



Valve Automation Your Solution

Flow Control Solution - General Catalogue

Electric Actuator
Pneumatic Actuator
Accessories
Valves



Company Profile

Our Value and Mission

Constant Control is a manufacturer's representative and distributor for valve automation and related products. We are committed to offer outstanding quality products and provide professional service and solutions to fluid control industry.

We provide the best solution, outstanding electric actuator, pneumatic actuator and valve products to our customers to help and improve their efficiency, quality and the most important save money.

With wide product range offering Pneumatic actuators, rack and pinion, scotch yoke, limit switch box, positioner, electric actuators, quarter turn and multi-turn and valves.

Our products are widely applied to wastewater treatment, HVAC, oil & gas, refining, mining, marine, power station etc.

We always strictly follow quality control process with professional ways and instruments with world recognition and offer 2 years warranty. Each actuator will be inspected and calibrated before shipment.

Always pursues excellence and innovation. We are committed to immerse ourselves and give it all in to every project we participate and ensure that we pursue for high precision and outstanding quality.

Our customers are our business partner, our goal is to provide the best product and service to our customer in the industry.



Overview



OM Series



OME Series

OM & T series quarter-turn electric actuators provide torque ranges from 6 N·m to 4,500 N·m (53 in·lb to 40,000 in·lb). All models are equipped with a visual position indicator, except T-6 and T-15. The key feature of actuator is its non-clutch design (except T-6 and T-15), the manual operation (except OM-A & BM-2) can be operated without brake and clutch upon power cut. This could increase the mechanical reliability.

Standard Specifications

Model	Torque		Weight		Nominal Motor Power	Speed	Manual Override	Flange Type
	N·m	in ·lb	kg	lb	Watt	(sec./90°)		ISO 5211
T-6	6	53	1.5	3.3	5	8	Lever	F03/F05
T-15	15	132	1.5	3.3	5	19		F03/F05
OM-1	35	310	2	4.4	10	12		F03/F05
OM-A	50	445	3	6.6	10	27	N/A	F05/F07
OM-AM	50	445	3	6.6	10	27	Lever	F05/F07
OM-J	80	708	3	6.7	5	130		F05/F07
OM-F	65	575	11	25	60	6	Handwheel	F07/F10
OM-2	90	800	11	25	40	17		F07/F10
BM-2	120	1065	5.5	13	40	9	N/A	F07
OM-G	120	1065	11	25	60	8	Handwheel	F07/F10
OM-3	150	1330	11	25	40	26		F07/F10
OM-H	300	2655	17	38	60	24		F07/F10
OM-4	400	3540	20	45	80	19		F10/F12
OM-5	500	4430	20	45	80	26		F10/F12
OM-6	650	5755	20	45	80	34		F10/F12
OM-7	1000	8855	32	71	120	50		F12or F14
OM-8	1500	13280	32	71	120	51		F12or F14
OM-9	2000	17710	71	157	180	62		F14or F16
OM-10	2500	22140	71	157	180	62		F14or F16
OM-11	3000	26565	72	159	180	62		F14or F16
OM-12	3500	31000	72	159	220	62		F14or F16
OM-13	4500	40000	106	234	220	88		F16/F25

- Motor power and speed data are based on 110VAC @60Hz, 30% duty cycle, floating control .

Product Features

- Self locking gear system
- Dry-powder coated aluminum alloy enclosure
- Conforms to C3, NEMA 4X, 5 & IP67 outdoor use
- ISO 5211 mounting flange
- Mechanical stops (except T-6 / 15, OM-1 /A/ AM/ J/BM-2)
- Domed position indicator (except T-6 / 15 & BM-2)
- Built-in motor thermal protection

Option Features

- Anti-condensation heater
- Heater thermostat
- Auxiliary limit switches
- Analog Output
- Modulating control
- Potentiometer
- Local control unit
- Torque switches
- Communication protocols
- Stainless steel enclosure
- Water-proof rating IP68
- Explosion-proof (ATEX/CSA/IECEX)

Overview



S Series

S series spring return fail-safe electric actuators cover a torque range from 50 N·m to 360 N·m (445 in·lb to 3185 in·lb). This series in addition to the normal function (floating control, On I Off control and modulating control) is designed for fail-safe positioning of valves and dampers upon loss of supply voltage. A mechanical spring set is utilized to position the controlled device to either the fully OPEN or fully CLOSED position without any external power source. For On / Off type actuator, a mechanical BUFFER is employed at the end of the spring stroke in order to reduce the dynamic effects of the spring return system. Manual override is optional for manual positioning of the controlled device.

Standard Specifications

Model	Torque		Motor Power	Weight				Mounting Flange	Shaft		Depth of Shaft	
				Standard		W/Manual Override						
	N·m	in·lb	Watt	kg	lb	kg	lb	ISO 5211	mm	inch	mm	inch
S-500	50	445	50	27	59	37	81	F07	17	0.669	30	1.181
S-1300	130	1150	130	57.5	127	74.5	164	F10	22	0.866	41	1.614
S-2000	200	1770	130	95	209	135	297	F12	27	1.063	45	1.772
S-2600	260	2300	130	95	209	135	297	F12	27	1.063	45	1.772
S-3600	360	3185	130	108	238	156	344	F12	36	1.417	46	1.811

- Motor power is based on 110VAC @60Hz, 50% duty cycle, On / Off control.

Explosion-proof Enclosure



with manual override



without manual override

Overview

SE series explosion-proof spring return fail-safe actuator is structured as flame-proof and combus-tible dust-proof. The torque range is from 50 N·m to 260N·m (445 in·lb to 2300 in·lb). It is a control device for valves or dampers and can be used in the places, where is classified as Zone 1 or Zone 2, contained Group IIA and Group 11B gases, Zone 21 or Zone 22, contained the combustible dust atmosphere or the mixture circumstance with the explosive gas atmospheres and the combustible dust atmospheres. Temperature group T1 to T4.

Overview



L Series

L series linear electric actuators provide thrust ranges from 250 to 2,000 kgf (550 to 4410 lbf). All models are equipped with modulating controllers and are suitable for globe valves, gate valves and linear travel devices. They can be applied to HVAC and industrial processes, especially for steam and high temperature employments.

Product Features

- Self-locking drive system
- DC motor equipped
- External stem position indicator
- Low-power consumption
- Dry-powder coated aluminum alloy enclosure
- Conforms to C3, NEMA 4X, 5 & IP67 outdoor use
- Manual operation can be applied in case of power outage
- Built-in motor thermal protection

Standard Specifications

Model	Thrust			Weight		Nominal Motor Power	Flange Type	Max. Stroke	
	kgf	lbf	N	kg	lb	Watt	ISO 5210	mm	inch
L-250	250	550	2450	9.5	21	15	F07	50	2
L-500	500	1100	4900	9.5	21	15	F07	50	2
L-1000	1000	2205	9805	31	68	25	F10	100	4
L-2000	2000	4410	19615	31	68	35	F10	100	4

- Motor power is based on 110VAC @60Hz.

Explosion-proof Enclosure



LE Series

Overview

LE series explosion-proof linear actuator is structured as flame-proof and combustible dust-proof. It is a control device for valves and can be used in the places, where is classified as Zone 1 or Zone 2, contained Group IIA and Group 118 gases, Zone 21 or Zone 22, contained the combustible dust atmosphere or the mixture circumstance with the explosive gas atmospheres and the combustible dust atmospheres. Temperature group T1 to T4.

Overview



Basic Series



Intelligent Series

TCR/TCN electric actuators are widely used in metallurgy, chemical industry, water supply, pharmaceutical and other fields, and its quality has been recognized by the majority of users.

It has the characteristics of safety guarantee, IP67 protection grade, various functions, corrosion prevention and rust prevention, and high adjustment accuracy.

TCR/TCN electric actuators with torque output range from 10Nm through to 400Nm, using a compact ABS housing design and using OLED display design for modulating and intelligent type actuators. Providing competitive functions and features such as high speed open/close, failsafe with capacitor, wireless, modbus, RS485 etc... which makes TCR/TCN electric actuators reliable and competitive.

Standard Specifications

SPECIFICATION	TCR-01	TCR-02	TCR-05	TCR-08	TCR-11	TCR-20	TCR-40
Max Torque(N.m)	10	20	50	80	110	200	400
Operation Time(Sec) 110V/220V@50Hz	10	15	20	20	20	25	25
Power (Watts)	12	15	40	60	60	50	80
Standard Voltage	Single Phase: 50/60Hz, AC/DC24V, AC 110 / 230V, AC95~265V						
Enclosure	IP67						
Position indicator	Mechanical indicator	Dome indicator / OLED Display (intelligent and modulating type)					
ISO 5211 Mounting	F03 & F05	F03 & F04 & F05	F05 & F07	F05 & F07		F07 & F10	
Output Shaft	11 x 11mm	11 x 11mm / 14 x 14mm	14 x 14mm	17 x 17mm		22 x 22mm	
Manual Override	Hexagon spanner					Hexagon spanner / Button	
Material	ABS	ABS or Die-casting aluminum				PC+PET	

Product Features

- Anti-corrosive plastic
- Compact design
- Wide voltage range
- Suitable for Marine application
- High performance brush-less motor
- Overheat/overload protection

Option Features

- Fail safe capacitor
- Modus RS485
- Hi speed
- Timer
- Wireless
- Space Heater
- Explosion proof

Overview



QTC quarter turn compact series are able to offer 0 - 90° rotation, controlling ball, butterfly, damper, flapper, and cock valves etc. Widely applied to industries like water treatment, power plants, chemical and other industries.

Covers wide power supply range, 24VDC or 110V / 220VAC, On/ Off and Modulating application with control signals 4-20mA or 0-10VDC, allows the valve to rotated to it's right position and achieve automatic control. The maximum output torque reaches 2000Nm.



QTC quarter turn compact series has built a relatively high reputation in the industry, offering high quality, competitive value and reliable product. All actuators are tested individually; testing includes internal and external leakage, angle of rotation and torque value. All housing are stamped with year and month of production, size and serial number.

Product Features

- Aluminum alloy. epoxy powder coating
- Available for On/Off and modulating
- Squirrel cage asynchronous motor
- Wrench manual as standard
- ISO 5211 Flange standard
- Enclosure IP67
- Self-locking by worm and worm gear
- Ambient temperature -20°C ~ +70°C

Option Features

- Modulating 4-20mA / 0-10V
- Space heater
- Hand wheel manual override
- Local control unit
- Dome indicator



Technical parameter and specification

Model	Torque (NM)	Power (W) 24VDC / 220VAC	Operation time (s) 24VDC / 220VAC	Max Output Shaft (mm)		ISO 5211 Flange	Weight (Kg)
				Square	Deep		
QTC003	30	8	10	11x11	15.5	F03 / F05	2.1
QTC005	50	10	15 / 30	14X14	18	F05 / F07	3.6
QTC008	80	10	15 / 30	14X14	18	F05 / F07	3.6
QTC010	100	15	15 / 30	17X17	22.5	F05 / F07	4.6
QTC015	150	15	15 / 30	17X17	22.5	F05 / F07	4.6
QTC020 QTC025	200 250	45	15 / 30	22X22	26	F07 / F10	8.9
QTC040 QTC060	400 600	90	15 / 30	22X22	26	F07 / F10	8.9
QTC080	800	180	20 / 40	27X27	32.5	F10 / F12	14.3
QTC100	1000	180	20 / 40	27X27	32.5	F10 / F12	14.5
QTC200	2000	180	22 / 44	27X27	32.5	F10 / F12	14.5

Overview



HEQ Standard Series



HOM Standard Series



HOM Intelligent Series

HOM quarter turn series design adopts planetary gear for mechanical transmission. With a torque range of 25 - 8000Nm, the manual operating mechanism is clutch-less, manual or electric operation is mutually exclusive. It is easy to operate and are able to rotate by handle when powered on.

HOM electric actuator are mainly mounted on butterfly valves, ball valves or plug valves. Mainly used in power plant, metallurgical plans, sewage plant, building automation, urban pipe network and other pipeline system.

HOM series has high output torque with self-locking devices and various speed ratio. Flange connection uses ISO 5211 standard. Spindle coupling adopted to facilitate users to match different valve specifications.

Standard Specifications

Voltage		AC220V ±10%	
Frequency		50/60 Hz	
Torque		25 ~ 8000 Nm	
Rotation Angle		90°	
Limit Switch		2 x SPDT, 250VAC 5A	
Auxiliary Switch		2 x SPDT, 250VAC 5A	
Cable Gland		<100 Nm - 2 x M20*1.5 ; ≥100 Nm - 2 x PG16	
Control		On-Off or Modulating	
Feedback Signal	On-Off	Input signal:	Active
		Output signal:	Active and Passive
	Modulating	Input signal:	4 - 20mA (default setting) ; 2 - 10V or 0 - 10V optional
		Output signal:	4 - 20mA (default setting) ; 2 - 10V or 0 - 10V optional
Flange		ISO 5211 standard	
Position Indicator		3D scale indicator ; pointer indicator optional	
Manual Override		Mechanical handwheel	
Enclosure		IP67 standard ; IP68 optional	
Ambient Temperature		-25°C ~ +70°C	
Anti-Frost		Moisture-proof heater	
Overheat Protection		Overheat protection of motor, starting temperature 125°C ±5°C	
Power Failure Status		End position	
Signal Failure Status		4 - 20mA / 2 - 10V fully open or close position (default setting is end position) 0 - 10V set at fully close position	

Product Features

- Self locking gear system
- Epoxy powder coated aluminum alloy enclosure
- ISO 5211 standard
- Mechanical stops
- 3D position indicator
- Built-in motor thermal protection
- Space heater

Option Features

- Modulating 4-20mA / 0-10V / 2-10V
- Local control unit
- Torque switches
- Communication protocols
- Water-proof rating IP68

Overview



HEM Series

HEM series multi-turn electric actuator is developed for controlling gate, globe, ball and butterfly valves with gearbox, integrating up-to-date various automatic control technology including field bus technology, adopting advanced actuator design to meet industrial and customer's requirement.

HEM series enhance advance technology features, with non-intrusive settings, user friendly and intuitive controls as well as features that protects the actuator and not damaging the valve.

HEM series is reliable and steady, complies to international standard which are able to cover various industries.

Product Features

- Double sealing
- Rotatable electrical compartment and LCD display
- Non-intrusive setting
- Heavy duty motor
- Position measure
- Torque sensor
- Drive train
- Hand wheel and declutch button



Rotatable electrical compartment and LCD display



Hand wheel and declutch button



Non-intrusive setting

- High resolution LCD display (intelligent type)
- Display of valve position and status
- Local commands selector
- Mode selector switch

Option Features

- Separated Control Box

Useful when the electric actuator has to be mounted in a difficult access area or in an excessively high or low temperature atmosphere. The max. distance between electric actuator and control box is 20 meters.

- Explosion proof enclosure as option

In accordance with Exd II CT4 atmospheric pressure range from 86Kpa to 106Kpa.

Ambient temperature range from -30°C to 60°C.

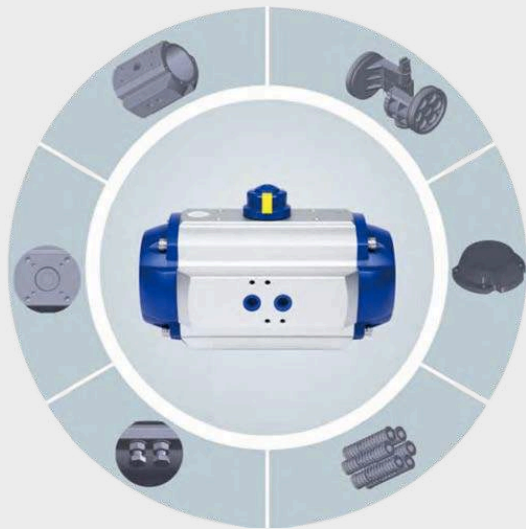
ExdIIBT4, ExdIIBT6, ExdIICT6 as options



Standard Specifications

Model / Torque Range	HEM10 - HEM300 / 60 - 3000 Nm (direct output)	
Speed	18, 24, 36, 48, 72, 96, 144 rpm	
Ambient Temperature	-30°C ~ 70°C	
Vibration Resistance	Comply to JB/T8219	
Noise Degree	Within 1 meter < 70dB	
Cable Entries	2 x NPT 3/4" (additional 1 x NPT 3/4" is available if needed)	
Enclosure	Standard IP67 (IP68 optional, 15 meters under water without leakage for 72 hours)	
Mounting Base	Comply to JB2920 (Standard) or ISO5210 Thrust type (rising stem) or Rotary (non-rising stem)	
Motor Rating	Class F, with 150°C motor thermal protection	
Duty Cycle	On-Off, S2-15min (less than 600 start/hour)	
	Modulating (intelligent type only) S4-50% (less than 600 start/hour, optional: 1200 start/hour)	
Standard Voltage	Three phase: AC380V / Single phase: AC220V (other voltages on request)	
Bus Communication	Modbus, Profibus, Hart (Intelligent type only)	
Basic On/Off	Control signal:	On/Off, built in contact with ratings 5A@250VAC
	Feedback signal:	Fully open/close (dry contact) / torque switch (dry contact) / optional with potentiometer
Intelligent On/Off	Control signal:	On/Off, dry contact 24V or 220V, possible to exchange between inching and keep
	Feedback signal:	- 6 x relay contacts (5 x status relay and 1 x fault relay) - 1 x analogue feedback: 420mA, output impedance: ≤750Ω, 0-10V or 2-10V optional
Intelligent Modulating	Control signal:	On/Off, dry contact 24V or 220V, possible to exchange between inching and keep Analogue signal: 4-20mA, input impedance: 65Ω, 0-10V or 2-10V optional
	Feedback signal:	- 6 x relay contacts (5 x status relay and 1 x fault relay) - 1 x analogue feedback: 420mA, output impedance: ≤750Ω, 0-10V or 2-10V optional
	Dead band:	0.3 ~ 9.9% adjusted within full stroke
	Polarity:	Yes
	Signal loss action:	Yes
Indication	Basic - Arrow indication Intelligent - LCD display with open/close/remote/failure lamp (Digital shown in percentage for position and torque)	
Menu operation (Intelligent only)	- Infrared remote control or selector switch - Configuration set (position, status feedback, Maximum torque)	
Local Control (Intelligent only)	- Command selector switch (OPEN/CLOSE/STOP) - Mode selector switch (LOC/REM/OFF)	
Data logger (Intelligent only)	Infrared remote control suit menu to access the faults diagnosis	
Functions	<ul style="list-style-type: none"> - Space heater - Torque protection - Motor thermal protection - Auto phase correction (three phase only) 	<ul style="list-style-type: none"> - Alarms (Local and remote ; intelligent type only) - Bypass torque switch (intelligent type only) - ESD set (open/close/keep ; intelligent type only) - Average torque (intelligent type only)

Overview



TBNII Series

TBNII series are reliable and flexible solutions, combining high quality products. Field and design experience able to satisfy all the customers and market expectations by offering reliable, flexible and customized solutions together with a qualified service.

High quality level production, designed and tested to obtain the highest cycling life and reliable performance to reduced maintenance and service.

Conform to international standard design, manufactured and tested in full compliance with all the application in international standard.

TBNII series technology and material are manufactured with the highest material quality, the most accurate material selections and the latest production technologies.

Torque range from 3 Nm to 4600 Nm

Standard Specifications

Double Acting							
Model	Air Pressure (Bar)						Unit: Nm
	2	3	4	5	6	7	8
TBNII032D	2.7	4.2	5.8	7.4	9.0	10.5	11.8
TBNII052D	7.9	11.9	15.9	19.9	23.8	27.8	31.7
TBNII063D	14.0	21.0	28.0	35.0	42.0	49.0	55.9
TBNII075D	19.8	29.7	39.6	49.5	59.4	69.2	79.1
TBNII083D	28.3	42.5	56.6	70.7	84.9	99.0	113.2
TBNII092D	44.7	67.1	89.5	118.9	134.2	156.6	179.0
TBNII105D	64.8	97.1	129.5	161.9	194.3	226.7	259.0
TBNII125D	101.0	151.4	201.9	252.4	302.9	353.4	403.8
TBNII140D	158.3	237.5	316.6	395.8	474.9	554.1	633.2
TBNII160D	225.0	338.0	451.0	564.0	677.0	790.0	902.0
TBNII190D	361.0	541.0	721.0	901.0	1082.0	1262.0	1442.0
TBNII210D	518.0	777.0	1036.0	1295.0	1554.0	1813.0	2072.0
TBNII240D	761.0	1142.0	1523.0	1903.0	2284.0	2665.0	3045.0
TBNII270D	1156.0	1734.0	2312.0	2891.0	3469.0	4047.0	4625.0

Product Features

- Extruded aluminum body
- Hard anodized corrosion protection
- Epoxy coated with high anti-corrosion performance
- Two independent external travel stop adjustments
- High quality bearings and seal for low friction
- Modular preloaded spring cartridge design
- Conform to ISO 5211, DIN 3337, VDI/VDE 3845 NAMUR

Option Features

- Spring return
- Available for 0° - 90° - 180°
- Available for high temperature up to 160°C
- Available for low temperature up to -40°C
- Stainless steel material
- Teflon coating

Overview



Scotch Yoke Series

Scotch Yoke series are mainly used under the increasingly demand for high-performance pneumatic actuators in the industrial market, using international standard technology to ensure maximum use, safety, design products in accordance with high standards, and provides customers reliable and innovative products.

Our products has a first-class product research and development team, international leading processing and testing equipment, and is committed to providing users with more cost-effective products and services.

Our products have been widely used in petrochemical, natural gas, iron and steel metallurgy, air separation, mechanical equipment, water plants, medicine and other fields, especially in fast and frequent operation, harsh pipeline environments and other working conditions.

Standard Specifications

Double Acting																					
Pressure	3bar			4bar			5bar			5.6bar			6bar			7bar			8bar		
Model	$\alpha=0^\circ$	$\alpha=45^\circ$	$\alpha=90^\circ$	$\alpha=0^\circ$	$\alpha=45^\circ$	$\alpha=90^\circ$	$\alpha=0^\circ$	$\alpha=45^\circ$	$\alpha=90^\circ$	$\alpha=0^\circ$	$\alpha=45^\circ$	$\alpha=90^\circ$	$\alpha=0^\circ$	$\alpha=45^\circ$	$\alpha=90^\circ$	$\alpha=0^\circ$	$\alpha=45^\circ$	$\alpha=90^\circ$	$\alpha=0^\circ$	$\alpha=45^\circ$	$\alpha=90^\circ$
DA40	15	8	12	20	10	16	25	13	20	28	14	22	30	15	24	35	18	28	40	20	32
DA60	44	23	36	59	30	48	74	38	60	83	42	68	89	45	72	104	53	84	118	60	96
DA70	86	44	70	114	58	93	143	73	116	160	81	130	171	87	140	200	102	163	228	116	186
DA80	138	70	113	184	94	150	230	117	188	258	131	210	276	141	225	322	164	263	368	188	300
DA90	206	105	168	274	140	224	343	175	280	384	196	313	412	210	336	480	245	392	549	280	448
DA100	303	154	247	404	206	329	505	257	411	565	288	461	605	309	494	706	360	576	807	411	658
DA125	494	252	403	659	336	537	823	420	671	922	470	752	988	504	806	1153	588	940	1317	672	1074
DA140	690	352	563	920	469	750	1150	586	938	1288	657	1050	1380	704	1125	1610	821	1313	1840	938	1501
DA160	1044	532	851	1392	709	1135	1740	887	1418	1948	993	1589	2088	1064	1702	2435	1241	1986	2783	1419	2269
DA180	1456	742	1187	1941	989	1583	2426	1237	1978	2718	1385	2216	2912	1484	2374	3397	1731	2770	3882	1979	3165
DA220	2485	1299	1878	3314	1732	2504	4142	2165	3130	4639	2425	3506	4971	2598	3756	5799	3031	4382	6627	3464	5008
DA260	5107	2669	3859	6810	3559	5146	8512	4449	6432	9534	4983	7204	10215	5339	7719	11917	6228	9005	13619	7118	10292

Product Features

- Comply to UNI EN 15714-3:2009
- standard ISO connection standard: UNI EN ISO 5211
- Auxiliary connection: NAMUR
- Control angle: 90°
- Torque: Relative to control pressure
- Coating protection: Hard anodized surface
- Epoxy powder coated end cap

Option Features

- Spring return
- Available for 0° - 90° - 180°
- Available for high temperature up to 150°C
- Available for low temperature up to -50°C
- Hand wheel available

Overview

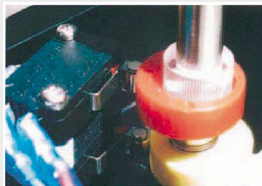

The APL Series Limit Switch Box is a compact, weather proof enclosure with internal adjustable position switches and an external visual indication. It has NAMUR standard mounting and drive, and is ideally suited for mounting on to quarter turn actuators and valves.

The APL Series Limit Switches features:

- Solid and compact design aluminum die-cast housing with polyester powder coated finish
- Bolt-on Visual Position Indicator
- "Quick-Set" spring loaded splined cam. No need to adjust again after initial setting. Easy setting without tools
- Dual cable entries
- Captive cover bolts to prevent loss when cover is removed
- NAMUR standard stainless steel shaft and bracket



Standard / Switch Specification

Model	APL-210	APL-310	APL-410	APL-510
Material	Aluminum			
Enclosure	IP67 / NEMA4 , 4X		IP67 / NEMA4 , 4X , 6	
Explosion Proof	-		Exd II BT6	Exd II CT6
Conduit Entry	G1/2 , NPT1/2 , M20x1.5		G3/4 , NPT3/4 , M25x1.5	
Ambient Temperature	-20°C ~ 80°C		-20°C ~ 80°C / -20°C ~ 60°C (Explosion Proof)	
Terminal Block	8 Points			
Position Indicator	On: Yellow / Off: Red			
Switch	2 x Mechanical Switches / 2 x Proximity Sensors			
Coating	Chromate Polyester Powder Coating			
Color	Black as Standard (other color on request)			
Mechanical Switch	2 x SPDT Switch Contact Arrangement: AC 250V 16A , DC 250V 0.3A DC 135V 0.5A , DC 30V 10A Operation Frequency: Up to 600 times/min (mechanical) Up to 60 times/min (electrical)			
Proximity Sensor	NJ2-V3-N P & F (intrinsic safety) Inductive Proximity Sensor Voltage: DC 8V Detection Zone: 2mm			

Overview

3/4M310 smart NAMUR solenoid valve has combined 5/2 way and 3/2 way functions. By rotating the seal 180 degrees to convert from 5/2 way to 3/2 ways function. The coil can change freely from IP65 to explosion proof type.



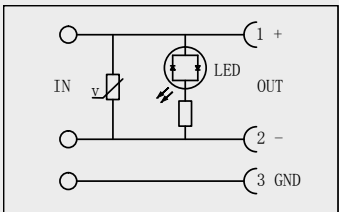
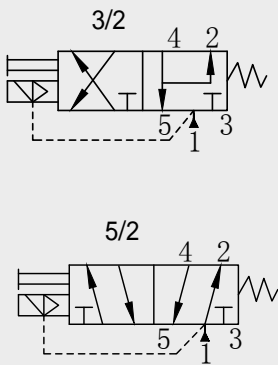
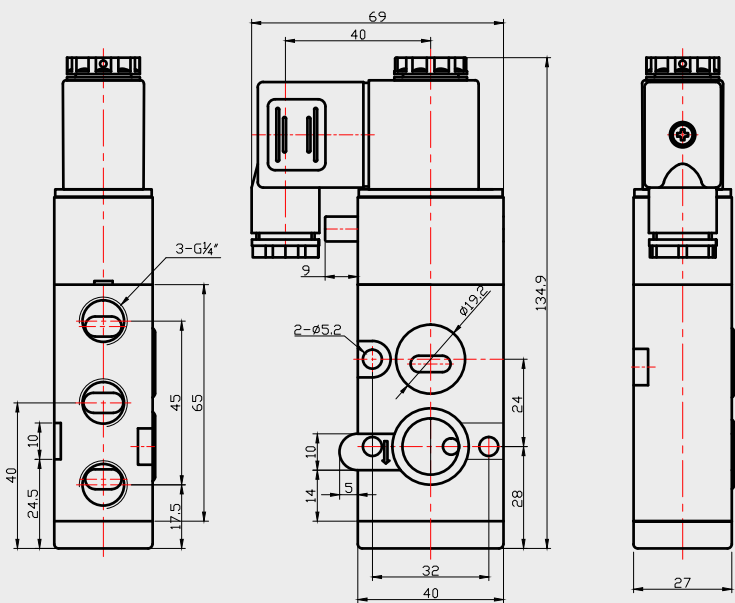
Technical Parameter

Solenoid Specification

Body Material	Extruded Aluminum
Surface Treatment	Anodized
Seal	NBR
Material In Contact With Medium	Aluminum, force Nylon, NBR
CV Value	CV = 1/4 (25mm)
Port Size	G1/4" BSPP / NPT1/4"
Mount Standard	24 x 32 NAMUR
Fix Screw	M5 x 27 Stainless steel
Enclosure	IP65 / NEMA 4 . 4X
Explosion Proof	No
Working Temperature	-10°C ~ +80°C
Working Pressure	1 ~ 8 Bar
Working Medium	≤40 um dry and lubricated air
Life Cycle	10 million times

Solenoid Coil Specification

Voltage	24VDC - 3.5W ; 110/220VAC - 4VA ; 240VAC - 4.5VA
Frequency	50/60Hz
Coil Cover	Stainless Steel 316
Cable Entry	M20 x 1.5 or G1/2" BSPP or NPT1/2"
Insulation Grade	H Class coil
Dielectric Strength	1000V
Duty Cycle	100% ED
Enclosure	IP65
Explosion Proof	No
Working Temperature	-10°C ~ +80°C



Overview

YT-1000 Electro-Pneumatic Positioner



The Electro-Pneumatic Positioner YT-1000 is used for operation of pneumatic rotary or linear valve actuator by means of electrical controller of control systems with an analog output signal of DC 4-20mA or split ranges.

- There is no resonance at 5-200Hz.
- The change of RA/DA acting is convenient. It is able to apply to single or double acting actuator.
- It is possible to prevent the hunting with orifice to the small size actuator..
- It is economical due to less air consumption.
- It is able to control the 1/2 split range with simple operation with replacement of parts.

Technical Parameter

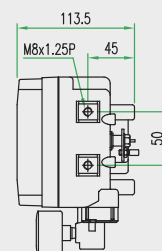
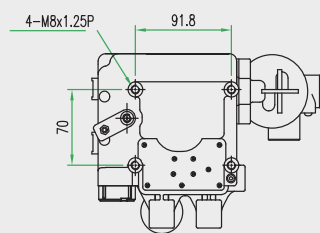
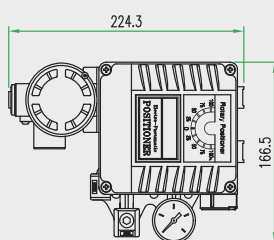
Model	YT1000-L		YT-1000-R	
Acting Type	Single Acting	Double Acting	Single Acting	Double Acting
Input Signal	4-20mA DC			
Impedance	250 ±15Ω			
Supply Pressure	0.14 ~ 0.7 Mpa (20 ~100 PSI) (1.4 ~ 7 Bar)			
Stroke	10 ~ 150 mm		0° - 90°	
Air Connection	NPT1/4" or PT1/4" Or G1/4"			
Gauge Connection	NPT1/8" or PT1/8"			
Conduit Entry	NPT1/2" or G1/2" or M20			
Explosion Proof	Non-explsn proof / Ex d mb IIB T5 / Ex d mb IIC T6 / Ex ia IIC T6			
Enclosure	IP66			
Ambient Temperature	Standard: -20°C ~ +70°C / Explosion Proof: -40°C ~ +60°C			
Linearity	±1.0% F.S	±2.0% F.S	±1.0% F.S	±2.0% F.S
Sensitivity	±0.2% F.S	±0.5% F.S	±0.2% F.S	±0.5% F.S
Hysteresis	±1.0% F.S			
Repeatability	±0.5% F.S			
Air Consumption	2.5 LPM (Sup = 0.14 Mpa / 20PSI)			
Flow Capacity	80 LPM (Sup = 0.14 Mpa / 20PSI)			
Housing Material	Aluminum die casting			
Weight	2.7 Kg		3.5 Kg	
Coating	Epoxy Polyester Powder Coating			

* Please specify connection for conduit entry and air connection upon order.

Order Code

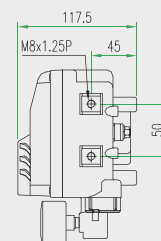
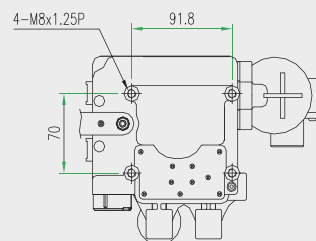
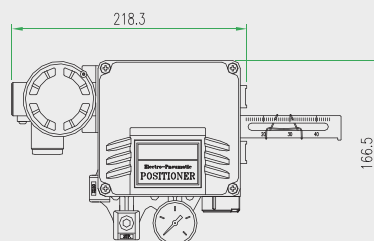
Rotary Type, YT-1000R

Model	Acting Type	Enclosure	Lever Type	Orifice	Connection	Ambient Temperature	Option
YT1000-R	S: Single Acting D: Double Acting	N: Non-explosion Z: CCC (Ex d mb IIB T5) B: CCC (Ex d mb IIC T6) G: CCC (Ex ia IIC T6)	1: M6 X 34 L 2: M6 X 63 L 3: M8 X 34 L 4: M8 X 63 L 5: NAMUR	1: $\phi 1$ 2: $\phi 2$ 3: None	1: G1/2 - RC1/4 2: G1/2 - NPT1/4 3: G1/2 - G1/4 4: M20 - NPT1/4 5: NPT1/2 - NPT1/4	S: -20°C ~ +70°C H: -20°C ~ +120°C L: -40°C ~ +70°C	0: None 1: Dome Indicator 2: Feedback (internal, non-explosion) 3: Feedback (external) 4: Limit Switch (internal, non-explosion) 5: Limit Switch (external)



Linear Type, YT-1000L

Model	Acting Type	Enclosure	Lever Type	Orifice	Connection	Ambient Temperature	Option
YT1000-L	S: Single Acting D: Double Acting	N: Non-explosion Z: CCC (Ex d mb IIB T5) B: CCC (Ex d mb IIC T6) G: CCC (Ex ia IIC T6)	1: 10 - 40 mm 2: 30 - 70 mm 3: 60 - 100 mm 4: 100 - 150 mm	1: $\phi 1$ 2: $\phi 2$ 3: None	1: G1/2 - RC1/4 2: G1/2 - NPT1/4 3: G1/2 - G1/4 4: M20 - NPT1/4 5: NPT1/2 - NPT1/4	S: -20°C ~ +70°C H: -20°C ~ +120°C L: -40°C ~ +70°C	0: None 1: Feedback (Non-explosion) 2: LCD Feedback (Non-explosion)



Overview



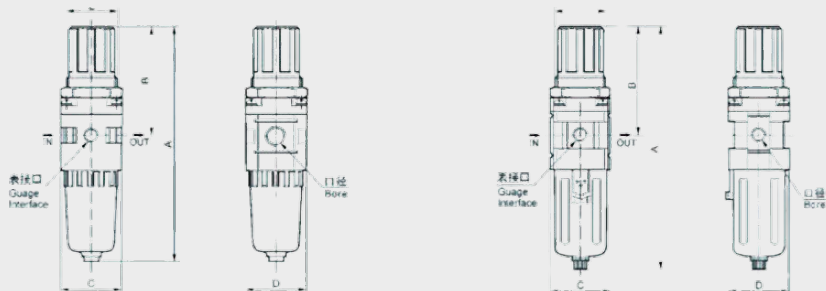
The air units include air regulator, filter and lubricator.
Air regulator can make the gas supply stable and constant pressure, reduce damage on valve or actuator due to sudden change in gas supply pressure.
Filter can clean the gas supply, which can filter the moisture in condensed air.
Lubricator can lubricate the movable parts, extend the life cycle of machine.

Instruction

- 1. Drain water by pressure or manual. In manual function, have to drain the water before the water level reaching bottom of filter element.
- 2. Pull up the rotation button before rotation, because the pressed rotation button is for positioning. Turn right to increase outlet pressure, please adjust slowly and evenly to the requested pressure.
- 3. Usage of lubricator, oil machine is adopted in the lubricator. The oil can not exceed 4/5 of the cup. Zero refers to the minimum oil and 9 refers to the maximum oil. It can not rotate from 9 to 0, it has to be rotated clockwise.

Technical Parameter

Model	AW1000-M5	AW2000-01	AW2000-02	AW3000-02	AW3000-03	AW4000-03	AW4000-04	AW4000-06	AW5000-06	AW5000-10
Rated Flow (L/Min)	100	550	550	2000	2000	3000	4000	4500	5500	5500
Port Size	M5	G1/8"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G3/4"	G3/4"	G1"
Filter Precision	25μm									
Max. Working Pressure	1.0 Mpa									
Ensured Pressure	1.5 Mpa									
Ambient Temperature	5℃ ~ 60℃									
Adjustable Pressure	0.05 ~ 0.7 Mpa	0.05 ~ 0.85 Mpa								
Container Material	Polycarbonate									
Protective Cover	Not Available			Available						
Drain Function	Differential Drain			Differential Drain / Automatic Drain						
Valve Type	With Overflow									



Overview



Our butterfly valve combines advanced technology and with many years of the production, has won national quality award as well as approved by international standard.

Our butterfly valve can be used in various applications like petroleum, chemical industry, food industry, medicine, paper making, water and electricity, marine offshore, drainage, metallurgy, energy, and the system applicable to a variety of corrosive gas, liquid, semi liquid and solid powder medium.

Available for ANSI, DIN, JIS, GB standards.

Our ball valve are suitable for various application like air, steam, water, gas, oil and petrochemical, metallurgy, light industry, paper-making, power plant, and refrigeration with corrosive medium.

Available for international standard ANSI, DIN, JIS, GB. Exquisite appearance, excellent performance, excellent quality, simple structure, simple maintenance, long service life.

Available for threaded and flange ball valves.



Our Gate, Globe and Check valves are widely used in water, steam, power plant, oil and gas and petrochemical. By selecting different materials, suitable for various media such as water, steam, oil, nitric acid, acetic acid, strong oxidizing media.

Our product design and manufacturing complies to international standards. ANSI Class150~900, PN2.0~160MPa, JIS 10~20K.

Complies to international piping flange standards and flange sealing surface types to meet various engineering needs and user requirements.

With reliable sealing and excellent performance. Compact and reasonable structural design, beautiful appearance.



Resilient Seated Butterfly Valves



Wafer Type butterfly Valve

Size	1-1/2" - 36"		
Pressure	ANSI	DIN	JIS
	125LB 150LB	PN10 PN16	10K
Material	DI / CF8 / CF8M		
Disc	Coated Nylon / Coated Nickle / Stainless Steel		
Seat	EPDM / NBR		
Ends	Wafer		
Features	ISO 5211 Mounting Pad Pin-less design, easy maintenance Without drilling on the shaft for taper pin Self-lubricating guide stem Spherical sealing surface		
Options	Electric Actuated, Pneumatic Actuated Gearbox operated, Handle operated		



Lug Type butterfly Valve

Size	2" - 24"		
Pressure	ANSI	DIN	JIS
	125LB 150LB	PN10 PN16	10K
Material	DI / CF8 / CF8M		
Disc	Coated Nylon / Coated Nickle / Stainless Steel		
Seat	EPDM / NBR		
Ends	Lug		
Features	ISO 5211 Mounting Pad Pin-less design, easy maintenance Without drilling on the shaft for taper pin Self-lubricating guide stem Spherical sealing surface		
Options	Electric Actuated, Pneumatic Actuated Gearbox operated, Handle operated		



Flange Type butterfly Valve

Size	2" - 24"		
Pressure	ANSI	DIN	JIS
	150LB	PN10 PN16	10K
Material	DI / CF8 / CF8M		
Disc	Coated Nylon / Coated Nickle / Stainless Steel		
Seat	EPDM / NBR		
Ends	Flange		
Features	API609 design ISO 5211 Mounting Pad Pin-less design, easy maintenance Spherical sealing surface		
Options	Electric Actuated, Pneumatic Actuated Gearbox operated, Handle operated		



U Type butterfly Valve

Size	16" - 48"	
Pressure	ANSI	DIN
	150LB	PN10 PN16
Material	DI / CF8 / CF8M	
Disc	Coated Nylon / Coated Nickle / Stainless Steel	
Seat	EPDM / NBR	
Ends	Flange	
Features	API609 design ISO 5211 Mounting Pad Pin-less design, easy maintenance Spherical sealing surface	
Options	Electric Actuated, Pneumatic Actuated Gearbox operated	

Ball Valve Flange End



2-PC Ball Valve Flange End

Size	1/2" - 8" (Above 8" on request)		
Pressure	CLASS	DIN	JIS
	150 300	PN16 PN40	10K 20K
Material	WCB / CF8 / CF8M		
Seat	PTFE / TFM1600 (option)		
Ends	Flanged		
Features	Locking Device, ISO 5211 Mounting Pad Blow-out proof stem, Investment casting		
Options	Anti-static device, API 607 Fire safe Electric Actuated, Pneumatic Actuated		



3-PC Ball Valve Flange End

Size	1/2" - 6"		
Pressure	CLASS	DIN	GB
	150 300	PN16 PN40	PN16
Material	WCB / CF8 / CF8M		
Seat	PTFE / TFM1600 (option)		
Ends	Flanged		
Features	Locking Device, ISO 5211 Mounting Pad Blow-out proof stem, Investment casting		
Options	Anti-static device, API 607 Fire safe Electric Actuated, Pneumatic Actuated		

Ball Valve Thread End



1-PC Ball Valve Thread End

Size	1/2" - 4"	
Pressure	1000WOG	PN63
Material	WCB / CF8 / CF8M	
Seat	PTFE	
Ends	NPT / BSP / BSPT	
Features	Locking Device, Blow-out proof stem Investment casting	



1-PC Ball Valve With Mounting Pad

Size	3/8" - 2"	
Pressure	1000WOG	PN63
Material	WCB / CF8 / CF8M	
Seat	PTFE	
Ends	NPT	
Features	Locking Device, ISO 5211 Mounting Pad, Blow-out proof stem, Investment casting	
Options	Electric Actuated, Pneumatic Actuated	

Ball Valve Thread End



2-PC Ball Valve Thread End

Size	1/4" - 4"	1/4" - 2"	1/4" - 1"
Pressure	1000WOG PN63	1500WOG PN100	2000WOG PN150
Material	WCB / CF8 / CF8M		
Seat	PTFE		
Ends	NPT		
Features	Locking Device, Blow-out proof stem, Investment casting		
Options	Electric Actuated, Pneumatic Actuated		



2-PC Ball Valve Thread End With Mounting Pad

Size	1/4" - 4"	
Pressure	1000WOG	PN63
Material	WCB / CF8 / CF8M	
Seat	PTFE	
Ends	NPT	
Features	Locking Device, ISO 5211 Mounting Pad, Blow-out proof stem, Investment casting, Live-loading design	
Options	Electric Actuated, Pneumatic Actuated	

Ball Valve Thread/Socket/Butt Weld End



3-PC Ball Valve Thread/Socket End

Size	1/4" - 4"	
Pressure	1000WOG	PN63
Material	WCB / CF8 / CF8M	
Seat	PTFE	
Ends	NPT / BSP / BSPT / Socket Welded	
Features	Locking Device, Blow-out proof stem, Investment casting	



3-PC Ball Valve Butt Weld End

Size	1/4" - 4"	
Pressure	1000WOG	PN63
Material	WCB / CF8 / CF8M	
Seat	PTFE	
Ends	Butt Welded	
Features	Locking Device, Blow-out proof stem, Investment casting	
Options	Direct Mounting Pad	

Ball Valve Thread/Socket/Butt Weld End



3-PC Ball Valve Thread/Socket End With Mounting Pad

Size	1/4" - 4"	
Pressure	1000WOG	PN63
Material	WCB / CF8 / CF8M	
Seat	PTFE	
Ends	NPT / BSP / BSPT / Socket Welded	
Features	Locking Device, Blow-out proof stem Investment casting, Live-loading design, ISO5211 Mounting pad	
Options	Electric Actuated, Pneumatic Actuated	



3-PC Ball Valve Butt Weld End With Mounting Pad

Size	1/2" - 4"	
Pressure	1000WOG	PN63
Material	WCB / CF8 / CF8M	
Seat	PTFE / TFM1600	
Ends	Butt Welded	
Features	Locking Device, Blow-out proof stem Investment casting, Live-loading design, ISO5211 Mounting pad	
Options	Cavity Filled Seat, Electric Actuated, Pneumatic Actuated	

Ball Valve/3-Way Ball Valve Thread End



3-PC Ball Valve Thread/Socket/Butt Weld End With Mounting Pad

Size	1/4" - 4"	
Pressure	2000WOG	PN150
Material	WCB / CF8 / CF8M	
Seat	RPTFE / PEEK	
Ends	NPT / BSP / BSPT / Socket / Butt Welded	
Features	Locking Device, Blow-out proof stem Investment casting, Live-loading design, ISO5211 Mounting pad	
Options	Electric Actuated, Pneumatic Actuated	



3-Way Ball Valve Thread End

Size	1/2" - 4"	
Pressure	1000WOG	PN63
Port Type	T Port / L Port	
Material	WCB / CF8 / CF8M	
Seat	PTFE / TFM1600	
Ends	Butt Welded	
Features	Locking Device, Blow-out proof stem Investment casting, four seats, 360 degree rotary handle	
Options	Direct Mounting Pad, Electric Actuated, Pneumatic Actuated	

Gate / Globe / Check Valve



Gate Valve Thread End

Size	1/2" - 3"
Pressure	200WOG
Material	CF8 / CF8M
Seat	PTFE
Ends	NPT / BSP / BSPT
Features	Various thread standards available Stainless steel one piece seat Using precision casting



Globe Valve Thread End

Size	1/4" - 2"
Pressure	200WOG
Material	CF8 / CF8M
Seat	PTFE
Ends	NPT / BSP / BSPT
Features	Various thread standards available Stainless steel one piece seat Using precision casting



Swing Check Valve Thread End

Size	1/2" - 2"
Pressure	200WOG
Material	WCB / CF8 / CF8M
Disc	FKM / VITON
Seat	PTFE
Ends	NPT / BSP / BSPT
Features	Various thread standards available Swing disc Using precision casting



Y Type Check Valve Thread End

Size	1/2" - 3"
Pressure	800WOG
Material	CF8 / CF8M
Disc	Metal / PTFE
Ends	NPT / BSP / BSPT
Features	Various thread standards available Available to install horizontally or vertically Using precision casting

Gate / Globe / Check Valve



Gate Valve Flange End

Size	2" - 24"		
Pressure	ANSI	DIN	JIS
	150LB 300LB 600LB	PN16 PN25	10K 20K
Material	WCB / CF8 / CF8M		
Seat	PTFE		
Ends	Flange, RF		
Features	Rising or Non-Rising stem Outside Screw & Yoke, Flexible Wedge Standard in Trim#8 Available for Pneumatic or Electric Actuator		



Globe Valve Flange End

Size	1/2" - 16"		
Pressure	ANSI	DIN	JIS
	150LB 300LB 600LB	PN16 PN25	10K 20K
Material	WCB / CF8 / CF8M		
Seat	PTFE		
Ends	Flange, RF		
Features	Rising or Non-Rising stem Outside Screw & Yoke, Flexible Wedge Standard in Trim#8 Available for Pneumatic or Electric Actuator		



Swing Check Valve Flange End

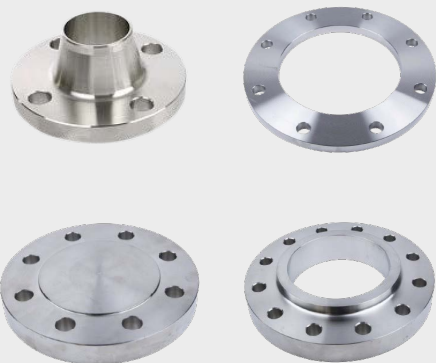
Size	2" - 20"		
Pressure	ANSI	DIN	JIS
	150LB 300LB 600LB	PN16 PN25	10K 20K
Material	WCB / CF8 / CF8M		
Disc	WCB / CF8 / CF8M		
Ends	Flange, RF		
Features	Swing Type Design Bolted Bonnet Design Full enclosed Gasket Standard in Trim#8		



Dual Plate Check Valve

Size	2" - 24"		
Pressure	ANSI	DIN	JIS
	125LB 150LB	PN10 PN16	10K
Material	WCB / CF8 / CF8M		
Seat	NBR / EPDM / VITON		
Ends	Wafer, RF		
Features	Low Pressure Drop No Slamming, Plates Start closing Against the Flow Before the stops		

Overview



A flange is a common way of forming a connection between pipes, pumps and valves. It involves bolting down or welding together two flange pieces together in a pipe, pump or valve to connect the two different pieces of pipe, pumps or valves.

Flanges are often round or circular in shape, although they come in all sorts of shapes and sizes including irregular ones. The item they will be connecting determines the size and shape of the flange.

Due to the fact the flanges are widely used in plumbing systems and industrial applications, there are different standards for manufacturing, like ANSI, JIS, DIN and GB standard.

Technical Parameter



Slip On Flange

Size	1/2" - 24"			
	ANSI	JIS	DIN	GB
Pressure	150LB	5K	PN10	PN10
	300LB	10K	PN16	PN16
	600LB	16K	PN25	PN25
	900LB	20K	PN40	PN40
Material	Stainless Steel			
Option	Other material and sizes on request			



Screwed Flange

Size	1/2" - 24"		
	ANSI	DIN	GB
Pressure	150LB	PN10	PN10
	300LB	PN16	PN16
	600LB	PN25	PN25
	900LB	PN40	PN40
Material	Stainless Steel		
Option	Other material and sizes on request		



Socket Welding Flange

Size	1/2" - 24"		
	ANSI	DIN	GB
Pressure	150LB	PN10	PN10
	300LB	PN16	PN16
	600LB	PN25	PN25
	900LB	PN40	PN40
Material	Stainless Steel		
Option	Other material and sizes on request		



Welding Neck Flange

Size	1/2" - 24"		
	ANSI	DIN	GB
Pressure	150LB	PN10	PN10
	300LB	PN16	PN16
	600LB	PN25	PN25
	900LB	PN40	PN40
Material	Stainless Steel		
Option	Other material and sizes on request		



Lap Joint Flange

Size	1/2" - 24"		
	ANSI	DIN	GB
Pressure	150LB	PN10	PN10
	300LB	PN16	PN16
	600LB	PN25	PN25
	900LB	PN40	PN40
Material	Stainless Steel		
Option	Other material and sizes on request		



Blind / Plate (JIS) Flange

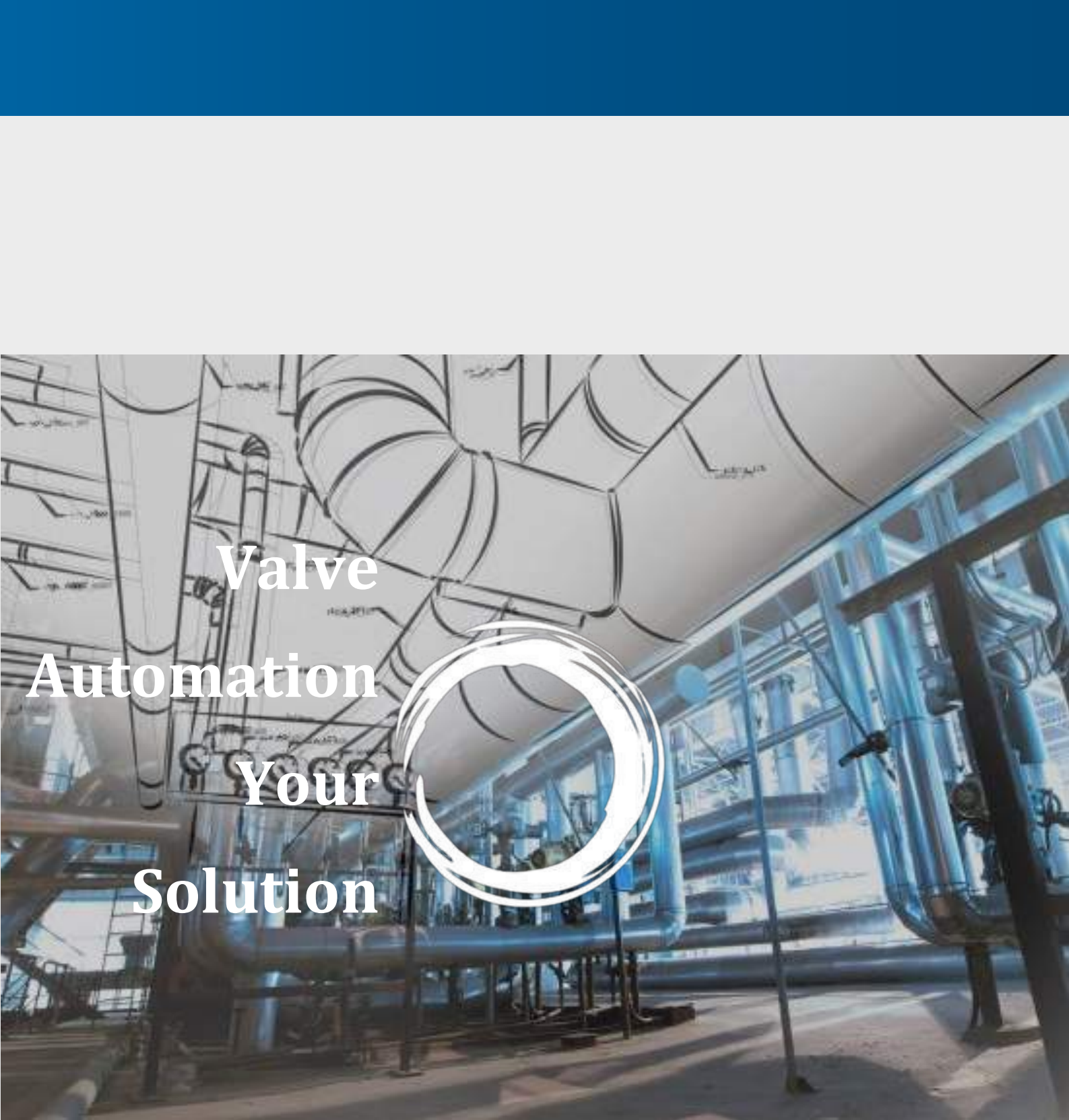
Size	1/2" - 24"			
	ANSI	JIS	DIN	GB
Pressure	150LB	5K	PN10	PN10
	300LB	10K	PN16	PN16
	600LB	16K	PN25	PN25
	900LB	20K	PN40	PN40
Material	Stainless Steel			
Option	Other material and sizes on request			

Project Reference



★ NOTICE

For any specific applications, users are kindly requested to contact CONSTANT CONTROL for technical advice. Any information provided in this catalogue is subject from time to time change without notice for error rectification, product discontinuation, design modification, new product introduction or any other cause that CONSTANT CONTROL considers necessary. All right belongs to CONSTANT CONTROL CO., LTD.



Valve Automation Your Solution

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