

PRESSURE CONTROLS

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SMALL PRESSURE CONTROLS (DISC TYPE)

High Volume OEM Item

Type ACB & LCB

GENERAL DESCRIPTION

- Pressure Control CB series are disc type small pressure controls featuring compact structure and field proven high quality.
- It is designed to suit modern designed application with its compact and various type of connection styles, such application as air conditioning, automobile industries and others.

Type ACB···High & medium pressure range

Type LCB···Low pressure range



Type ACB



Type ACB

CE mark applicable (available upon request for Type ACB & Type LCB)

UL recognized (available upon request for Type ACB)

SPECIFICATIONS

- Ambient temperature: -30 to 100°C

STANDARD TYPE NUMBER SELECTION

Type ACB & LCB

Unit: MPa {kgf/cm²}

Catalog No.	Range		Max. Pressure	Contact Functions	Pressure Connections	Terminal Construction	Application	Dimension	Wt. (kg)	
	Min.	Max.								
ACB	0.7 {7}	4.5 {45}	4.5 {45}	SPST (High Cut)	Female Flare	Open	High Pressure Cut Out	①	0.03	
						Water Proof		②	0.06	
					1/4" Solder	Open		③	0.03	
						Water Proof		④	0.06	
				SPDT	Female Flare	Open		⑤	0.03	
						Water Proof		⑥	0.06	
								SPST + Manual Reset		⑦
										SPDT + Manual Reset
LCB	0.1 {1}	0.7 {7}	1.5 {15}	SPST (Low Cut)	1/4" Solder	Open	Low Pressure Cut Out	①	0.03	
						Water Proof		②	0.06	
					Fan Control	③				
						④				

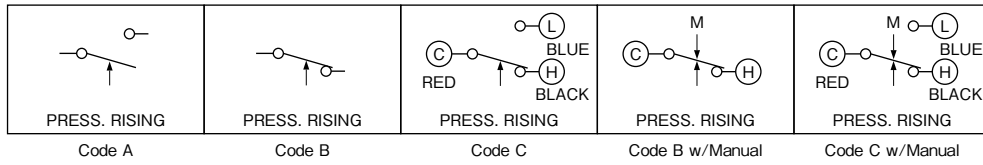
ELECTRICAL RATINGS

Type ACB & LCB

Category of Ratings			M Rating			L Rating			T Rating
Rated Amps. (A)	Rated Voltage (V)	Power Factor (cos φ)	125V.AC	250V.AC	12V.DC	125V.AC	250V.AC	12V.DC	12/24V.DC
	Non-Inductive Current		1	1 to 6	1 to 4	1 to 4	0.02 to 2	0.02 to 1	0.05 to 0.1
Inductive Current	Full Load	0.75	—						
	Locked Rotor	0.45	1 to 24	1 to 16	—	0.02 to 8	0.02 to 4	—	

CONTACT FUNCTIONS

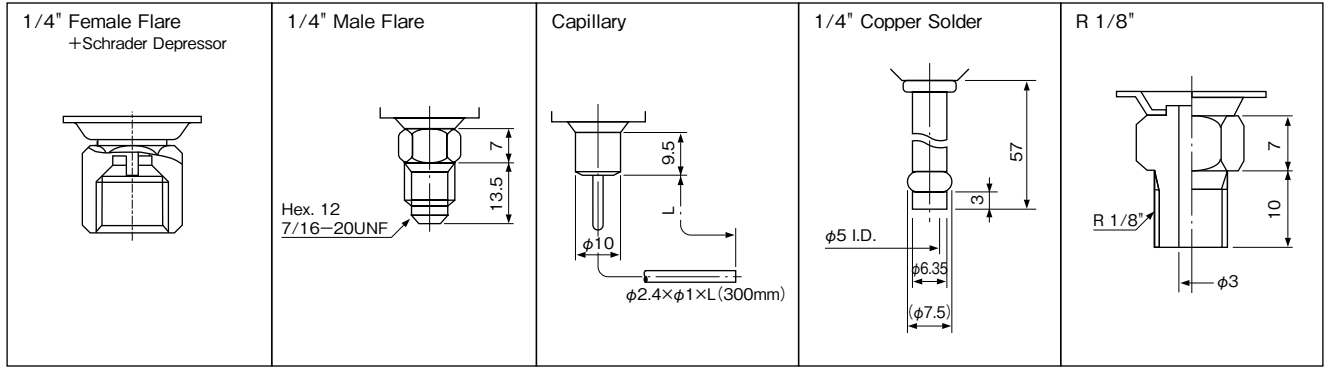
Type ACB & LCB



↑ : Operating direction on press. increase at High Press.Side
 M ↓ : Operating direction on manual reset

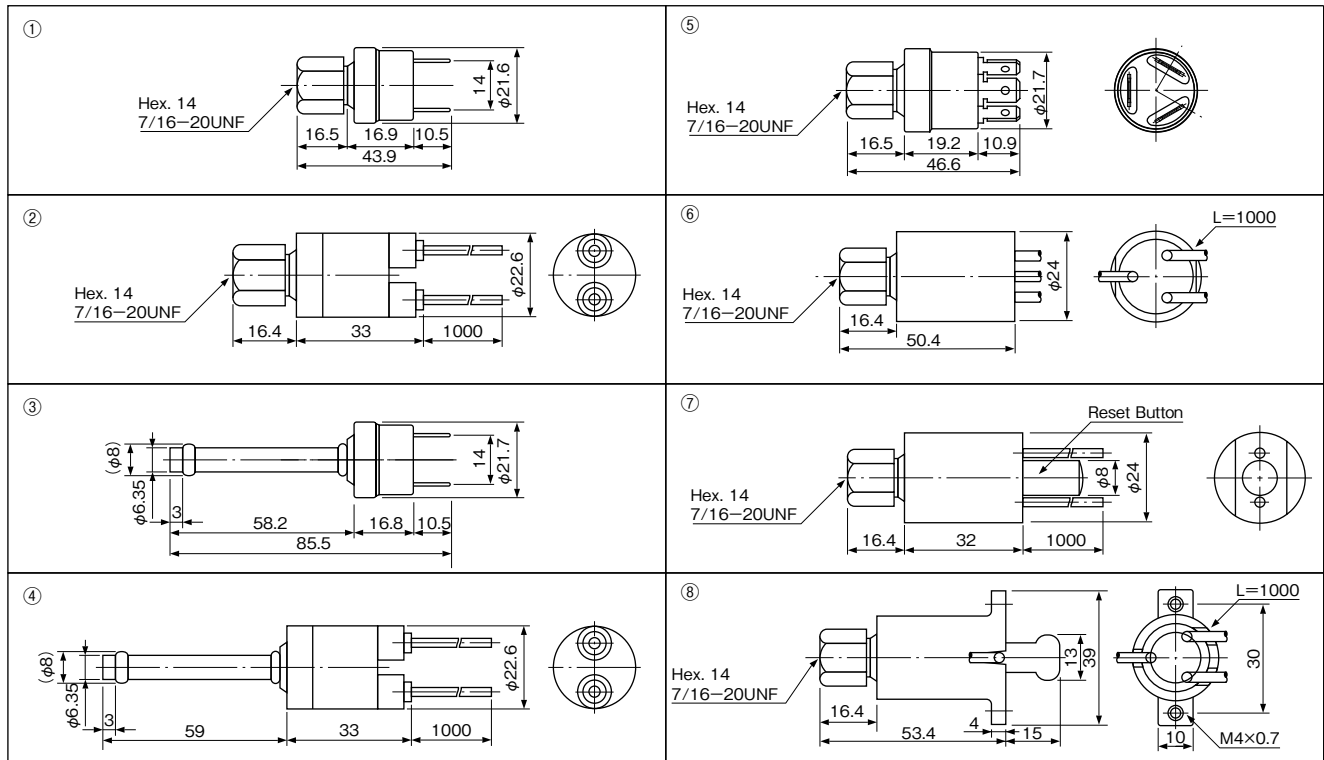
PRESSURE CONNECTIONS

Unit: mm



DIMENSIONS

Unit: mm



SMALL PRESSURE CONTROLS

High Volume OEM Item

Type LTB, ETB, HTB & FTB

GENERAL DESCRIPTION

- Factory set pressure switch designed for use in refrigeration units of quantity production such as room air conditioner (heat pump), packaged air conditioner (heat pump), water chiller etc.
- With SPDT contact mechanism.
- Models identified with electrical rating code L can be used for minimum 0.02A/125V.AC rating.
- Models with 0.78 to 1.96 MPa {8 to 20 kgf/cm²} range are also available for HTB and FTB.
- Models with 0.10 MPa {1 kgf/cm²} differential are also available for HTB (max. range limit: 1.27 MPa {13 kgf/cm²}).

CE mark applicable (available upon request)

UL recognized (available upon request)



Type HTB



Type FTB

TYPE NUMBER SELECTION (SPECIFICATIONS)

Unit: MPa {kgf/cm²}

Catalog No.	Application	Range		Differential		Factory Setting		Max. Working Pressure	Pressure Connections	* Electrical Ratings	Wt. (kg)
		Min.	Max.			On	Off				
LTB-A301	Low Pressure	0	0.392 {4}	0.059 to 0.147 {0.6 to 1.5}		0.294 {3}	0.196 {2}	1.5 {15}	①	H	0.08
LTB-A302										M	
LTB-A303										L	
LTB-A304										H	
LTB-A305										M	
LTB-A306										L	
ETB-A301	Low Pressure	0.098 {1}	0.245 {2.5}	Automatic operation on pressure decrease and manual reset		Manual Reset	0.098 {1}		①	H	0.1
ETB-A302										M	
ETB-A303										L	
ETB-A304										H	
ETB-A305										M	
ETB-A306										L	
HTB-A301	High Pressure	1.96 {20}	2.94 {30}	Lower Limit 0.29 to 0.49 {3 to 5} / Upper Limit 0.29 to 0.69 {3 to 7}		1.96 {20}	2.45 {25}	3.3 {33}	①	H	0.09
HTB-A302										M	
HTB-A303										L	
HTB-A304										H	
HTB-A305										M	
HTB-A306										L	
FTB-A301	High Pressure	1.96 {20}	2.94 {30}	Automatic operation on pressure increase and manual reset		Manual Reset	2.45 {25}	3.3 {33}	①	H	0.1
FTB-A302										M	
FTB-A303										L	
FTB-A304										H	
FTB-A305										M	
FTB-A306										L	

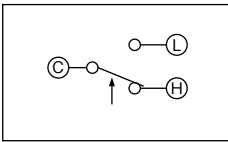
* Refer to Electrical Ratings Table in the list below.

ELECTRICAL RATINGS

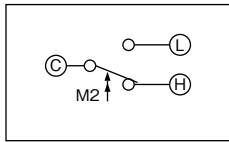
Rated Voltage (V)		Terminal	Power Factor (cos φ)	H Rating		M Rating		L Rating	
				125V.AC	250V.AC	125V.AC	250V.AC	125V.AC	250V.AC
Rated Amps. (A)		C-L	1	1 to 10	1 to 10	1 to 3	0.5 to 1.5	0.02 to 2	0.02 to 1
Non-Inductive Current				1 to 6	1 to 6	1 to 2	0.5 to 1		
Inductive Current				Locked Rotor	1 to 24	1 to 24	1 to 8	0.5 to 4	0.02 to 8
Non-Inductive Current		C-H	1		1 to 16	1 to 16		0.5 to 4	0.02 to 2
Inductive Current				1 to 64	1 to 64	1 to 6	0.5 to 16		
Full Load				Locked Rotor	0.45	1 to 64	1 to 64	1 to 24	0.5 to 5

CONTACT FUNCTIONS

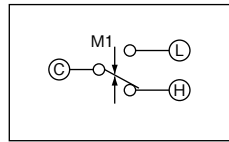
Type LTB & HTB



Type ETB (M2 : Manual Reset)



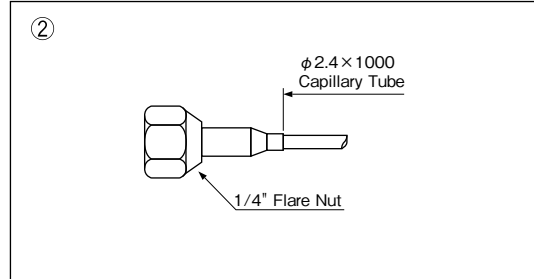
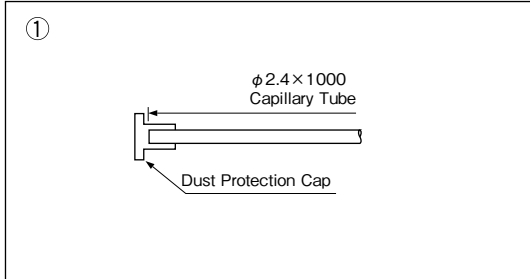
Type FTB (M1 : Manual Reset)



C	Common Terminal
L	Close on Pressure Increase
H	Close on Pressure Decrease

↑ : Operating direction on press. increase at High Press.Side
 M1 ↓, M2 ↑ : Operating direction on manual reset

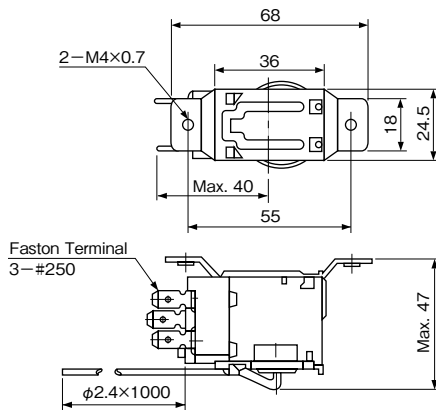
PRESSURE CONNECTIONS



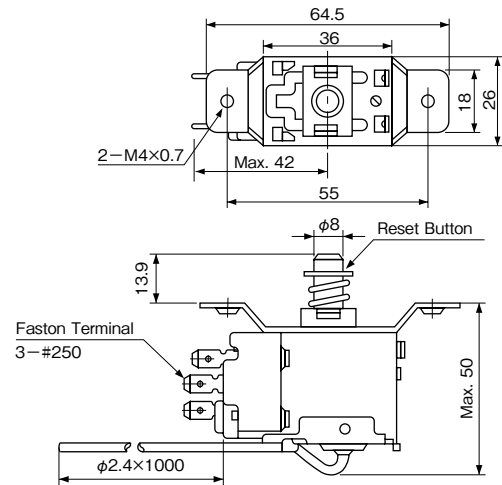
• 1/4" Solder Connection is also available upon request.

DIMENSIONS

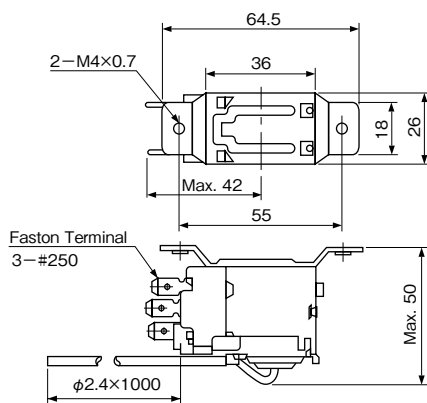
Type LTB



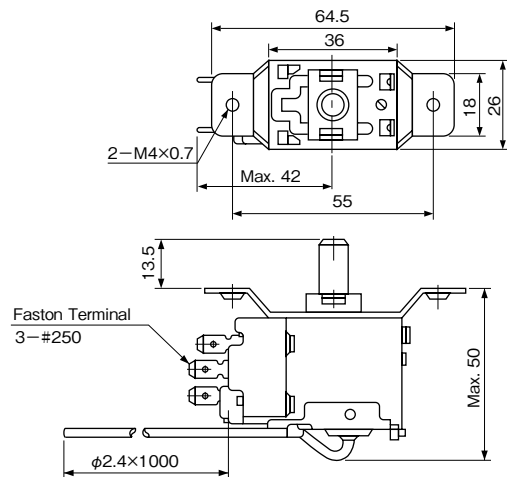
Type ETB



Type HTB



Type FTB



Unit: mm

SINGLE FUNCTION PRESSURE CONTROLS

Type **SYS**

SAGInoMIYA

GENERAL DESCRIPTION

- Type SYS is standard model. Reliable performance, and long life products.
- Applicable for R410A (SYS-C140X0)
- Scale plate with significantly clear visibility
- Compact and light weight



CE mark applicable (available upon request)

TYPE NUMBER SELECTION (SPECIFICATIONS)

Automatic reset type

Unit: MPa {kgf/cm²}

*1 Catalog No.	*2 Refrigerant	Range		Differential		Factory Setting		Max. Working Pressure	Contact Function	Wt. (kg)
		Min.	Max.	*3 Min.	Max.	Off (On)	On (Off)			
SYS-C103X0	R404A, R407C R134a, R22	-0.06 {-50cmHg}	0.3 {3}	0.035 {0.35}	0.2 {2}	0.05 {0.5}	0.15 {1.5}	1.65 {16.5}	Diagram 1	0.25
SYS-C106X0			0.6 {6}	0.06 {0.6}	0.4 {4}	0.2 {2}	0.3 {3}			
SYS-C110X0		0.1 {1}	0.1 {1}	0.3 {3}	0.4 {4}	0.6 {6}				
SYS-C130X0		0.5 {5}	0.3 {3}	1 {10}	1.5 {15}	2 {20}				
SYS-C135X0		3.5 {35}	1.5 {15}	2 {20}	2.5 {25}	3.8 {38}				
SYS-C140X0	R410A etc.	1 {10}	4.3 {43}	0.5 {5}	1 {10}	4.7 {47}				

Manual reset type

Unit: MPa {kgf/cm²}

*1 Catalog No.	*2 Refrigerant	Range		Manual Reset	Factory Setting		Max. Working Pressure	Contact Function	Wt. (kg)
		Min.	Max.		Off (On)	On (Off)			
SYS-C106X0M2	R404A, R407C R134a, R22	-0.06{-50cmHg}	0.6 {6}	Automatic operation on pressure decrease, and manual reset.	0.2 {2}	Manual Reset	1.65 {16.5}	Diagram 2	0.25
SYS-C130X0M2		0.5 {5}	3 {30}		1.5 {15}	3.3 {33}			

• Enclosure: IP20

*1 Standard unit display is MPa. Other unit displays are available upon request by changing "X0" portion of a catalog number.

[X0: MPa, X1: bar, X2: kgf/cm², X3: kPa, X4: lb/in², X5: psi]

*2 The products other than SYS-C140X0 are not compatible with R410A refrigerant.

*3 Indicates the average value also considering instrumental errors.

ELECTRICAL RATINGS

Rated Voltage (V)		Power Factor (cos φ)	125/250V. AC
Rated Amps. (A)			
Non-Inductive Current		1	12
Inductive Current	Full Load	0.75	
	Locked Rotor	0.45	72

Minimum contact capacity: 50mA

CONTACT FUNCTIONS

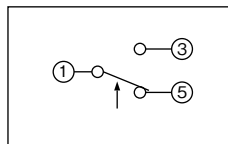


Diagram 1

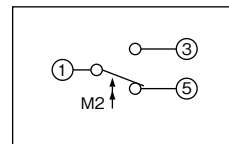
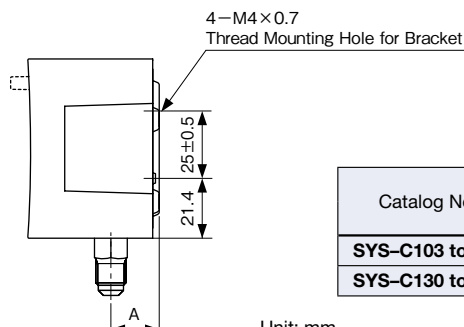
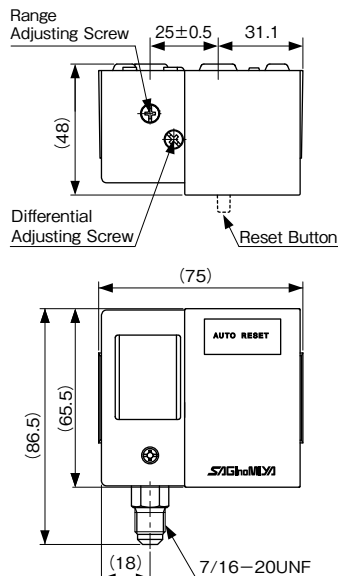


Diagram 2

Diagram 1 & 2	
1	Common Terminal
3	Close on Pressure Increase
5	Close on Pressure Decrease

↑: Operating direction on press. increase at High Press. Side
M2↑: Operating direction on manual reset

DIMENSIONS



Catalog No.	Unit: mm
	A
SYS-C103 to 110	17.7
SYS-C130 to 140	16.7

Unit: mm

SINGLE FUNCTION PRESSURE CONTROLS

Type **HNS**

SAGInoMIYA

GENERAL DESCRIPTION

- Type HNS is high pressure controls with fixed pressure differential and safety cut out.
- Enclosure: IP20(With the upper lid: IP44)

CE mark applicable (available upon request)

UL recognized (available upon request)



TYPE NUMBER SELECTION (SPECIFICATIONS)

Automatic reset type

Unit: MPa {kgf/cm²}

Catalog No.	Range		Differential	Factory Setting		Max. Working Pressure	Contact Function	Wt. (kg)
	Min.	Max.	Fixed	Off	On			
HNS-C130X	0.8 {8}	3 {30}	0.3 to 0.5 {3 to 5}	2 {20}	1.6 {16}	3.3 {33}	Diagram 1	0.24

Manual reset type

Unit: MPa {kgf/cm²}

Catalog No.	Range		Manual Reset	Factory Setting		Max. Working Pressure	Contact Function	Wt. (kg)
	Min.	Max.		Off	On			
HNS-C130XM1	0.8 {8}	3 {30}	Automatic operation on pressure increase, and manual reset.	2 {20}	Manual Reset	3.3 {33}	Diagram 2	0.24

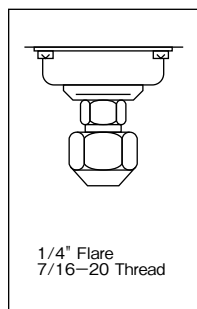
• Drip Proof Models: Available upon request. (Refer to page 49.)

ELECTRICAL RATINGS

Rated Voltage (V)	Power Factor (cos φ)	125/250V. AC
Rated Amps. (A)		
Non-Inductive Current	1	12
Inductive Current	Full Load	0.75
	Locked Rotor	0.45
		72

Minimum contact capacity: 50mA

PRESSURE CONNECTIONS



Standard

Refer to page 43, 44.

CONTACT FUNCTIONS

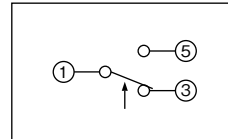


Diagram 1

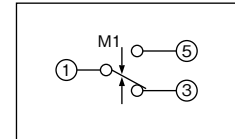


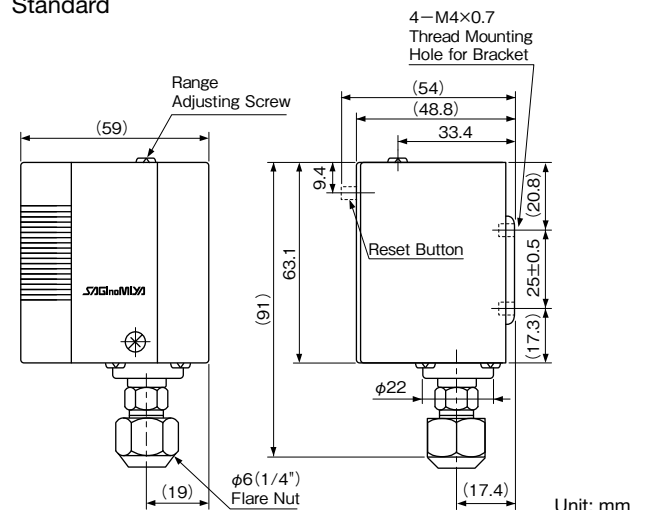
Diagram 2

Diagram 1 & 2	
1	Common Terminal
3	Open on Pressure Increase
5	Open on Pressure Decrease

↑ : Operating direction on press. increase at High Press. Side
M1↓ : Operating direction on manual reset

DIMENSIONS

Standard



Unit: mm

DUAL PRESSURE CONTROLS

Type **DYS**

SAGHOMIYA

GENERAL DESCRIPTION

- Type DYS is dual pressure controls that is integrated with over pressure protection of the high pressure side and control of low pressure side of the refrigeration unit.
- Scale plate with significantly clear visibility
- Compact and light weight

CE mark applicable (available upon request)



TYPE NUMBER SELECTION (SPECIFICATIONS)

Automatic reset type

Unit: MPa {kgf/cm²}

*1 Catalog No.	Pressure Side	Range		Differential		Factory Setting		Max. Working Pressure	Contact Function	Wt. (kg)
		Min.	Max.	*2 Min.	Max.	Off	On			
DYS-D306X0	Low Side	-0.06 {-50cmHg}	0.6 {6}	0.06 {0.6}	0.4 {4}	0.2 {2}	0.3 {3}	1.65 {16.5}	Diagram 1	0.40
	High Side	0.8 {8}	3 {30}	Approx.0.5 fixed. {Approx.5 fixed.}		2 {20}	1.5 {15}	3.3 {33}		
DYS-D606X0	Low Side	-0.06 {-50cmHg}	0.6 {6}	0.06 {0.6}	0.4 {4}	0.2 {2}	0.3 {3}	1.65 {16.5}	Diagram 2	
	High Side	0.8 {8}	3 {30}	Approx.0.5 fixed. {Approx.5 fixed.}		2 {20}	1.5 {15}	3.3 {33}		

Manual reset type

Unit: MPa {kgf/cm²}

*1 Catalog No.	Pressure Side	Range		Differential		Factory Setting		Max. Working Pressure	Contact Function	Wt. (kg)
		Min.	Max.	*2 Min.	Max.	Off	On			
DYS-D306X0M	Low Side	-0.06 {-50cmHg}	0.6 {6}	0.06 {0.6}	0.4 {4}	0.2 {2}	0.3 {3}	1.65 {16.5}	Diagram 3	0.40
	High Side	0.8 {8}	3 {30}	Automatic operation on pressure increase, and manual reset.		2 {20}	manual reset	3.3 {33}		
DYS-D606X0M	Low Side	-0.06{-50cmHg}	0.6 {6}	0.06 {0.6}	0.4 {4}	0.2 {2}	0.3 {3}	1.65 {16.5}	Diagram 4	
	High Side	0.8 {8}	3 {30}	Automatic operation on pressure increase, and manual reset.		2 {20}		3.3 {33}		
DYS-D606X0MM	Low Side	-0.06{-50cmHg}	0.6 {6}	Automatic operation on pressure decrease, and manual reset.		0.2 {2}	manual reset	1.65 {16.5}	Diagram 5	
	High Side	0.8 {8}	3 {30}	Automatic operation on pressure increase, and manual reset.		2 {20}		3.3 {33}		

• Enclosure: IP20

*1 Standard unit display is MPa. Other unit displays are available upon request by changing "X0" portion of a catalog number.

[X0: MPa, X1: bar, X2: kgf/cm², X3: kPa, X4: lb/in², X5: psi]

*2 Indicates the average value also considering instrumental errors.

ELECTRICAL RATINGS

Rated Voltage (V)		Power Factor (cos φ)	125/250V. AC
Rated Amps. (A)			
Non-Inductive Current		1	12
Inductive Current	Full Load	0.75	
	Locked Rotor	0.45	72

Minimum contact capacity: 50mA

CONTACT FUNCTIONS

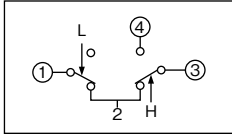


Diagram 1

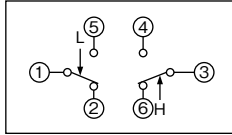


Diagram 2

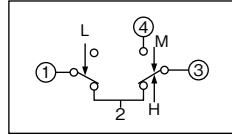


Diagram 3

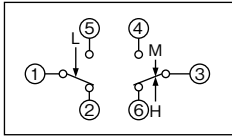


Diagram 4

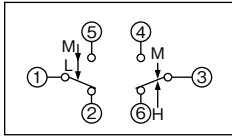
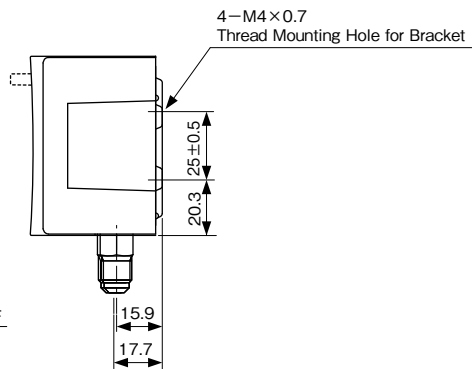
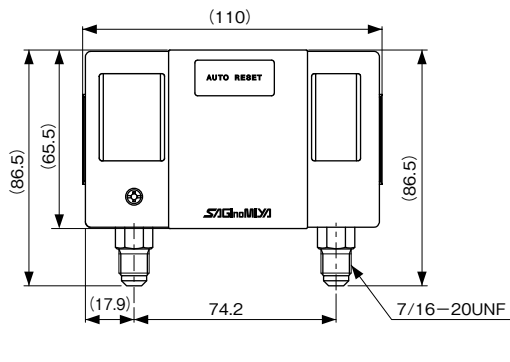
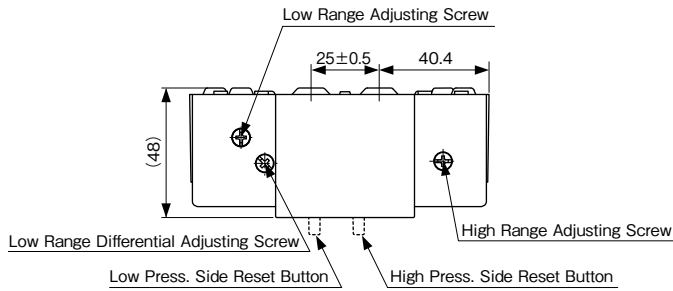


Diagram 5

L ↓: Operating direction on press. increase at Low Press. Side
 H ↑: Operating direction on press. increase at High Press. Side
 M ↓: Operating direction on manual reset

DIMENSIONS



Unit: mm

PRESSURE CONTROLS WITH NARROW DIFFERENTIAL

Type FNS & ANS

SAGInoMIYA

GENERAL DESCRIPTION

- For use with fluorinated refrigerants as well as with air and water.
- Type FNS with fixed narrow differential
- Type ANS with adjustable narrow differential
- Available drip proof enclosure for marine application or explosion proof enclosure for special application.
- Mounting bracket is supplied as standard.
- With SPDT contact mechanism.
- IP44 with upper lid (option). ·····Type FNS
- Stainless steel models are available upon request.

CE mark applicable (available upon request)



Type FNS



Type ANS

SPECIFICATIONS

- Fluid temperature: -20 to 120°C
- Ambient temperature: -20 to 70°C

TYPE NUMBER SELECTION

Type FNS – Fixed narrow differential

Unit: MPa {kgf/cm²}

Catalog No.	Range		Differential Fixed	Factory Setting		Max. Working Pressure	Wt. (kg)
	Min.	Max.		Off	On		
FNS-C101X	-0.06 {-50cmHg}	0.1 {1}	0.006 Approx. {0.06 Approx.}	(0.019) {(0.19)}	0.025 {0.25}	0.3 {3}	0.32
FNS-C102X	-0.02 {-20cmHg}	0.2 {2}	0.008 Approx. {0.08 Approx.}	(0.042) {(0.42)}	0.05 {0.5}	0.5 {5}	
FNS-C106X	-0.06 {-50cmHg}	0.6 {6}	0.02 Approx. {0.2 Approx.}	(0.28) {(2.8)}	0.3 {3.0}	1.5 {15}	
FNS-C110X	0.1 {1}	1 {10}	0.025 Approx. {0.25 Approx.}	(0.575) {(5.75)}	0.6 {6.0}		
FNS-C130X	0.5 {5}	3 {30}	0.12 Approx. {1.2 Approx.}	(2.38) {(23.8)}	2.5 {25}	3.3 {33}	

Type ANS – Adjustable narrow differential

Unit: MPa {kgf/cm²}

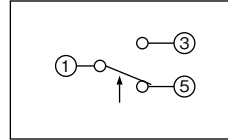
Catalog No.	Range		Differential				Factory Setting		Max. Working Pressure	Wt. (kg)
			Min.		Max.					
	Min.	Max.	Bottom	Top	Bottom	Top	Off	On		
ANS-C101XB	-0.06 {-50cmHg}	0.1 {1}	0.007 {0.07}	0.007 {0.07}	0.014 {0.14}	0.015 {0.15}	0.018 {0.18}	0.025 {0.25}	0.3 {3}	0.32
ANS-C103XB	-0.02 {-20cmHg}	0.3 {3}	0.008 {0.08}	0.01 {0.1}	0.018 {0.18}	0.027 {0.27}	0.141 {1.41}	0.15 {1.5}	1 {10}	
ANS-C106XB	-0.06 {-50cmHg}	0.6 {6}	0.015 {0.15}	0.018 {0.18}	0.03 {0.3}	0.045 {0.45}	0.28 {2.84}	0.3 {3.0}	1.5 {15}	
ANS-C110XB	0.1 {1}	1 {10}	0.02 {0.2}	0.03 {0.3}	0.045 {0.45}	0.07 {0.7}	0.575 {5.75}	0.6 {6.0}		
ANS-C130XB	0.5 {5}	3 {30}	0.12 {1.2}	0.2 {2.0}	0.23 {2.3}	0.37 {3.7}	2.32 {23.2}	2.5 {25}	3.3 {33}	
ANS-C135XB	1 {10}	3.5 {35}			0.24 {2.4}	0.39 {3.9}	2.82 {28.2}	3 {30}	3.8 {38}	

- Enclosure: IP20
- Drip Proof Models: Available upon request. (Refer to page 49.)

ELECTRICAL RATINGS

Rated Amps. (A)	Rated Voltage (V)	Power Factor (cos ϕ)	125/250V. AC
Non-Inductive Current		1	12
Inductive Current	Full Load	0.75	
	Locked Rotor	0.45	72

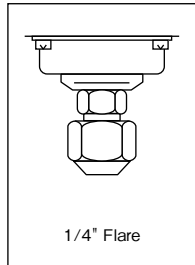
CONTACT FUNCTIONS



1	Common Terminal
3	Close on Pressure Increase
5	Close on Pressure Decrease

↑ : Operating direction on press. increase at High Press. Side

PRESSURE CONNECTIONS

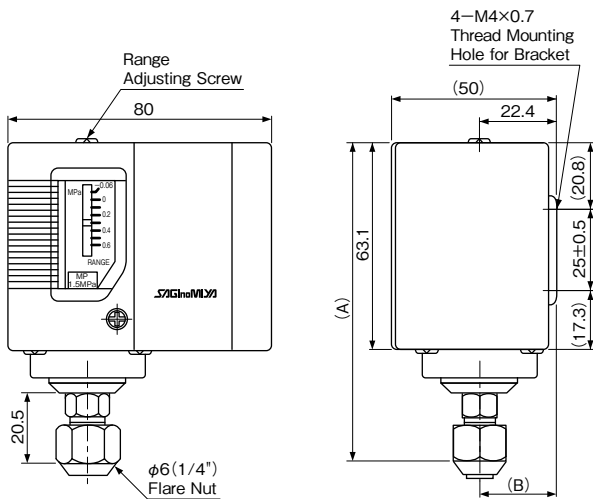


Refer to page 43, 44.

Standard

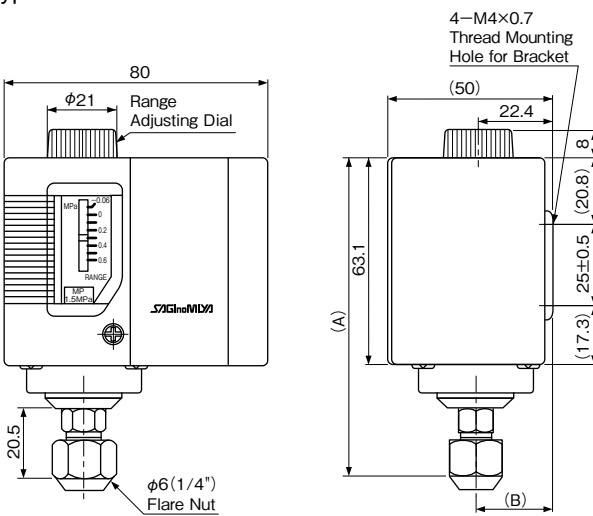
DIMENSIONS

Standard Model
Type FNS



Catalog No.	Unit: mm	
	A	B
FNS-C101X	113.3	22.4
FNS-C102X	99.7	
FNS-C106X	96.8	18.4
FNS-C110X		
FNS-C130X	93.5	18.4

Type ANS



Catalog No.	Unit: mm	
	A	B
ANS-C101XB	113.3	22.4
ANS-C103XB	99.7	
ANS-C106XB	96.8	18.4
ANS-C110XB		
ANS-C130XB	93.5	18.4
ANS-C135XB		

Unit: mm

OIL PROTECTION CONTROLS

Type ONS

SAGHOMIYA

GENERAL DESCRIPTION

- Provides dependable protection against major breakdown on pressure lubricated refrigeration compressors by guarding against low lubrication oil pressure.
- With manual reset.
- Built in time delay switch.
- Mounting bracket is supplied as standard.
- Stainless steel models are available upon request.

CE mark applicable (available upon request)

SPECIFICATIONS

- Fluid temperature: -20 to 120°C
- Ambient temperature: -20 to 70°C



TYPE NUMBER SELECTION

Unit: MPa {kgf/cm²}

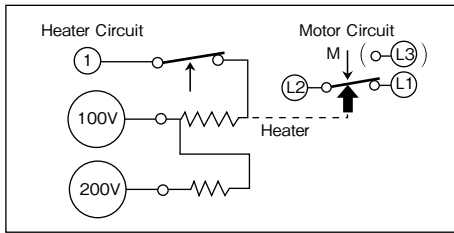
Catalog No.	Range		Differential Fixed	Timer Specification			Connection	Wt. (kg)													
	Min.	Max.		Delay Time(sec.)	Timer Voltage	Timer Circuit															
ONS-C106XQ1	0.05 {0.5}	0.35 {3.5}	Approx. 0.05 { Approx. } 0.5	45	100/200V. AC	Standard (SPST) without Alarm Contact	1/4" Flare Nut	0.55													
ONS-C106XQ2				90																	
ONS-C106XQ3				110																	
ONS-C106XQ4				45	110/220V. AC				Standard (SPST) without Alarm Contact	1000mm Capil. Tube with 1/4" Flare Nut	0.62										
ONS-C106XQ5				90																	
ONS-C106XQ6				110																	
ONS-C106XQ7				45	115/230V. AC							Standard (SPST) without Alarm Contact	1000mm Capil. Tube with 1/4" Flare Nut	0.62							
ONS-C106XQ8				90																	
ONS-C106XQ9				110																	
ONS-C106XQ10				45	120/240V. AC										Standard (SPST) without Alarm Contact	1000mm Capil. Tube with 1/4" Flare Nut	0.62				
ONS-C106XQ11				90																	
ONS-C106XQ12				110																	
ONS-C106XL1Q1				45	100/200V. AC		Standard (SPST) without Alarm Contact	1000mm Capil. Tube with 1/4" Flare Nut										0.62			
ONS-C106XL1Q2				90																	
ONS-C106XL1Q3				110																	
ONS-C106XL1Q4				45	110/220V. AC				Standard (SPST) without Alarm Contact	1000mm Capil. Tube with 1/4" Flare Nut	0.62										
ONS-C106XL1Q5				90																	
ONS-C106XL1Q6				110																	
ONS-C106XL1Q7				45	115/230V. AC							Standard (SPST) without Alarm Contact	1000mm Capil. Tube with 1/4" Flare Nut	0.62							
ONS-C106XL1Q8				90																	
ONS-C106XL1Q9				110																	
ONS-C106XL1Q10				45	120/240V. AC										Standard (SPST) without Alarm Contact	1000mm Capil. Tube with 1/4" Flare Nut	0.62				
ONS-C106XL1Q11				90																	
ONS-C106XL1Q12				110																	
ONS-C106XQ25				0.05 {0.5}	0.35 {3.5}		{ Approx. } 0.5	45										100/200V. AC	With Alarm Contact (SPDT)	1/4" Flare Nut	0.55
ONS-C106XQ26								90													
ONS-C106XQ27								110													
ONS-C106XQ28								45	110/220V. AC	With Alarm Contact (SPDT)	1000mm Capil. Tube with 1/4" Flare Nut							0.62			
ONS-C106XQ29								90													
ONS-C106XQ30								110													
ONS-C106XQ31								45	115/230V. AC			With Alarm Contact (SPDT)	1000mm Capil. Tube with 1/4" Flare Nut	0.62							
ONS-C106XQ32								90													
ONS-C106XQ33								110													
ONS-C106XQ34								45	120/240V. AC						With Alarm Contact (SPDT)	1000mm Capil. Tube with 1/4" Flare Nut	0.62				
ONS-C106XQ35								90													
ONS-C106XQ36								110													
ONS-C106XL1Q25	45	100/200V. AC	With Alarm Contact (SPDT)			1000mm Capil. Tube with 1/4" Flare Nut		0.62													
ONS-C106XL1Q26	90																				
ONS-C106XL1Q27	110																				
ONS-C106XL1Q28	45	110/220V. AC							With Alarm Contact (SPDT)	1000mm Capil. Tube with 1/4" Flare Nut	0.62										
ONS-C106XL1Q29	90																				
ONS-C106XL1Q30	110																				
ONS-C106XL1Q31	45	115/230V. AC										With Alarm Contact (SPDT)	1000mm Capil. Tube with 1/4" Flare Nut	0.62							
ONS-C106XL1Q32	90																				
ONS-C106XL1Q33	110																				
ONS-C106XL1Q34	45	120/240V. AC													With Alarm Contact (SPDT)	1000mm Capil. Tube with 1/4" Flare Nut	0.62				
ONS-C106XL1Q35	90																				
ONS-C106XL1Q36	110																				

- Max. Working Pressure: 1.5 MPa {15 kgf/cm²}
- Limit of Pressure Diff. $H_p \geq L_p$: 1.5 MPa {15 kgf/cm²}, H_p represents oil pump discharge pressure and L_p crank case pressure.
- Enclosure: IP20
- Drip Proof Models: Available upon request. (Refer to page 50.)

ELECTRICAL RATINGS

Rated Amps. (A)	Rated Voltage (V)	Power Factor (cos ϕ)	125/250V. AC
	Non-Inductive Current		1
Inductive Current	Full Load	0.75	3
	Locked Rotor	0.45	10

CONTACT FUNCTIONS



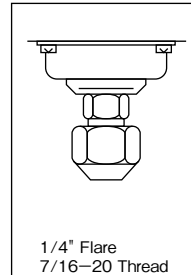
↑ : Operating direction of pressure increase

↑ : Operating direction of timer when energized

M ↓ : Operating direction of manual reset

(L3: Alarm Contact provided with a lead wire approx.)
 $\phi 3.5 \times 100\text{mm}$ with a soldered terminal.

PRESSURE CONNECTIONS



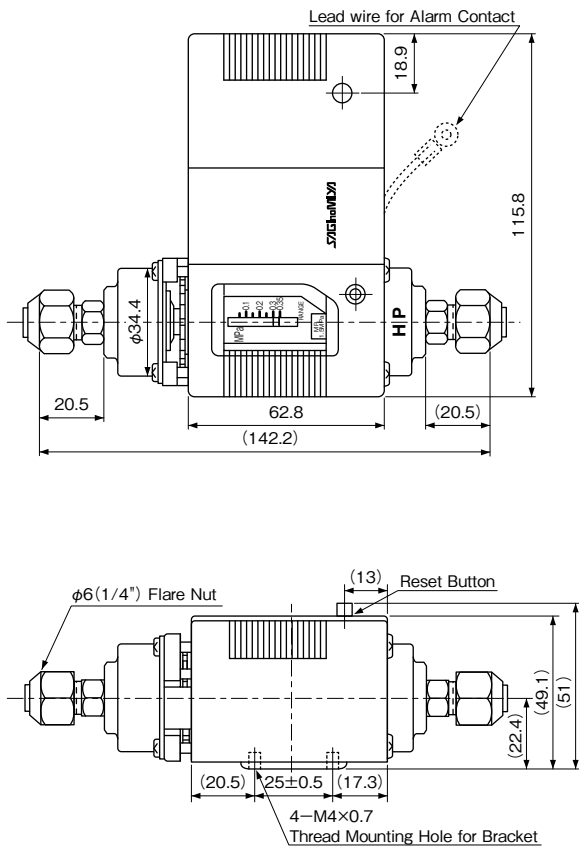
Standard

Refer to page 43, 44.

1	Heater Circuit	Common Terminal
100		100V Power Supply Terminal
200		200V Power Supply Terminal
L1	Motor Circuit	Open on Decrease of Pressure Difference
L2		Main Contact
L3		Alarm Contact

110/220V. AC, 120/240V. AC etc. available

DIMENSIONS



Unit: mm

DIFFERENTIAL PRESSURE CONTROLS

Type WNS

SAGINOMIYA

GENERAL DESCRIPTION

- For use on any application where the relationship between two pressure is critical to proper equipment operation.
- With SPDT contact mechanism.
- Available drip proof enclosure for marine application or explosion proof enclosure for special application.
- Mounting bracket is supplied as standard.
- Stainless steel models are available upon request.

CE mark applicable (available upon request)
UL recognized (available upon request)

SPECIFICATIONS

- Fluid temperature: -20 to 120°C
- Ambient temperature: -20 to 70°C

TYPE NUMBER SELECTION

For water, air and fluorinated refrigerant

Unit: MPa {kgf/cm²}

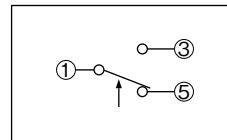
Catalog No.	Range		Differential		Factory Setting		Max. Working Pressure	Limit of Press. Differential (HP > LP)	Wt. (kg)
	Min.	Max.	Min.	Max.	Off	On			
WNS-C102X	0.03 {0.3}	0.2 {2}	0.03 {0.3}	0.15 {1.5}	0.05 {0.5}	0.02 {0.2}	0.5 {5}	0.5 {5}	0.43
WNS-C106X	0.05 {0.5}	0.35 {3.5}	0.05 {0.5}	0.25 {2.5}	0.1 {1.0}	0.05 {0.5}	1.5 {15}	1.5 {15}	

- HP.....High Side Press. LP.....Low Side Press.
- Enclosure: IP20
- Drip proof models: Available upon request. (Refer to page 49.)
- Please contact us if other range models are required.

ELECTRICAL RATINGS

Rated Voltage (V)		Power Factor (cos φ)	125/250V. AC
Rated Amps. (A)			
Non-Inductive Current		1	12
Inductive Current	Full Load	0.75	
	Locked Rotor	0.45	72

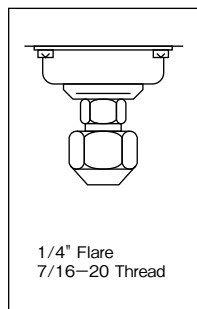
CONTACT FUNCTIONS



1	Common Terminal
3	Close on Pressure Increase
5	Close on Pressure Decrease

↑ : Operating direction on press. increase at High Press. Side

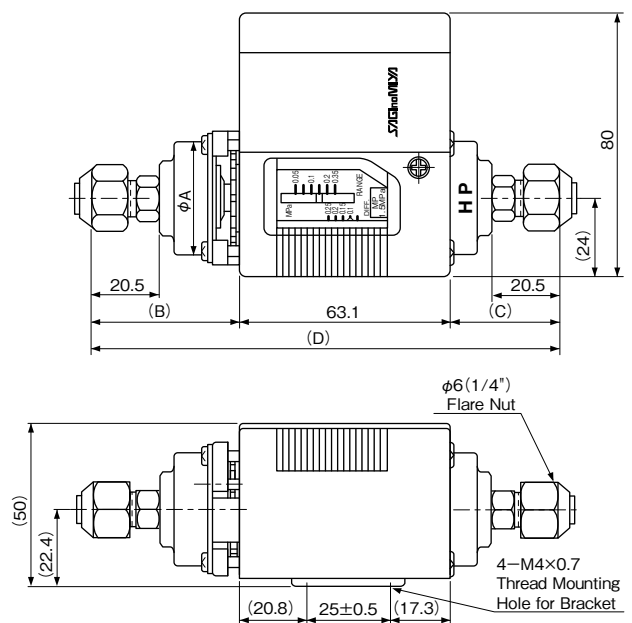
PRESSURE CONNECTIONS



Refer to page 43, 44.

Catalog No.	Unit: mm			
	φA	B	C	D
WNS-C102X	38.5	47.4	36.7	147.2
WNS-C106X	34.4	44.4	33.7	141.2

DIMENSIONS



Unit: mm

DIGITAL PRESSURE CONTROLS

Type **CFE**

SAGInoMIYA

GENERAL DESCRIPTION

- All functions can be set by 3 push button switches.
- Independent ON/OFF setting.
- ON Delay timer function.
- Pressure calibration

CE mark applicable (available upon request)



SPECIFICATIONS

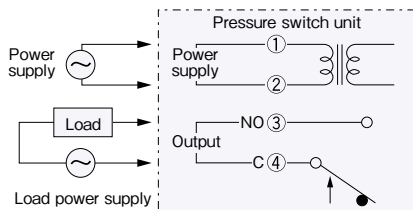
Supply voltage: 230V. AC $\pm 10\%$ 50/60Hz
 Output contact rating: 125/250V. AC 1A ($\cos \phi = 1$) SPST
 Delay timer function: 0 to 240 sec (step=1sec.)
 Fluid: Refrigerants (excluding ammonia), water, air.
 Ambient temp. range: -10 to 60°C
 Storage temperature range: -10 to 60°C
 Pressure connection: 7/16-20UNF male flare 1/4"
 Enclosure: IPX2

TYPE NUMBER SELECTION

Unit: MPa

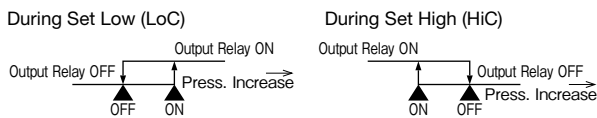
Catalog No.	Setting/Indication Range		Setting resolution	Calibration range	Airtight Pressure	Wt. (kg)
	Min.	Max.				
CFE-SC10B-001	-0.095	0.995	0.005	± 0.03	3.85	0.29
CFE-SC35B-001	0	3.5	0.02	± 0.12	3.85	
CFE-SC50B-001	0	5.0	0.02	± 0.3	5.5	
CFE-SC10B-101	-0.95 bar	9.95 bar	0.05 bar	± 0.3 bar	38.5 bar	
CFE-SC35B-102	0 bar	35 bar	0.2 bar	± 1.2 bar	38.5 bar	
CFE-SC50B-103	0 bar	50 bar	0.2 bar	± 3.0 bar	55 bar	

WIRING

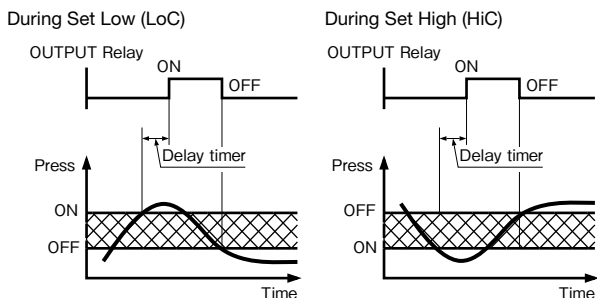


OPERATION

OPERATION PATTERN



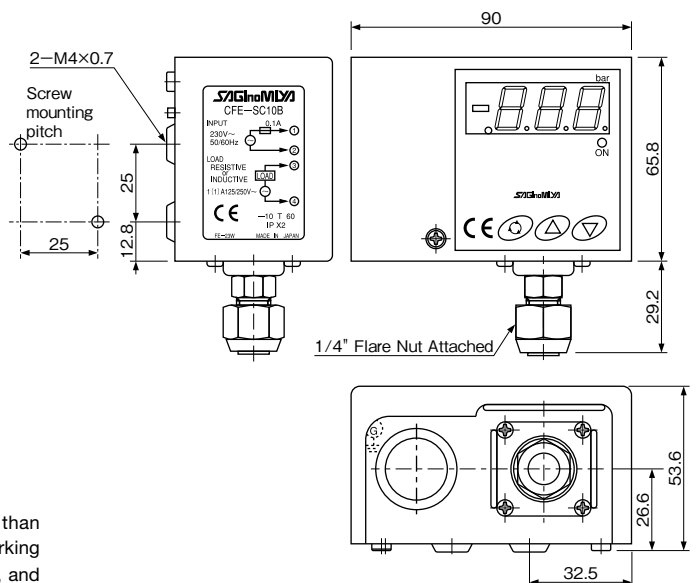
DELAY TIMER OPERATION PATTERN



* In case pressure decrease than the ON pressure during working of Delay timer, timer is reset, and does not turn on.

* In case pressure decrease than the ON pressure during working of Delay timer, timer is reset, and does not turn on.

DIMENSIONS



Unit: mm

PRESSURE SENSORS

High Volume OEM Item (Type NSK)

Type NSK & XSK

GENERAL DESCRIPTION

- High reliability and accuracy
- Double diaphragm structure
- Diffusion silicone chip pressure sensor

SPECIFICATIONS

- Fluid temperature range: -30 to 120°C (Type NSK)
-20 to 70°C (Type XSK)
- Ambient temperature range: -30 to 100°C (Type NSK)
-30 to 80°C (Type NSK-BH)
-20 to 70°C (Type XSK)



CE mark applicable (available upon request)

UL recognized (available upon request)

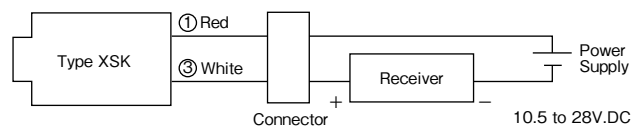
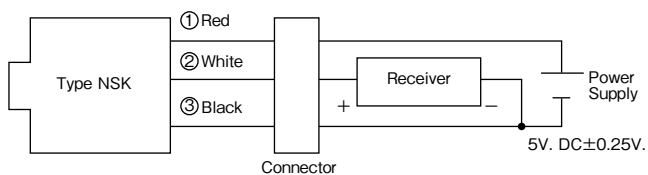
TYPE NUMBER SELECTION

Unit: MPa (bar)

Catalog No.	Pressure Range	Supply Voltage	Output	* Accuracy	Current Consumption	Load Resistance	Airtight Pressure	Wt. (kg)
BC	010I-103	5V. DC ± 0.25V	0 to 1 {0 to 10}	±2.5% F.S.	Max. 10mA	Min. 10 kΩ	3.85 {38.5}	0.04
	017I-103		0 to 1.7 {0 to 17}					
	020I-103		0 to 2 {0 to 20}	±2.0% F.S.				
	030I-103		0 to 3 {0 to 30}					
	035I-103		0 to 3.5 {0 to 35}	±2.5% F.S.				
	042I-103		0 to 4.15 {0 to 41.5}					
050I-103	0 to 5 {0 to 50}	0.5 to 4.5V. DC	±2.5% F.S.	5.5 {55}				
NSK- BE	010I-103	5V. DC ± 0.25V	0 to 1 {0 to 10}	±2.5% F.S.	Max. 10mA	Min. 10 kΩ	3.85 {38.5}	0.04
	017I-103		0 to 1.7 {0 to 17}					
	020I-103		0 to 2 {0 to 20}	±2.0% F.S.				
	030I-103		0 to 3 {0 to 30}					
	035I-103		0 to 3.5 {0 to 35}	±2.5% F.S.				
	042I-103		0 to 4.15 {0 to 41.5}					
050I-103	0 to 5 {0 to 50}	0.5 to 4.5V. DC	±2.5% F.S.	5.5 {55}				
NSK- BH	010D-103	5V. DC ± 0.25V	0 to 1 {0 to 10}	±2.5% F.S.	Max. 10mA	Min. 10 kΩ	3.85 {38.5}	0.06
	017D-103		0 to 1.7 {0 to 17}					
	020D-103		0 to 2 {0 to 20}	±2.0% F.S.				
	030D-103		0 to 3 {0 to 30}					
	035D-103		0 to 3.5 {0 to 35}	±2.5% F.S.				
	042D-103		0 to 4.15 {0 to 41.5}					
050D-103	0 to 5 {0 to 50}	0.5 to 4.5V. DC	±2.5% F.S.	5.5 {55}				
XSK- AC	10I-194	10.5 to 28V. DC	-0.05 to 1 {-0.5 to 10}	±3% F.S.	—	Max. 100Ω at 12V. DC Max. 500Ω at 24V. DC	3.85 {38.5}	0.09
	20I-194		0 to 2 {0 to 20}					
	30I-194		0 to 3 {0 to 30}					
	35I-194		0 to 3.5 {0 to 35}					
	50I-194		0 to 5 {0 to 50}					

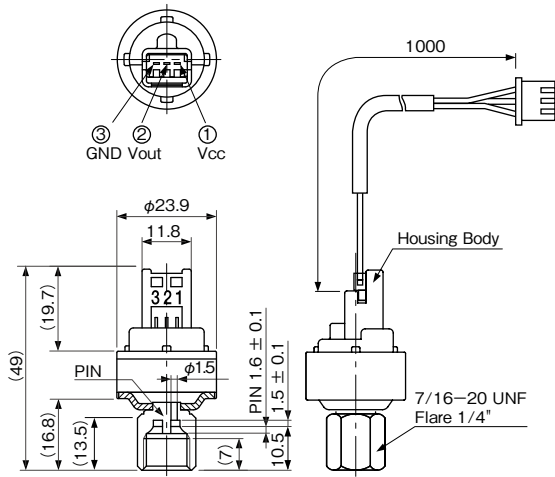
* Included non linearity hysteresis, and temperature drift
• Enclosure IP66

WIRING

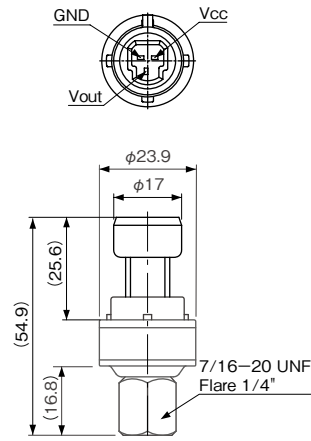


DIMENSIONS

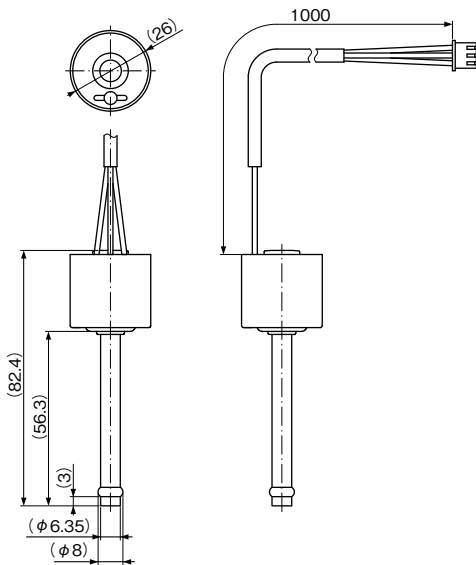
Type NSK-BC (Molex connector)



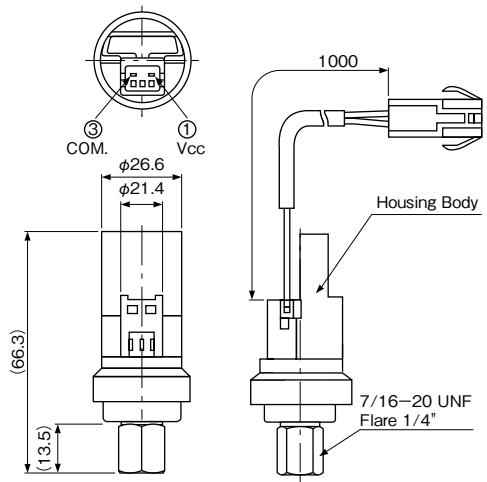
Type NSK-BE (Packard connector)



Type NSK-BH (Lead wire direct Connector)



Type XSK (Molex connector)



Unit: mm

ACCESSORY

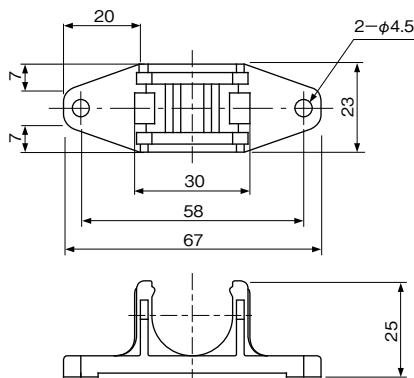
- Lead wire with connector is supplied as standard accessory except for NSK-BE type.

OPTIONAL PARTS

Bracket

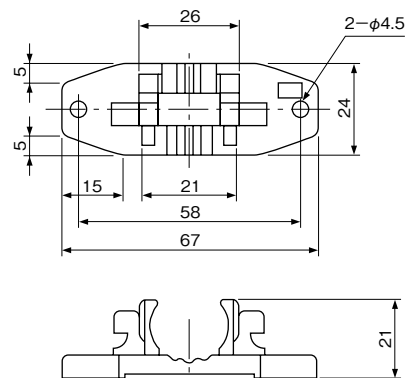
- NSK

Type No. NSK-PP02 (for NSK-BC, BE)



- XSK

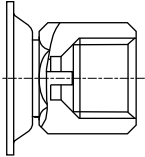
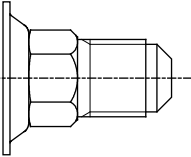
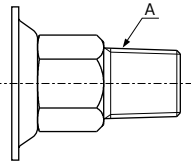
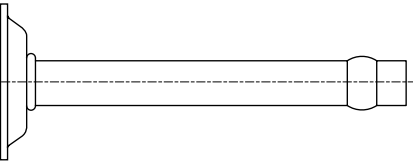
Type No. YSK-PP02



Unit: mm

PRESSURE CONNECTIONS

- Connection Material
Stainless steel pressure connection is available upon request. (R only)
- Connection Style
Standard connection style is 7/16–20UNF Female Flare with schrader depressor.
The following connection styles are available upon request.

7/16–20UNF Female Flare 1/4" with schrader depressor	7/16–20UNF Male Flare 1/4"										
											
R (NPT)	1/4" Copper Solder (Type NSK–BH)										
 <table border="1" data-bbox="491 719 746 875"> <thead> <tr> <th>A</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>1/8"</td> <td>NSK</td> </tr> <tr> <td></td> <td>XSK</td> </tr> <tr> <td>1/4"</td> <td>XSK</td> </tr> <tr> <td>3/8"</td> <td>XSK</td> </tr> </tbody> </table>	A	Type	1/8"	NSK		XSK	1/4"	XSK	3/8"	XSK	
A	Type										
1/8"	NSK										
	XSK										
1/4"	XSK										
3/8"	XSK										

PRESSURE & TEMPERATURE CONTROLS INFORMATION

CONNECTION & ACCESSORIES 43-45
DRIP PROOF & WATER PROOF CONTROLS 46-51
Series **NS-W & NS-P**

DRIP PROOF & WATER PROOF CONTROLS

SERIES NS-W & NS-P

SAGInoMIYA

GENERAL DESCRIPTION

- Approved by various marine standards such as Bureau Veritas, Lloyd's Register, Germanischer Lloyd, Det Norske Veritas, Nippon Kaiji Kyokai, ABS etc.
- Suitable for indoor or outdoor applications where water drips and dusts are apt to enter, such as marine refrigeration units or industrial plants.
- External wiring is made by cabtyre cable connection with cable glands.
Standard gland size: $\phi 20\text{mm}$
Semi standard gland size: $\phi 15\text{mm}$
- To order, specify catalog No. with "W" or "P".
Example: Type SNS-C106XW Drip proof model
Type SNS-C106XP Water proof model



Type SNS-P, FNS-P, ANS-P



Type SNS-W, FNS-W, ANS-W

- Type SNS-W/P – Drip proof model of single function pressure controls.

TYPE NUMBER SELECTION (SPECIFICATIONS)

Automatic reset type

Catalog No.	Range		Differential		Factory Setting		Max. Working Pressure	Contact Function	Wt. (kg)	
	Min.	Max.	Min.	Max.	Off (On)	On (Off)				
SNS-C101X	W	-0.06 {-50cmHg}	0.1 {1}	0.015 {0.15}	0.05 {0.5}	0.025 {0.25}	0.05 {0.5}	0.3 {3}	Diagram 1	SNS-W: Approx. 1.1 SNS-P: Approx. 0.6
SNS-C102X	W, P	-0.02 {-20cmHg}	0.2 {2}	0.025 {0.25}	0.15 {1.5}					
SNS-C103X	W, P	-0.06 {-50cmHg}	0.3 {3}	0.035 {0.35}	0.2 {2}	0.1 {1}	0.2 {2}			
SNS-C104X	W, P	-0.06 {-50cmHg}	0.4 {4}	0.04 {0.4}				0.2 {2}		
SNS-C106X	W, P	-0.06 {-50cmHg}	0.6 {6}	0.06 {0.6}	0.4 {4}	0.3 {3}	3 {30}			
SNS-C110X	W, P	0.1 {1}	1 {10}	0.1 {1}	0.3 {3}	0.4 {4}		0.6 {6}		
SNS-C120X	W	0.5 {5}	2 {20}	0.2 {2}	0.5 {5}	1.2 {12}	1.5 {15}	3 {30}		
SNS-C130X	W, P		3 {30}	0.3 {3}	1 {10}	2 {20}	2.5 {25}	3.3 {33}		
SNS-C135X	W, P	1 {10}	3.5 {35}	0.5 {5}	1.5 {15}	2.5 {25}	3 {30}	3.8 {38}		

Manual reset type

Catalog No.	Range		Manual Reset	* Factory Setting		Max. Working Pressure	Contact Function	Wt. (kg)
	Min.	Max.		Off (On)	On (Off)			
SNS-C102XM2	W, P	-0.02{-20cmHg}	Automatic operation on pressure decrease, and manual reset.	0.025 {0.25}	Manual Reset	0.5 {5}	Diagram 2	SNS-W: Approx. 1.1 SNS-P: Approx. 0.6
SNS-C106XM2	W, P	-0.06{-50cmHg}		0.2 {2}		1.5 {15}		
SNS-C130XM2	W, P	0.5 {5}		2 {20}		3.3 {33}		

* Based on the 1-3 terminal connection.

ELECTRICAL RATINGS

Rated Voltage (V)		Power Factor (cos ϕ)	125/250V. AC
Rated Amps. (A)			
Non-Inductive Current		1	12
Inductive Current	Full Load	0.75	
	Locked Rotor	0.45	72

Minimum contact capacity: 50mA

CONTACT FUNCTIONS

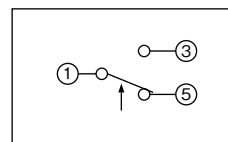


Diagram 1

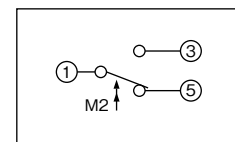


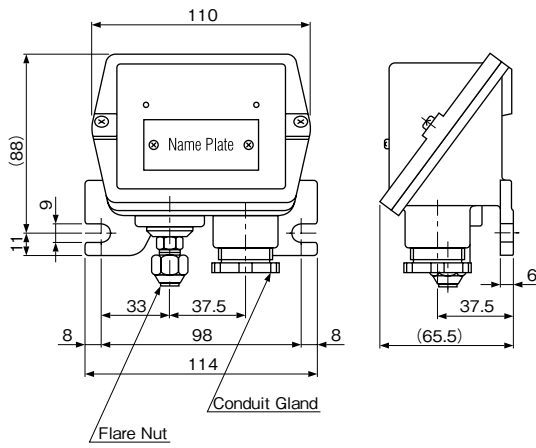
Diagram 2

Diagram 1 & 2	
1	Common Terminal
3	Close on Pressure Increase
5	Close on Pressure Decrease

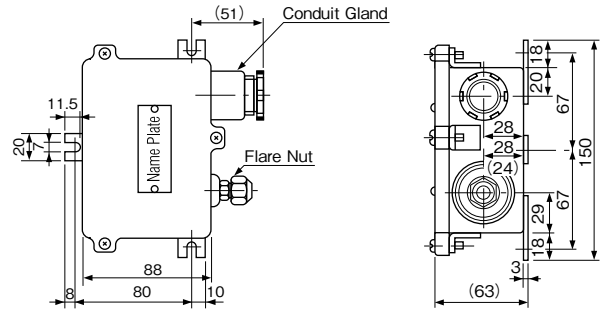
↑ : Operating direction on press. increase at High Press. Side
M2 ↑ : Operating direction on manual reset

DIMENSIONS

Type SNS-P, FNS-P, ANS-P



Type SNS-W, FNS-W, ANS-W



Unit: mm

● Type DNS-W/P – Drip proof model of dual function pressure controls



Type DNS-P



Type DNS-W

TYPE NUMBER SELECTION (SPECIFICATIONS)

Automatic reset type

Unit: MPa {kgf/cm²}

Catalog No.	Pressure Side	Range		Differential		Factory Setting		Max. Working Pressure	Contact Function	Wt. (kg)
		Min.	Max.	Min.	Max.	Off	On			
DNS-D304X	W, P	Low Side	-0.06 {-50cmHg}	0.4 {6}	0.04 {0.4}	0.2 {2}	0.1 {1}	0.2 {2}	1.5 {15}	Diagram 3 DNS-W: Approx. 1.4 DNS-P: Approx. 0.9
	High Side	0.8 {8}	3 {30}	Approx. 0.4 fixed. {Approx. 4 fixed.}		2 {20}	1.6 {16}	3.3 {33}		
DNS-D306X	W, P	Low Side	-0.06 {-50cmHg}	0.6 {6}	0.06 {0.6}	0.4 {4}	0.2 {2}	0.3 {3}	1.5 {15}	
	High Side	0.8 {8}	3 {30}	Approx. 0.4 fixed. {Approx. 4 fixed.}		2 {20}	1.6 {16}	3.3 {33}		
DNS-D604X	W, P	Low Side	-0.06 {-50cmHg}	0.4 {6}	0.04 {0.4}	0.2 {2}	0.1 {1}	0.2 {2}	1.5 {15}	
	High Side	0.8 {8}	3 {30}	Approx. 0.4 fixed. {Approx. 4 fixed.}		2 {20}	1.6 {16}	3.3 {33}		
DNS-D606X	W, P	Low Side	-0.06 {-50cmHg}	0.6 {6}	0.06 {0.6}	0.4 {4}	0.2 {2}	0.3 {3}	1.5 {15}	
	High Side	0.8 {8}	3 {30}	Approx. 0.4 fixed. {Approx. 4 fixed.}		2 {20}	1.6 {16}	3.3 {33}		

Manual reset type

Unit: MPa {kgf/cm²}

Catalog No.	Pressure Side	Range		Differential		Factory Setting		Max. Working Pressure	Contact Function	Wt. (kg)
		Min.	Max.	Min.	Max.	Off	On			
DNS-D304XM	W, P	Low Side	-0.06 {-50cmHg}	0.4 {4}	0.04 {0.4}	0.2 {2}	0.1 {1}	0.2 {2}	1.5 {15}	Diagram 4 DNS-W: Approx. 1.4 DNS-P: Approx. 0.9
	High Side	0.8 {8}	3 {30}	Automatic operation on pressure increase, and manual reset.		2 {20}	manual reset	3.3 {33}		
DNS-D306XM	W, P	Low Side	-0.06{-50cmHg}	0.4 {4}	0.06 {0.6}	0.4 {4}	0.2 {2}	0.3 {3}	1.5 {15}	
	High Side	0.8 {8}	3 {30}	Automatic operation on pressure increase, and manual reset.		2 {20}	manual reset	3.3 {33}		
DNS-D604XM	W, P	Low Side	-0.06{-50cmHg}	0.4 {4}	0.04 {0.4}	0.2 {2}	0.1 {1}	0.2 {2}	1.5 {15}	
	High Side	0.8 {8}	3 {30}	Automatic operation on pressure increase, and manual reset.		2 {20}	manual reset	3.3 {33}		
DNS-D606XM	W, P	Low Side	-0.06{-50cmHg}	0.6 {6}	0.06 {0.6}	0.4 {4}	0.2 {2}	0.3 {3}	1.5 {15}	
	High Side	0.8 {8}	3 {30}	Automatic operation on pressure increase, and manual reset.		2 {20}	manual reset	3.3 {33}		
DNS-D606XMM	W	Low Side	-0.06{-50cmHg}	0.6 {6}	Automatic operation on pressure decrease, and manual reset.		0.2 {2}	manual reset	1.5 {15}	Diagram 7
	High Side	0.8 {8}	3 {30}	Automatic operation on pressure increase, and manual reset.		2 {20}	3.3 {33}			

ELECTRICAL RATINGS

Rated Voltage (V)		Power Factor (cos φ)	125/250V. AC
Rated Amps. (A)			
Non-Inductive Current		1	12
Inductive Current	Full Load	0.75	
	Locked Rotor	0.45	72

CONTACT FUNCTIONS

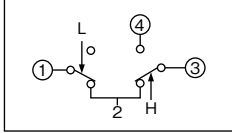


Diagram 3

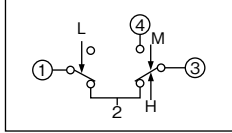


Diagram 4

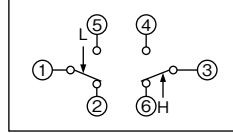


Diagram 5

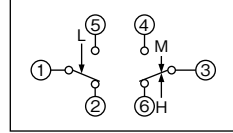


Diagram 6

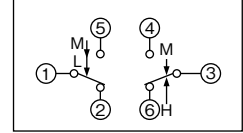
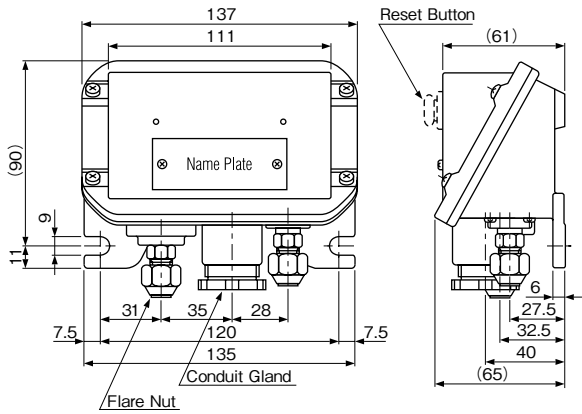


Diagram 7

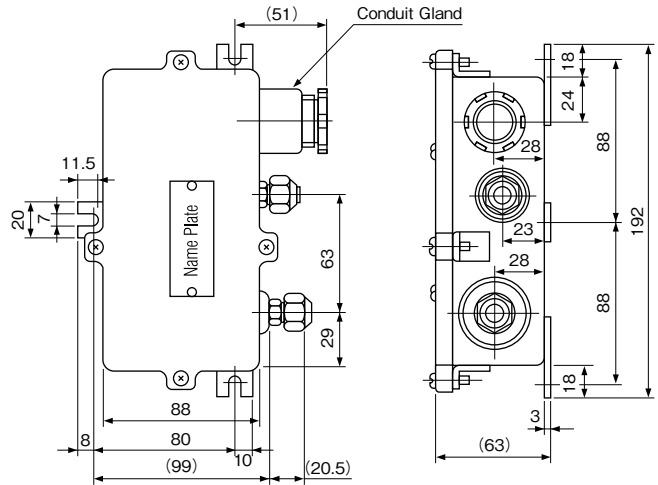
L ↓ : Operating direction on press. increase at Low Press. Side
 H ↑ : Operating direction on press. increase at High Press. Side
 M ↓ : Operating direction on manual reset

DIMENSIONS

Type DNS-P



Type DNS-W



Unit: mm

● Type HNS-W — Drip proof model of dual function pressure controls



TYPE NUMBER SELECTION (SPECIFICATIONS)

Automatic reset type

Unit: MPa {kgf/cm²}

Catalog No.	W	Range		Differential	* Factory Setting		Max. Working Pressure	Wt. (kg)
		Min.	Max.		Off	On		
HNS-C130X	W	0.8 {8}	3 {30}	0.3 to 0.5 Fixed {3 to 5 fixed}	2 {20}	1.6 {16}	3.3 {33}	Approx. 1.1

For specifications, electrical ratings, and contact functions, refer to page 14.

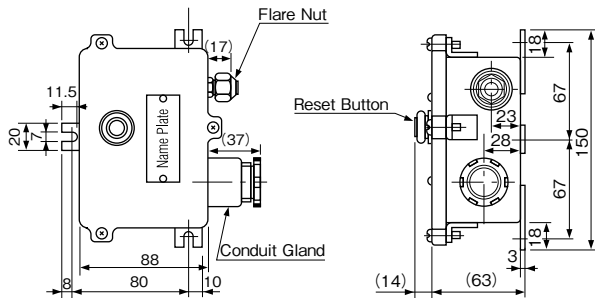
Manual reset type

Unit: MPa {kgf/cm²}

Catalog No.	W	Range		Manual Reset	* Factory Setting		Max. Working Pressure	Wt. (kg)
		Min.	Max.		Off	On		
HNS-C130XM1	W	0.8 {8}	3 {30}	Automatic operation on pressure increase, and manual reset.	2 {20}	manual reset	3.3 {33}	Approx. 1.1

For specifications, electrical ratings, and contact functions, refer to page 14.

DIMENSIONS



Unit: mm

● Type FNS-W/P & ANS-W/P — Drip proof model of dual function pressure controls

TYPE NUMBER SELECTION (SPECIFICATIONS)

Type FNS – Fixed narrow differential

Unit: MPa {kgf/cm²}

Catalog No.	W, P	Range		Differential	Factory Setting		Max. Working Pressure	Wt. (kg)
		Min.	Max.		Fixed	Off		
FNS-C1**X	W, P	-0.06 {-50cmHg} to 0.5 {5}	0.1 {1} to 3 {30}	0.006 Approx. {0.06 Approx.} to 0.12 Approx. {1.2 Approx.}	(0.019) {(0.19)} to (2.38) {(23.8)}	0.025 {0.25} to 2.5 {25}	0.3 {3} to 3.3 {33}	FNS-W: Approx. 1.3 FNS-P: Approx. 0.6

* FNS-C101X, type W is the only available.

For specifications, electrical ratings, and contact functions, refer to page 17, 18.
For dimensions, refer to page 47.

Type ANS – Adjustable narrow differential

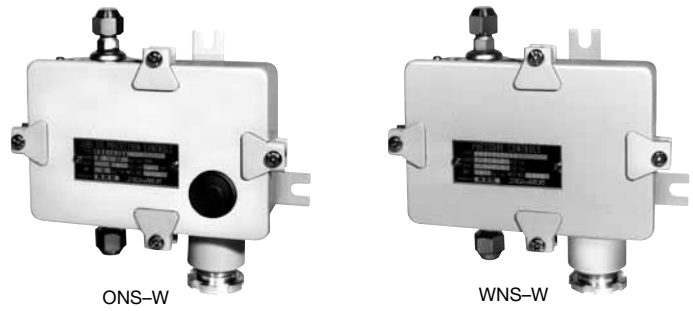
Unit: MPa {kgf/cm²}

Catalog No.	W, P	Range		Differential				Factory Setting		Max. Working Pressure	Wt. (kg)
				Min.		Max.		Off	On		
		Min.	Max.	Bottom	Top	Bottom	Top				
ANS-C1**XB	W, P	-0.06 {-50cmHg} to 1 {10}	0.1 {1} to 3.5 {35}	0.007 {0.07} to 0.12 {1.2}	0.007 {0.07} to 0.2 {2.0}	0.014 {0.14} to 0.24 {2.4}	0.015 {0.15} to 0.39 {3.9}	0.018 {0.18} to 2.82 {28.2}	0.025 {0.25} to 3 {30}	0.3 {3} to 3.8 {38}	ANS-W: Approx. 1.3 ANS-P: Approx. 0.6

* ANS-C101XB, type W is the only available.

For specifications, electrical ratings, and contact functions, refer to page 17, 18.
For dimensions, refer to page 47.

● Type ONS-W & WNS-W — Drip proof model of dual function pressure controls



TYPE NUMBER SELECTION (SPECIFICATIONS)

Type ONS – for oil protection

Unit: MPa {kgf/cm²}

Catalog No.		Range		Differential	Timer Specification			Wt. (kg)
		Min.	Max.	Fixed	Delay Time (sec.)	Timer Voltage	Timer Circuit	
ONS-C106X	W	0.05 {0.5}	0.35 {3.5}	Approx. 0.05 {Approx. 0.5}	45, 90, 110	100/200V. AC 110/220V. AC 115/230V. AC 120/240V. AC	Standard (SPST) without Alarm Contact (SPDT)	Approx. 1.3

For specifications, electrical ratings, and contact functions, refer to page 19, 20.

Type WNS – for water, air and fluorinated refrigerant

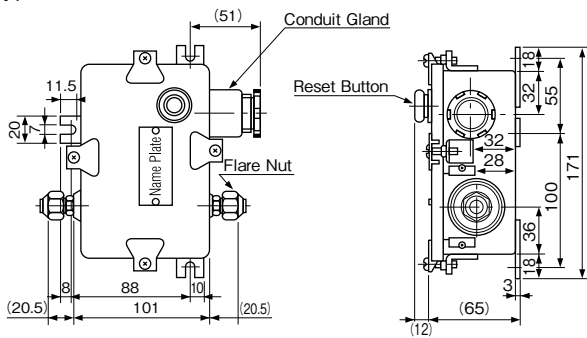
Unit: MPa {kgf/cm²}

Catalog No.		Range		Differential		Factory Setting		Max. Working Pressure	Limit of Press. Differential (HP > LP)	Wt. (kg)
		Min.	Max.	Min.	Max.	Off	On			
WNS-C102X	W	0.03 {0.3}	0.2 {2}	0.03 {0.3}	0.15 {1.5}	0.05 {0.5}	0.02 {0.2}	0.5 {5}	0.5 {5}	Approx. 1.3
WNS-C106X		0.05 {0.5}	0.35 {3.5}	0.05 {0.5}	0.25 {2.5}	0.1 {1.0}	0.05 {0.5}	1.5 {15}	1.5 {15}	

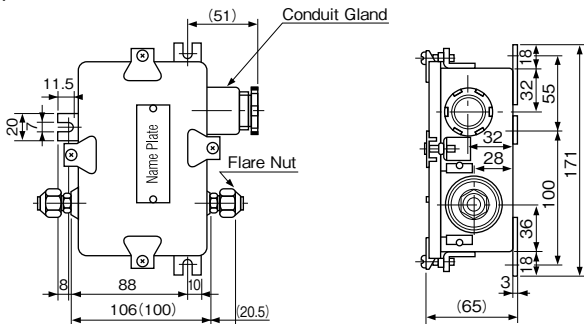
For specifications, electrical ratings, and contact functions, refer to page 21.

DIMENSIONS

Type ONS-W

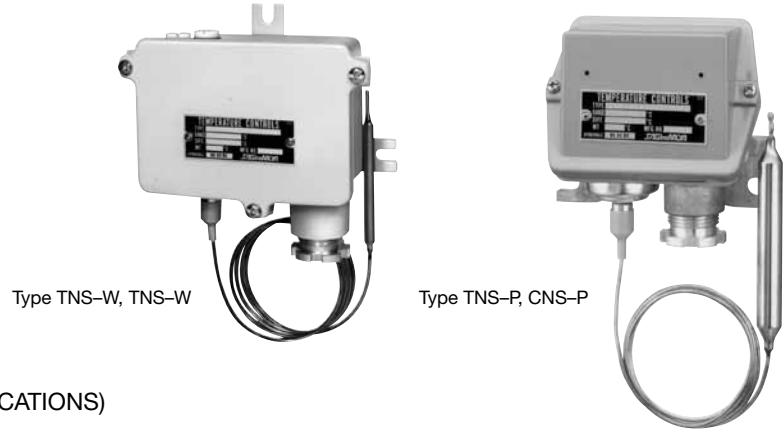


Type WNS-W



Unit: mm

● Type TNS-W/P, CNS-W/P & INS-W — Drip proof model of dual function pressure controls



TYPE NUMBER SELECTION (SPECIFICATIONS)

Type TNS – Automatic reset type

Unit: °C

Catalog No.	W, P	Range		Differential		Factory Setting		Limit Temp.	Usage Condition	Wt. (kg)
		Min.	Max.	Min.	Max.	Off (On)	On (Off)			
TNS-C1* *X	W, P	-45 to 115	0 to 150	2 to 5	15, 20	-18 to 140	-15 to 145	40 to 180	$T_s > T_b$, $T_s < T_b$, $T_s \leq T_b$	TNS-W: Approx. 1.3 TNS-P: Approx. 0.7

For specifications, electrical ratings, and contact functions, refer to page 29, 30.

Type CNS – Automatic reset type

Unit: °C

Catalog No.	W, P	Range		Differential	Factory Setting		Limit Temp.	Usage Condition	Wt. (kg)
		Min.	Max.		Off	On			
CNS-C1* *X	W, P	-35 to 0	-15 to 35	Bottom 4 Top 3	-28 to 17	-25 to 20	70	$T_s > T_b$	CNS-W: Approx. 1.3 CNS-P: Approx. 0.7

For specifications, electrical ratings, and contact functions, refer to page 29, 30.

Type CNS – Manual reset type

Unit: °C

Catalog No.	W, P	Range		Manual Reset	Factory Setting		Limit Temp.	Usage Condition	Wt. (kg)
		Min.	Max.		Off	On			
CNS-C1* *XM2	W, P	-35 to 0	-15 to 35	Automatic operation on temperature decrease and manual reset	-28 to 17	Manual Reset	70	$T_s > T_b$	CNS-W: Approx. 1.3 CNS-P: Approx. 0.7

For specifications, electrical ratings, and contact functions, refer to page 29, 30.

Type INS – Manual reset type

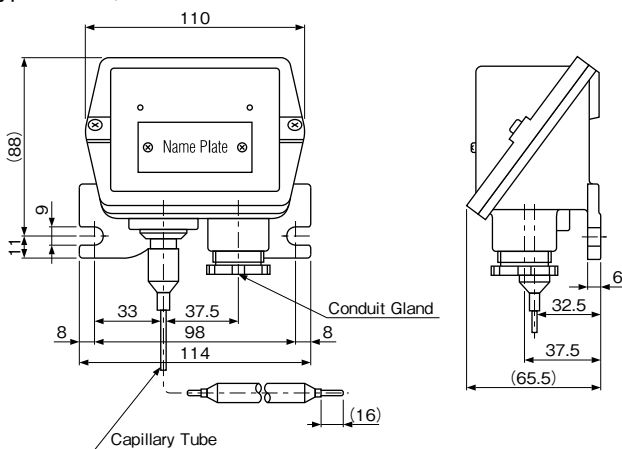
Unit: °C

Catalog No.	W	Range		Manual Reset	Factory Setting		Limit Temp.	Usage Condition	Wt. (kg)
		Min.	Max.		Off	On			
INS-C1070XM1	W	25 to 115	75 to 150	Automatic operation on temperature increase and manual reset.	Manual Reset	65 to 140	115 to 180	$T_s < T_b$	Approx. 1.3

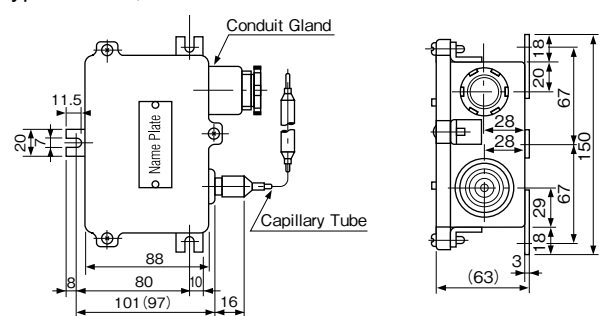
For specifications, electrical ratings, and contact functions, refer to page 29, 30.

DIMENSIONS

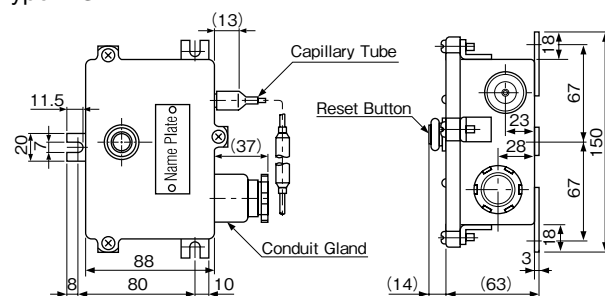
Type TNS-P, CNS-P



Type TNS-W, CNS-W



Type INS-W



Unit: mm