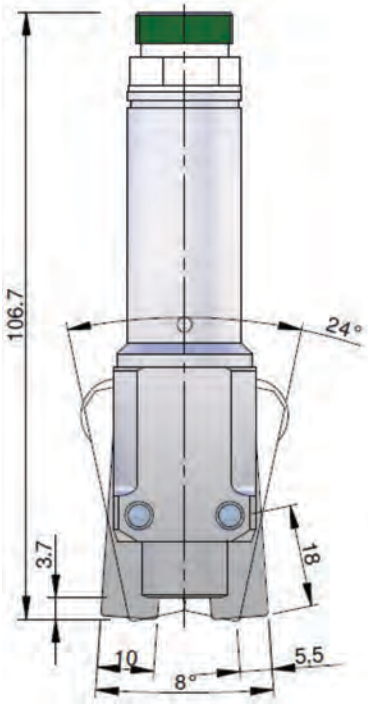


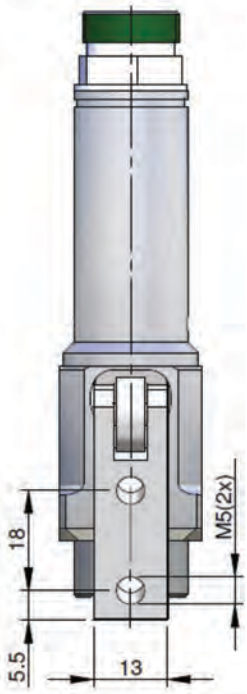


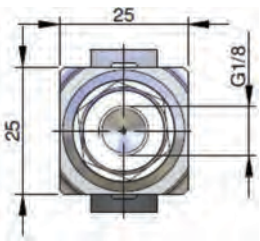
CA.PAC20.16W/WN



CA.PAC20.16A

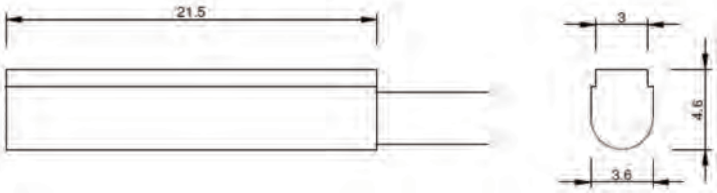


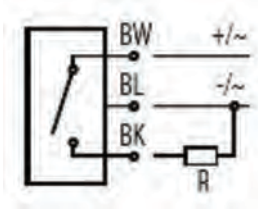




CA.09 PAC

. Sensor

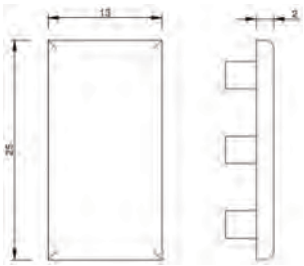




Ar!cle no.	Sensor	Weight
KT58PM8	3 wires REEDPNP normally Open M8 plug connector	4 g
KT58NM8	3 wires REEDNPN normally Open M8 plug connector	

Power supply	3÷30 Vac/dc
Switching current	0.2 A
Power ra"ng (ohmic load)	6 W
Standard cable lenght	0.3 m

. Insert

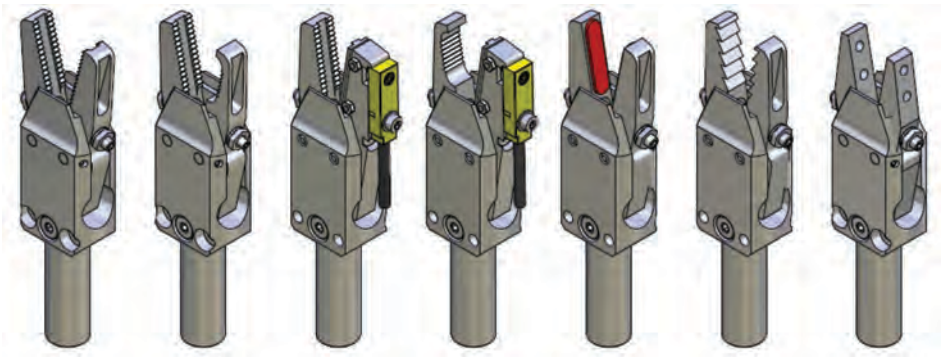


Ar!cle no.		Colour	Weight
PAC.20.16P.03.V	VITON	Green	4 g

	VITON
UV ageing, weather -resistance	J
Low temperature limit	-10°C
High temperature limit (continuous)	180°C
High temperature limit (< 30 sec.)	210°C
Leaving few marks	J

CA.09 GTS

. Sprue Grippers

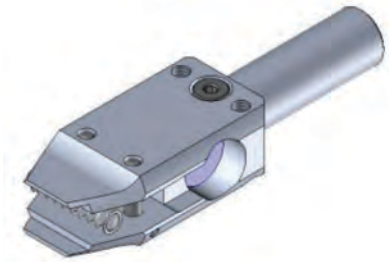


Operating Principal: Single Acting

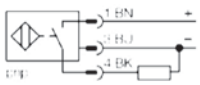
Working pressure: 6 bar clean and dry air
Jaws: Zinc-Plated Steel

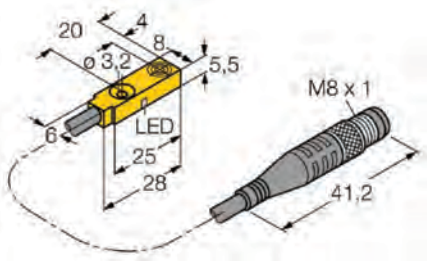
Ar!cle no.	Sensor	Closingforce (at 6 bar)	Weight
CA.GTS.1003.1212		45 N	115 g
CA.GTS.1003.1214			110 g
CA.GTS.1003.1717			115 g
CA.GTS.1003.1919			112 g
CA.GTS.1003.2929			110 g
CA.GTS.1003.1215	GRZ.20.SC.PNP		120 g
CA.GTS.1003.125N	GRZ.20.SC.NPN		
CA.GTS.1003.1415	GRZ.20.SC.PNP		116 g
CA.GTS.1003.145N	GRZ.20.SC.NPN		
CA.GTS.1003.1915	GRZ.20.SC.PNP		96 g
CA.GTS.1003.195N	GRZ.20.SC.NPN		

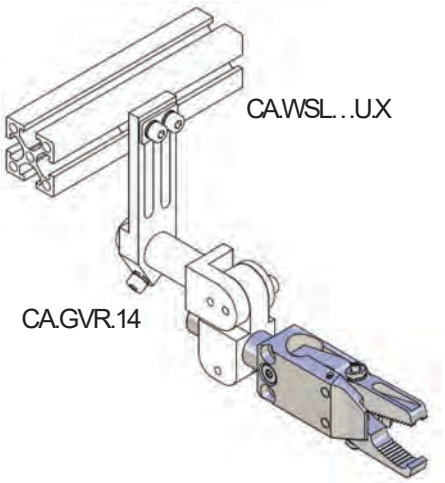
Ar!cle no.	Weight
GTS.03.G18	52 g
GTS.04.G18	95 g



Sensor



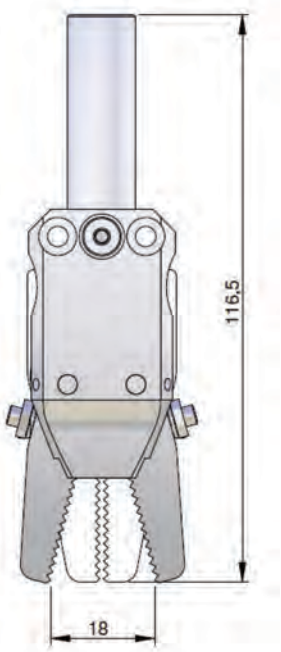




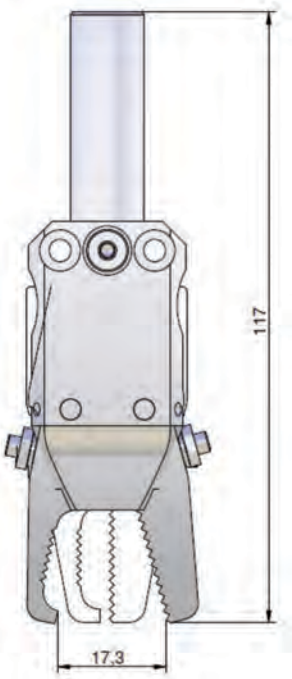
CA.09 GTS

. Dimensions

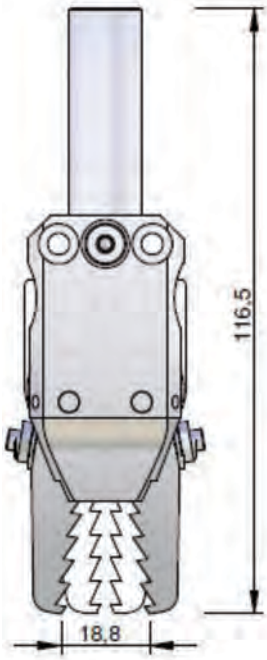
CA.GTS.1003.1212



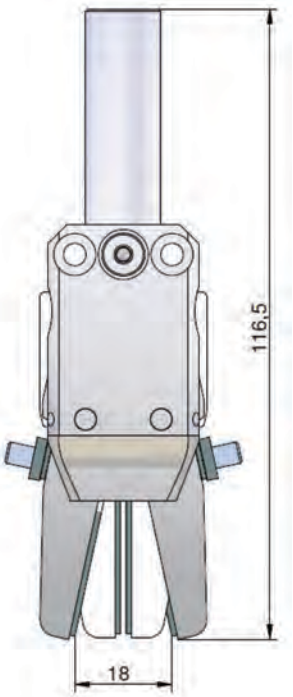
CA.GTS.1003.1214



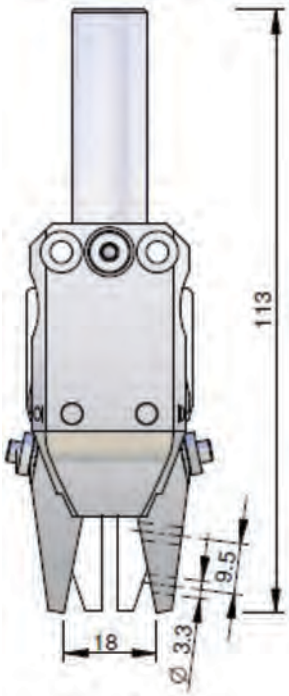
CA.GTS.1003.1919



CA.GTS.1003.1717



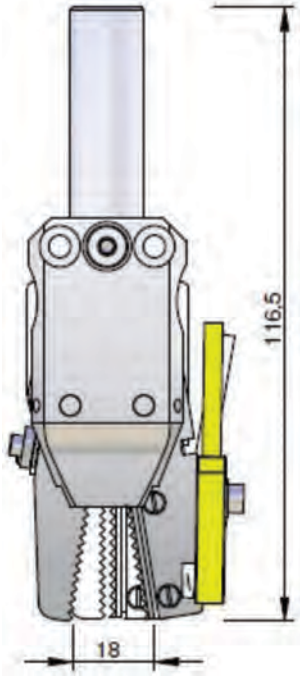
CA.GTS.1003.2929



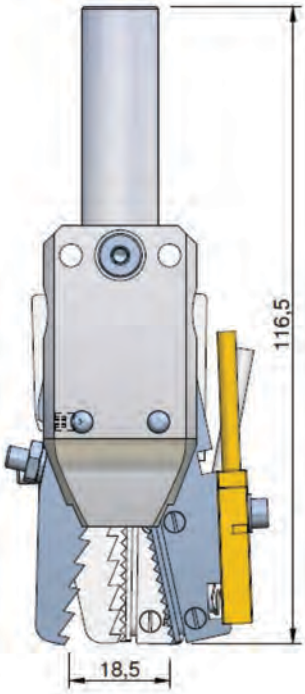
CA.09 GTS

. Dimensions

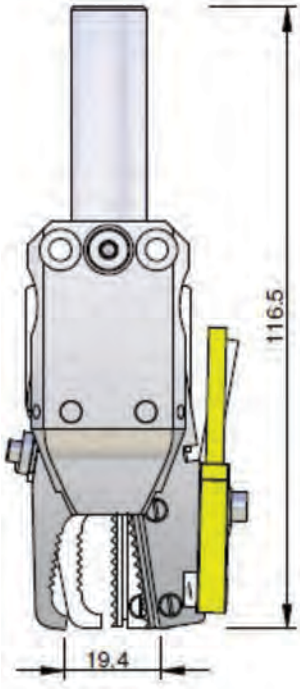
CA.GTS.1003.1215/125N



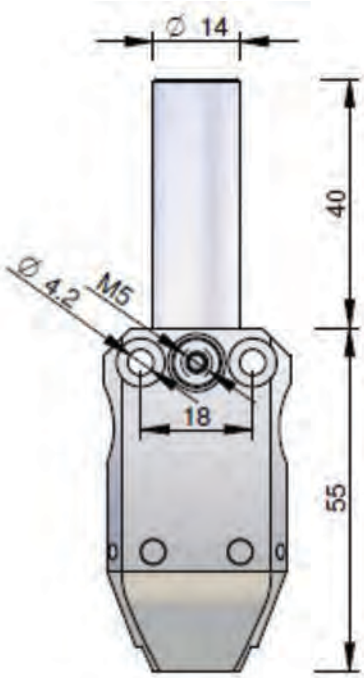
CA.GTS.1003.1915/195N

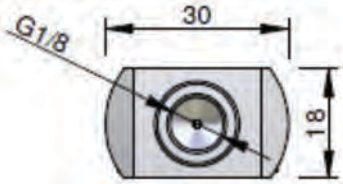


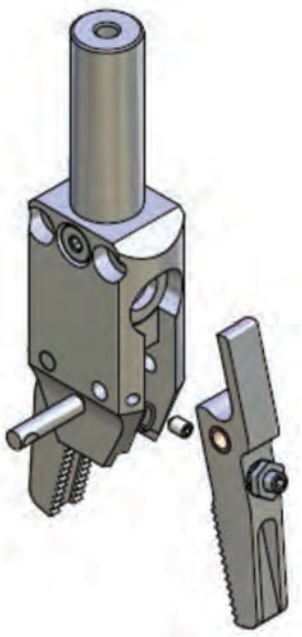
CA.GTS.1003.1415/145N



GTS.03.G18



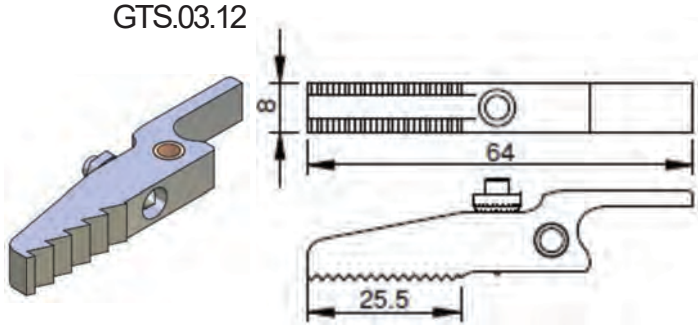




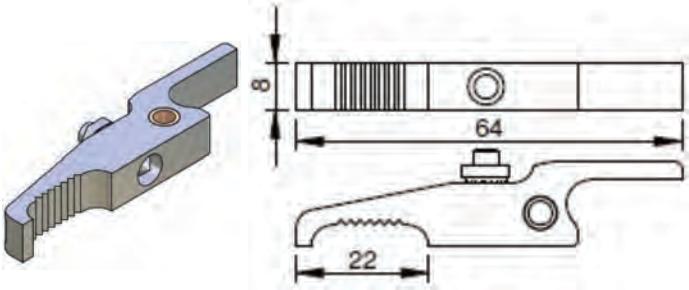
CA.09 GTS

. Jawsfor Gripper GTS

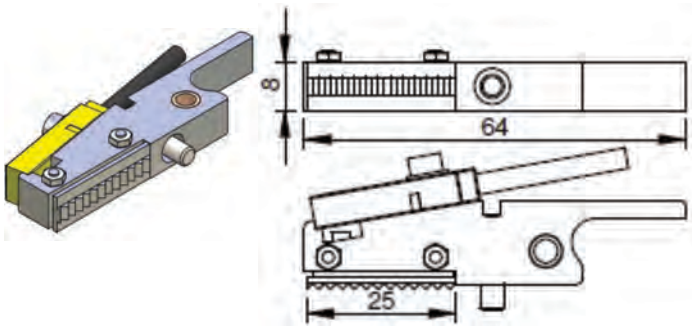
GTS.03.12



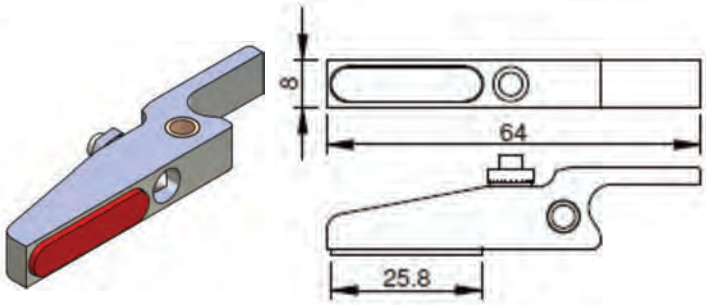
GTS.03.14



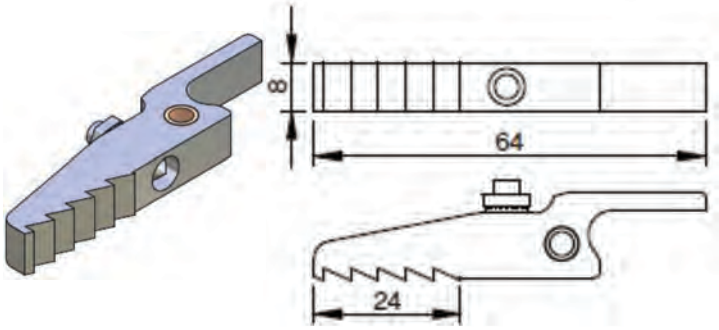
GTS.03.15/15.N



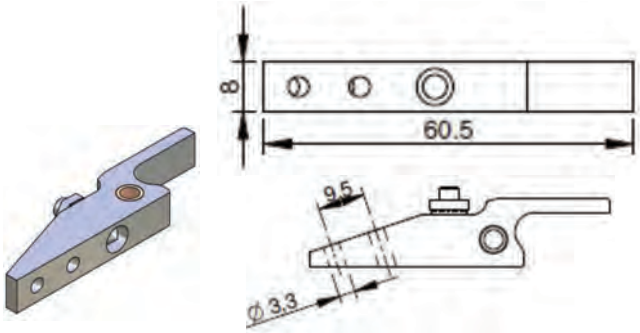
GTS.03.17

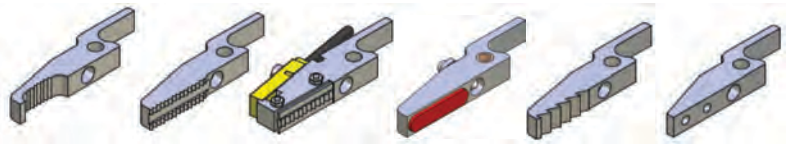


GTS.03.19



GTS.03.29

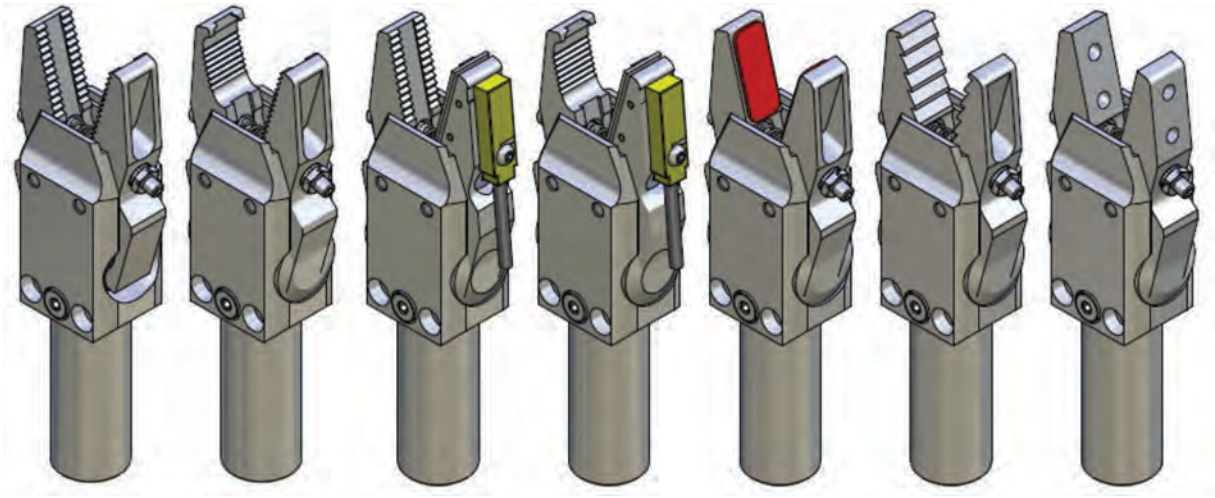




Ar!cle no.	Weight
GTS.03.12	27 g
GTS.03.14	22 g
GTS.03.15	35 g
GTS.03.15.N	
GTS.03.17	27 g
GTS.03.19	26 g
GTS.03.29	25 g

CA.09 GTS

. Sprue grippers



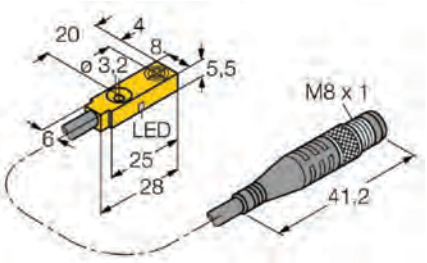
Working pressure: 6 bar clean and dry air

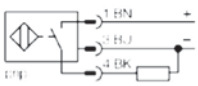
Jaws in Zinc-Plated Steel

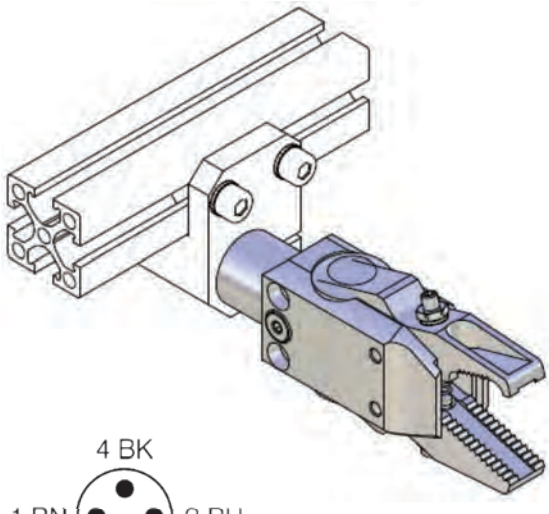
Working Principal: Single Acting

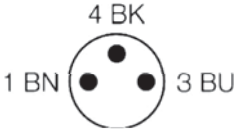
Ar!cle no.	Sensor	Closing force (at 6 bar)	Weight
CA.GTS.1004.1212		90 N	151 g
CA.GTS.1004.1214			144 g
CA.GTS.1004.1717			151 g
CA.GTS.1004.1919			146 g
CA.GTS.1004.2929			144 g
CA.GTS.1004.1215	GRZ.20.SC.PNP		160 g
CA.GTS.1004.125.N	GRZ.20.SC.NPN		
CA.GTS.1004.1415	GRZ.20.SC.PNP		120 g
CA.GTS.1004.145.N	GRZ.20.SC.NPN		

Sensor





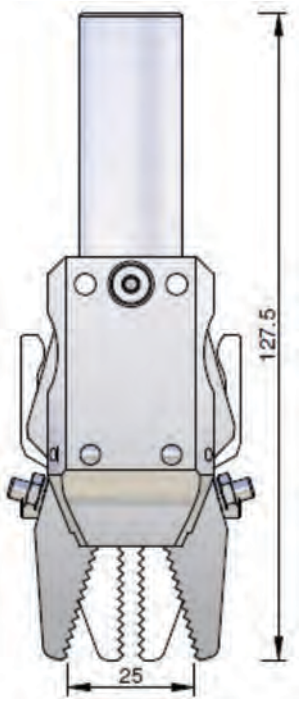




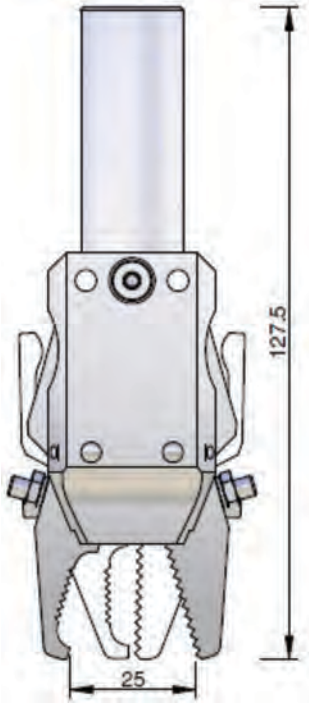
CA.09 GTS

. Dimensions

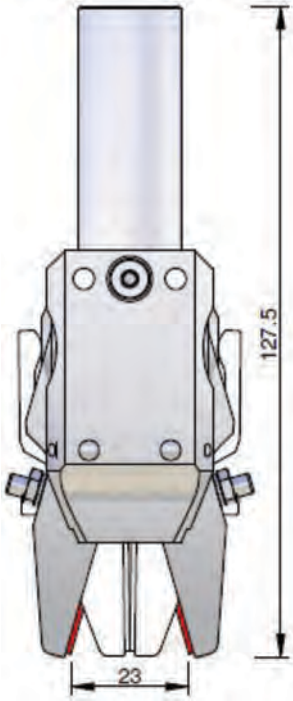
CA.GTS.1004.1212



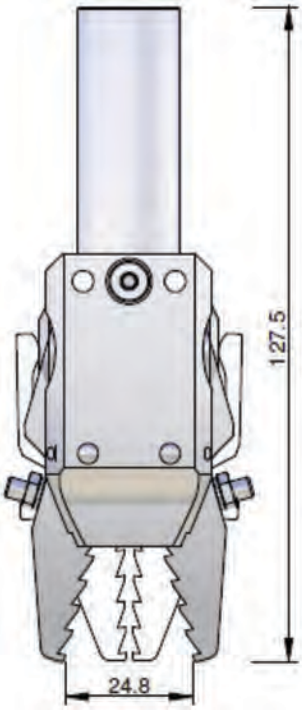
CA.GTS.1004.1214



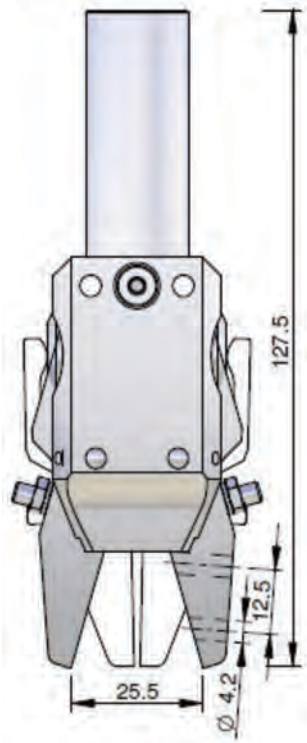
CA.GTS.1004.1717



CA.GTS.1004.1919



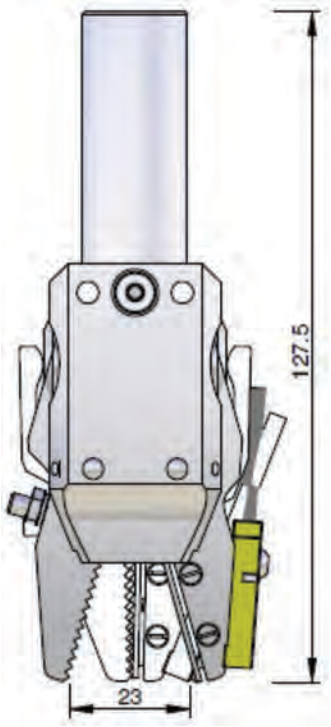
CA.GTS.1004.2929



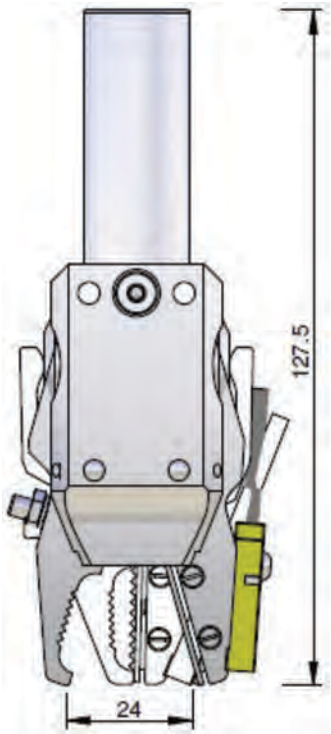
CA.09 GTS

. Dimensions

CA.GTS.1004.1215/125N

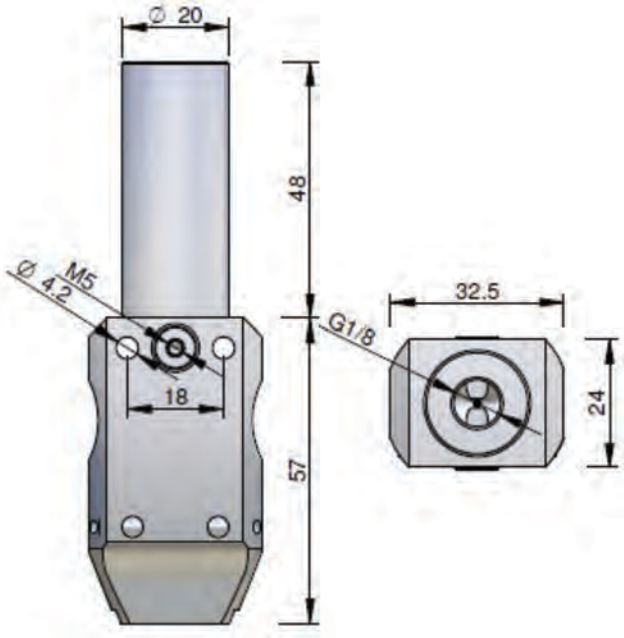


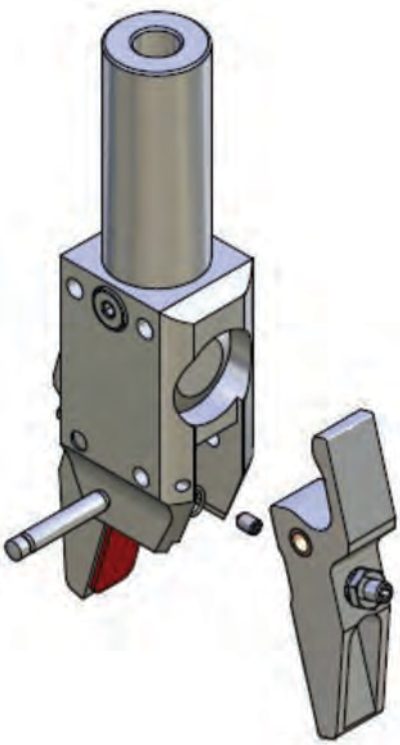
CA.GTS.1004.1415/145N



Applica! on example / Esempioapplica! vo

GTS.04.G18

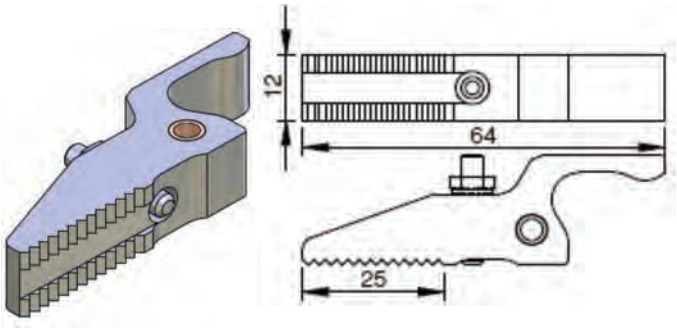




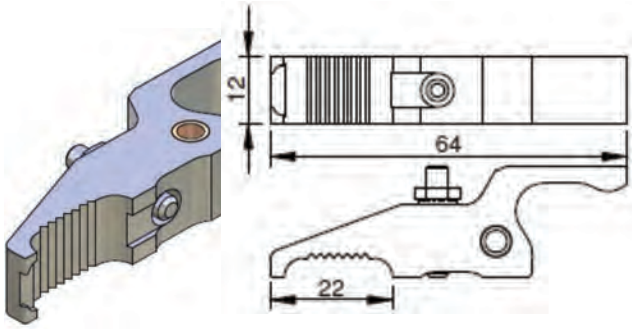
CA.09 GTS

. Jaws for Gripper GTS

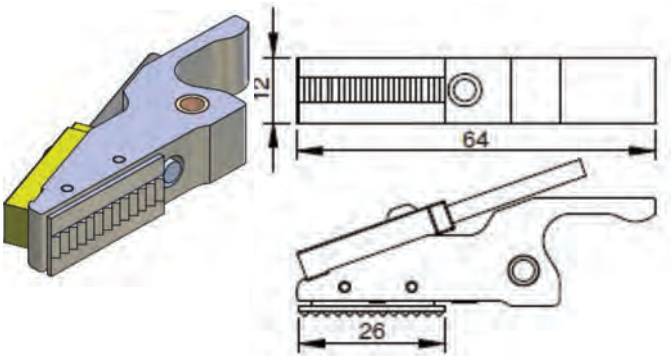
GTS.04.12



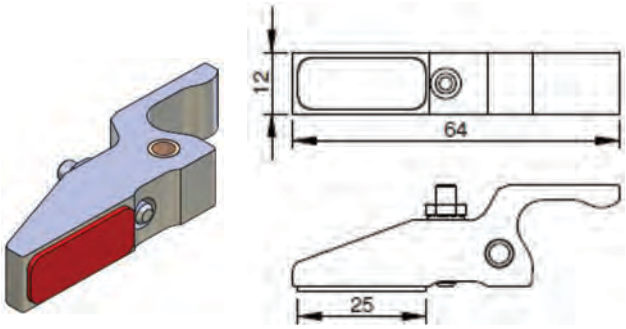
GTS.04.14



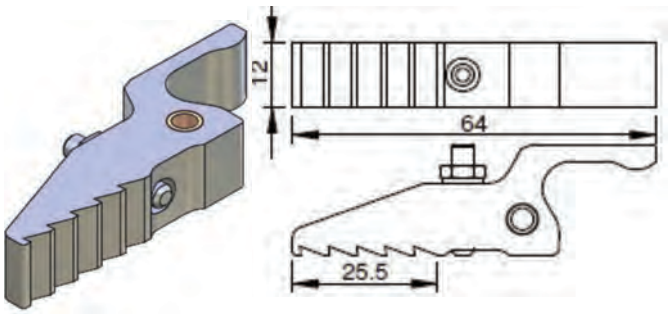
GTS.04.15/15.N



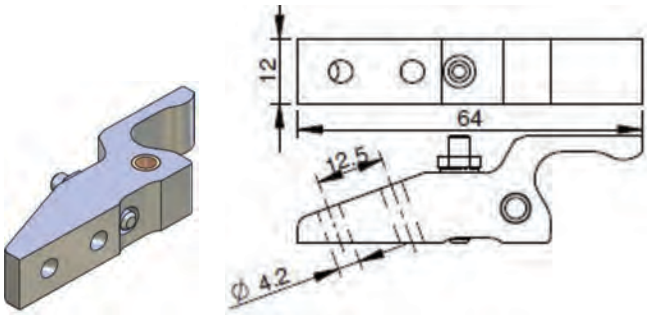
GTS.04.17



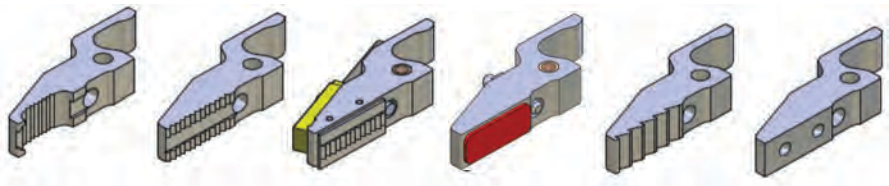
GTS.04.19



GTS.04.29



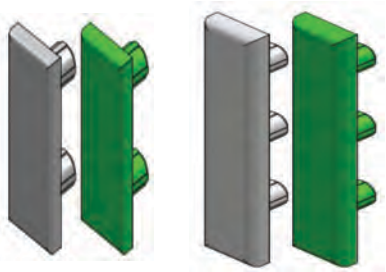
Ar!cle no.	Weight
GTS.04.12	31 g
GTS.04.14	26 g
GTS.04.15	39 g
GTS.04.15.N	
GTS.04.17	31 g
GTS.04.19	30 g
GTS.04.29	29 g



CA.09 GZA.10

. Sprue grippers

Ar!cle no.	Sensor	Closing force (at 6 bar)	Weight
CA.GZA.10.08		19 N	16 g
CA.GZA.10.08.18			
CA.GZA.10.08.19			
New CA.GZA.10.08.AH			
New CA.GZA.10.08.AHG			
New CA.GZA.10.08.AHL			
New CA.GZA.10.08.AHT			
New CA.GZA.10.08.ATG			
CA.GZA.10.08.G			
CA.GZA.10.08.LL			
CA.GZA.10.08.M50			22 g
CA.GZA.10.12		30 N	36 g
CA.GZA.10.12.14			34 g
CA.GZA.10.12.18			50 g
CA.GZA.10.12.19			37 g
CA.GZA.10.12.AH			
New CA.GZA.10.12.AHV			
New CA.GZA.10.12.AHG			
New CA.GZA.10.12.AHL			
New CA.GZA.10.12.AHT			
New CA.GZA.10.12.ATG			
CA.GZA.10.12.C			40 g
CA.GZA.10.12.G			34 g
CA.GZA.10.12.G50			
CA.GZA.10.12.L			36 g
CA.GZA.10.12.LL			34 g
CA.GZA.10.12.M			35 g
CA.GZA.10.12.M50			43 g
CA.GZA.10.12.MC			44 g
New CA.GZA.10.12.MF			
CA.GZA.10.12.MS	MMD.IL5AP3AVF80		
CA.GZA.10.12.MSN	MMD.IL5AN3AVF80		
CA.GZA.10.12.S	MMD.IL5AP3AVF80		50 g
CA.GZA.10.12.SN	MMD.IL5AN3AVF80		
CA.GZA.10.12.S4	MMD.IL5AP3AVF80		59 g
CA.GZA.10.12.S4N	MMD.IL5AN3AVF80		
CA.GZA.10.12.S9	MMD.IL5AP3AVF80		65 g
CA.GZA.10.12.S9N	MMD.IL5AN3AVF80		
CA.GZA.10.12.SG	MMD.IL5AP3AVF80		62 g
CA.GZA.10.12.SGN	MMD.IL5AN3AVF80		



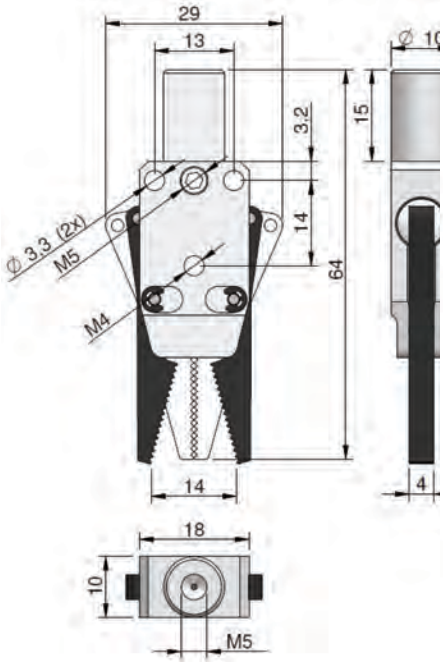
Material:
Jawsin hardcoated Aluminium
Body in anodized Aluminium

.Working Principle:Single Acting
.2 different fastening possibilities:
.Clamp Dia- Ø 10 mm
.Through-Thread in the gripper body
.Working pressure: 6 bar clean and dry air

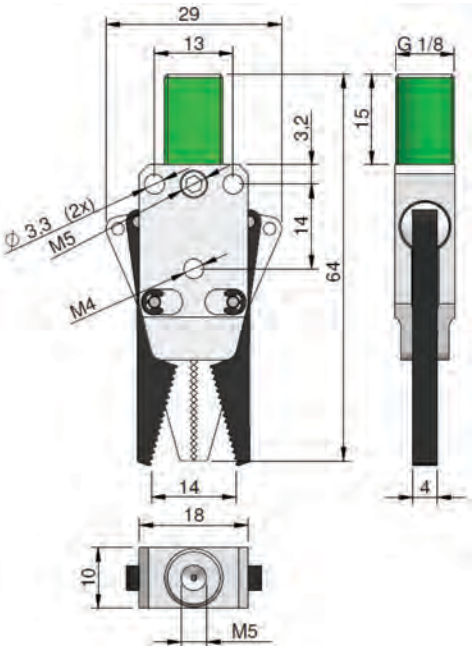
CA.09 GZA.10

. Dimensions

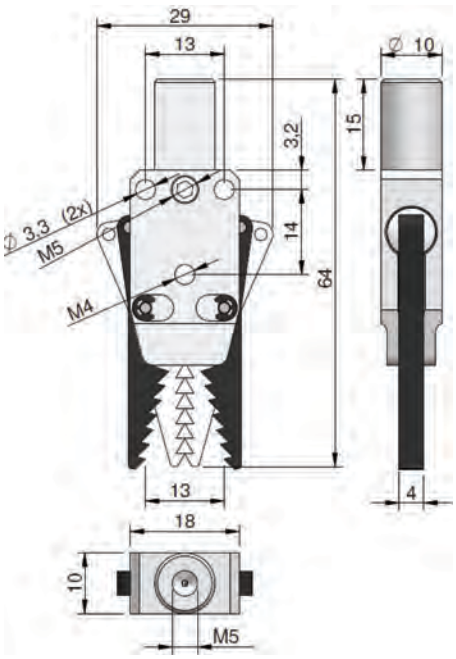
CA.GZA.10.08



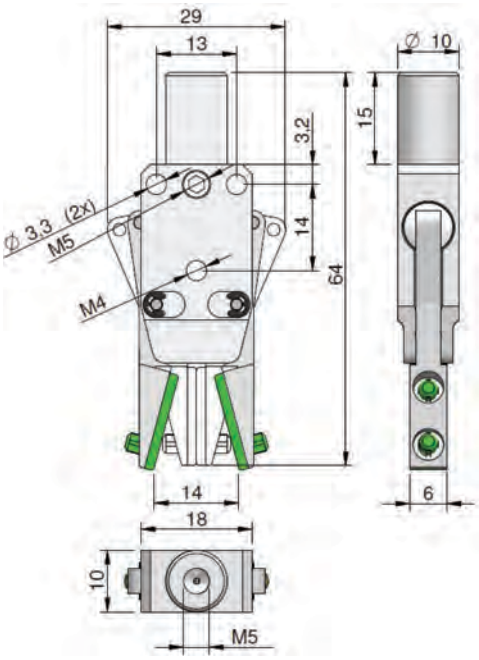
CA.GZA.10.08.18



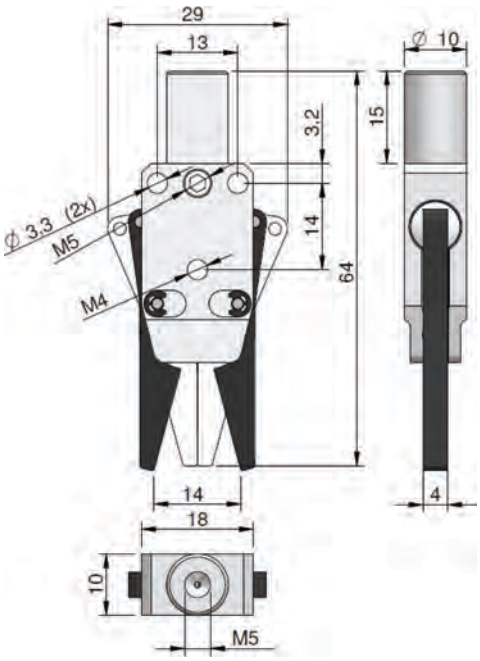
CA.GZA.10.08.19



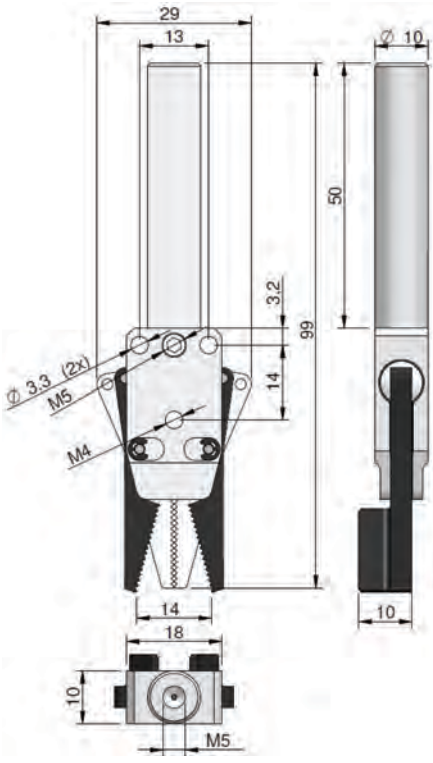
CA.GZA.10.08.G



CA.GZA.10.08.LL



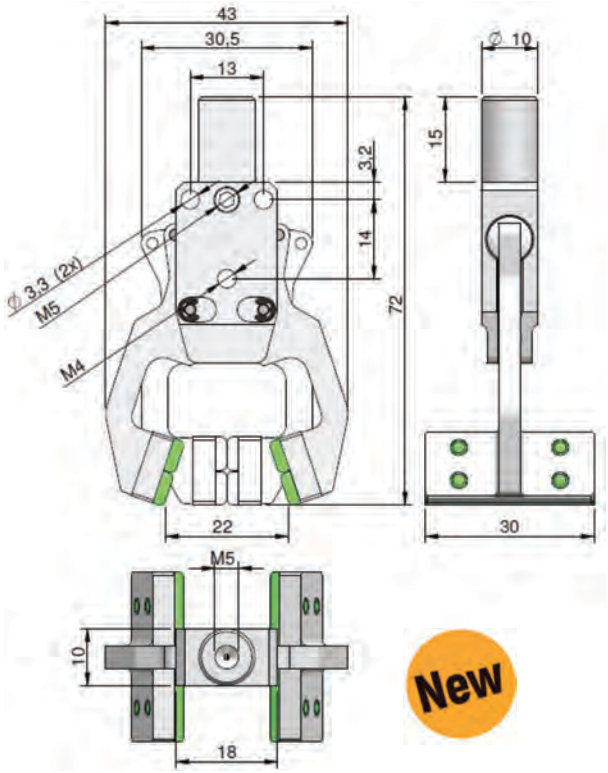
CA.GZA.10.08.M50



. Dimensions

CA.09 GZA.10

CA.GZA.10.08.ATG



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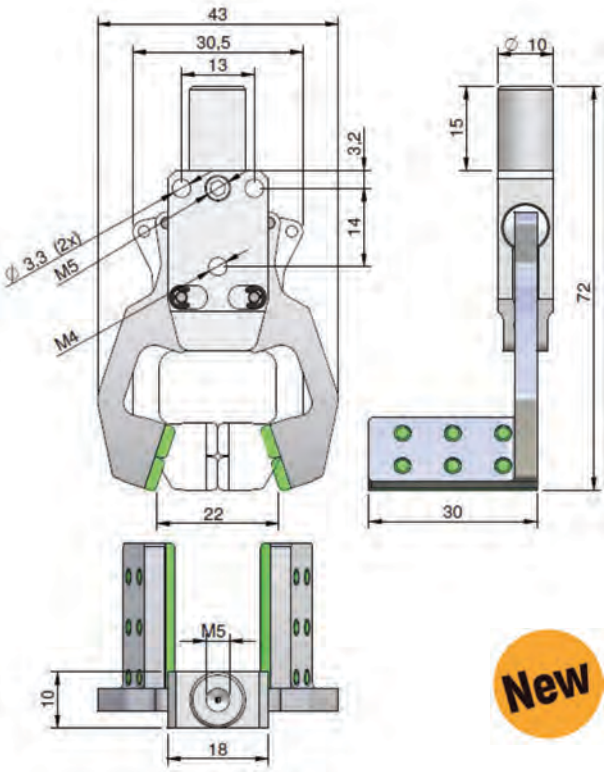

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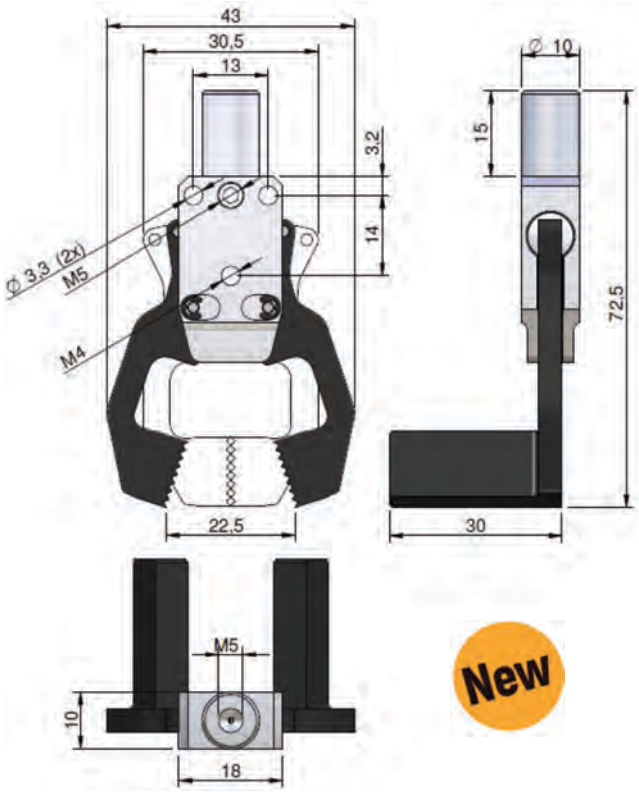

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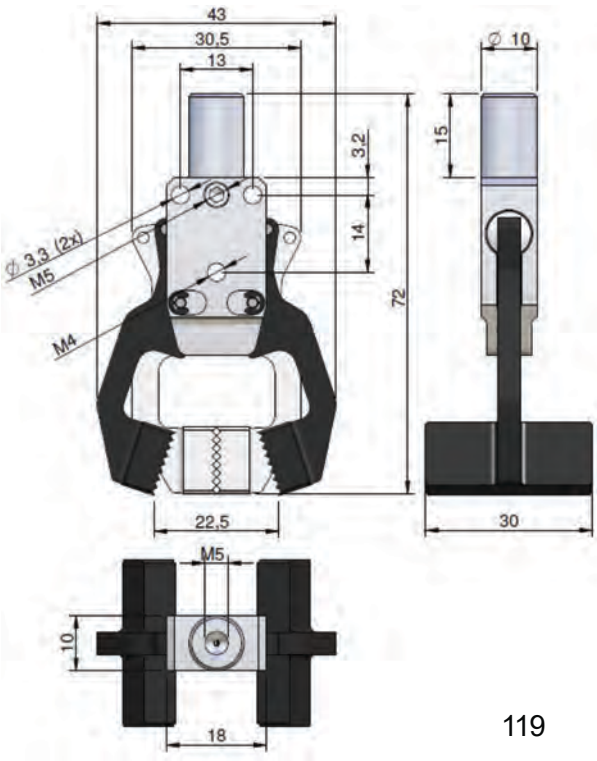
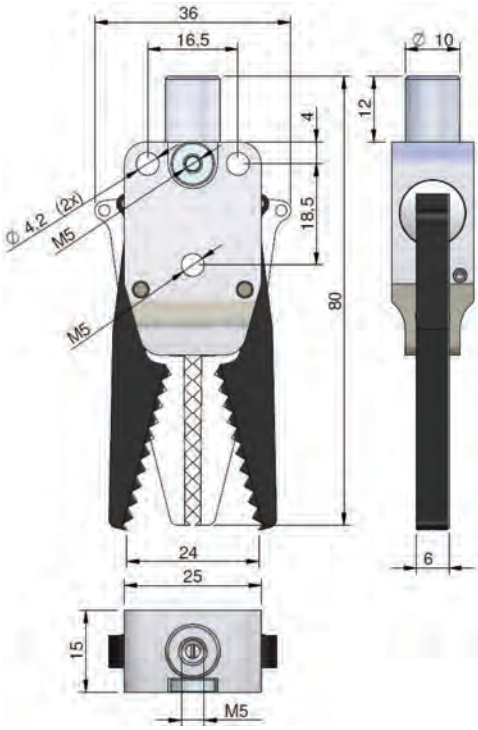


. Dimensions

CA.GZA.10.12



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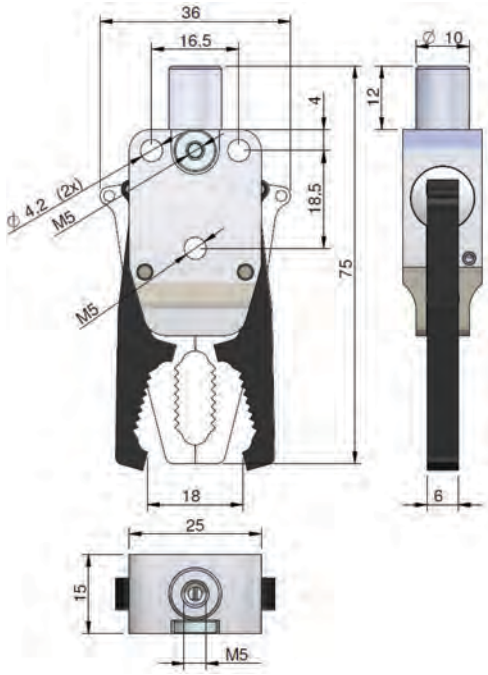

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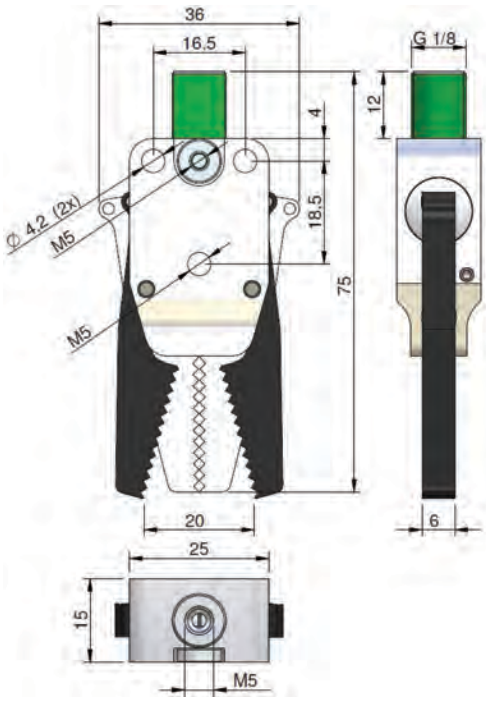
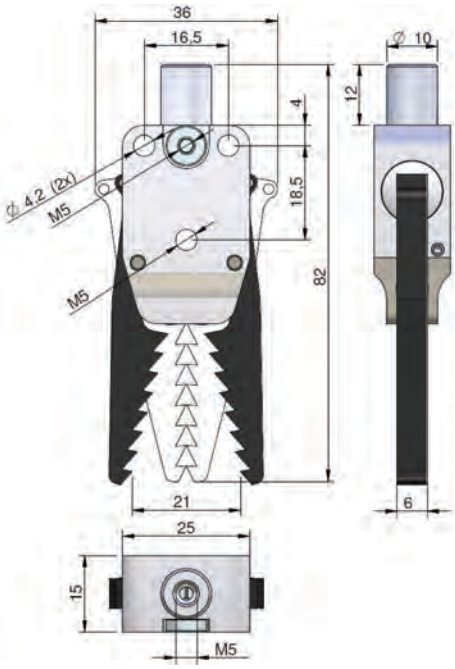
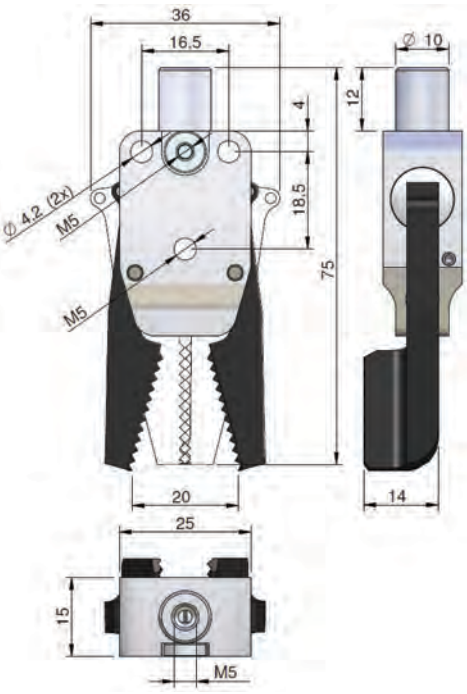


CA.GZA.10.12.19



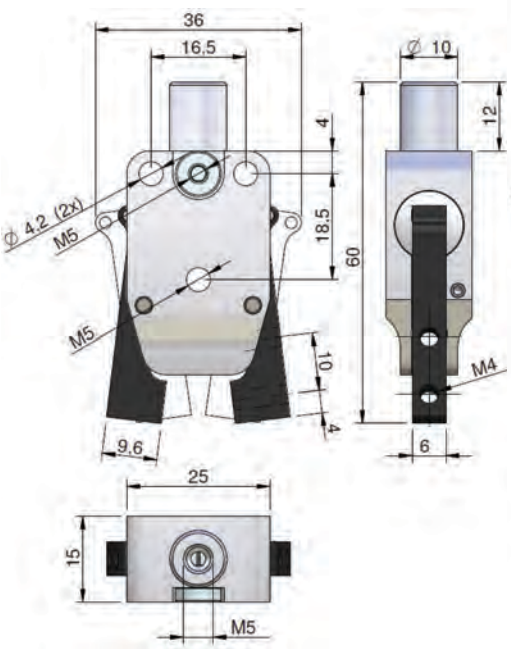
CA.GZA.10.12.AH



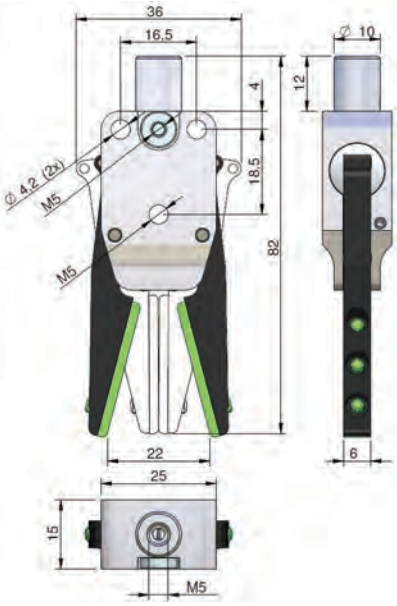
Dimensions

CA.09 GZA.10

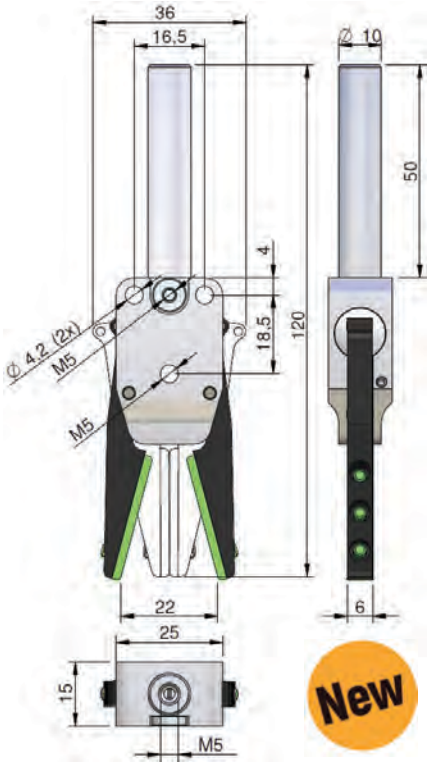
CA.GZA.10.12.C



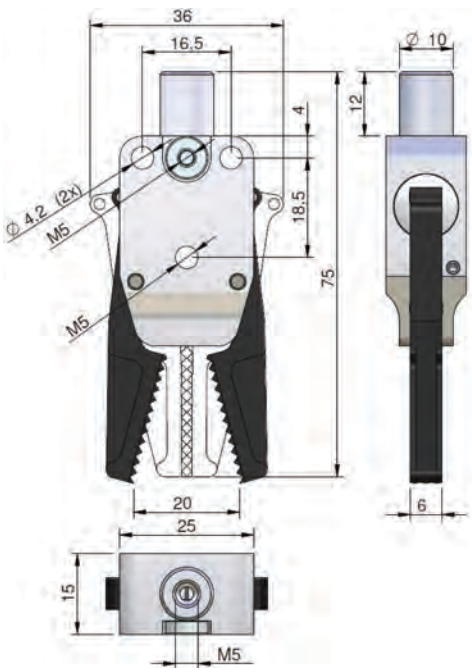
CA.GZA.10.12.G



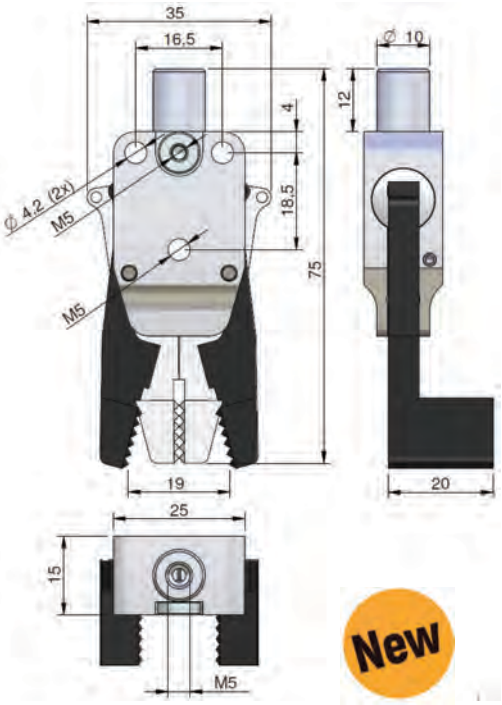
CA.GZA.10.12.G50



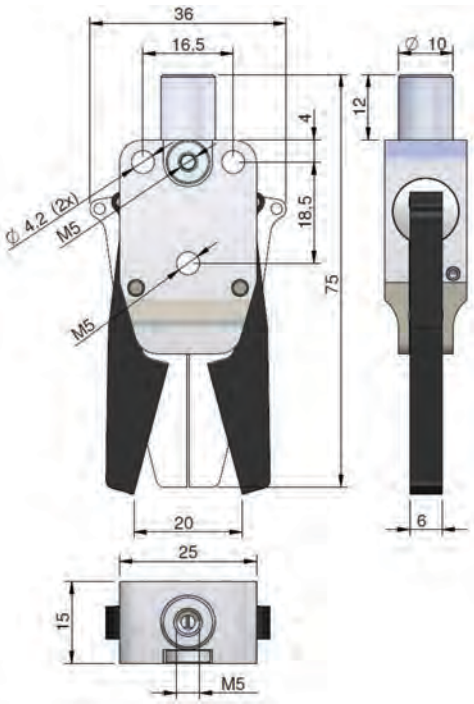
CA.GZA.10.12.L



CA.GZA.10.12.L90

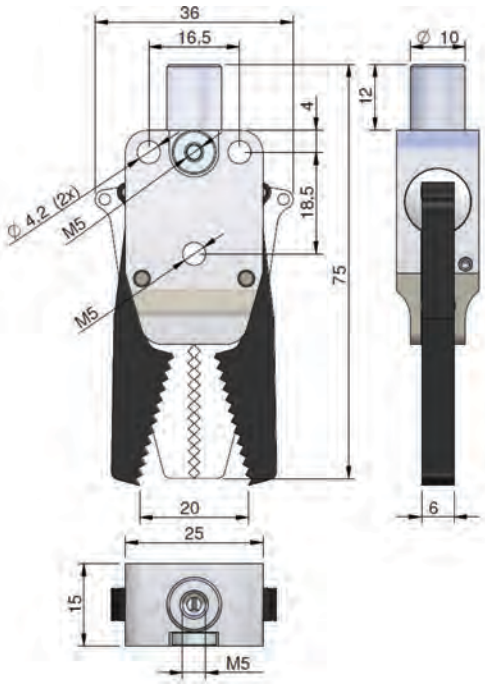


CA.GZA.10.12.LL

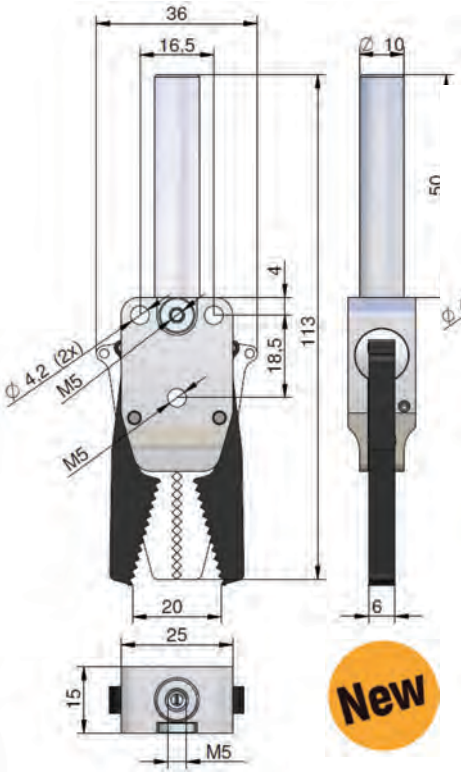


CA.09 GZA.10

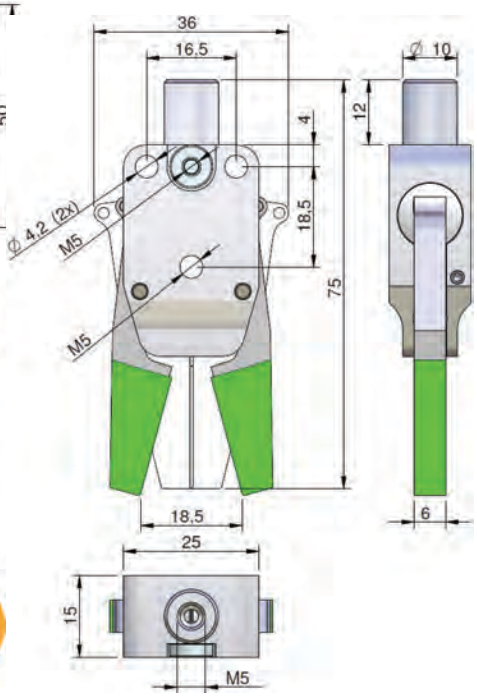
CA.GZA.10.12.M



CA.GZA.10.12.M50



CA.GZA.10.12.MC



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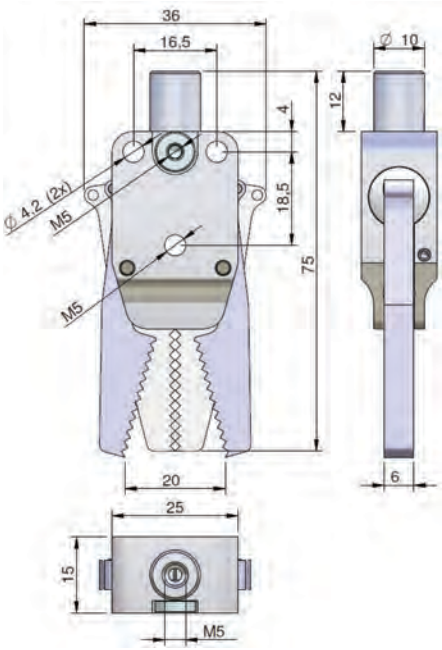
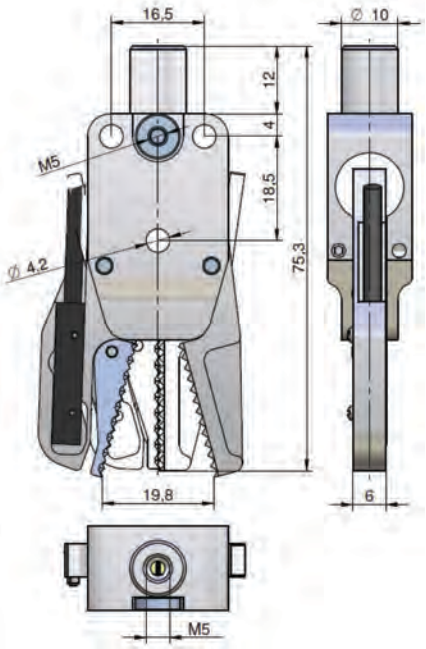
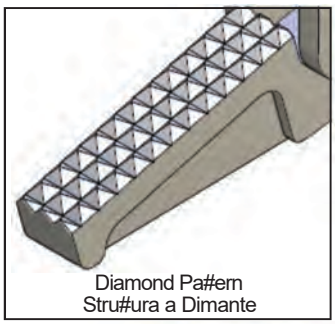
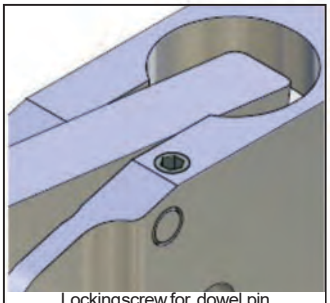


CA.GZA.10.12.MS/MSN





Diamond Pa#ern
Stru#ura a Dimante

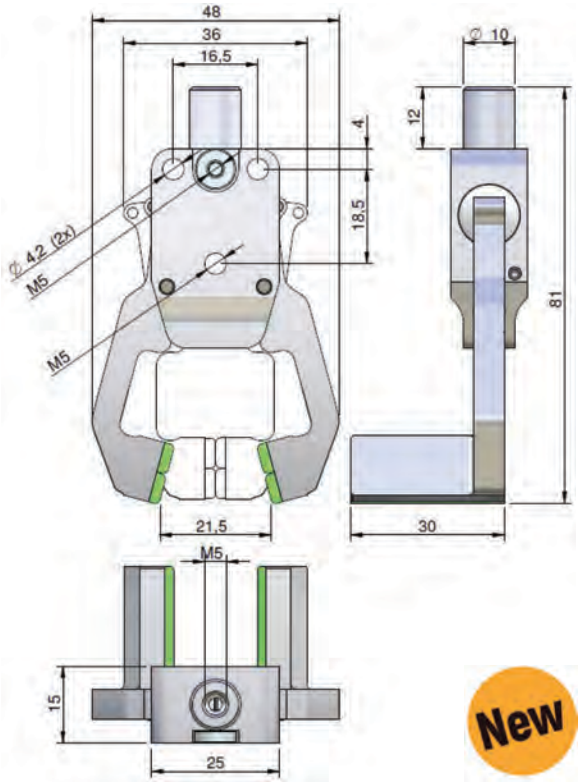


Lockingscrew for dowel pin
Bloccaggioa vite del tassello

CA.09 GZA.10

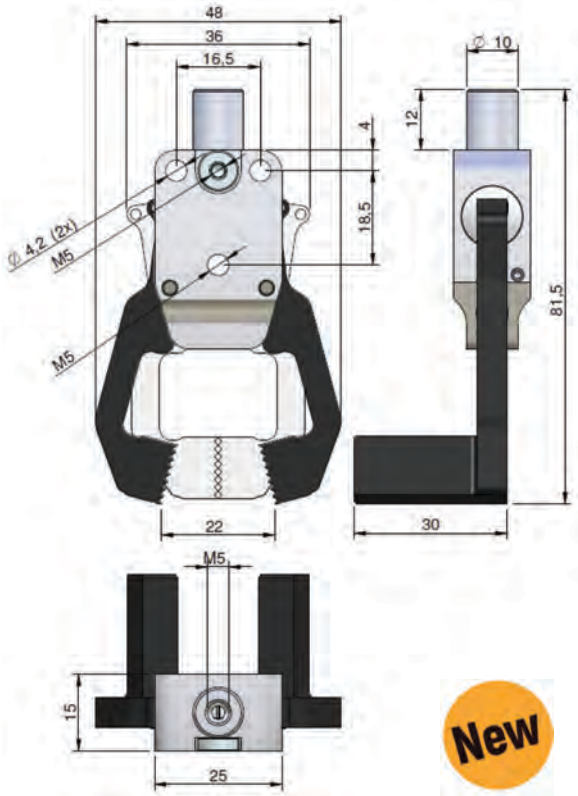
. Dimensions

CA.GZA.10.12.AHG



New

CA.GZA.10.12.AHL



New

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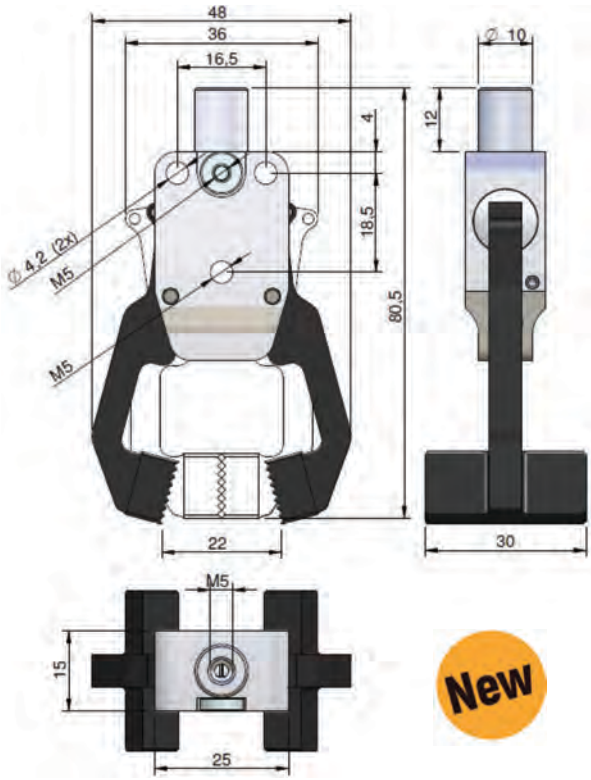

New

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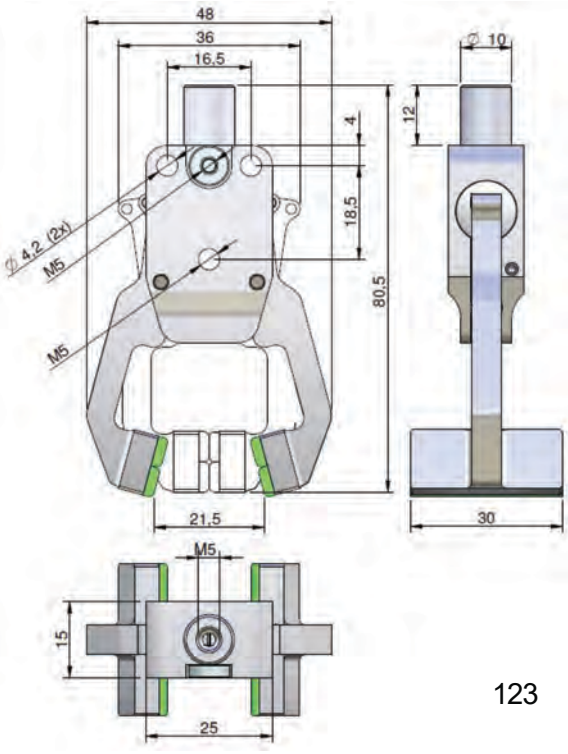
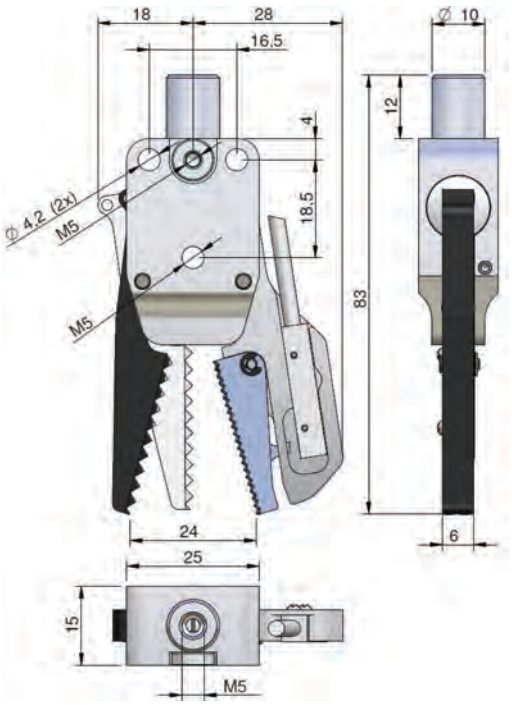


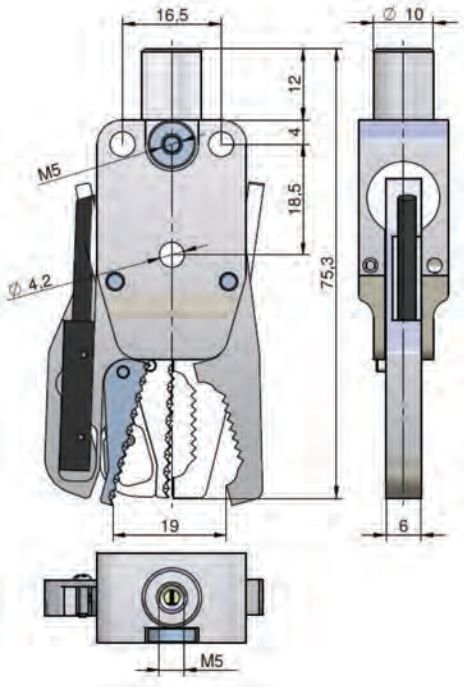
. Dimensions

CA.09 GZA.10

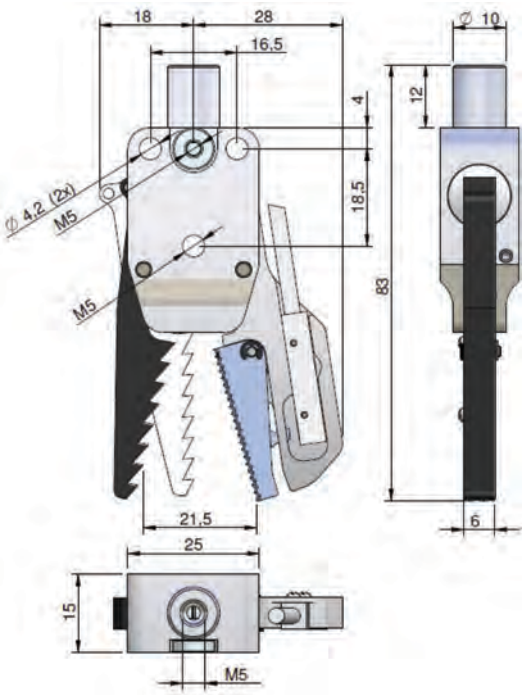
CA.GZA.10.12.S/SN



CA.GZA.10.12.S4/S4N



CA.GZA.10.12.S9/S9N



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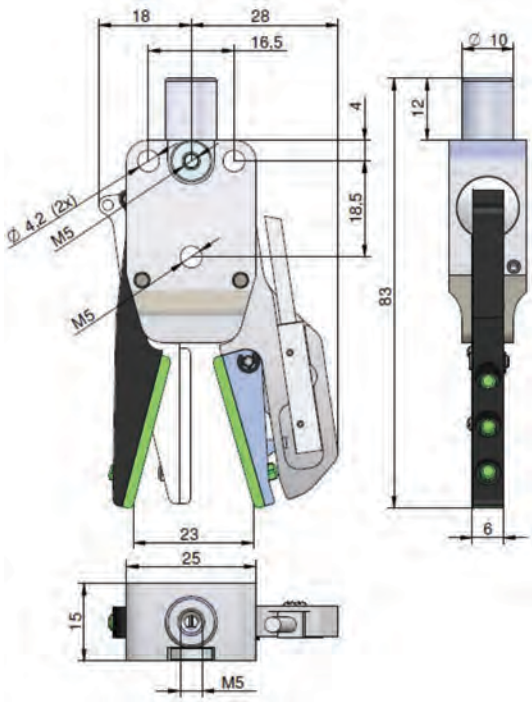
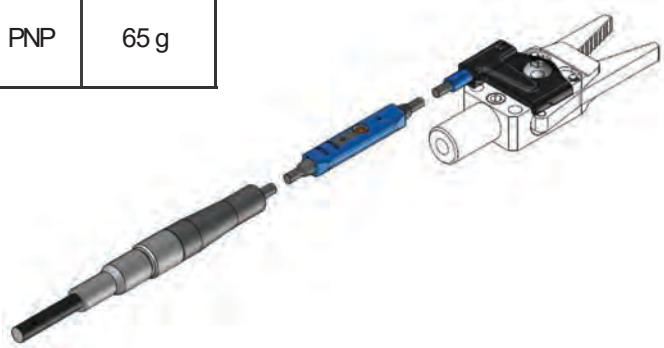


CA.09 GZA.10

. Dimensions

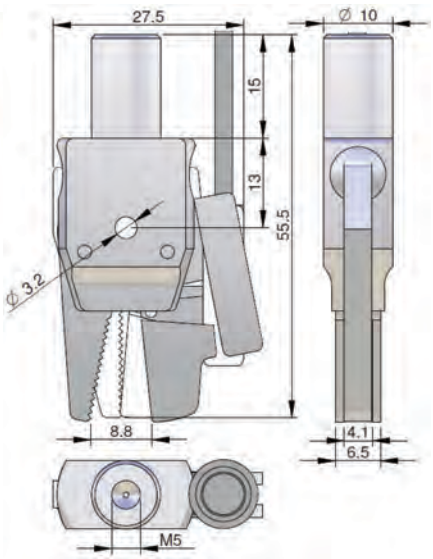
Ar!cle no.	Output	
CA.SCP.1008	PNP	65 g
CA.SCP.1012		



New

CA.09 GRZ.10.08

CA.GRZ.10.08.S/SN



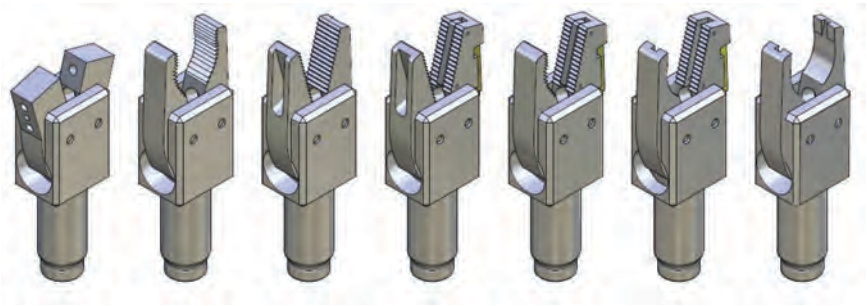
Work Principle: Single Acting

Working pressure: 6 bar clean and dry air

Ar!cle no.	Sensor	Closingforce (at 6 bar)	Weight
CA.GRZ.10.08.S	KT58PM8	19 N	25 g
CA.GRZ.10.08.S2F	KT58REQD		
CA.GRZ.10.08.SN	KT58NM8		

CA.09 GRZ.20

. Sprue Gripper



:

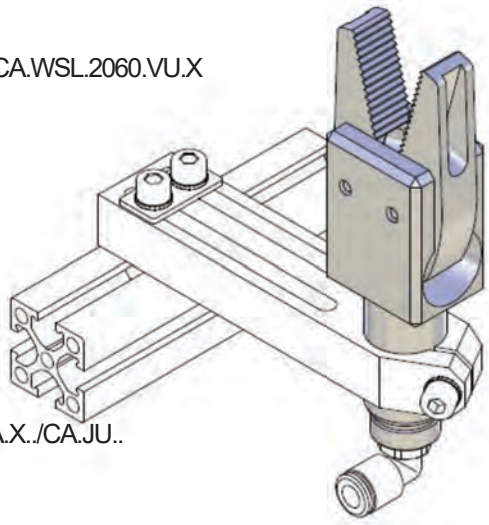
Work Principle: Single Acting
Working pressure: 6 bar clean and dry air

Material

Jaws: Hard Coated Aluminium
Body: Anodized Aluminium

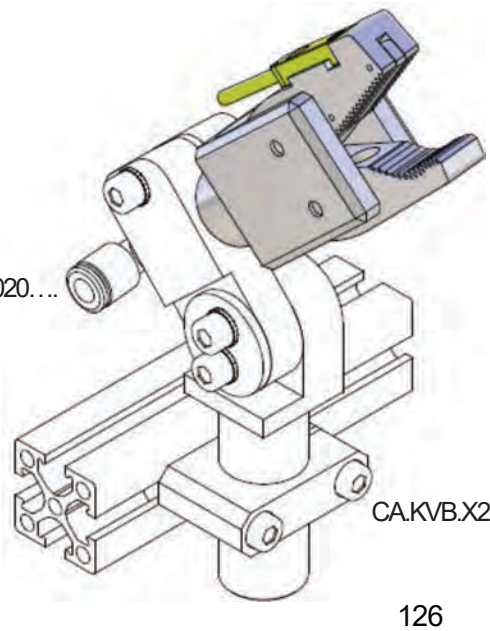
Ar!cle no.	Sensor	Closingforce (at 6 bar)	Weight
CA.GRZ.20.A		90 N	114 g
CA.GRZ.20.E			85 g
CA.GRZ.20.LL			85 g
CA.GRZ.20.R			121 g
CA.GRZ.20.S	GRZ.20.SC.PNP		127 g
CA.GRZ.20.SN	GRZ.20.SC.NPN		
CA.GRZ.20.W	GRZ.20.SC.PNP		107 g
CA.GRZ.20.WN	GRZ.20.SC.NPN		110 g
CA.GRZ.20.WL	GRZ.20.SC.PNP		114 g
CA.GRZ.20.WLN	GRZ.20.SC.NPN		110 g

CA.WSL.2060.VU.X



CA.X../CA.JU..

CA.GVR.2020….



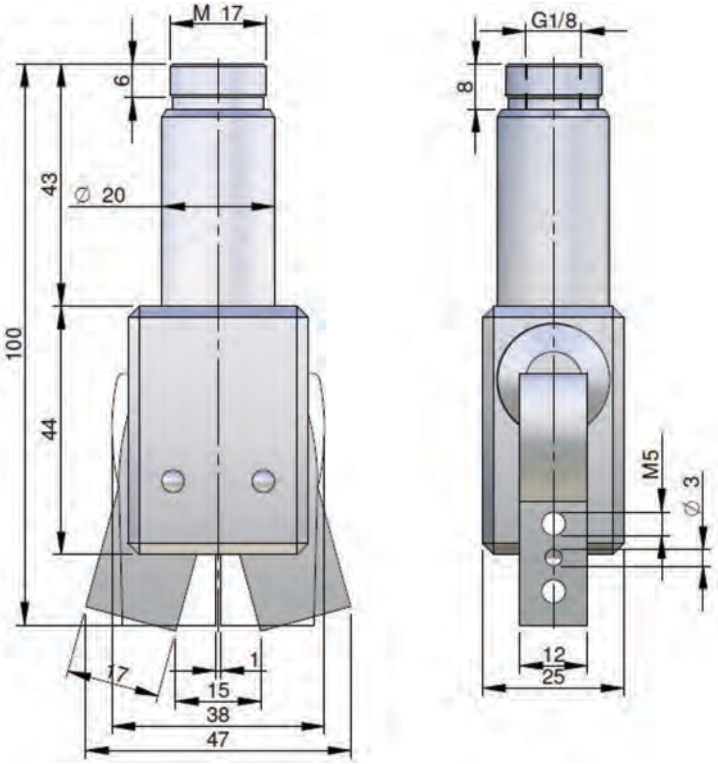
CA.X../CA.JU..

CA.KVB.X20

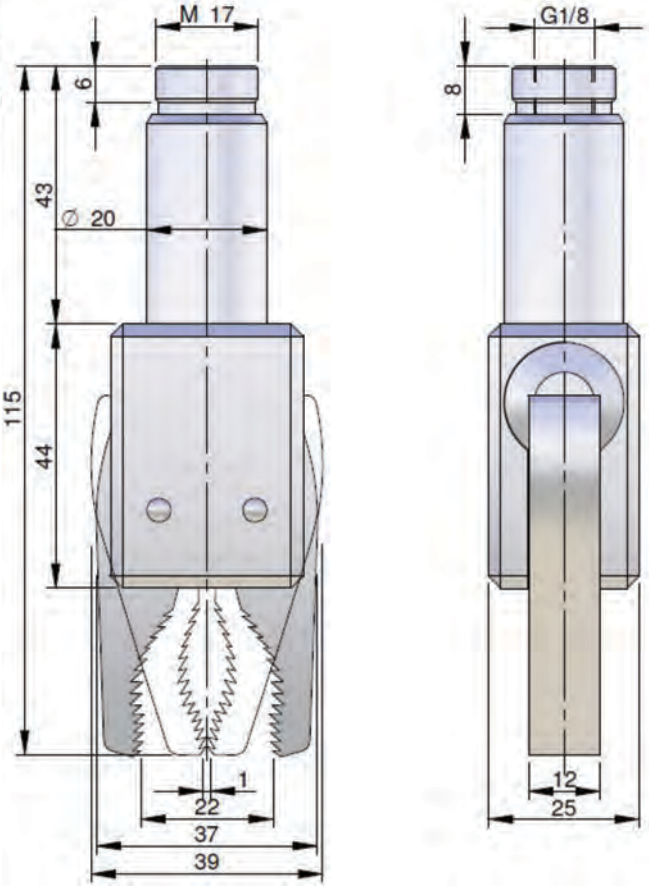
CA.09 GRZ.20

. Dimensions

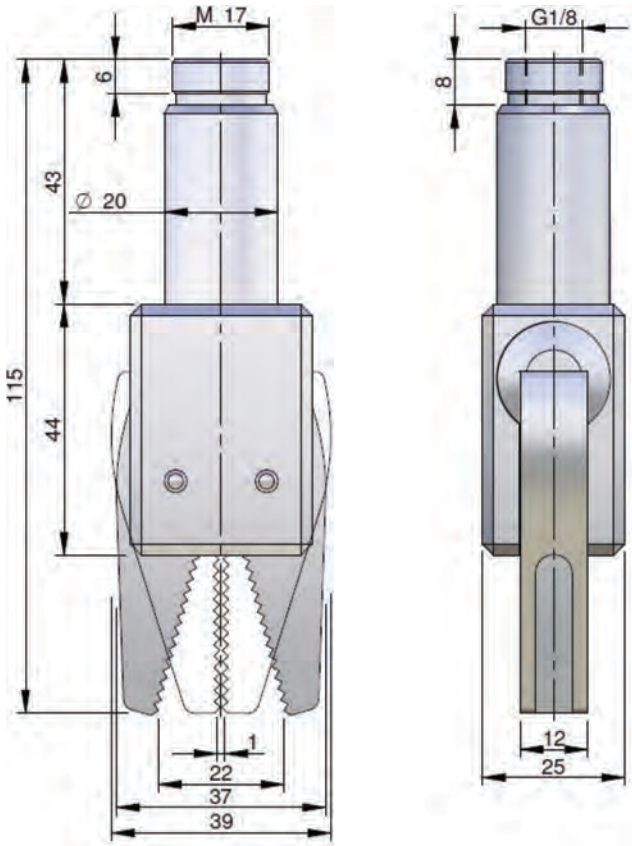
CA.GRZ.20.A



CA.GRZ.20.E



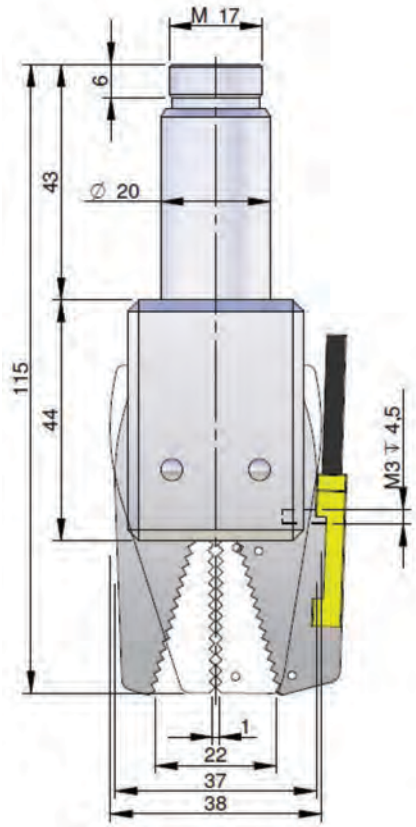
CA.GRZ.20.R

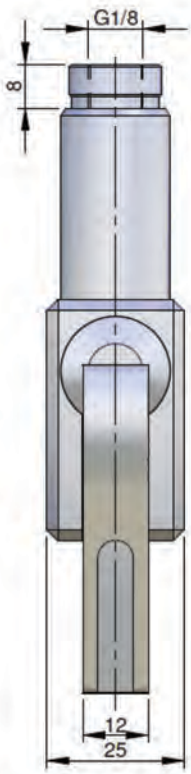


CA.09 GRZ.20

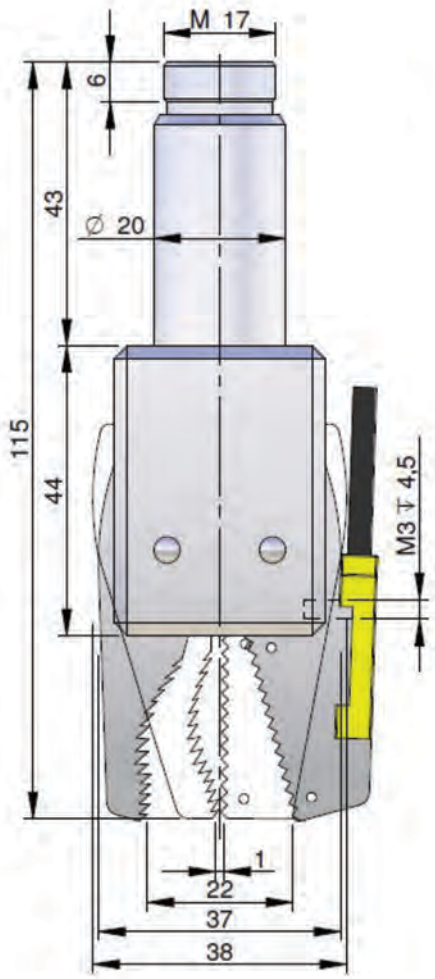
. Dimensions

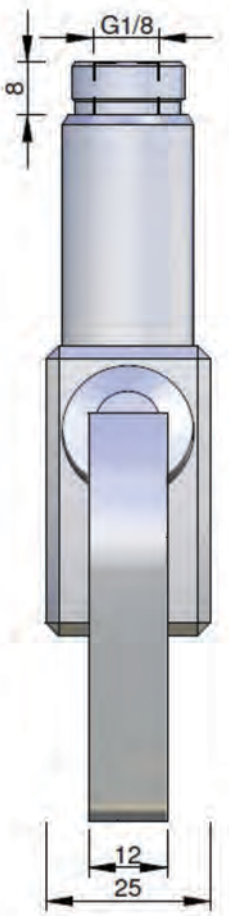
CA.GRZ.20.S/SN





CA.GRZ.20.W/WN

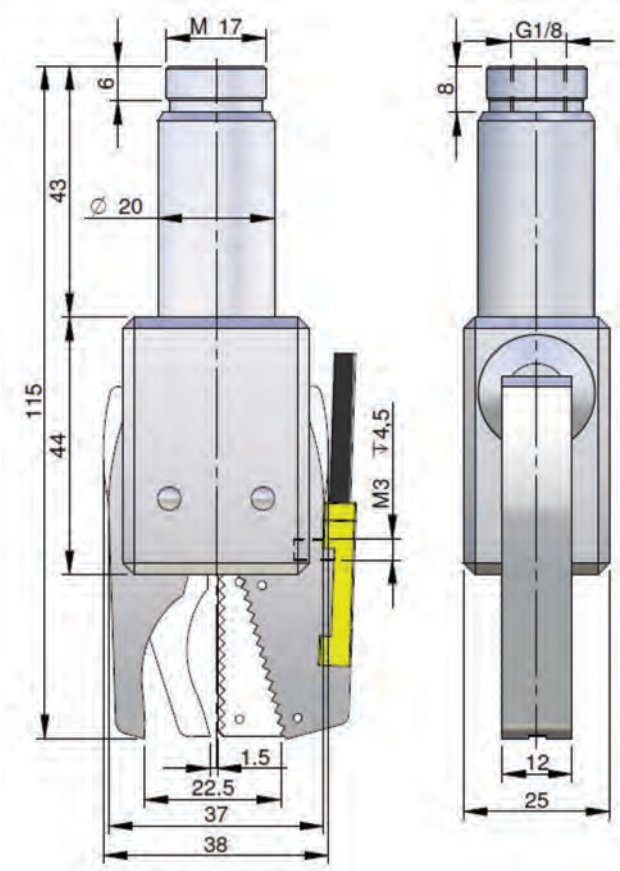




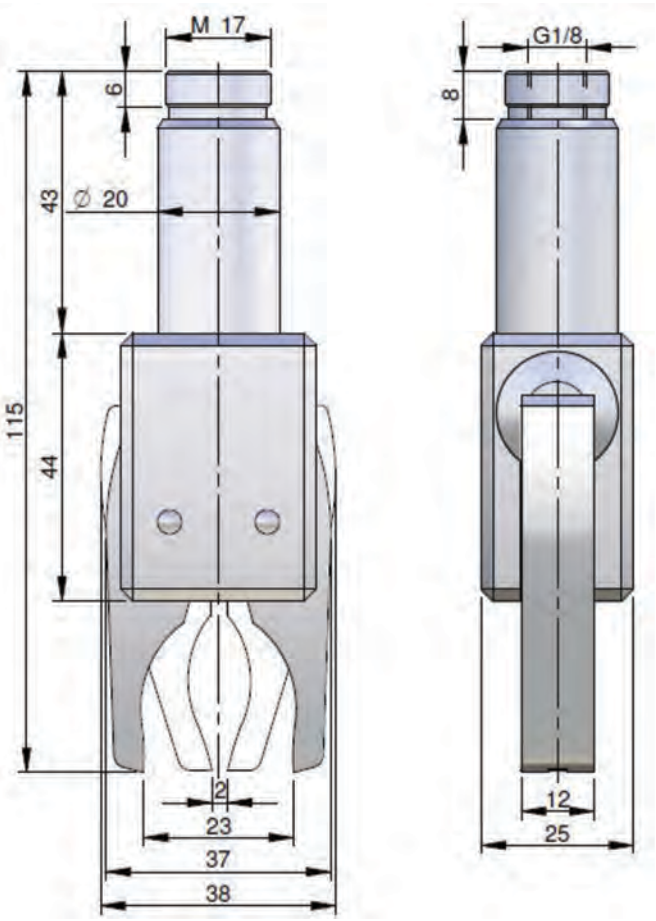
CA.09 GRZ.20

. Dimensions

CA.GRZ.20.WL/WLN

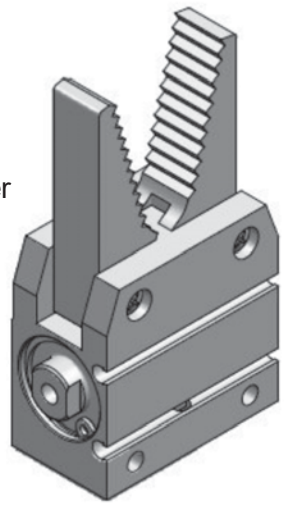


CA.GRZ.20.LL

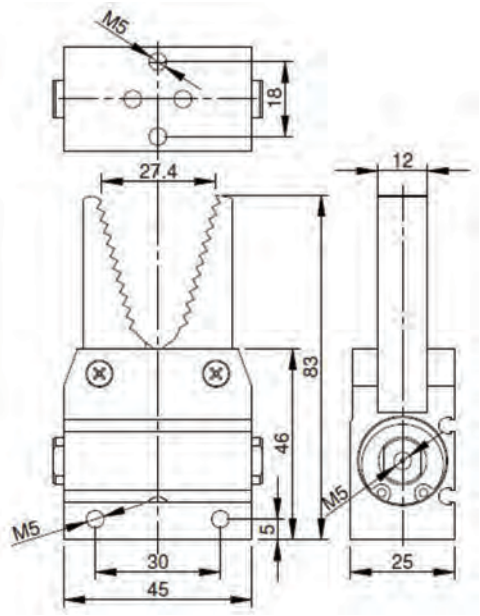


GZA.AA24 S2

. Self Centering Sprue Gripper

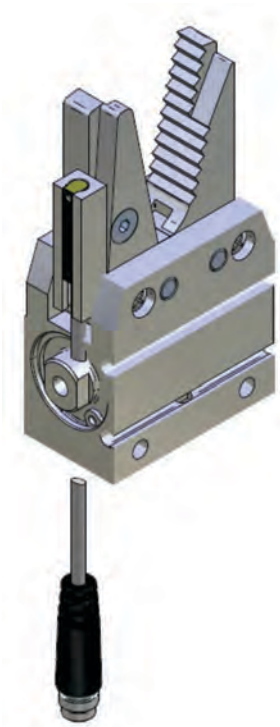


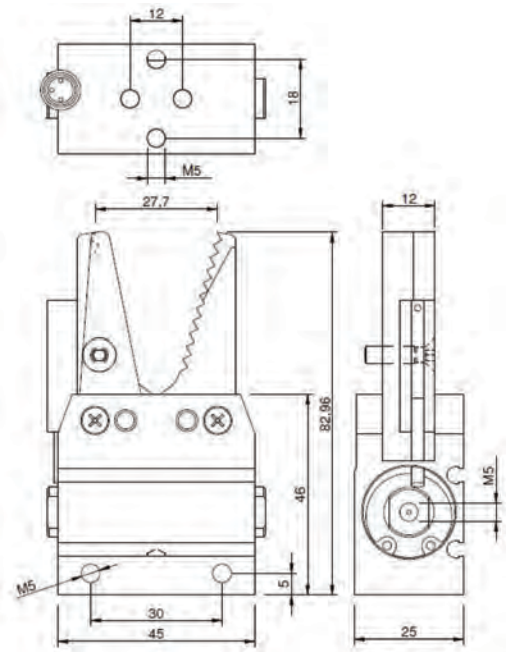
GZA



Ar!cle no.	Work principle	Sensor	Weight
CA.GZA.AA24	Double effect		115 g
CA.GZA.AA24.NO	Normally Open		
CA.GZA.AA24.NOS2		KT58REQD	151 g
CA.GZA.AA24.NOSN		KT58NM8	
CA.GZA.AA24.NOSP		KT58PM8	

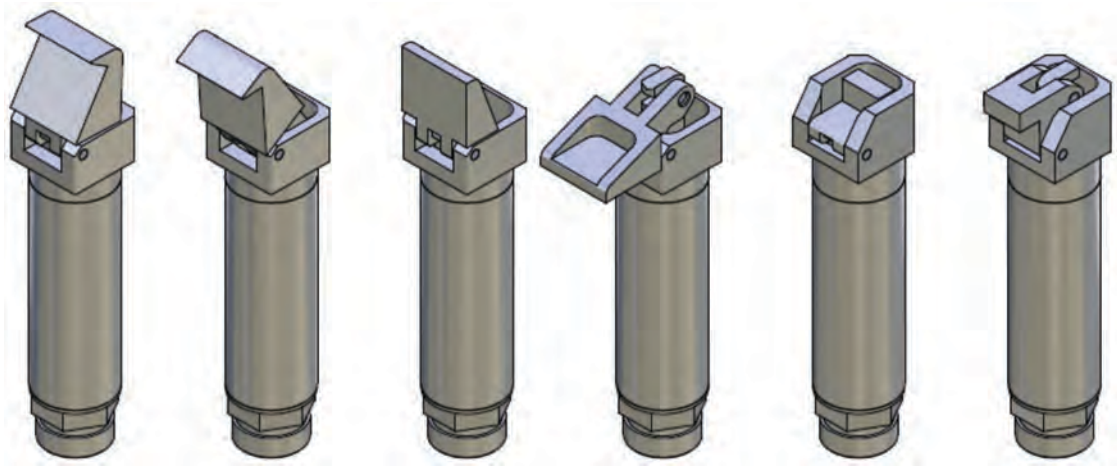
NOS2/ NOSN/ NOSP





CA.09 GRF

. Gripper finger



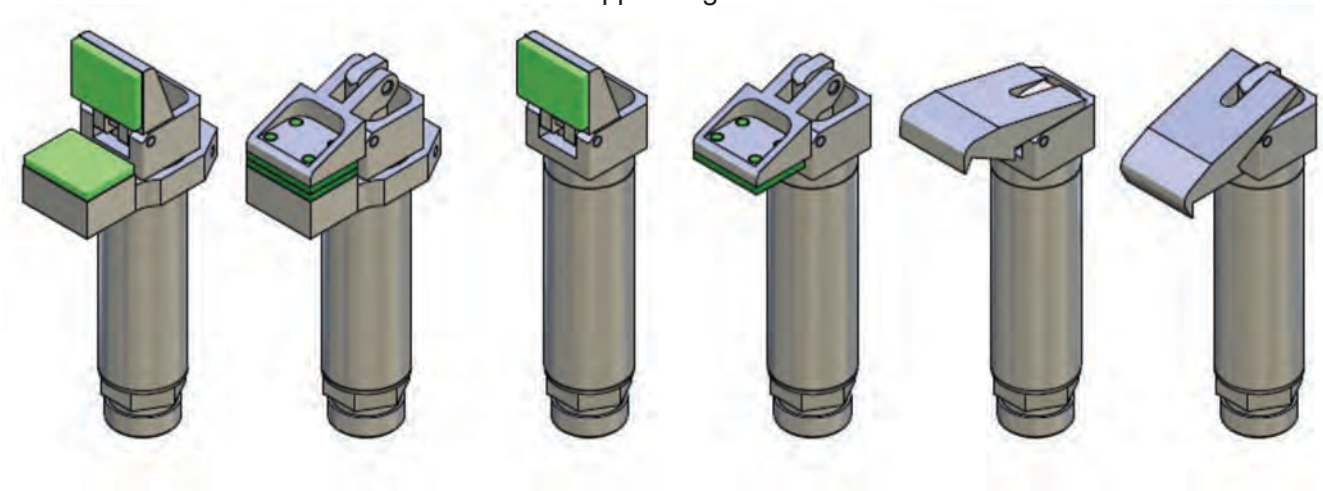
Work Principle: Single Acting
Extension thread for Extension Tube VLR

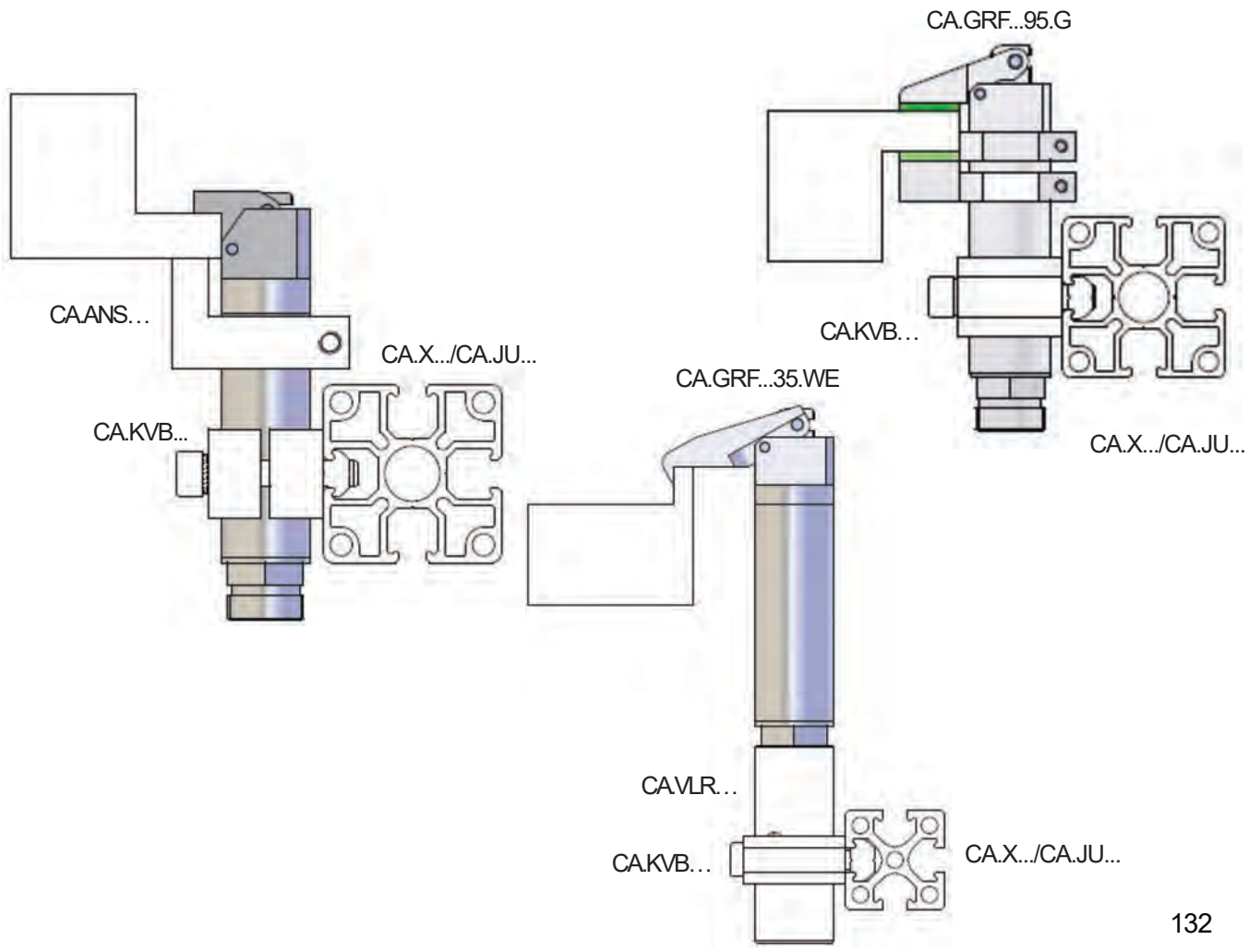
Working Pressure: 6 bar clean and dry air
Material: Aluminum
Surface: Silver Anodized

Ar!cle no.	Stroke	External Diameter	Grip force (at 6 bar)	Cycleair consump! on	Weight
CA.GRF.1435	35°	Ø 14	26 N	0.40 cm³	25 g
CA.GRF.2035		Ø 20	100 N	1.24 cm³	65 g
CA.GRF.3035		Ø 30	430 N	4.56 cm³	206 g
CA.GRF.1490	90°	Ø 14	19 N	1.00 cm³	25 g
CA.GRF.2090		Ø 20	70 N	3.52 cm³	65 g
CA.GRF.3090		Ø 30	300 N	12.90 cm³	185 g
CA.GRF.1495	95°	Ø 14	19 N	1.00 cm³	25 g
CA.GRF.2095		Ø 20	70 N	3.52 cm³	60 g
CA.GRF.3095		Ø 30	300 N	12.90 cm³	193 g
CA.GRF.1495.G		Ø 14	19 N	1.00 cm³	28 g
CA.GRF.2095.G		Ø 20	70 N	3.52 cm³	75 g
CA.GRF.3095.G		Ø 30	300 N	12.90 cm³	235 g
CA.GRF.1495.GW		Ø 14	19 N	1.00 cm³	25 g
CA.GRF.2095.GW		Ø 20	70 N	3.52 cm³	60 g
CA.GRF.3095.GW		Ø 30	300 N	12.90 cm³	193 g
CA.GRF.2035.WE	35°	Ø 20	100 N	1.24 cm³	76 g
CA.GRF.3035.WE		Ø 30	430 N	12.90 cm³	259 g

CA.09 GRF

Gripper Finger

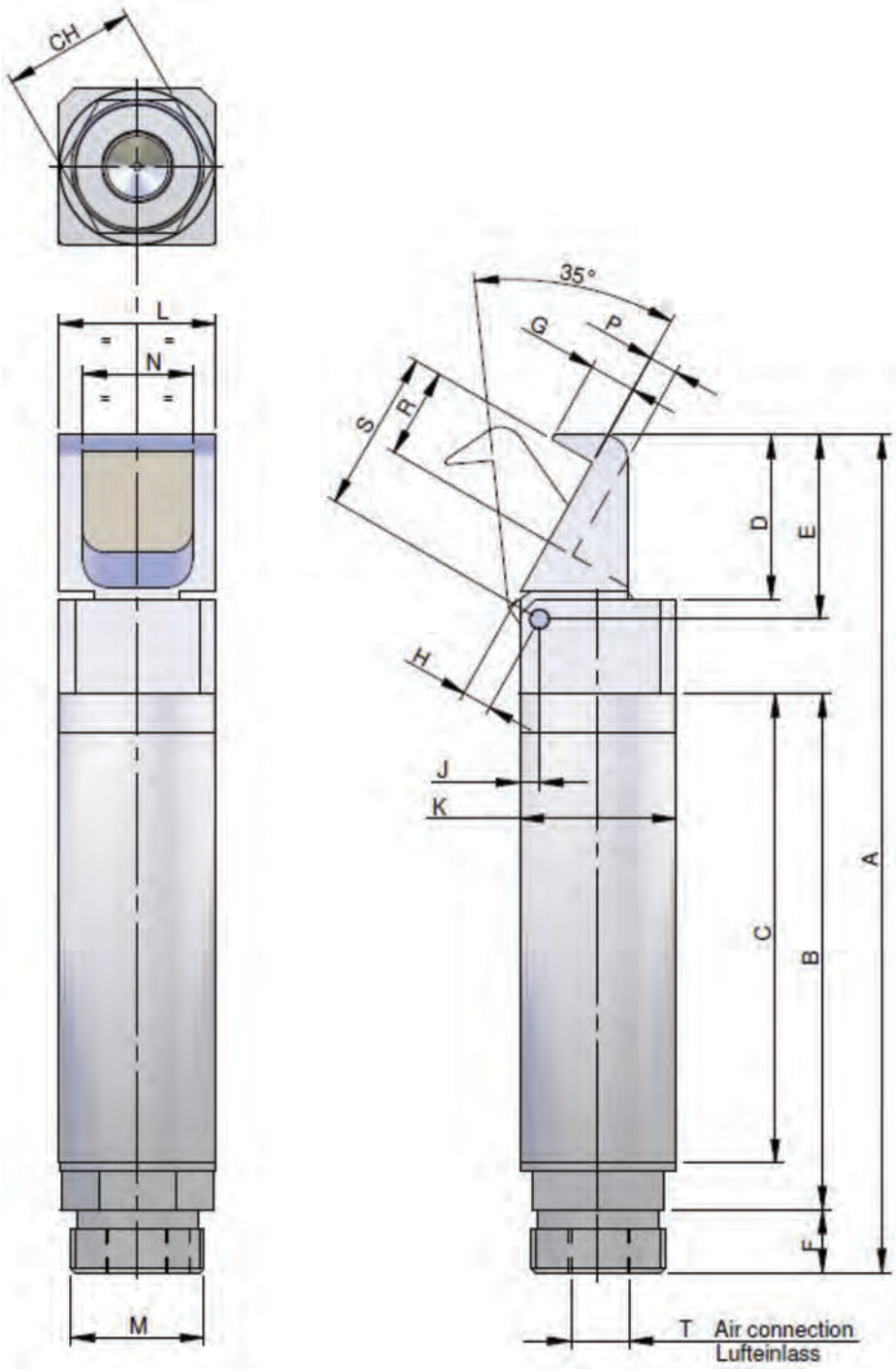




CA.09 GRF35°

. Dimensions

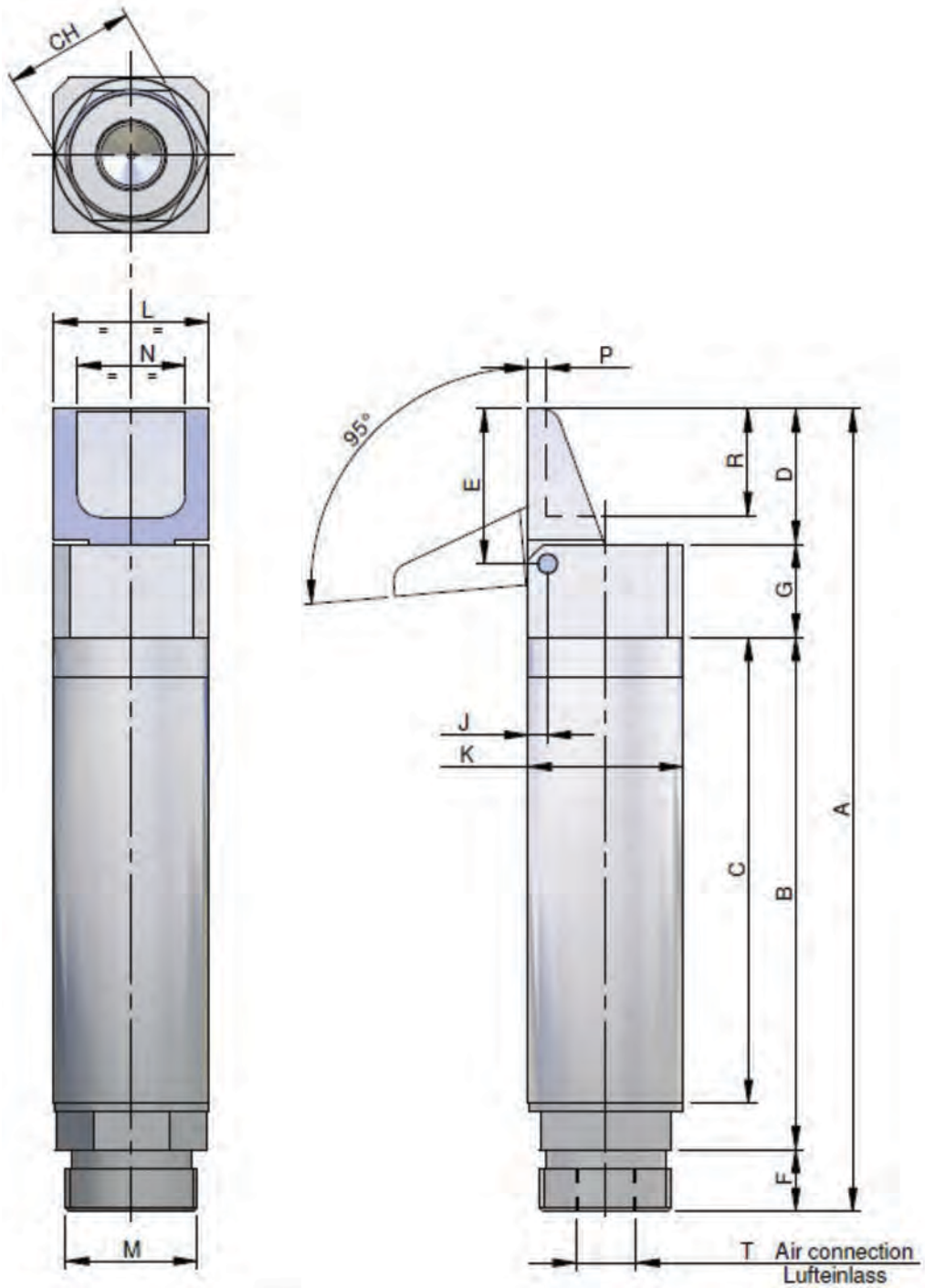
Ar!cle no.	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	CH
CA.GRF.1435	77	47.5	43.5	14	16	5.5	4.5	3.4	2	Ø 14	14	M12X1	10	2	6	13.5	M5	12
CA.GRF.2035	107	66	60	21	23.5	8	6	3.8	2.5	Ø 20	20	M17X1	14	3	11.5	20.7	G 1/8	17
CA.GRF.3035	156	100	92	30	34	11	8	6	4	Ø 30	30	M27X1	22	5	17	30.8		27



CA.09 GRF95°

. Dimensions

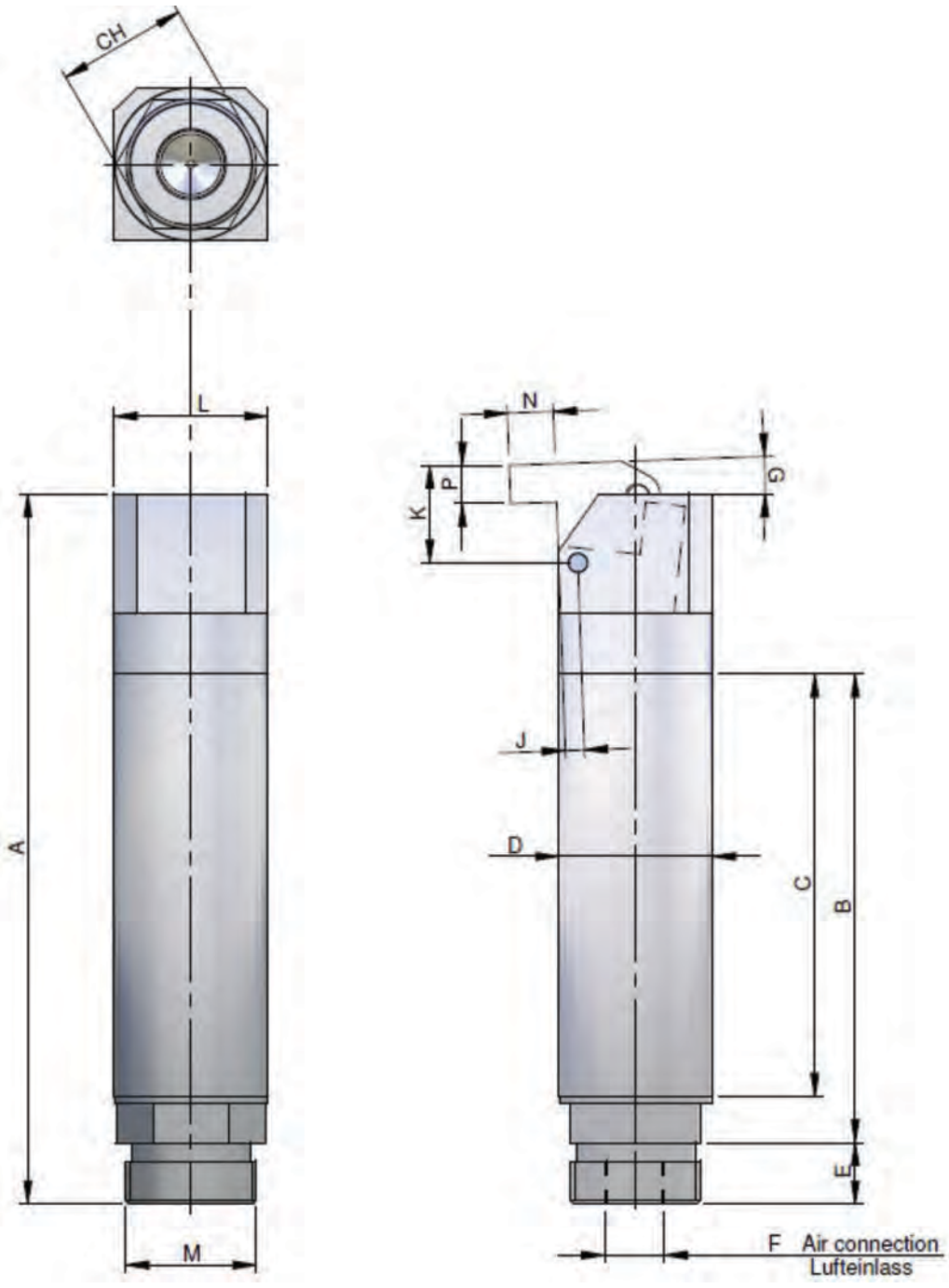
Ar!cle no.	A	B	C	D	E	F	G	J	K	L	M	N	P	R	T	CH
CA.GRF.1495	75.5	47.5	43.5	12	14	5.5	10.5	2	Ø 14	14	M12X1	10	2	9	M5	12
CA.GRF.2095	103.5	66	60	17.5	20	8	12	2.5	Ø 20	20	M17X1	14	3	14	G 1/8	17
CA.GRF.3095	148	100	90	25	29	11	12	4	Ø 30	30	M27X1	22	5	21		27



CA.09 GRF90°

. Dimensions

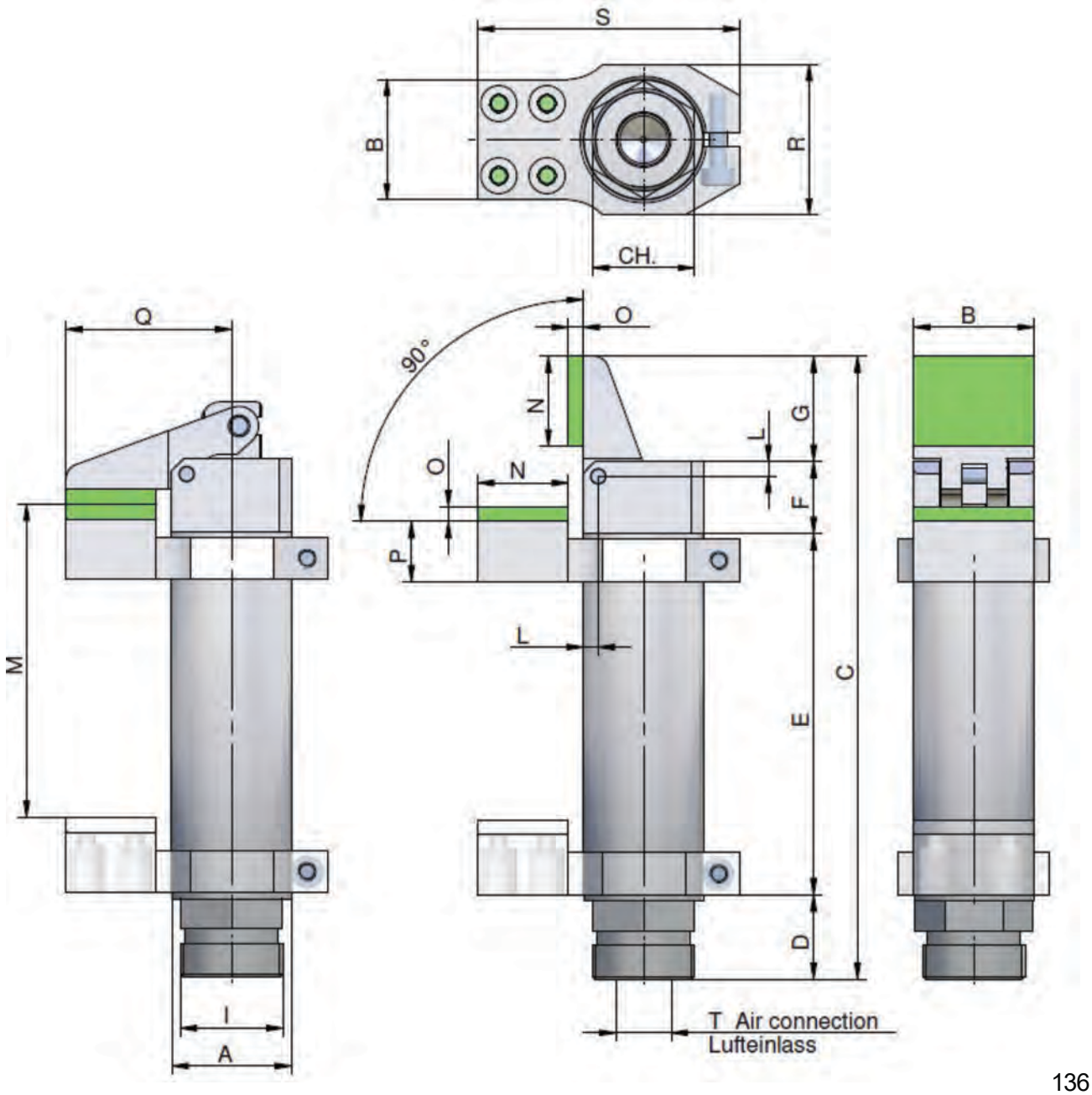
Ar!cle no.	A	B	C	D	E	F	G	J	K	L	M	N	P	CH
CA.GRF.1490	69	45.5	41.5	Ø 14	5.5	M5	2°	3	8	14	M12X1	4.8	4	12
CA.GRF.2090	92.5	61	55	Ø 20	8	G 1/8		2.5	13	20	M17X1	6	5	17
CA.GRF.3090	135	91	83	Ø 30	11			4	20	30	M27X1	11	6	27



CA.09 GRF95° G / GTPE

. Dimensions

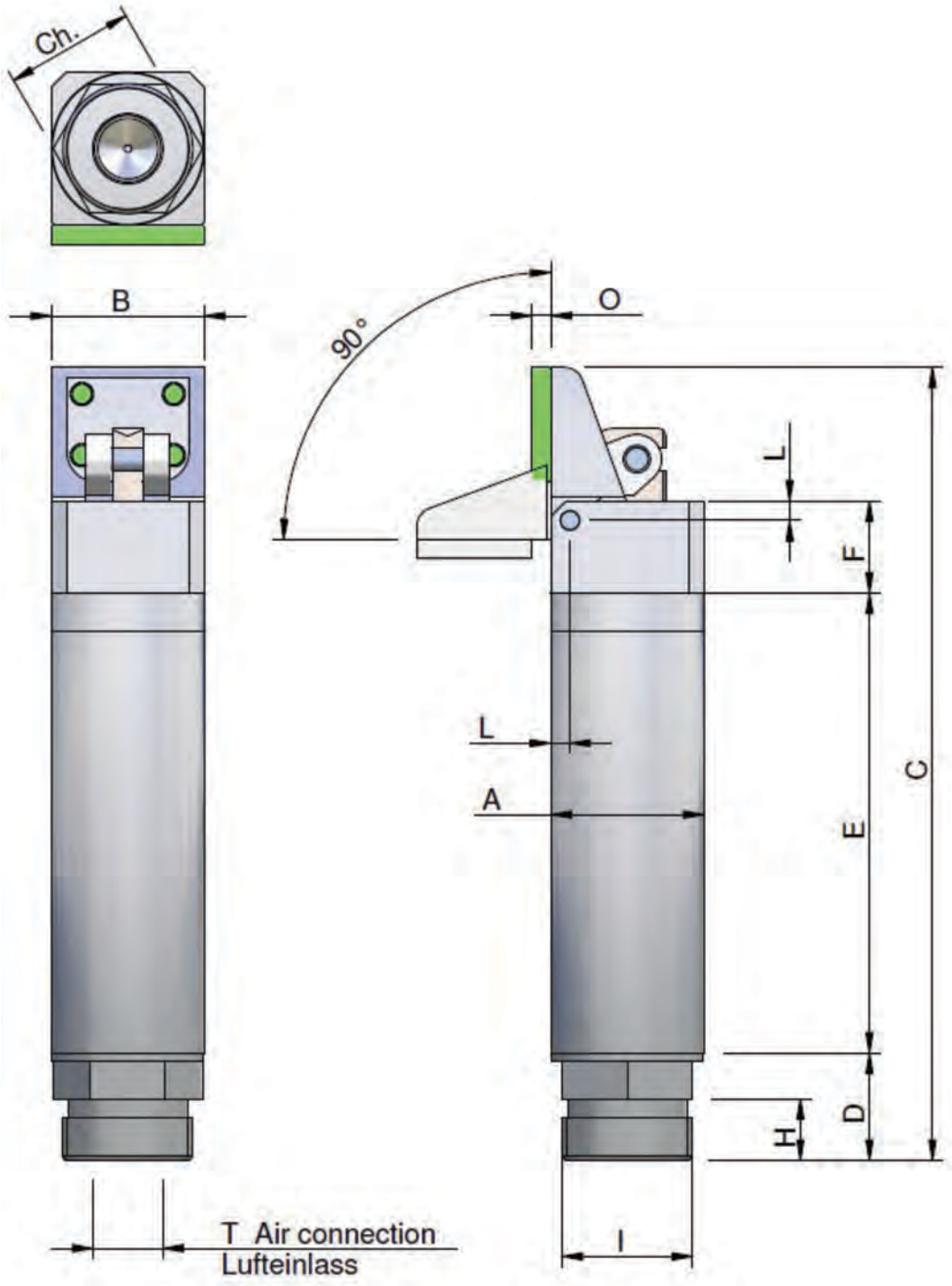
Ar!cle no.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	CH
CA.GRF.1495.G	Ø 14	14	75.5	9.5	43.5	10.5	12	5.5	M12X1	2	38.5	10	2.5	6.5	19	17.5	30	M5	12
CA.GRF.2095.G	Ø 20	20	103.5	14	60	12	17.5	8	M17X1	2.5	52.5	15		10	27.5	25	43.5	G 1/8	17
CA.GRF.3095.G	Ø 30	30	148	20	90	15	25	11	M27X1	4	81	20	3	9	40	37	60		27



CA.09 GRF95° GW

. Dimensions

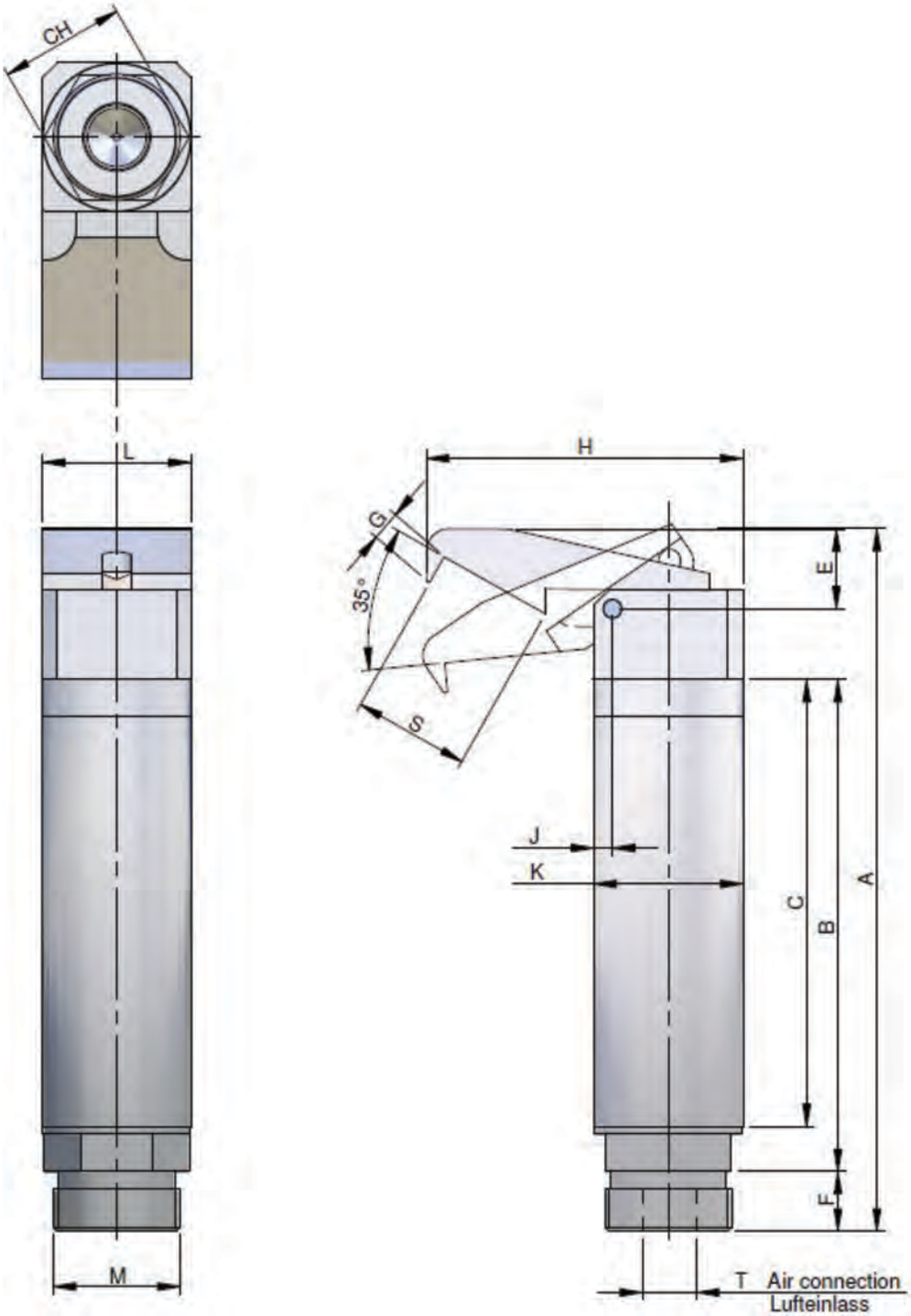
Ar!cle no.	A	B	C	D	E	F	H	I	L	O	T	CH
CA.GRF.1495.GW	Ø 14	14	75.5	9.5	43.5	10.5	5.5	M12X1	2	2.5	M5	12
CA.GRF.2095.GW	Ø 20	20	103	14	60	12	8	M17X1	2.5		G 1/8	17
CA.GRF.3095.GW	Ø 30	30	148	20	90	15	11	M27X1	4	3		27



CA.09 GRF35° WE

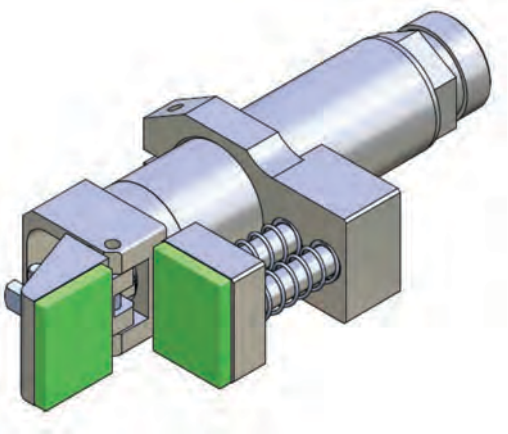
. Dimensions

Ar!cle no.	A	B	C	E	F	G	H	J	K	L	M	S	T	CH
CA.GRF.2035.WE	94	66	60	11	8	4	42.5	2.5	Ø20	20	M17X1	15,5	G1/8	17
CA.GRF.3035.WE	133	98	90	14	11		60.9	4.1	Ø30	30	M27X1	26		27



CA.09 GRF.VSX

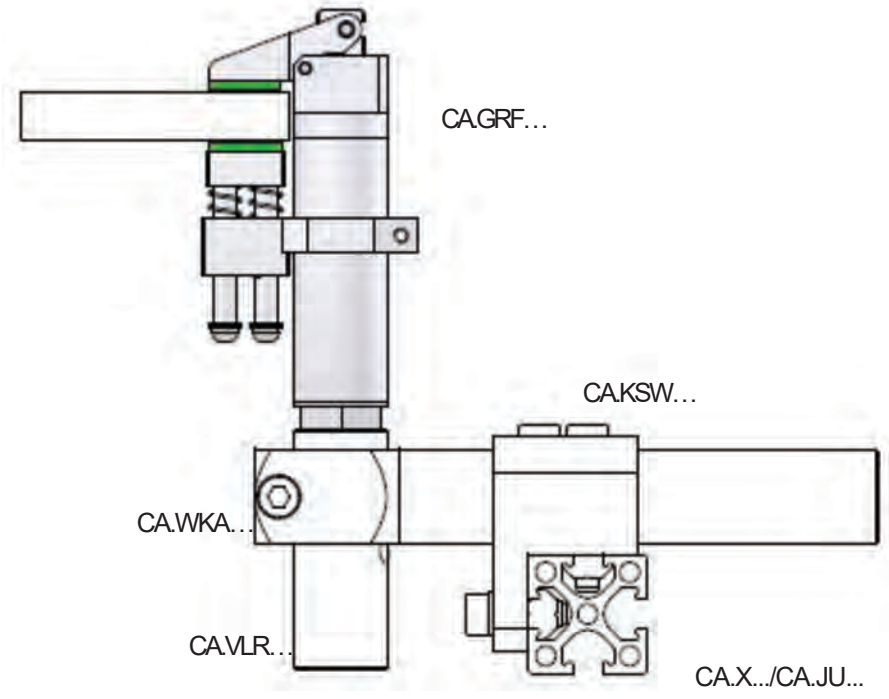
. Gripper finger



Work principle: Single Acting
Extension thread for Extension Tube VLR
Working pressure: 6 bar clean and dry air
Material:Aluminum
Surface: Silver Anodized

Ar!cle no.	Stroke	Piston bore	Grip force (at 6 bar)	Cycleair consump! on	Weight
CA.GRF.1495.VSX	95°	Ø 10 mm	19 N	1.00 cm³	45 g
CA.GRF.2095.VSX		Ø 16 mm	70 N	3.52 cm³	100 g
CA.GRF.3095.VSX		Ø 25 mm	300 N	12.90 cm³	360 g

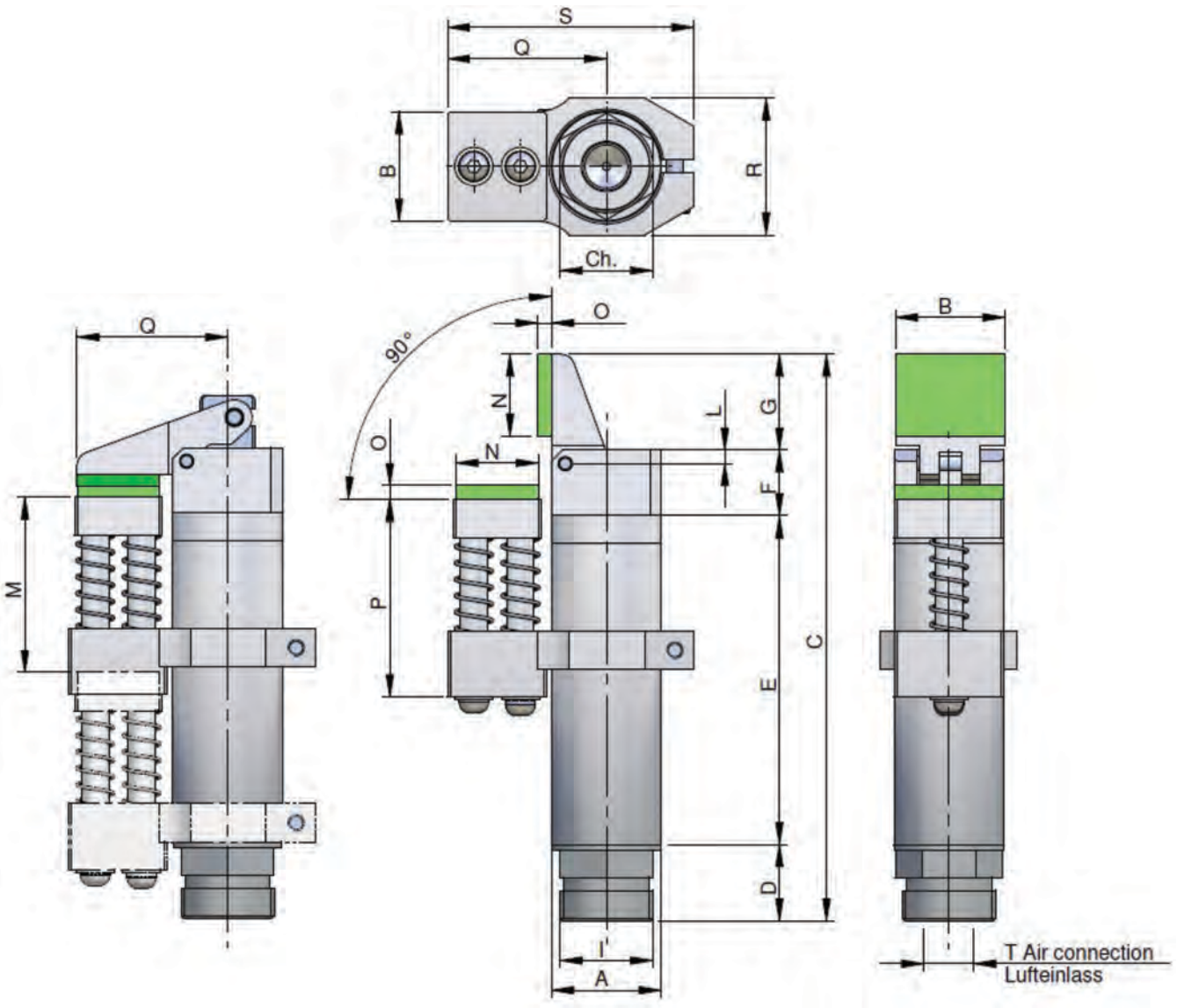
Applica! on example / Esempioapplica! vo



CA.09 GRF95° VSX

. Dimensions

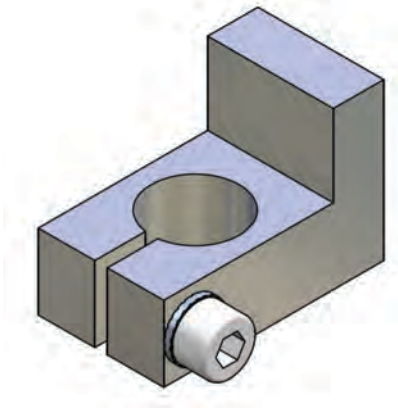
Ar!cle no.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	CH
CAGRF1495VSX	Ø 14	14	75.5	9.5	43.5	10.5	12	5.5	M12X1	2	16.5	10	2.5	6.5	19	17.5	30	M5	12
CAGRF2095VSX	Ø 20	20	103.5	14	60	12	17.5	8	M17X1	2.5	41.5	15	2.5	10	27.5	25	43.5	G 1/8	17
CAGRF3095VSX	Ø 30	30	148	20	90	15	25	11	M27X1	4	53	20	3	9	40	37	60		27

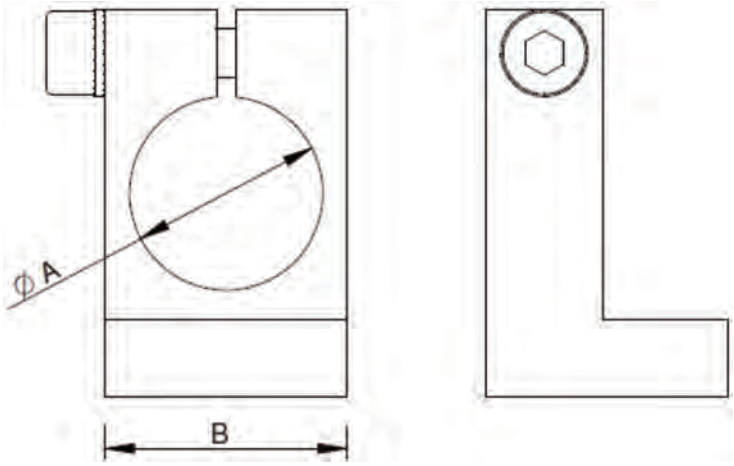


CA.09 ANS / ZTS

GRF

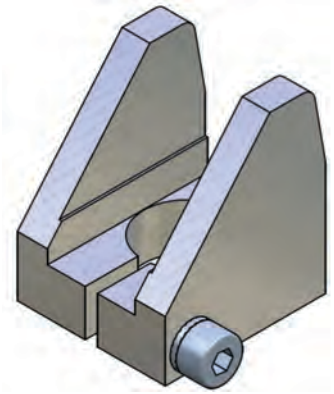
. Stopper For Grippers

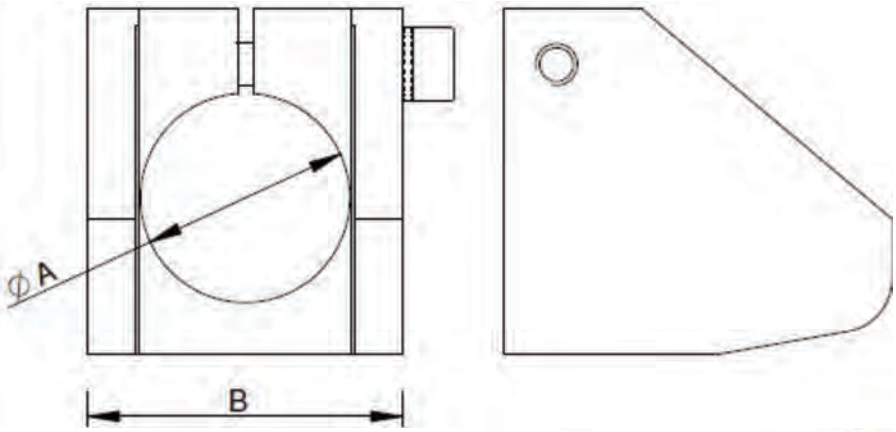




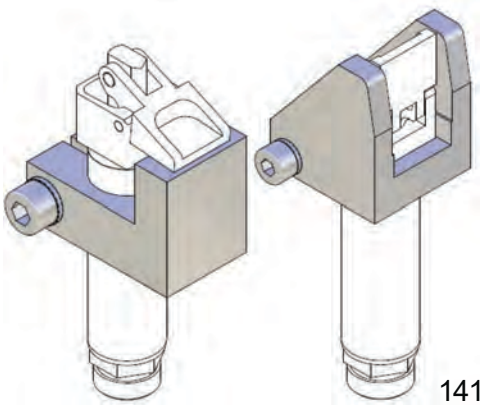
Ar!cle no.	A	B	M	Weight
CA.ANS.14	Ø 14	20	CA.GRF.14…	17 g
CA.ANS.20	Ø 20	25	CA.GRF.20…	21 g
CA.ANS.30	Ø 30	35	CA.GRF.30…	30 g

. Gripper Guide





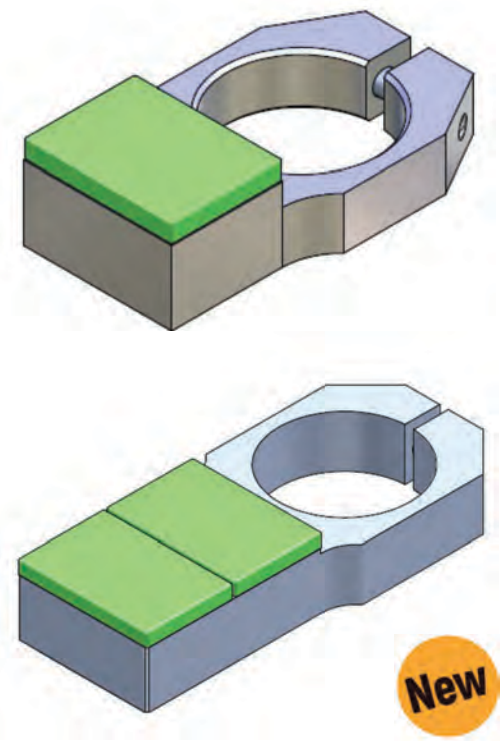
Ar!cle no.	A	B	M	Weight
CA.ZTS.14	Ø 14	24	CA.GRF.14…	15 g
CA.ZTS.20	Ø 20	30	CA.GRF.20…	20 g
CA.ZTS.30	Ø 30	45	CA.GRF.30…	60 g

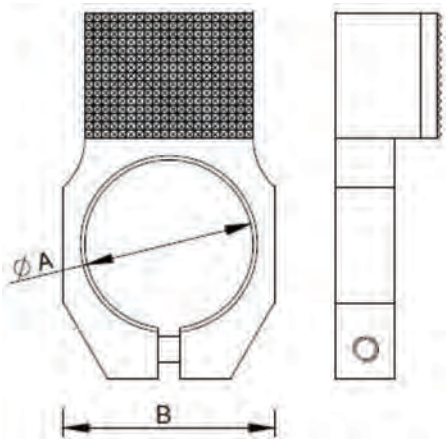


CA.09 GRF0708

GRF

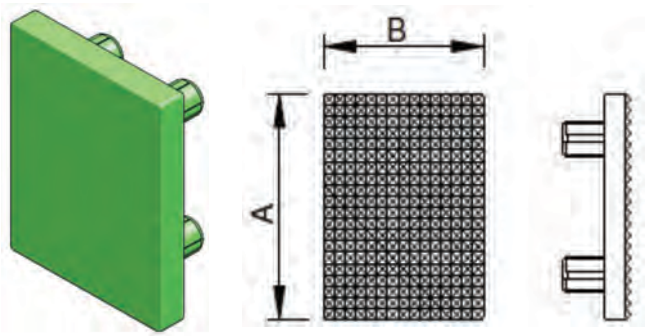
. Stopper For Grippers





Ar!cle no.	A	B	M	Weight
GRF14.95.0708	Ø 14	20	CA.GRF.14…	5 g
GRF20.95.0708	Ø 20	25	CA.GRF20…	14 g
GRF30.95.0708	Ø 30	37	CA.GRF.30...	33 g
New GRF30.95.0708.40				

. Insert VITON



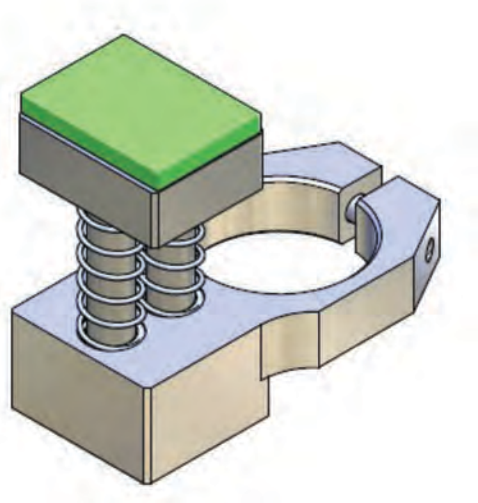
Ar!cle no.		Colour	A	B	M	Weight
GRF14.95.08.V	VITON	Green	14	10	CA.GRF.14…	1 g
GRF20.95.08.V			20	15	CA.GRF20…	2 g
GRF30.95.08.V			30	20	CA.GRF.30...	3 g

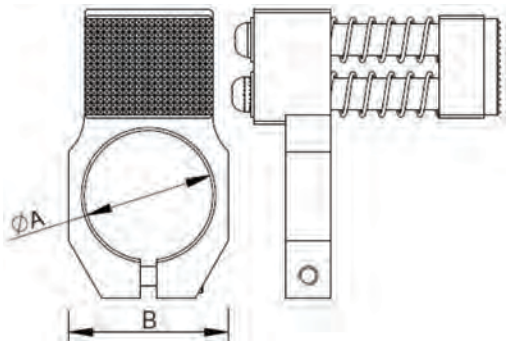
	VITON
UV ageing, weather -resistance	J
Low temperature limit	-10°C
High temperature limit (continuous)	180°C
High temperature limit	210°C
Leaving few marks	J

CA.09 GRFVSX

GRF

. Stopperfor grippers

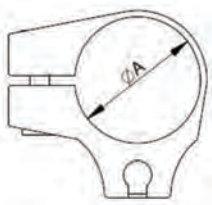




Ar!cle no.	A	B	M	Weight
GRF14.VSX	Ø 14	20	CA.GRF.14..	15 g
GRF20.VSX	Ø 20	25	CA.GRF.20..	20 g
GRF30.VSX	Ø 30	37	CA.GRF.30..	50 g

Material : Viton
M = Suitable for Gripper Finger GRF...

. Holder for Cylinder sensor



Ar!cle no.	A	M	Sensor
CA.TIK.14007	Ø 14	CA.GRF.14..	KT38...
CA.TIK.20007	Ø 20	CA.GRF.20..	
CA.TIK.30007	Ø 30	CA.GRF.30..	

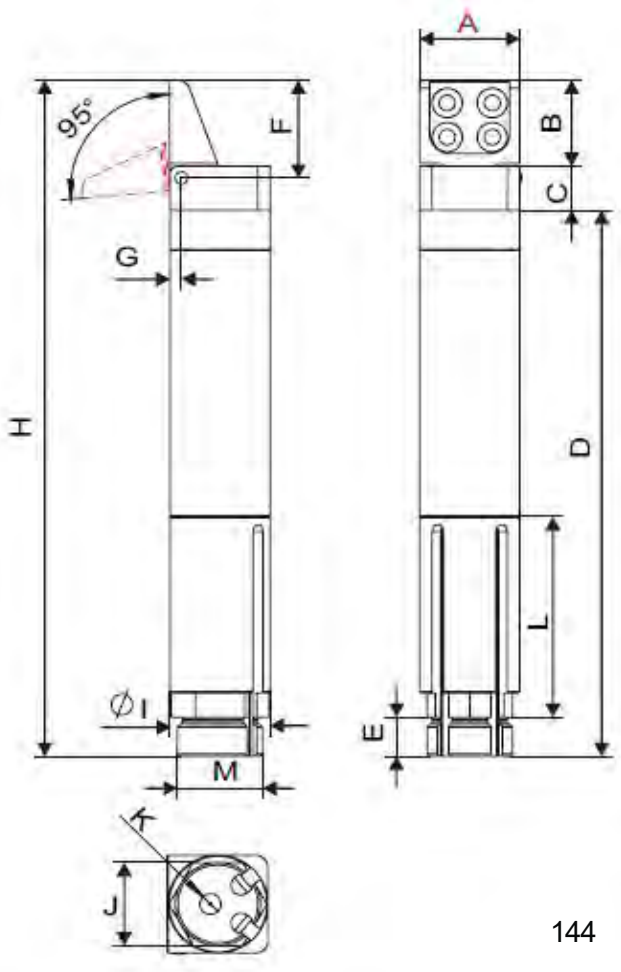
CA.GFR20-95S

NEW

- Built In Sensor Slot & Magnetic Ring

Model	GFR20-95S
Medium	Filtered, lubricated / non lubricated compressed air
Gripper body	Aluminium
Pressure range	2.5 ~ 8 bar
Temperature range	-10 ~ 70 °C.
Stroke	95°
Piston bore	Ø16 mm
Closing torque at 6 bar	70 N.cm
Cycle air consumption	3.52 cm^3
Weight	89g

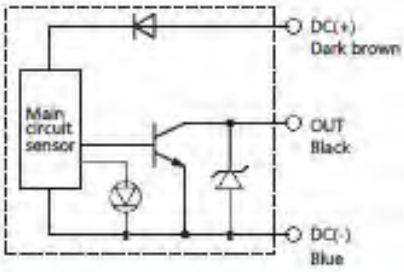
A	20
B	17.5
C	9
D	111.5
E	8
F	20
G	2.3
H	138
I	Ø20
J	17
K	M5
L	41
M	M17×1



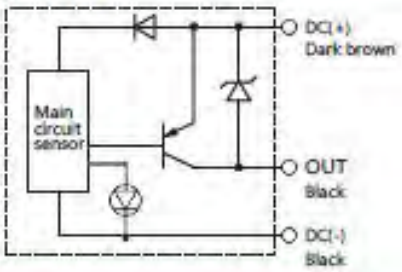
Sensor For CA.GFR20-95S

Model | D-MQ

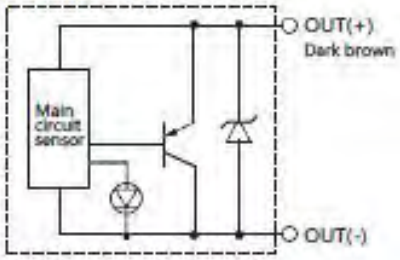
D-M9N•M9NV



D-M9P•M9PV



D-M9B•M9BV

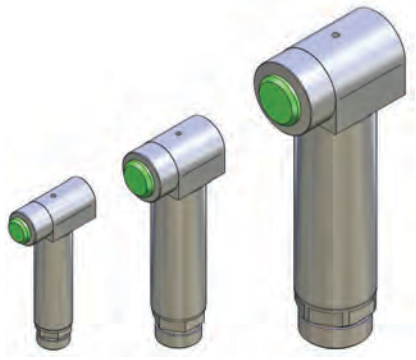


Model		L(mm)
D-M9B D-M9BL	NPN	0.5m cable 3m cable
D-M9BV D-M9BVL	NPN	0.5m cable 3m cable
D-M9N D-M9NL	NPN	0.5m cable 3m cable
D-M9NV D-M9NVL	NPN	0.5m cable 3m cable
D-M9P D-M9PL	PNP	0.5m cable 3m cable
D-M9PV D-M9PVL	PNP	0.5m cable 3m cable

CA.11 PMA

PMA

90 Deg Finger Gripper - Single Acting



Ar!cle no.	Stroke	Piston bore	Gripping force (at 6 bar)	Cycle air consump! on	Weight
CA.PMA.1406	6 mm	Ø 10 mm	63 N	0.5 cm³	47 g
CA.PMA.2010	10 mm	Ø 16 mm	115 N	3.5 cm³	115 g
CA.PMA.3015	15 mm	Ø 25 mm	230 N	15 cm³	380 g

Specification

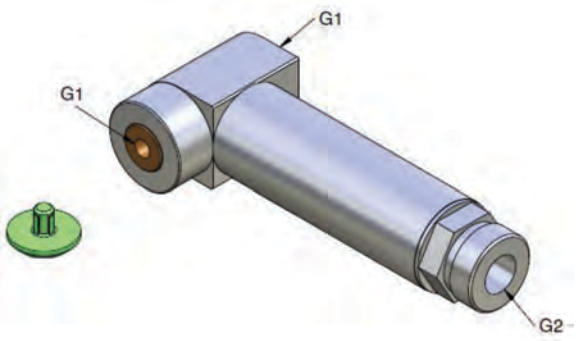
Working Pressure: 6 bar clean and dry air

Single-Acting

Finger linear motion: perpendicular to the piston

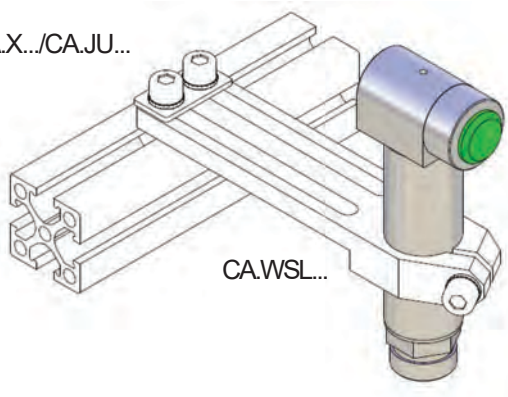
Finger with through hole, to provide vacuum to a cup

Removable VITON rubber pad on the finger, for a soft touch



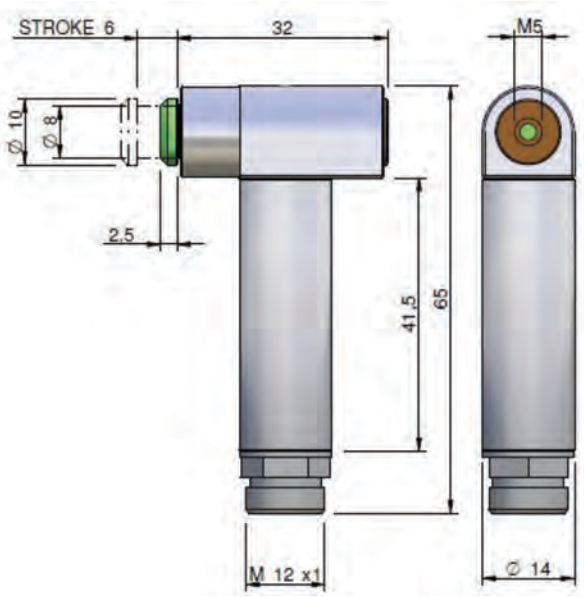
Ar!cle no.	G1	G2
CA.PMA.1406	M5	M5
CA.PMA.2010		G 1/8
CA.PMA.3015	G 1/8	

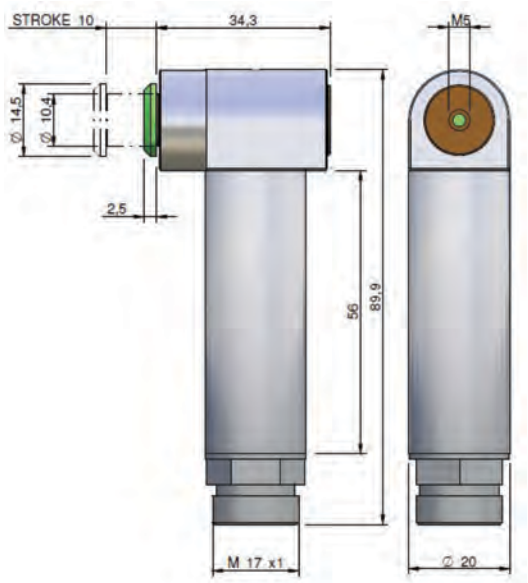
CA.L…/CA.X.../CA.JU...

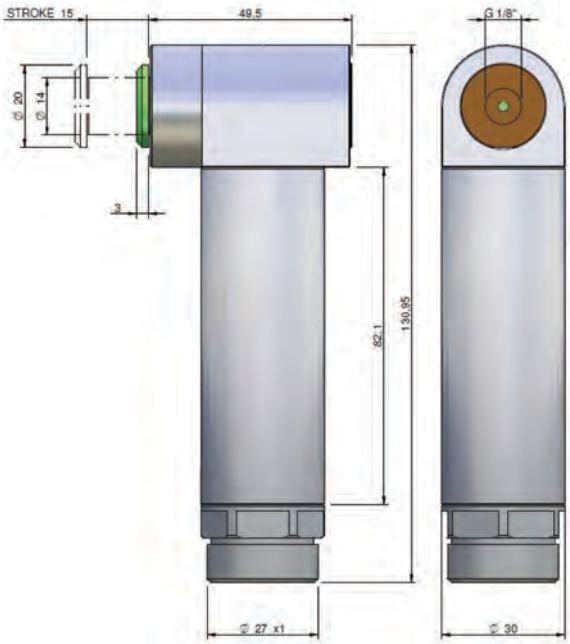


CA.11 PMA

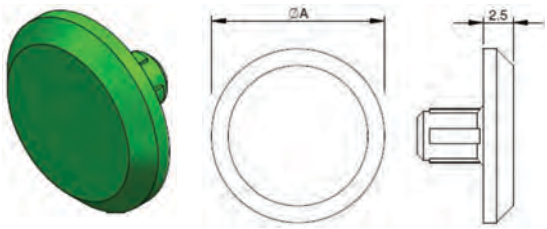
. Dimensions





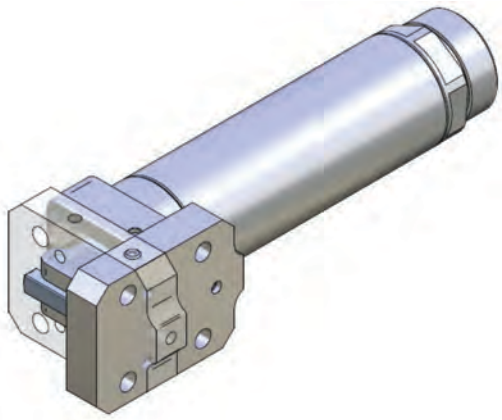


Ar!cle no.	A	Weight
PPS.1406.07.V	10	...
PPS.2010.07.V	14.5	1 g
PPS.3015.07.V	20	4 g



CA.09 RBL90°

Pivot Cylinder

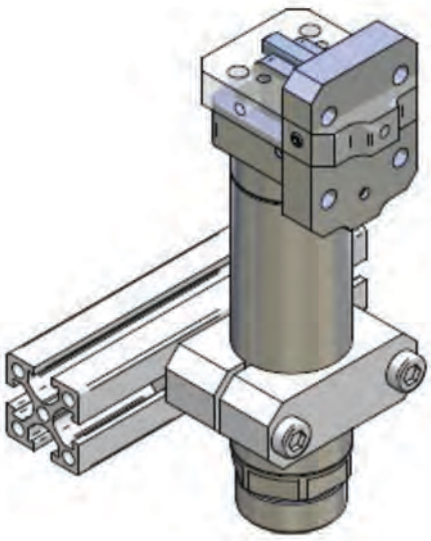


Work Principle: Single Acting
Extension thread for Extension Tube VLR

Working Pressure: 6 bar clean and dry air
Material: Aluminum
Surface: Silver Anodized

Ar!cle no.	Stroke	External Diameter	Grip force (at 6 bar)	Cycleair consump! on	Weight
CA.RBL.30	90°	Ø 30 mm	300 N	12.90 cm³	270 g

CA.X.../CA.JU...

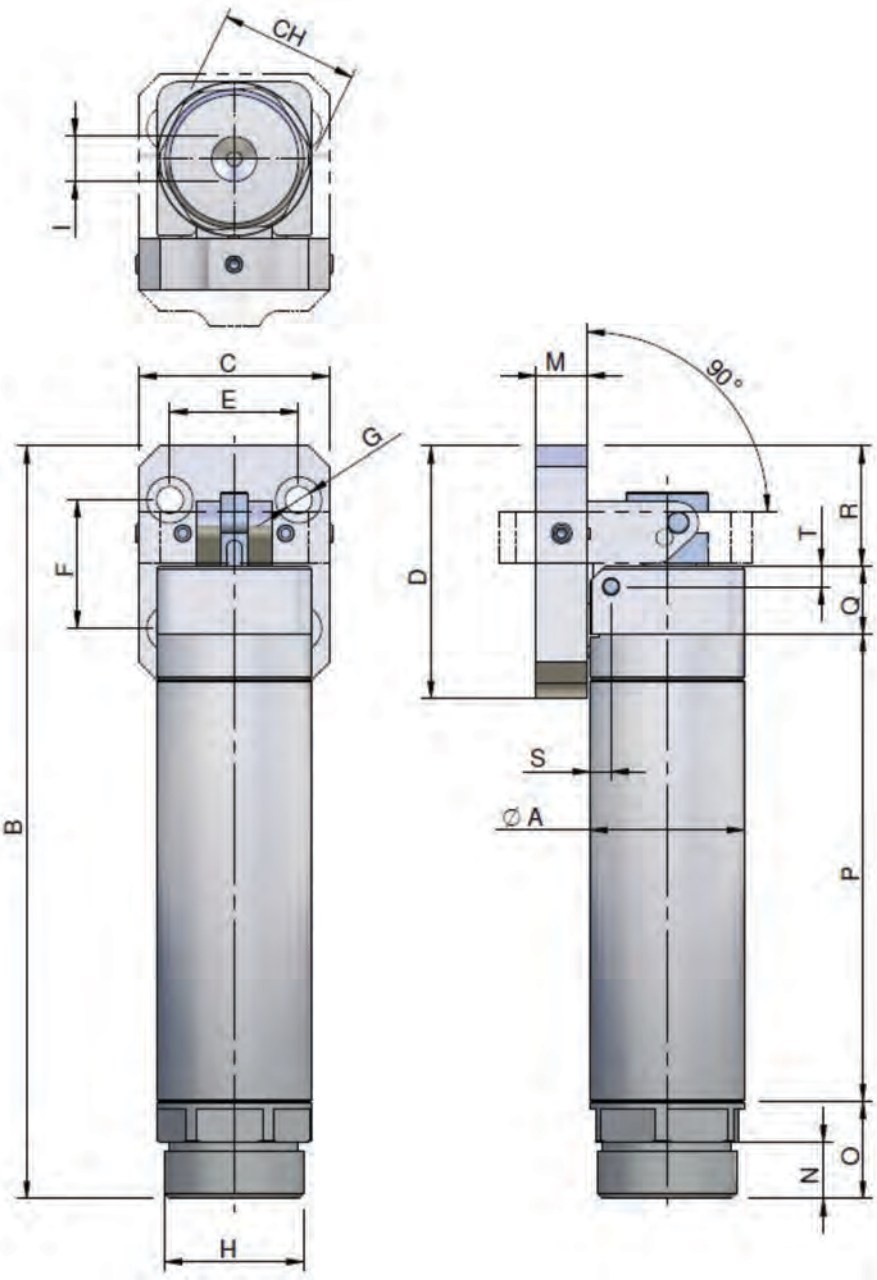


CA.KVB...

CA.09 RBL90°

. Dimensions

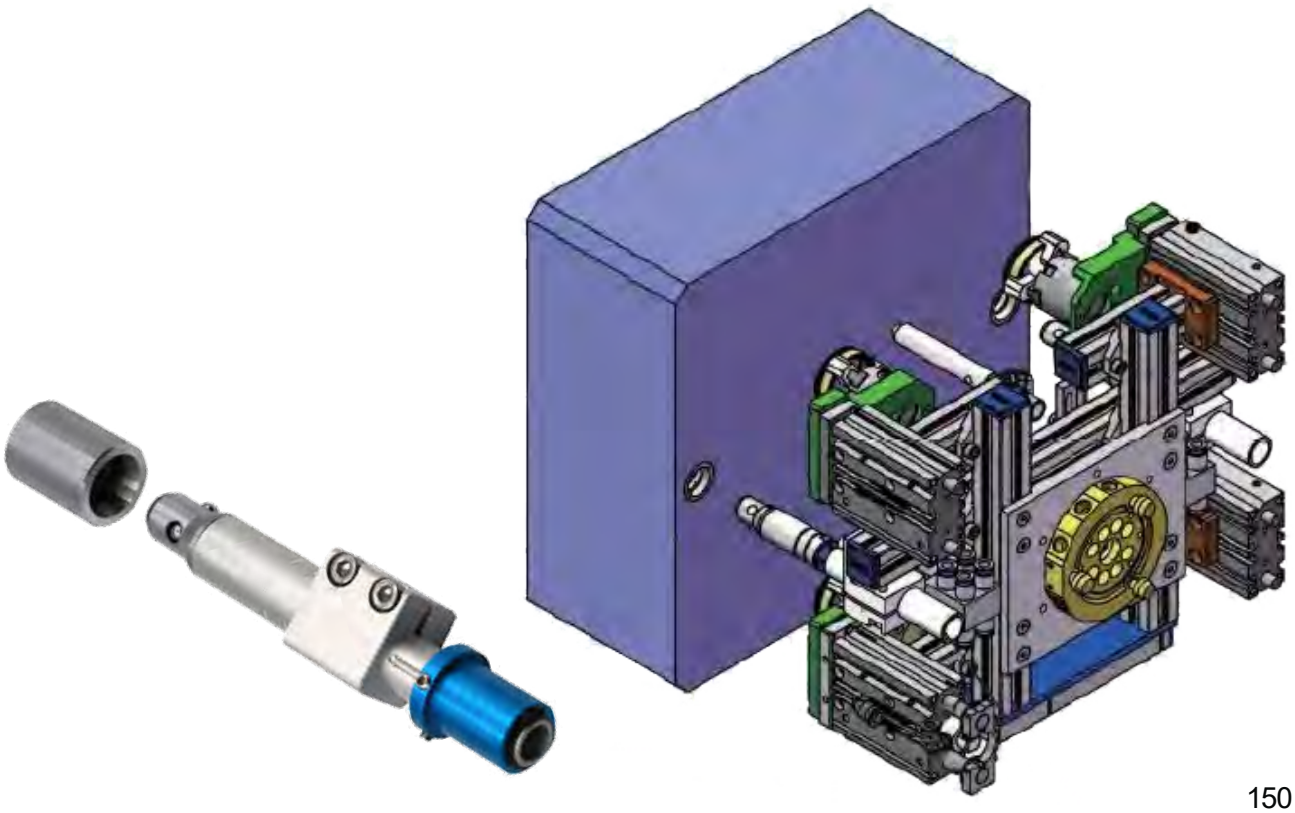
Ar!cle no.	A	B	C	D	E	F	G	H	I	M	N	O	P	Q	R	S	T	CH
CA.RBL.30	Ø 30	146.5	37	49	25	25	5.3	M27x1	1/8	10	11	19	90.8	13.3	23.4	4.1	4	27



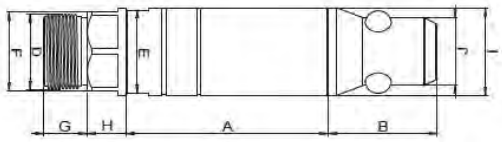
Mould Position - Dock & Lock Cylinders & Buffers

GMP Series

Size 20
Size 30

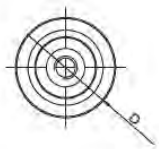


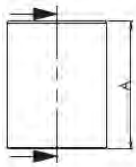
Mould Positioner - Dock & Lock Cylinders

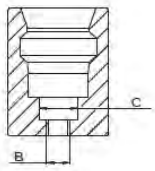


Dimensions (mm)

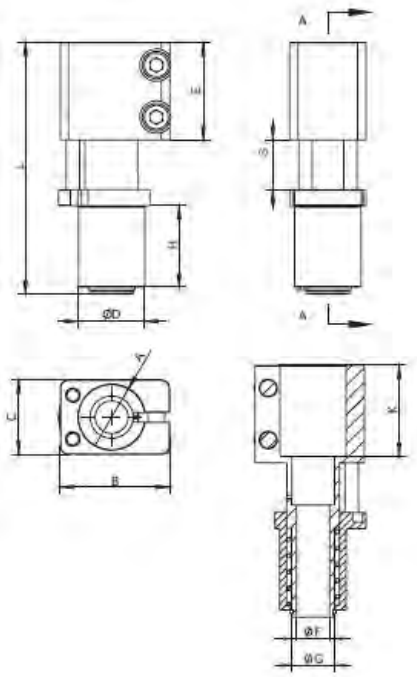
Model	A	B	D	E	F	G	H	I	J	K	Weight
GMP20A	46	25	M17*1	19	18	10	9	Ø20	Ø15.5	G1/8	78g
GMP30A	75	38	M27*1	28	27	11	10	Ø30	Ø25.5	G1/8	303g







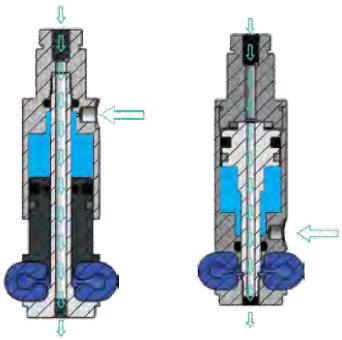
Model	A	B	C	D	Weight
GMP20B	33	M6	10	26h7	87g
GMP30B	43.5	M8	11	40h7	264g



(Model)	A	B	C	D	E	F	G	H	L	K		(Weight)
GSP20-14	14	31	20	20	30	10	13	25	77.5	28	15	57g
GSP20-20	20	33	23	20	30	10	13	25	77.5	28	15	65g
GSP30-30	30	43	33	30	30	18	22	25	77.5	28	15	108g

Internal Hole Grippers

More Sizes Availalble - Please Inquire



CA.GBD 18 H D

basic size
Body Diameter

Middle through hole

Actuation direction
D - Downward
U -Upward

Downward movement, or Upward movement.
The elastic part can be in Silicone or Rubber. Grip diameters from 18 to 31 mm.
Several mounting accessories.

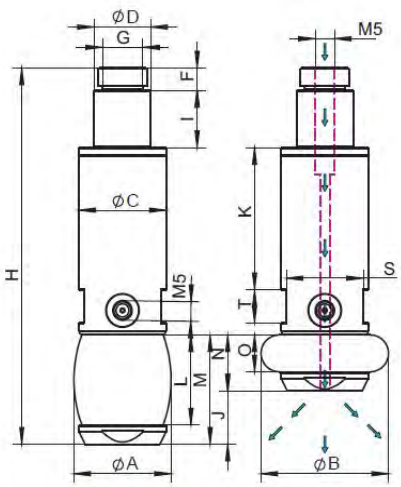
Through hole for fastening
The ...H models have a central through hole. It can be used to blow compressed air, or to provide vacuum, with the purpose to cool a part, or to check the leakage.

Spare Grommets

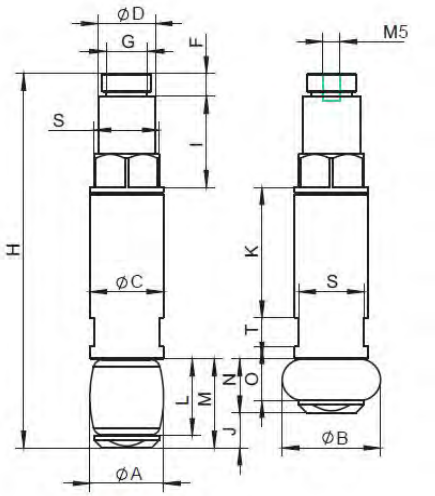
The elastic part can be in blue Silicone, or transparent silicone.
Silicone can be used over a wider temperature range and assures a longer lifetime.
The elastic part in Silicone is available as a spare part and can be replaced, when worn out.
The expected medium lifetime of the elastic part in Silicone is about 1 million cycles.

Spec.	Ø18	Ø22
Model	18-S1	22-S1
Model	18-S2	22-S2
Bulging device	GBD18U GBD18HD	GBD22HU

T - Operating temperature of the elastic part (5~60°C for the gripper body)

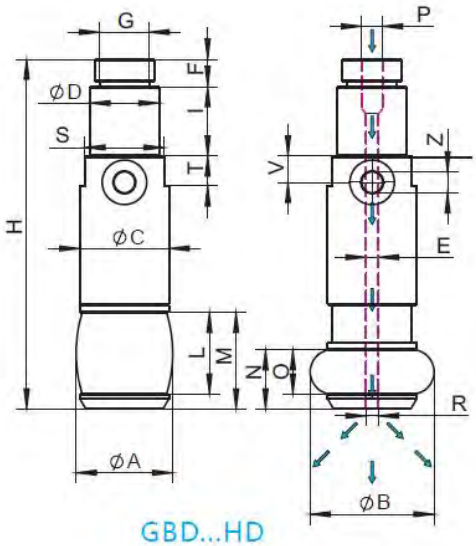


GBD...HU



GBD...U

Model	ØA	ØB	ØC	ØD	F	G	H	I	J	K	L	M	N	O	S	T
GBD18U	18	24	18	14	5.5	M12×1	90.5	22	8.5	31.5	18.5	21.5	13	10	16	7
GBD22HU	24	31.5	21.3	14	5.5	M12×1	92	14	13	34.8	22	26.7	13.7	9	19	8



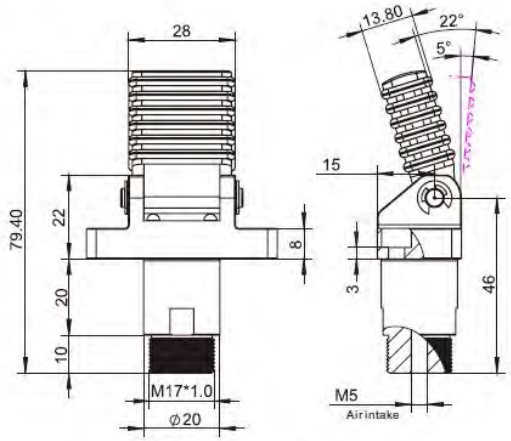
GBD...HD

Model	ØA	ØB	ØC	ØD	ØE	F	G	H	I	L	M	N	O	P	R	S	T	V	Z
GBD18HD	19.5	25	18	14	2.5	5.5	M12×1	70.5	14	16.5	19.5	12	9	M5	M3	16	6	5.3	M5

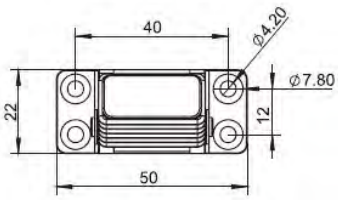
Pivot Fingers - NBR, Viton

CA.GOF20-20-VMQ

CA.GOF20-20-NBR



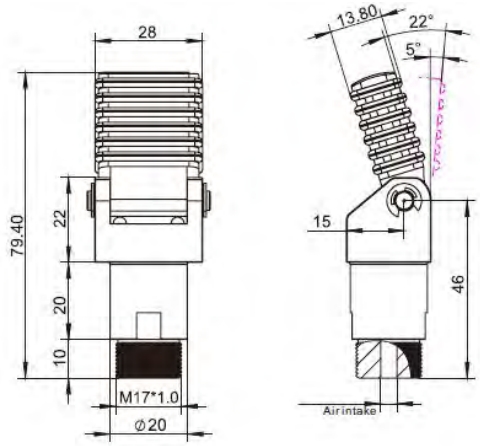
Flange Mount Type



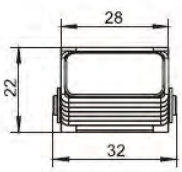
(Model)	(Weight)	Heat resistance (in ℃)
GOF20-20-NBR	57.4g	-20 to 80
GOF20-20-VMQ	57.4g	-40 to 160

CA.GOP20-20-VMQ

CA.GOP20-20-NBR



Stem Mount Type

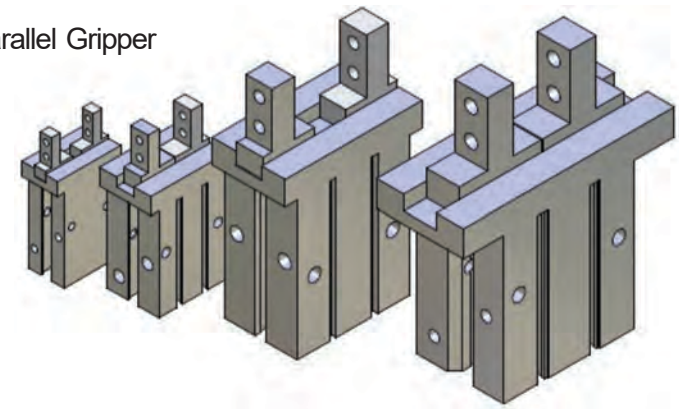


(Model)	(Weight)	Heat resistance (in ℃)
GOP20-20-NBR	50g	-20 to 80
GOP20-20-VMQ	50g	-40 to 160

Grippers

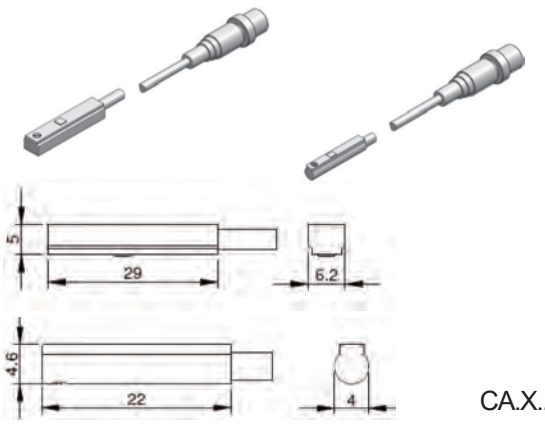
CA.09.05 GS

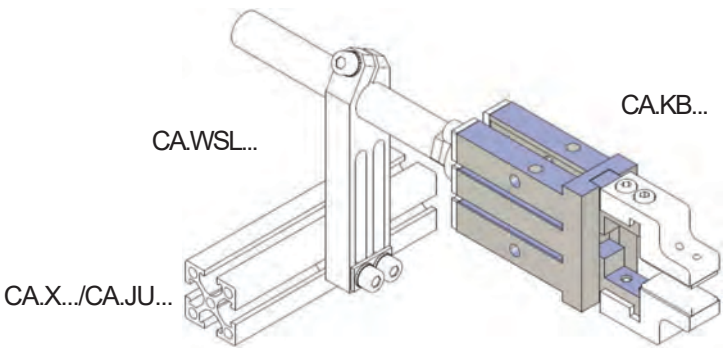
. Parallel Gripper



Available also with closing sping (.NC) or with opening spring (.NO)

Ar!cle no.	Bore size	Stroke	Opening total gripping force	Closingtotal gripping force	Sensor (Op! onal)		Weight
					PNP	NPN	
CA.09.05.009 CA.09.05.009.NC CA.09.05.009.NO	10	4	22 N	34 N	DS1HPC08	DS1HNC08	55 g
CA.09.05.009.L		8			SMC.D.Y7PSAPC	SMC.D-Y59ASAPC	60 g
CA.09.05.010 CA.09.05.010.NC CA.09.05.010.NO	16	6	68 N	90 N	KT38PM8 KT38P3M KT58PM8 KT58P3M	KT38NM8 KT38N3M KT58NM8 KT58N3M	135 g
CA.09.05.010.L		12					
CA.09.05.011 CA.09.05.011.NC CA.09.05.011.NO	20	10	84 N	132 N			235 g
CA.09.05.011.L		18					270 g
CA.09.05.012 CA.09.05.012.NC CA.09.05.012.NO	25	14	130 N	208 N			430 g
CA.09.05.012.L		22					470 g
CA.09.05.013	32	22	316 N	386 N			715 g
CA.09.05.014	40	30	508 N	636 N			1275 g

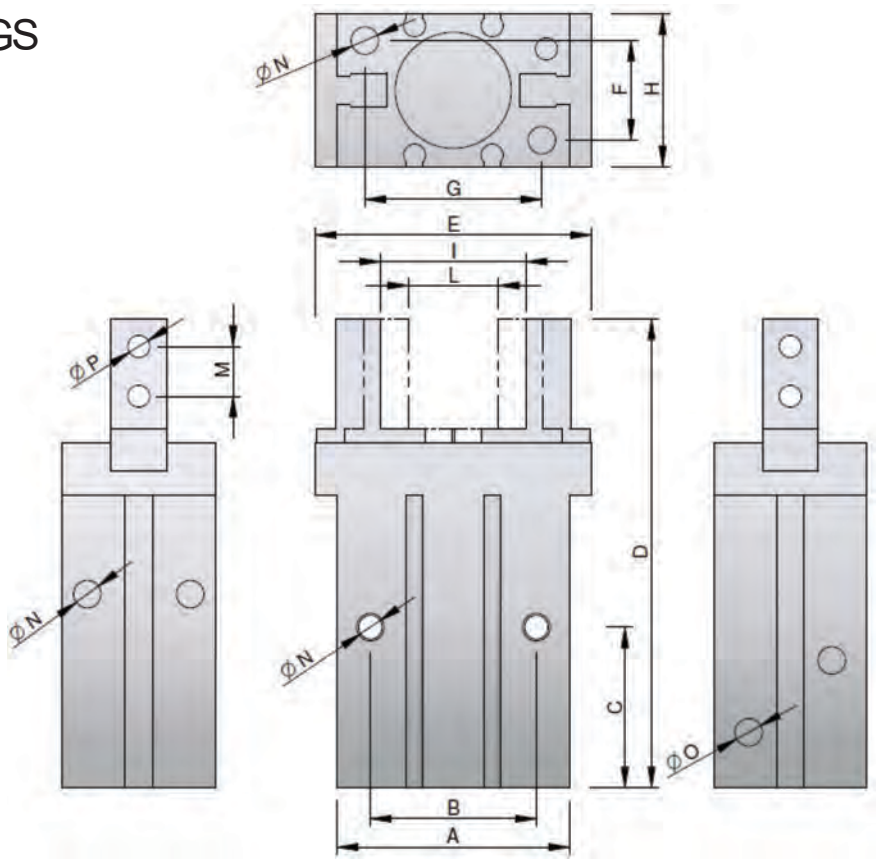




Grippers

CA.09.05 GS

. Dimensions

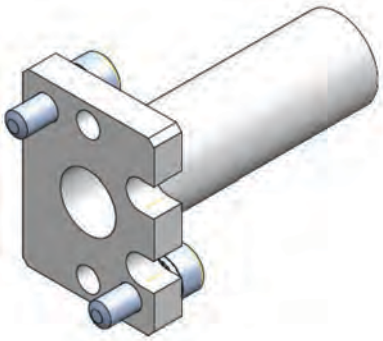


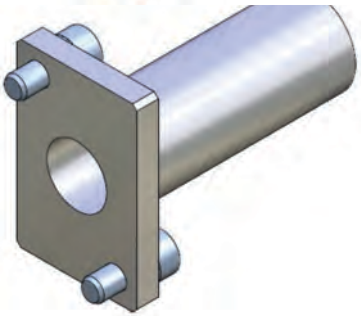
Ar!cle no.	Bore size	A	B	C	D	E	F	G	H	I open	L closed	Stroke	M	N	O	P
CA.09.05.009 CA.09.05.009.NC CA.09.05.009.NO	10	23	16	23	57	30	12	18	164	16	11.5	4	57	M3	M3	M25
CA.09.05.009.L				25		35				20.5		8				
CA.09.05.010 CA.09.05.010.NC CA.09.05.010.NO	16	305	24	245	67	39	15	22	236	21.5	14.9	6	7	M4	M5	M3
CA.09.05.010.L				31	70	47				285	15	12				
CA.09.05.011 CA.09.05.011.NC CA.09.05.011.NO	20	42	30	29	85	53	18	32	275	27.5	16.5	11	9	M5		M4
CA.09.05.011.L				36	90	62				35.5		18				
CA.09.05.012 CA.09.05.012.NC CA.09.05.012.NO	25	52	36	30	102	71	22	40	335	34	19	14	12	M6		M5
CA.09.05.012.L				40	106	75				426	19	23				
CA.09.05.013	32	60	46	40	113	97	26	46	40	47	26	22	14	M6		M6
CA.09.05.014	40	72	56	49	139	119	32	56	48	61,35	30	30	17	M8		M8

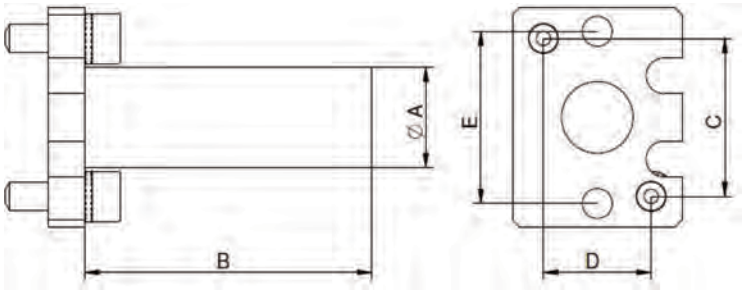
Grippers

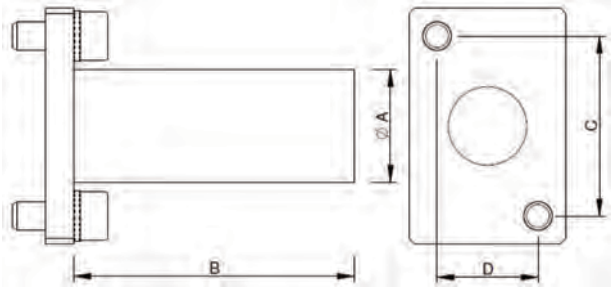
CA.09 APGE

. Adapter for parallel gripper GS









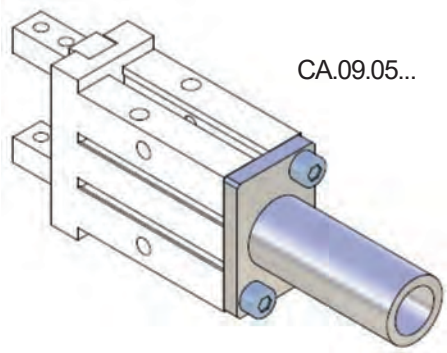
Table

M = Suitable for GS…

Ar!cle no.	A	B	C	D	M	Weight
CA.APGE.10.10.30	10	30	16	12	CA.09.05.009 / L	11 g
CA.APGE.16.14.40	14	40	24	15	CA.09.05.010 / L	21 g
CA.APGE.20.20.50	20	50	30	18	CA.09.05.011 / L	38 g
CA.APGE.25.20.50			36	22	CA.09.05.012 / L	55 g
CA.APGE.32.20.50			46	26	CA.09.05.013	102 g
CA.APGE.40.20.50			56	32	CA.09.05.014	140 g

Material:

Aluminium
Surface: Silver Anodized

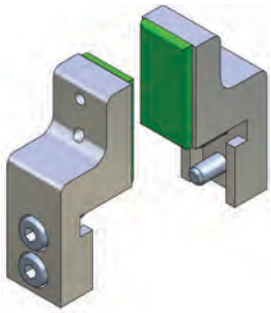


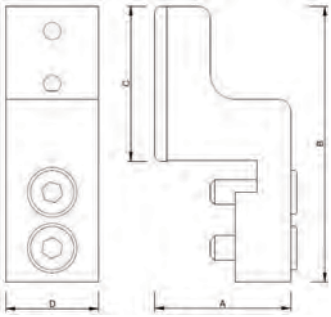
CA.09.05...

Grippers

CA.09 KB

. Jawsfor Parallel Gripper GS(complete)



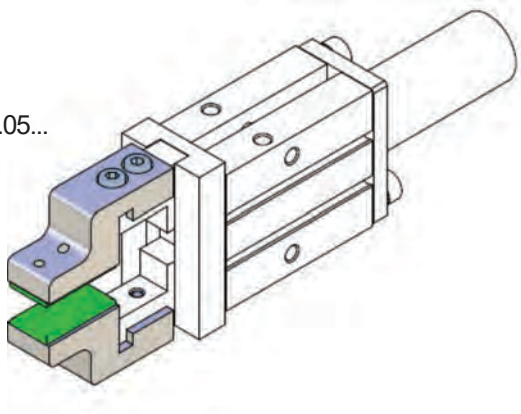


Ar!cle no.	Insert	A	B	C	D	M	Weight
CA.KB.10	GRF14.95.08	16	27	14	10	CA.09.05.009 / L	14 g
CA.KB.16	GRF20.95.08	19	35	20	15	CA.09.05.010/ L	28 g
CA.KB.20	PAC.20.16P.03	22	44.5	25		CA.09.05.011/ L	41 g
CA.KB.25	PAC.20.16P.03	29	55		20	CA.09.05.012 / L	89 g
CA.KB.32	GRF30.95.08.V	36	65.5	30	25	CA.09.05.013	166 g

Table
M = Suitable for CA.09.05…

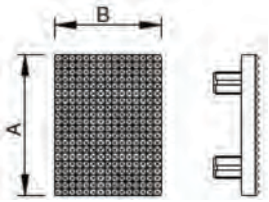
Material
Aluminium
Surface: Silver anodized

CA.09.05...

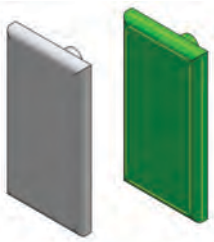


. Insert VITON

GRF...



PAC...

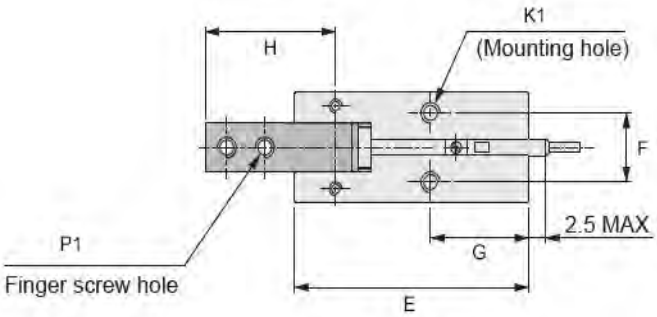


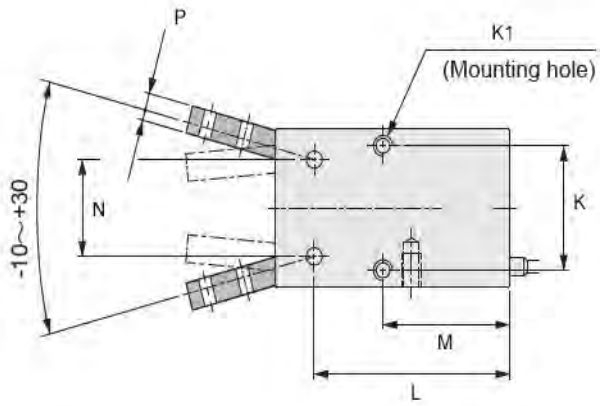
Ar!cle no.		Colour	A	B	M	Weight
GRF14.95.08.V	VITON	Green	14	10	CA.KB.10	1 g
GRF20.95.08.V			20	15	CA.KB.16	2 g
PAC.20.16P.03.V			25	13	CA.KB.20 CA.KB.25	3 g

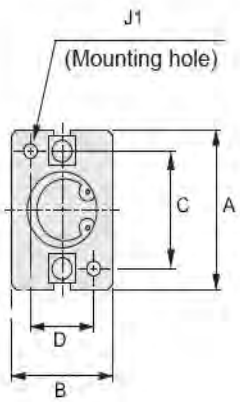
Grippers

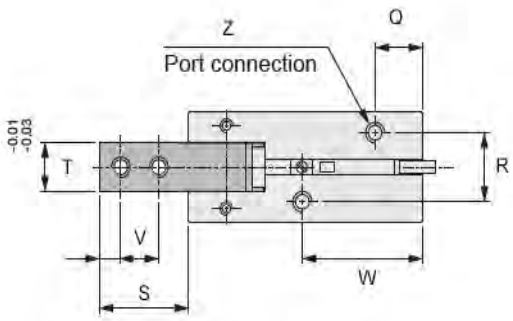
ANGULAR GRIPPERS

CAC.HRS/HDS 09









Grippers CA.HDS/HRS

Dimension Table

Model no.	Bore size	A	B	C	D	E	F	G	H	K	J1	K1	L	M	N	P	P1	R	S	T	V	W	Z
CA.HDS.09.10 CA.HRS.09.10	10	23	16	17	10	36.5	10	15.5	21.7	18	2-M3x 0.5p dp5	2-M3x 0.5p dp5	30.5	20	14	4	4-M3x 0.5p	10	15.7	7	6	19	2-M3x 0.5p
CA.HDS.09.16 CA.HRS.09.16	16	34	22	26	14	45.5	14	21	25	24	2-M4x 0.7p dp7	2-M4x 0.7p dp7	38	25.5	24	6	4-M3x 0.5p	12	17.5	9	8	25.5	2-M5x 0.8p
CA.HDS.09.20 CA.HRS.09.20	20	45	26	35	16	53	16	22	32.5	30	2-M5x 0.8p dp8	2-M5x 0.8p	42.5	28	30	7	4-M4x 0.7p	13	22	12	10	28	2-M5x 0.8p
CA.HDS.09.25 CA.HRS.09.25	25	52	32	40	20	61	20	24.5	38.5	36	2-M6x1p dp10	2-M6x 1p	48.5	31.5	36	9	4-M5x 0.8p	18	26	14	12	31	2-M5x 0.8p
CA.HDS.09.32 CA.HRS.09.32	32	60	40	46	26	68	26	30	44	44	2-M6x1p dp10	2-M6x 1p	54	37.5	42	10	4-M6x 1p	24	30	18	14	33.5	2-M5x 0.8p

Note: DA = Double Acting

NO = Spring To Open

Standard Magnetic Piston

Materials

Body: Clear Anodized Alm

Jaws: Alloy Steel-Nitriding

Product weight

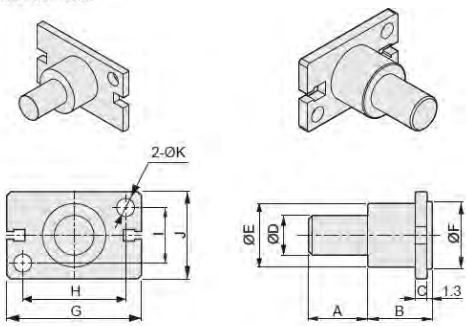
Bore Size	Weight (kg)
Ø10	0.10
Ø16	0.12
Ø20	0.20
Ø25	0.33
Ø32	0.56

Note: All of above are theoretical data.
Weight tolerance about±5%

HM - Mounting Bracket

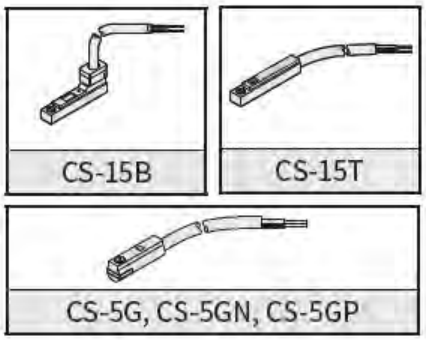
Unit: mm

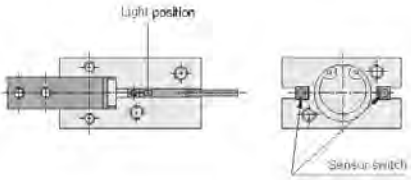
Model \ Mark	A	B	C	D	E	F	G	H	I	J	K
HM 10	10	10	2	8	12	11	23	17	10	16	3.5
HM 16	15	15	3	10	16	17	34	26	14	22	4.5
HM 20	15	15	3	10	18	21	45	35	16	26	5.5
HM 25	25	17	5	14	26	26	52	40	20	32	6.6
HM 32	25	20	6	16	30	34	60	46	26	40	6.6



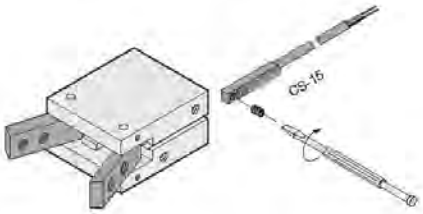
CA.09-HRS/HDS - Sensors

Mark	Sensor switch	Applicable Type
None	Without sensor switch	—
5G	CS-5G	10, 16, 20 25, 32
5GN	CS-5GN	
5GP	CS-5GP	
15T	CS-15T	16, 20 25, 32
15B	CS-15B	

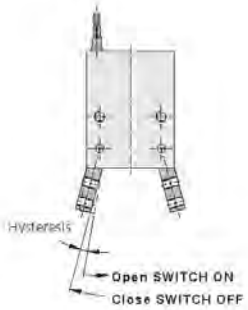


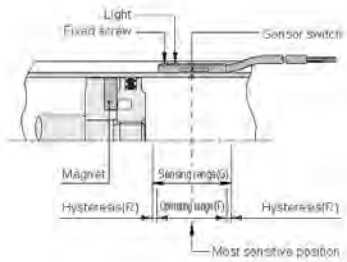


● Hysteresis and position adjustment



● Sensor switch setting and operating range





Sensing range

Sensor switch is fixed on the cylinder body. The magnetic piston head will activate the sensor switch when it enters the operating range. It has 0.5mm differential.

Operating range

When piston head moves the switch setting and adjustment will be based on the responding range generated by the magnetic field and the switch.(Please refer to the below table)

Unit: mm

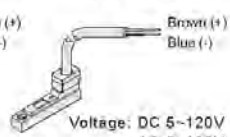
Model	CS-15T(B)	
Bore size	Operating range (F)	Hysteresis(R)
10	3	1
16	5	1
20	8.5	1
25	10	1.8
32	10	2

Sensor switch introduction

CS-15T

Voltage: DC 5~120V
AC 5~120V

CS-15B



Voltage: DC 5~120V
AC 5~120V

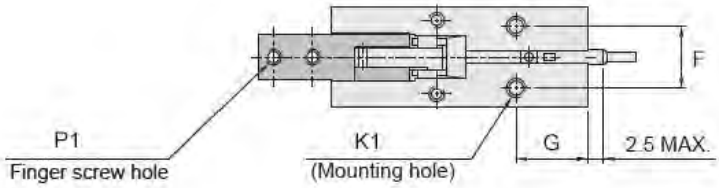
CS-5G

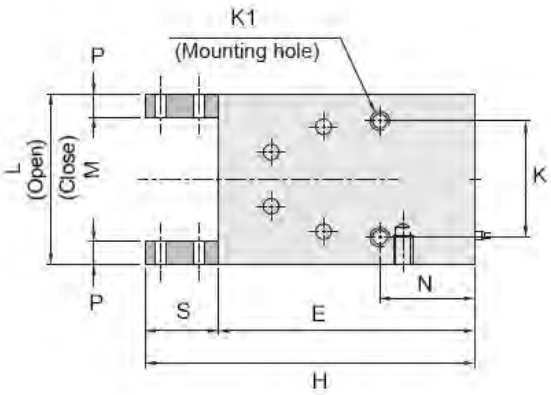
Voltage: DC 5~30V

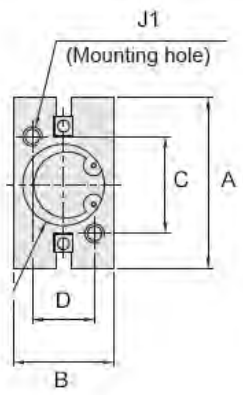
Grippers CA.HDP.09

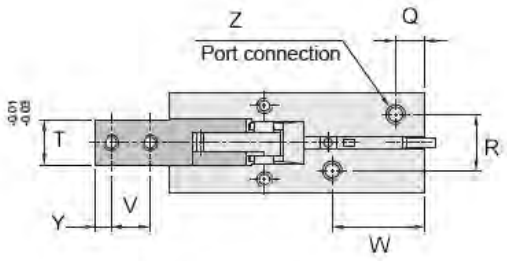
Parallel Grippers

CA.HDP.09









Grippers

Dimension Table

Model no.	Bore size	A	B	C	D	E	F	G	H	K	J1	K1	L	M	N	P	P1	R	S	T	V	W	Z
CA.09.10.HDP	10	23	16	17	10	45	10	15.5	58.	18	2-M3x 0.5p dp5	2-M3x 0.5p dp7	22	18	20	4	4-M3x 0.5p	10	13	7	6	19	2-M3x 0.5p
CA.09.16.HDP	16	34	22	26	14	58.5	14	21	73.5	24	2-M4x 0.7p dp7	2-M4x 0.7p dp11	33	25	25.5	5	4-M3x 0.5p	12	15	11	8	25.5	2-M5x 0.8p
CA.09.20.HDP	20	45	26	35	16	69.5	16	22	88.5	30	2-M5x 0.8p dp8	2-M5x 0.8p	44	32	28	6	4-M4x 0.7p	13	19	12	10	28	2-M5x 0.8p
CA.09.25.HDP	25	52	32	40	20	79.5	20	24.5	103.5	36	2-M6x1p dp10	2-M6x 1p	51	37	31.5	8	4-M5x 0.8p	18	24	14	12	31	2-M5x 0.8p
CA.09.32.HDP	32	60	40	46	26	88	26	30	119	44	2-M6x1p dp10	2-M6x1p 16dp	60	44	37.5	9	4-M6x 1p	24	31	18	15	35	2-M5x 0.8p

Note:HDP Series = Double Acting

Standard Magnetic Piston

Materials

Body: Clear Anodized Alm

Jaws: Alloy Steel-Nitriding

Product weight

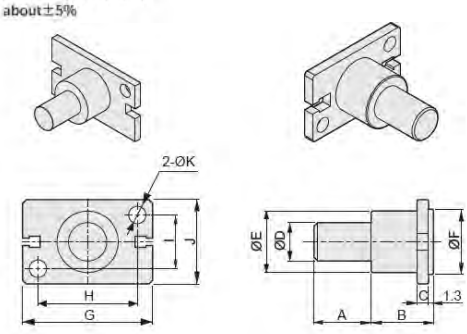
Model	Weight (kg)
HDP Ø10	0.12
HDP Ø16	0.16
HDP Ø20	0.55
HDP Ø25	0.75
HDP Ø32	1.23

Note: All of above are theoretical data. Weight tolerance about±5%

HM - Mounting Bracket

Unit: mm

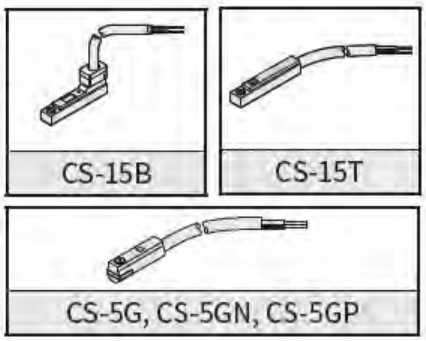
Model \ Mark	A	B	C	D	E	F	G	H	I	J	K
HM 10	10	10	2	8	12	11	23	17	10	16	3.5
HM 16	15	15	3	10	16	17	34	26	14	22	4.5
HM 20	15	15	3	10	18	21	45	35	16	26	5.5
HM 25	25	17	5	14	26	26	52	40	20	32	6.6
HM 32	25	20	6	16	30	34	60	46	26	40	6.6



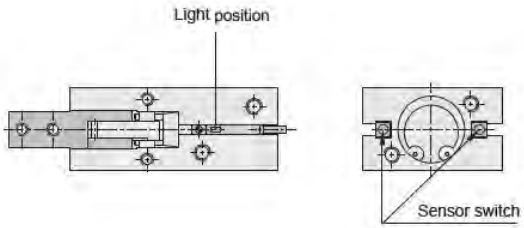
Grippers

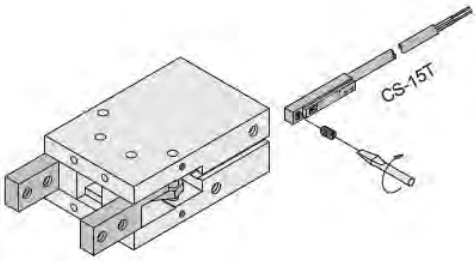
CA.09-HDP- Sensors

Mark	Sensor switch	Applicable Type
None	Without sensor switch	—
5G	CS-5G	10, 16, 20 25, 32
5GN	CS-5GN	
5GP	CS-5GP	
15T	CS-15T	16, 20 25, 32
15B	CS-15B	

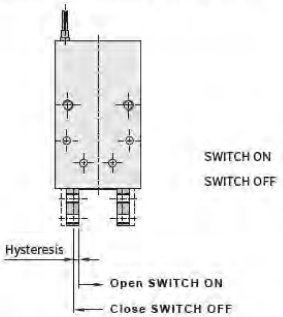


Sensor switch installation

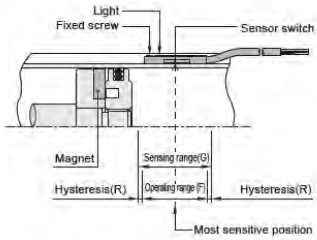




Hysteresis and position adjustment



Sensor switch setting and operating range



Sensing range

Sensor switch is fixed on the cylinder body. The magnetic piston head will activate the sensor switch when it enters the operating range. It has 0.5mm differential.

Operating range

When piston head moves the switch setting and adjustment will be based on the responding range generated by the magnetic field and the switch.(Please refer to the below table)

Unit: mm

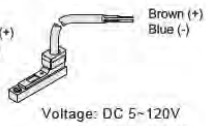
Model	CS-15T(B)	
Bore size	Operating range (F)	Hysteresis(R)
10	3	1
16	5	1
20	8.5	1
25	10	1.8
32	10	2

Sensor switch introduction

CS-15T

Voltage: DC 5~120V
AC 5~120V

CS-15B



Voltage: DC 5~120V
AC 5~120V

CS-5G

Voltage: DC 5~30V

Grippers

CA-HDM2 series - 180° Angular Gripper

Product features, Code of order

Feature

- Finger guided by the end of gripper to ensure precise opening angular
- Dust-proof plate prevent debris from entering the body of gripper
- 180° holding
- Multiple ways to install

Specification

Item \ Bore size (mm)		Ø12	Ø16	Ø20	Ø25	Ø32
Type of operation		Double acting				
Fluid		air				
Pressure range kgf / cm² (kPa)		1.5 ~ 7 (150 ~ 700)				
Ambient and fluid temperature °C		0 ~ 60				
Max. operating frequency		60				
Lubrication	Cylinder times/min	Lubrication free				
	Lever section	Lubrication required				
Theoretical gripping force(M) Note1: kgf-cm	Closed side	0.2 X P	0.8 X P	1.7 X P	3.4 X P	6.1 X P
	Opened side	0.5 X P	1.1 X P	2.3 X P	4.3 X P	8.1 X P
Max. gripper point length (L) mm		40	80	100	120	140
Effective gripping force(F) Note1 kgf		F = M / L X0.9				
Lever open/close angles °		- 1 ~ + 180				
Port size		M5 X0.8P				
Sensing device		With magnet				

Note1. F: Effective gripping force , M: theoretical gripping torque , P : Pressure=5 kgf/cm^2 , L : the gripping point length =30mm

Code of Order

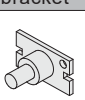
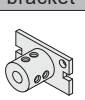
CA-HDM2 20 – HM – 8G 2

1 2 3 4

1

Mark	Bore size(mm)
10	Ø12
16	Ø16
20	Ø20
25	Ø25
32	Ø32

2

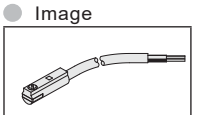
Mark	Mouting bracket	Mark	Mouting bracket	Mark	Mouting bracket
No mark	No mouting bracket	HM		HB	

- HM type mounting bracket (Available to internal mounting)
- HB type mounting bracket (Available to external mounting)

3

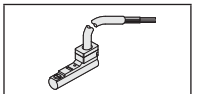
Mark	Sensor switch
No mark	No sensor switch
8G	CS-8G
8B	CS-8B

Image



Please refer to P.8-2.7

CS-8G



Please refer to P.8-2.7

CS-8B

4

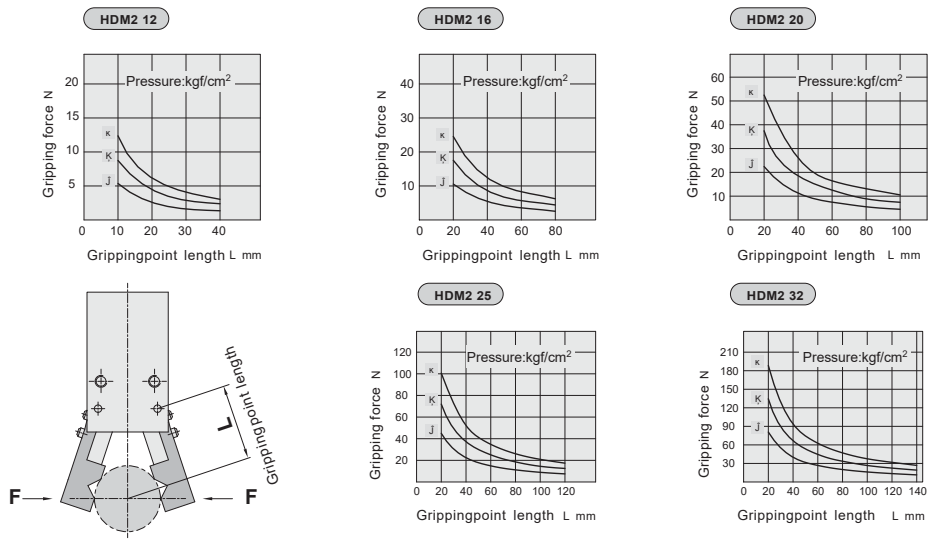
Mark	Sensor quantity
1	1 pc
2	2 pcs

Grippers

HDM2 series - 180° Angular Gripper

Gripping force characteristic, Operating, Data and mounting type

Gripping force characteristic



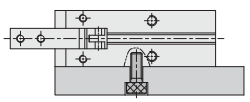
Operating type and data

Operation	Model	Bore size (mm)	The smallest operating pressure (kgf/cm²)	Thread port(mm)	Effective gripping force (N)	
Double acting	HDM2 12	12	2.2	4-M3x0.5P	Open	8.3
					Close	6.8
	HDM2 16	16	1	4-M3x0.5P	Open	19.7
					Close	16.9
	HDM2 20	20	1	4-M4x0.7P	Open	40
					Close	33.6
	HDM2 25	25	1	4-M5x0.8P	Open	72.1
					Close	60.6
	HDM2 32	32	1	4-M6x1.0P	Open	151
					Close	130

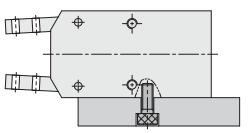
Note : Gripping force is the force generated when opening or closing the jaws, with a jaw arm contact length of 30mm and an operating pressure of 5 kgf/cm².

Mounting type

1. Apply the screw from bottom

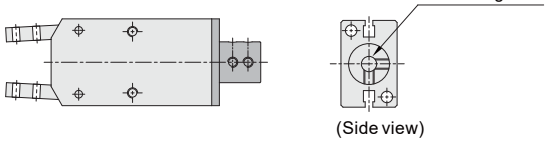


2. Apply the screw from side



3. Apply HM mounting bracket in the bottom

4. Apply HB mounting bracket in the bottom

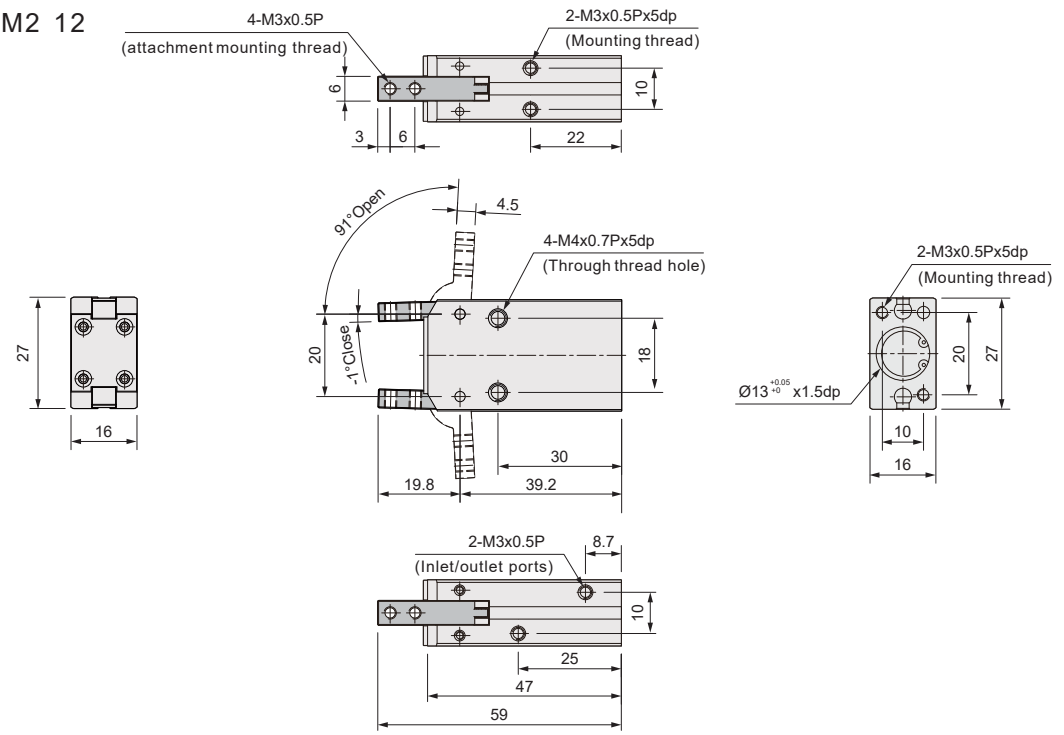


Grippers

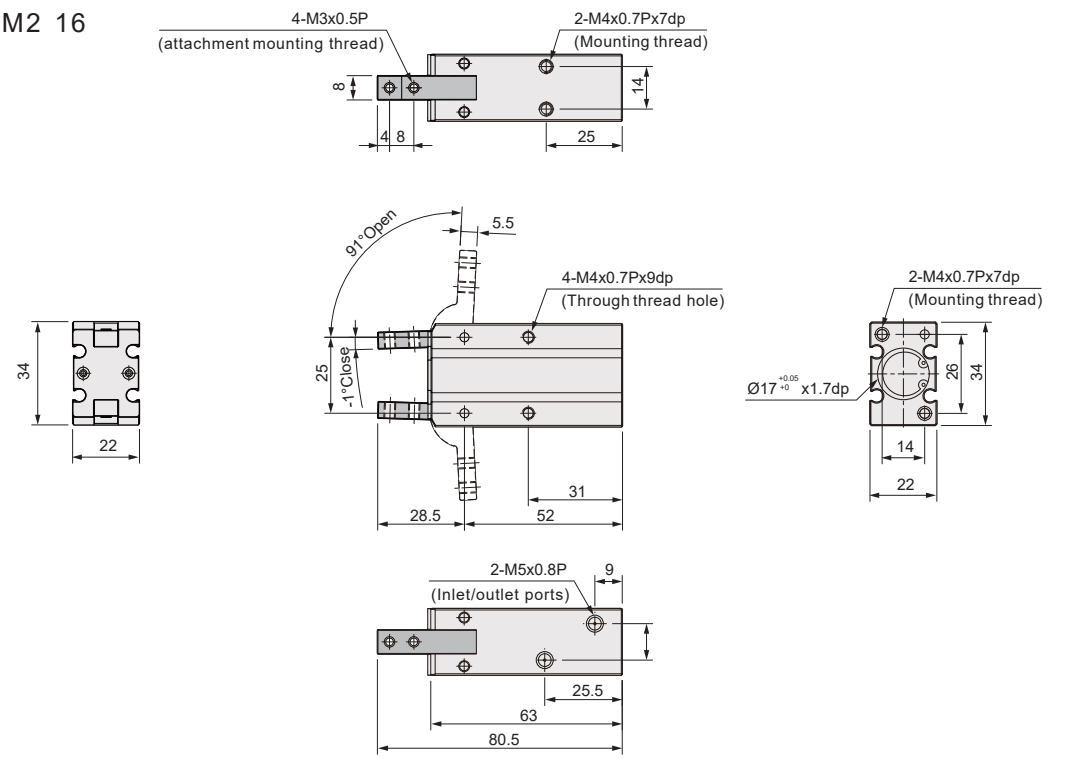
HDM2 series - 180° Angular gripper

External dimensions - Ø12, Ø16

HDM2 12



HDM2 16

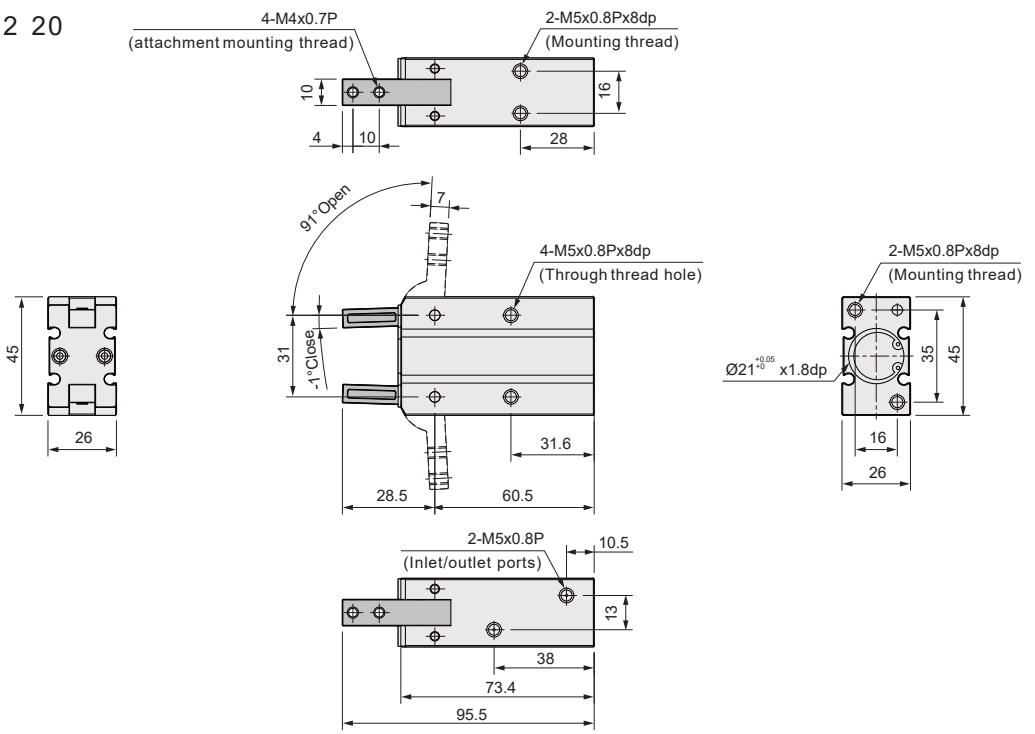


Grippers

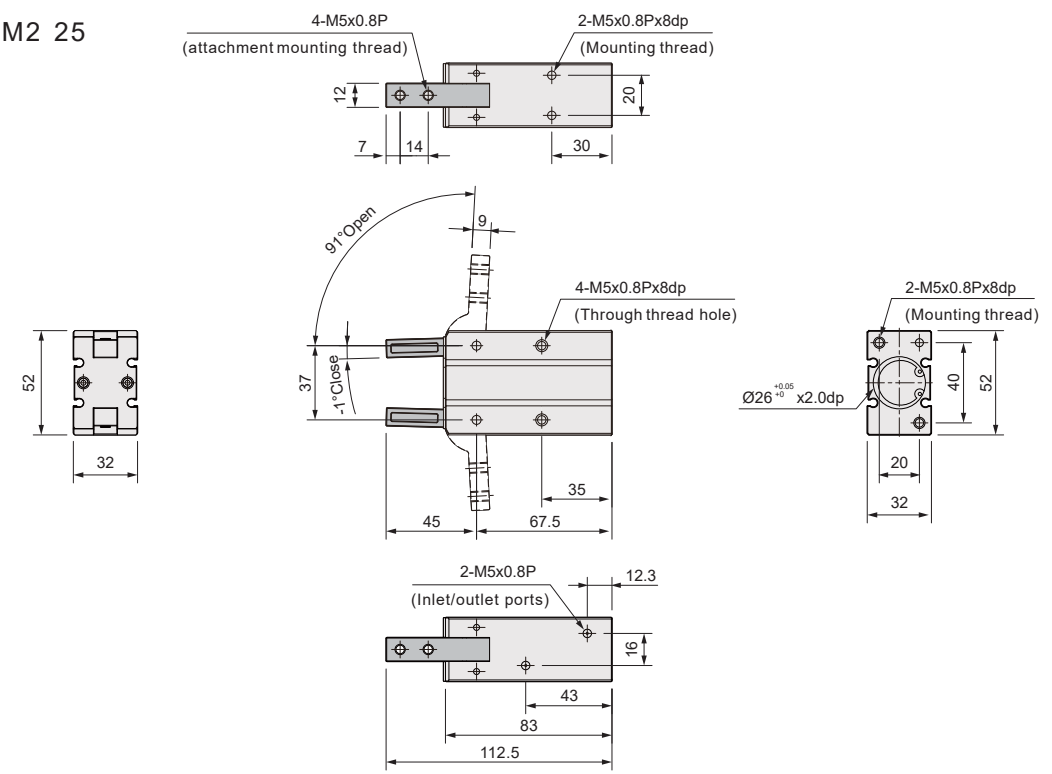
HDM2 series - 180° Angular gripper

External dimensions - Ø20, 25

HDM2 20



HDM2 25

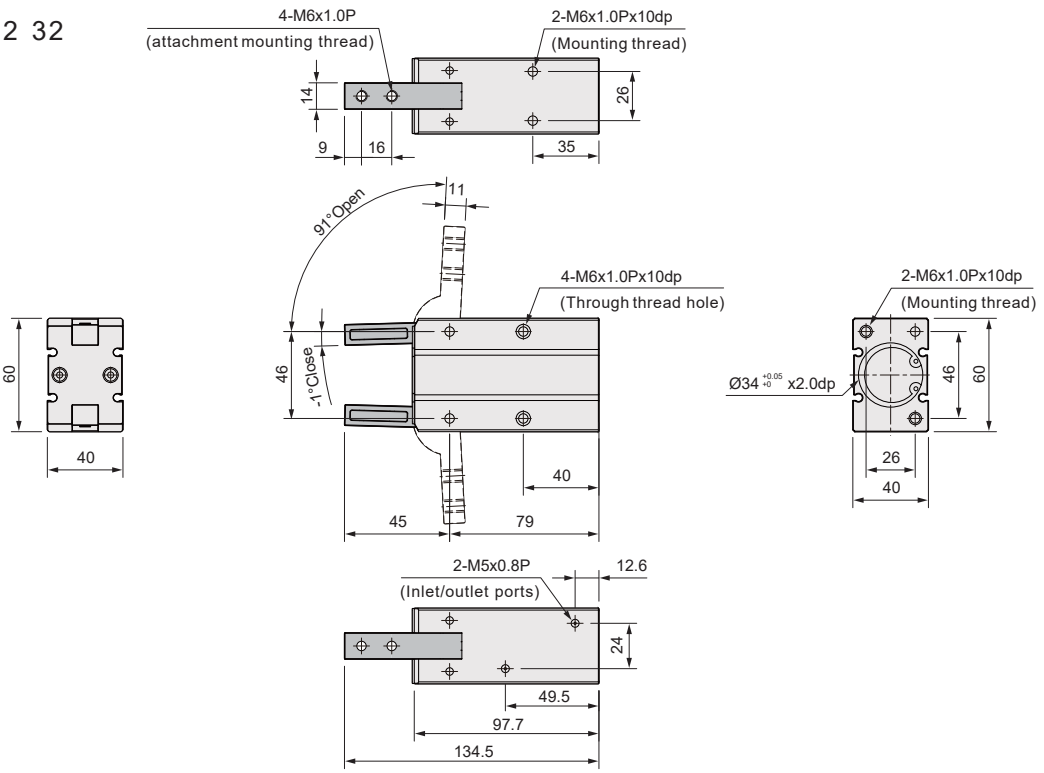


Grippers

HDM2 series - 180° Angular Gripper

External dimensions - Ø32, mouting bracket

HDM2 32

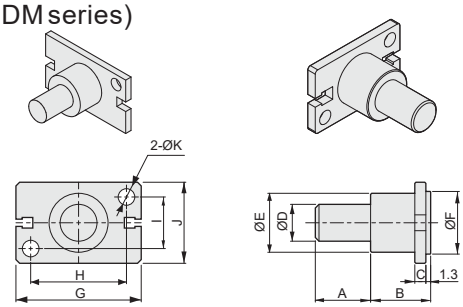


Mounting bracket (Applicable to HDS, HRS, HDP, HDM series)

● HM type mounting bracket (Availableto internal mounting)

Unit : mm

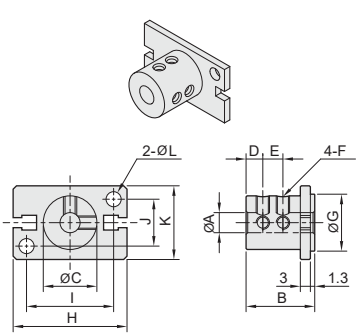
Model \ Mark	A	B	C	D	E	F	G	H	I	J	K
HM 12	10	10	2	8	12	11	23	20	10	16	3.5
HM 16	15	15	3	10	16	17	34	26	14	22	4.5
HM 20	15	15	3	10	18	21	45	35	16	26	5.5
HM 25	25	17	5	14	26	26	52	40	20	32	6.6
HM 32	25	20	6	16	30	34	60	46	26	40	6.6



● HB type mounting bracket (Availableto external mounting)

Unit : mm

Model \ Mark	A	B	C	D	E	F	G	H	I	J	K	L
HB 12	4	15	12	5	-	M3 x 0.5p	13	27	20	10	16	3.5
HB 16	6	20.5	16	5	6	M4 x 0.7p	17	34	26	14	22	4.5
HB 20	8	20.5	20	7	7	M4 x 0.7p	21	45	35	16	26	5.5
HB 25	10	30.5	25	8	10	M4 x 0.7p	26	52	40	20	32	6.5
HB 32	12	40.5	32	10	15	M4 x 0.7p	34	60	46	26	40	6.5

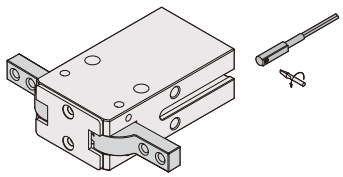


Grippers

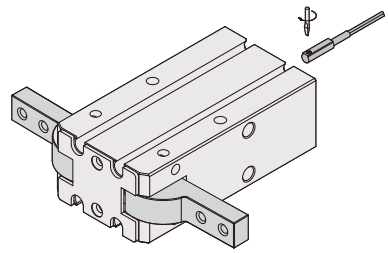
HDM2 series - 180° Angular gripper

Mounting type of sensor switch

HDM2 sensor switch installation



● HDM2 12 Sensor switch mounting



● HDM2 16~32 Sensor switch mounting

Detecting range

Sensor switch is fixed on the cylinder body. The magnetic piston head will activate the sensor switch when it enters the operating range. It has 0.5mm differential.

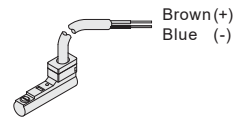
Operating range

When piston moves the switch setting and adjustment will be based on the responding range generated by the magnetic field and the switch. (Please refer to the below or right table)

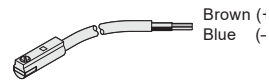
Model	CS-8B(G)	
Bore size	Operating range (F)	Reponse differential (R)
12	5	1
16	5	1
20	8.5	1
25	10	1.8
32	10	2.0

Sensor swtich code

CS-8 B
Voltage : DC 5 ~ 30V



CS-8G
Voltage : DC 5 ~ 30V

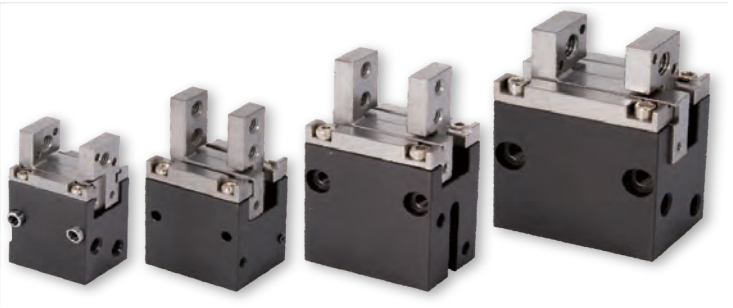


HDE series Compact Plus 2-Finger Parallel Gripper

Product features/ Code of order

Feature

- The structure gives a high closing/opening repeatability.
- Thanks to the materials and surface coating used, the gripper offers a high reliability.
- The versatile dust-proof system against the entrance of impurities and preventing the lubricant drift.
- Self-centering and positioning repeatability



Specification

Item \ Bore size (mm)	Ø08	Ø10	Ø12	Ø16	Ø20
Action	Double acting				
Fluid	Air				
Pressure range kgf / cm² (kPa)	1.5 ~ 7 (150 ~ 700)				
Ambient and fluid temperature °C	0 ~ 60				
Max. operation frequency time/min	100				
Lubrication	Lubrication free type				
Max. gripper point length (L) mm	20	25	30	40	50
Gripper stroke mm	3	4	6	8	12
Port size	M3 x 0.5P			M5 x 0.8P	

Code of order

HDE 16 – L – M – NS4 2 – S – 7B 2

1 2 3 4 5 6 7 8

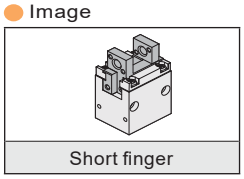
1

Mark	Bore size (mm)
08	Ø8
10	Ø10
12	Ø12
16	Ø16
20	Ø20

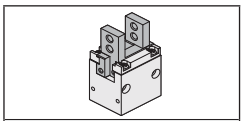
2

Mark	Gripper type
None	Short finger
L	Long finger

Image



Short finger



Long finger

3

Mark	Proximity switch holder
None	Without proximity switch holder
M	With proximity switch holder

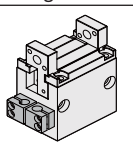
4

Mark	Proximity switch
None	Without proximity switch
NS4	NS-4

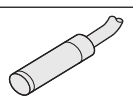
5

Mark	Proximity switch quantity
1	With 1 proximity switch
2	With 2 proximity switch

Image



Proximity switch holder



NS-4

How to select proximity switch and holder quantity

Bore size	Ø08, Ø10		Ø12~ Ø20	
Proximity switch quantity	1	2	1	2
Switch holder quantity	1	1	1	2

6

Mark	Sensing device
None	Without magnet
S	With magnet

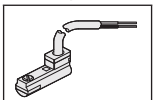
Ø08 exclude magent, no sensor switch option.

7

Mark	Sensor switch
None	Without sensor switch
7B	CS-7B

Ø10~20 apply sensor switch option, Ø8 apply proximity switch only.

Image



Please refer to P.8-2.5

CS-7B

8

Mark	Sensor quantity
1	With 1 sensor switche
2	With 2 sensor switches

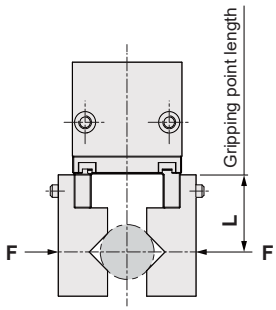
How to select proximity switch and sensor switch

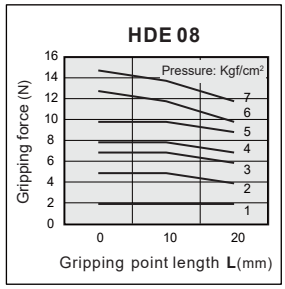
Mark	Proximity switch and sensor switch	
	Proximity sensor	Sensor switch
4 M	NS-4	-
4 M + 7 S	NS-4	CS-7B
7 S	-	CS-7B

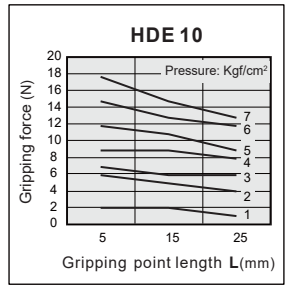
HDE series Compact Plus 2-Finger Parallel Gripper

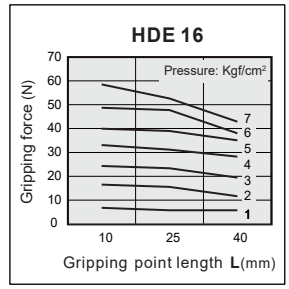
Characteristics graph

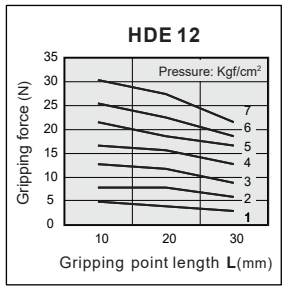
External grip force characteristic

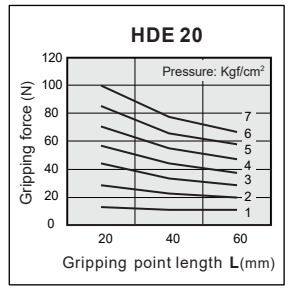




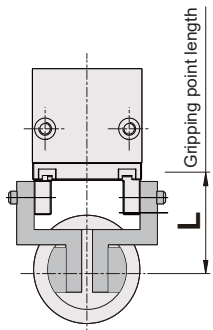


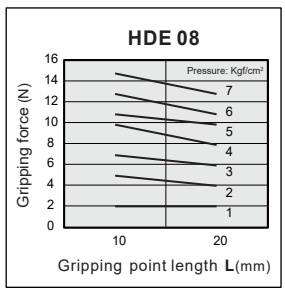


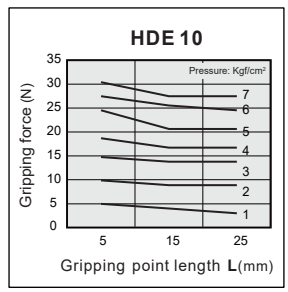


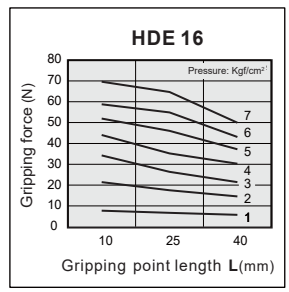


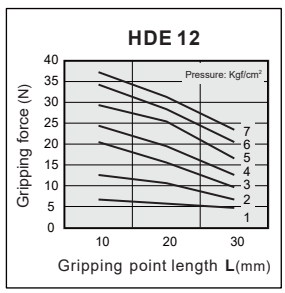
Internal grip force characteristic

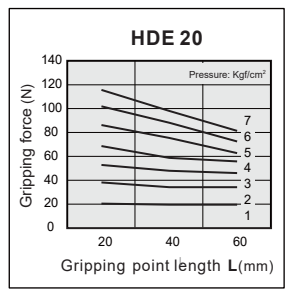












HDE series Compact Plus 2-Finger Parallel Gripper

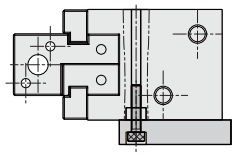
Operating type and data, Mounting type

Operating type and data

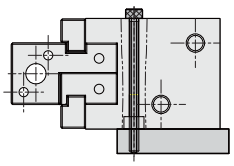
Model	Bore size(mm)	The smallest operating pressure (kgf/cm²)	Thread port (mm)	Effective gripping force (N)	
HDE 08	08	2.2	2-M3x0.5P	Open	9
				Close	10
HDE 10	10	2.2	2-M4x0.7P	Open	9
				Close	21
HDE 12	12	1.5	2-M4x0.7P	Open	19
				Close	26
HDE 16	16	1.5	2-M5x0.8P	Open	40
				Close	47
HDE 20	20	1.5	2-M5x0.8P	Open	56
				Close	77

Note: The gripping force is the force of open and close gripper which in the length of gripping point is 20mm and acting pressure is 5kgf/cm².

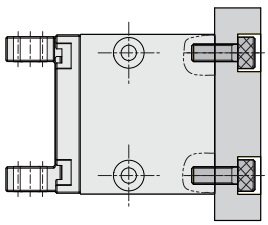
Mounting type



1. Thread to front side



2. Through hole to front side

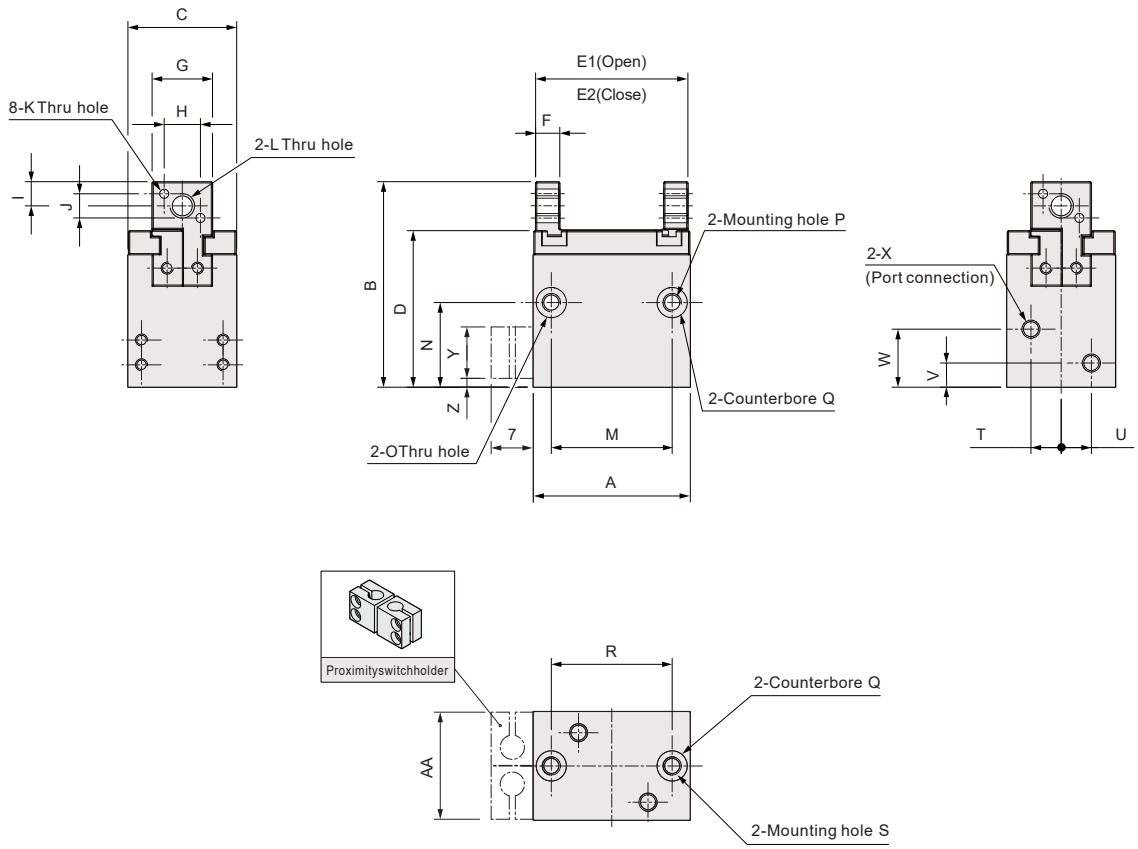


3. Thread to bottom

HDE series Compact Plus 2-Finger Parallel Gripper

Dimensions

HDE08~20(Short finger/ Without magnet)



Unit: mm

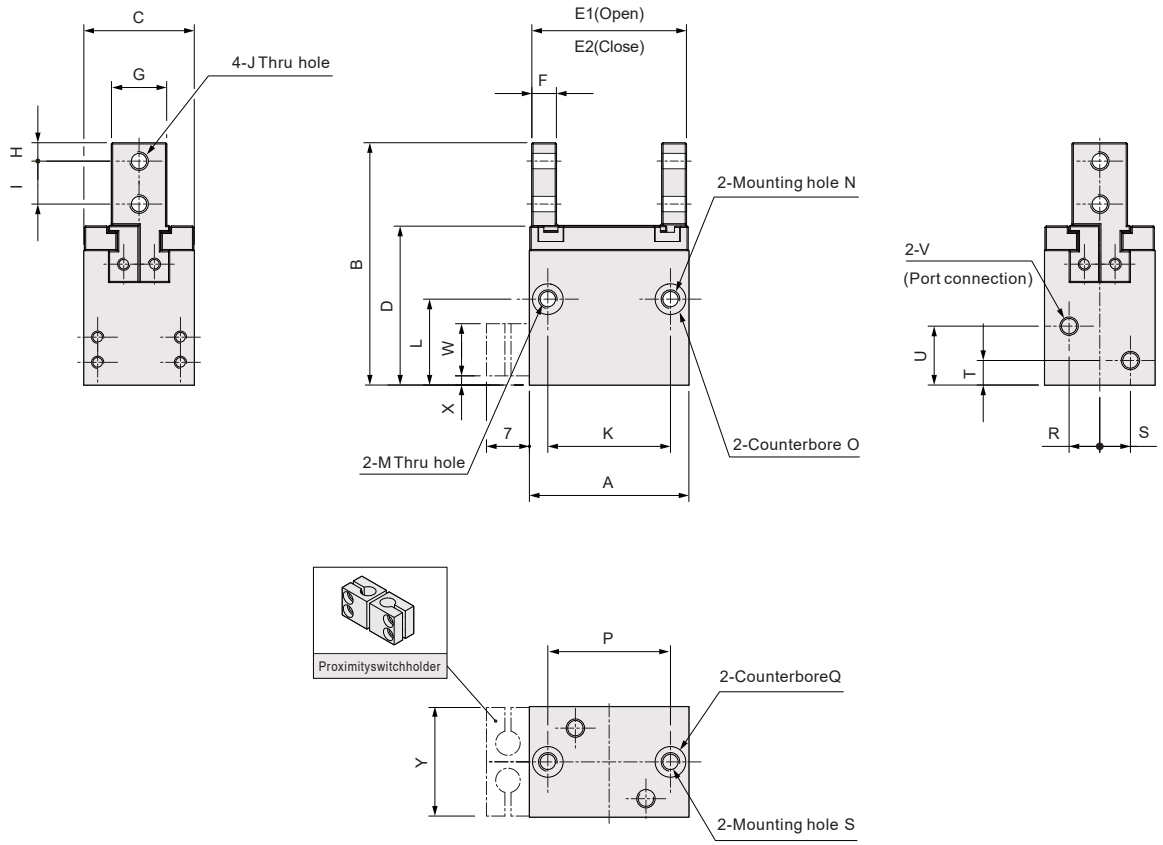
Mark / Model	A	B	C	D	E1	E2	F	G	H	I	J	K	L	M	N	O
HDE 08	16	28	13	20.9	16	13	3	8	5	3.5	3	Ø1.5	M3x0.5P	12	11	Ø1.6
HDE 10	20	32	16	23.9	20	16	3.5	9	6	4	4	Ø1.5	M4x0.7P	15	12	Ø2.1
HDE 12	26	34	18	25.6	25	19	4	10	6	4	4	Ø1.5	M4x0.7P	20	14	Ø2.5
HDE 16	32	43	22	32.9	32	24	5	12	8	5	5	Ø2	M5x0.8P	25	17	Ø3.3
HDE 20	40	50	26	37.9	40	28	6	16	10	6	6	Ø2	M5x0.8P	32	20	Ø3.3

Mark / Model	P	Q	R	S	T	U	V	W	X	Y	Z	AA
HDE 08	M2x0.4Px4 dp	Ø3x1 dp	12	M2x0.4Px4 dp	3.2	3.2	4	7.5	M3x0.5P	4	4.7	12.6
HDE 10	M2.5x0.45Px6 dp	Ø4x2 dp	15	M2.5x0.45Px5.5 dp	4.5	4	4	8.5	M3x0.5P	8	2.2	15.6
HDE 12	M3x0.5Px6 dp	Ø5x2 dp	20	M3x0.5Px7.5 dp	5	5	4	9.6	M3x0.5P	8.5	1.5	17.7
HDE 16	M4x0.7Px8 dp	Ø6x2.5 dp	25	M4x0.7Px9 dp	6.5	6.5	5	11	M5x0.8P	8.5	6.8	18.6
HDE 20	M4x0.7Px8 dp	Ø6x2.5 dp	32	M4x0.7Px9 dp	7	7	5	13.6	M5x0.8P	8.5	9.1	21.6

HDE series Compact Plus 2-Finger Parallel Gripper

Dimensions

HDE 08~20 (Long finger / Without magnet)



Unit: mm

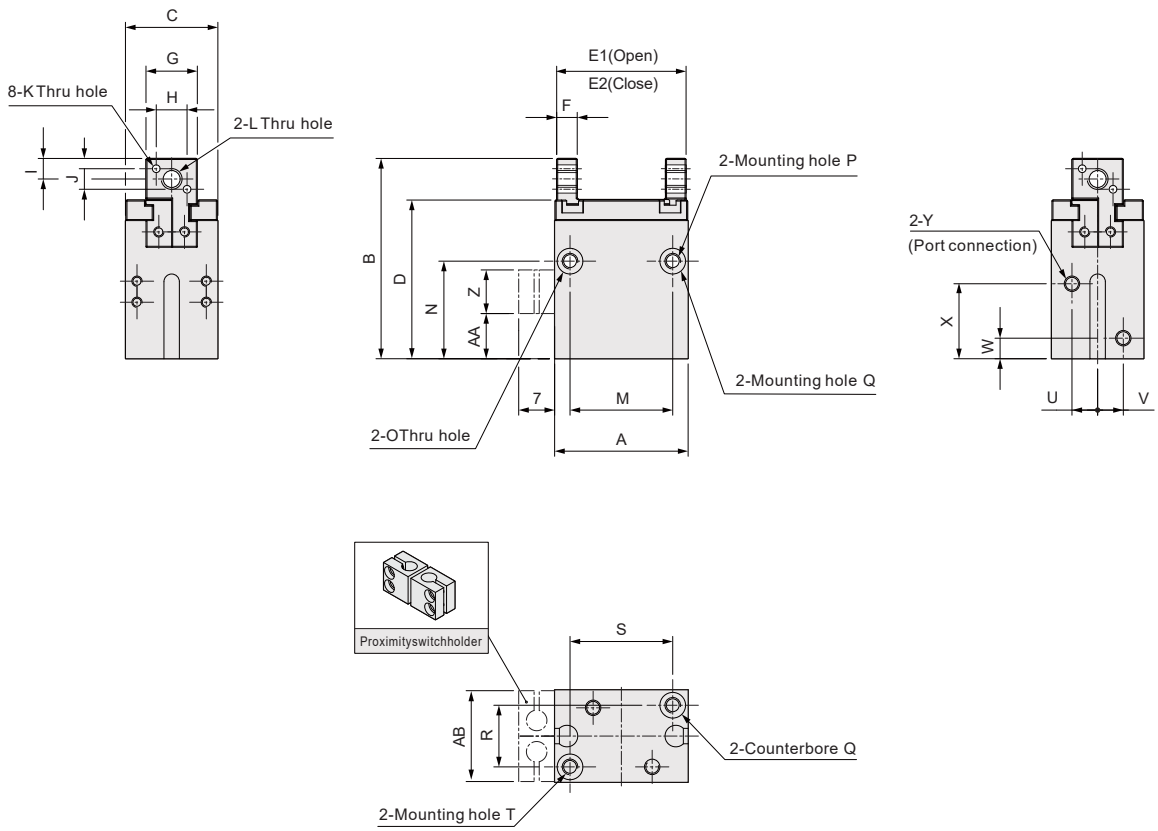
Mark / Model	A	B	C	D	E1	E2	F	G	H	I	J	K	L	M	N
HDE 08	16	30	13	20.9	16	13	3	6	2	4.5	M3x0.5P	12	11	Ø1.6	M2x0.4Px4 dp
HDE 10	20	36.5	16	23.9	20	16	3.5	7	3	6	M4x0.7P	15	12	Ø2.1	M2.5x0.45Px6 dp
HDE 12	26	39.5	18	25.6	25	19	4	9	3	6.5	M4x0.7P	20	14	Ø2.5	M3x0.5Px6 dp
HDE 16	32	47	22	32.9	32	24	5	11	3	7	M5x0.8P	25	17	Ø3.3	M4x0.7Px8 dp
HDE 20	40	55	26	37.9	40	28	6	12	4	8.5	M5x0.8P	32	20	Ø3.3	M4x0.7Px8 dp

Mark / Model	O	P	Q	R	S	T	U	V	W	X	Y
HDE 08	Ø3x1 dp	12	M2x0.4Px4 dp	3.2	3.2	4	7.5	M3x0.5P	4	4.7	12.6
HDE 10	Ø4x2 dp	15	M2.5x0.45Px5.5 dp	4.5	4	4	8.5	M3x0.5P	8	2.2	15.6
HDE 12	Ø5x2 dp	20	M3x0.5Px7.5 dp	5	5	4	9.6	M3x0.5P	8.5	1.5	17.7
HDE 16	Ø6x2.5 dp	25	M4x0.7Px9 dp	6.5	6.5	5	11	M5x0.8P	8.5	6.8	18.6
HDE 20	Ø6x2.5 dp	32	M4x0.7Px9 dp	7	7	5	13.6	M5x0.8P	8.5	9.1	21.6

HDE series Compact Plus 2-Finger Parallel Gripper

Dimensions

HDE10~20(Short finger/ With magnet)



Unit: mm

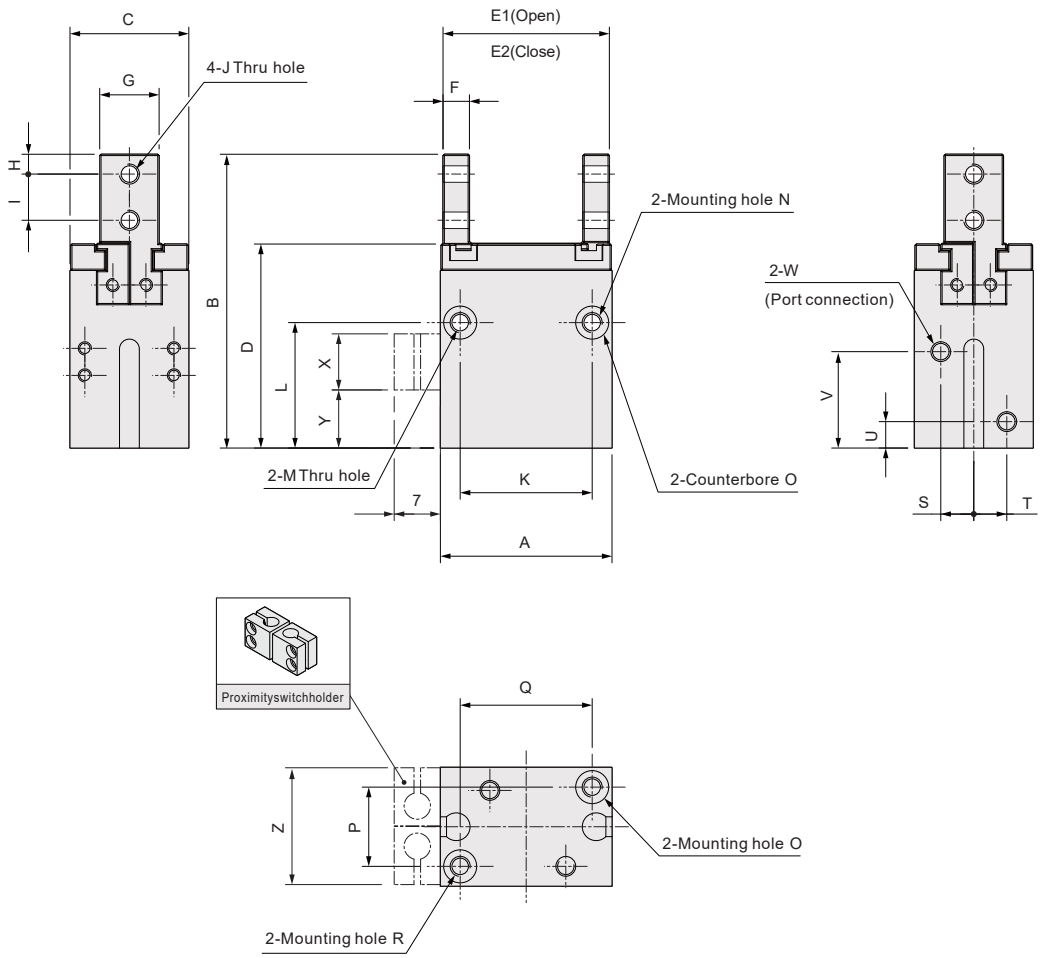
Mark / Model	A	B	C	D	E1	E2	F	G	H	I	J	K	L	M	N	O	P
HDE 10	20	37	16	28.9	20	16	3.5	9	6	4	4	Ø1.5	M4x0.7P	15	17	Ø2.1	M2.5x0.45Px6 dp
HDE 12	26	39	18	30.9	25	19	4	10	6	4	4	Ø1.5	M4x0.7P	20	19	Ø2.5	M3x0.5Px6 dp
HDE 16	32	48	22	37.9	32	24	5	12	8	5	5	Ø2	M5x0.8P	25	23	Ø3.3	M4x0.7Px8 dp
HDE 20	40	55	26	42.9	40	28	6	16	10	6	6	Ø2	M5x0.8P	32	27	Ø3.3	M4x0.7Px8 dp

Mark / Model	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
HDE 10	Ø4x2 dp	11	15	M2.5x0.45Px5.5dp	4.5	4.5	4	13.5	M3x0.5P	8	7.2	15.6
HDE 12	Ø5x2 dp	12	20	M3x0.5Px7.5 dp	5	5	4	15	M3x0.5P	8.5	8.8	17.7
HDE 16	Ø6x2.5 dp	15	25	M4x0.7Px9 dp	6.5	6.5	5	17	M5x0.8P	8.5	11.8	18.6
HDE 20	Ø6x2.5 dp	16	32	M4x0.7Px9 dp	7	7	5	20.6	M5x0.8P	8.5	14.1	21.6

HDE series Compact Plus 2-Finger Parallel Gripper

Dimensions

HDE10~20(Long finger/ With magnet)



Unit: mm

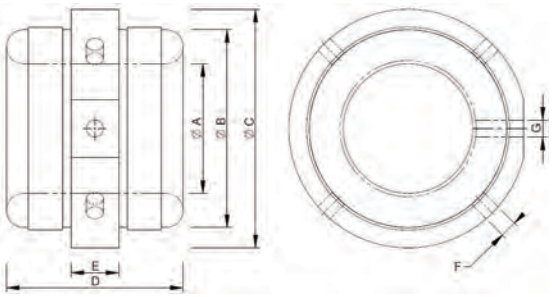
Mark / Model	A	B	C	D	E1	E2	F	G	H	I	J	K	L	M	N
HDE 10	20	41.5	16	28.9	20	16	3.5	7	3	6	M4x0.7P	15	17	Ø2.1	M2.5x0.45Px6 dp
HDE 12	26	44.5	18	30.9	25	19	4	9	3	6.5	M4x0.7P	20	19	Ø2.5	M3x0.5Px6 dp
HDE 16	32	52	22	37.9	32	24	5	11	3	7	M5x0.8P	25	23	Ø3.3	M4x0.7Px8 dp
HDE 20	40	60	26	42.9	40	28	6	12	4	8.5	M5x0.8P	32	27	Ø3.3	M4x0.7Px8 dp

Mark / Model	O	P	Q	R	S	T	U	V	W	X	Y	Z
HDE 10	Ø4x2 dp	11	15	M2.5x0.45Px5.5 dp	4.5	4.5	4	13.5	M3x0.5P	8	7.2	15.6
HDE 12	Ø5x2 dp	12	20	M3x0.5Px7.5 dp	5	5	4	15	M3x0.5P	8.5	8.8	17.7
HDE 16	Ø6x2.5 dp	15	25	M4x0.7Px9 dp	6.5	6.5	5	17	M5x0.8P	8.5	11.8	18.6
HDE 20	Ø6x2.5 dp	16	32	M4x0.7Px9 dp	7	7	8	20.6	M5x0.8P	8.5	14.1	21.6

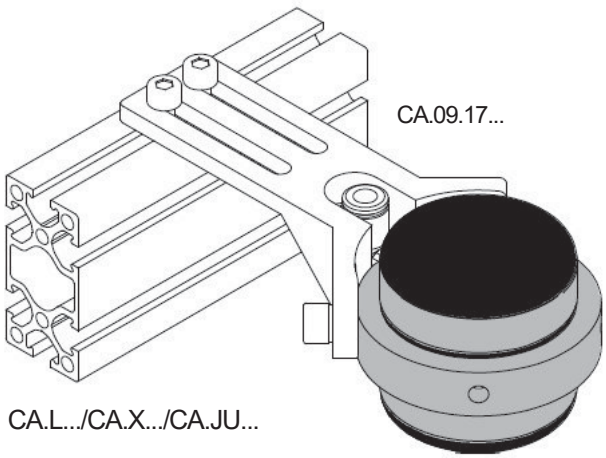
Grippers

CA.09.13

. Airgripper



Ar!cle no.	FIRESTONE Code	Material	Working range	Maximum restricted pressure allowed	A	B	C	D	E	F	G	Weight
CA.09.13.05.15 CA.09.13.05.15.S	WP1-M58-5001 WP1-M58-5005	Neoprene (N) Silicone (S)	5-15 mm	1.5 bar 1.0 bar	19	33	40	36	10	M5	M5	60 g
CA.09.13.10.25 CA.09.13.10.25.S	WP1-M58-5002 WP1-M58-5006	Neoprene (N) Silicone (S)	10-25 mm	1.5 bar 1.0 bar	27	48	60	48	13	M6	M6	145 g
CA.09.13.15.35 CA.09.13.15.35.S	WP1-M58-5003 WP1-M58-5007	Neoprene (N) Silicone (S)	15-35 mm	1.5 bar 1.0 bar	37	58	70	52	14	M5	M6	210 g
CA.09.13.20.45 CA.09.13.20.45.S	WP1-M58-5004 WP1-M58-5008	Neoprene (N) Silicone (S)	20-45 mm	1.5 bar 1.0 bar	48	69	80	56	15	M8	G 1/8	285 g



Temperature resistance
Neoprene (N)
-18° to 52° C
Silicone (S)
-30° to 160° C

Leaving few marks

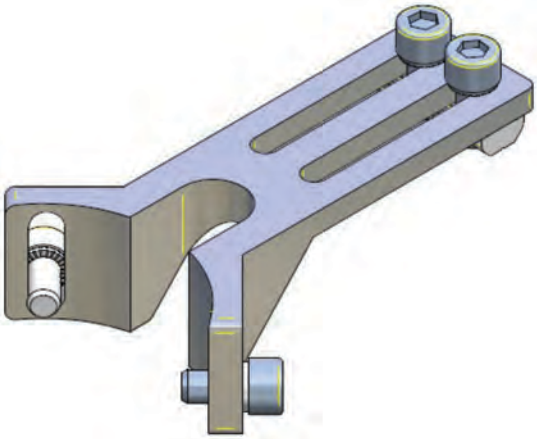
Grippers

CA.09.13

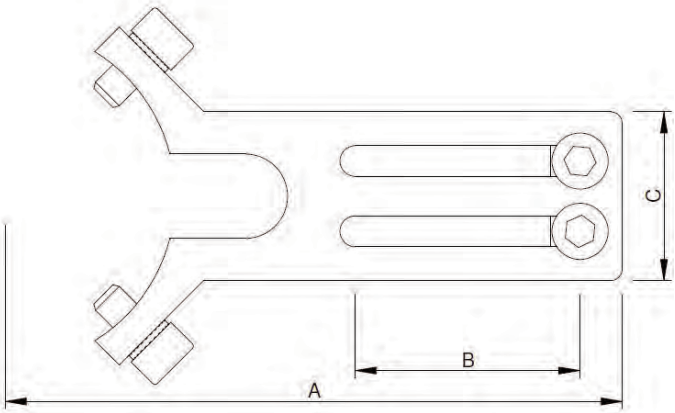
. Airgripper

CA.09.17

. Moun! ng Brackets



Material :Aluminium Surface: Silver anodized



M = Suitable for CA.09.13...

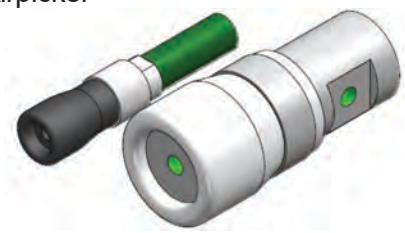
M1= Suitable for PROFILE..

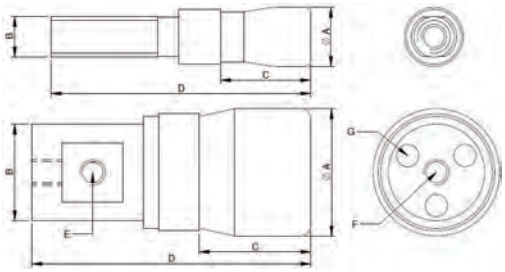
Ar!cle no.	M	M1	A	B	C	D	Weight
CA.09.17.0515.X	CA.09.13.05.15	CA.X. . /CAJU...	100	40	25	15	31 g
CA.09.17.1025.X	CA.09.13.10.25		110		30		46 g
CA.09.17.1535.X	CA.09.13.15.35		115		40		57 g
CA.09.17.2045.X	CA.09.13.20.45		120				69 g

Grippers

CA.09.14

. Airpicker





Ar!cle no.	FIRESTONECode	Material	Working range	Maximum restricted pressure allowe	A	B	C	D	E	F	G	Weight
CA.09.14.06	WP1-M58-0001	Neoprene (N)	8.5-10 mm	4 bar	8	M6	17.5	51	/	M3	/	8 g
CA.09.14.07	WP1-M58-0002		10-12 mm		9.5				/		/	12 g
CA.09.14.09	WP1-M58-0003		12-17 mm		11	M8X1.25			/	M5	/	17 g
CA.09.14.10	WP1-M58-0004		16-21 mm		14	Ø10	21	52	M5		/	28 g
CA.09.14.14 CA.09.14.14.S	WP1-M58-0005 WP1-M58-0024	Neoprene (N) Silicone (S)	21-27 mm	5 bar 1.8 bar	19	Ø14	22	56			/	60 g
CA.09.14.17 CA.09.14.17.S	WP1-M58-0006 WP1-M58-0025	Neoprene (N) Silicone (S)	24-32 mm	5 bar 1.8 bar	22	Ø17					/	85 g
CA.09.14.19 CA.09.14.19.S	WP1-M58-0007 WP1-M58-0018	Neoprene (N) Silicone (S)	28-36 mm	5 bar 1.8 bar	25	Ø19		55			/	105 g
CA.09.14.22 CA.09.14.22.S	WP1-M58-0008 WP1-M58-0026	Neoprene (N) Silicone (S)	30-44 mm	5 bar 1.8 bar	27	Ø22	28	64			/	160 g
CA.09.14.25 CA.09.14.25.S	WP1-M58-0009 WP1-M58-0019	Neoprene (N) Silicone (S)	32-52 mm	5 bar 1.8 bar	29	Ø25	34	76			/	245 g
CA.09.14.35 CA.09.14.35.S	WP1-M58-0011 WP1-M58-0028	Neoprene (N) Silicone (S)	45-65 mm	5 bar 1.8 bar	41	Ø34	42	71	G1/8	M6	/	180 g
CA.09.14.45	WP1-M58-0012	Neoprene (N)	58-85 mm	5 bar	51	Ø44	52	90	M6		3-M6	370 g
CA.09.14.55	WP1-M58-0013		70-105 mm		63	Ø54	53	101				610 g

Temperature resistance:

Neoprene (N)
-18° to 52° C
Silicone (S)
-30° to 160° C

Grippers

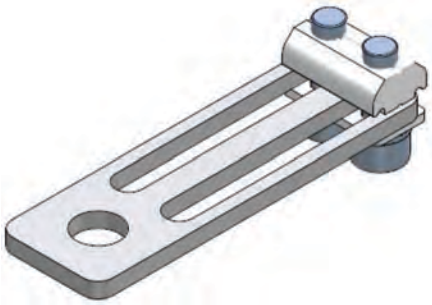
CA.09.14

. Airpicker

Air Pressure 0 MPa | Air Pressure 0.15 MPa | Air Pressure 0.30 MPa

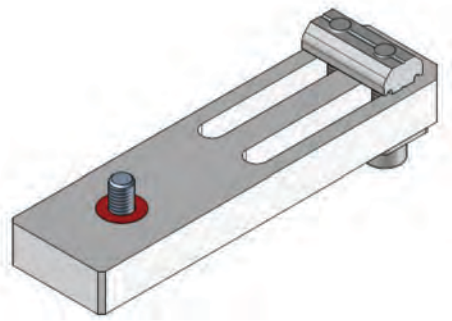
CA.09.18

. Mounting Brackets



Material :Aluminium

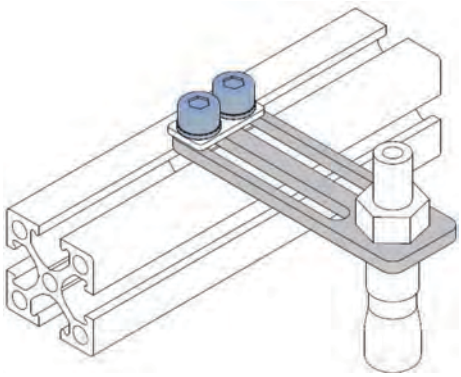
Surface: Silver anodized



Ar!cle no.	M	M1	Weight
CA.04.20.06.X	CA.09.14.06 CA.09.14.07	CA.L../ CA.X..	32 g
CA.04.20.08.X	CA.09.14.09		36 g
CA.09.18.1014.X	CA.09.14.10		48 g
CA.09.18.1719.X	CA.09.14.14 CA.09.14.17 CA.09.14.19	CA.X../ CA.JU..	50 g
CA.09.18.2225.X	CA.09.14.22 CA.09.14.25		77 g
CA.09.18.35.JU	CA.09.14.35		99 g
CA.09.18.4555.JU	CA.09.14.45 CA09.14.55		227 g

M = Suitable for CA.09.14...

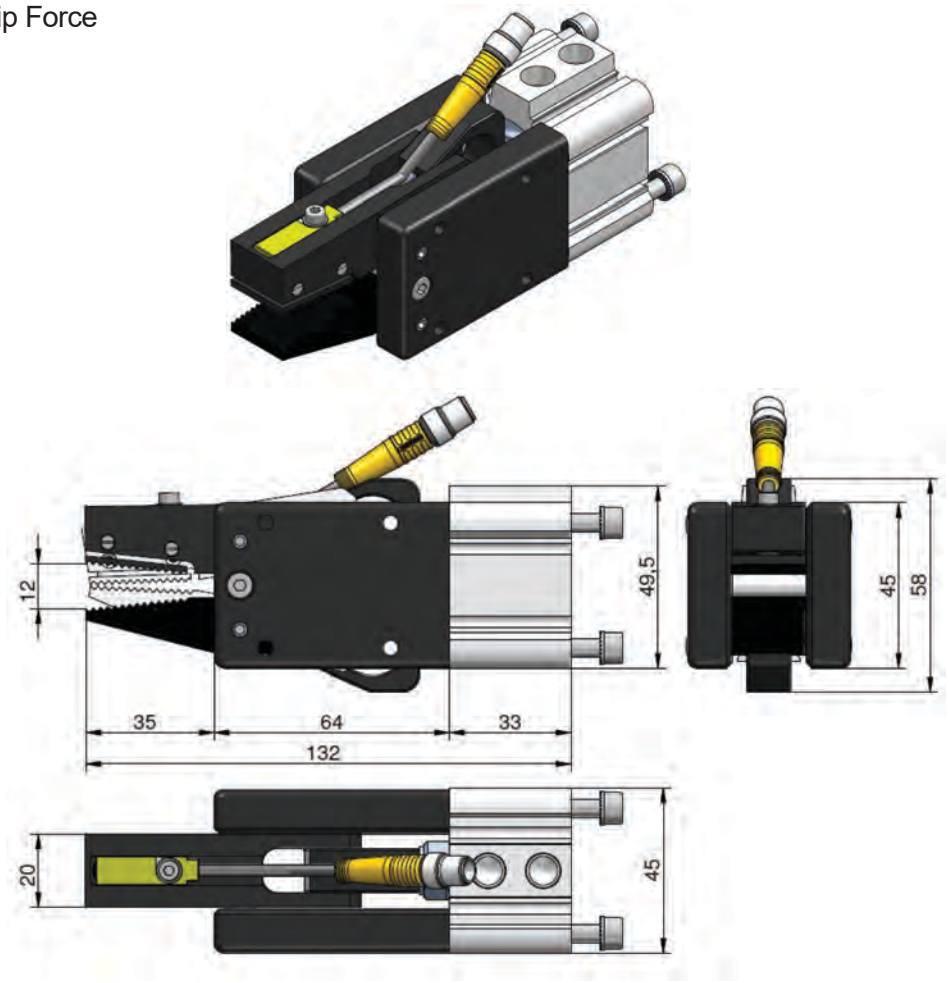
M1= Suitable for PROFILE...



Grippers

CA.09 GZ

. Gripper High Grip Force



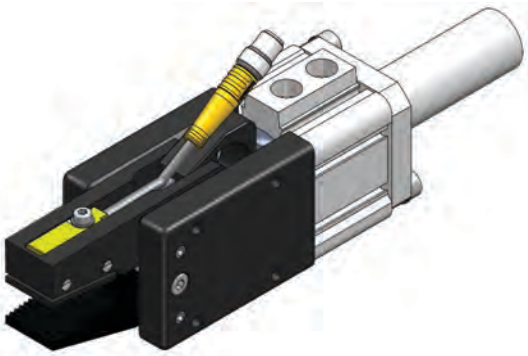
Ar!cle no.	Closingforce (at 6 bar)	Weight
CA.GZ.32.S	350 N	226 g

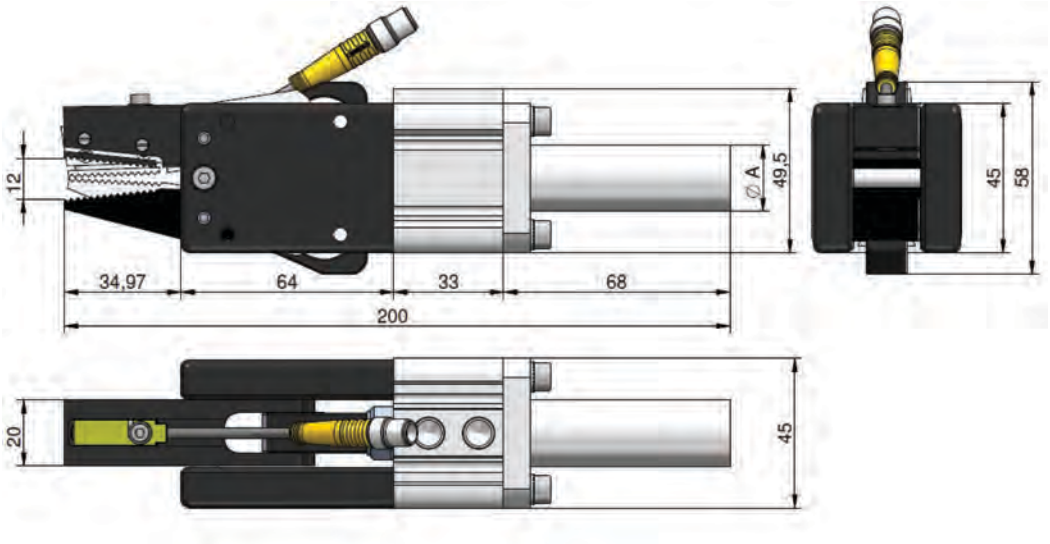
Ar!cle no.
CA.GZ.32.FING.S

Grippers

CA.09 GZ

. Gripper High Grip Force



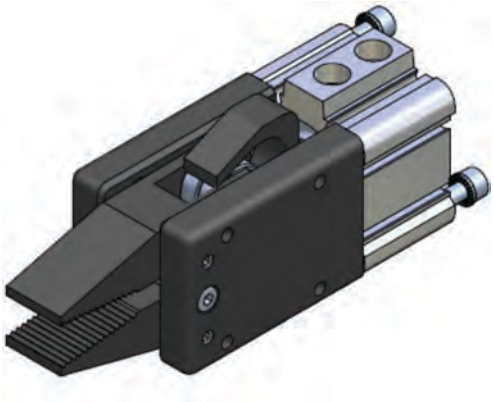


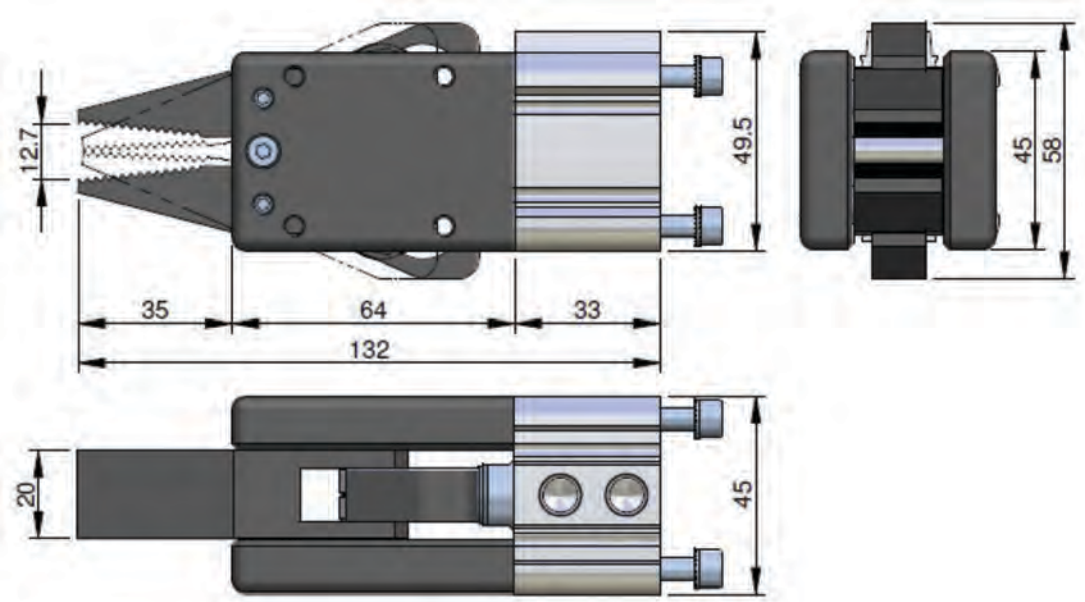
Ar!cle no.	Closingforce (at 6 bar)	A	Weight
CA.GZ.3220.S	350 N	20	281 g

Grippers

CA.09 GZ

. Gripper High Grip Force



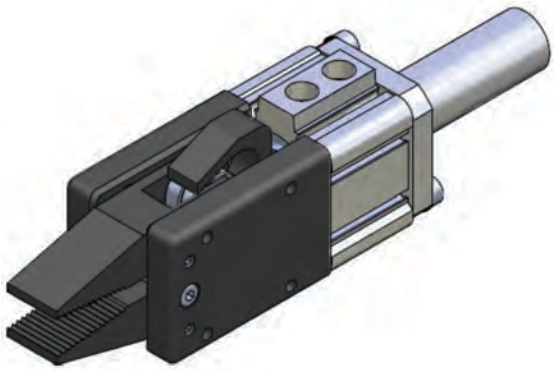


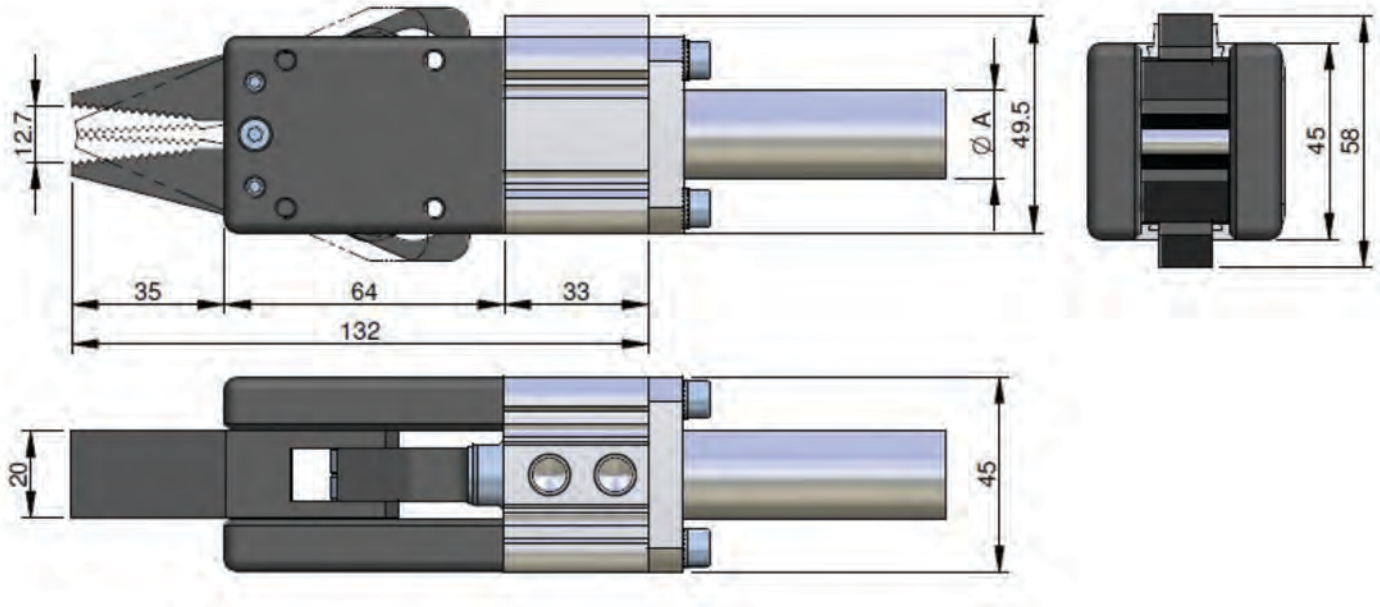
Ar!cle no.	Closingforce (at 6 bar)	Weight
CA.GZ.32	350 N	509 g

Grippers

CA.09 GZ

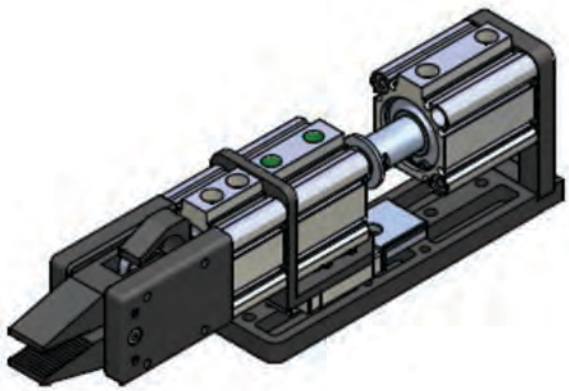
. Gripper High Grip Force





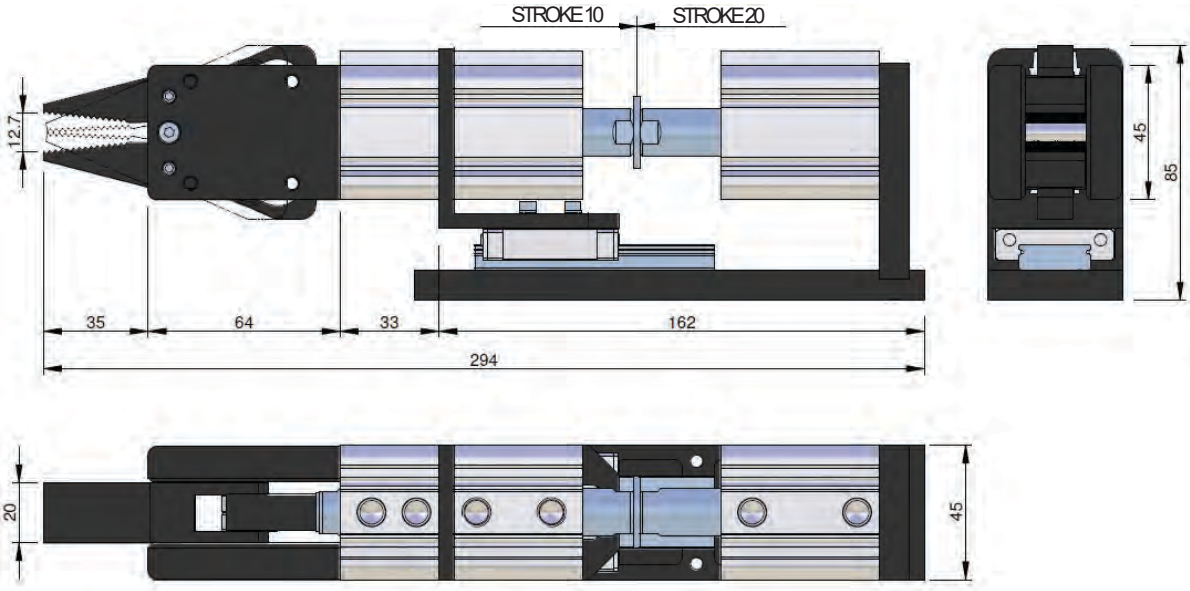
Ar!cle no.	Closingforce (at 6 bar)	A	Weight
CA.GZ.3220	350 N	20	563 g
CA.GZ.3225		25	591 g

Grippers



CA.09 GZ

. Gripper high grip force with double stroke

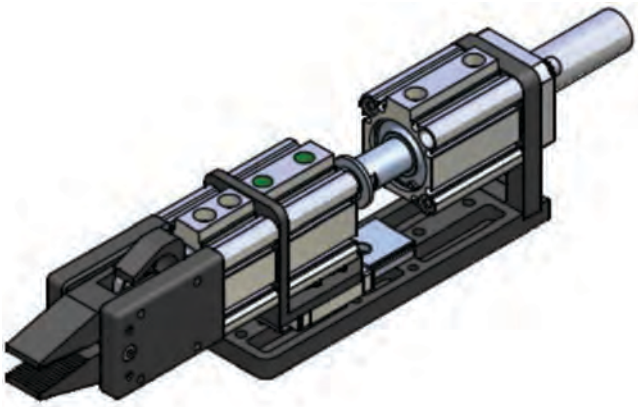


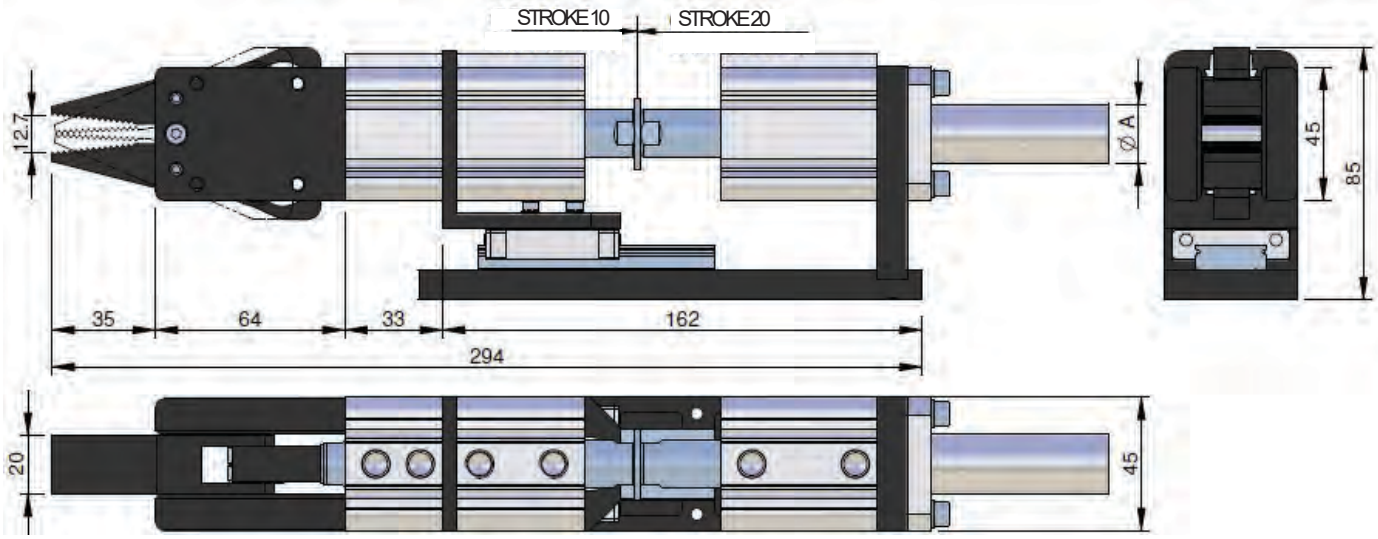
Ar!cle no.	Closingforce (at 6 bar)	Weight
CA.GZ.322010	350 N	1400 g

Grippers

CA.09 GZ

. Gripper high grip force with double stroke



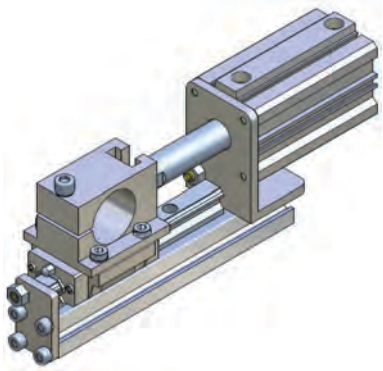


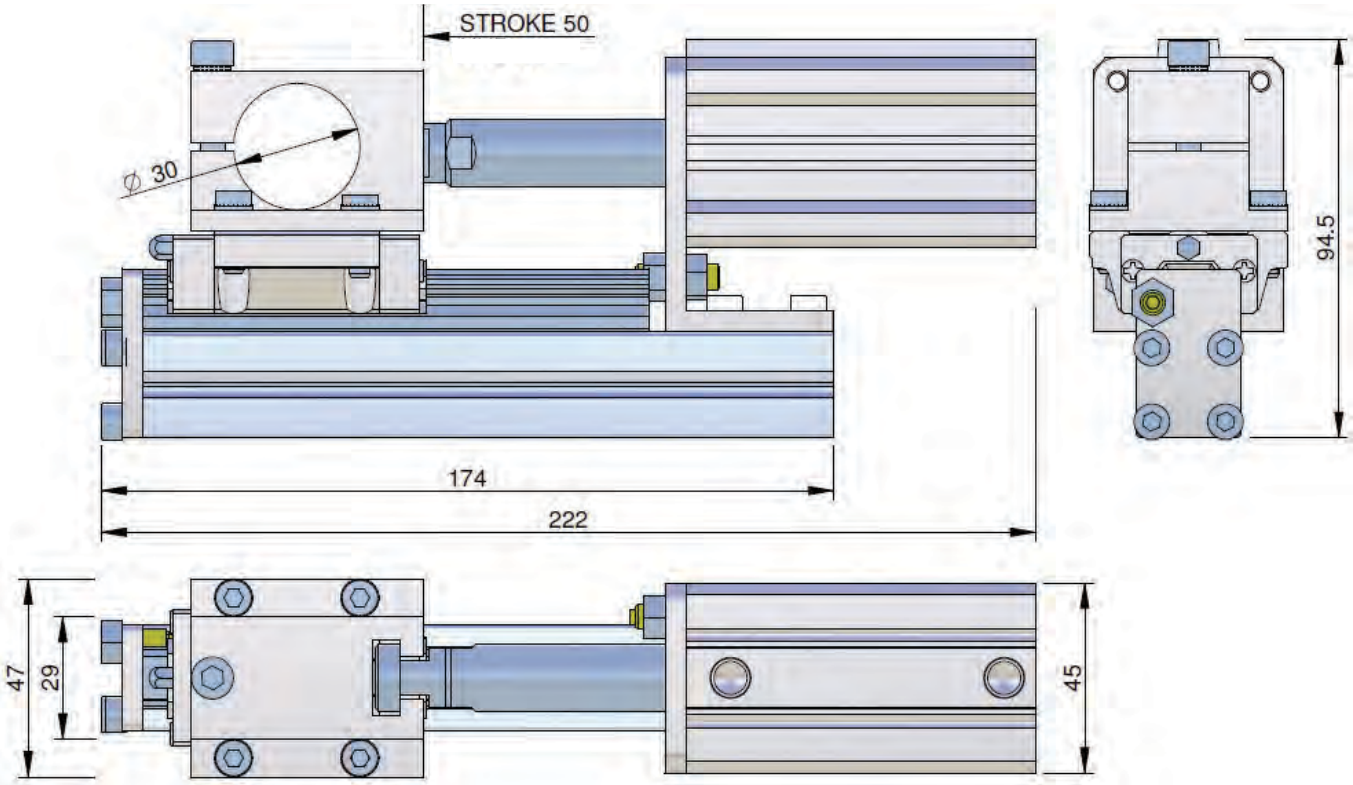
Ar!cle no.	Closingforce (at 6 bar)	A	Weight
CA.GZ.32201020	350 N	20	1455 g
CA.GZ.32201025		25	1485 g

Grippers

CA.09 HEH

. Linear Stroke Unit



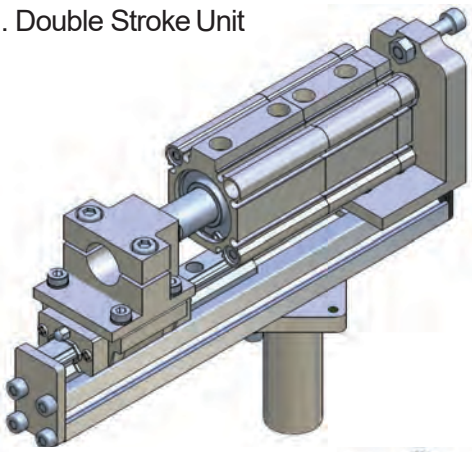


Ar!cle no.	Weight
CA.HEH.30.50	1052 g

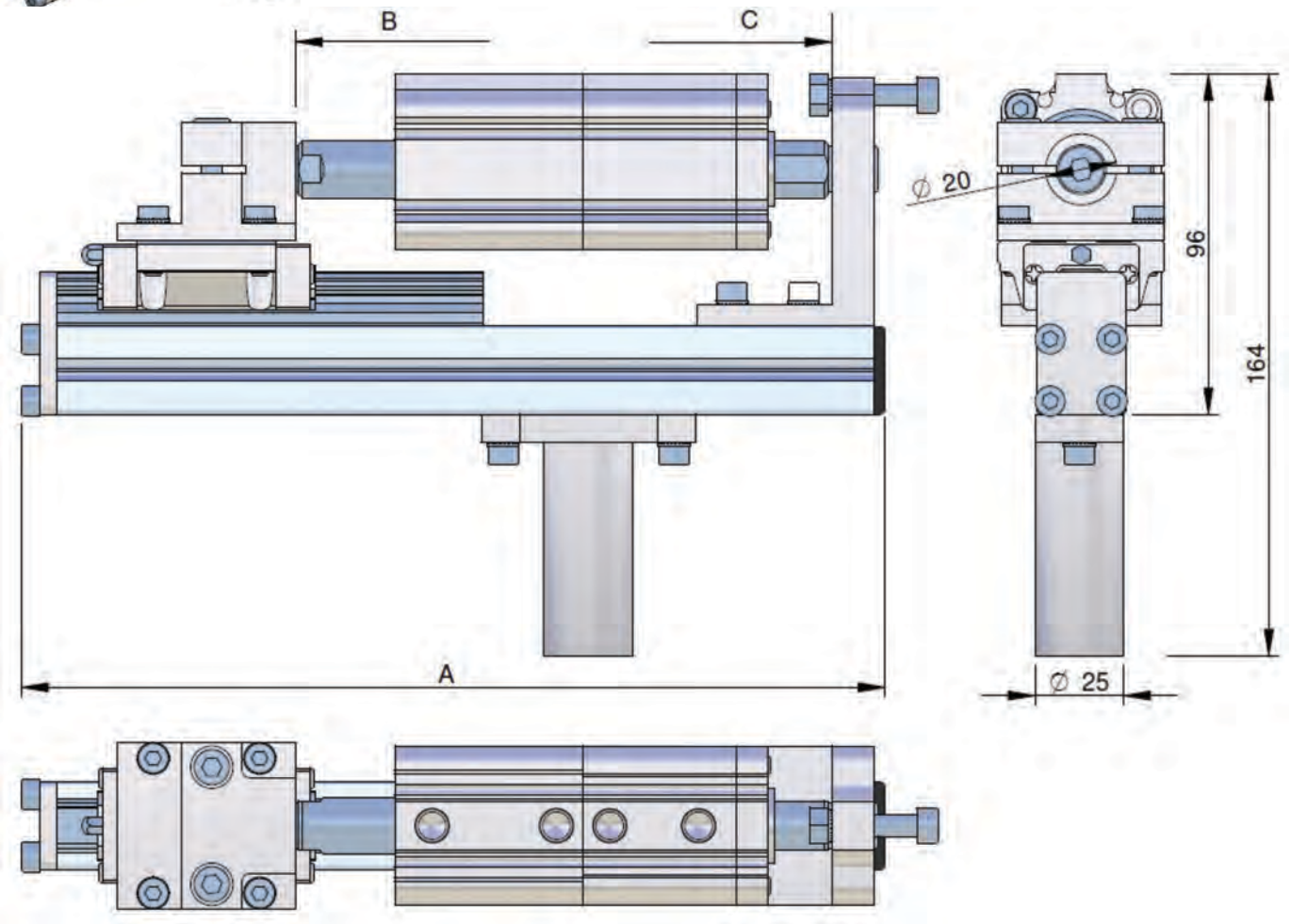
Grippers

CA.09 UDHE

. Double Stroke Unit



Ar!cle no.	A	B	C
CA.UDHE.32102020	243	20	10
CA.UDHE.32203020	283	30	20

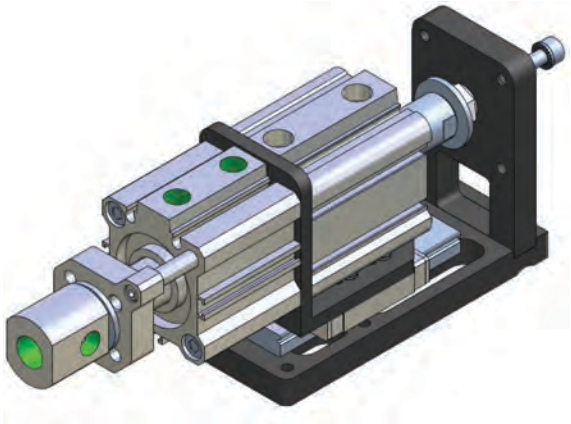


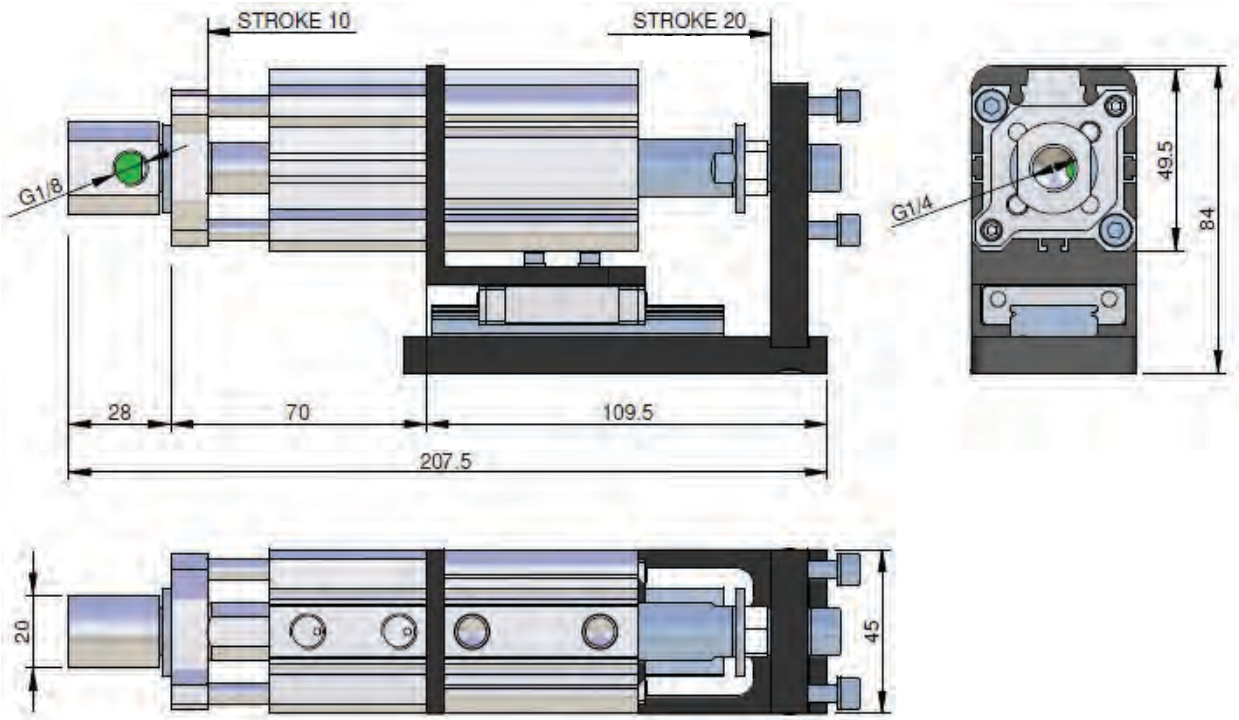
Ar!cle no.	Weight
CA.UDHE.32102020	1375 g
CA.UDHE.32203020	1455 g

Grippers

CA.09 BVAE

. Movable vacuum unit BVAE32
with guided double stroke



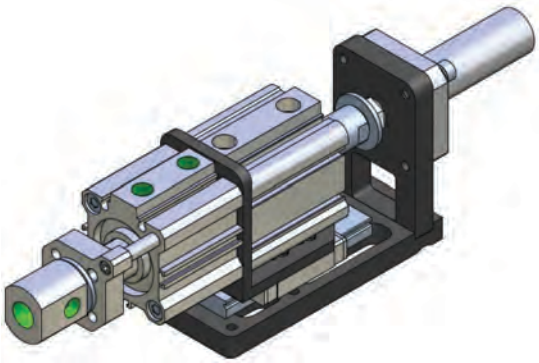


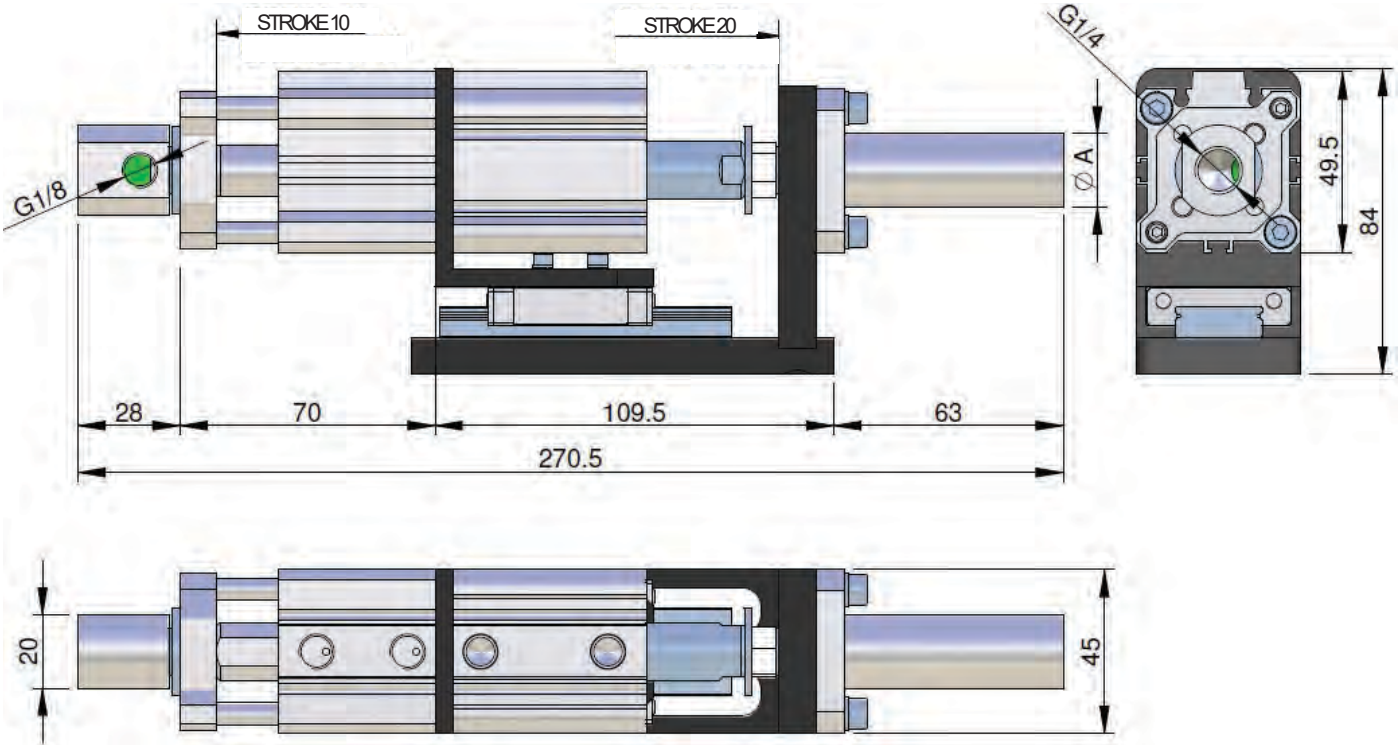
Ar!cle no.	Weight
CA.BVAE.322010	988 g

Grippers

CA.09 BVAE

. Movable vacuum unit BVAE32
with guided double stroke





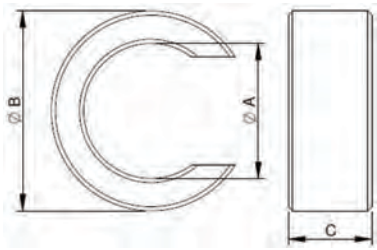
Ar!cle no.	A	Weight
CA.BVAE.32201020	20	1043 g
CA.BVAE.32201025	25	1073 g

Grippers

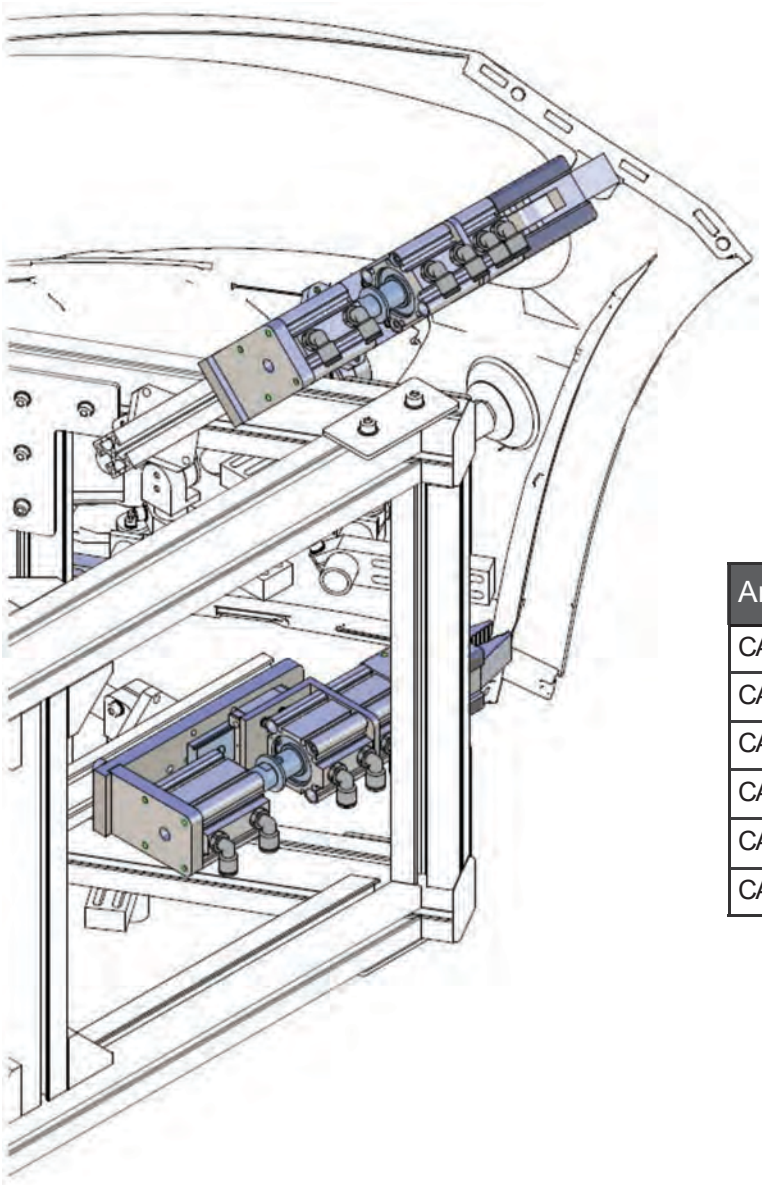
CA.09 DB

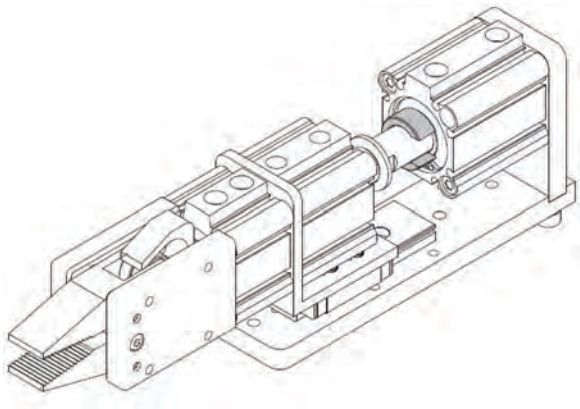
. Stroke Reducer

Table / Tabella
M = Suitable for GZ-11.17…



Applica! on example

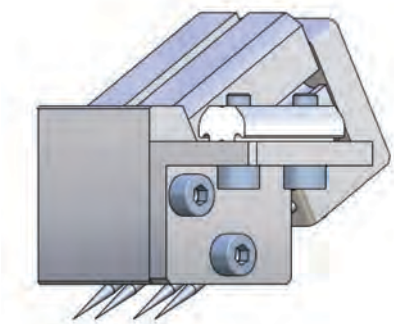




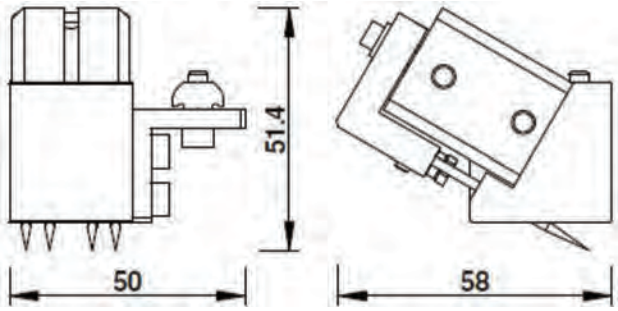
Ar!cle no.	A	B	C	M	Weight
CA.DB.05.25	12	20	5	Ø25	1 g
CA.DB.10.25			10		2 g
CA.DB.15.25			15		4 g
CA.DB.05.32	16	24	5	Ø32	1 g
CA.DB.10.32			10		2 g
CA.DB.15.32			15		3 g

CA.09 PAA

. Needle gripper

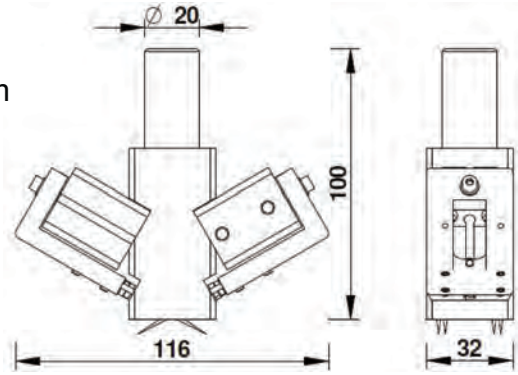


Single Drive



Ar!cle no.	Weight
CA.PAA.AP	135 g
CA.PAA.AP.D	

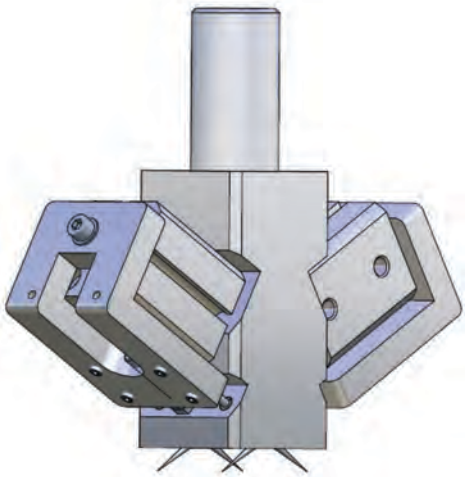
Double Drive With Stem



Needle grippers are designed for picking up textile, cloth, carpet, or any other material that can be penetrated

Designed for installation on our X Profile

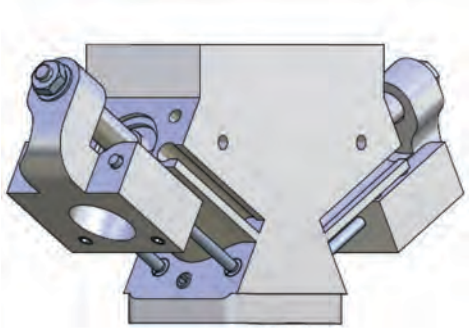
Maximum air pressure is 6 bar

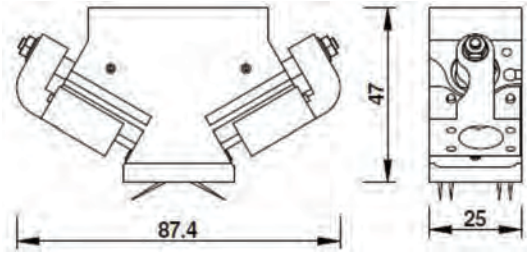


Ar!cle no.	Weight
CA.PAA.CF	320 g
CA.PAA.CF.D	

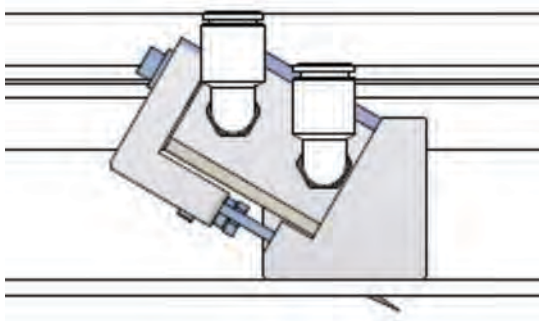
CA.09 PAA

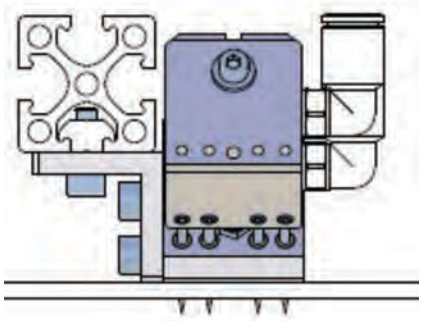
. Needle Gripper

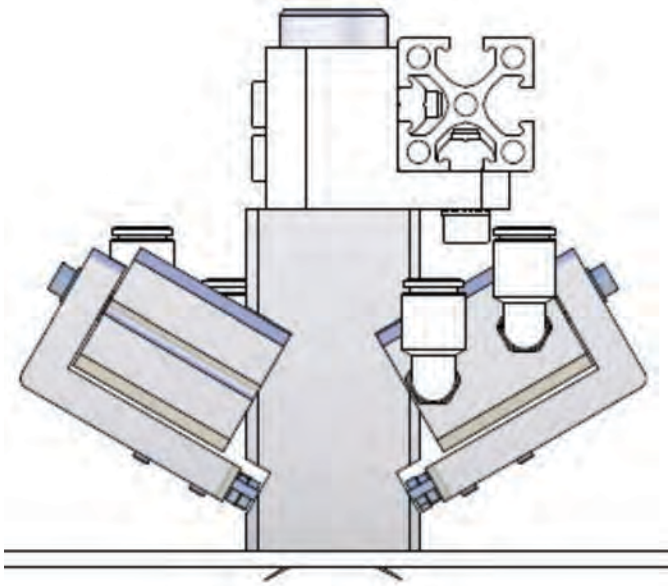




Ar!cle no.	Weight
CA.PAA.SP	132 g







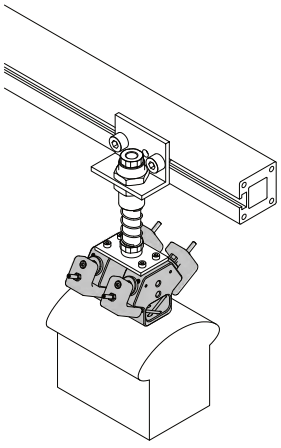
Needle GRIPPER

CA.MNG-E Needle Gripper

Introduction

- Handling in scenarios where a vacuum cannot be formed
- Adjustable Stoke
- Material of main body and steel needle: sus316

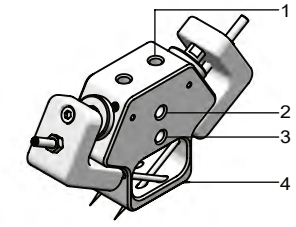
Application of CA.MNG-E needle gripper



Application

- Applicable to the food industry, e.g., gripping bread, pancakes, etc.

System design of CA.MNG-E needle gripper



Structure

- (1) Mounting hole
- (2) Compressed air inlet control needle sticking out
- (3) Compressed air inlet control needle retracted
- (4) Steel needle

Needle gripper

CA.MNG-E Needle Gripper

CA.MNG-E needle gripper purchase guide

CA.MNG-E 4 2.0 V-HT 3.5

① ② ③ ④ ⑤

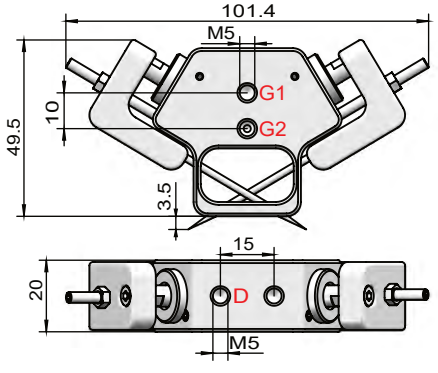
① Product series	②Number of steel needles	③Steel needle diameter	④ Additional function	⑤Adjustable Stoke
MNG-E	**4**	**2.0** - ϕ2.0mm	**V-HT** - Stainless steel needle	3.5mm

Technical parameters of CA.MNG-E needle gripper

Model	Number of steel needles	Steel needle diameter	Additional function	Operating pressure	Operating temperature	Weight	Stoke
		mm		bar	℃	g	mm
CA.MNG-E 4 2.0...	4	2.0	Adjustable Stoke	3.0...7.0	5...60	320	3.5

Design parameters of CA.MNG-E needle gripper

MNG-E...



G1: Compressed air inlet (M5)
G2: Compressed air inlet (M5)
D: Mounting hole (M5)

Needle gripper

CA.MNG-D needle gripper

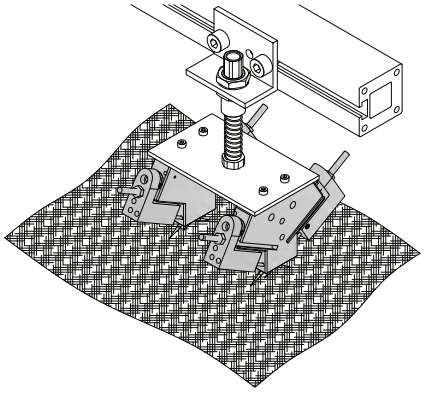

Composite material


Textile

Introduction

- The aluminum main body has an air cylinder inside to control the sticking out and retraction of needles
- Crossed needles
- Adjustable Stoke of steel needles
- Small thickness

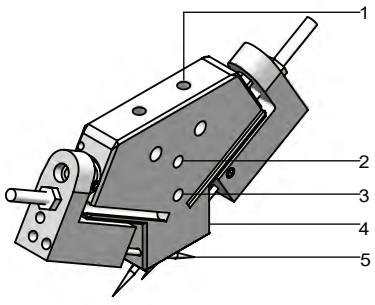
Application of CA.MNG-D needle gripper



Application

- Suitable for special applications with limited installation space

System design of CA.MNG-D needle gripper



Structure

- (1) Mounting hole
- (2) Compressed air inlet control needle sticking out
- (3) Compressed air inlet control needle retracted
- (4) Main body
- (5) Steel needle

Needle gripper

CA.MNG-D needle gripper

CA.MNG-D needle gripper purchase guide

CA.MNG-D 6 2.0 V-HT 7
① ② ③ ④ ⑤

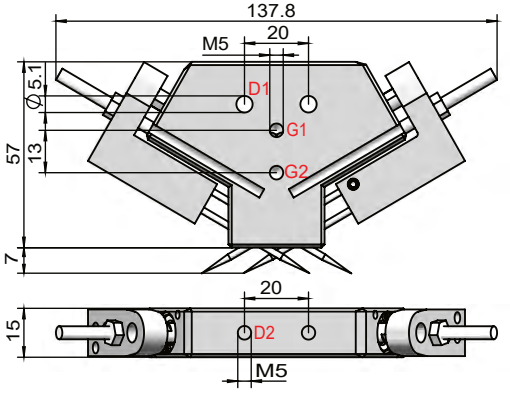
① Product series	②Number of steel needles	③Steel needle diameter	④ Additional function	⑤Adjustable Stoke
MNG-D	**6**	**2.0** - ϕ2.0mm	**V-HT** - Stainless steel needle	7mm

Technical parameters of CA.MNG-D needle gripper

Model	Number of steel needles	Steel needle diameter	Additional function	Operating pressure	Operating temperature	Weight	Stoke
		mm		bar	℃	g	mm
MNG-D	6	2.0	Adjustable Stoke	3.0...7.0	5...60	168	7

Design parameters of CA.MNG-D needle gripper

CA.MNG-D



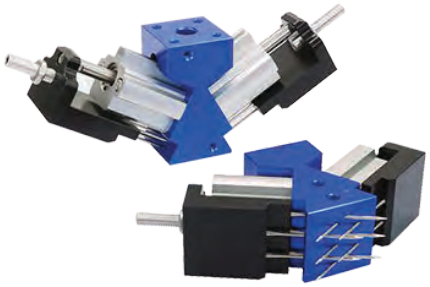
G1: Compressed air inlet (M5)
G2: Compressed air inlet (M5)
D1: Mounting hole (φ5.1)
D2: Mounting hole (M5)

Needle Gripper

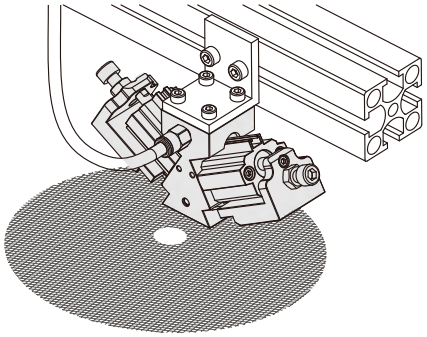
CA.MNG-V needle gripper


Composite material

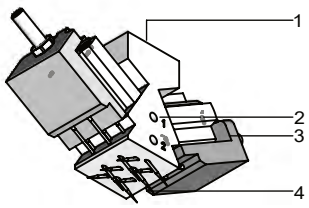

Textile



Application of CA.MNG-V needle gripper



System design of CA.MNG-V needle gripper



Introduction

- Grips workpieces with steel needles
- Double cylinders to control the sticking out and retraction of needles
- Crossed needles, adjustable Stoke of steel needles, less effective contact area
- Handles small workpieces
- Easily-controlled pneumatic valve
- Short operating cycle, faster processing
- Handles long thin workpieces or workpieces in different shapes
- Prevents workpiece falling during power-down
- Workpiece thickness, size and shape set respectively
- Securely suctions highly breathable workpieces that can hardly be handled via a vacuum

Application

- Steel needles with a plurality of diameters; fixed or adjustable needle stoke; used to handle non-rigid and flexible porous materials that can hardly be picked up via a vacuum, such as composite fibers, down woven articles, filtering materials, woven glass fibers or carbon fibers, thermal insulation and foam materials, etc.

Structure

- (1) Main body
- (2) Compressed air inlet control needle sticking out
- (3) Compressed air inlet control needle retracted
- (4) Steel needle

Needle Gripper

CA.MNG-V needle gripper

CA.MNG-V needle gripper purchase guide

CA.MNG-V 10 1.2 V-HT 7

① ② ③ ④ ⑤

① Product series	②Number of steel needles	③Steel needle diameter	④ Additional function	⑤Adjustable Stoke
CA.MNG-V	**10**	**1.2** - φ1.2mm	**V** - Ordinary steel needle	7mm
		4.0 - φ4.0mm	**V-HT** - Stainless steel needle	14mm

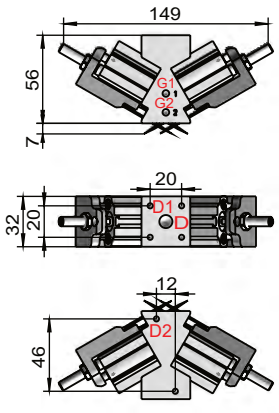
Note:The adjustable Stoke of 1.2mm steel needle is 7mm; 4.0mm steel needle 14mm. Only the V-HT stainless steel needle can be selected.

Technical parameters of CA.MNG-V needle gripper

Model	Number of steel needles	Steel needle diameter mm	Additional function	Operating pressure bar	Operating temperature ℃	Weight g	Stoke mm
CA.MNG-V 10 1.2	10	1.2	Adjustable Stoke	3.0...7.0	5...60	265	7
CA.MNG-V 10 4.0	10	4.0		3.0...7.0	5...60	1050	14

Design parameters of CA.MNG-V needle gripper

MNG-V 10 1.2...



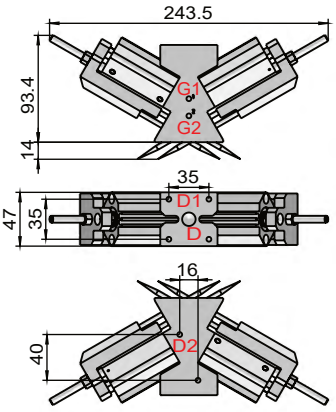
G1: Compressed air inlet (M5)
G2: Compressed air inlet (M5)
D1: Mounting hole (G1/8)
D1: Mounting hole (M4)
D2: Mounting hole (M4)

Needle Gripper

CA.MNG-V needle gripper

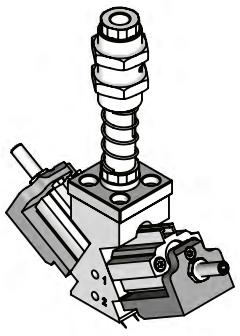
Design parameters of CA.MNG-V needle gripper

CA.MNG-V 10 4.0...



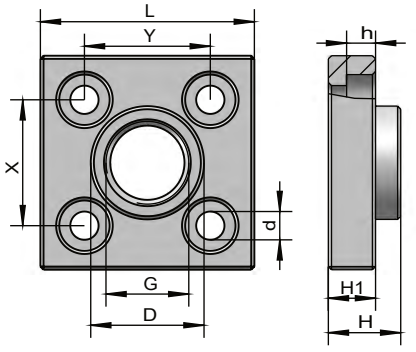
G1: Compressed air inlet (M5)
G2: Compressed air inlet (M5)
D1: Mounting hole (G1/4)
D1: Mounting hole (M5)
D2: Mounting hole (M5)

CA.MNG-V needle gripper installation illustration



Model specifications of CA.MNG-V needle gripper fittings

CA.MNG-V □ FL



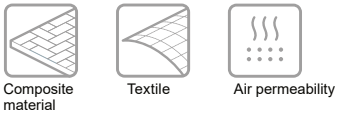
Model	Size (mm)								
	L	X	Y	H	H1	h	D	d	G
CA.MNG-V 1.2 FL	34	20	20	11.5	7.5	4.6	18	4.5	G1/8
CA.MNG-V 4.0 FL	50	35	35	14	10	5.7	24	5.5	G3/8

Recommended buffer plunger specifications

Name	Model
Buffer plunger	CA.MTE G1/4-AG□-VG
	CA.MTE G3/8-AG□-VG

Needle Gripper

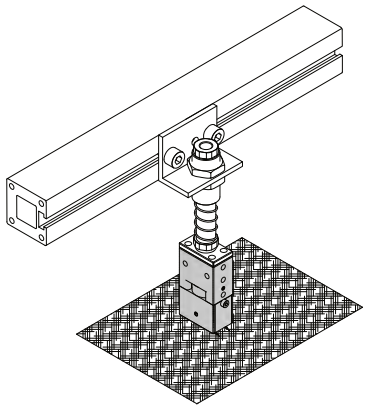
CA.MNG-M needle gripper



Introduction

- The small needles are inserted shallowly and can be quickly released
- Handle air permeable thin workpiece
- Adjustable needles' stoke
- Double-row needles

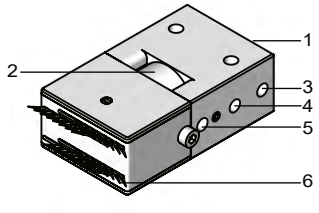
Application of CA.MNG-M needle gripper



Application

- Handling materials that are difficult to grip using vacuum, such as composite textiles, wool, filters, woven glass fibers or carbon fibers, woven aromatic polyamide fibers, foam materials, etc

System design of CA.MNG-M needle gripper



Structure

- (1) Main body
- (2) Stoke adjusting nut
- (3) Compressed air inlet control needle sticking out
- (4) Compressed air inlet control needle retracted
- (5) Compressed air back-blowing port
- (6) Steel needle

Needle Gripper

CA.MNG-M needle gripper

CA.MNG-M needle gripper purchase guide

CA.MNG-M 32 07 V 2

① ② ③ ④ ⑤

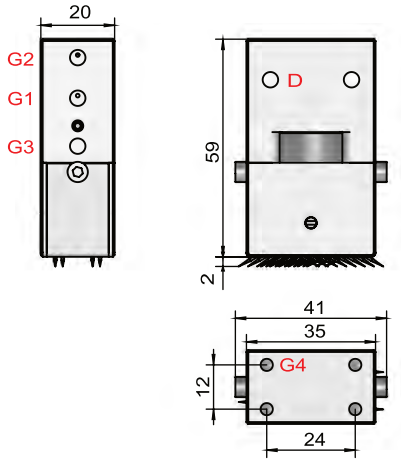
① Product series	② Number of steel needles	③ Steel needle diameter	④ Additional function	⑤ Adjustable stoke
CA.MNG-M	**32** **92**	**07** - ϕ0.7mm	**V** - Ordinary steel needle	2mm

Technical parameters of CA.MNG-M needle gripper

Model	Number of steel needles	Steel needle diameter mm	Operating pressure bar	Operating temperature ℃	Weight g	Stoke mm
CA.MNG-M 32	32	0.7	3.0...6.0	5...60	110	2
CA.MNG-M 92	92	0.7	3.0...6.0	5...60	140	2

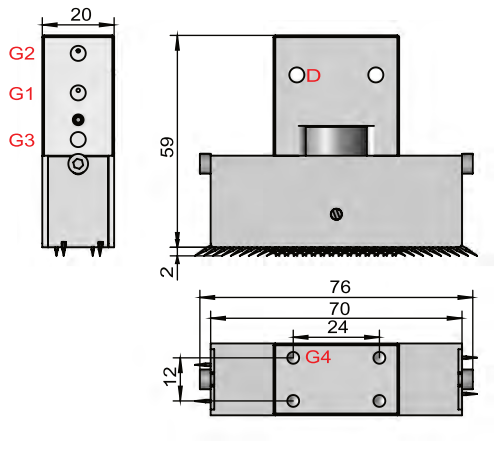
Technical parameters of CA.MNG-M needle gripper

CA.MNG-M 32



G1: Compressed air inlet (M5)
G2: Compressed air inlet (M5)
G3: Blowing port (M5)
G4: Mounting hole (M4)
D: Mounting hole (φ4.2)

CA.MNG-M 92



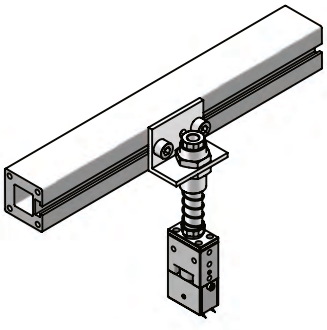
G1: Compressed air inlet (M5)
G2: Compressed air inlet (M5)
G3: Blowing port (M5)
G4: Mounting hole (M4)
D: Mounting hole (φ4.2)

Needle Gripper

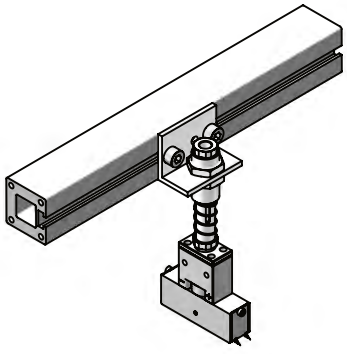
CA.MNG-M needle gripper

CA.MNG-M needle gripper installation illustration

CA.MNG-M 32

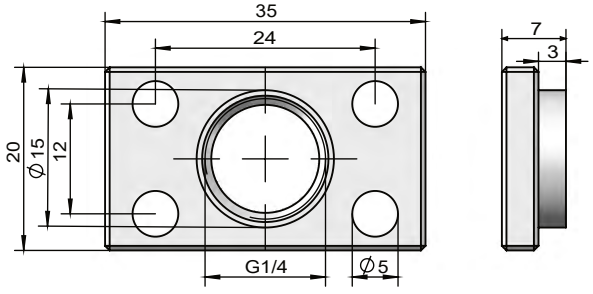


CA.MNG-M 92



Mounting plate design parameters

CA.MNG-M FL



Model specifications of CA.MNG-M needle gripper fittings

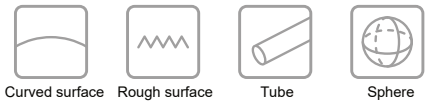
Name	Model
Needle gripper mounting plate	CA.MNG-M FL

Recommended buffer plunger specifications

Name	Model
Buffer plunger	CA.MTE G1/4-AG□-VG

Spherical Gripper

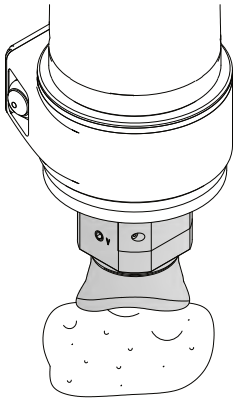
CA.MGS Spherical Gripper



Introduction

- Compressed air inlet with M5 thread
- Applicable to a plurality of products, especially irregular rough surfaces
- A special air ring adaptable to irregular surfaces and surfaces contacted gently

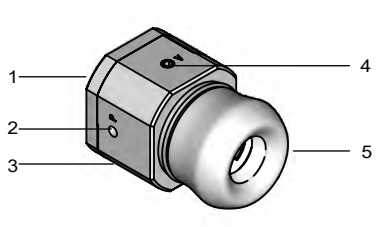
Application of CA.MGS Spherical Gripper



Application

- Applicable to irregular surfaces and curved surfaces such as fruit, vegetables, pens, wrenches, etc.
- Applicable to surfaces that should be contacted gently, such as chargers, portable chargers, cups, etc.

System Design of CA.MGS Spherical Gripper



Structure

- (1) Top cover
- (2) Compressed air inlet
- (3) Main body
- (4) Vacuum detection port
- (5) Air ring

Spherical Gripper

CA.MGS Spherical Gripper

CA.MGS Spherical Gripper Order Code

CA.MGS 20
① ②

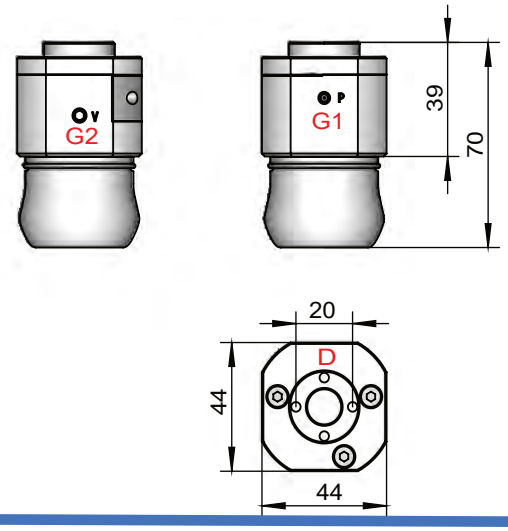
① Product series	② Specification
CA.MGS	**20** - ϕ20mm

Technical Parameters of CA.MGS Spherical Gripper

Model	Maximum vacuum degree -kpa	Maximum suction capacity l/min	Air consumption l/min	Operating pressure bar	Operating temperature ℃	Weight g
CA.MGS 20	80	6.6	15	0.35	0-50	180

Design Parameters of CA.MGS Spherical Gripper

CA.MGS 20



G1: Compressed air inlet (M5)
G2: Vacuum port (M5)
D: Mounting hole (M4)

CA - TDX Series

Features

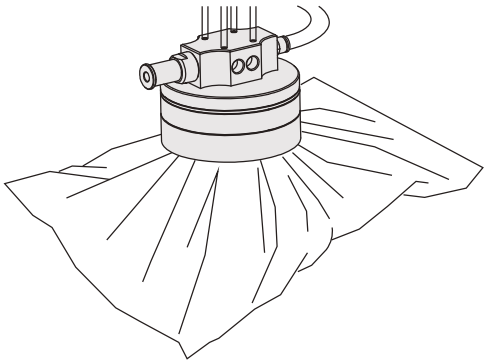
◇ The housing is made of high quality aluminum alloy
◇ With built-in large flow vacuum generator
◇ Suction cup adsorption surface type, with built-in throttling function
◇ Sponge adsorption surface type, with large area structure of inner cavity

Advantages

◇ High strength and light weight
◇ Fast reaction time
◇ The inner cavity is large enough to handle the workpiece with obvious height difference on the surface

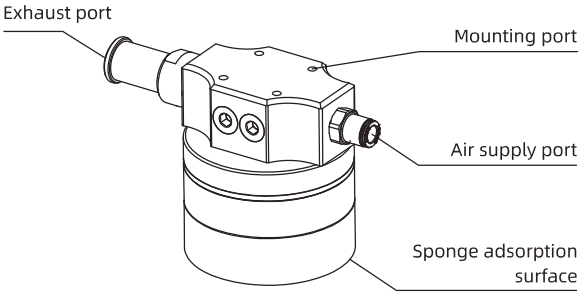
Applications

◇ Suction cup type is used to handle light and small sensitive workpieces, such as electronics, glass screen and electronic components, etc.
◇Suction cup type is with built-in throttling function, which can be used to handle workpieces with leakage
◇ Sponge type is used for sorting and packing in packaging industry



Structure

◇ Vacuum source has flow type and vacuum type
◇ The adsorption surface has two structures: round and square
◇ Air supply port is equipped with ϕ8 one-touch fitting, which can be directly connected to the hose. There is a vacuum port on the side. The exhaust way is direct exhaust.



CA - TDX Series

How to order

CA- TDX100 - S - H

① Series	② Dimension	③ Adsorption surface type		④ Vacuum source type
CA - TDX	80	R	- Square sponge	H - Vacuum type（-95kPa）
	100	S	- Round sponge	L - Flow type（-75kPa）
	120	B3N/B5N/B7N	- Round NBR suction cup	
		B3WS/B5WS/B7WS	- Round silicone suction cup	

Selection-Sponge type

Model/adsorption surface type	R - Square sponge		S - Round sponge	
TXD80□-□	TXD80R-H	TXD80R-L	TXD80S-H	TXD80S-L
TXD100□-□	TXD100R-H	TXD100R-L	TXD100S-H	TXD100S-L
TXD120□-□	TXD120R-H	TXD120R-L	TXD120S-H	TXD120S-L

Selection-suction cup type

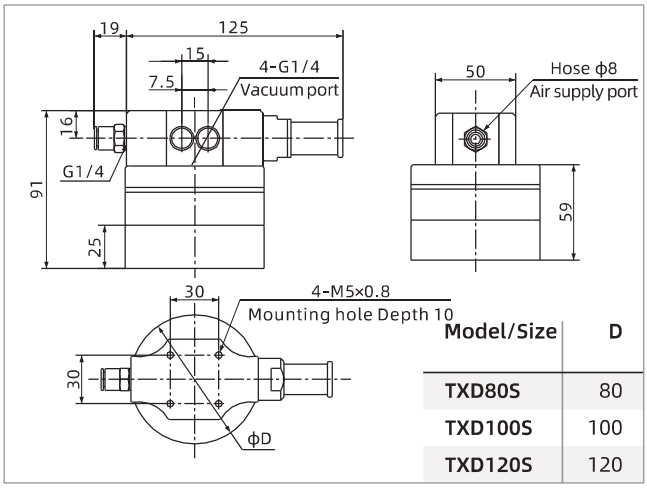
Model/suction cup material	Nil-NBR		WS-White silicone	
TXD80B3□-□	TXD80B3N-H	TXD80B3N-L	TXD80B3WS-H	TXD80B3WS-L
TXD80B5□-□	TXD80B5N-H	TXD80B5N-L	TXD80B5WS-H	TXD80B5WS-L
TXD80B7□-□	TXD80B7N-H	TXD80B7N-L	TXD80B7WS-H	TXD80B7WS-L

Technical parameters

Model	Rated air supply pressure bar	Max.vacuum level -kPa	Max.vacuum flow NL/min	Air consumption NL/min	Weight kg	Recommended hose dia. (mm) Air supply port P
TXD80R-L	6.0	75	180	120	0.55	ϕ8
TXD80R-H	5.0	95	170	125	0.55	ϕ8
TXD80S-L	6.0	75	180	120	0.5	ϕ8
TXD80S-H	5.0	95	170	125	0.5	ϕ8
TXD80B-L	6.0	75	180	120	0.65	ϕ8
TXD80B-H	5.0	95	170	125	0.7	ϕ8
TXD100R-L	6.0	75	180	120	0.65	ϕ8
TXD100R-H	5.0	95	170	125	0.65	ϕ8
TXD100S-L	6.0	75	180	120	0.6	ϕ8
TXD100S-H	5.0	95	170	125	0.6	ϕ8
TXD120R-L	6.0	75	180	120	0.73	ϕ8
TXD120R-H	5.0	95	170	125	0.73	ϕ8
TXD120S-L	6.0	75	180	120	0.8	ϕ8
TXD120S-H	5.0	95	170	125	0.8	ϕ8

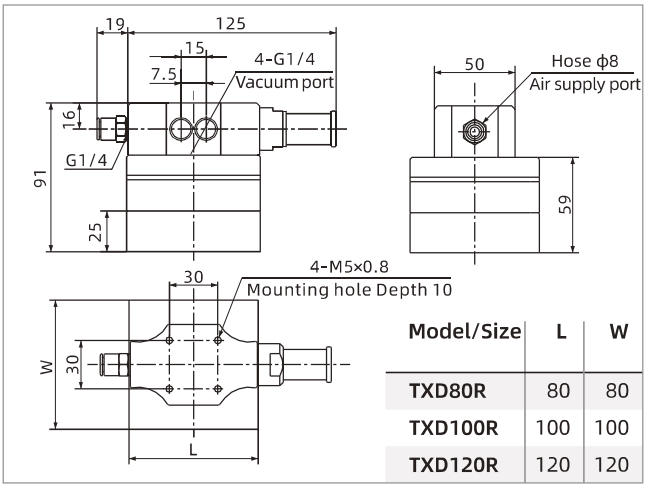
CA-TDX Series

Dimensions(mm)



Model/Size	D
TXD80S	80
TXD100S	100
TXD120S	120

TXD□S - Round sponge



Model/Size	L	W
TXD80R	80	80
TXD100R	100	100
TXD120R	120	120

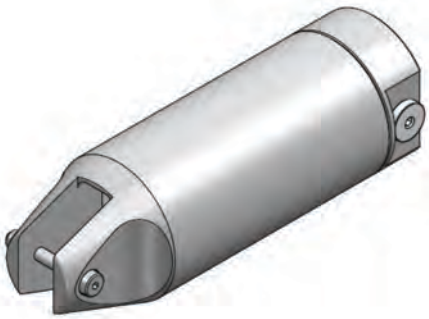
TXD□R - Square sponge

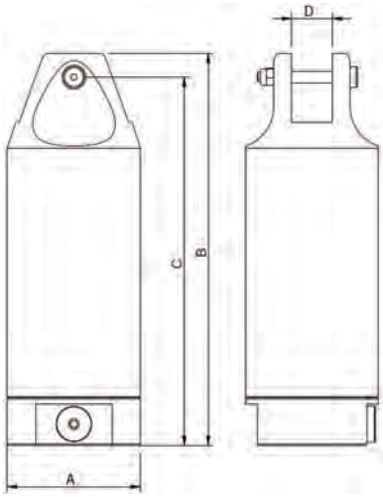
Spare parts selection

Item	Adsorption surface model	Adsorption surface dimension mm	Applicable gripper model
TXD80R Spone	TXD80RA	ϕ80×25	TXD80R-H、TXD80R-L
TXD80S Spone	TXD80SA	80×80×25	TXD80S-H、TXD80S-L
TXD100R Spone	TXD100RA	ϕ100×25	TXD100R-H、TXD100R-L
TXD100S Spone	TXD100SA	100×100×25	TXD100S-H、TXD100S-L
TXD120R Spone	TXD120RA	ϕ120×25	TXD120R-H、TXD120R-L
TXD120S Spone	TXD120SA	120×120×25	TXD120S-H、TXD120S-L

. Air Nipper Body (FP)

CA.10.FP

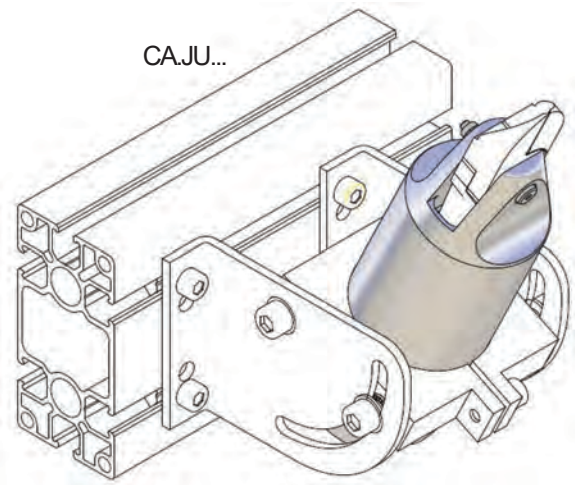




Ar!cle no.	Closing force each blade	Cycle air consumption	Weight
CA.ATE.05M	11 Nm	64 cm³	97 g
CA.ATE.10M	38 Nm	116 cm³	147 g
CA.ATE.20M	67 Nm	230 cm³	255 g
CA.ATE.30AM	150 Nm	584 cm³	452 g
CA.ATE.50AM	116 Nm	1170 cm³	911 g

Ar!cle no.	A	B	C	D
CA.ATE.05M	30	94.3	87	7.1
CA.ATE.10M	36	114.5	107.8	12
CA.ATE.20M	45	129	119.8	
CA.ATE.30AM	56	165	155	17
CA.ATE.50AM	75	181	172	

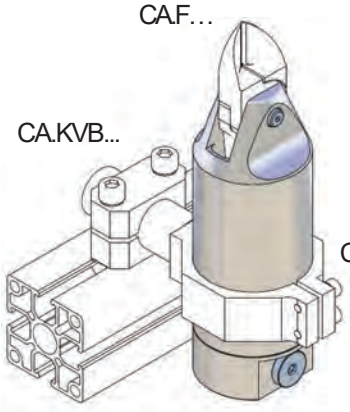
CA.JU...



CA.04.10...

CA.F...

CA.KVB...

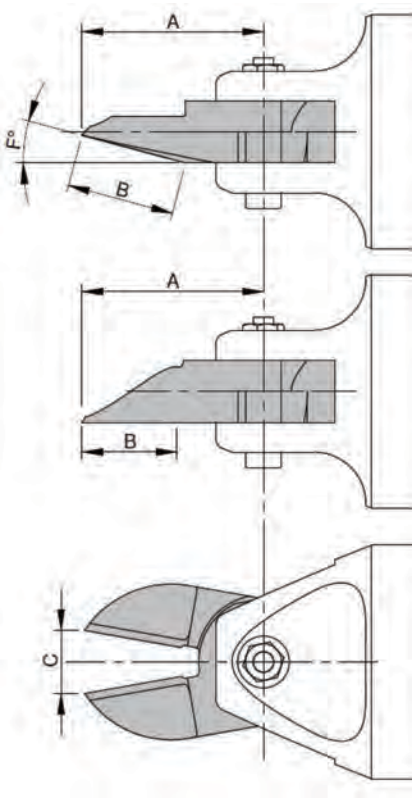


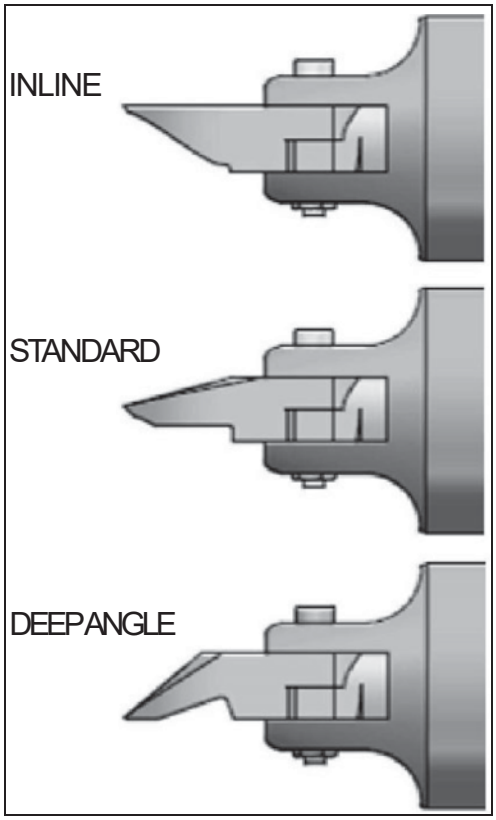
CA.STF...

CA.X.../CA.JU...

CA.10.VES

. Blades-FP



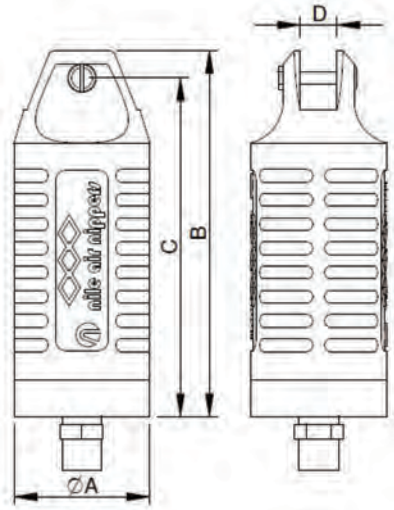


Ar!cle no.	Nipper	Style	A	B	C	F*	
VES.N5AP	CA.ATE.05	Standard	24	11.5	4	15	40 g
VES.N10LAP	CA.ATE.10		27		5	30	120 g
VES.N10LPF		Deep angle	35	13.5		40	
VES.N20AP	CA.ATE.20	Standard		16	11	15	125 g
VES.N20AJ		Inline		18		/	
VES.N20AJL			65	20	16	/	230 g
VES.N20PF		Deep angle	35	13.5	11	40	130 g
VES.N30AP	CA.ATE.30 CA.ATE.50	Standard	66	38	16	15	380 g
VES.N30AJ		Inline	52	28	11	/	370 g
VES.N30AJL			75	25	19	/	470 g
VES.N30PF		Deep angle	58		15	30	390 g

Please Refer To Muromoto/Nile Air
Tool Catalog For More Options.

CA.10.MR

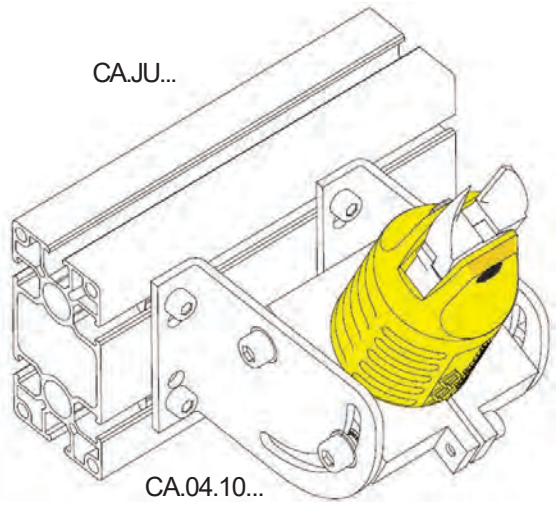
. Air Nipper Body- Nile



Ar!cle no.	Closing force each blade	Cycle air consump!	on Weight
CA.MR.05M	11 Nm	41 cm³	100 g
CA.MR.10M	38 Nm	105 cm³	160 g
CA.MR.20M	67 Nm	268 cm³	270 g
CA.MR.30AM	150 Nm	631 cm³	470 g
CA.MR.50AM	116 Nm	1285 cm³	1040 g

Ar!cle no.	A	B	C	D
CA.MR.05M	30	84	75	9.25
CA.MR.10M	36	105	96	
CA.MR.20M	45	121	112	12.15
CA.MR.30AM	56	157	147.75	17.10
CA.MR.50AM	75	173	164.25	25.10

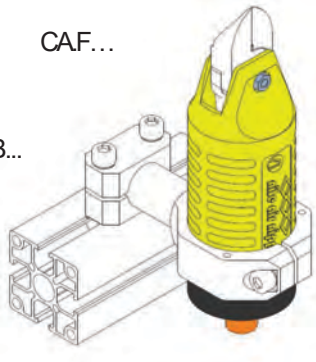
CA.JU...



CA.04.10...

CA.F...

CA.KVB...



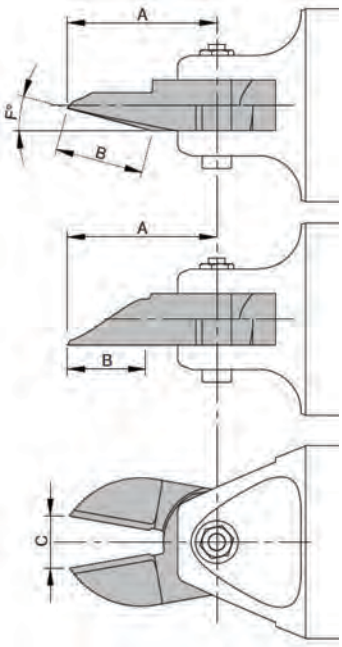
CA.X.../CA.JU...

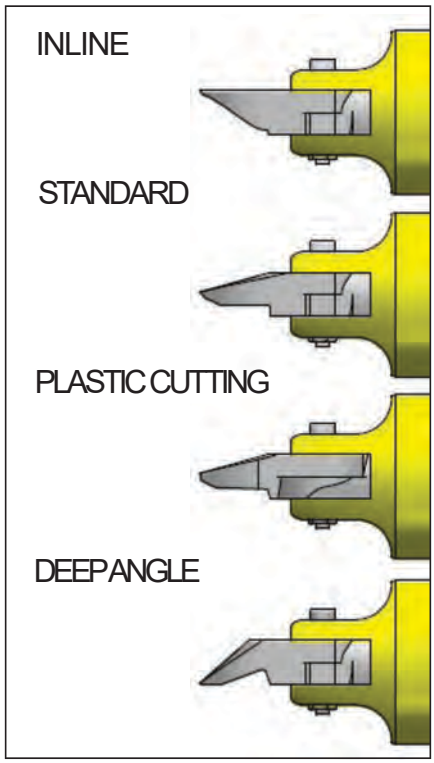
CA.STF...

Please Refer To Muromoto/Nile Air Tool Catalog For More Options.

CA.10.F

. Blades (Nile)

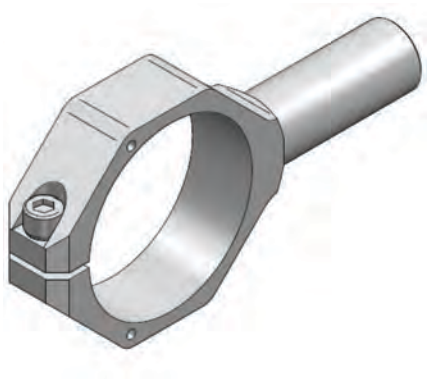


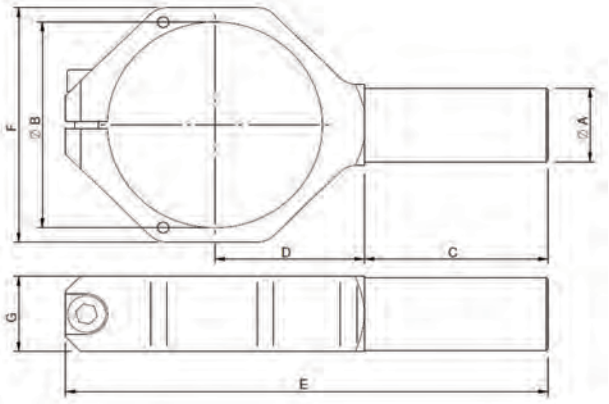


Ar!cle no.		Nipper	Blade style	A	B	C	F°	Weight
CA.F1S	F..S	CA.MR.05M	Inline	24	12	3	/	33 g
CA.S2	S..		Standard				25	34 g
CA.F1	F..		Plastic Cut				15	
CA.FD1	F..D		Deep angle	24	10		40	35 g
CA.F3LS	F..S	CA.MR.10M	Long Inline	50	30	8	/	117 g
CA.S4	S..		Standard	27	14	5	25	115 g
CA.F3	F..		Plastic Cut		12			
CA.FD3	F..D		Deep angle		10		40	112 g
CA.F5S	F..S	CA.MR.20M	Inline	35	16	10	/	121 g
CA.S5	S..		Standard		17	8	30	120 g
CA.F5	F..		Plastic Cut		15	10	15	
CA.FD5	F..D		Deep angle		14		40	124 g
CA.F5LS	F..S		Long inline	65	37	15	/	220 g
CA.F9PS	F..S	CA.MR.30AM	Inline	66		16	/	365 g
CA.S7P	S..		Standard	43	20	8	30	380 g
CA.F9P	F..		Plastic Cut	66	38	16	16	
CA.FD9P	F..D		Deep angle	59	27	15	30	388 g
CA.S120	S..	CA.MR.50AM	Standard	45	22	10		380 g

CA.STF

. Mounting Brackets MR

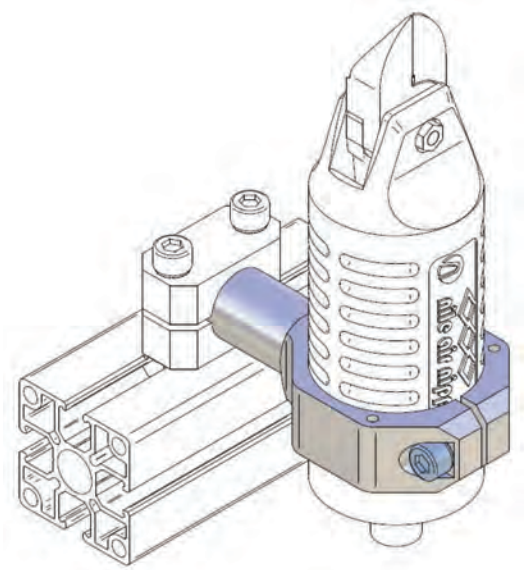




M = Suitable for CA.MR…/CA.ATE...

Material:Aluminium Surface:
Silver anodized

Ar!cle no.	Old code	A	B	C	D	E	F	G	M	Weight
CA.STF.30	CA.04.10.30	20	30	48	25	101.5	38	20	MR.05 / ATE.05	91 g
CA.STF.36	CA.04.10.36		36		28	107.5	43		MR.10 / ATE.10	95 g
CA.STF.45	CA.04.10.45		45		33	116	52		MR.20 / ATE.20	102 g
CA.STF.56	CA.04.10.56		56		38	127.5	54		MR.30 / ATE.30	117 g
CA.STF.75	CA04.10.75	30	75	50	47	146	83	30	MR.50 / ATE.50	275 g

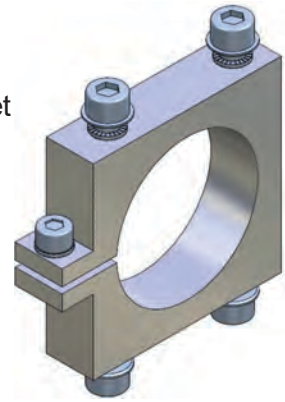


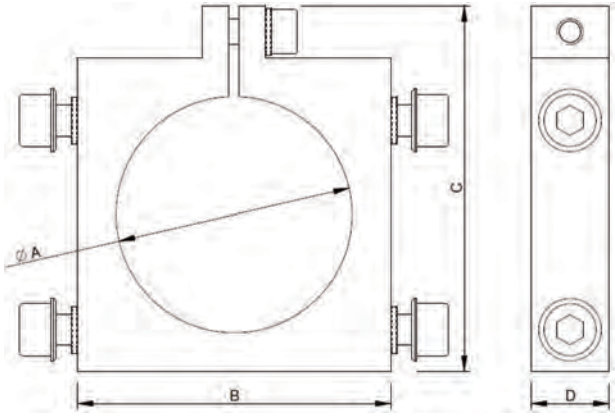
CA.X.../CA.JU...

CA.MR…/ CA.ATE...

CA.04.10

. Swivel Bracket

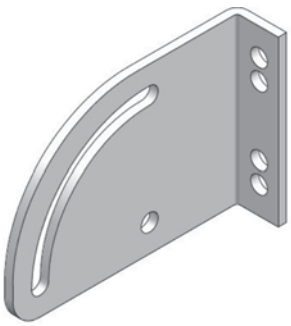


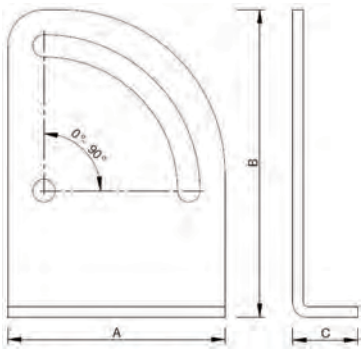


Ar!cle no.	A	B	C	D	M	Weight
CA.04.10.30.1	30	45	55	15	MR.05 / ATE.05	87 g
CA.04.10.36.1	36	50	62		MR.10 / ATE.10	97 g
CA.04.10.45.1	45	60	70		MR.20 / ATE.20	115 g
CA.04.10.56.1	56	70	85		MR.30 / ATE.30	136 g
CA.04.10.75.1	75	90	105		MR.50 / ATE.50	188 g

M = Suitable for CA.MR…/CA.ATE...

Material: AluminiumSurface silver anodized

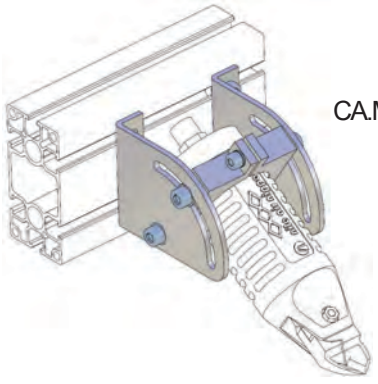




Ar!cle no.	A	B	C	M	Weight
CA.04.10.30.2	50	75	18	MR.05 / ATE.05	84 g
CA.04.10.36.2	55	80		MR.10 / ATE.10	100 g
CA.04.10.45.2	60	85		MR.20 / ATE.20	116 g
CA.04.10.56.2	65	90		MR.30 / ATE.30	134 g
CA.04.10.75.2	85	122	28	MR.50 / ATE.50	246 g

CA.X.../CA.JU...

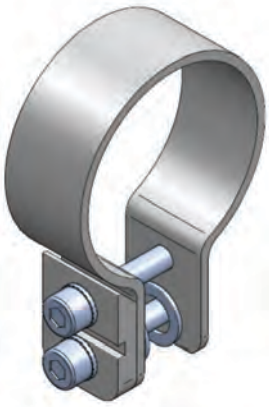
Material : Zincplated steel

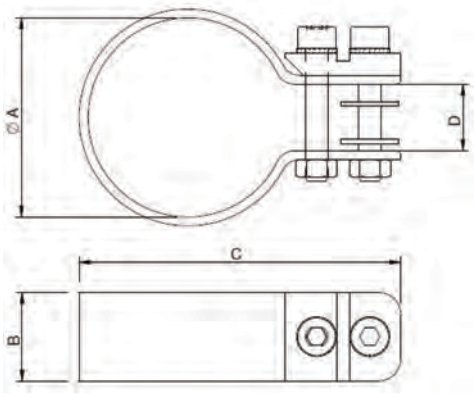


CA.MR…/ CA.ATE...

CA.04.10

. Mounting Brackets MR



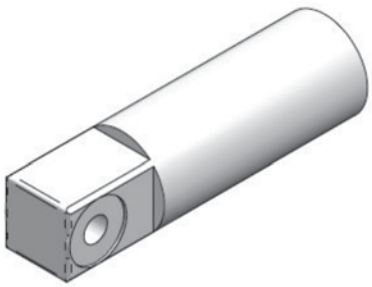


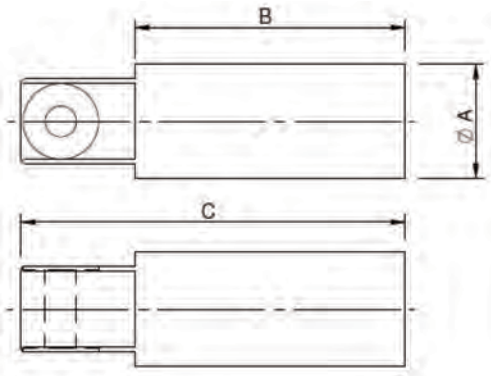
Ar!cle no.	A	B	C	D	M	Weight
CA.04.10.004	56	20	83.5	15	MR.30 / ATE.30	98 g
CA.04.10.005	45		72.5		MR.20 / ATE.20	87 g
CA.04.10.006	36		62		MR.10 / ATE.10	78 g
CA.04.10.007	30		55.5		MR.05 / ATE.05	72 g

M = Suitable for CA.MR../CA.ATE...

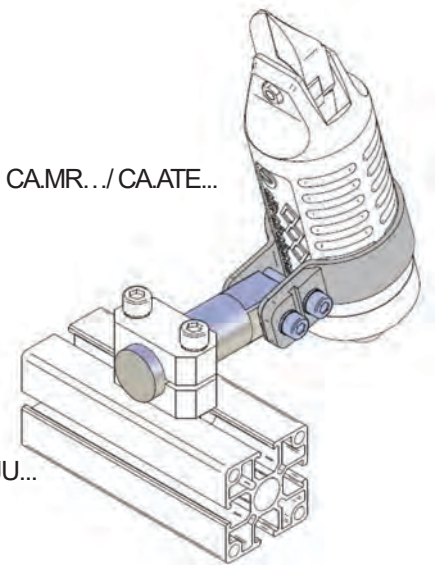
Material:Steel

Surface: Steel Galvanized





CA.MR../CA.ATE...



CA.X.../CA.JU...

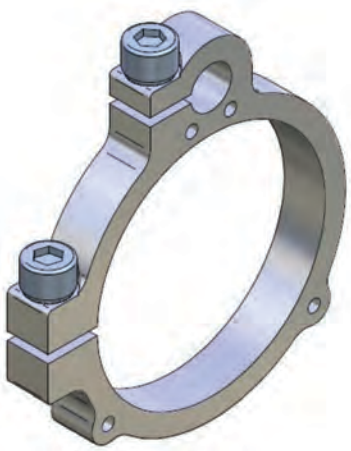
Ar!cle no.	A	B	C	Weight
CA.04.12.001	20	47.5	67.5	56 g
CA.04.12.002	30			82 g

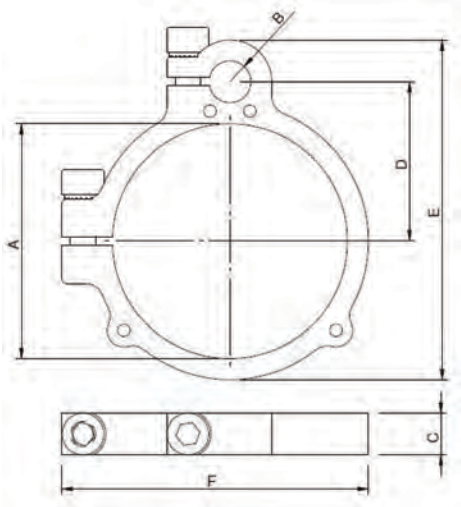
Material: Aluminium

Surface: Silver Anodized

CA.SAT

. Swivel Bracket MR





M = Suitable for CA.MR…/CA.ATE...

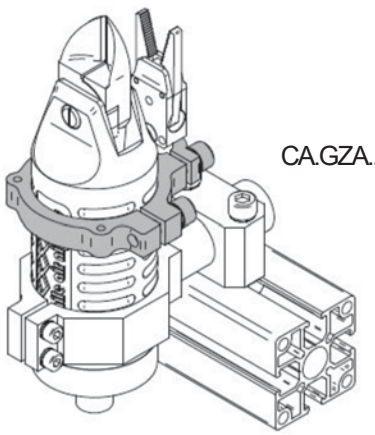
Ar!cle no.	A	B	C	D	E	F	M	Weight
CA.SAT.3610	36	10	10	28	628	53	MR.10 / ATE.10	27 g
CA.SAT.4510	45			325	70	62	MR.20 / ATE.20	30 g
CA.SAT.5610	56			38	81	73	MR.30 / ATE.30	43 g
CA.SAT.5614		14		40	85			37 g
CA.SAT.5620		20		43	91			57 g
CA.SAT.7510	75	10		47.5	100	92.5	MR.50 / ATE.50	43 g
CA.SAT.7514		14		49.5	104			45 g
CA.SAT.7520		20		52.5	110			49 g

Material:Aluminium

Surface: Silver Anodized

CA.04.10...

CA.GZA...

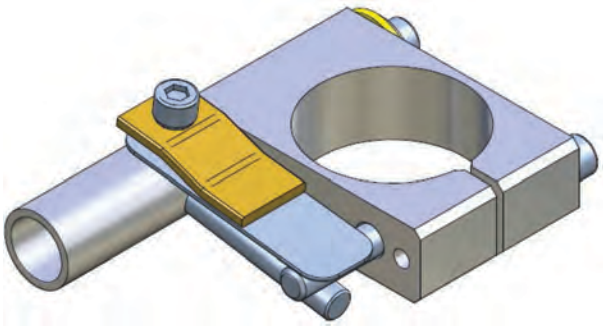


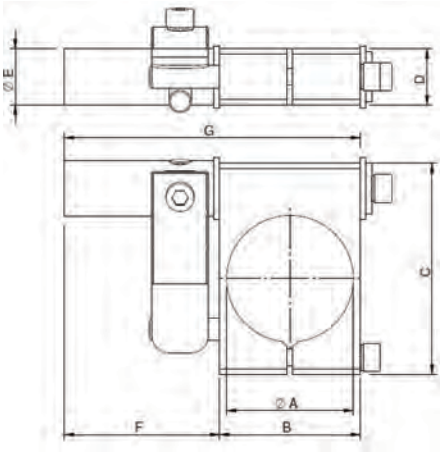
CA.MR…/ CA.ATE...

CA.X.../CA.JU...

CA.STA

. Spring loaded clamp



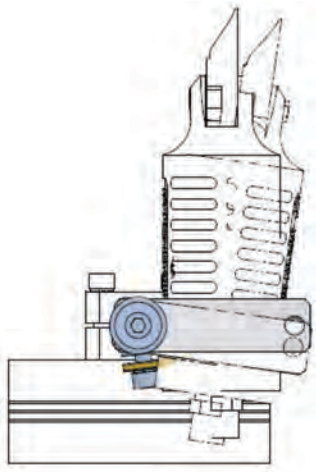


M = Suitable for CA.MR…/CA.ATE...

Materia:Aluminium

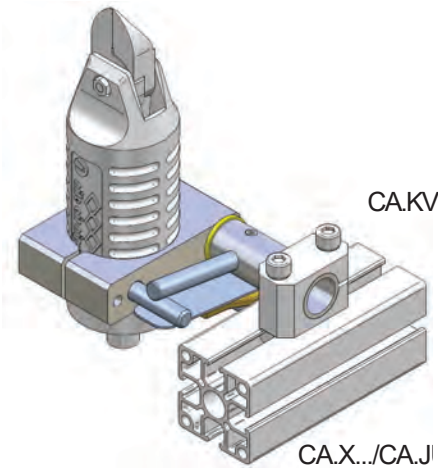
Surface: Silver Anodized

Ar!cle no	A	B	C	D	E	F	G	M	Weight
CA.STA.45	45	50	75	20	20	53	105	MR.20 / ATE.20	275 g
CA.STA.56	56	60	86			63	125	MR.30 / ATE.30	322 g
CA.STA.75	75	85	106			59	146	MR.50 / ATE.50	443 g



CA.MR…/CA.ATE...

ROTATION

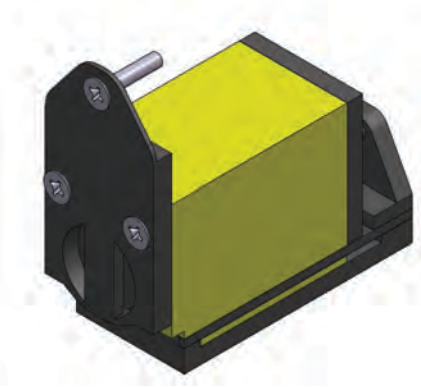


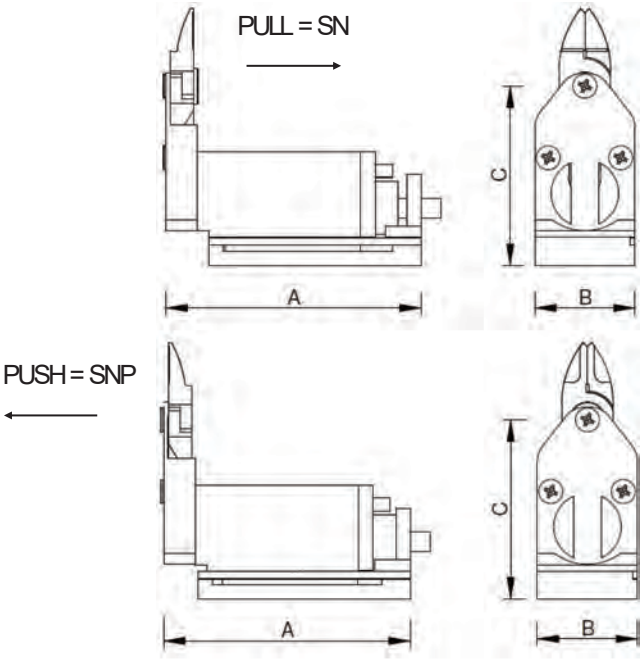
CA.KVB...

CA.X.../CA.J

CA.SN

. Slided Air Nippers Horizontal - Type SN



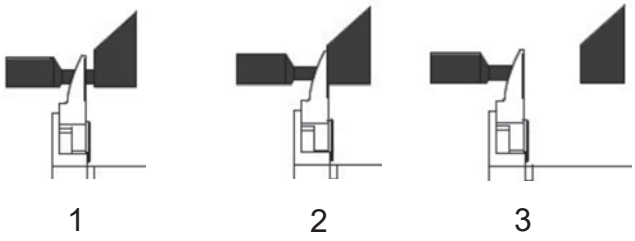


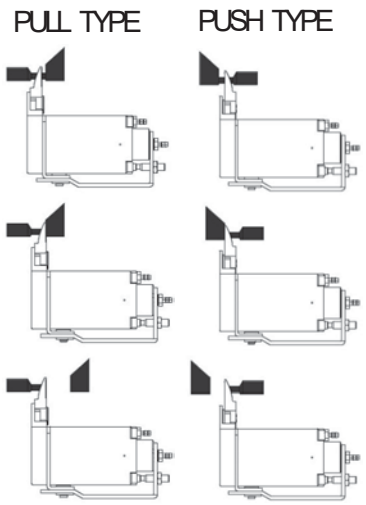
SN

Two available models:
Push = SNP
Pull = SN

Units are not prearranged for using reversible blades.

On this kind of unit it's possible to adjust the blades

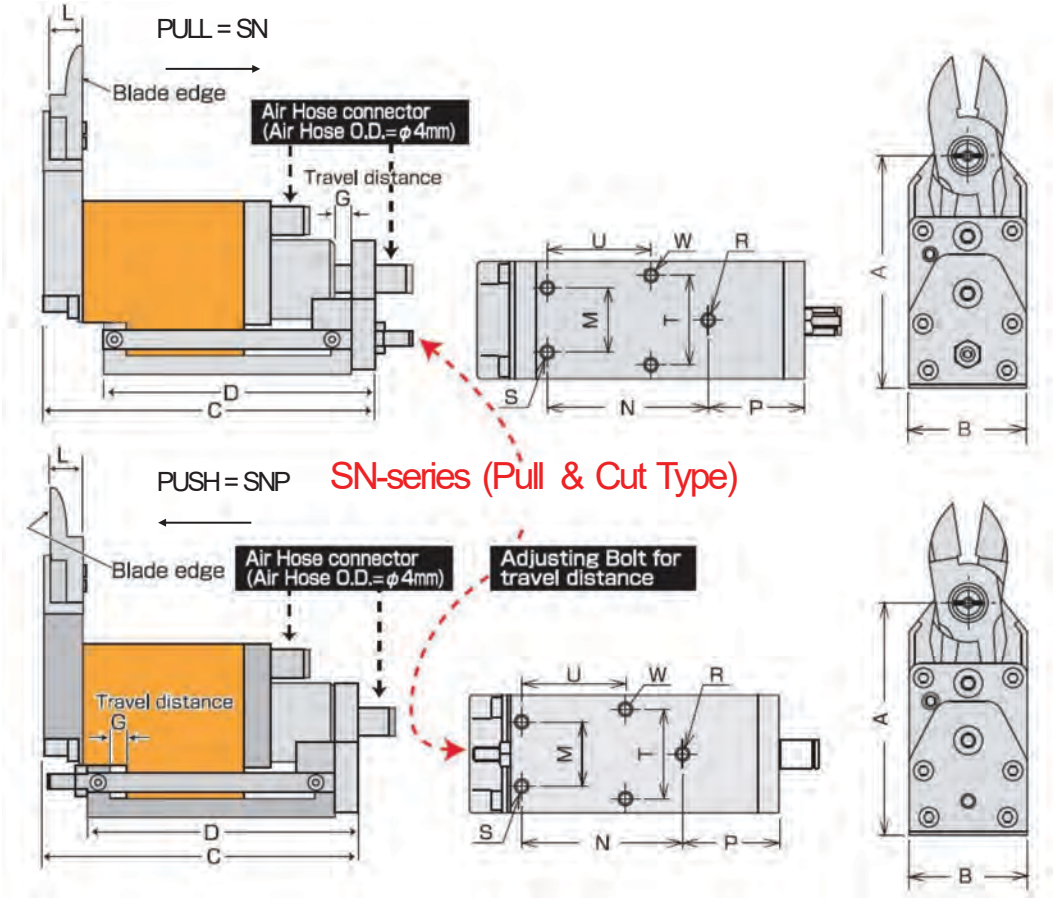




CA.SN

SN

. Slided Air Nippers Horizontal - Type SN

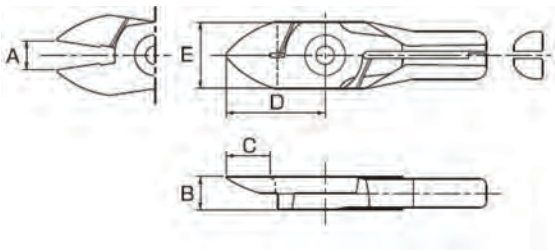


Ar!cle no.		Cut Capacity	A	B	C	D	G	L	M	N	P	R	S	T	U	W	Weight
CA.SN3	PULL	2 ø mm	59	23	79.6	65	5	7	12	37	25	M4	M4D5	15	23	M4	170 g
CA.SNP3	PUSH				74.6												
CA.SN5	PULL	3 ø mm	63	28	83.6	69	5	7	14	40	26		M4D6	20	24		220 g
CA.SNP5	PUSH				78.6												
CA.SN10	PULL	4 ø mm	70	33	91.6	75	5	9	18	45	27		M4D6	25	29		300 g
CA.SNP10	PUSH				86.6												
CA.SN20	PULL	5 ø mm	82	42	110	90	5	12	22	58	28		M4S7	30	32	M5	595 g
CA.SNP20	PUSH				105												

CA.FN

FN

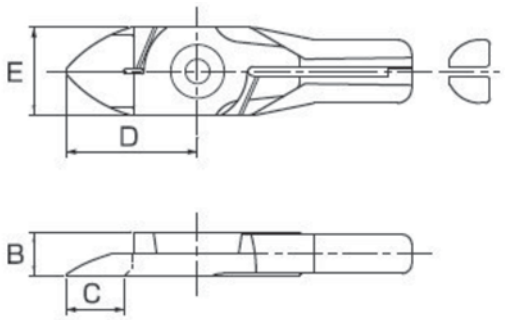
. Blades FN



Ar!cle no.	M	A	B	C	D	E	Cu&ng capacity	Weight
CA.FN10	CA.SN3	3.5	7	11	24	14	Ø 2	25 g
CA.FN1	CA.SN5	5.5				16	Ø 3	30 g
CA.FN3	CA.SN10	7	9		27	19	Ø 4	60 g
CA.FN5	CA.SN20	8.5	12	16	35	22	Ø 5	100 g

Table / Tabella
M = Suitable for CA.SN..
Ada#o per CA.SN..

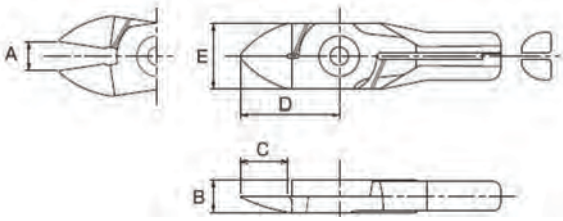
FNP



Ar!cle no.	M	A	B	C	D	E	Cu&ng capacity	Weight
CA.FNP10	CA.SNP3	3.5	7	11	24	14	Ø 2	30 g
CA.FNP1	CA.SNP5	5.5				16	Ø 3	35 g
CA.FNP3	CA.SNP10	7	9		27	19	Ø 4	60 g
CA.FNP5	CA.SNP20	8.5	12	16	35	22	Ø 5	110 g

Table / Tabella
M = Suitable for CA.SN..
Ada#o per CA.SN..

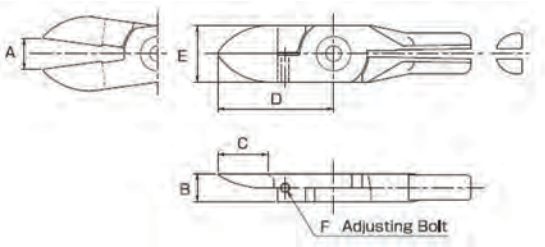
FN - K



Ar!cle no.	M	A	B	C	D	E	Cu&ng capacity	Weight
CA.FN10K	CA.SN3	3.5	7	11	24	14	Ø 2	30 g
CA.FN1K	CA.SN5	5.5				16	Ø 3	
CA.FN3K	CA.SN10	7.5	9		27	19	Ø 4	60 g
CA.FN5K	CA.SN20	8.5	12	16	35	22	Ø 5	110 g

Table / Tabella
M = Suitable for CA.SN..
Ada#o per CA.SN..

FN - L



Ar!cle no.	M	A	B	C	D	E	F	Cu&ng capacity	Weight
CA.FN10L	CA.SN3	5.5	7	16	33	14	M3	Ø 2	35 g
CA.FN1L	CA.SN5	8				16		Ø 3	40 g
CA.FN3L	CA.SN10	9.5	9		37	18		Ø 3.5	65 g
CA.FN5L	CA.SN20	10	12	21	45	22		Ø 4.5	115 g

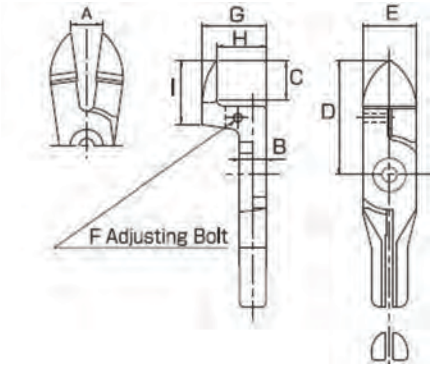
Table / Tabella
M = Suitable for CA.SN..
Ada#o per CA.SN..

CA.FN

FN

. Blades FN

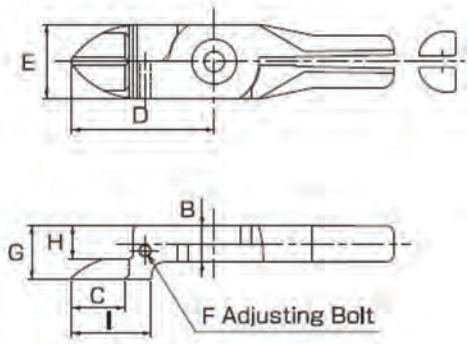
FN - C



Ar!cle no.	M	A	B	C	D	E	F	G	H	I	Cu&ng capacity	Weight
CAFN10C	CASN3	5.2	7	11	35	14	M3	18	14	19	Ø 1.5	50 g
CA.FN1C	CASN5	9	7	13	38	16	M3	20	15	21	Ø 2.5	60 g
CAFN3C	CASN10	10	9	13	38	18	M3	21.5	16.5	21	Ø 3	70 g
CAFN5C	CASN20	10	12	19	46	22	M3	24	19	30	Ø 4	155 g

Table / Tabella
M = Suitable for CA.SN..
Ada#o per CA.SN..

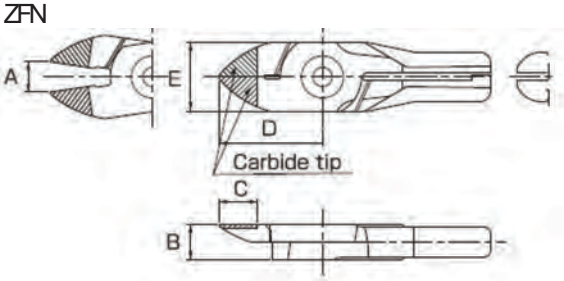
FNP - C



Ar!cle no.	M	A	B	C	D	E	F	G	H	I	Cu&ng capacity	Weight
CAFNP10C	CASNP3	5.2	7	11	3.5	14	M3	12	8	20	Ø 1.5	50 g
CAFNP1C	CASNP5	8.6		14	3.7	16		12.2	7.2	22	Ø 2.5	60 g
CAFNP3C	CASNP10	9.8	9	13	3.5	18		13.2	8.2	20	Ø 3	70 g
CAFNP5C	CASNP20	10	12	18	4.2	22		16	11	27	Ø 4	155 g

Table / Tabella
M = Suitable for CA.SN..
Ada#o per CA.SN..

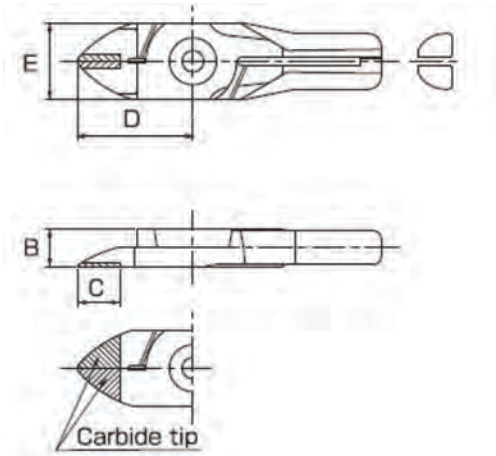
ZFN



Ar!cle no.	M	A	B	C	D	E	Cu&ng capacity	Weight
CAZFN10	CASN3	3.5	7	11	24	14	Ø 2	30 g
CA.ZFN1	CASN5	5.5				16	Ø 3	35 g
CAZFN3	CASN10	7	9	10	27	19	Ø 4	60 g
CAZFN5	CASN20	8.5	12	16	35	22	Ø 5	110 g

Table / Tabella
M = Suitable for CA.SN..
Ada#o per CA.SN..

ZFNP

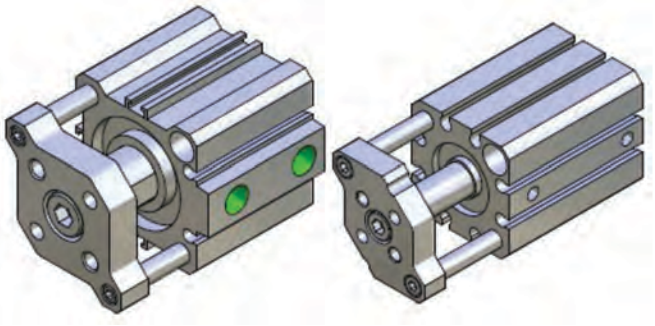


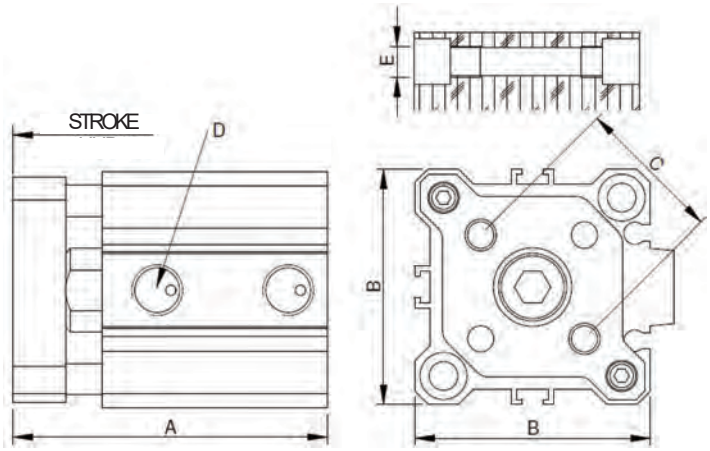
Ar!cle no.	M	A	B	C	D	E	Cu&ng capacity	Weight
CAZFNP10	CASNP3	3.5	7	11	24	14	Ø 2	30 g
CAZFNP1	CASNP5	5.5				16	Ø 3	35 g
CAZFNP3	CASNP10	7	9	10	27	19	Ø 4	60 g
CAZFNP5	CASNP20	8.5	12	16	35	22	Ø 5	110 g

Table
M = Suitable for CA.SN..

CA.11.17

. Compact Cylinder, Guide Rod Type

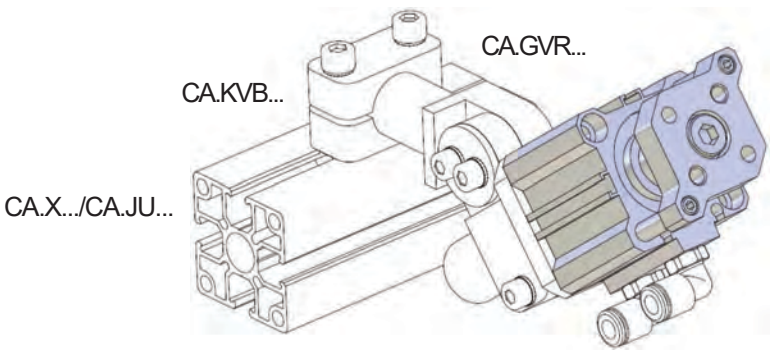




Available with strokes:

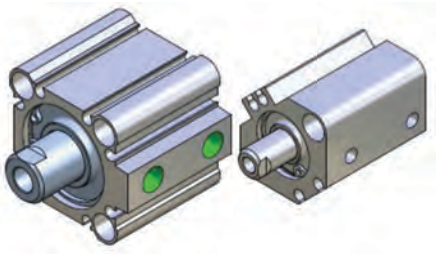
5-15 -25 -30

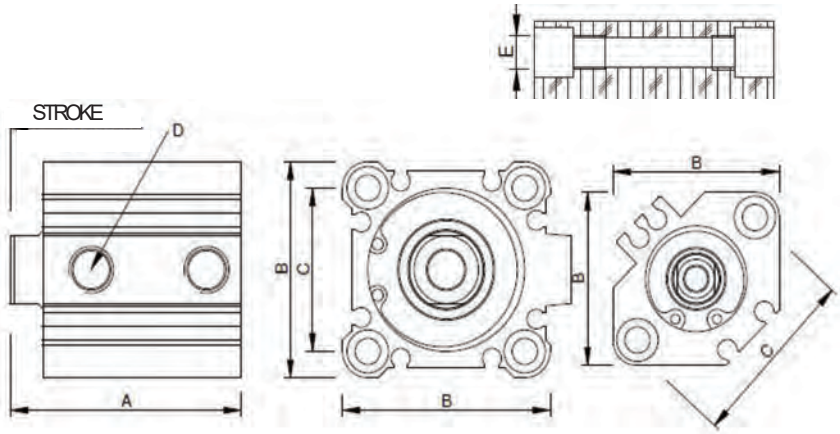
Ar!cle no.	Piston bore	Stroke	Sensor (op! onal)	A	B	C	D	E	Weight
CA.11.17.001	12	10	PNP = KT58P3M - KT58PM8 NPN = KT58N3M - KT58NM8	41.5	25	10	M5	M4	59 g
CA.11.17.002		20		51.5					77 g
CA.11.17.003	16	10		41.5	29	14			
CA.11.17.004		20		51.5					97 g
CA.11.17.005	20	10		50	36	17		M6	138 g
CA.11.17.006		20		60					168 g
CA.11.17.007	25	10		53.5	40	22			186 g
CA.11.17.008		20		63.5					223 g
CA.11.17.009	32	10		60	45	28	G 1/8		264 g
CA.11.17.010		20		70					309 g



CA.11.18

. Compact Cylinder

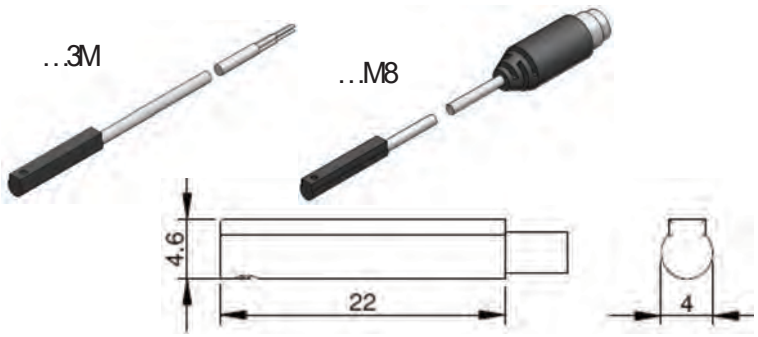


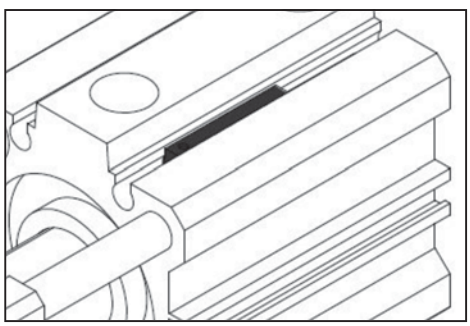


Available with strokes:

5-15 -25 -30

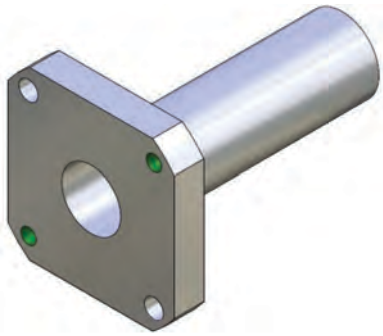
Ar!cle no.	Piston bore	Stroke	Sensor (op! onal)	A	B	C	D	E	Weight
CA.11.18.001	12	10	PNP = KT58P3M - KT58PM8 NPN = KT58N3M - KT58NM8	42	25	15.5	M5	M4	44 g
CA.11.18.002		20		51.5					69 g
CA.11.18.003	16	10		44	29	20			68 g
CA.11.18.004		20		54					89 g
CA.11.18.005	20	10		46	36	25.5		M6	106 g
CA.11.18.006		20		56					138 g
CA.11.18.007	25	10		47.5	40	28			148 g
CA.11.18.008		20		57.5					186 g
CA.11.18.009	32	10		50	45	34	G 1/8		231 g
CA.11.18.010		20		60					285 g

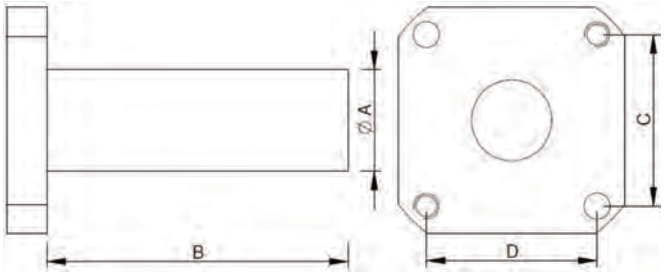




CA.11 ADZ

. Adapter for Cylinder



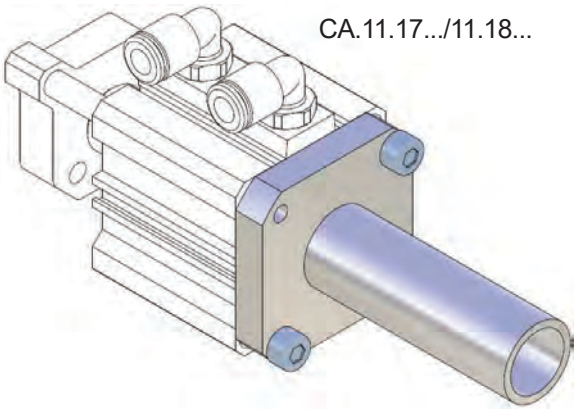


Ar!cle no.	A	B	C	D	M	Weight
CA.ADZ.12.14	14	30	15.5	15.5	Ø12	19 g
CA.ADZ.16.14			19.9	19.9	Ø16	25 g
CA.ADZ.20.14		40	25.5	25.5	Ø20	32 g
CA.ADZ.25.20	20	60	28	28	Ø25	55 g
CA.ADZ.32.20			34	34	Ø32	
CA.ADZ.32.20.90		90				74 g
CA.ADZ.32.25	25	60				85 g

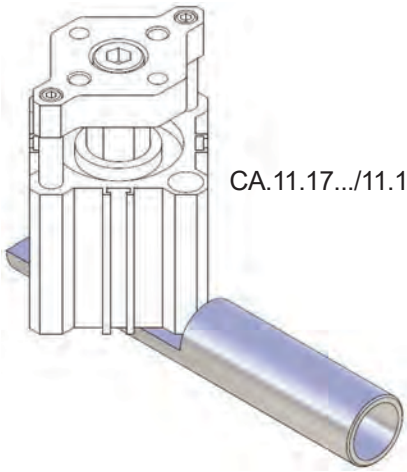
M = Suitable for Cylinder CA.11.17/ 11.18...

Material :
Aluminium

Surface: Silver anodized



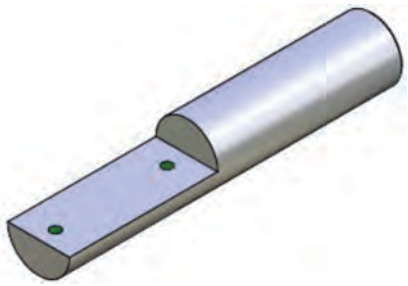
CA.11.17.../11.18...

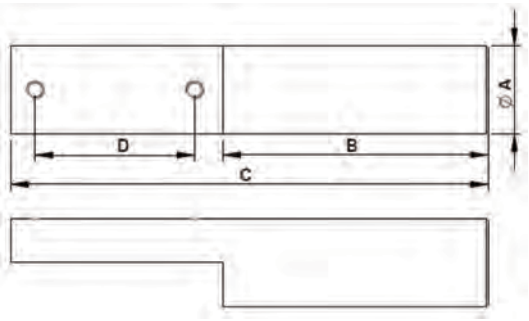


CA.11.17.../11.18...

CA.11 GAZ

. Adapter for Cylinder





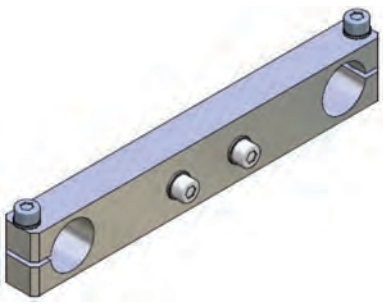
Ar!cle no.	A	B	C	D	M	Weight
CA.GAZ.12.10.60	10	60	98	21.9	Ø 12	17 g
CA.GAZ.16.14.60	14		104	28.3	Ø 16	27 g
CA.GAZ.20.20.60	20		108	36.1	Ø 20	56 g
CA.GAZ.25.20.60			130	39.6	Ø 25	59 g
CA.GAZ.32.20.60			140	48.1	Ø 32	62 g

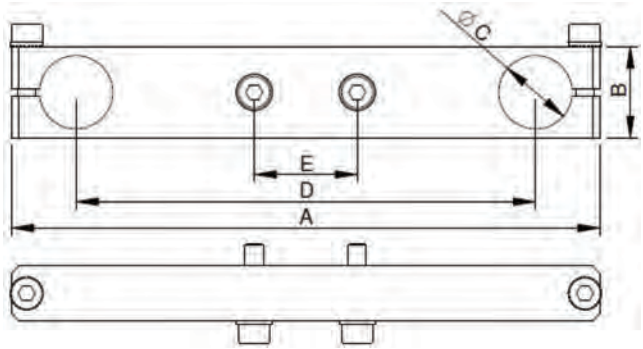
M = Suitable for Cylinder CA.11.17/11.18...

Material :Aluminium

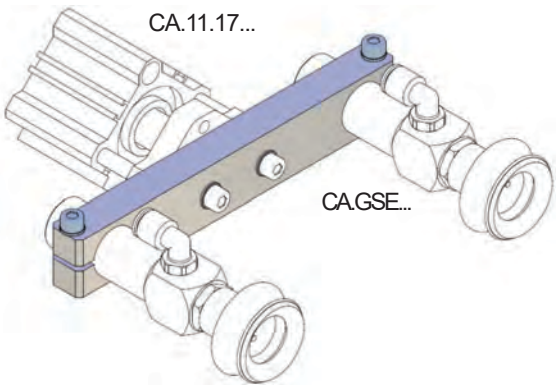
Surface: Silver Anodized

CA.11 KBH



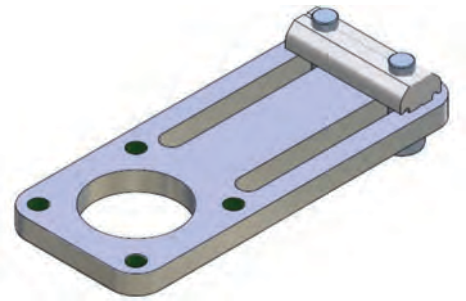


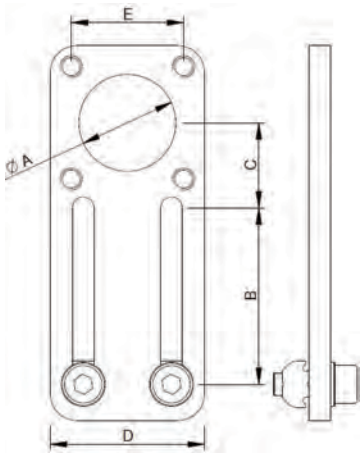
Ar!cle no.	A	B	C	D	E	M	Weight
CAKBH.12.10.60	85	15	10	60	10	Ø 12	33 g
CAKBH.16.14.90	121	20	14	90	14	Ø 16	56 g
CAKBH.16.16.125	156	25	16	125			88 g
CAKBH.20.14.90	121	20	14	90	17	Ø 20	58 g
CA.KBH.20.16.125	156	25	16	125			90 g
CA.KBH.25.16.125					22	Ø 25	94 g
CA.KBH.32.20.125	160		20		28	Ø 32	156 g



CA.11.08

. Bracket for Cylinder





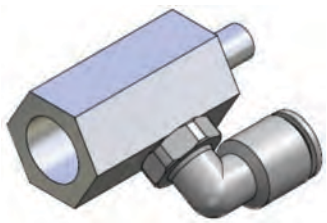
Ar!cle no.	A	B	C	D	E	M	Weight
CA.11.08.001.X	14	30	19.5	25	15,5	Ø12	35 g
CA.11.08.002.X	18				20	Ø16	35 g
CA.11.08.003.X	22	40	19.3	35	25.5	Ø20	49 g
CA.11.08.004.X	28	35	24	40	28	Ø25	52 g
CA.11.08.005.X	32		27,5	45	34	Ø32	60 g

M = Suitable for Cylinder CA.11.17/11.18...

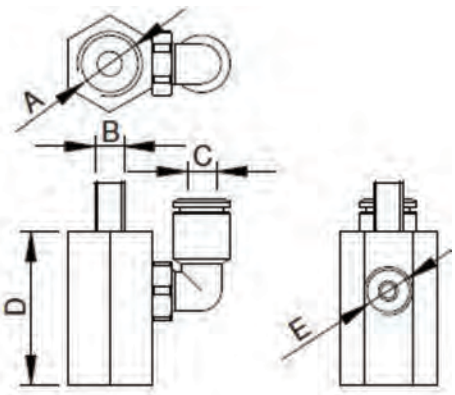
Material:Aluminium
Surface: Silver Anodized

CA.11.15

. Adapters for vacuum cups

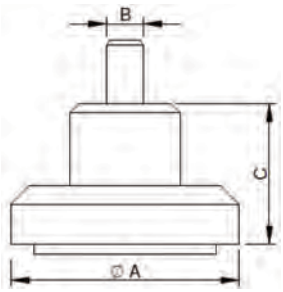


Ar!cle no.	A	B	C	D	E	M	Weight
CA.11.15.001	G 1/8	M4	4	24.5	M5	Ø16	13 g
CA.11.15.002		M6				Ø25	15 g
CA.11.15.004		M5		34.5		Ø20	21 g
CA.11.15.003	G 1/4	M6	6	31	G 1/8	Ø25	24 g
CA.11.15.005		M8		31		Ø32	22 g



CA.11.04

. Cylinder Buffer



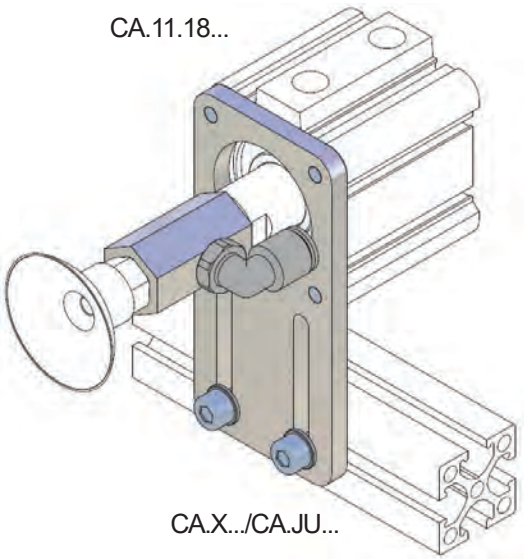
Ar!cle no.	A	B	C	M	Weight
CA.11.04.001	20	M3	14	Ø12	5 g
CA.11.04.002	25	M4	15	Ø16	10 g
CA.11.04.003	30	M5	18	Ø20	17 g
CA.11.04.004	35	M6	19	Ø25	28 g
CA.11.04.005	40	M8	20	Ø32	46 g
CA.11.04.006	20	M5		KHZ/JDR	7 g
CA.11.04.007	40	G 1/8			40 g

M = Suitable for Cylinder CA.11.17/11.18...

Material :Aluminium
Surface: Silver Anodized

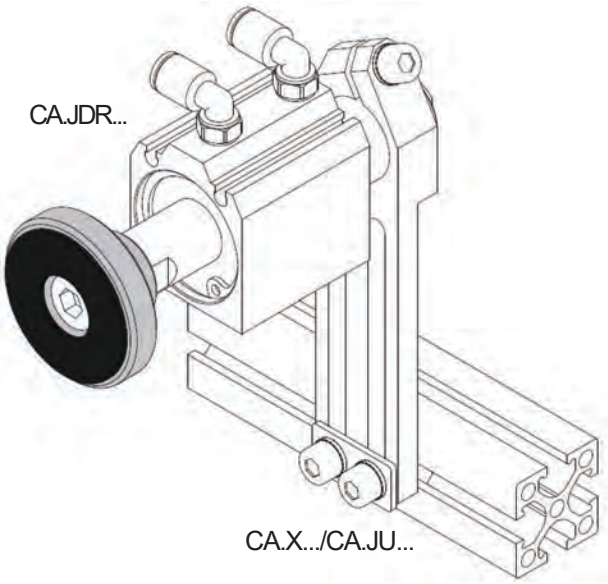
Application Examples

CA.11.18...



CA.X.../CA.JU...

CA.JDR...

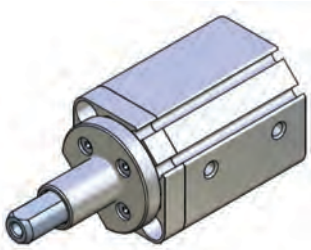


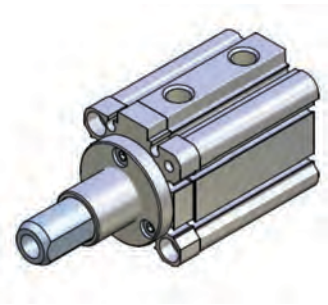
CA.X.../CA.JU...

KHZ

CA.11 KHZ

. Compact Cylinder for vacuum cup





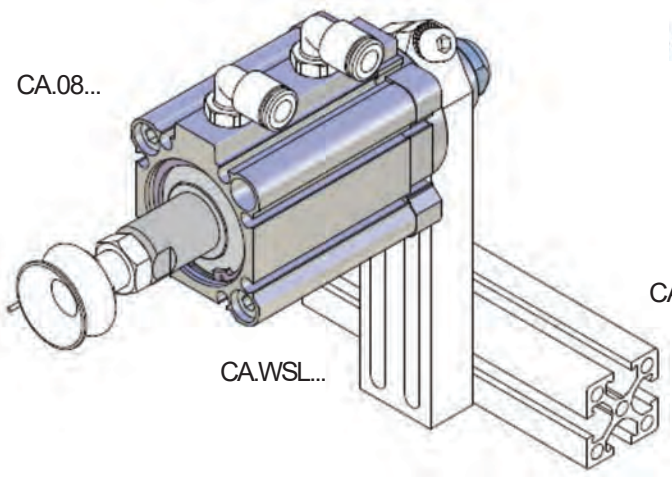
Ar!cle no.	Piston bore	Stroke	Sensor (optional)	Weight
CA.KHZ.20141005	Ø 20	10	PNP =KT58P3M KT58PM8 NPN = KT58N3M KT58NM8	135 g
CA.KHZ.20143005		30		250 g
CA.KHZ.32201518	Ø 32	15		399 g
CA.KHZ.32203018		30		483 g
CA.KHZ.32205018		50		602 g

-Cylinderwith through rod, non rotational
-Suitablefor applications with suction cups
-Available in 5 sizes and 5 different strokes

….3M

….M8

CA.08...



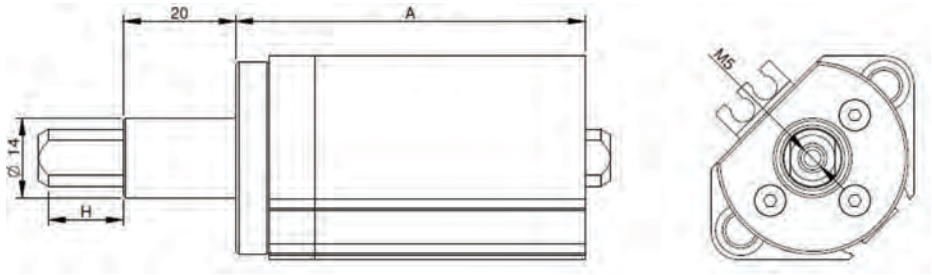
CA.X/JU...

CA.WSL...

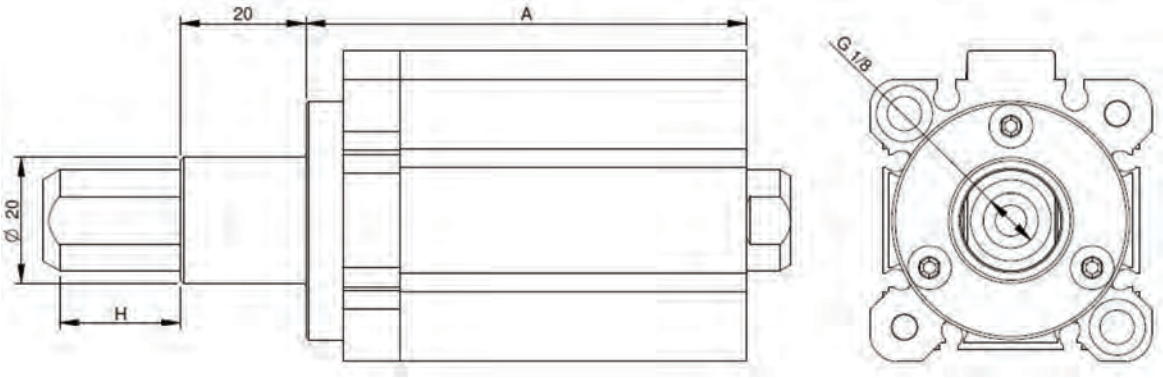
CA.11 KHZ

KHZ

. Dimensions



Ar!cle no.	A	H
CA.KHZ.20141005	62	10
CA.KHZ.20143005	102	30

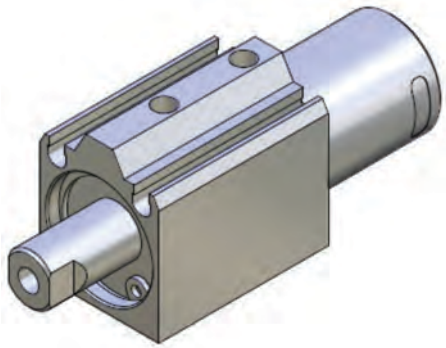


Ar!cle no.	A	H
CA.KHZ.32201518	70.5	15
CA.KHZ.32203018	100.5	30
CA.KHZ.32205018	140.5	50

CA.11 JDR

JDR

. Compact Cylinder For Vacuum Cup, Non - Rotational

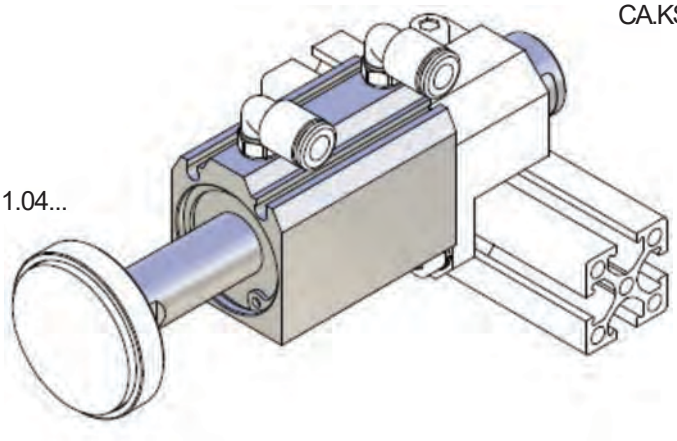


Ar!cle no.	Piston bore	Stroke	Sensor(op! onal)	Weight
CA.JDR.141005	Ø 14	10	PNP =KT58P3M	54 g
CA.JDR.142505		25		76 g
CA.JDR.201005	Ø 20	10	KT58PM8	63 g
CA.JDR.301518	Ø 32	15	NPN = KT58N3M	112 g
CA.JDR.303018		30	KT58NM8	150 g
CA.JDR.305018		50		200 g

Cylinder with through rod, non-rotational
Suitable for applications with suction cups
Available in 6 sizes and 6 different strokes

Application Example

CA.KSW...



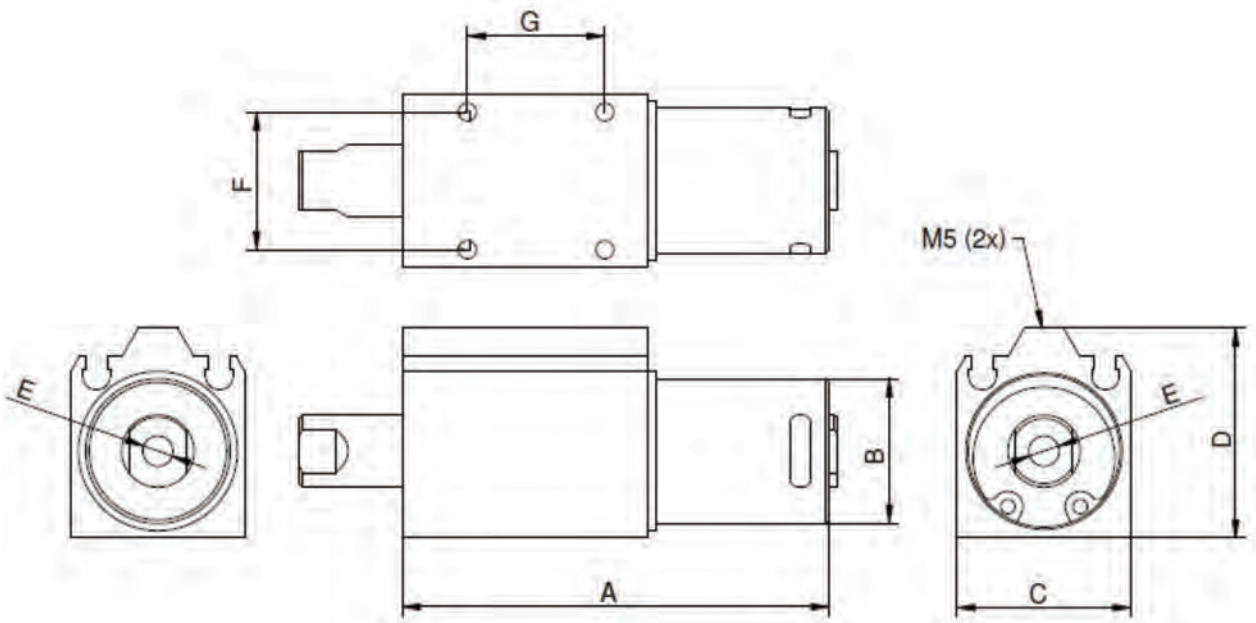
CA.11.04...

CA.X/JU...

CA.11 JDR

. Dimensions

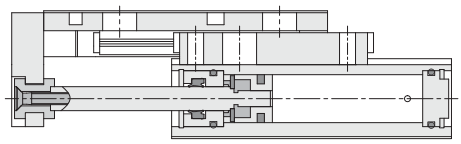
JDR



Ar!cle no.	A	B	C	D	E	F	G	H
CA.JDR.141005	64	Ø 14	24	29	M5	19	19	10
CA.JDR.142505	94							25
CA.JDR.201005	64	Ø 20						10
CA.JDR.301518	72		34	39	G 1/8	28	28	15
CA.JDR.303018	100							30
CA.JDR.305018	140							50

CA - MDX series Dual Rod Table Slide

Internal structure



Theoretical force

Bore size mm	Shaft dia. mm	Piston action	Piston area	Air pressure (kgf/cm²) 1	2	3	4	5	6	7
12	6	Push	2.2	2.2	4.4	6.6	8.8	11	13.2	15.4
		Pull	1.7	1.7	3.4	5.1	6.8	8.5	10.2	11.9
16	8	Push	4.0	4.0	8.0	12	16	20	24	28
		Pull	3.0	3.0	6.0	9.0	12	15	18	21
20	10	Push	6.2	6.2	12.4	18.6	24.8	31	37.2	43.4
		Pull	4.7	4.7	9.4	14.1	18.8	23.5	28.2	32.9
25	12	Push	9.8	9.8	19.6	29.4	39.2	49	58.5	68.6
		Pull	7.5	7.5	15	22.5	30	37.5	45	52.5

Note: The above data are for reference only. When come to actual practice, frictional force and the mechanical efficiency have to be taken into considerations. (About 70%~80%)

Specification

Unit: mm

Item \ Bore size		Ø12	Ø16	Ø20	Ø25
Action		Double acting			
Fluid		Air			
Pressure range	Kgf/cm² (kPa)	1 ~ 8.5 (100 ~ 850)			
Max. operating pressure	Kgf/cm² (kPa)	9.5 (950)			
Ambient and fluid temperature	℃	0 ~ 60			
Piston speed	mm/s	100 ~ 500			
Port size		M3×0.5p	M5×0.8p		RC 1/8
Sensing device		With magnet			

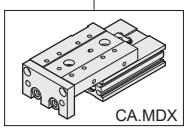
Bore size and Stroke

Unit: mm

Bore Size	Standard stroke
12	10, 20, 30, 40, 50, 75, 100
16	10, 20, 30, 40, 50, 75, 100, 125
20	10, 20, 30, 40, 50, 75, 100, 125, 150
25	10, 20, 30, 40, 50, 75, 100, 125, 150

Code of order

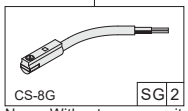
CA.MDX — 12 × 50 — SD 2 — B.M 2



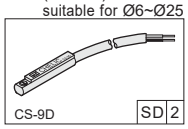
CA.MDX :
Dual Rod Table With Slider Mechanism (Standard)

12
16
20
25

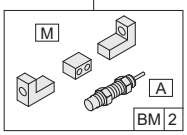
12 – 10 ~ 100 mm
16 – 10 ~ 125 mm
20 – 10 ~ 150 mm
25 – 10 ~ 150 mm



None: Without sensor switch
SG : Sensor switch mark (CS-8G) suitable for Ø6~Ø25



None: Without sensor switch
SD : Sensor switch mark(CS-9D)
SB : Sensor switch mark(CS-9B)
2 : Quantity of sensor switch
1 = 1PCS
2 = 2PCS
suitable for Ø12~Ø25



A : Shock absorber
B : Metal stopper
M : Shock absorber mounting sets
1 = 1 set
2 = 2 sets
(option)

M Shock absorber mounting set
(middle shock is 2 pcs when stroke is over 75)

How to select Shock absorber

Bore size	Shock absorber	Max. absorb function
12	SAC-0806	0.2 kgf.m
16	SAC-1008	0.4 kgf.m
20	SAC-1412	1.5 kgf.m
25	SAC-1412	1.5 kgf.m

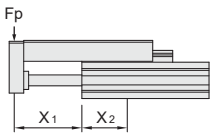
Expression: Shock absorber is mounted on the side of body so as to absorb the impact force.
(Please indicate AM mark number; M is shock absorber mounting sets)
M1 : Front shock absorber mounting sets
M2 : Front-back shock absorber mounting sets
M3 : Back shock absorber mounting sets

CA - MDX series Dual Rod Table Slide

Installation

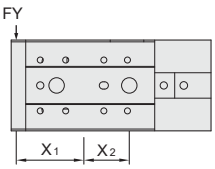
Allowable static load formula

- Pitch moment



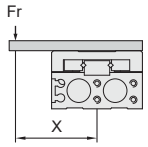
$$FP = \frac{Mp \times 1000}{(X_1 + X_2)}$$

- Yaw moment



$$FY = \frac{My \times 1000}{(X_1 + X_2)}$$

- Rolling moment



$$Fr = \frac{Mr \times 1000}{X}$$

Motionless allowable moment of force

Unit: N • m

Bore size	Stroke (mm)								
	10	20	30	40	50	75	100	125	150
Ø12	4.2	4.2	4.2	5.8	7.0	10.0	10	–	–
Ø16	11.3	11.3	11.3	11.3	15.9	25.0	34.1	34.1	–
Ø20	19.4	19.4	19.4	19.4	27.2	35	50.5	50.5	50.5
Ø25	30.6	30.6	30.6	30.6	42.8	55.1	67.3	67.3	67.3

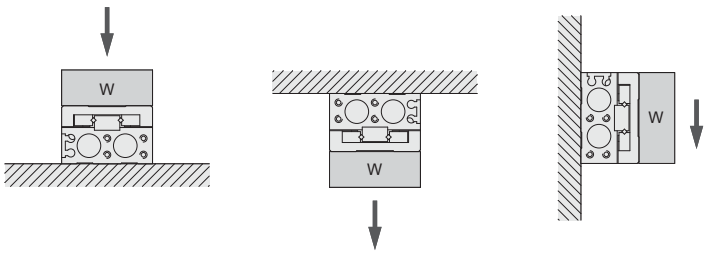
Note :

- Please do not exceed load limit. It will effect on the precision of the slide rail if it exceeds the limit.
- Avoid hitting with great force.
- Inertial load must be with in 1/10 or the allowable motionless load.

Description :

- X_1 is the distance from body to point of load.
- X_2 is the center distance from body to slide.
- X is the distance from (Fr) point of load to slide rail holder.

Maximum allowable load weight

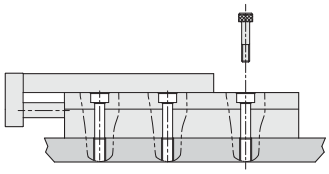


Unit: Kg

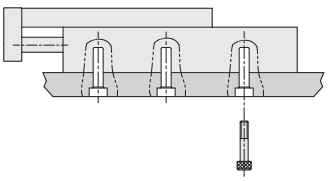
Bore size	Max. allowable load weight
Ø 12	2
Ø 16	4
Ø 20	6
Ø 25	9

Mounting type

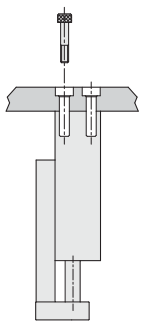
- Top mounting type



- Bass mounting



- End vertical mounting



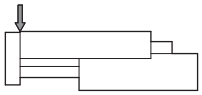
CA - MDX series Dual Rod Table Slide

Installation

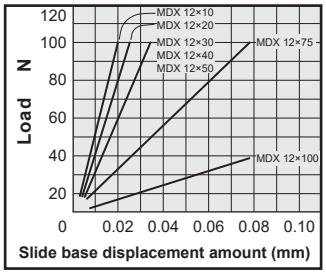
Slide base deflection (Reference)

- Slide base displacement due to pitch moment load

  Slide base displacement when loads are applied to the section marked with the arrow at the full stroke.

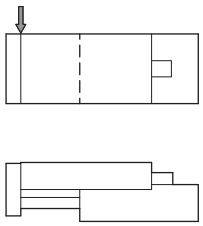


MDX Ø12

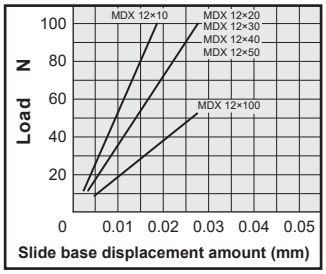


- Slide base displacement due to yaw moment load

  Slide base displacement when loads are applied to the section marked with the arrow at the full stroke.

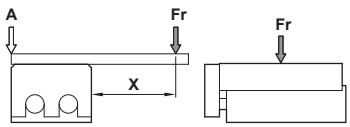


MDXØ12

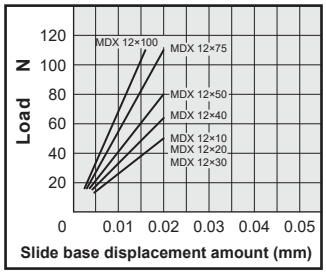


- Slide base displacement due to roll moment load.

  Slide base displacement of section A when loads are applied to the section “F” with the slide table retracted.



MDX Ø12 X = 65 mm



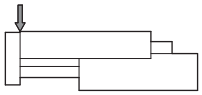
CA - MDX series Dual Rod Table Slide

Installation

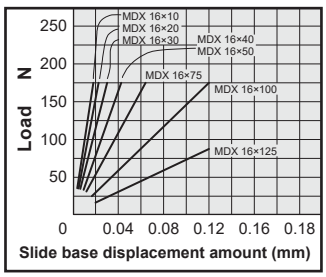
Slide base deflection (Reference)

- Slide base displacement due to pitch moment load

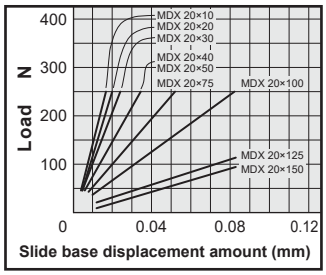
  Slide base displacement when loads are applied to the section marked with the arrow at the full stroke.



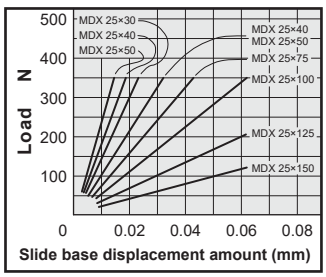
MDX Ø16



MDX Ø20

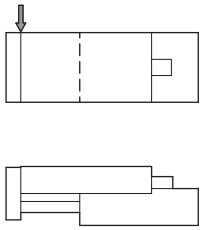


MDX Ø25

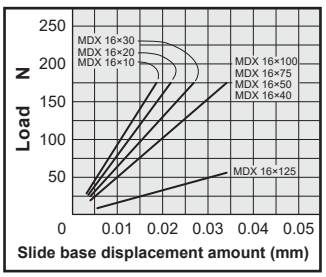


- Slide base displacement due to yaw moment load

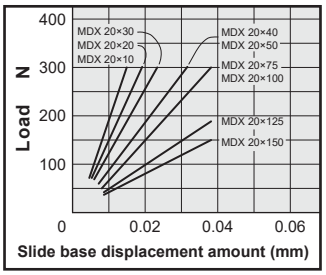
  Slide base displacement when loads are applied to the section marked with the arrow at the full stroke.



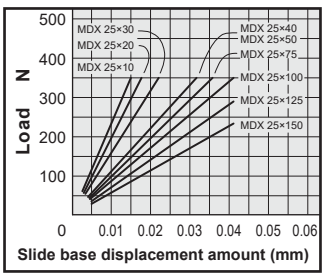
MDX Ø16



MDX Ø20

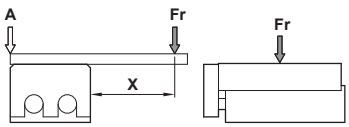


MDX Ø25

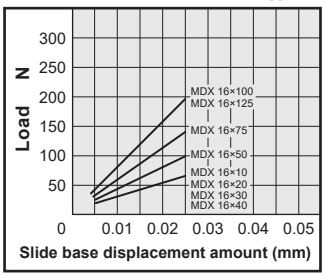


- Slide base displacement due to roll moment load.

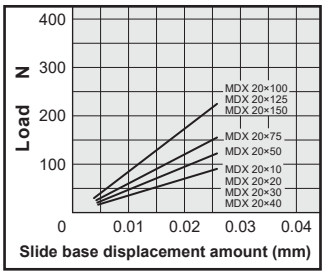
  Slide base displacement of section A when loads are applied to the section “F” with the slide table retracted.



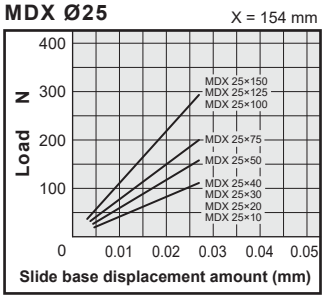
MDXØ16 X = 89 mm



MDX Ø20 X = 122 mm



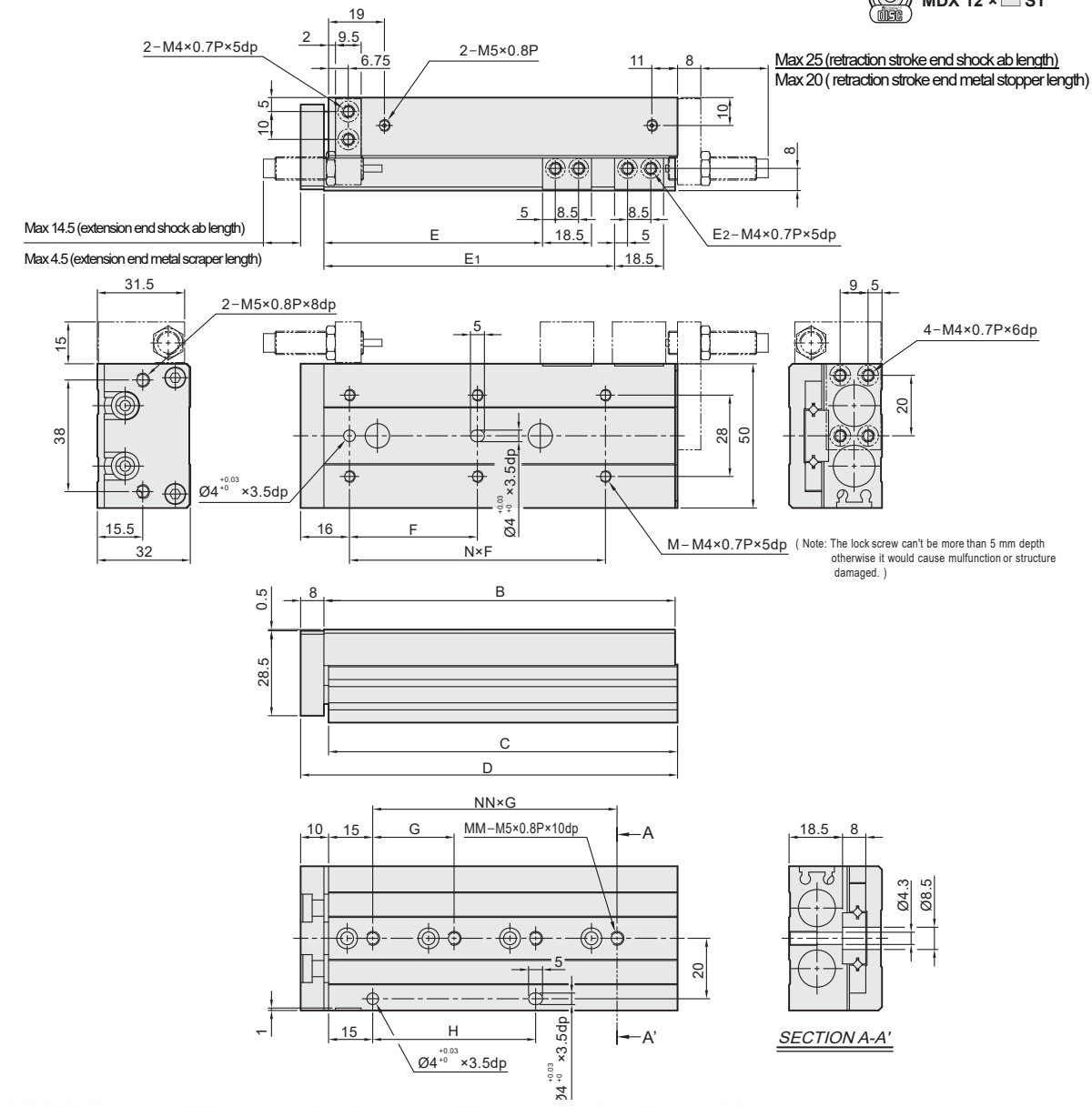
MDX Ø25 X = 154 mm



CA - MDX series Dual Rod Table Slide

Dimensions - Ø12

MDX Ø12 × ▭



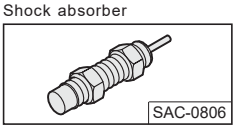
Dimension

Unit: mm

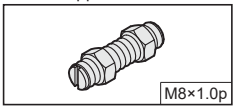
Mark / Stroke	B	C	D	E	E1	E2	F	N	G	NN	H	M	MM
10	71	70	80	26.5	—	2	35	1	40	1	40	4	2
20	71	70	80	36.5	—	2	35	1	40	1	40	4	2
30	71	70	80	46.5	—	2	35	1	40	1	40	4	2
40	83	82	92	56.5	—	2	50	1	25	2	25	4	3
50	103	102	112	66.5	—	2	35	2	36	2	36	6	3
75	149	148	158	91.5	125.5	4	55	2	36	3	72	6	4
100	203	202	212	116.5	179.5	4	65	2	38	4	76	6	5

Option

Shock absorber



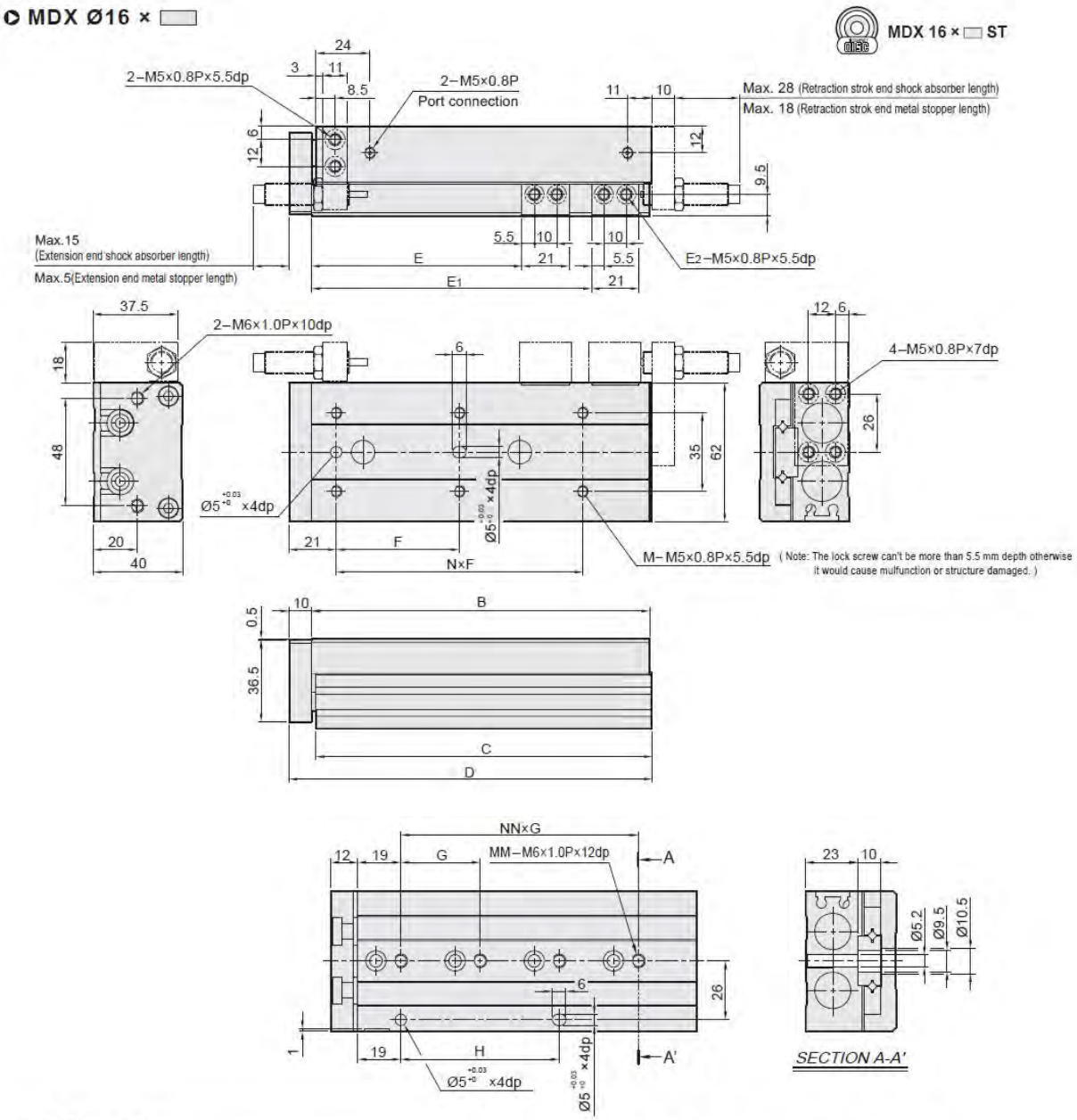
Metal stopper



CA - MDX series Dual Rod Table Slide

Dimensions - Ø16

MDX Ø16 × ▭



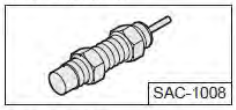
Dimension

Unit: mm

Mark / Stroke	B	C	D	E	E1	E2	F	N	G	NN	H	M	MM
10	76	75	87	29	—	2	35	1	40	1	40	4	2
20	76	75	87	39	—	2	35	1	40	1	40	4	2
30	76	75	87	49	—	2	35	1	40	1	40	4	2
40	86	85	97	59	—	2	40	1	50	1	50	4	2
50	101	100	112	69	—	2	30	2	30	2	30	6	3
75	151	150	162	94	125	4	55	2	35	3	70	6	4
100	199	198	210	119	173	4	65	2	35	4	70	6	5
125	249	248	260	144	223	4	70	2	35	6	70	6	7

Option

Shock absorber

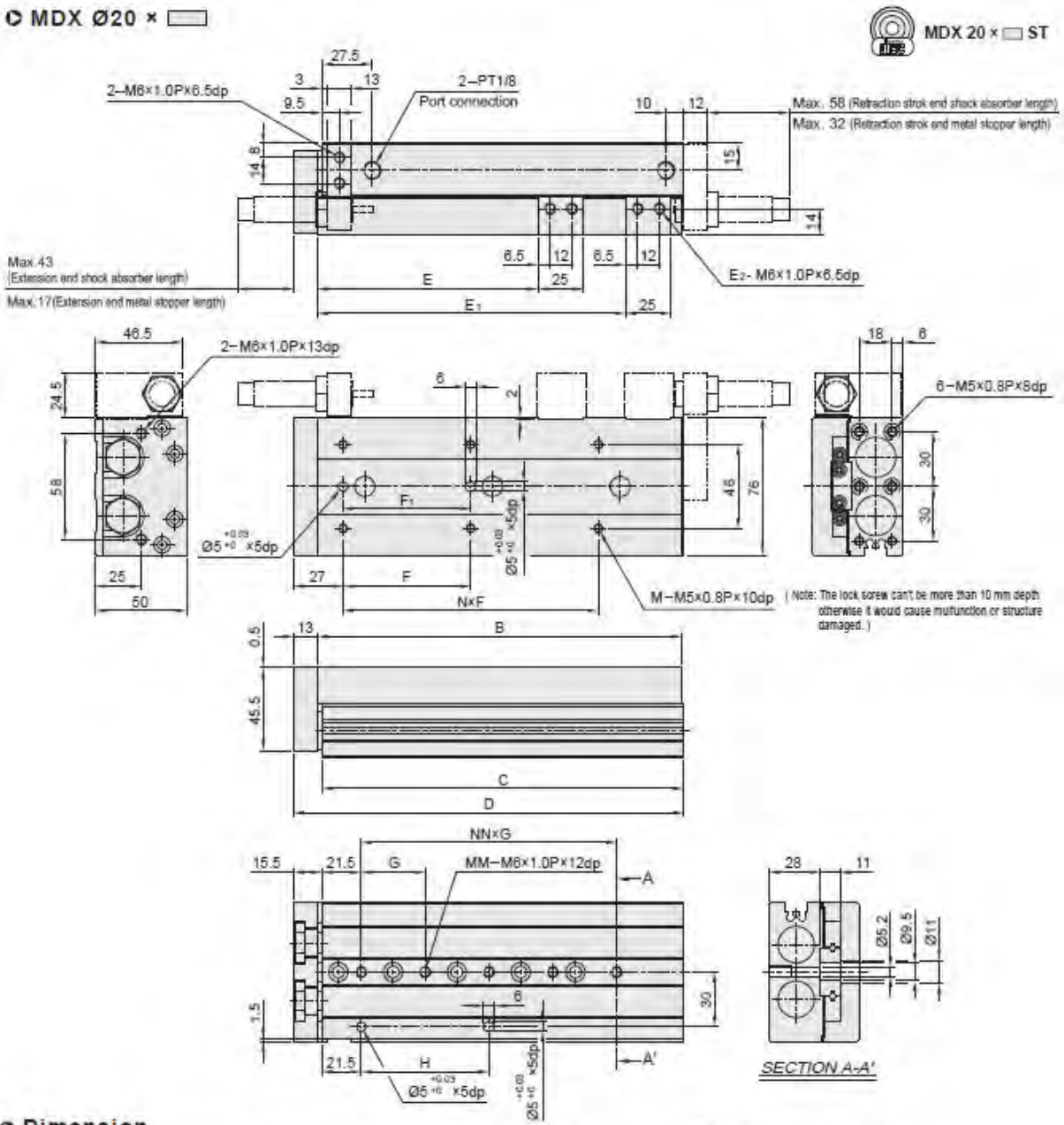


Metal stopper

CA - MDX series Dual Rod Table Slide

Dimensions - Ø20

MDX Ø20 × ▭



Dimension

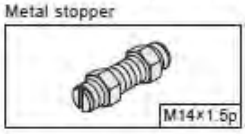
Unit: mm

Mark / Stroke	B	C	D	E	E1	E2	F	N	F1	G	NN	H	M	MM
10	83	81.5	97	31	–	2	50	1	40	45	1	35	4	2
20	83	81.5	97	41	–	2	50	1	40	45	1	35	4	2
30	83	81.5	97	51	–	2	50	1	40	45	1	35	4	2
40	93	91.5	107	61	–	2	60	1	50	55	1	35	4	2
50	108	106.5	122	71	–	2	35	2	35	35	2	35	6	3
75	147	145.5	161	96	–	2	60	2	60	35	3	70	6	4
100	200	198.5	214	121	168	4	70	2	70	35	4	70	6	5
125	254	252.5	268	146	223	4	70	3	70	38	5	75.5	8	6
150	306	304.5	320	171	275	4	80	3	80	44	6	87.5	8	7

Option

Shock absorber

Metal stopper

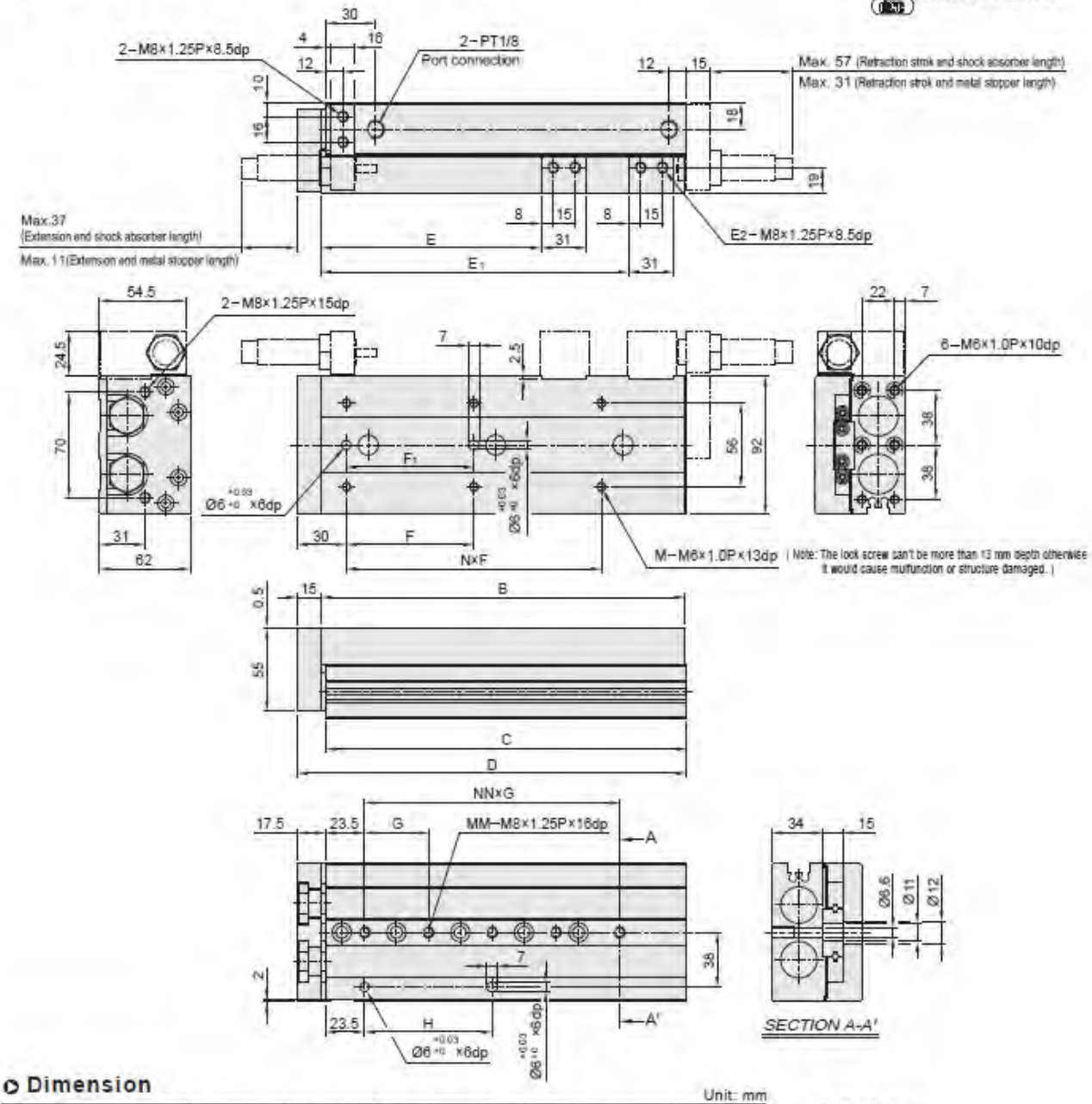


CA - MDX series Dual Rod Table Slide

Dimensions - Ø25

MDX Ø25 × ▭

MDX 25 × ▭ ST



Dimension

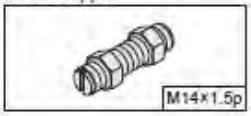
Unit: mm

Mark / Stroke	B	C	D	E	E1	E2	F	N	F1	G	NN	H	M	MM
10	92	90.5	108	35	–	2	50	1	40	45	1	45	4	2
20	92	90.5	108	45	–	2	50	1	40	45	1	45	4	2
30	92	90.5	108	55	–	2	50	1	40	45	1	45	4	2
40	102	100.5	118	65	–	2	60	1	50	55	1	55	4	2
50	115	113.5	131	75	–	2	35	2	35	35	2	35	6	3
75	156	154.5	172	100	–	2	60	2	60	35	3	70	6	4
100	197	195.5	213	125	162	4	70	2	70	35	4	70	6	5
125	255	253.5	271	150	218	4	75	3	75	38	5	76	8	6
150	295	293.5	311	175	258	4	80	3	80	40	6	80	8	7

Option

Shock absorber

Metal stopper



Rotary clamp cylinder/single guide double acting/single rod

RCS2 Series

● Bore size: ø12/ø16/ø20/ø25/ø32/ø40/ø50/ø63

● Double acting
JIS symbol 

Specifications

1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Item		RCS2							
Bore size	mm	ø12	ø16	ø20	ø25	ø32	ø40	ø50	ø63
Actuation		Double acting							
Working fluid		Compressed air							
Max. working pressure	MPa	1.0 (≈145 psi, 10 bar)							0.6 (≈87 psi, 6 bar)
Min. working pressure	MPa	0.1 (≈15 psi, 1 bar) (*1)							
Proof pressure	MPa	1.6 (≈232 psi, 16 bar)							
Ambient temperature	°C	-10 (14°F) to 60 (140°F) (no freezing)							
Port size	Rc, NPT, G	M5				1/8		1/4	
Stroke tolerance	mm	+1.0 0		+1.2 0					
Working piston speed	mm/s	50 to 200							
Cushion		Rod side: rubber cushioned, Head side: no cushioning							
Lubrication		Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)							
Turning ratio		90° ±10°							
Rotation direction		Right/Left							
Non-rotating accuracy (clamping, default value)		±1.4°		±1.2°		±0.9°		±0.7°	
Pressurized area	mm² Pull side	84	150	201	377	603	1056	1649	2803
	Push side	113	201	314	490	804	1256	1963	3117

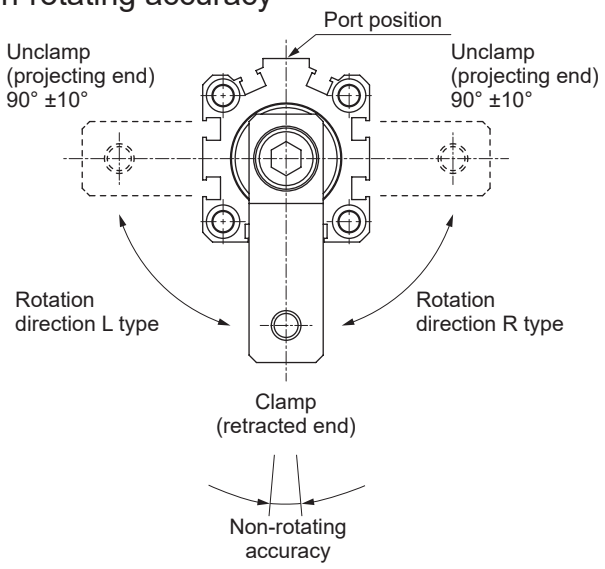
*1: With constant pressurization

Stroke

Bore size (mm)	Stroke (mm)	Rotary stroke *1 (mm)	Clamp stroke *2 (mm)
ø12, ø16	17.5, 27.5, 37.5	7.5	10, 20, 30
ø20, ø25	19.5, 29.5, 39.5	9.5	10, 20, 30
ø32, ø40	25, 35, 45, 65	15	10, 20, 30, 50
ø50, ø63	29, 39, 49, 69	19	10, 20, 30, 50

*1: The rotary stroke is the dimension of forward action when rotating from the unclamp end in the clamping direction.
*2: The clamp stroke is the dimension of forward action in the clamping direction after rotation.

Rotating angle/rotation direction/non-rotating accuracy



RCS2 Series

Switch specifications/cylinder weight
Theoretical thrust table

Switch specifications (T-switch)

● 1-color/2-color LED/for AC magnetic field

Item	Proximity 2-wire	Proximity 2-wire			Proximity 3-wire				Reed 2-wire							Proximity 2-wire
	T1H/T1V	T2H/T2V	T2YH/T2YV	T2WH/T2WV	T3H/T3V	T3PH/T3PV	T3YH/T3YV	T3WH/T3WV	T0H/T0V		T5H/T5V		T8H/T8V			T2YD (*2) T2YDT
Applications	Programmable controller For relay, compact solenoid valve	Dedicated for programmable controller			Programmable controller, For relay				Programmable controller, For relay		Programmable controller, relay(IC circuit (no indicator lamp), for serial connection		For programmable controller, relay			Dedicated for programmable controller
Output method	-				NPN output	PNP output	NPN output	NPN output	-							
Power supply voltage	-				10 to 28 VDC				-							
Load voltage	85 to 265 VAC	10 to 30 VDC		24VDC±10%	30 VDC or less				12/24 VDC	100/110 VAC	5/12/24 VDC	100/110 VAC	12/24 VDC	110 VAC	220 VAC	24 VDC ±10%
Load current	5 to 100mA	5 to 20mA(*1)			100 mA or less		50 mA or less		5 to 50mA	7 to 20mA	50 mA or less	20 mA or less	5 to 50mA	7 to 20mA	7 to 10mA	5 to 20 mA (*1)
Indicator lamp	LED (Lit when ON)	LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)		No indicator lamp		LED (Lit when ON)			Red/green LED (Lit when ON)
Leakage current	1 mA or less with 100 VAC, 2 mA or less with 200 VAC	1 mA or less			10 μA or less				0mA							1 mA or less
Weight g	1 m: 33 3 m: 87 5 m: 142	1 m: 18 3 m: 49 5 m: 80	1 m: 33 3 m: 87 5 m: 142	1 m: 18 3 m: 49 5 m: 80	1 m: 18 3 m: 49 5 m: 80	1 m: 33 3 m: 87 5 m: 142	1 m: 18 3 m: 49 5 m: 80		1 m: 18 3 m: 49 5 m: 80				1 m: 33 3 m: 87 5 m: 142			1 m: 61 3 m: 166 5 m: 272

*1: The above max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)
*2: Switch for AC magnetic field (T2YD/T2YDT) cannot be used in DC magnetic field.

Switch specifications (F-switch)

● 1-color/2Color display

Item	Proximity 2-wire	Proximity 3-wire	Proximity 2-wire		Proximity 3-wire		
	F2S	F3S	F2H/F2V	F2YH/F2YV	F3H/F3V	F3PH/F3PV (Made to order)	F3YH/F3YV
Applications	Programmable controller Dedicated	Programmable controller,For relay	Programmable controller Dedicated		For programmable controller, relay		
Output method	-	NPN output	-		NPN output	PNP output	NPN output
Power supply voltage	-	10 to 28 VDC	-		10 to 28 VDC	4.5 to 28 VDC	10 to 28 VDC
Load voltage	10 to 30 VDC	30 VDC or less	10 to 30 VDC	24 VDC ±10%	30 VDC or less		
Load current	5 to 20mA	50 mA or less	5 to 20mA		100 mA or less	50 mA or less	
Indicator lamp	LED (Lit when ON)		Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Yellow LED (Lit when ON)		Red/green LED (Lit when ON)
Leakage current	1 mA or less	10 μA or less	1 mA or less		10 μA or less		
Weight g	1 m: 10 3 m: 29						

*1: The F-switch uses a bend-resistant lead wire.

Cylinder weight

(Unit: g)

Bore size (mm)	Stroke (mm)														Rod side flange(FA)	Head side flange(FB)	Switch weight
	17.5	19.5	25	29	27.5	29.5	35	39	37.5	39.5	45	49	65	69			
ø12	69				84				99						49	49	Refer to the weight in the switch specifications above.
ø16	100				123				146						59	59	
ø20		212				252				292					114	114	
ø25		267				314				361					125	125	
ø32			333				372				411		489		145	145	
ø40			554				629				704		854		193	193	
ø50				997				1118				1239		1481	335	335	
ø63				1373				1526				1679		1985	464	464	

Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø12	Push	11.3	22.6	33.9	45.2	56.5	67.9	79.2	90.5	1.02×10^2	1.13×10^2
	Pull	8.5	17.0	25.4	33.9	42.4	50.9	59.4	67.9	76.3	84.8
ø16	Push	20.1	40.2	60.3	80.4	1.01×10^2	1.21×10^2	1.41×10^2	1.61×10^2	1.81×10^2	2.01×10^2
	Pull	15.1	30.2	45.2	60.3	75.4	90.5	1.06×10^2	1.21×10^2	1.36×10^2	1.51×10^2
ø20	Push	31.4	62.8	94.2	1.26×10^2	1.57×10^2	1.88×10^2	2.20×10^2	2.51×10^2	2.83×10^2	3.14×10^2
	Pull	20.1	40.2	60.3	80.4	1.01×10^2	1.21×10^2	1.41×10^2	1.61×10^2	1.81×10^2	2.01×10^2
ø25	Push	49.1	98.2	1.47×10^2	1.96×10^2	2.45×10^2	2.95×10^2	3.44×10^2	3.93×10^2	4.42×10^2	4.91×10^2
	Pull	37.8	75.6	1.13×10^2	1.51×10^2	1.89×10^2	2.27×10^2	2.64×10^2	3.02×10^2	3.40×10^2	3.78×10^2
ø32	Push	80.4	1.61×10^2	2.41×10^2	3.22×10^2	4.02×10^2	4.83×10^2	5.63×10^2	6.43×10^2	7.24×10^2	8.04×10^2
	Pull	60.3	1.21×10^2	1.81×10^2	2.41×10^2	3.02×10^2	3.62×10^2	4.22×10^2	4.83×10^2	5.43×10^2	6.03×10^2
ø40	Push	1.26×10^2	2.51×10^2	3.77×10^2	5.03×10^2	6.28×10^2	7.54×10^2	8.80×10^2	1.01×10^3	1.13×10^3	1.26×10^3
	Pull	1.06×10^2	2.11×10^2	3.17×10^2	4.22×10^2	5.28×10^2	6.33×10^2	7.39×10^2	8.44×10^2	9.50×10^2	1.06×10^3
ø50	Push	1.96×10^2	3.93×10^2	5.89×10^2	7.85×10^2	9.82×10^2	1.18×10^3	1.37×10^3	1.57×10^3	1.77×10^3	1.96×10^3
	Pull	1.65×10^2	3.30×10^2	4.95×10^2	6.60×10^2	8.25×10^2	9.90×10^2	1.15×10^3	1.32×10^3	1.48×10^3	1.65×10^3
ø63	Push	3.12×10^2	6.23×10^2	9.35×10^2	1.25×10^3	1.56×10^3	1.87×10^3	-	-	-	-
	Pull	2.80×10^2	5.61×10^2	8.41×10^2	1.12×10^3	1.40×10^3	1.68×10^3	-	-	-	-

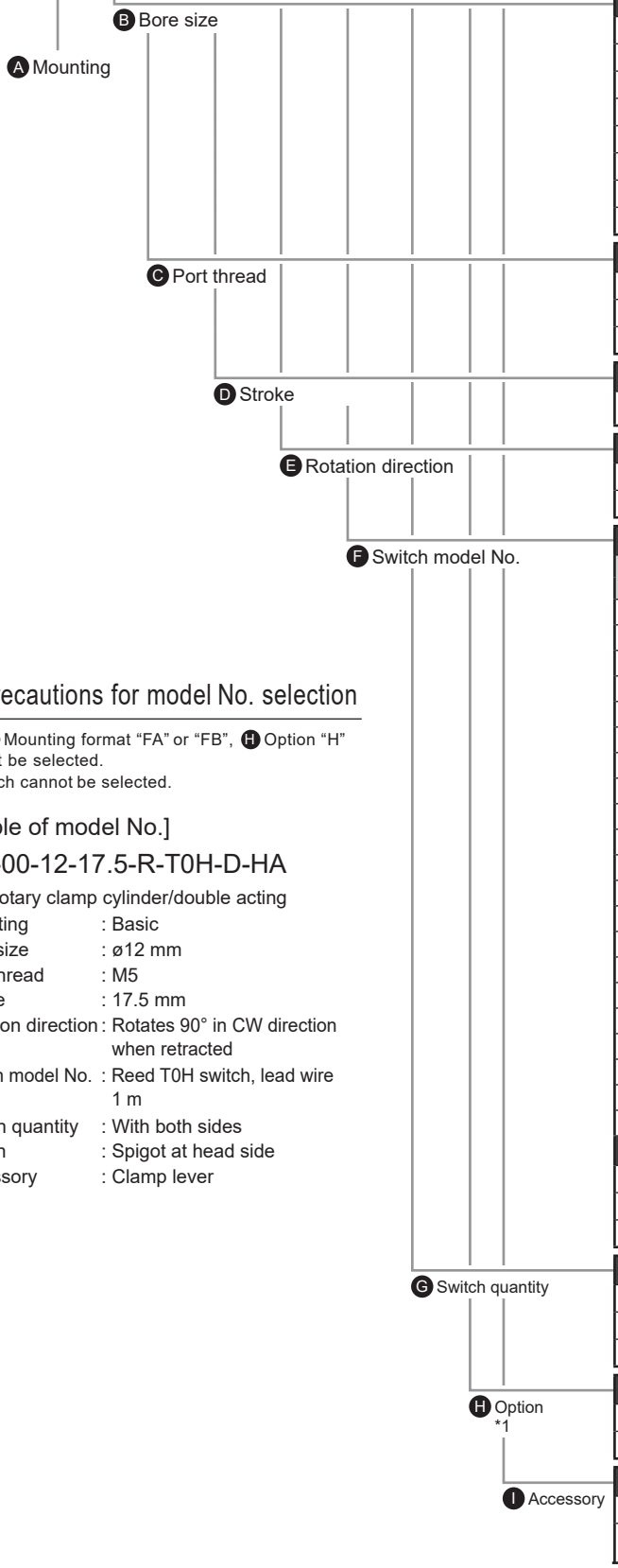
How to order

Without switch (built-in magnet for switch)

RCS2 - 00 - 12 ○ - 17.5 - R ——— H A

With switch (built-in magnet for switch)

RCS2 - 00 - 12 ○ - 17.5 - R - T0H - D - H A



Code	Description
A Mounting	
00	Basic
FA	Rod side flange
FB	Head side flange

B Bore size (mm)	
12	ø12
16	ø16
20	ø20
25	ø25
32	ø32
40	ø40
50	ø50
63	ø63

C Port thread	
Blank	Rc thread (M5 for ø25 and less)
N	NPT thread (ø32 and over)
G	G thread (ø32 and over)

D Stroke (mm)
Refer to the stroke table on the following page.

E Rotation direction	See the following page for details.
R	Rotates 90° in CW direction when retracted
L	Rotates 90° in CCW direction when retracted

F Switch model No.

Straight Lead wire	L-shaped Lead wire	Contact	Voltage AC	Voltage DC	Indicator	Lead wire	Bore size 12	16	20	25	32	40	50	63
T0H*	T0V*	Reed	●	●	1-color LED	2-wire	●	●	●	●	●	●	●	●
T5H*	T5V*	Reed	●	●	No indicator lamp	2-wire	●	●	●	●	●	●	●	●
T8H*	T8V*	Reed	●	●	1-color LED				●	●	●	●	●	●
T1H*	T1V*	Proximity	●		1-color LED	2-wire			●	●	●	●	●	●
T2H*	T2V*	Proximity		●			●	●	●	●	●	●	●	●
T3H*	T3V*	Proximity		●		3-wire	●	●	●	●	●	●	●	●
T3PH*	T3PV*	Proximity		●	1-color LED (PNP output)		●	●	●	●	●	●	●	●
T2WH*	T2WV*	Proximity		●	2-color LED	2-wire	●	●	●	●	●	●	●	●
T2YH*	T2YV*	Proximity		●					●	●	●	●	●	●
T3WH*	T3WV*	Proximity		●		3-wire	●	●	●	●	●	●	●	●
T3YH*	T3YV*	Proximity		●					●	●	●	●	●	●
T2YD*	-	Proximity		●	2-color LED AC magnetic field	2-wire			●	●	●	●	●	●
T2YDT*	-	Proximity		●					●	●	●	●	●	●
T2JH*	T2JV*	Proximity		●	1-color LED off-delay	2-wire			●	●	●	●	●	●
F2S*		Proximity		●	1-color LED	2-wire			●	●				
F3S*		Proximity		●		3-wire			●	●				
F2H*	F2V*	Proximity		●		2-wire			●	●				
F3H*	F3V*	Proximity		●		3-wire			●	●				
F3PH*	F3PV*	Proximity		●	1-color LED (PNP output) (made to order)	3-wire			●	●				
F2YH*	F2YV*	Proximity		●	2-color LED	2-wire			●	●				
F3YH*	F3YV*	Proximity		●		3-wire			●	●				

*** Lead wire length**	
Blank	1 m (standard)
3	3 m (option)
5	5 m (option) *2

G Switch quantity	
R	1 on rod side
H	1 on head side
D	With both sides

H Option	
Blank	No option
H	Spigot at head side

I Accessory (included at shipment)	
Blank	No accessories
A	Clamp lever

Precautions for model No. selection

*1: For A Mounting format "FA" or "FB", H Option "H" cannot be selected.
*2: F-switch cannot be selected.

[Example of model No.]

RCS2-00-12-17.5-R-T0H-D-HA

Model: Rotary clamp cylinder/double acting

- A Mounting : Basic
- B Bore size : ø12 mm
- C Port thread : M5
- D Stroke : 17.5 mm
- E Rotation direction : Rotates 90° in CW direction when retracted
- F Switch model No. : Reed T0H switch, lead wire 1 m
- G Switch quantity : With both sides
- H Option : Spigot at head side
- I Accessory : Clamp lever

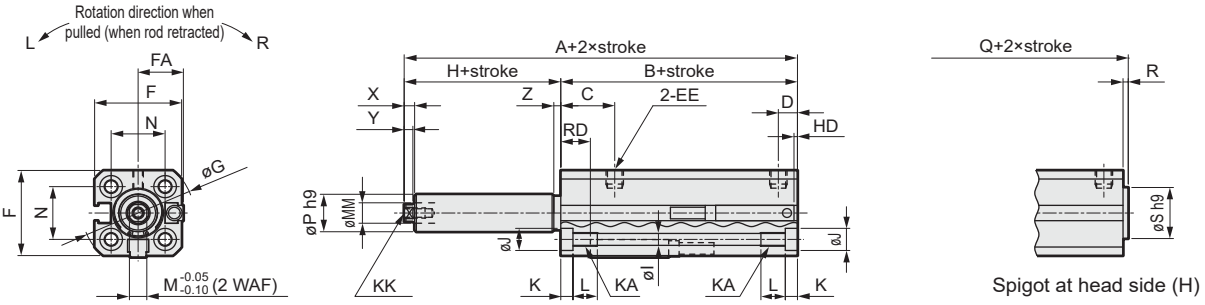
[Stroke table]

Stroke	Bore size								Rotation stroke	Clamp stroke
	12	16	20	25	32	40	50	63		
17.5	●	●							7.5	10
19.5			●	●					9.5	10
25					●	●			15	10
29							●	●	19	10
27.5	●	●							7.5	20
29.5			●	●					9.5	20
35					●	●			15	20
39							●	●	19	20
37.5	●	●							7.5	30
39.5			●	●					9.5	30
45					●	●			15	30
49							●	●	19	30
65					●	●			15	50
69							●	●	19	50

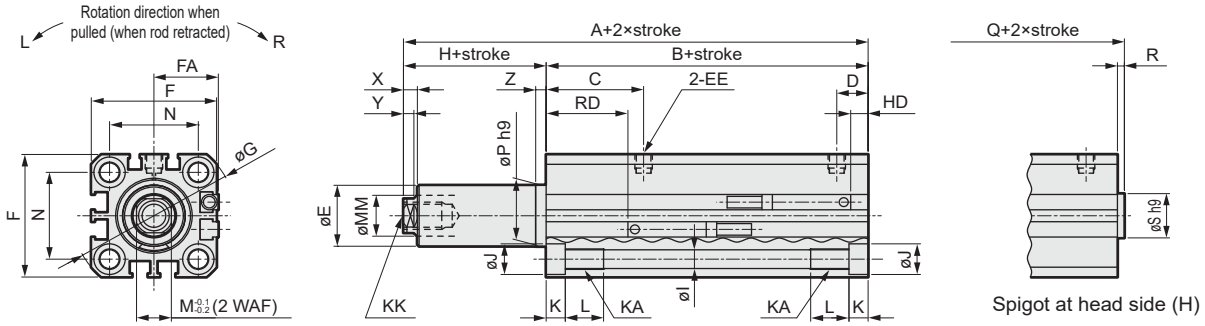
RCS2 Series

Dimensions (basic shape: 00)

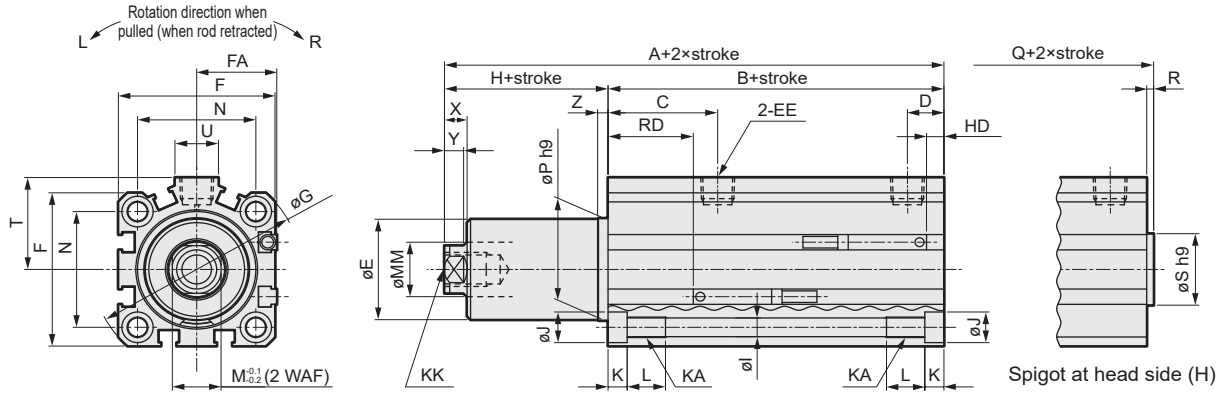
● RCS2-00-12/16



● RCS2-00-20/25



● RCS2-00-32/40/50/63



Code	Basic (00) dimensions table																										
Bore size	A	B	C	D	E	EE	F	G	H	I	J	K	KA	KK	L	M	MM	N	P	Q	R	S	T	U	X	Y	Z
ø12	33	28	15.5	5.5	—	M5 depth 4	25	32	5	3.5	6.5	3.5	M4	M3 depth 5.5	7	5	6	15.5	11	34.5	1.5	15	—	–	3	2.5	2
ø16	33.5	28.5	15	5.5	—	M5 depth 4	29	38	5	3.5	6.5	3.5	M4	M5 depth 6.5	7	7	8	20	14	34.9	1.5	20	—	–	3	2.5	2.2
ø20	53.5	52.5	28	9	17.9	M5 depth 4	36	47	1	5.5	9	5.5	M6	M8 depth 11	11	10	12	25.5	18	55.5	2	13	—	–	4	3	3
ø25	54.5	53.5	27.5	10.5	22.5	M5 depth 4	40	51	1	5.5	9	5.5	M6	M8 depth 11	11	10	12	28	23	56.5	2	15	—	–	4	3	3
ø32	63.5	56.5	31.5	10.5	29.5	Rc1/8	45	60	7	5.5	9	5.5	M6	M10 depth 12	11	14	16	34	30	65.5	2	21	27	12.5	6.5	5.5	3
ø40	64.5	50	29	9	29.5	Rc1/8	52	69	14.5	5.5	9	5.5	M6	M10 depth 12	11	14	16	40	30	66.5	2	28	31	15	6.5	5.5	3
ø50	74	57.5	34	11.5	36.5	Rc1/4	64	86	16.5	6.9	11	6.5	M8	M12 depth 16	14	17	20	50	37	76	2	35	39	18	7.5	5.5	3.5
ø63	77	61	34.5	10.5	47.5	Rc1/4	77	103	16	8.7	14	9	M10	M12 depth 16	20	17	20	60	48	79	2	35	45.5	23	7.5	5.5	3.5

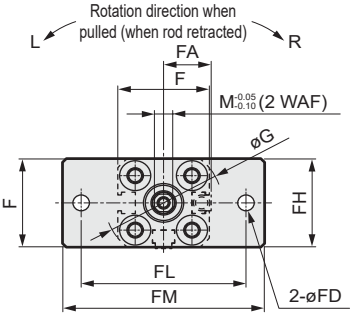
Code	Switch model No.																			
	T2, T3, T3P, T0, T5			T1, T2YD, T2YDT			T2Y, T3Y, T2J			T2W, T3W			T8			F2S, F3S			F2, F3, F3P, F2Y, F3Y	
Bore size	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD
ø12	8.5	0.5	13 (16.5)	—	–	–	–	–	–	10.5	2.5	13 (16.5)	—	–	–	–	–	–	–	–
ø16	9	0.5	15 (18.5)	—	–	–	–	–	–	11	2.5	15 (18.5)	—	–	–	–	–	–	–	–
ø20	23.5	10	18.5 (22)	22.5	9	29.3 (32.3)	22.5	9	24.3 (27.3)	25.5	12	18.5 (22)	17.5	4	24.3 (27.3)	27	13.5	31.5	28	14.5
ø25	24.5	9.5	20.5 (24)	23.5	8.5	31.3 (34.3)	23.5	8.5	26.3 (29.3)	26.5	11.5	20.5 (24)	18.5	3.5	26.3 (29.3)	28	13	33.5	29	14
ø32	26.5	10.5	23 (26.5)	25.5	9.5	33.8 (36.8)	25.5	9.5	28.8 (31.8)	28.5	12.5	23 (26.5)	20.5	4.5	28.8 (31.8)	—	–	–	–	–
ø40	23.5	7.5	26.5 (30)	22.5	6.5	37.3 (40.3)	22.5	6.5	32.3 (35.3)	25.5	9.5	26.5 (30)	17.5	1.5	32.3 (35.3)	—	–	–	–	–
ø50	28.5	10	32.5 (36)	27.5	9	43.3 (46.3)	27.5	9	38.3 (41.3)	30.5	12	32.5 (36)	22.5	4	38.3 (41.3)	—	–	–	–	–
ø63	27.5	14.5	39 (42.5)	26.5	13.5	49.8 (52.8)	26.5	13.5	44.8 (47.8)	29.5	16.5	39 (42.5)	21.5	8.5	44.8 (47.8)	—	–	–	–	–

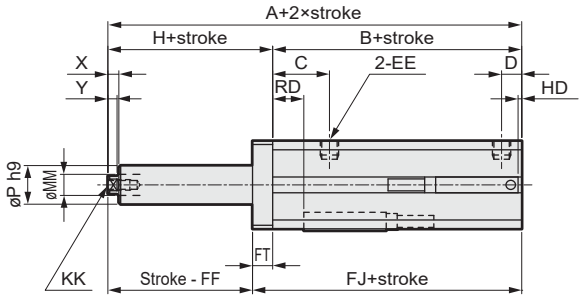
*1: Dimensions in ( ) of FA are for L-shaped lead wire. *2: Bore size ø20 and layout port surface ø25 are for F-switch only.

Dimensions (rod side flange: FA)

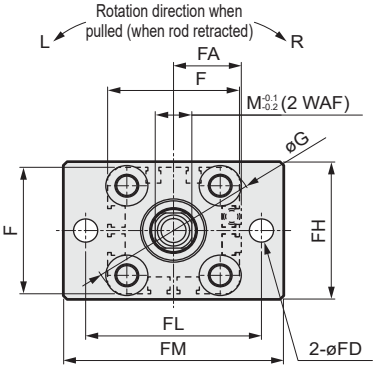
RCS2 Series

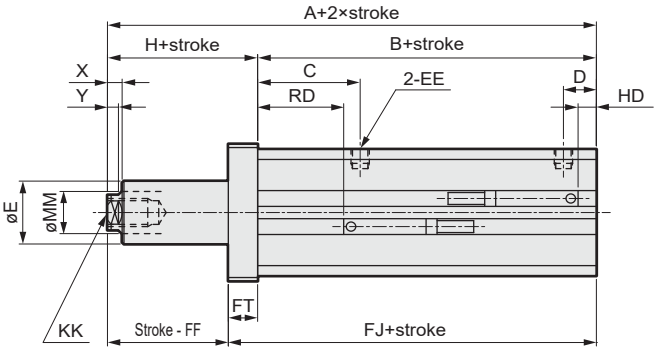
● RCS2-FA-12/16



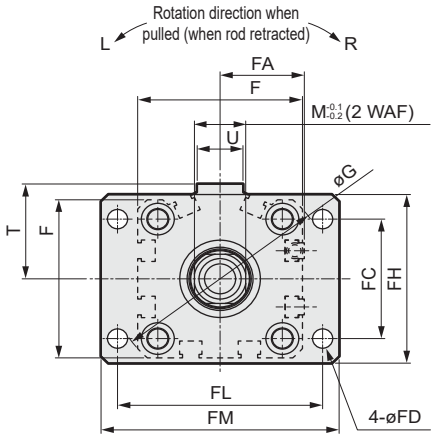


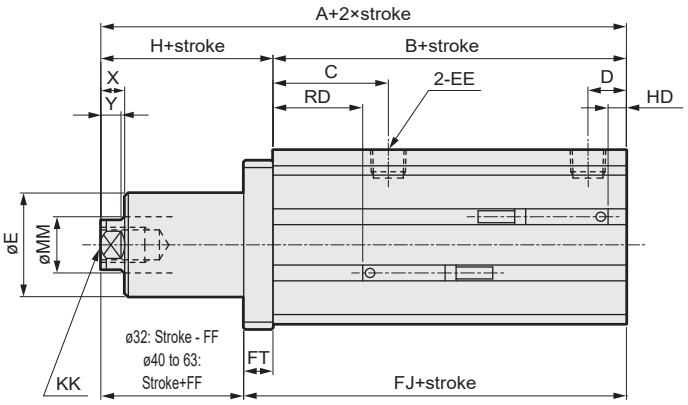
● RCS2-FA-20/25





● RCS2-FA-32/40/50/63





Code	Rod side flange (FA) dimensions table																							
Bore size	A	B	C	D	E	EE	F	G	H	KK	M	MM	P	T	U	X	Y	FC	FD	FF	FJ	FH	FL	FM	FT
ø12	33	28	15.5	5.5	—	M5 depth 4	25	32	5	M3 depth 5.5	5	6	11	—	–	3	2.5	—	4.5	0.5	33.5	25	45	55	5.5
ø16	33.5	28.5	15	5.5	—	M5 depth 4	29	38	5	M5 depth 6.5	7	8	14	—	–	3	2.5	—	4.5	0.6	34	30	45	55	5.5
ø20	53.5	52.5	28	9	17.9	M5 depth 4	36	47	1	M8 depth 11	10	12	—	–	–	4	3	—	6.6	7	60.5	39	48	60	8
ø25	54.5	53.5	27.5	10.5	22.5	M5 depth 4	40	51	1	M8 depth 11	10	12	—	–	–	4	3	—	6.6	7	61.5	42	52	64	8
ø32	63.5	56.5	31.5	10.5	29.5	Rc1/8	45	60	7	M10 depth 12	14	16	—	27	12.5	6.5	5.5	34	5.5	1	64.5	48	56	65	8
ø40	64.5	50	29	9	29.5	Rc1/8	52	69	14.5	M10 depth 12	14	16	—	31	15	6.5	5.5	40	5.5	6.5	58	54	62	72	8
ø50	74	57.5	34	11.5	36.5	Rc1/4	64	86	16.5	M12 depth 16	17	20	—	39	18	7.5	5.5	50	6.6	7.5	66.5	67	76	89	9
ø63	77	61	34.5	10.5	47.5	Rc1/4	77	103	16	M12 depth 16	17	20	—	45.5	23	7.5	5.5	60	9	7	70	80	92	108	9

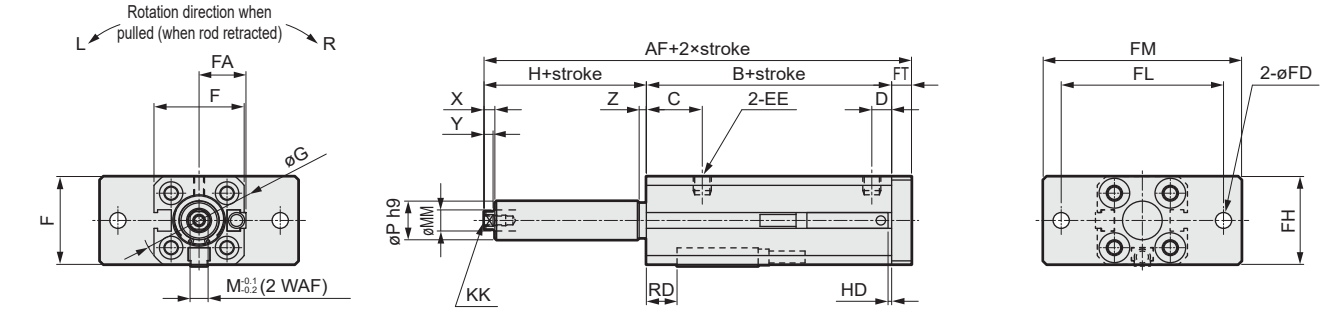
Code	Switch model No.																				
	T2, T3, T3P, T0, T5			T1, T2YD, T2YDT			T2Y, T3Y, T2J			T2W, T3W			T8			F2S, F3S			F2, F3, F3P, F2Y, F3Y	
Bore size	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD
ø12	8.5	0.5	13 (16.5)	—	–	–	–	–	–	10.5	2.5	13 (16.5)	—	–	–	–	–	–	–	–
ø16	9	0.5	15 (18.5)	—	–	–	–	–	–	11	2.5	15 (18.5)	—	–	–	–	–	–	–	–
ø20	23.5	10	18.5 (22)	22.5	9	29.3 (32.3)	22.5	9	24.3 (27.3)	25.5	12	18.5 (22)	17.5	4	24.3 (27.3)	27	13.5	31.5	28	14.5
ø25	24.5	9.5	20.5 (24)	23.5	8.5	31.3 (34.3)	23.5	8.5	26.3 (29.3)	26.5	11.5	20.5 (24)	18.5	3.5	26.3 (29.3)	28	13	33.5	29	14
ø32	26.5	10.5	23 (26.5)	25.5	9.5	33.8 (36.8)	25.5	9.5	28.8 (31.8)	28.5	12.5	23 (26.5)	20.5	4.5	28.8 (31.8)	—	–	–	–	–
ø40	23.5	7.5	26.5 (30)	22.5	6.5	37.3 (40.3)	22.5	6.5	32.3 (35.3)	25.5	9.5	26.5 (30)	17.5	1.5	32.3 (35.3)	—	–	–	–	–
ø50	28.5	10	32.5 (36)	27.5	9	43.3 (46.3)	27.5	9	38.3 (41.3)	30.5	12	32.5 (36)	22.5	4	38.3 (41.3)	—	–	–	–	–
ø63	27.5	14.5	39 (42.5)	26.5	13.5	49.8 (52.8)	26.5	13.5	44.8 (47.8)	29.5	16.5	39 (42.5)	21.5	8.5	44.8 (47.8)	—	–	–	–	–

*1: Dimensions in ( ) of FA are for L-shaped lead wire. *2: Bore size ø20 and layout port surface ø25 are for F-switch only.

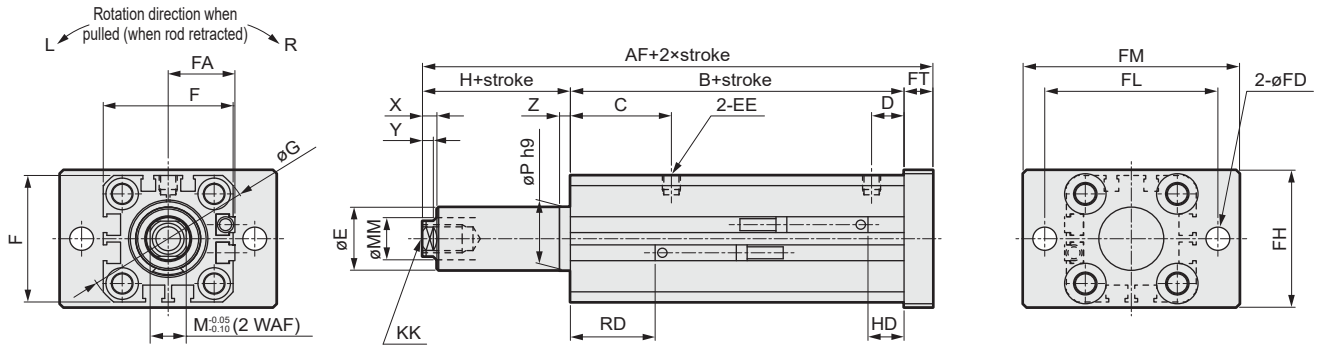
Dimensions (head side flange: FB)

RCS2 Series

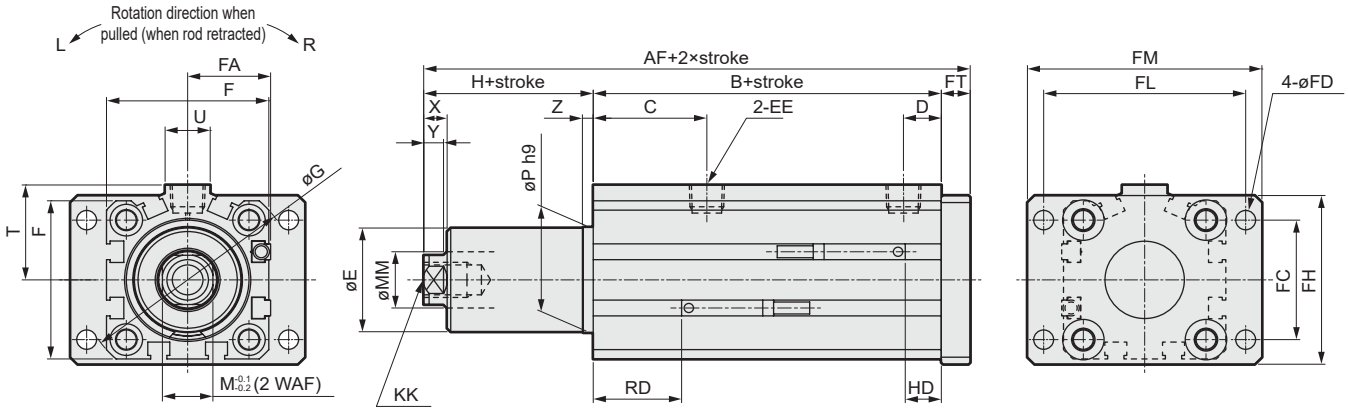
● RCS2-FB-12/16



● RCS2-FB-20/25



● RCS2-FB-32/40/50/63

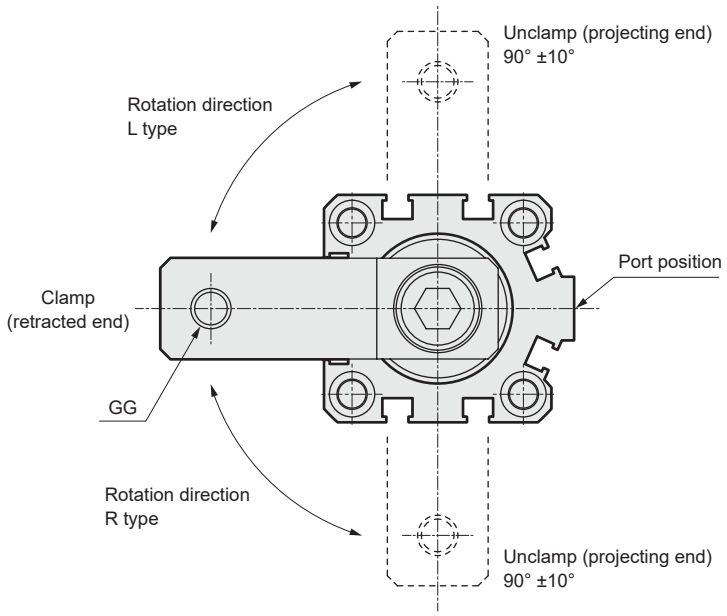


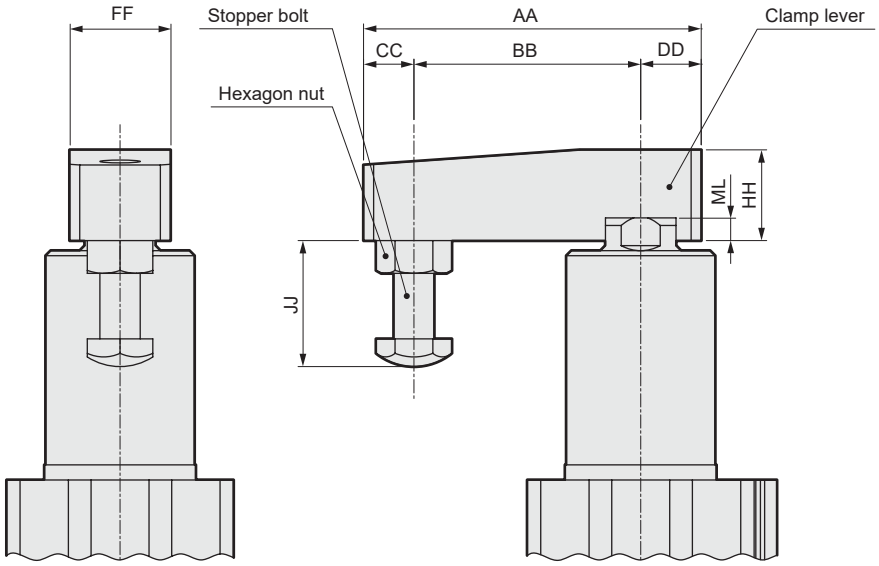
Code	Head side flange (FB) dimensions table																							
Bore size	AF	B	C	D	E	EE	F	G	H	KK	M	MM	P	T	U	X	Y	Z	FC	FD	FH	FL	FM	FT
ø12	38.5	28	15.5	5.5	—	M5 depth 4	25	32	5	M3 depth 5.5	5	6	11	—	–	3	2.5	2	—	4.5	25	45	55	5.5
ø16	39	28.5	15	5.5	—	M5 depth 4	29	38	5	M5 depth 6.5	7	8	14	—	–	3	2.5	2.2	—	4.5	30	45	55	5.5
ø20	61.5	52.5	28	9	17.9	M5 depth 4	36	47	1	M8 depth 11	10	12	18	—	–	4	3	3	—	6.6	39	48	60	8
ø25	62.5	53.5	27.5	10.5	22.5	M5 depth 4	40	51	1	M8 depth 11	10	12	23	—	–	4	3	3	—	6.6	42	52	64	8
ø32	71.5	56.5	31.5	10.5	29.5	Rc1/8	45	60	7	M10 depth 12	14	16	30	27	12.5	6.5	5.5	3	34	5.5	48	56	65	8
ø40	72.5	50	29	9	29.5	Rc1/8	52	69	14.5	M10 depth 12	14	16	30	31	15	6.5	5.5	3	40	5.5	54	62	72	8
ø50	83	57.5	34	11.5	36.5	Rc1/4	64	86	16.5	M12 depth 16	17	20	37	39	18	7.5	5.5	3.5	50	6.6	67	76	89	9
ø63	86	61	34.5	10.5	47.5	Rc1/4	77	103	16	M12 depth 16	17	20	48	45.5	23	7.5	5.5	3.5	60	9	80	92	108	9

Code	Switch model No.																				
	T2, T3, T3P, T0, T5			T1, T2YD, T2YDT			T2Y, T3Y, T2J			T2W, T3W			T8			F2S, F3S			F2, F3, F3P, F2Y, F3Y	
Bore size	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD
ø12	8.5	0.5	13 (16.5)	—	–	–	–	–	–	10.5	2.5	13 (16.5)	—	–	–	–	–	–	–	–
ø16	9	0.5	15 (18.5)	—	–	–	–	–	–	11	2.5	15 (18.5)	—	–	–	–	–	–	–	–
ø20	23.5	10	18.5 (22)	22.5	9	29.3 (32.3)	22.5	9	24.3 (27.3)	25.5	12	18.5 (22)	17.5	4	24.3 (27.3)	27	13.5	31.5	28	14.5
ø25	24.5	9.5	20.5 (24)	23.5	8.5	31.3 (34.3)	23.5	8.5	26.3 (29.3)	26.5	11.5	20.5 (24)	18.5	3.5	26.3 (29.3)	28	13	33.5	29	14
ø32	26.5	10.5	23 (26.5)	25.5	9.5	33.8 (36.8)	25.5	9.5	28.8 (31.8)	28.5	12.5	23 (26.5)	20.5	4.5	28.8 (31.8)	—	–	–	–	–
ø40	23.5	7.5	26.5 (30)	22.5	6.5	37.3 (40.3)	22.5	6.5	32.3 (35.3)	25.5	9.5	26.5 (30)	17.5	1.5	32.3 (35.3)	—	–	–	–	–
ø50	28.5	10	32.5 (36)	27.5	9	43.3 (46.3)	27.5	9	38.3 (41.3)	30.5	12	32.5 (36)	22.5	4	38.3 (41.3)	—	–	–	–	–
ø63	27.5	14.5	39 (42.5)	26.5	13.5	49.8 (52.8)	26.5	13.5	44.8 (47.8)	29.5	16.5	39 (42.5)	21.5	8.5	44.8 (47.8)	—	–	–	–	–

*1: Dimensions in ( ) of FA are for L-shaped lead wire. *2: Bore size ø20 and layout port surface ø25 are for F-switch only.

Clamp lever dimensions



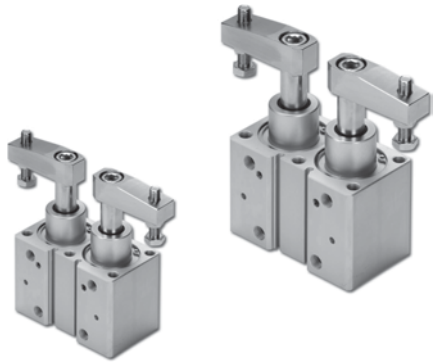


Code	With clamp lever									Moment of inertia (kg/m2)	
Bore size (mm)	AA	BB	CC	DD	FF	GG	HH	JJ	ML	Single clamp lever	With stopper bolt
ø12	29	20	4	5	8	M3x0.5	8	8 to 18	2	$1.9x10^{-6}$	$2.7x10^{-6}$
ø16	36	25	5	6	11	M4x0.7	11	8 to 18	2	$7.3x10^{-6}$	$9.8x10^{-6}$
ø20, 25	51	35	7	9	16	M6x1.0	14	12 to 22	2.5	$3.6x10^{-5}$	$5x10^{-5}$
ø32, 40	67	45	10	12	20	M8x1.25	18	15 to 25	4.5	$1.3x10^{-4}$	$1.8x10^{-4}$
ø50, 63	88	65	10	13	22	M10x1.5	22	30 to 40	4.5	$4x10^{-4}$	$6.2x10^{-4}$

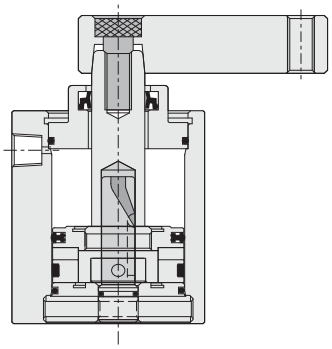
Clamp lever, stopper bolt, and hexagon nut are made of steel.

Dual Rod Type Rotary Clamp Cylinder

CA-HER Series



Internal structure



Specification

Item / Bore size (mm)	Ø20	Ø25	Ø32	Ø40
Action	Double acting			
Fluid	Air			
Max. operating pressure kgf/cm² (kPa)	10.3 (1030)			
Pressure range kgf/cm² (kPa)	1 ~ 7 (100~ 700)			
Rotary stroke mm	9		11	
Clamp stroke mm	13		15	
Body material	Aluminum alloy			
Rotation angle °	90±2			

Product weight

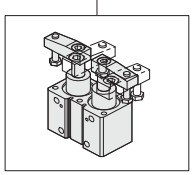
Unit: kg

Bore size	Ø20	Ø25	Ø32	Ø40
Weight	0.4	0.5	1.0	1.37

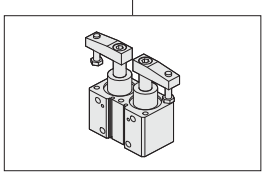
※ It does not include the weight of clamp.

Code of order

CA-HER (Model) × 25 (Bore size) × 13 (Stroke) – SD 2 (Sensor switch)

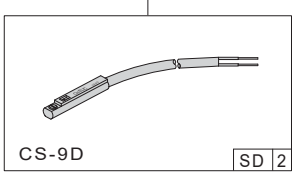


20-Ø20mm
25-Ø25mm
32-Ø32mm
40-Ø40mm



Press stroke
(Not include rotation stroke)

Ø20-13mm
Ø25-13mm
Ø32-15mm
Ø40-15mm



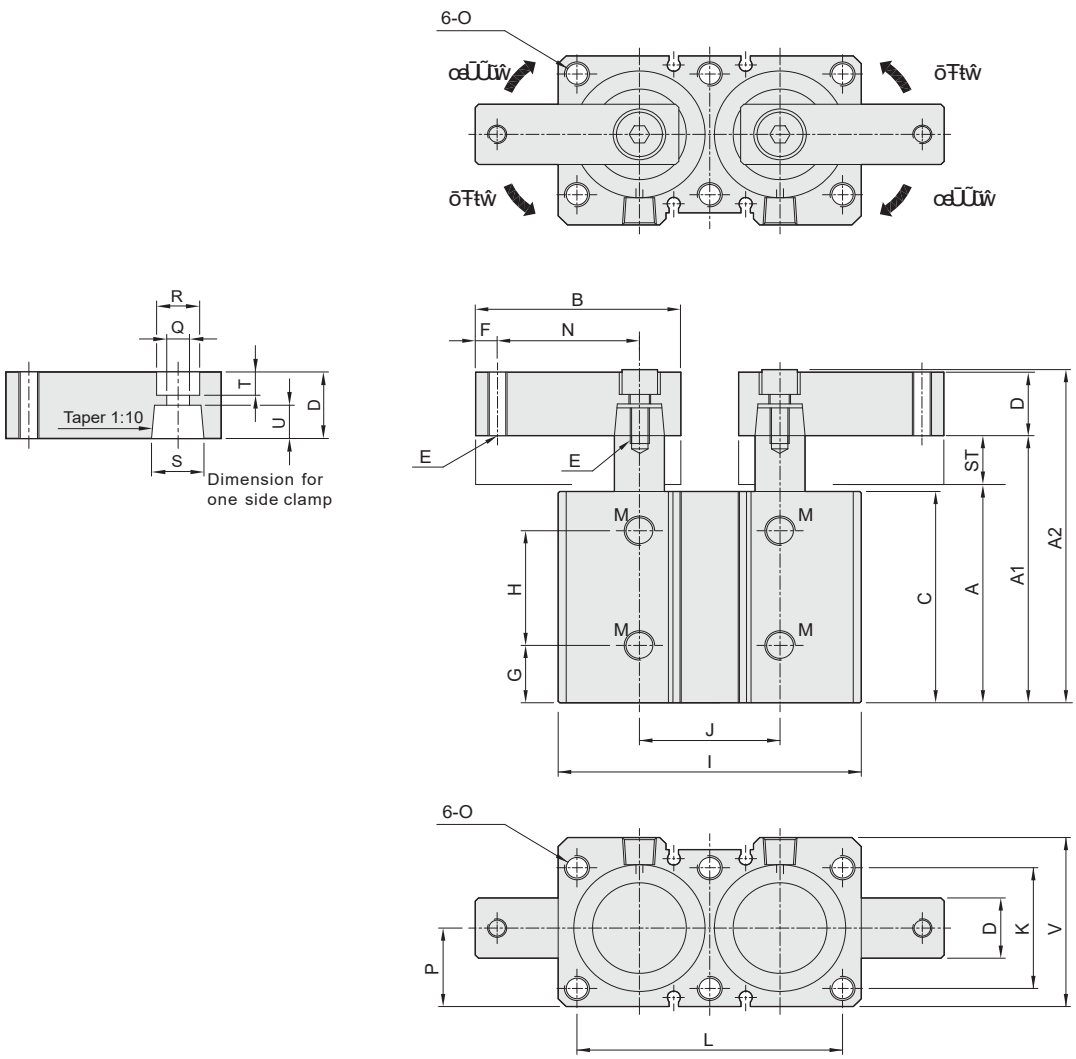
SD : Sensor switch code (CS-9D)
SB : Sensor switch code (CS-9B)
SH : Sensor switch code (CS-9H)
SDP : Sensor switch code (CS-9DPNP)

2 : Number of sensor switch
1 = 1 PCS
2 = 2 PCS
(option)

Dual Rod Type Rotary Clamp Cylinder

Dimensions

HER Ø20 ~ Ø40



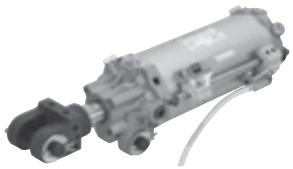
Bore size	ST	A	A1	A2	B	C	D	E	F	G	H	I	J
Ø20	22	67	89	(105.9)	50	65	□ 15.9	M6x1.0	6	13	39	59	26
Ø25	22	67	89	(105.9)	50	65	□ 15.9	M6x1.0	6	13	39	72	32
Ø32	26	82	108	(128)	70	78	□ 19	M8x1.25	8	14	51	82	38
Ø40	26	82	108	(128)	75	78	□ 19	M8x1.25	8	14	51	97	45

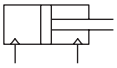
Bore size	K	L	M	N	O	P	Q	R	S	T	U	V
Ø20	24	49	M5x0.8P	35	M5x0.8	17	Ø6.8	Ø11	Ø12	5	8.5	34
Ø25	30	60	M5x0.8P	35	M6x1.0	20	Ø6.8	Ø11	Ø14	5	8.5	40
Ø32	34	72	PT 1/8	50	M6x1.0	22	Ø9	Ø14	Ø16	7	9.5	48
Ø40	40	85	PT 1/8	55	M8x1.25	26	Ø9	Ø14	Ø16	7	9.5	56

Clamp cylinder/double acting/single rod

CAC4 Series

Bore size: ø40/ø50/ø63/ø80





Specifications

Item	CAC4			
Bore size mm	ø40	ø50	ø63	ø80
Operation	Double acting			
Working fluid	Compressed air			
Max. working pressure MPa	1.0 (≈150 psi, 10 bar)			
Min. working pressure MPa	0.1 (≈15 psi, 1 bar)			
Proof pressure MPa	1.6 (≈230 psi, 16 bar)			
Ambient temperature °C	-10 (14°F) to 60 (140°F) (no freezing)			
Port size	Rc1/4			Rc3/8
Standard stroke mm	50, 75, 100, 125, 150			
Working piston speed mm/s	50 to 500	50 to 400	50 to 300	
Cushion	Head side air cushioned			
Effective air cushion length mm	13.5			15.4
Lubrication	Not required (use turbine oil ISO VG32 if necessary for lubrication)			
Mounting	Clevis bracket			

* Operate within the absorbed energy. Refer to table below.

Stroke

Bore size (mm)	Standard stroke (mm)	Max. stroke (mm)	Min. stroke (mm)	Min. stroke with switch (mm)
ø40	50, 75 100, 125 150	150	50	50
ø50				
ø63				
ø80				

Note: Products other than standard stroke are made-to-order products.

Cushion characteristics table

Bore size (mm)	Effective cushion length (mm)	Allowable energy (J)	
		With cushion	Without cushion
ø40	13.5	5.14	0.137
ø50	13.5	6.41	0.137
ø63	13.5	11.37	0.205
ø80	15.4	25.4	0.360

● Cushion

The purpose of the cushion is to absorb the piston's kinetic energy with air compressibility, preventing the piston and cover from colliding at the stroke end. Therefore, the cushion itself does not reduce the piston speed at the stroke end.
Note that the left table shows the kinetic energy which can be absorbed by the cushion. If the kinetic energy exceeds these values, or if bouncing caused by the air compressibility is to be avoided, consider using another shock absorber.

Kinetic energy (J) = $\frac{1}{2}$ x load weight (kg) x [speed (m/s)]^2

Cylinder weight

(Unit: kg)

Bore size (mm)	Product weight per 0 mm stroke	Additional weight per 100 mm stroke	Accessory weight					Switch Weight	Mounting bracket weight			Weight of tie rod at 0 mm stroke	Additional weight of tie rod per S = 10 mm
			Axial foot	Rod clevis	Rod eye	Limit switch mounting base	Dog bracket		T type		H type		
									Tie rod mount	Band mount			
ø40	0.75	0.34	0.21	0.37	0.27	0.18	0.08	Refer to the weight in the switch specifications.	0.021	0.007	0.024	0.019	0.003
ø50	0.82	0.36								0.008			
ø63	1.03	0.39								0.009			
ø80	2.80	0.60	-	0.95	-	-	-			0.010		0.030	

(Example) Product weight of CAC4-A-40-150-Y

- Product weight for stroke 0 mm ..... 0.75 kg
- Additional weight for stroke 150 mm ..... 0.34x$\frac{150}{100}$ = 0.51 kg
- Accessory weight (rod clevis) ..... 0.37 kg
- Product weight ..... 0.75 + 0.51 + 0.37 = 1.63 kg

CAC4 Series

How to order

Without switch (built-in magnet for switch)

CAC4 - A - 40 ( ) B - 50 R ——— Y1

With switch (built-in magnet for switch)

CAC4 - A - 40 ( ) B - 50 R - T0H - R B - Y1

With strong magnetic field proof (for H0, H0Y switches) switch (built-in magnet for switch)

CAC4-L2 - A - 40 ( ) B - 50 R — H0 - R B - Y1

- Ⓐ Clevis width *1
- Ⓑ Bore size
- Ⓒ Port thread
- Ⓓ Cushion
- Ⓔ Stroke
- Ⓕ Speed adjustment needle
- Ⓖ Switch model No. *3 * indicates the lead wire length.
- Ⓗ Switch quantity
- Ⓘ Switch mounting position and mounting *5
- Ⓙ Accessory *6 *7 *8

Code	Description				
Ⓐ Clevis width (mm)					
	Bore size (ø)	ø40	ø50	ø63	ø80
Blank	28				●
A	16.5	●	●	●	
B	19.5	●	●	●	
AL	16.5 (Axial foot)	●	●	●	
BL	19.5 (Axial foot)	●	●	●	

Ⓑ Bore size (mm)	
40	ø40
50	ø50
63	ø63
80	ø80

Ⓒ Port thread	
Blank	Rc thread
N	NPT thread (made-to-order product)
G	G thread (made-to-order product)

Ⓓ Cushion	
Blank / H *2	Head side cushioned
B	Both sides cushioned
N	Without cushion

Ⓔ Stroke (mm)
50, 75, 100, 125, 150

Ⓕ Speed adjustment needle	
Blank	With both sides
R	With rod side
H	With head side
N	None

Ⓖ Switch model No.

Straight lead wire	L-shaped lead wire	Contact	Voltage AC	Voltage DC	Indicator	Lead wire
T0H*	T0V*	Reed	●	●	1-color LED	2-wire
T5H*	T5V*	Reed	●	●	No indicator lamp	2-wire
T8H*	T8V*	Reed	●	●	1-color LED	2-wire
T1H*	T1V*	Proximity	●		1-color LED	2-wire
T2H*	T2V*	Proximity		●	1-color LED	2-wire
T3H*	T3V*	Proximity		●	1-color LED	3-wire
T3PH*	T3PV*	Proximity		●	1-color LED	3-wire
T2YH*	T2YV*	Proximity		●	2-color LED	2-wire
T2WH*	T2WV*	Proximity		●	2-color LED	2-wire
T3YH*	T3YV*	Proximity		●	2-color LED	3-wire
T3WH*	T3WV*	Proximity		●	2-color LED	3-wire
T2YD*	-	Proximity		●	For 2-color LED AC magnetic field	2-wire
T2YDT*	-	Proximity		●	For 2-color LED AC magnetic field	2-wire
T2YDU	-	Proximity		●	Switch, strong magn field connector (for AC magn field, made-to-order)	2-wire
T2JH*	T2JV*	Proximity		●	1-color LED off-delay	2-wire
H0*	-	Reed	●	●	Strong magnetic field proof switch	2-wire
H0Y*	-	Reed		●	Strong magnetic field, 2-color LED	2-wire

*** Lead wire length**	
Blank	1 m (standard)
3	3 m (option)
5	5 m (option)

Ⓗ Switch quantity	
R	1 on rod side
H	1 on head side
D	2

Ⓘ Switch mounting position and mounting		
Blank	Tie rod mounting	
B		
C		
Z *4	Band mounting	

*** Selectable only when the switch model No. is not specified Tie rod mounting position**	
Blank	Without tie rod
A	
B	
C	

Ⓙ Accessory					
	Bore size	ø40	ø50	ø63	ø80
Blank	Without accessory (rod eye)	●	●	●	●
Y	Rod clevis Cast iron	●	●	●	
Y1	Rod clevis Steel	●	●	●	●
I	Rod eye Steel	●	●	●	
K	Bellows *9, *10, *11	●	●	●	
D	With dog Limit switch	●	●	●	
D1	Without dog mounting base	●	●	●	
Q	Clamp bracket	●	●	●	

⚠ Precautions for model No. selection

*1 : A clevis pin, split pin, and plain washer are attached with A, B, AL and BL.
The clevis width and rod clevis width are the same.
*2 : If blank is selected for ⒸPort thread, the head side cushion comes with "Blank" for ⒹCushion and "H" for all other options.
*3 : T2YD, T2YDT, T2YDU, HO and HOY are strong magnetic field proof switches.
4 : Cannot be selected with Ⓖ Switch model No. "H0", "H0Y*".
*5 : For the mounting band, a switch body + mounting bracket set + band are shipped with the product.
*6 : A pin, split pin, and plain washer are attached with Y and Y1.
*7 : For Q, piston rod protruding length is different from the standard. This cannot be mounted on the standard.
*8 : When selecting "Q", only "A" can be selected for Ⓐ Clevis width.
*9 : Bellows max. ambient temperature 100°C, instantaneous max. temperature 200°C
*10: Cannot be mounted if Ⓐ Clevis width is AL or BL.
*11: For the type with bellows, be sure to select a rod eye.

[Example of model No.]

CAC4-A-40B-50R-T0H-RB-Y1

Model: Clamp cylinder

- Ⓐ Clevis width : 16.5 mm
- Ⓑ Bore size : ø40 mm
- Ⓒ Port thread : Rc thread
- Ⓓ Cushion : With both sides
- Ⓔ Stroke : 50 mm
- Ⓕ Speed adjustment needle : With rod side
- Ⓖ Switch model No. : Reed switch T0H, Lead wire length 1 m
- Ⓗ Switch quantity : 1 on rod side
- Ⓘ Switch mounting position and mounting : B
- Ⓙ Accessory : Rod clevis (SS400)

Switch specifications

● 1-color/2-color LED

Item	Proximity 2-wire	Proximity 2-wire			Proximity 3-wire				Reed 2-wire						
	T1H/T1V	T2H/T2V/ T2JH/T2JV	T2YH/ T2YV	T2WH/ T2WV	T3H/T3V	T3PH/ T3PV	T3YH/ T3YV	T3WH/ T3WV	T0H/T0V		T5H/T5V		T8H/T8V		
Applications	For programmable controller, relay, compact solenoid valve	Dedicated for programmable controller			For programmable controller, relay				For programmable controller, relay		For programmable controller, relay, IC circuit (no indicator lamp), serial connection		For programmable controller, relay		
Output method	-				NPN output	PNP output	NPN output	NPN output	-						
Pwr. supp. V.	-				10 to 28 VDC				-						
Load voltage	85 to 265 VAC	10 to 30 VDC		24 VDC ±10%	30 VDC or less				12/24 VDC	110 VAC	5/12/24 VDC	100/110 VAC	12/24 VDC	110 VAC	220 VAC
Load current	5 to 100 mA	5 to 20 mA (*3)			100 mA or less		50 mA or less		5 to 50 mA	7 to 20 mA	50 mA or less	20 mA or less	5 to 50 mA	7 to 20 mA	7 to 10 mA
Indicator	LED (Lit when ON)	LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)		No indicator lamp		LED (Lit when ON)		
Leakage current	≤ 1 mA at 100 VAC, ≤ 2 mA at 200 VAC	1 mA or less			10 μA or less				0 mA						
Weight g	1 m:33 3 m:87 5 m:142	1 m:18 3 m:49 5 m:80	1 m:33 3 m:87 5 m:142	1 m:18 3 m:49 5 m:80	1 m:18 3 m:49 5 m:80		1 m:33 3 m:87 5 m:142	1 m:18 3 m:49 5 m:80	1 m:18 3 m:49 5 m:80				1 m:33 3 m:87 5 m:142		

*1 : Refer to Ending Page 1 for detailed switch specifications and dimensions.
*2 : Switches other than the above models, such as switches with connectors, are also available. Refer to Ending Page 1.
*3 : The max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

● For AC magnetic field

Item	Proximity 2-wire		Reed 2-wire	
	T2YD, T2YDT (*4)	T2YDU (Made to order)	HO	HOY (2-color LED)
Applications	Dedicated for programmable controller		For programmable controller, relay	Dedicated for programmable controller
Indicator	Red/green LED (Lit when ON)		Green LED (Lit when ON)	Red/green LED (Lit when ON)
Load voltage	24 VDC ±10%		12/24 VDC / 110 VAC	24 VDC
Load current	5 to 20 mA		5 to 50 mA / 7 to 20 mA	5 to 20 mA (*1)
Internal voltage drop	6V or less		5V or less	6V or less
Leakage current	1.0 mA or less		10 μA or less	10 μA or less
Output delay time *1 (ON Delay, OFF delay)	60 ms or less		-	
Lead wire length	1 m (oil resistant vinyl cabtyre cable ø 6, 0.5 mm² x 2-conductor) *2, *3	0.3 m (flame-resistant cabtyre cable with cable connector, 0.5 mm², 2-conductor)	1 m (flame-resistant cabtyre cable 2-conductor 0.5 mm²)	
Insulation resistance	100 MΩ and over with 500 VDC megger		100 MΩ and over with 500 VDC megger	
Withstand voltage	No failure after 1 minute of 1,000 VAC application.		No failure after 1 minute of 1,000 VAC application.	
Shock resistance	980 m/s²		294 m/s²	
Ambient temperature	-10 to +60°C		-10 to +60°C	
Degree of protection	JIS C0920 (water-tight), IEC standards IP67, oil resistance		IEC Standard IP67, JIS C9020 (water-tight), oil resistance	
Weight g	1 m:61 3 m:166 5 m:272	35	1 m:76 3 m:181 5 m:289	

*1 : Indicates the time from magnetic sensor detection of the piston magnet until switch output.
*2 : 3 m and 5 m lead wires are available as options.
*3 : Flame-resistant lead wires are available as options.
*4 : Switch for AC magnetic field (T2YD, T2YDT) cannot be used in DC magnetic field.
*5 : The above max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa										
		0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø40	Push	1.26x10²	1.88x10²	2.51x10²	3.77x10²	5.03x10²	6.28x10²	7.54x10²	8.80x10²	1.01x10³	1.13x10³	1.26x10³
	Pull	94.2	1.41x10²	1.88x10²	2.83x10²	3.77x10²	4.71x10²	5.65x10²	6.60x10²	7.54x10²	8.48x10²	9.42x10²
ø50	Push	1.96x10²	2.95x10²	3.93x10²	5.89x10²	7.85x10²	9.82x10²	1.18x10³	1.37x10³	1.57x10³	1.77x10³	1.96x10³
	Pull	1.65x10²	2.47x10²	3.30x10²	4.95x10²	6.60x10²	8.25x10²	9.90x10²	1.15x10³	1.32x10³	1.48x10³	1.65x10³
ø63	Push	3.12x10²	4.68x10²	6.23x10²	9.35x10²	1.25x10³	1.56x10³	1.87x10³	2.18x10³	2.49x10³	2.81x10³	3.12x10³
	Pull	2.80x10²	4.20x10²	5.61x10²	8.41x10²	1.12x10³	1.40x10³	1.68x10³	1.96x10³	2.24x10³	2.52x10³	2.80x10³
ø80	Push	5.03x10²	7.54x10²	1.01x10³	1.51x10³	2.01x10³	2.51x10³	3.02x10³	3.52x10³	4.02x10³	4.52x10³	5.03x10³
	Pull	4.54x10²	6.80x10²	9.07x10²	1.36x10³	1.81x10³	2.27x10³	2.72x10³	3.17x10³	3.63x10³	4.08x10³	4.54x10³

CAC4 Series

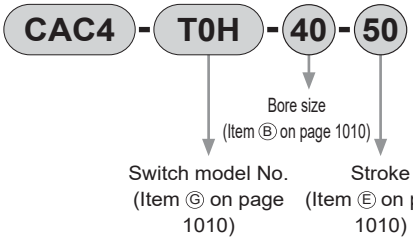
How to order

How to order switch * Pay attention to the direction when mounting the tie rod. Refer to page 1014.

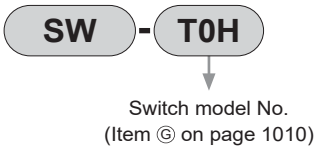
[Switch mounting: Tie rod type]

● T-switch

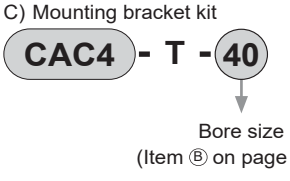
A) Switch body + mounting bracket set (=B+C+D)



B) Switch body only



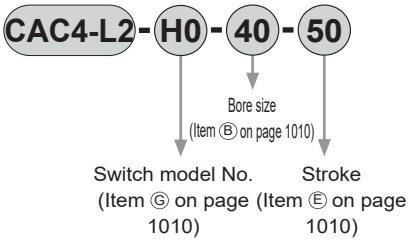
C) Mounting bracket kit



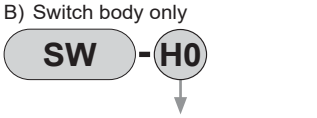
D) Mounting tie rod kit

● H-switch

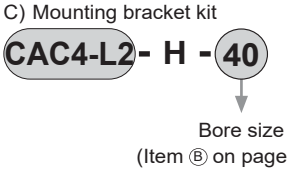
A) Switch body + mounting bracket set (=B+C+D)



B) Switch body only



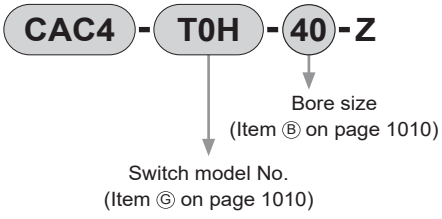
C) Mounting bracket kit



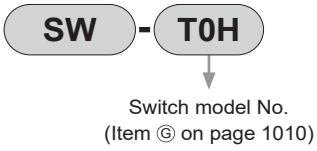
D) Mounting tie rod kit

[Switch mounting: Band]

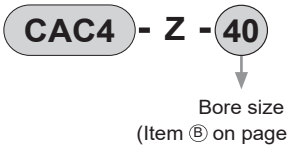
A) Switch body + mounting bracket set + band (=B+C)



B) Switch body only



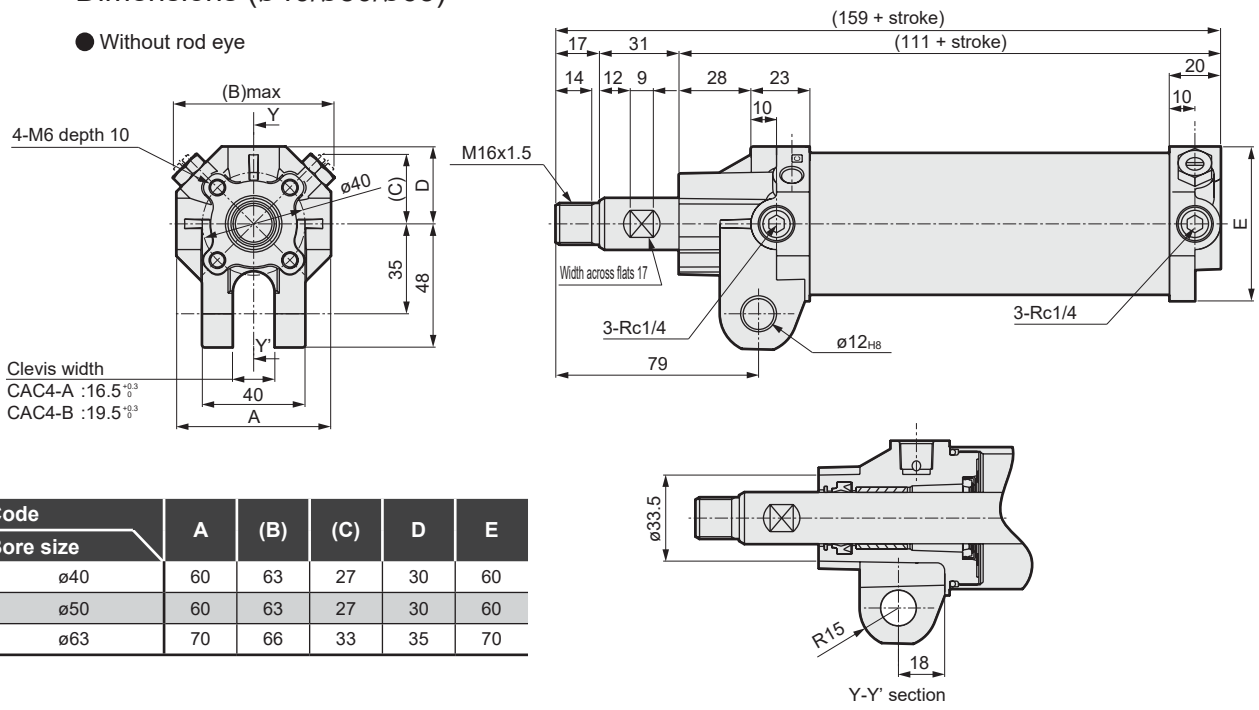
C) Mounting bracket set + band



CAC4 Series

Dimensions (ø40/ø50/ø63)

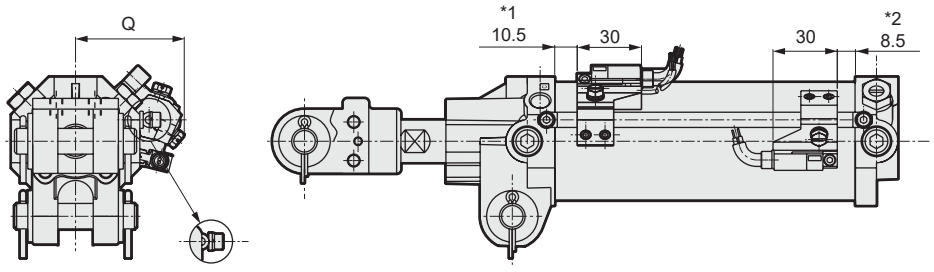
● Without rod eye



Code / Bore size	A	(B)	(C)	D	E
ø40	60	63	27	30	60
ø50	60	63	27	30	60
ø63	70	66	33	35	70

Dimensions of units with T*H/V and T2YD (Switch mounting: Tie rod)

● CAC4



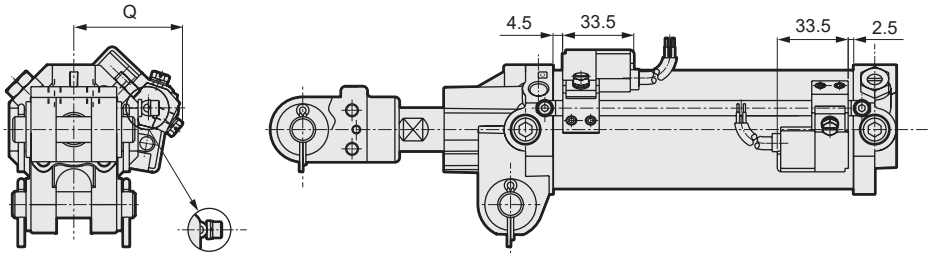
For ø40

Code / Bore size	Q
ø40	46
ø50	50
ø63	56

*1 : 5.5 for switch T8H/V and 13.5 for switch T2/3W
*2 : 3.5 for switch T8H/V and 11.5 for switch T2/3W
* Pay attention to the direction when mounting the tie rod.

H0Y mounted dimensions

● CAC4-L2



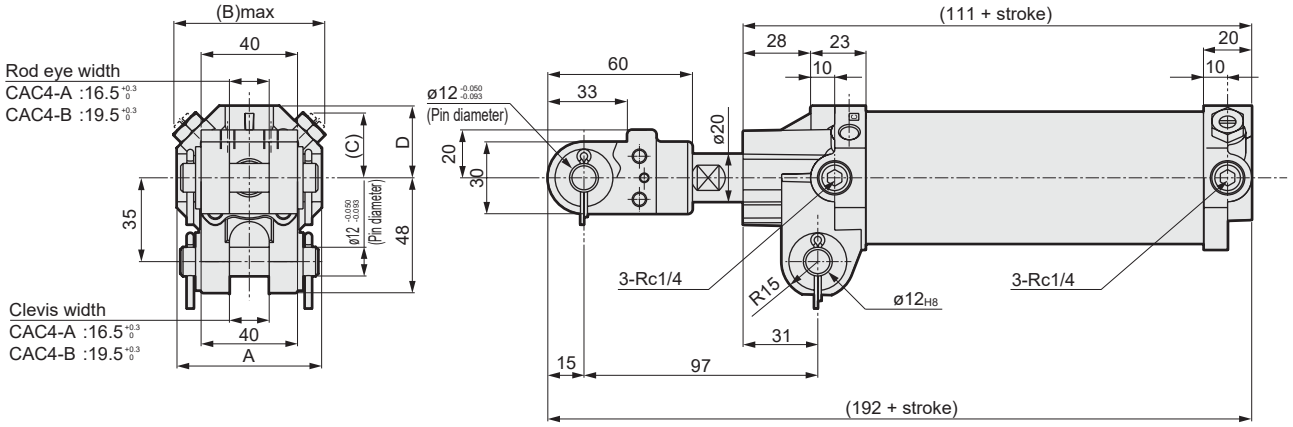
For ø40

Code / Bore size	Q
ø40	46
ø50	50
ø63	56

CAC4 Series

Dimensions (ø40/ø50/ø63)

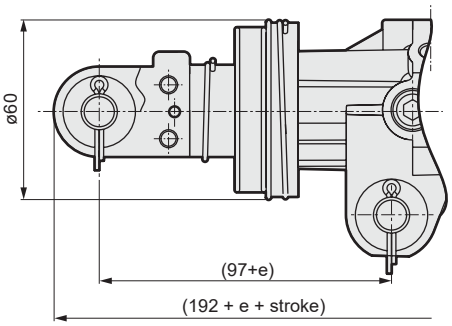
● With rod clevis (Y)



Code / Bore size	A	(B)	(C)	D	E
ø40	60	63	27	30	60
ø50	60	63	27	30	60
ø63	70	66	33	35	70

● Clevis pin, rod eye pin, split pin and plain washer are attached.

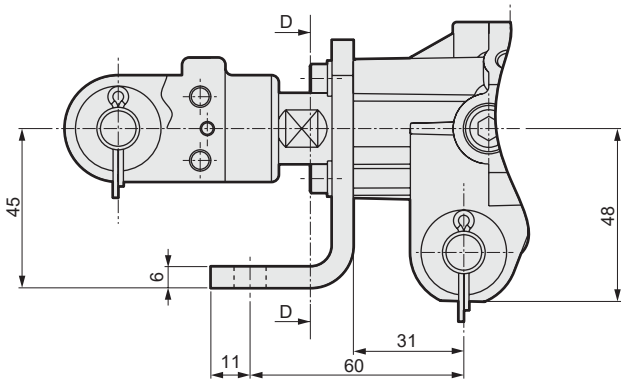
● With bellows (K)

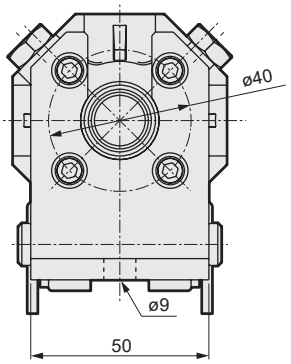


• Dimensions for units with bellows

Stroke / Code	With rod clevis and bellows				
	50	51 to 75	76 to 100	101 to 125	126 to 150
e	0	10	18	31	31

● Axial foot
For ø40 to ø63



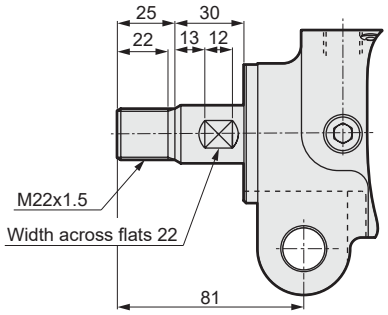


D-D arrow view

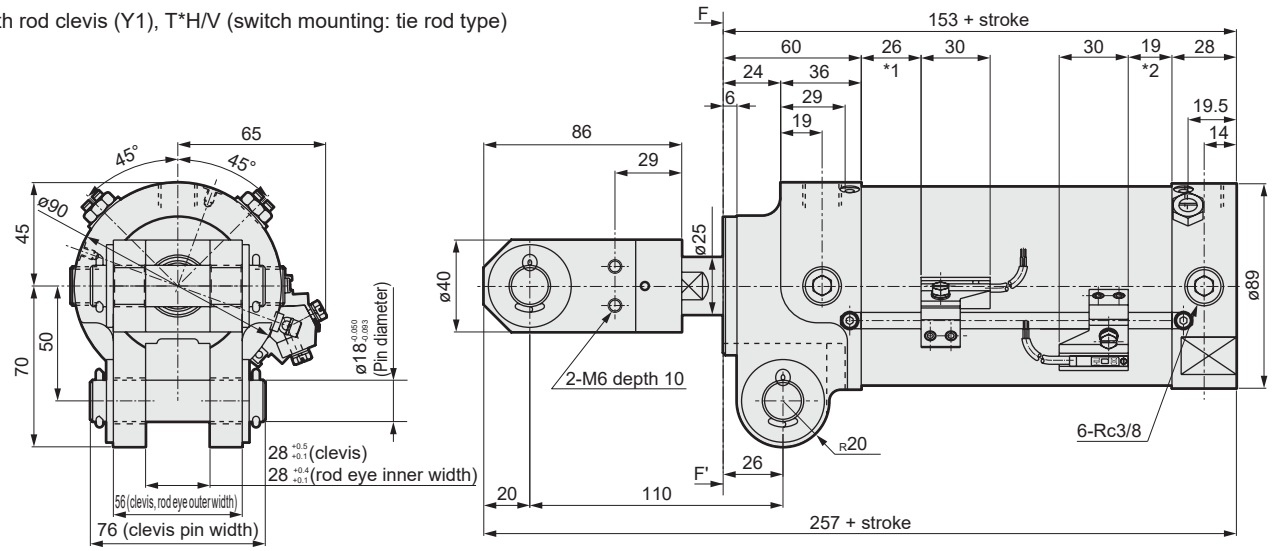
CAC4 Series

Dimensions (ø80)

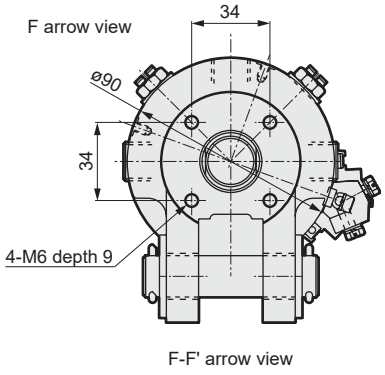
● Without rod eye



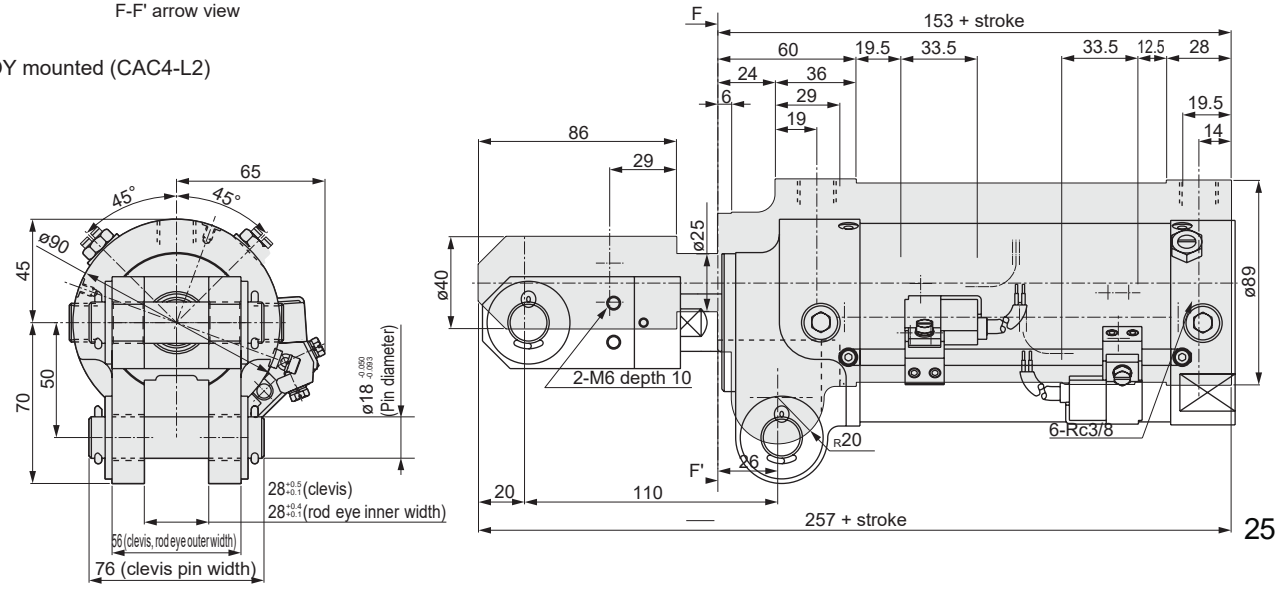
● With rod clevis (Y1), T*H/V (switch mounting: tie rod type)



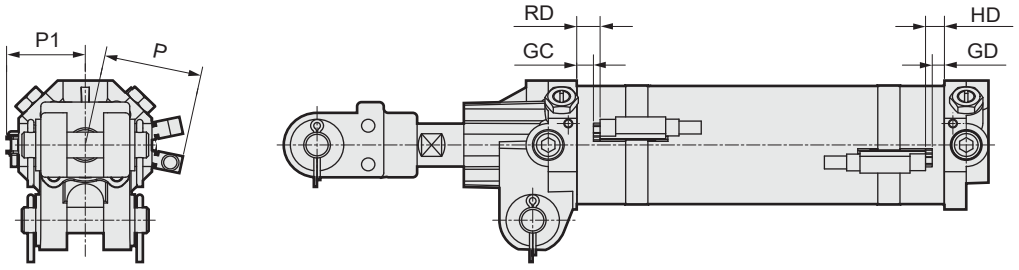
*1: 17.5 for switch T8H/V and 26 for switch T2/3W
*2: 10.5 for switch T8H/V and 19 for switch T2/3W



● HOY mounted (CAC4-L2)



Dimensions (switch mounting: band)



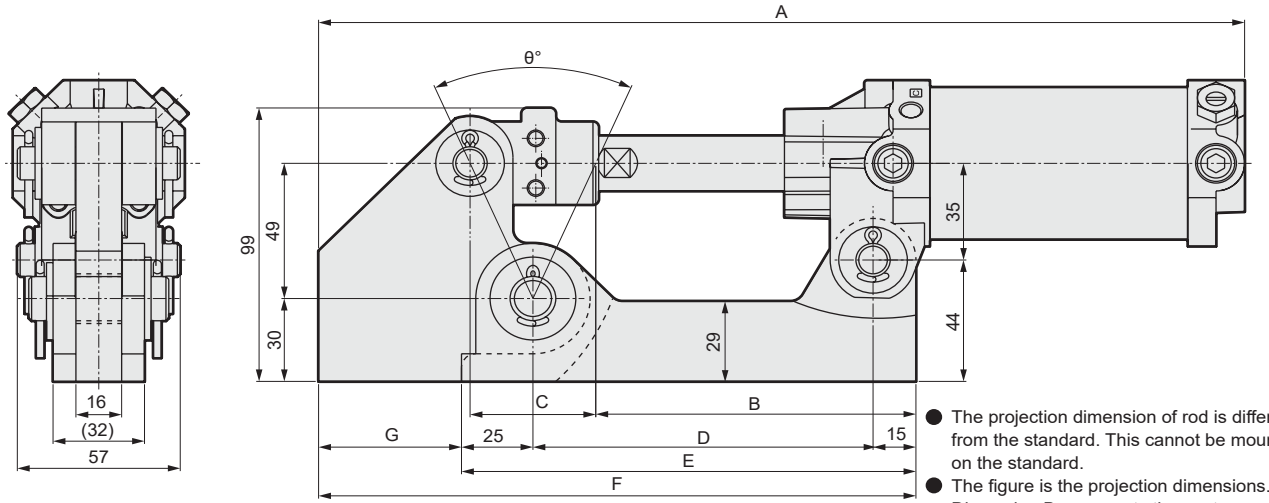
Code	T0,T5,T2,T3						T1,T2YD,T2YDT						T2Y,T3Y,T2J					
Bore size (mm)	GC	GD	RD	HD	P	P1	GC Note	GD Note	RD	HD	P	P1	GC Note	GD Note	RD	HD	P	P1
ø40	6.5	4.5	10.5	8.5	30	31	-	-	10.5	8.5	41	31	-	-	10.5	8.5	36	31
ø50	6.5	4.5	10.5	8.5	34.5	36	-	-	10.5	8.5	45.5	36	-	-	10.5	8.5	40	36
ø63	6.5	4.5	10.5	8.5	41	42.5	-	-	10.5	8.5	52	42.5	-	-	10.5	8.5	46.5	42.5
ø80	19	12	23	16	50	52	-	-	23	16	61	52	-	-	23	16	56	52

Code	T8						T2W,T3W					
Bore size (mm)	GC Note	GD Note	RD	HD	P	P1	GC	GD	RD	HD	P	P1
ø40	-	-	5.5	3.5	36	31	9.5	7.5	13.5	11.5	30	31
ø50	-	-	5.5	3.5	40	36	9.5	7.5	13.5	11.5	34.5	36
ø63	-	-	5.5	3.5	46.5	42.5	9.5	7.5	13.5	11.5	41	42.5
ø80	-	-	18	11	56	52	22	15	26	19	50	52

Note: Because the rail and the end face of the switch are on the same surface, the dimensions of GC and GD will be the same as those of RD and HD.

Dimensions: Clamp bracket (ø40 to ø63)

● Clamp bracket



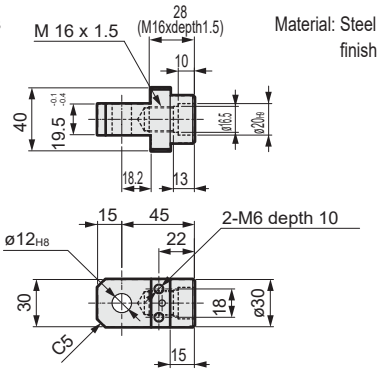
- The projection dimension of rod is different from the standard. This cannot be mounted on the standard.
- The figure is the projection dimensions. Dimension B represents the center position of the rod eye pin when the rod is retracted.
- Dimensions with bellows are the same.
- This product is mounted by welding.
- There is no ø80.
- Figure is dimensions with CAC4-A-50-Q. Configuration varies depending on the stroke.

Code / Model No.	Stroke	A	B	C	D	E	F	G	θ°
CAC4-A-50-Q	50	324	97	44	119	159	209	50	48
CAC4-A-75-Q	75	372	107	70	142	182	232	50	71
CAC4-A-100-Q	100	415	115	90	160	200	250	50	85
CAC4-A-125-Q	125	468	128	120	188	228	278	50	101
CAC4-A-150-Q	150	513	128	140	198	238	298	60	110

CAC4 Series

● Rod eye dimensions
For ø40 to ø63

Material: Steel Black finish

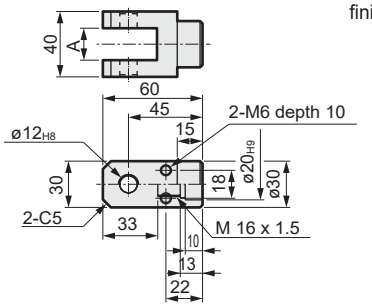


* Spring pin is attached.

Model No.	A	Applicable clamp	Weight (kg)
CAC4-IB	19.5 $^{-0.1}_{-0.4}$	CAC4-A, CAC4-B	0.27

● Rod clevis Steel (Y1) dimensions
For ø40 to ø63

Material: Steel Black finish

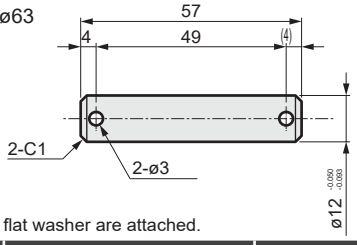


* A pin, split pin, spring pin and a plain washer are attached.

Model No.	A	Applicable clamp	Weight (kg)
CAC4-Y1A	16.5 $^{+0.3}_{0}$	CAC4-A	0.37
CAC4-Y1B	19.5 $^{+0.3}_{0}$	CAC4-B	0.37

● Clevis pin dimensions
For ø40 to ø63

Material:Steel Zinc chromate treatment

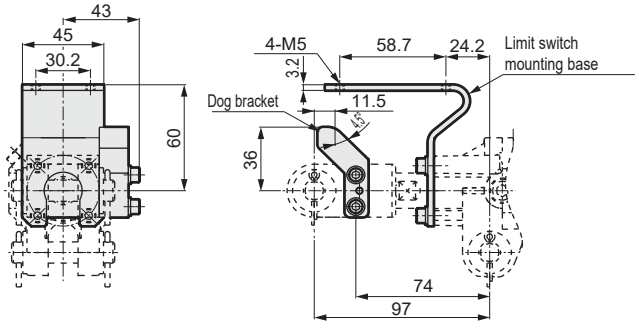


* A split pin and flat washer are attached.

Model No.	Applicable clamp	Weight (kg)
CAC4-P	CAC4-A, CAC4-B	0.05

● Limit switch mounting base dimensions
● Dog bracket Dimensions
For ø40 to ø63

Material: Steel, black finish
Material: Steel, black finish

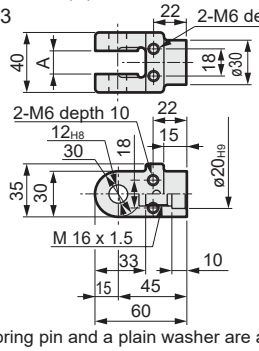


● WLH2 limit switch [OMRON] or equivalent should be used.

Model No.	Part name	Applicable clamp	Weight (kg)
CAC4-L	Limit switch mounting base	CAC4-A, CAC4-B	0.18
CAC4-D	Dog bracket		0.08

● Rod clevis Cast iron (Y) dimensions
For ø40 to ø63

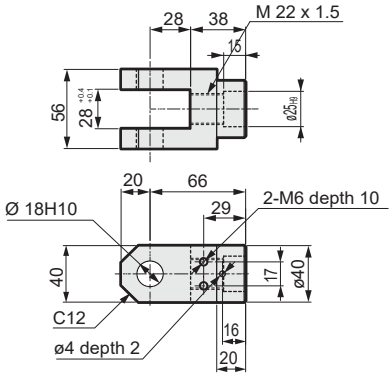
Material: Manganese cast iron phosphate



* A pin, split pin, spring pin and a plain washer are attached.

Model No.	A	Applicable clamp	Weight (kg)
CAC4-YA	16.5 $^{+0.3}_{0}$	CAC4-A	0.37
CAC4-YB	19.5 $^{+0.3}_{0}$	CAC4-B	0.37

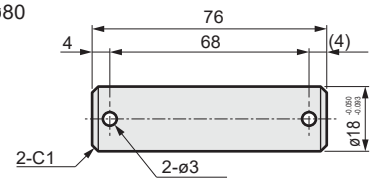
For ø80



* A pin, split pin, spring pin and a plain washer are attached.

Model No.	Applicable clamp	Weight (kg)
CAC4-Y1-80	CAC4-A, CAC4-B	0.95

For ø80

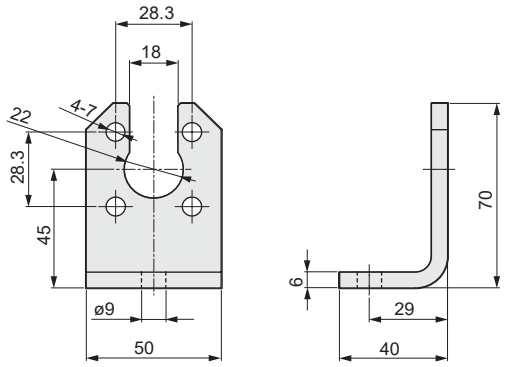


* A split pin and flat washer are attached.

Model No.	Applicable clamp	Weight (kg)
CAC4-P-80	CAC4-A, CAC4-B	0.15

● AL, BL axial foot bracket
For ø40 to ø63

Material: Steel, black finish



* 4 hexagon socket head cap screws and disc spring washers are attached.

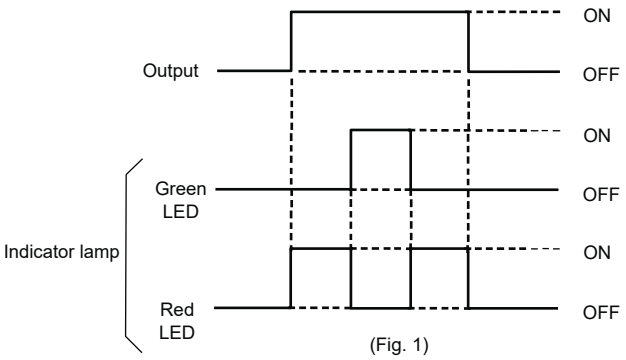
Model No.	Applicable clamp	Weight (kg)
CAC4-F	CAC4-A, CAC4-B	0.21

T2YDU

Series: Specifications

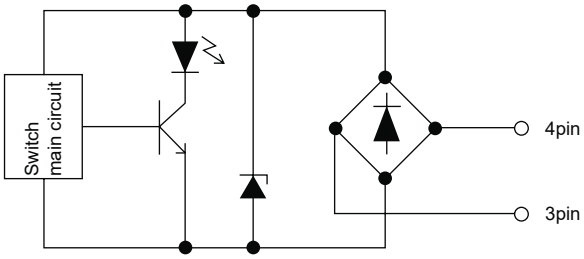
Model No. / Item	T2YDU (Made to order)
Applications	Dedicated for DC programmable controller
Switch polarity	No polarity
Indicator lamp	Red/green LED (Lit when ON) (Refer to Fig.1)
Load voltage	24 VDC ±10%
Load current	DC5 to 20 mA
Internal voltage drop	6V or less
Leakage current	1.0 mA or less
Lead wire	Flame-resistant cabtyre cable with cable connector, 0.5 mm^2, 2-conductor
Insulation resistance	100 MΩ and over with 500 VDC megger
Withstand voltage	No failure after 1 minute of 1,000 VAC.
Shock resistance	980 m/s^2
Output delay time (ON Delay, OFF delay)	60 ms or less
Operating ambient temperature	-10 to +60°C
Storage ambient temperature	-20 to +80°C
Degree of protection	JIS C0920 (water-tight), IP67, oil resistance

Operation chart



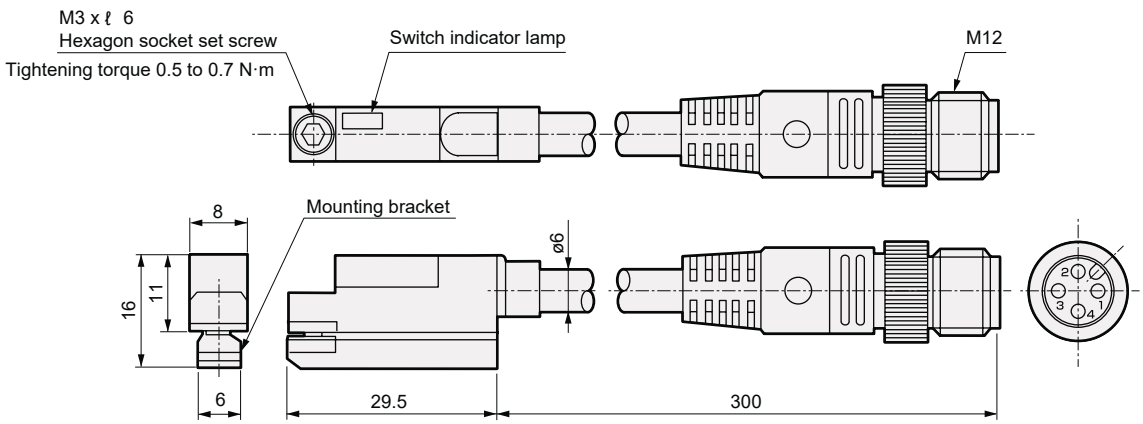
(Fig. 1)

Internal circuit diagram



1 and 2-pin are NC

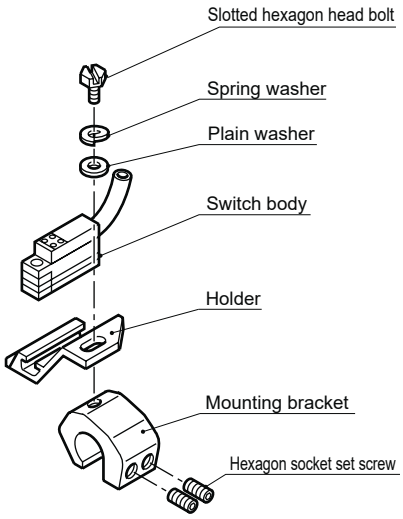
Dimensions



CAC4 Series

Switch mounting and travel method

T type switch mounting and travel method



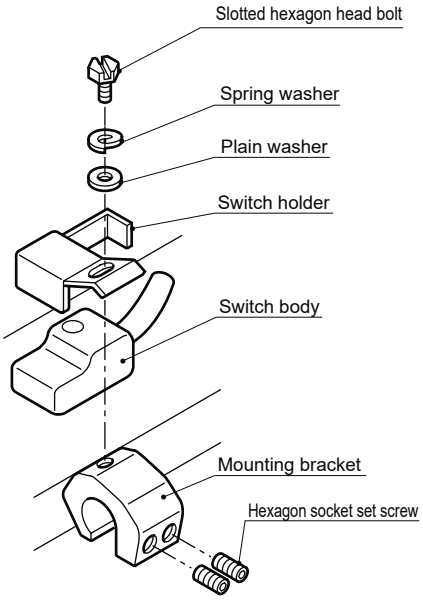
Mounting method

(1) Pass the plain and spring washers through the slotted hexagon head bolt, and fit it onto the holder.
(2) Fit the bracket onto the cylinder tie rod and tighten the hexagon socket head cap screw. Tightening torque is 0.5 to 0.7 N·m.
(3) Lastly, tighten the hexagon socket set screw. Tightening torque is 1.7 to 2.0N·m.

Travel method

(1) Fine adjustment
Loosen the slotted hex socket bolt, move only the switch body, and fix at the required position. Tightening torque is 0.5 to 0.7 N·m.
(2) Rough adjustment
Completely loosen the slotted bolt and set screws, and move the entire mounting bracket to the required position. Tighten the slotted bolt. Tightening torque is 0.5 to 0.7 N·m.
Then tighten the set screw. Tightening torque is 1.7 to 2.0N·m.

H type switch mounting and travel method



Mounting method

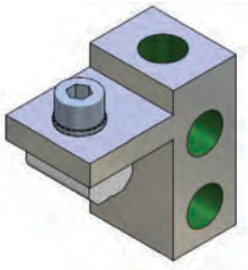
(1) Pass the plain and spring washers through the slotted hexagon head bolt, and fit the bracket onto the switch holder slot.
(2) Fit the bracket onto the cylinder tie rod and tighten the hexagon socket head cap screw. Tightening torque is 1.5 to 1.9N·m.
(3) Lastly, tighten the set screw. Tightening torque is 1.7 to 2.0N·m.

Travel method

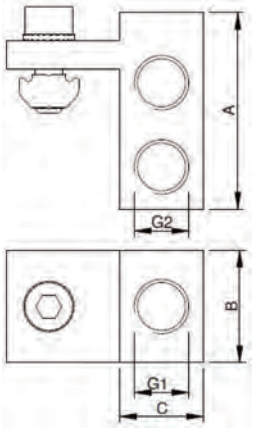
(1) Fine adjustment
Loosen the slotted hex socket bolt of the switch holder, move only the switch body, and fix at the required position. Tightening torque is 1.5 to 1.9N·m.
(2) Rough adjustment
Completely loosen the slotted bolt and set screws, and move the entire mounting bracket to the required position. Tighten the slotted bolt. Then tighten the set screw. Tightening torque is 1.7 to 2.0N·m.

CA.12 VTB

. Air vacuum manifold 1 - 4



1 Main connec"on - 4 output terminal



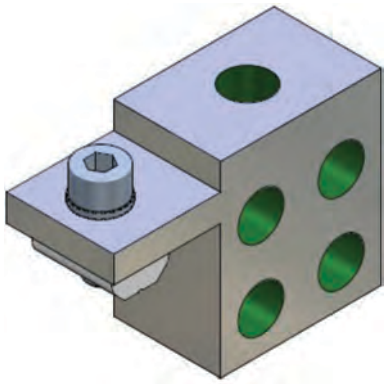
Ar!cle no.	A	B	C	G1	G2	M	Weight
CA.VTB.X.141818	35	20	15	G 1/8	G 1/8	X	35 g
CA.VTB.JU.141818						JU	37 g

M = Suitable for PROFILE...

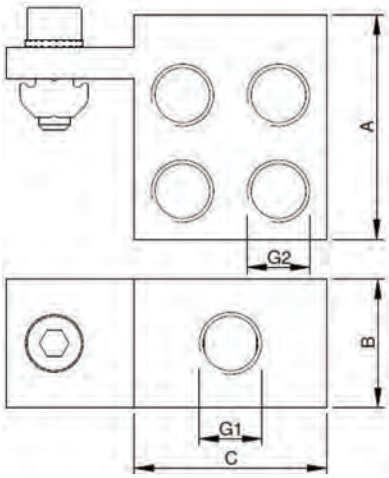
Material:Aluminium

Surface: Silver Anodized

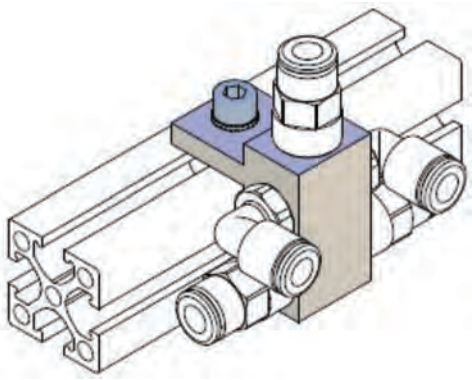
. Air vacuum manifold 1 - 8



1 Main connection - 8 output terminal

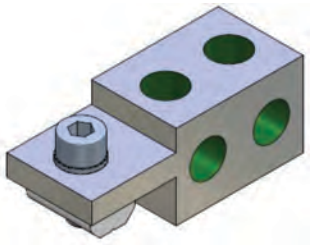


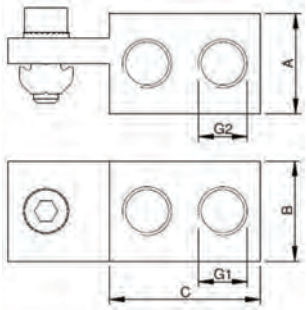
Ar!cle no.	A	B	C	G1	G2	M	Weight
CA.VTB.X.181818	35	20	30	G 1/8	G 1/8	X	55 g
CA.VTB.JU.181818						JU	58 g



CA.12 VTB

Air vacuum manifold 2 - 4





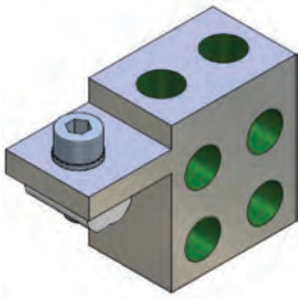
2 Main connec"on - 4 output terminal

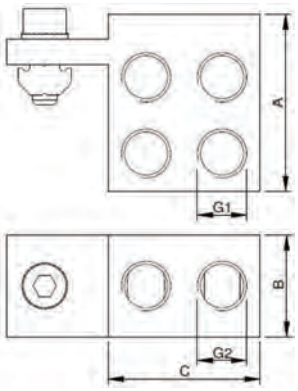
Ar!cle no.	A	B	C	G1	G2	M	Weight
CA.VTB.X.241818	20	20	30	G 1/8	G 1/8	X	39 g
CA.VTB.JU.241818	40					JU	41 g

M = Suitable for PROFILE...

Material: Aluminium
Surface: Silver Anodized

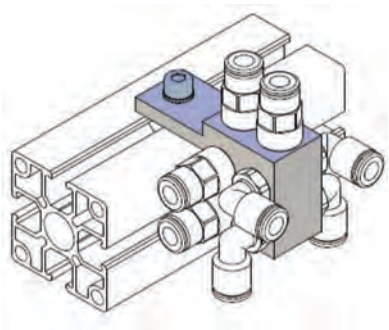
. Air vacuum manifold 2 - 8





2 Main connec"on - 4 output terminal

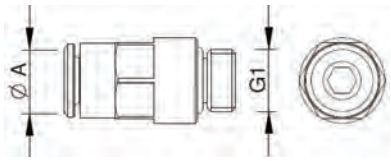
Ar!cle no.	A	B	C	G1	G2	M	Weight
CA.VTB.X.281818	35	20	30	G 1/8	G 1/8	X	54 g
CA.VTB.JU.281818						JU	57 g



CA.12.05

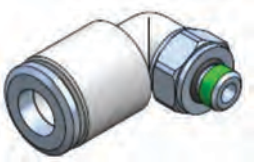
. Straight Male Adapter (parallel)

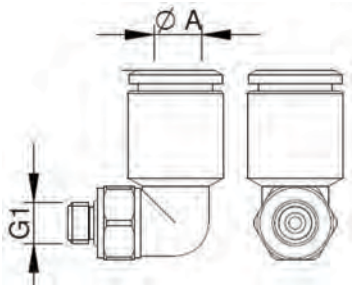
Ar!cle no.	A	G1	Weight
CA.12.05.015	Ø4	M5	4 g
CA.12.05.016	Ø6		8 g
CA.12.05.017		G1/8	10 g
CA.12.05.023	Ø3	M3	1 g
CA.12.05.024		M5	
CA.12.05.044	Ø4	G1/8	10 g
CA.12.05.047	Ø6	G1/4	13 g
CA.12.05.048	Ø8		17 g
CA.12.05.049		G3/8	27g



Elbow Male Adapter (parallel)

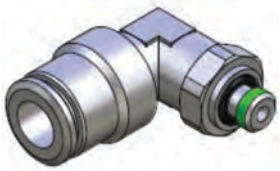
Ar!cle no.	A	G1	Weight
CA.12.05.001	Ø4	M5	4 g
CA.12.05.002	Ø6		5 g
CA.12.05.003		G1/8	8 g
CA.12.05.038		G1/4	11 g
CA.12.05.039	Ø8		13 g
CA.12.05.040	Ø4	G1/8	7 g

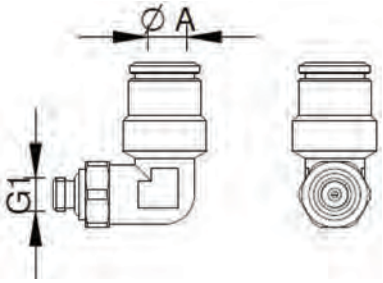




Elbow Male Swivel Adapter (parallel)

Ar!cle no.	A	G1	Weight
CA.12.05.018	Ø4	M5	12 g
CA.12.05.019	Ø6	G1/8	19 g
CA.12.05.020		M5	14 g
CA.12.05.021	Ø3	M3	5 g
CA.12.05.022		M5	6 g

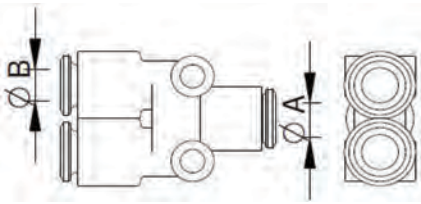




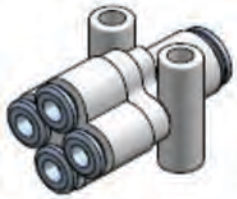
CA.12.05

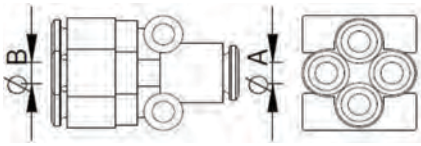
. Y connector

Ar!cle no.	A	B	Weight
CA.12.05.004	Ø4	2 x Ø4	6 g
CA.12.05.005	Ø6	2 x Ø6	9 g
CA.12.05.006		2 x Ø4	7 g
CA.12.05.007	Ø8	2 x Ø6	11 g
CA.12.05.034	Ø3	2 x Ø3	5 g

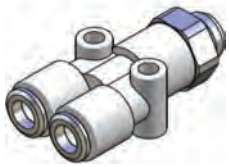


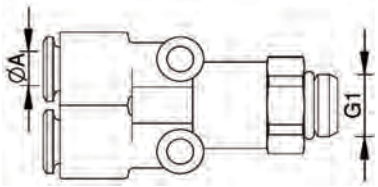
Ar! cle no.	A	B	Weight
CA.12.05.008	Ø6	4 x Ø4	12 g
CA.12.05.009	Ø8	4 x Ø6	17 g





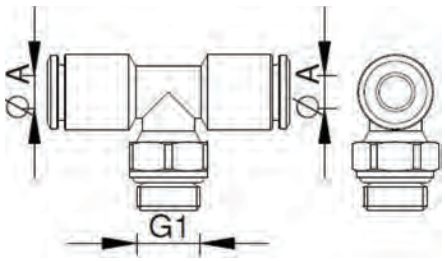
Ar! cle no.	A	G1	Weight
CA.12.05.050	Ø4	G 1/8	13 g
CA.12.05.051	Ø6		15 g





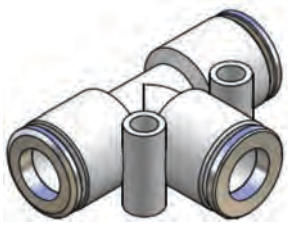
. Drop Tee Connector

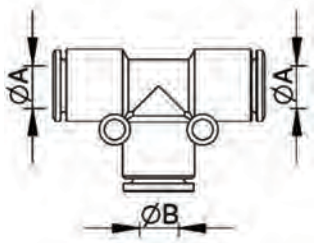
Ar!cle no.	A	G1	Weight
CA.12.05.028	Ø4	M5	7 g
CA.12.05.029		G 1/8	9 g
CA.12.05.030	Ø6		11 g
CA.12.05.031	Ø6	M5	9 g



. Tee Connector

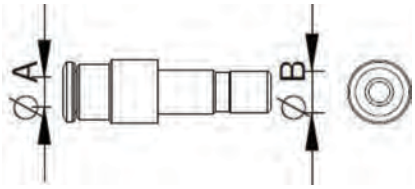
Ar!cle no.	A	B	Weight
CA.12.05.012	Ø4	Ø4	6 g
CA.12.05.013	Ø6	Ø6	9 g
CA.12.05.014	Ø8	Ø8	14 g





. Reducer

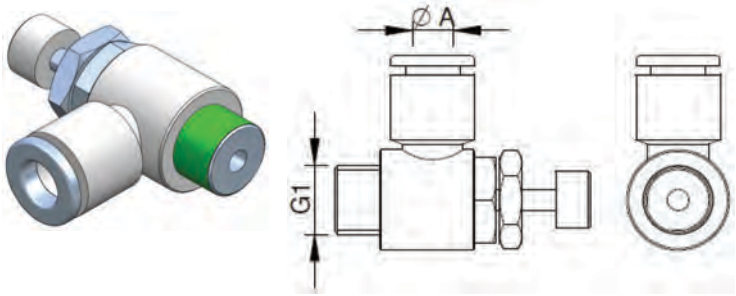
Ar!cle no.	A	B	Weight
CA.12.05.035	Ø3	Ø4	2 g
CA.12.05.042	Ø4	Ø6	9 g



CA.12.05

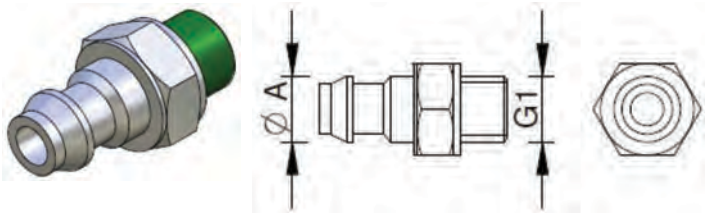
. Speed Controller

Ar!cle no.	A	G1	Weight
CA.12.05.RF1806	Ø6	G 1/8	17 g
CA.12.05.RF1804	Ø4		
CA.12.05.RFM504		M5	7 g
CA.12.05.RFM506	Ø6		



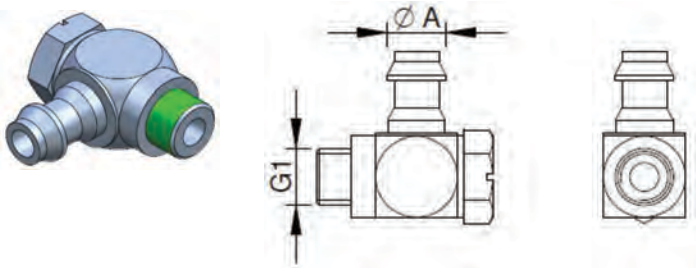
. Straight fitting

Ar!cle no.	A	G1	Weight
CA.12.05.M5AU3	Ø3	M5	1 g
CA.12.05.M5AU4	Ø4		
CA.12.05.M5AU6	Ø6		2 g



. Adjustable Elbow

Ar!cle no.	A	G1	Weight
CA.12.05.M5ALHU3	Ø3	M5	3 g
CA.12.05.M5ALHU4	Ø4		
CA.12.05.M5ALHU6	Ø6		4 g



. Plug polyamede

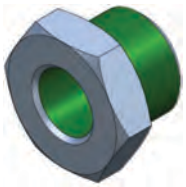
Ar!cle no.	A	Weight
CA.12.05.036	Ø4	1 g
CA.12.05.037	Ø6	

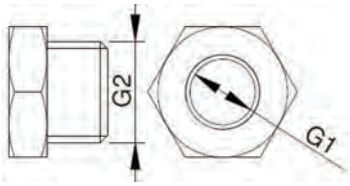
Ar!cle no.	M
CA.08.09.05	M5
CA.08.09.18	G 1/8
CA.08.09.14	G 1/4

CA.08.14

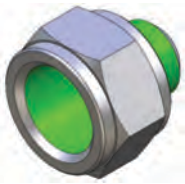
. Reducer (parallel)

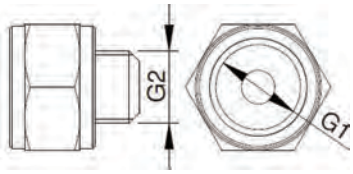
Ar!cle no.	G1	G2	Weight
CA.08.14.001	M5	G 1/8	8 g
CA.08.14.002	M6		
CA.08.14.003	G 1/8	G 1/4	11 g
CA.08.14.004	M6		13 g
CA.08.14.022	G 1/4	G 3/8	12 g





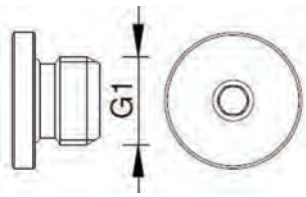
Ar!cle no.	G1	G2	Weight
CA.08.14.018	G 1/8	M5	7 g
CA.08.14.019	G 1/4	G 1/8	14 g





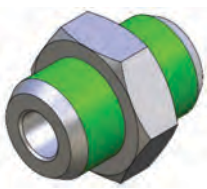
. Male plug (parallel)

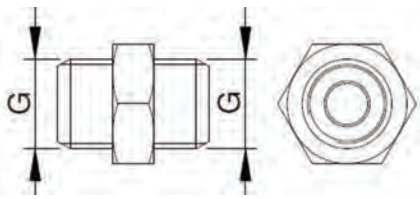
Ar!cle no.	G1	Weight
CA.08.14.013	M5	3 g
CA.08.14.014	G 1/8	4 g
CA.08.14.015	G 1/4	7 g



. Nipple (parallel)

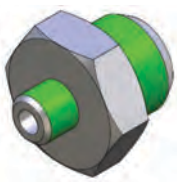
Ar!cle no.	G	Weight
CA.08.14.021	M5	2 g
CA.08.14.005	G 1/8	9 g
CA.08.14.006	G 1/4	15 g

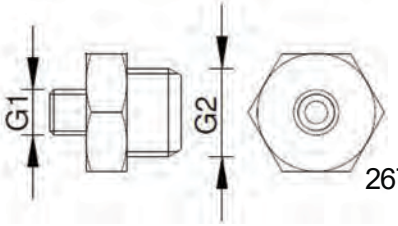




. Nipple (parallel)

Ar!cle no.	G1	G2	Weigh t
CA.08.14.011	M5	G 1/8	8 g
CA.08.14.012	G 1/8	G 1/4	15 g

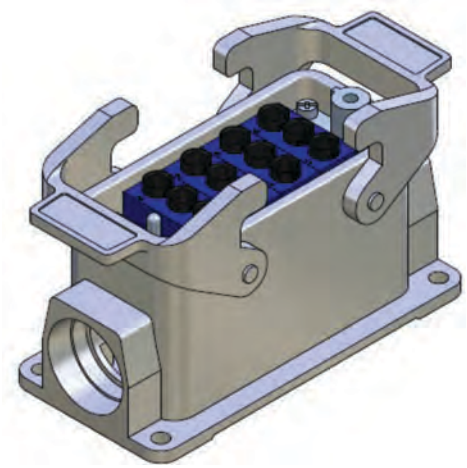


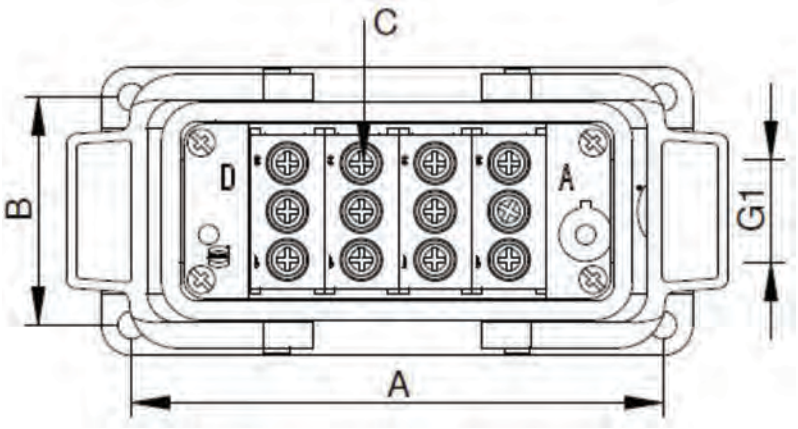


CA.12 SCAR- SCAG

. Moun! ng case

Robot side RS

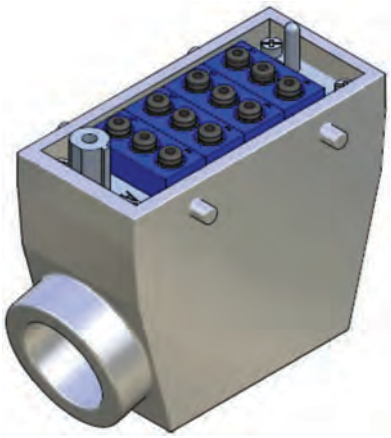


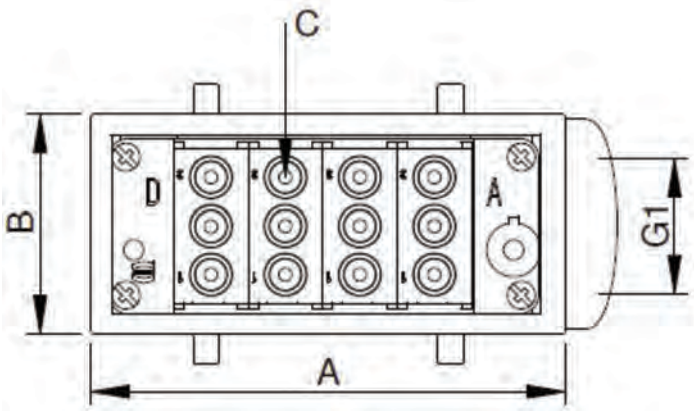


Ar!cle no.	A	B	G1	C	Weight
CASCAR12P00E	105	45	PG21	12x Ø6	405 g

. Grommet case

Gripper side GS

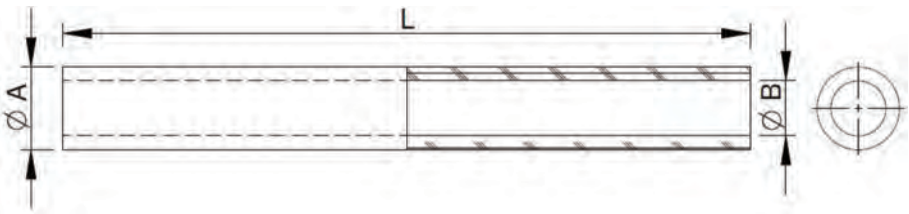




Ar!cle no.	A	B	G1	C	Weight
CASCAG12P00E	93	43	PG21	12x Ø6	361 g

CA.15.01

.Tubing



Ar!cle no.	Colour	A	B	L[mt]
CA.15.01.011	Neutral	3	1.5	25 M 100M
CA.15.01.010		4	2.5	
CA.15.01.001	Blue			
CA.15.01.004	Yellow			
CA.15.01.007	Red			
CA.15.01.019	Black			
CA.15.01.020	Green			
CA.15.01.009	Neutral	6	4	
CA.15.01.002	Blue			
CA.15.01.003	Yellow			
CA.15.01.006	Red			
CA.15.01.015	Black			
CA.15.01.014	Green			
CA.15.01.016	Gray			
CA.15.01.012	Neutral	8	5.5	
CA.15.01.005	Yellow			
CA.15.01.008	Red			

Table / Tabella

A = Outer diameter

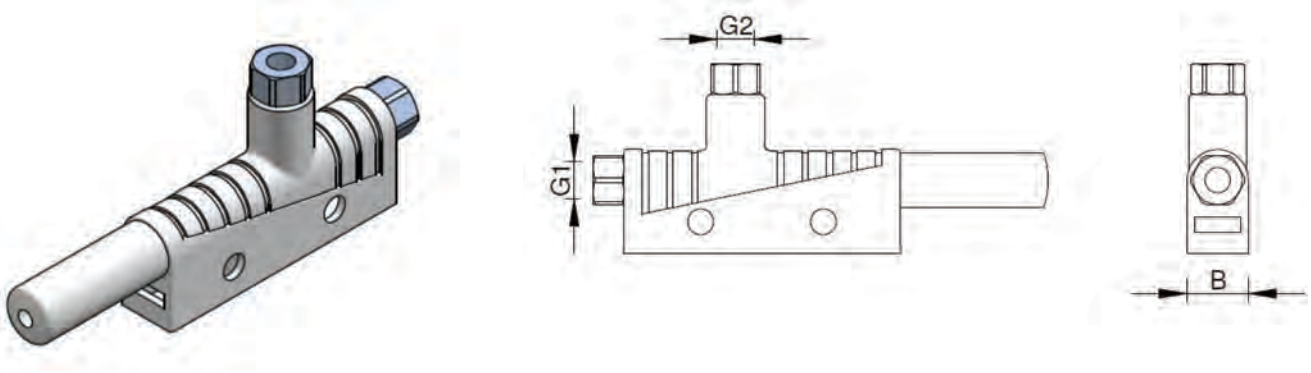
B = Inner diameter

L = Lenght

Polyurethane hose for compressed air suitable for use with push-in fittings.

CA.12 SBP

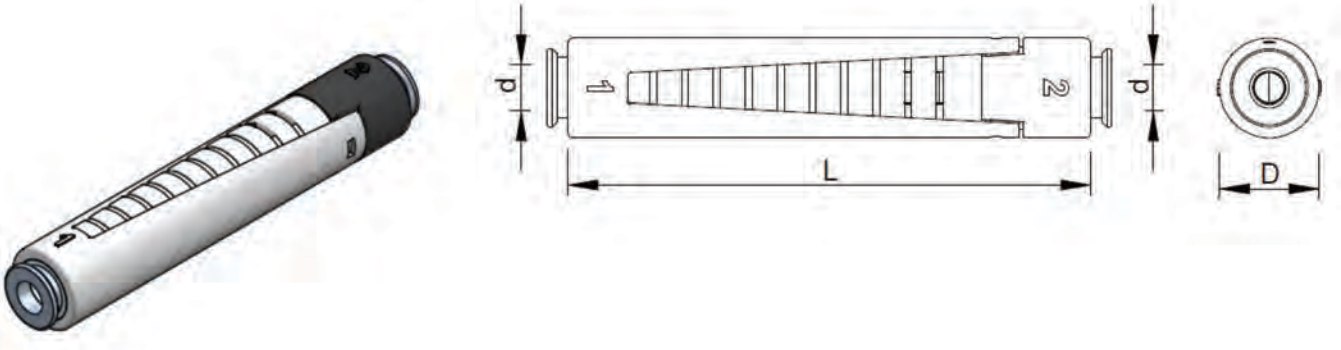
. Basic Ejector



Ar!cle no.	G1	G2	B	Ø	Weight
CA.SBP.10.G02	G 1/8	G 1/8	10	1	22 g
CA.SBP.15.G02			15	1.5	
CA.SBP.20.G03	G 1/4	G 3/8	20	2.0	50 g

CA.12 SLP

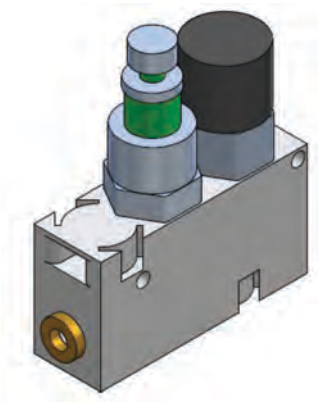
. Inline Ejector

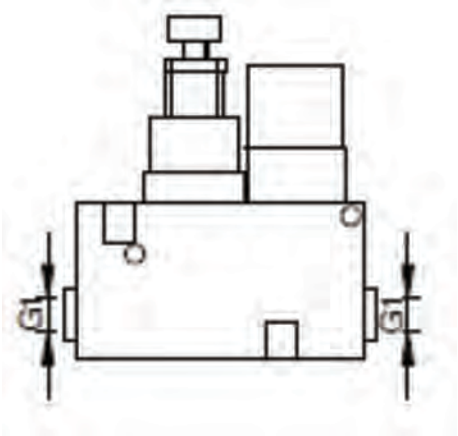


Ar!cle no.	d	D	L	Ø	Weight
CA.SLP.05.SI	4	10	57	0.5	5 g
CA.SLP.07.SI				0.7	

CA.11

. Pressure Regulator



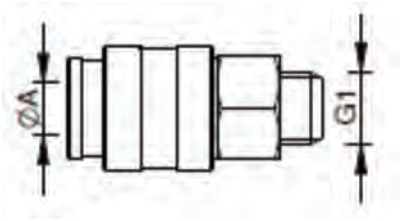


Ar!cle no.	G1	Weight
CA.11.06.001	4	30 g

CA.12

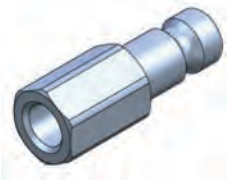
. Quick coupling socket

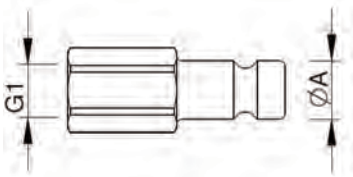
Ar!cle no.	A	G1	Weight
CA.12.06.003	2.5	M5	8 g
CA.12.06.001	5.0	G 1/8	27 g
CA.12.06.007	7	G 1/4	70 g



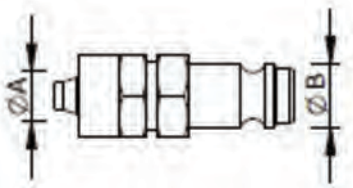
. Plug-In Nipple

Ar!cle no.	A	G1	Weight
CA.12.06.008	2.5	M5	3 g
CA.12.06.005	5.0	G 1/8	14 g
CA.12.06.006	7	G 1/4	23 g



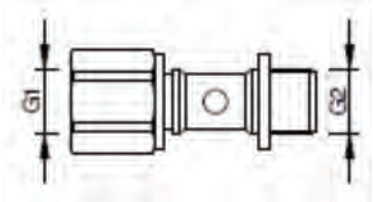


Ar!cle no.	A	B	Weight
CA.12.06.004	4	2.5	5 g
CA.12.06.002	6	5.0	18 g



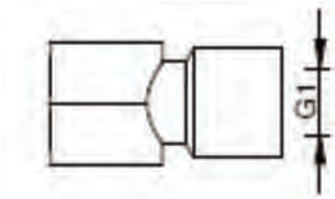
. Pneuma!c Hollow bolt

Ar!cle no.	G1	G2	Weight
CA.01.08.005	M5	M5	3 g
CA.01.08.003	G 1/8	G 1/8	17 g
CA.01.08.006	G 1/4	G 1/4	28 g



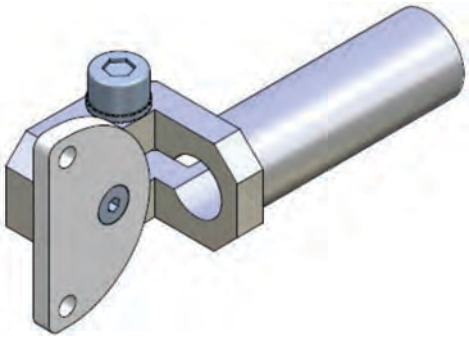
. Pneumatic ring connection

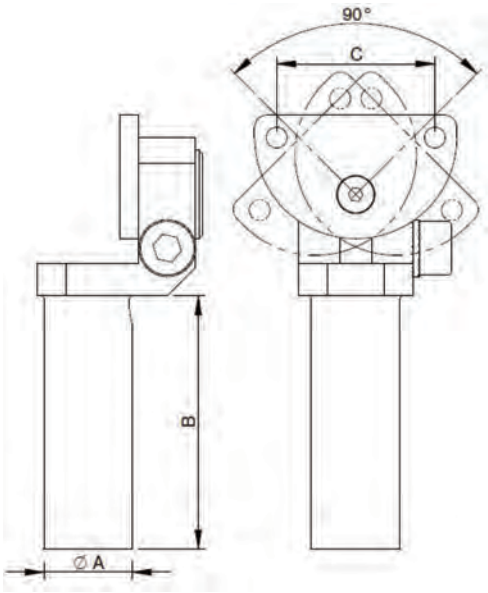
Ar!cle no.	G1	M	Weight
CA.01.08.008	M5	CA.01.08.005	6 g
CA.01.08.004	G 1/8	CA.01.08.003	15 g
CA.01.08.007	G 1/4	CA.01.08.006	20 g



CA.14 ATK

. Adapter for Part Control





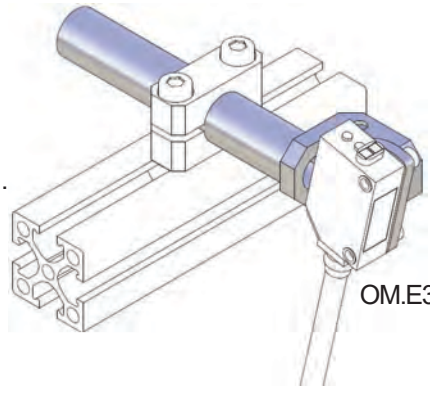
For Part Control OM.E3Z...

Material: Anodized Aluminum

Ar!cle no.	A	B	C	Weight
CA.ATK.10.10.30	10	30	25	23 g
CA.ATK.10.10.60		60		26 g
CA.ATK.10.10.90		90		29 g
CA.ATK.10.14.40	14	40		36 g
CA.ATK.10.14.80		80		44 g
CA.ATK.10.14.120		120		52 g

CA.KVB...

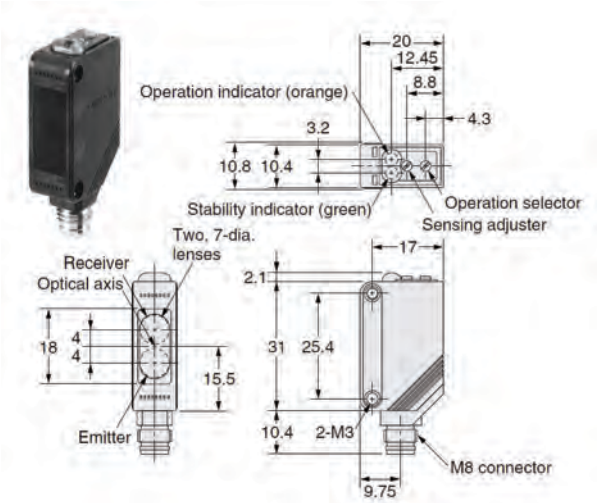
CA.L.../CA.X.../CA.JU...

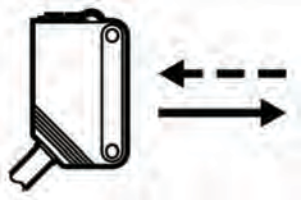


OM.E3Z...

CA.14 OM.E3Z

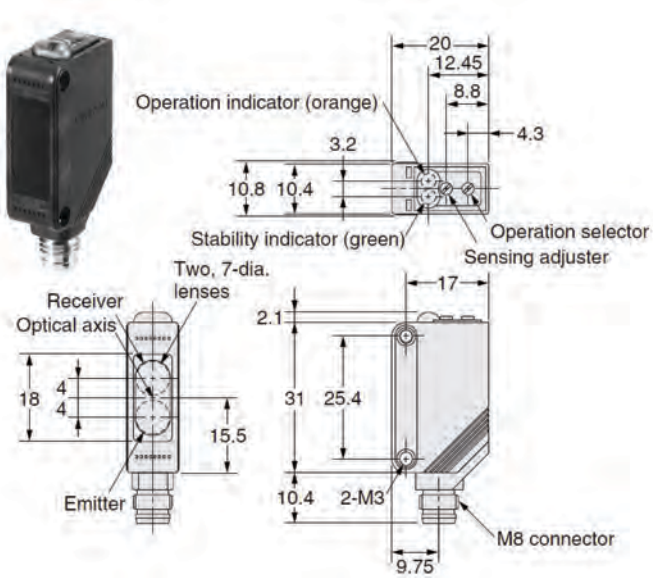
. Diffusereflec!ve

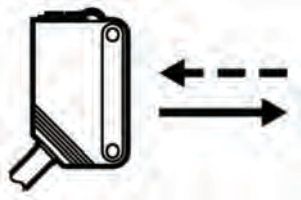




Ar!cle no.	Output	Power supply voltage	Sensortype	Sensingdistance	Connector method
OM.E3Z-D86.OMS	PNP	12 to 24 VDC±10%	Diffuse - reflec"ve	5 to 100 mm (wide view)	Connectortype M8 4pin
OM.E3Z-D66.OMS	NPN				

. LaserThin beam type (1 mm) reflective model

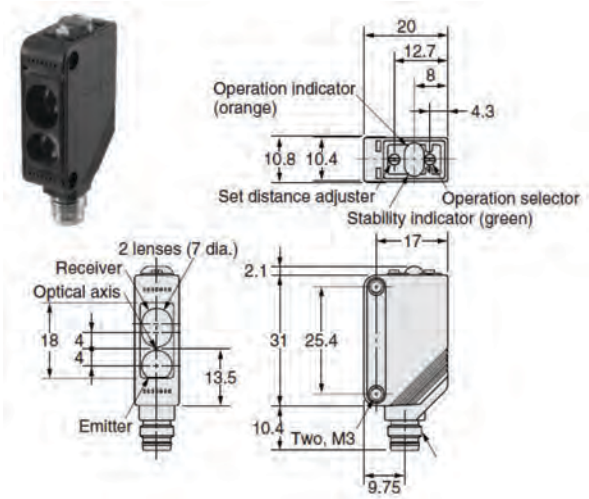


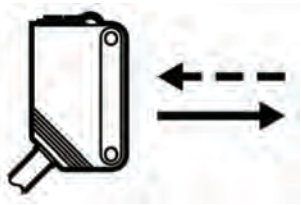


Ar!cle no.	Output	Power supply voltage	Sensortype	Sensingdistance	Connector method
OM.E3Z-LL86.OMS	PNP	12 to 24 VDC±10%	LaserThin beam type reflective model	90 ±30 mm	Connectortype M8 4pin
OM.E3Z-LL66.OMS	NPN				

CA.14 OM.E3Z

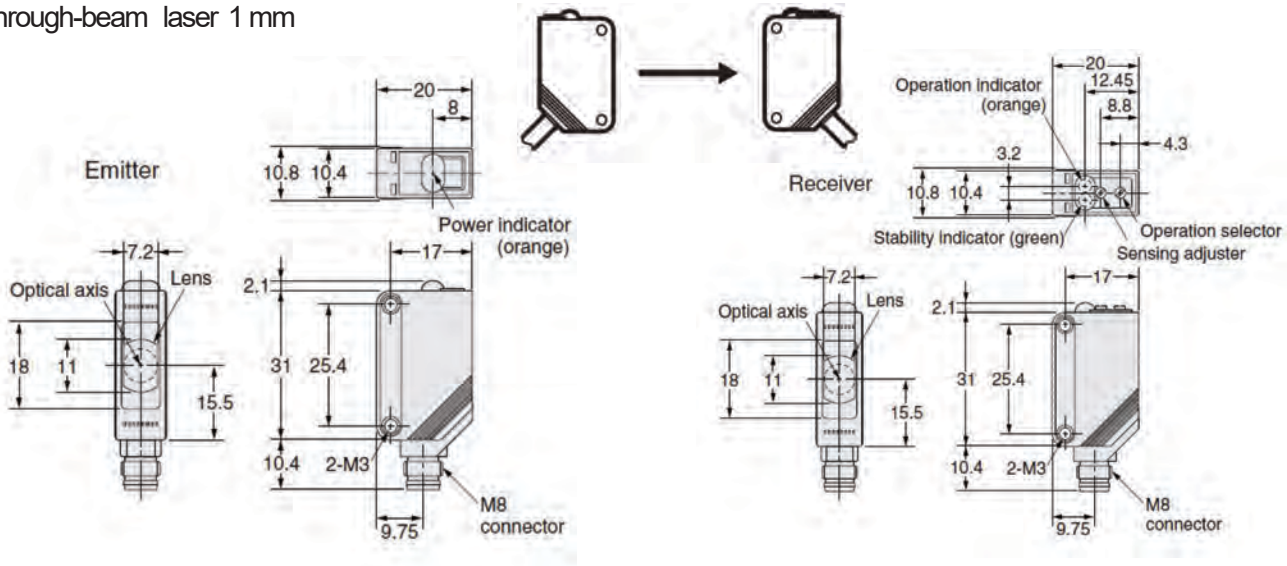
. Distance-selectable (Laser)





Ar!cle no.	Output	Power supply voltage	Sensortype	Sensing distance	Connector method
OM.E3Z-LS86.OMS	PNP	12 to 24 VDC±10%	Distance-selectable	30 to 200 mm	Connector type M8 7 4pin
OM.E3Z-LS66.OMS	NPN				

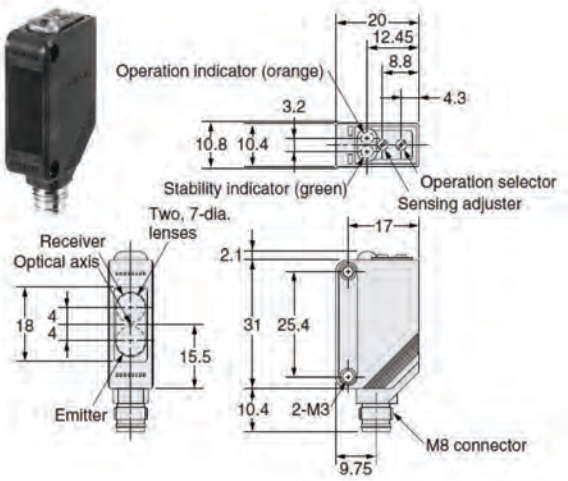
. Through-beam laser 1 mm

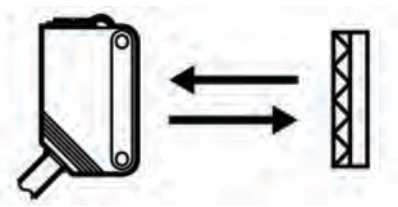


Ar!cle no.	Output	Power supply voltage	Sensortype	Sensing distance	Connector method
OM.E3Z-LT86.OMS	PNP	12 to 24 VDC±10%	Through-beam	15 m	Connector type M8 4pin
OM.E3Z-LT66.OMS	NPN				

CA.14 OM.E3Z

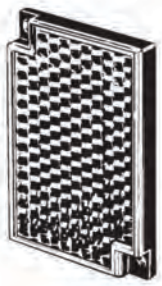
. Retroreflec! ve model



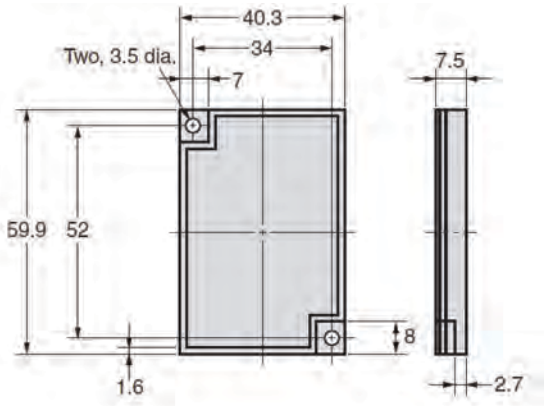


Ar!cle no.	Output	Power supply voltage	Sensortype	Sensing distance	Connector method
OM.E3Z-R86.OMS	PNP	12 to 24 VDC±10%	Retroreflec" ve model	4 m	Connector type M8 4pin
OM.E3Z-R66.OMS	NPN				

. Reflector (order separately)



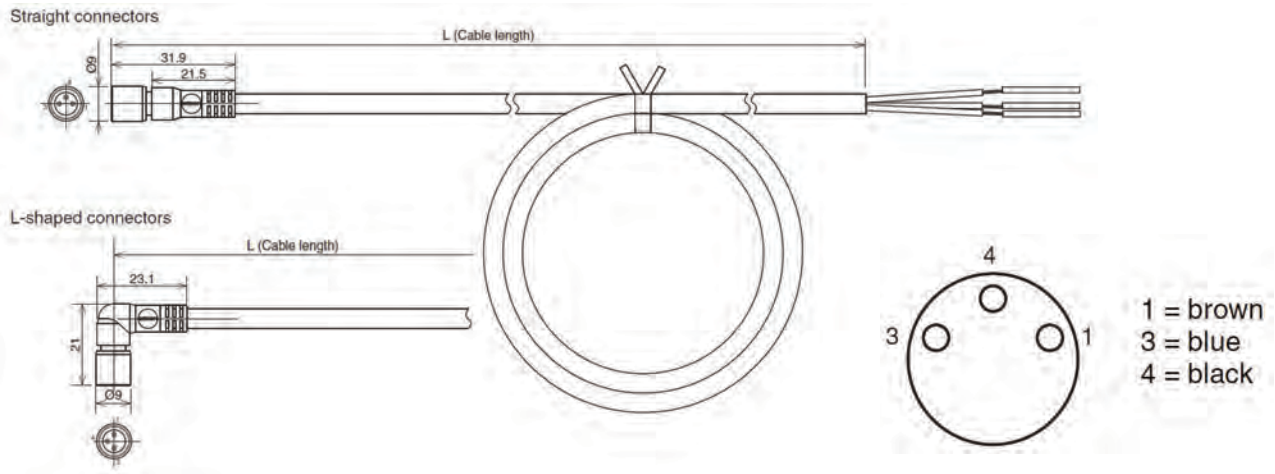
Material:
Reflective surface: acrylic
Rear surface: ABS



Ar!cle no.
OM.E39-R1S

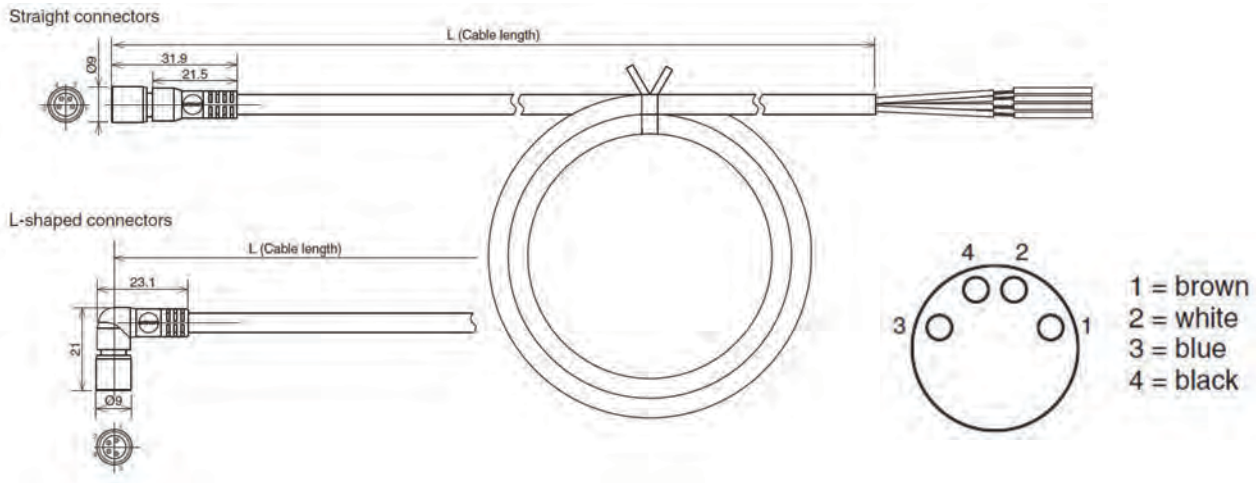
CA.14 OM.XS3F

. M8 Screw-on cable connectors 3 - wires



Ar!cle no.	Type	Size	Features	Cable length
OM.XS3F.M83S5M	Straight connector	M8	3 - wires	5 m
OM.XS3F.M83A5M	L - shaped connectors			

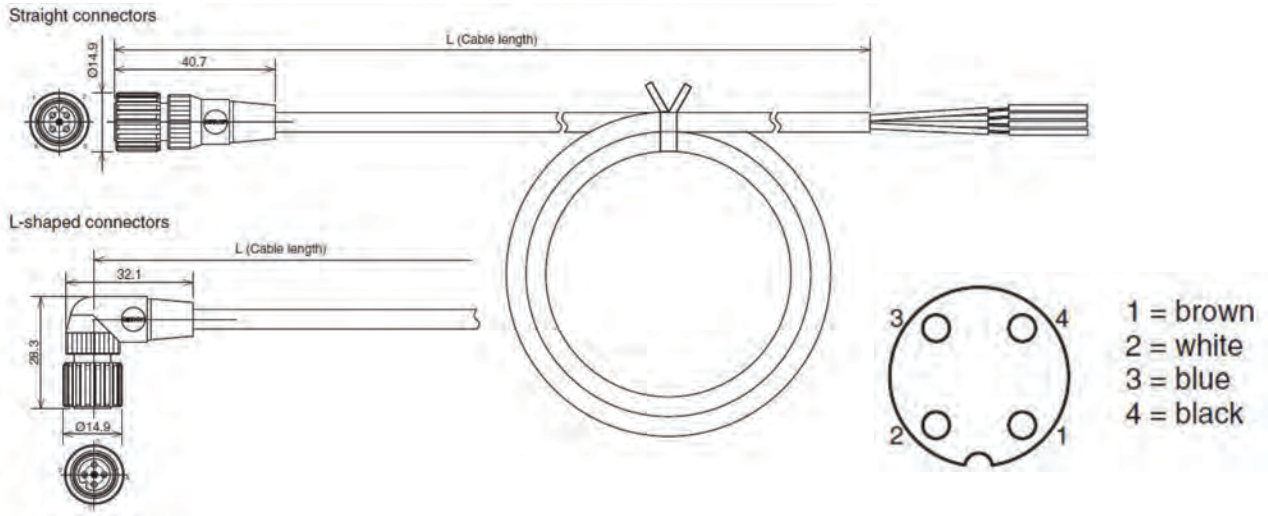
. M8 Screw-on cable connectors 4 - wires



Ar!cle no.	Type	Size	Features	Cable length
OM.XS3F.M84S5M	Straight connector	M8	4 - wires	5 m
OM.XS3F.M84A5M	L - shaped connectors			

CA.14 OM.XS2F

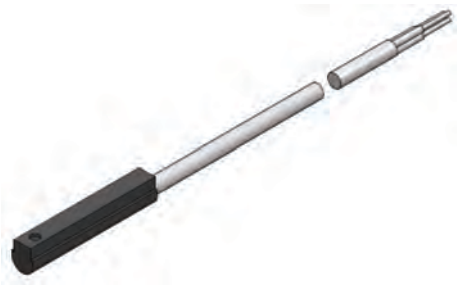
. M12 Screw-on cable connectors 4 - wires



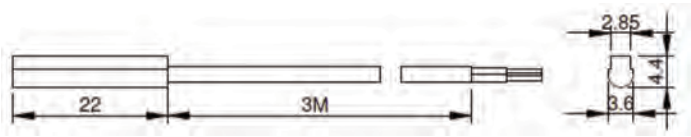
Ar!cle no.	Type	Size	Features	Cable length
OM.XS2F.M124S5M	Straight connector	M12	4 - wires	5 m
OM.XS2F.M124A5M	L - shaped connectors			

CA.14 KT

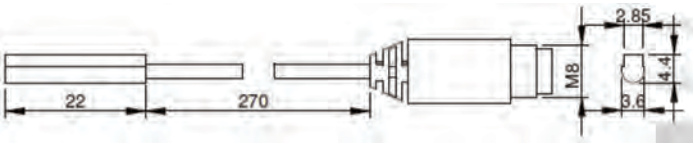
. Sensor



KT58P3M/KT58N3M

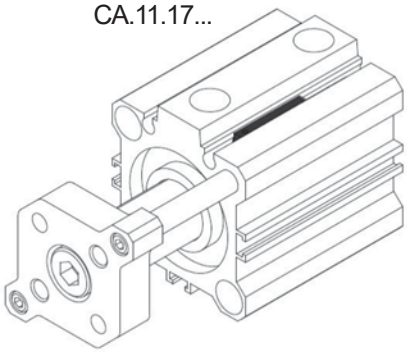


KT58PM8/KT58NM8

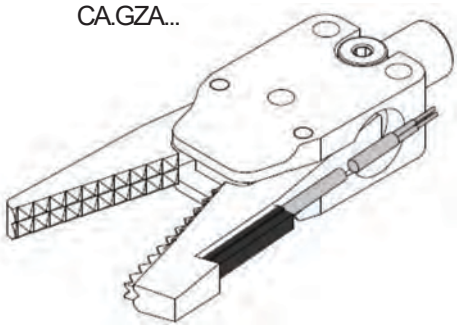


Ar!cle no.	Sensorwith cable	Weight
KT58PM8	3 wires electronic PNP normally Open M8 plug connector	4 g
KT58P3M	3 wires electronic PNP normally Open mt 3 cable	
KT58NM8	3 wires electroic NPN normally Open M8 plug connector	
KT58N3M	3 wires electronic NPN normally Open mt 3 cable	
KT58REQD	2 wires Reed Switch Normally Open M8 plug connector	

CA.11.17...



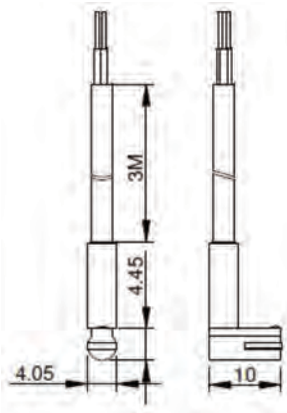
CA.GZA...



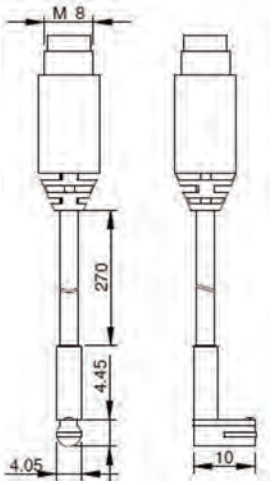
CA.14 KT

. Sensor

KT38P3M/KT38N3M

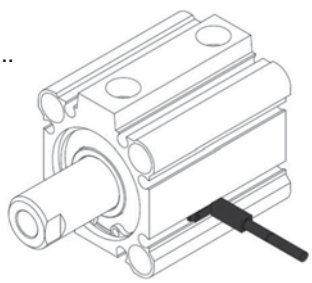


KT38PM8/KT38NM8

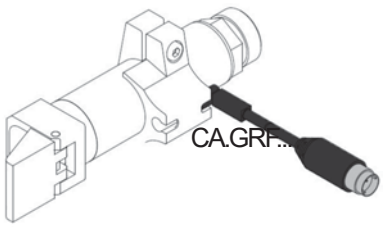


Ar!cle no.	Sensorwith cable	Weight
KT38PM8	3 wires electronic PNP normally Open M8 plug connector	4 g
KT38P3M	3 wires electronic PNP normally Open mt 3 cable	
KT38NM8	3 wires electroic NPN normally Open M8 plug connector	
KT38N3M	3 wires electronic NPN normally Open mt 3 cable	

CA.11.18...



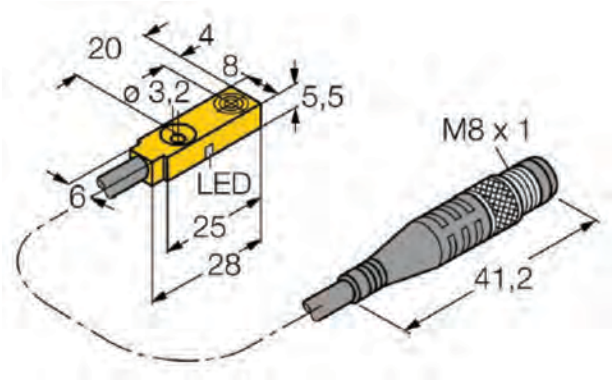
CA.TIK...

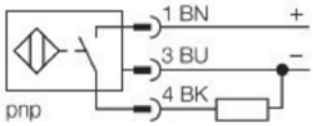


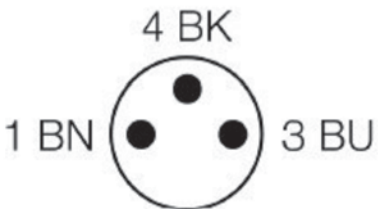
CA.GRF...

CA.14 GRZ

. Sensor

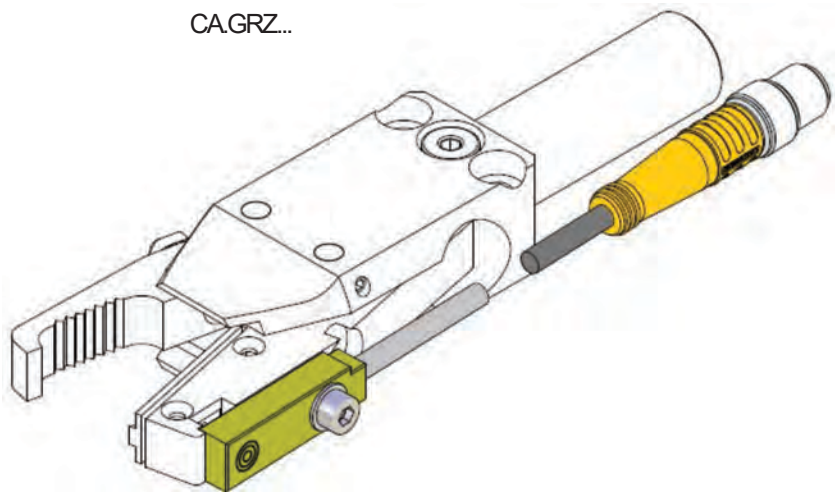






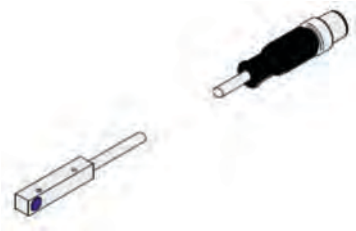
Ar!cle no.	Sensorwith cable	Weight
GRZ.20.SC.PNP	INDUCTIVE SENSORPNP normally OpenM8 plug connector	4 g
GRZ.20.SC.NPN	INDUCTIVE SENSORNPN normally CloseM8 plug connector	

CA.GRZ...



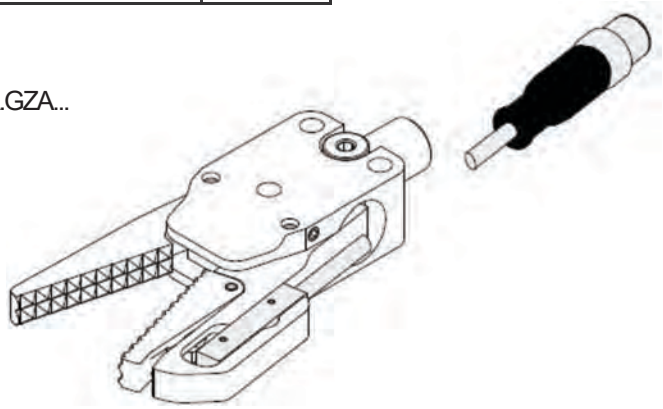
CA.14MMD

. Sensor

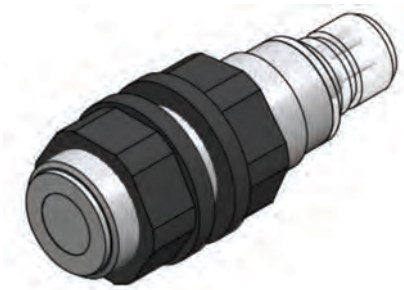


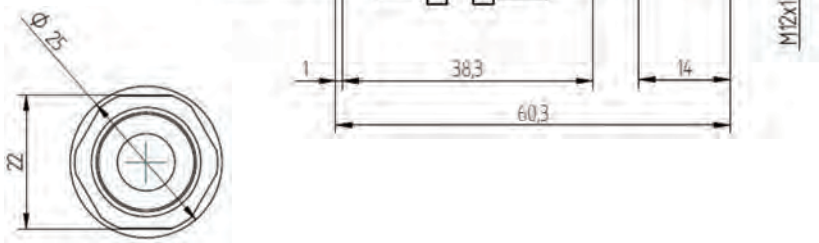
Ar!cle no.	Sensorwith cable	Weight
MMD.IL5AP3AVF80	INDUCTIVE SENSORPNP normally Open M8 plug connector	4g
MMD.IL5AN3AVF80		

CA.GZA...



. Ultrasonic sensor

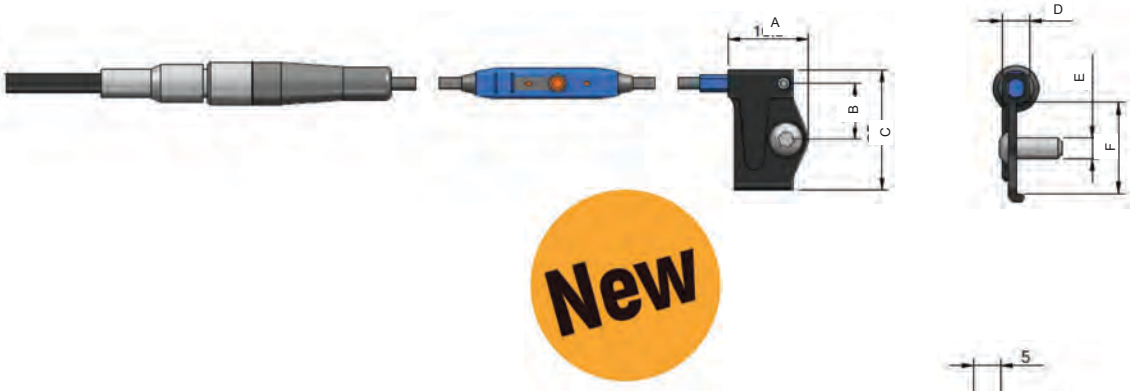




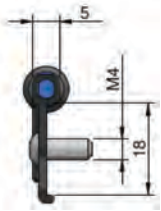
Ar!cle no.	Output	Sensor Type	Sensing distance	Connector method	
MMD.UK6AHN0EUL	NPN	Ultrasonic sensor	40 mm	Connector type M12 4pin	65 g
MMD.UK6AHP0EUL	PNP				

CA.SCP

. Sensor



New

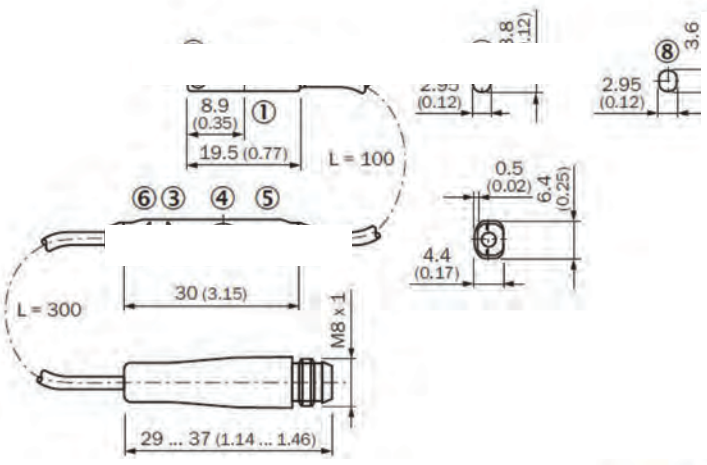


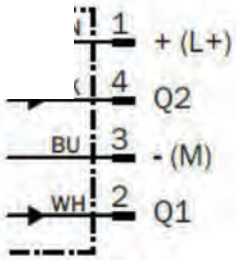
Ar!cle no.	A	B	C	D	E	F
CA.SCP.1008	17	12	25	5	M4	18
CA.SCP.1012	20	16	32	6	M5	25

Remarks/ Osservazioni:

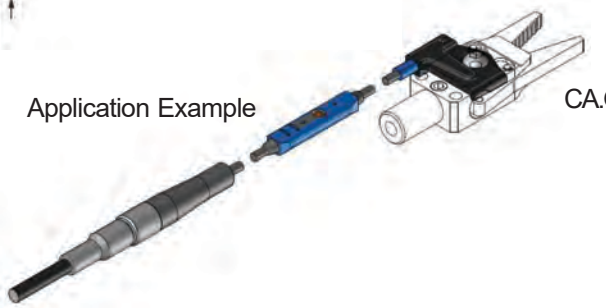
Adjustment indicator for positioning the sensor centrally Teaching in switching points 1 and 2

Ar!cle no.	Output	Sensor Type	Sensing distance	Connector method	Weight
CA.SCP.1008	PNP	Magne"c sensor	0mm - 50mm	Connector type M8 4pin	65 g
CA.SCP.1012					





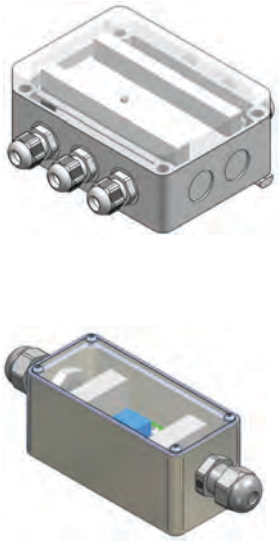
Application Example

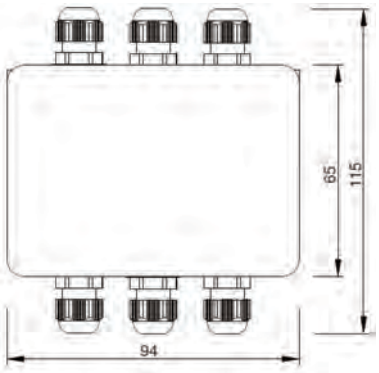


CA.GZA.10...

CA.SDS

. Sensor box





CA.SDS.02

Used for sensor wiring on the EOAT.

-PNP and NPN signals can be converted.

-I/O can be current sourcing (PNP), sinking (NPN) or dry contact.

-Several boxes can be connected in a series to manage more sensors.

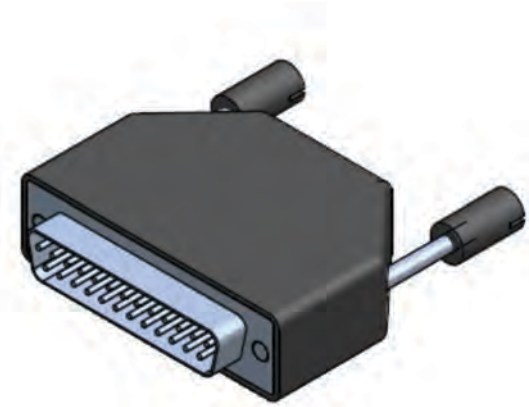
-Input LED indica"ons for easy troubleri ges"bili.-shoo"ng.

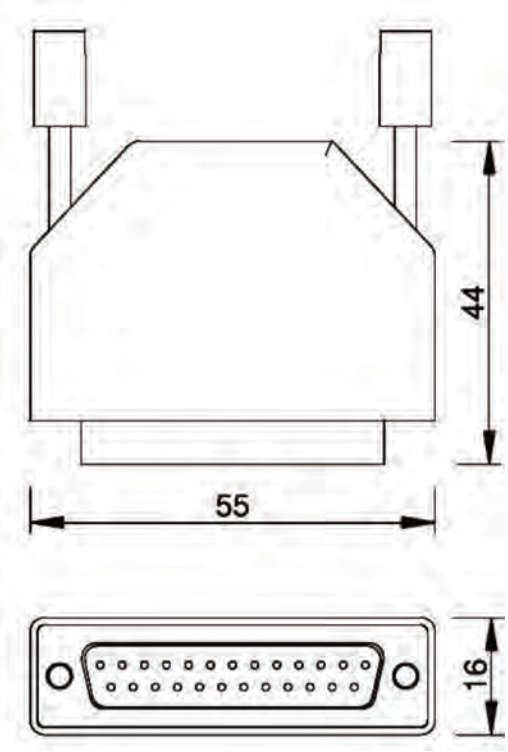
-Supplied with Cable Glands

Article no.	Power Supply	INPUTS	OUTPUTS
CA.SDS.02	24 V dc (+/- 10%)	Maximum 2 PNP, NPN or dry contact (NO or NC) sensor switched by jumper	1up to 2 PNP, NPN or dry contact NO or NC) outputs switched by jumpers
CA.SDS.04		Maximum 4 PNP, NPN or dry contact (NO or NC) sensor switched by jumper	1up to 4 PNP, NPN or dry contact (NO or NC) outputs switched by jumpers
CA.SDS.06		Maximum 6 PNP, NPN or dry contact (NO or NC) sensor switched by jumper	1up to 6 PNP, NPN or dry contact (NO or NC) outputs switched by jumpers
CA.SDS.08		Maximum 8 PNP, NPN or dry contact (NO or NC) sensor switched by jumper	1up to 8 PNP, NPN or dry contact (NO or NC) outputs switched by jumpers

CA.19.03

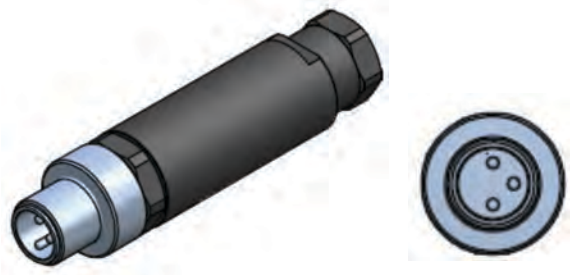
. Connector 25 pin

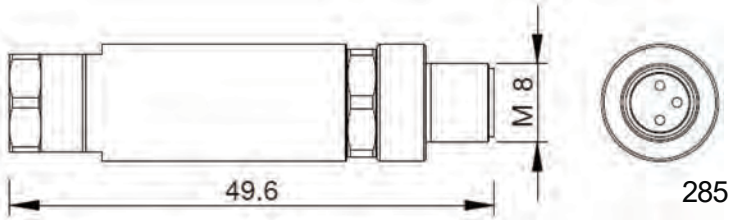




Ar!cle no.		Weight
CA.19.03.001	25 pin M	10 g

PAX

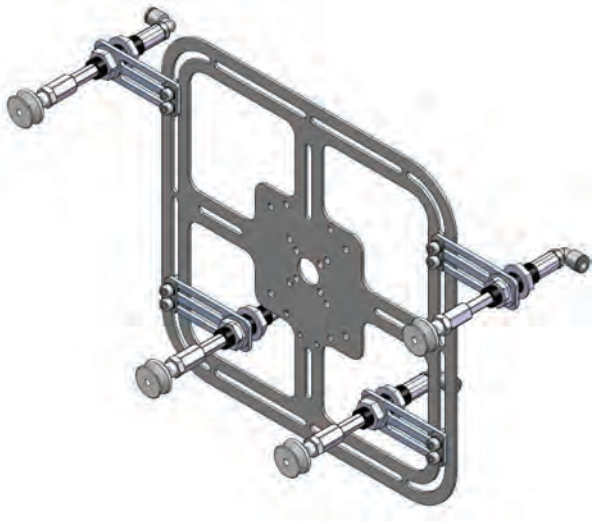


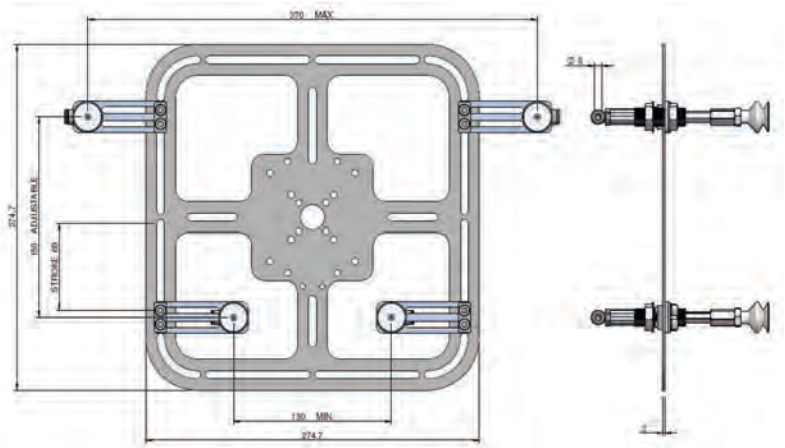


Ar!cle no.		Weight
PAX.1501252	M8 3P M	15 g

KIT.MA01

. Kit Endof Arm Tooling

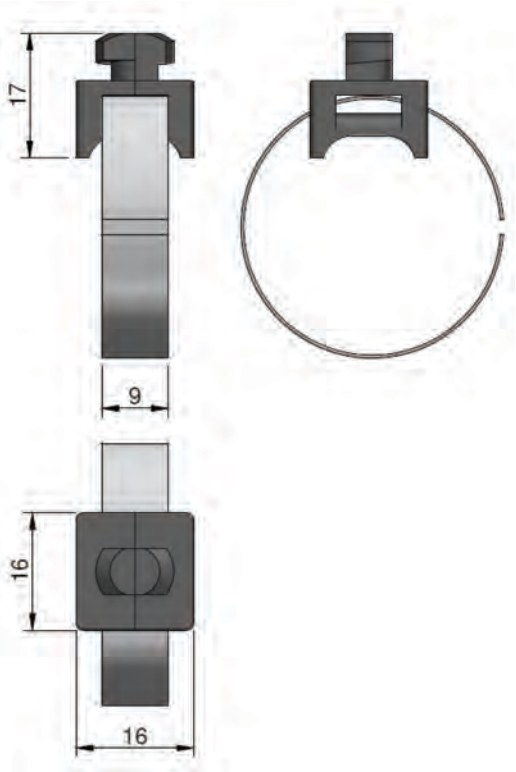




COMPONENTS	DESCRIPTION	QUANTITY
CA.04.20.14.X	Mounting Bracket 14x	4
CA.08.09.009	Adapters for vacuum cups 18 6	
CA.08.30.005	Vacuum Cupwith 2 bellows only (silicone) 25	
CA.12.05.003	Elbow male adapter (parallel) 6 18	
CA.SDNG.1420	Threaded-body non-rotative suspen-sion1420	
PIA.275X275X2	Basic EOATPlate 275x275x2 inox	1

CA.KBS

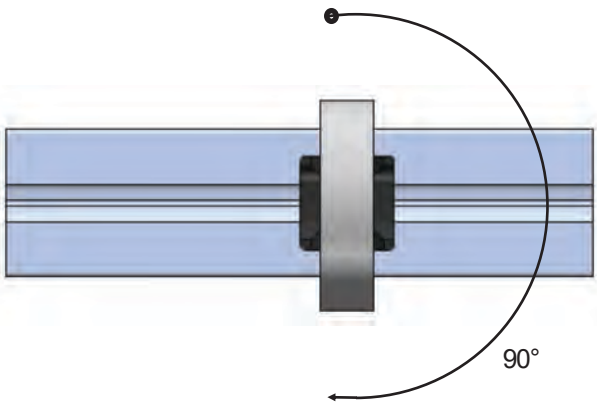
. Cable Tie

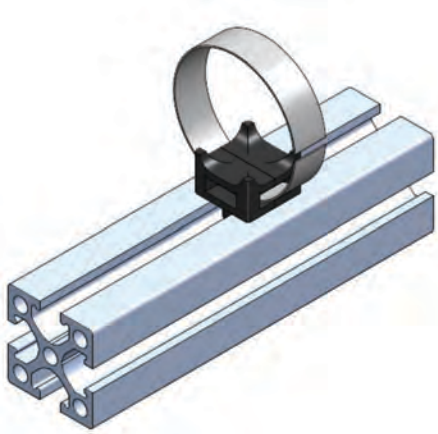


Material :Plastic—Velcro

Ar!cle no.	Weight
CA.KBS	8 g
CA.KBS.X	2 g

Application Example





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PARTNERS

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FPS

PISCO PNEUMATIC EQUIPMENT

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