



PRODUCT INNOVATIONS

***constant
product
improvement***

NC327-A
Vol. 1 / Issue 1

SMC is continuously modifying and designing products to customre specific needs. These new designs become options for all other customers that may have the same requirements for many various applications. Through these customer application problems come customer and SMC innovations to solutions.

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Compact Moisture Control Tube Type IDK04-100-X012

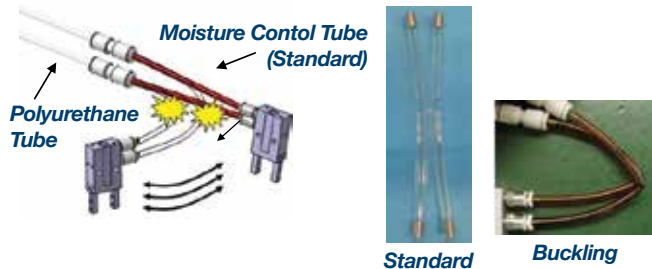
Model	Specifications
IDK04-100-X012	Compact Type Coiled Shape

Shorter overall length with coiled shape

- Prevent problems due to tube buckling
- Optimum choice for compact cylinders/chucks which frequently repeat linear movement/fluctuation.
- Moisture Control Tube prevents dew condensation in the piping of compact cylinders/grippers, etc.

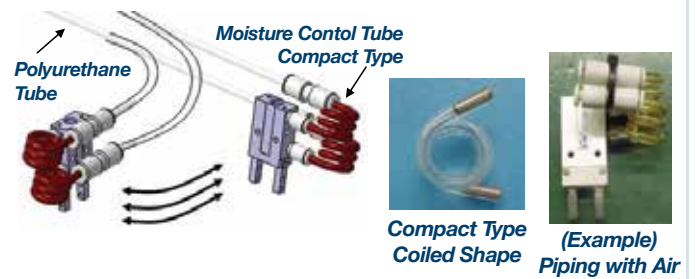
Existing Type

Buckling of Moisture control Tube with a small minimum bending radius may occur during the liner movement/fluctuation of cylinders/chucks.

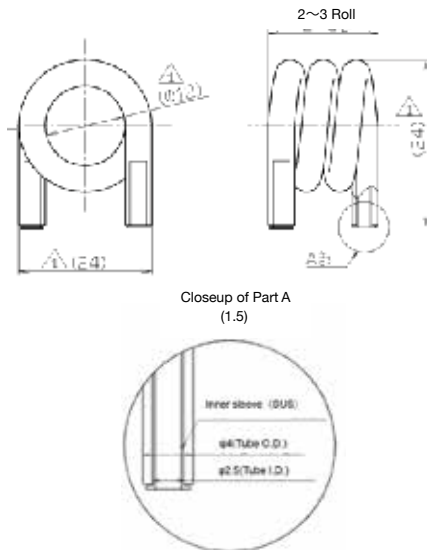


Compact Type

Use flexible polyurethane tube for piping of the moving part and connect to the actuator/chuck with Moisture Control Tube Compact Type. This application prevents troubles due to tube buckling.



Specifications / Dimensions



Model		IDK04
Specifications	Fluid	Compressed Air
	Max. Operating Pressure	0.7MPa
	Operating Temperature	0 to 40 (No Freezing)
	Operating Environment	Indoors (0 to 40 , Relative Humidity 0 to 75%RH)
Conditions to Prevent Dew Condensation *3	Volume Ratio Kv *1	200 or less
	Supply Air Atmospheric Dew Point	-20 or less
	Supply Air Pressure	0.5MPa or less
	Ambient Temp/Humidity	25/40% RH or less
Quantity of Moisture Control Tubes		1 pcs
Applicable Fittings *2		KQ2, KJ
Material		Fluoropolymer
Weight		2.345g

* Special Specifications

*1 What is the volume ratio "Kv"?

$$\text{Volume ratio } Kv = \frac{Vt}{Vc}$$

Vt: Piping volume

(Volume of the piping from the switching valve to the actuator)

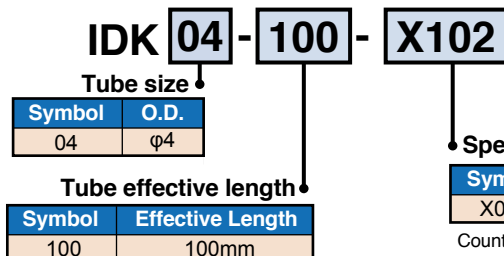
Vc: Actuator volume

*2 Please prepare the fittings separately.

The fittings should be used with the inner sleeve inserted in them.

*3 This will change depending on the operating conditions. Please refer to the catalog for the details.

How to Order

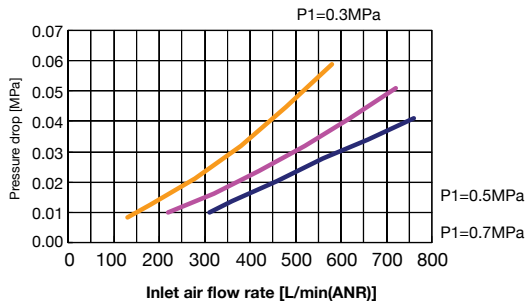
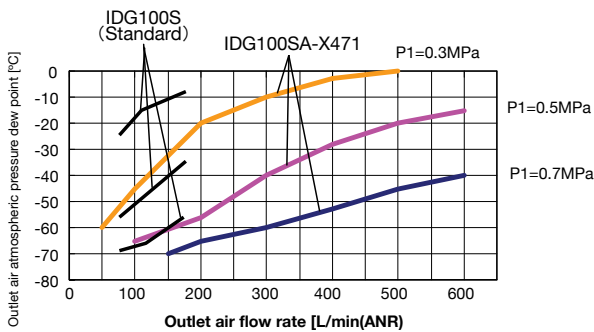


1 pc will be included in the package

Membrane Air Dryer IDG100SA-04 -X471

- Achieved a double flow rate of 300 L/min. (at outlet atmospheric dew point of -60°C)
- Achieved a dew point of -70°C (at outlet air flow rate of 150 L/min.)

Conditions: Inlet air saturation temperature (IN air pressure dew point): 25°C
Ambient and fluid temperature: 25°C
**"ANR" indicates the flow rate converted to the value at 20°C, under the atmospheric pressure and the state of relative humidity 65%.



Specifications

Fluid	Compressed air
Operating pressure range	0.3 ~ 1.0 MPa
Ambient and fluid temperature	-5 ~ 50°C ^{Note)}
Weight (kg)	8 kg

Note) When using the product in the temperature range between -5°C and 5°C, prevent water droplets from entering the inlet port. (No freezing of the fluid)

Standard Performance

Inlet air flow rate	L/min(ANR) ^{Note 1)}	460
Outlet air flow rate	L/min(ANR)	300
Purge air flow rate	L/min(ANR) ^{Note 2)}	160
Inlet air pressure	(MPa)	0.7
Inlet air saturation temperature	(°C)	25
Outlet air atmospheric pressure dew point	(°C)	-60
Ambient and fluid temperature	(°C)	25

Note1) "ANR" indicates the flow rate converted to the value at 20°C, under the atmospheric pressure and the state of relative humidity 65%.

Note 2) Includes 1L/min[ANR] of purge air flow (at 0.7MPa inlet air pressure) for the dew point indicator.

How to Order

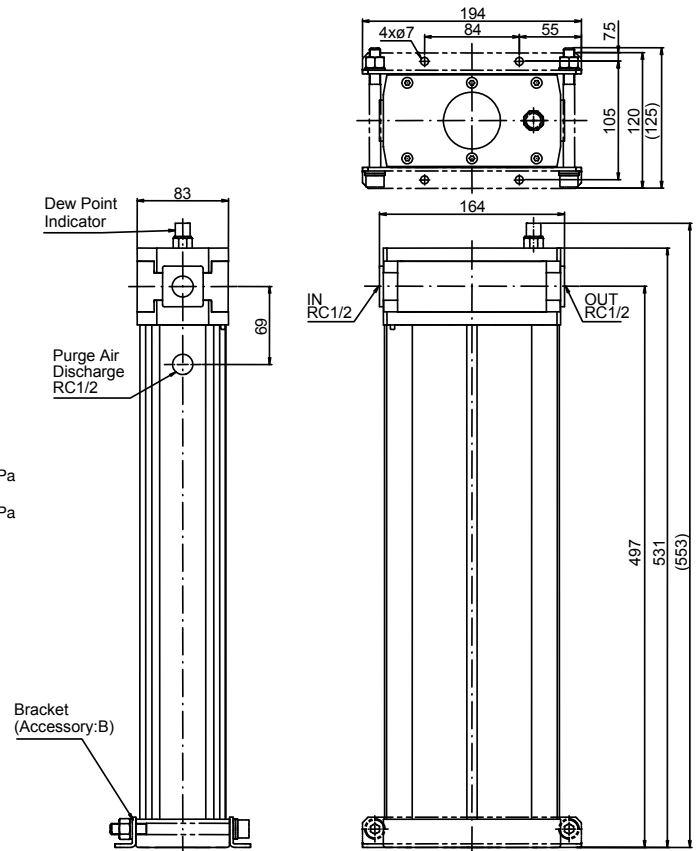
IDG100SA - 04 □ - X471

Accessory

Nil	None (Standard)
B	with Bracket

Dimensions (mm)

IDG100SA - 04 □ - X471



Note)

1. As a guideline, it takes about 12 hours to reach standard performance of the outlet air atmospheric dew point.
2. When piping to the purge air discharge, please make sure to use a pipe with an internal bore of 13 or more and length of 5 meters or less. Otherwise, it could cause deterioration of performance.
3. Please connect either a fluoropolymer or stainless steel pipe to the outlet port. Otherwise, it cannot achieve the standard performance.
4. Dew point indicator kit and bracket kit are enclosed in the package. Please mount them at the user's site.



Caution to ensure the safest possible operation of this product, please be sure to thoroughly read the "Safety Instructions" in our "Best Pneumatics" catalog before use.

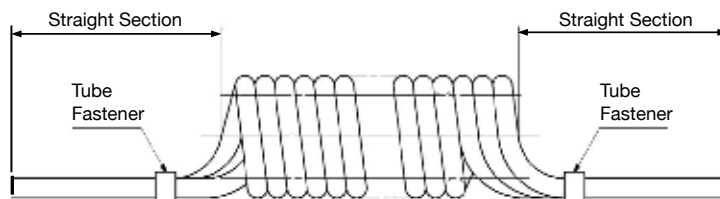
Polyurethane Coil Tubing/TCU Series TCU※- X192 • X193 • X198 • X199

- Specifications of a color for each core possible
*8 colors: Black, White, Red, Blue, Yellow, Green, Clear, Orange
- Optional length for the straight section. (X198/X199)

Model	-X192	-X198	-X193	-X199
Number of Cores	2 Cores		3 Cores	
Straight Section Length	100mm	Optional	100mm	Optional

Specifications

Fluid	Air
Max. operating pressure (at 20°C)	0.8MPa
Operating Temperature	-20 ~ 60°C
Material	Polyurethane



2 Cores (Black, White)



3 Cores (Black, White, Red)

How to Order and Dimensions (mm)

<2 Cores>

TCU **0604** - **12** - **3** -X192 (Straight section length: L2, L3 = 100mm, L4 = 200mm)

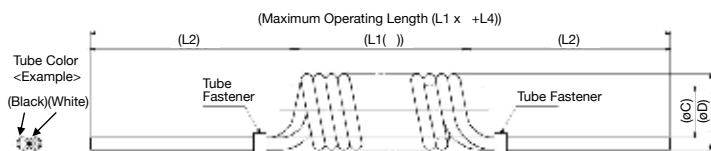
TCU **0604** - **12** **A** **3** -X198

Tubing Size		Straight Section Length			No. of Coil Windings per Tube Length		
Symbol		L2(mm)	L3(mm)	L4(mm) [L2+L3]	Symbol (n)	No. of Coil Windings	Tubing Size
A	100	150	250	350	3~100	3~100	0425
B	150	150	300	400		3~66	0604
C	150	200	350	450		3~50	0805
D	200	200	400	500		3~40	1065
E	200	250	450	550		3~33	1208
F	250	250	500	600			
G	250	300	550	650			
H	300	300	600	700			
I	300	350	650	750			
J	350	350	700	800			
K	350	400	750	850			
L	400	400	800	900			
M	400	450	850	950			
N	450	450	900	1000			
O	450	500	950				
P	500	500	1000				

Note 1: Color (Example: Black, White)

1	Black
2	White
3	Red
4	Blue
5	Yellow
6	Green
7	Clear
8	Orange

Note1) The tube color would be specified in the order of the color code.



Tubing Size	Factor A	Factor B	Coil Inner Dia. φ C	Coil External Dia. φ D	No. of Coil Windings per Tube Length N
0425	8	4.4	φ20	φ28	3 ~ 100
0604	12	3.8	φ25	φ37	3 ~ 66
0805	16	3	φ26	φ42	3 ~ 50
1065	20	3	φ32	φ52	3 ~ 40
1208	24	3	φ43	φ67	3 ~ 33

<3 Cores>

TCU **0604** - **123** - **3** -X193 (Straight section length: L2, L3 = 100mm, L4 = 200mm)

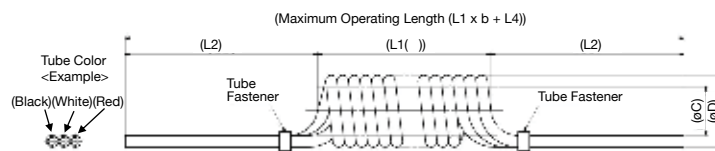
TCU **0604** - **123** **A** **3** -X199

Tubing Size		Straight Section Length			No. of Coil Windings per Tube Length		
Symbol		L2(mm)	L3(mm)	L4(mm) [L2+L3]	Symbol (n)	No. of Coil Windings	Tubing Size
A	100	150	250	350	3~66	3~66	0425
B	150	150	300	400		3~44	0604
C	150	200	350	450			
D	200	200	400	500			
E	200	250	450	550			
F	250	250	500	600			
G	250	300	550	650			
H	300	300	600	700			
I	300	350	650	750			
J	350	350	700	800			
K	350	400	750	850			
L	400	400	800	900			
M	400	450	850	950			
N	450	450	900	1000			
O	450	500	950				
P	500	500	1000				

Note 1: Color (Example: Black, White, Red)

1	Black
2	White
3	Red
4	Blue
5	Yellow
6	Green
7	Clear
8	Orange

Note1) The tube color would be specified in the order of the color code.



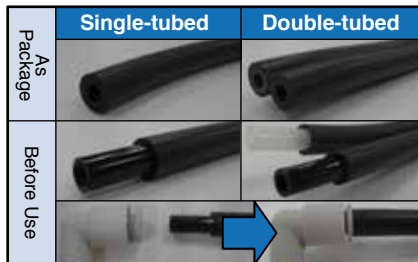
Tubing Size	Factor A	Factor B	Coil Inner Dia. φ C	Coil External Dia. φ D	No. of Coil Windings per Tube Length N
0425	12	2.9	φ20	φ28	3 ~ 66
0604	18	2.5	φ25	φ37	3 ~ 44

Double-layered Tube for Instrumentation Devices (Single-tubed/Double-tubed)

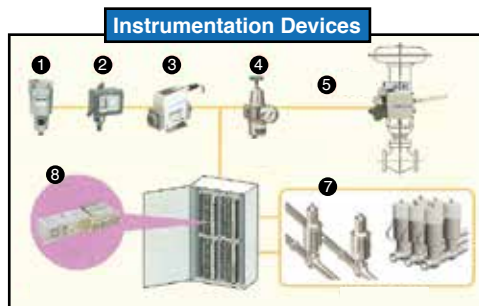
IN-241-****-***

T0604~T1075-*-*--(X120, X121, X166)

- Double-layered tube with an external layer of vinyl chloride or polyolefin to protect the inner tube.
- Double-tubed type (Color: black + black/black + white) and 500mm length are available.
- If you need a different no. of tubes, different colors of lengths over 500m, please contact your sales representatives.



* The product no. in the pictures to the left is T064-2-100-X121.



- 1 Main Line Filter
- 2 Pressure Switch
- 3 Flow Switch
- 4 Filter Regulator
- 5 Positioner
- 6 Control Solenoid Valve Box
- 7 Control Sanitary Valve
- 8 Control Solenoid Valve Box

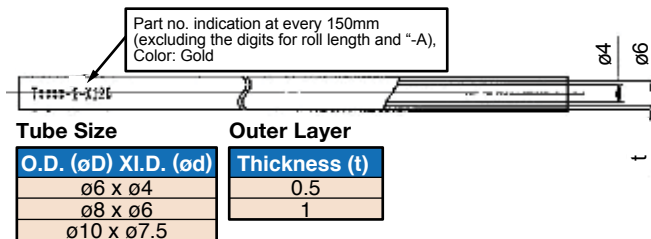
Specifications

Fluid	Air
Max. operating pressure (at 20°C)	1.5MPa
Ambient and fluid temperature	-20~60°C

Mass
(A reference) T1075-2-300-X166
• Inner tube: OD ø10, D ø7.5
• 2 cores • Outer layer thickness 0.5mm
• 300m reel
37kg

Dimensions (mm)

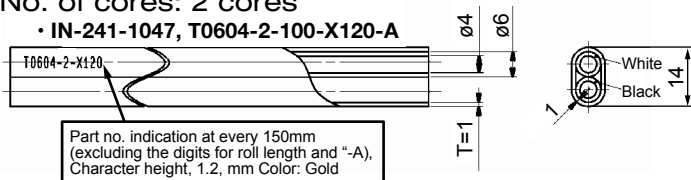
No. of cores: 1 core



Tube Size		Outer Layer
O.D. (øD)	XI.D. (ød)	Thickness (t)
ø6 x ø4		0.5
ø8 x ø6		1
ø10 x ø7.5		

No. of cores: 2 cores

• IN-241-1047, T0604-2-100-X120-A



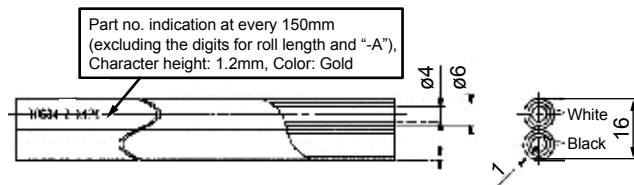
Part no. indication at every 150mm (excluding the digits for roll length and "-A"), Character height, 1.2, mm Color: Gold

Model/Specifications

D _i mm	Specifications										Model	Double-Tube Type Cross-Sectional View	
	Inner Tube Material: Nylon		Outer Layer Color: Black		Length Per Roll								
	Cores	Color	Line for Differentiation	Material	Thickness	100 m	200 m	300 m	500 m				
ø6	1	2	Black & White	PVC	0.5	1	Reel	Roll	Reel	Roll	Reel	N-241-2522-100	T0604-2~X120 N-241-1047
	•	•										N-241-2522-300	
	•	•										T0604-1-100-X120-A	
	•	•										T0604-1-300-X120-A	
	•	•										T0604-1-500-X120-A	
	•	•										T0604-2-100-X120-A	
	•	•										T0604-2-100-X121-A	
	•	•										N-241-1047	
	•	•										N-241-2523-100	
	•	•										N-241-2523-300	
ø8	•	•										T0806-1-100-X120-A	T0604-2~X121
	•	•										T0806-1-300-X120	
	•	•										N-241-2593-100	
	•	•										N-241-2593-100	
ø10	•	•										T1075-1-100-X120-A	T0604-2~X121
	•	•										T1075-1-300-X120	
	•	•										T1075-1-500-X120-A	
ø7.5	•	•										N-241-2503-100	T0604-2~X121
	•	•										N-241-2594-100	
	•	•										T1075-2-300-X166	

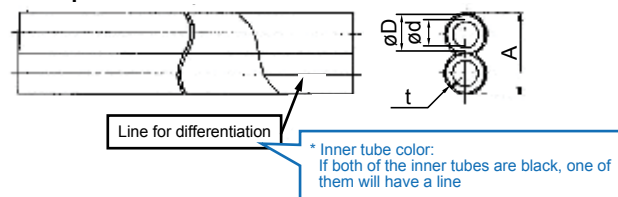
If you need a different no. of tubes, different colors or lengths over 500mm, please contact our sales representatives.

• T0604-2-100-X121-A



* The part no. is indicated on the product only for T****-X120 and X121.

• Except above mentioned tube



Tube Size		Outer Layer
O.D. (øD)	XI.D. (ød)	Thickness (t)
ø8 x ø6		0.5
ø10 x ø7.5		1

Width

Tube Size	Thickness (t)	Width (A)
ø8 x ø6	0.5	17
	1	18
ø10 x ø7.5	0.5	21
	1	22

S Couplers / KK4P-90N-X206 KKHS4S-90N-X206

Double-layered tube for instrumentation devices (single-tubed/double-tubed)

- Hose size 9 x 15 mm (I.D./O.D.) applicable to nut coupler fitting models for fiber reinforced urethane hose.



KK4P-90N-X206 (Plug)



KKH4S-90N-X206 (Socket)

Model	Specifications
KK4P-90N-X206 KKH4S-90N-X206	Hose I.D. / O.D. (mm) 9 / 15

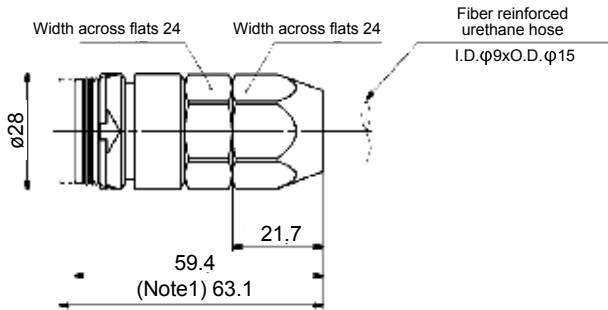
* The specifications are based on the coupler. Please use it while following the specifications of the hose in use.

Specifications

Fluid	Air, Water
Operating Pressure Range	0~1.0 MPa
Ambient and Fluid Temperature	Air: -5 to 60°C Water: 5 to 40°C (No freezing)
Proof Pressure	1.5 MPa

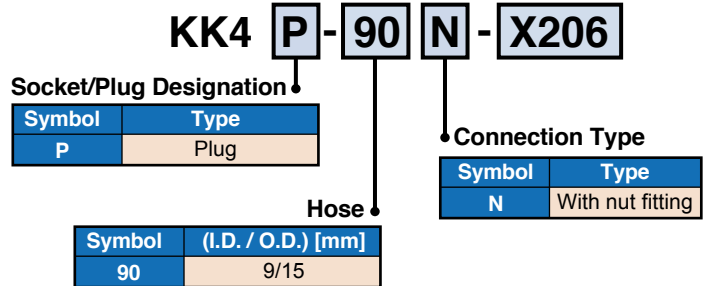
Dimensions (mm)

KKH4S-90N-X206

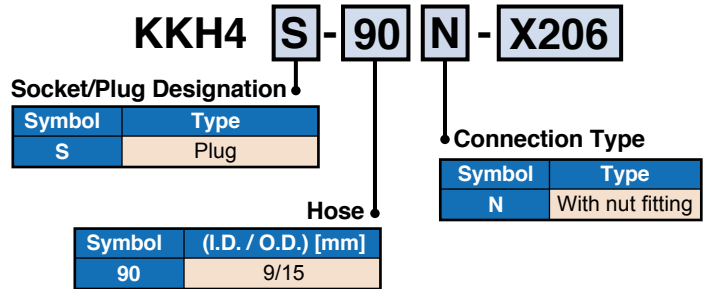


How to Order

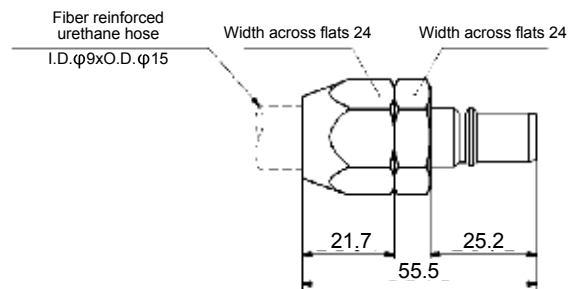
KK4P-90N-X206 (Plug)



KKH4A-90N-X206 (Socket)



KKH4P-90N-X206



Note1) The dotted line indicates the dimensions when the plug is inserted into the socket



Caution To ensure the safest possible operation of this product, please be sure to read thoroughly the "Safety Instructions" on our "Best Pneumatics" catalog before use.

S Couplers / KK130※-X206

Double-layered tube for instrumentation device (single-tubed/double-tubed)

- Hose size 9 x 15 mm (I.D./O.D.) applicable to nut coupler fitting models for fiber reinforced urethane hose.



Model	Specifications
KK130-X206 KK130S-X206	Hose I.D. / O.D. (mm) 9 / 15

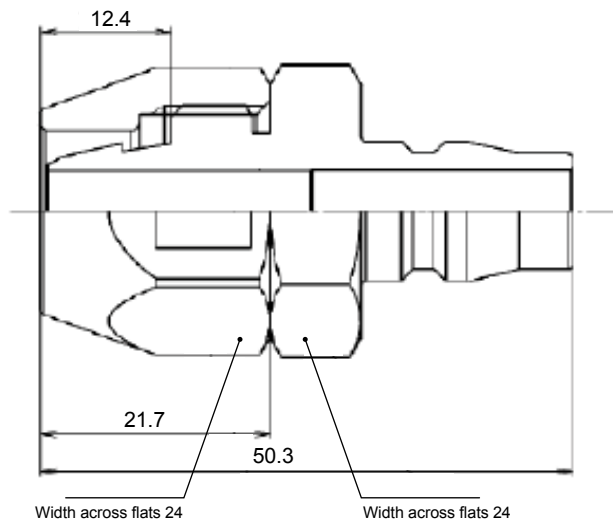
* The specifications are based on the coupler. Please use it while following the specifications of the hose in use.

Specifications

Fluid	Air, Water
Operating Pressure Range	0~1.5 MPa
Ambient and Fluid Temperature	-20 to 80°C (No freezing)
Proof Pressure	2.0 MPa

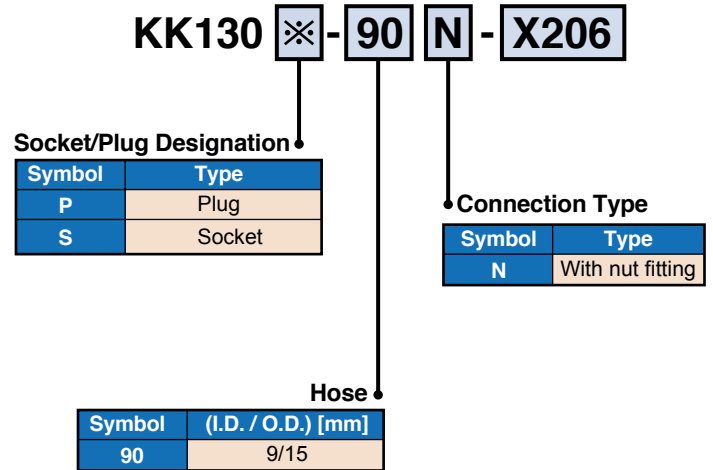
Dimensions (mm)

KK130P-90N-X206

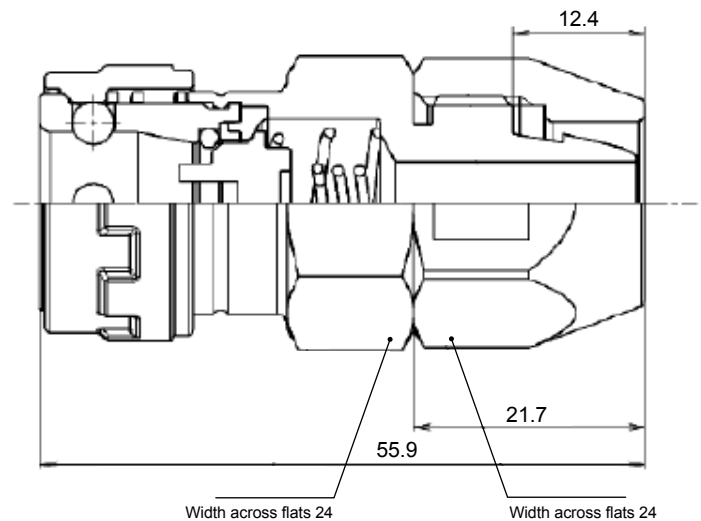


How to Order & Dimensions

KK4P-90N-X206 (Plug)



KK130S-90N-X206

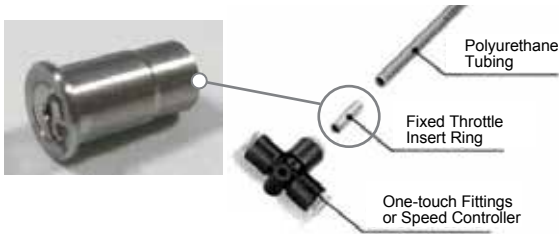


Note1) Reference dimensions for insertion of applicable hose.

Fixed Throttle Insert Ring (SUS303)

TJ-0425-X149-*

- **Fixed Orifice:** Restrict the flow rate (cylinder speed) to a level without adjustments.
- **SUS303:** Applicable to secondary battery industry (copper free)



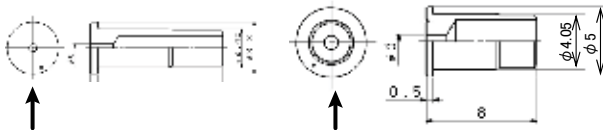
Specifications

Applicable Tubing Material	Polyurethane
Fluid	Air
Max. Operating Pressure	1.0 MPa Note 1)
Ambient and Fluid Temp.	-5~60°C (No freezing)

* Note 1) Please follow the operating pressure range and the operating temperature range.

Dimensions (mm)

TJ-0425-X149-*



A letter is marked to identify the fixed throttle size.

φd	Letter	
	TJ - 0425	TJ - 0604
0.2 ±0.02 mm	B	—
0.5 ±0.02 mm	E	E
0.7 ±0.02 mm	G	G
0.9 ±0.02 mm	I	I
1.1 ±0.02 mm	K	K
1.3 ±0.02 mm	—	M



How to Order

TJ - **0425** - X149 - **0.7**

• Tubing Model

0425	O.D.4mm I.D.2.5mm
0604	O.D.6mm I.D.4mm

• Fixed Orifice

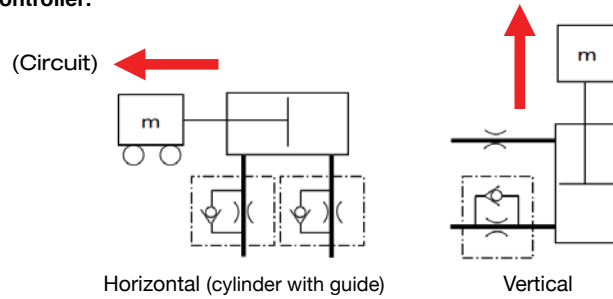
0.2	0.2 ±0.02 mm
0.5	0.5 ±0.02 mm
0.7	0.7 ±0.02 mm
0.9	0.9 ±0.02 mm
1.1	1.1 ±0.02 mm
1.3	1.3 ±0.02 mm

Tubing Model	Fixed Orifice					
	0.2	0.5	0.7	0.9	1.1	1.3
0425	●	●	●	●	●	—
0604	—	●	●	●	●	●

Referential Data on Fixed Throttle Size

(The values below are not guaranteed. Please make sure that the performance of the product satisfies your requirements under the actual conditions of use.)

When used with a CQ2 compact cylinder and AS fixed throttle speed controller.



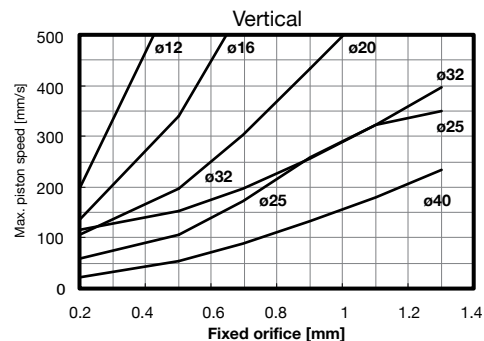
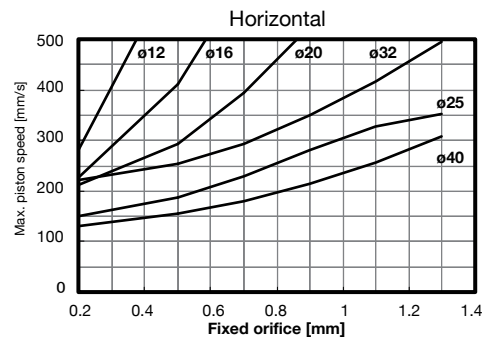
(Detailed Conditions)

Cylinder Bore Size	φ12	φ16	φ20	φ25	φ32	φ40	
Cylinder Stroke	30mm			50mm			
Load Mass	Horizontal	1.6kg	3kg	5kg	8kg	12kg	20kg
	Vertical	0.8kg	1.5kg	2.5kg	4kg	6kg	10kg
Fixed Throttle Speed Controller	AS1201F-M5-04-* -X250			AS2201F-01-06-* -X250			
Tubing (Length)	TU0425 (1.0m)			TU0604 (1.0m)			
Valve	SY3120			SY5120			
Operating Pressure	0.5MPa						

(Fixed throttle size and max. piston speed)

(Please refer to the "Best Pneumatics" catalog for the allowable kinetic energy.)

*The positions of the φ25 and φ32 lines are switched since the operating conditions (the fixed throttle speed controller, tubing and the valve) are different.



Double Universal Female Elbow

KQ2VD*-*-X972

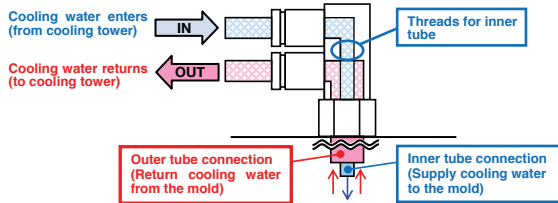
KQB2VD*-*-X819/-X901

A one-touch fitting to supply cooling water to molds
Enables multiple piping in a limited space.



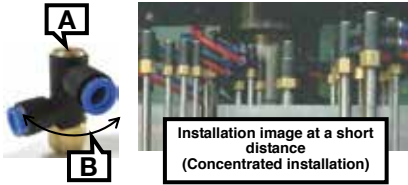
Resin Body Type/KQ2VD Metal Body Type/KQB2VD

1) IN/OUT coaxial ports (reciprocation type) with single fitting.



2) Enables easy and flexible piping.

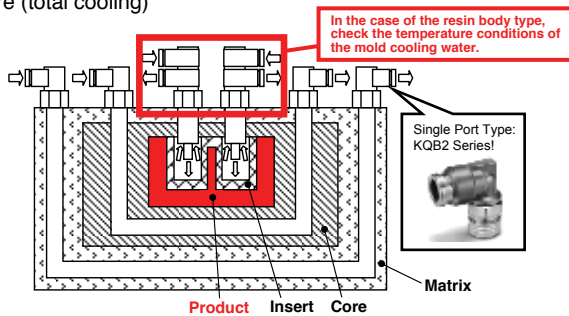
A: Several fittings can be installed at a short distance with a hexagon wrench. (Concentrated installation)
B: Enable flexible piping of cooling water with swing movement!



Examples of Mold Cooling

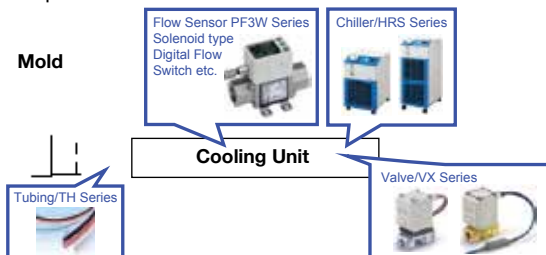
Mold requiring water-cooling are die cast molds and resin mold etc. This product (reciprocation type) is used to cool down the insert (selective cooling)

- The single port type is common for cooling down the matrix and the core (total cooling)



Introduction of related products

- SMC offers products that can control the supply of cooling water to molds. Check the temperature conditions before selection.

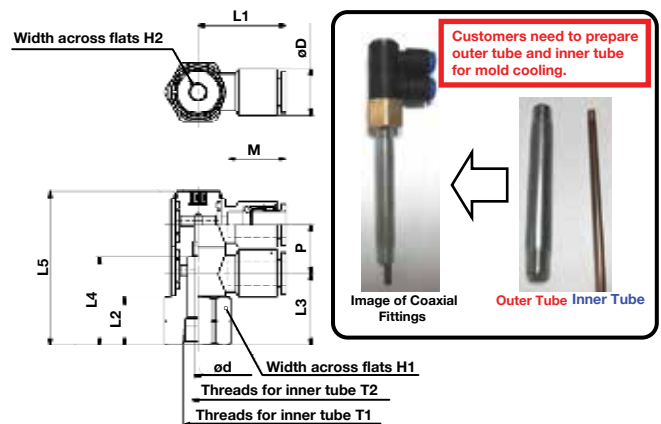


Specifications

	Resin Body Type: KQ2VD	Metal Body Type: KQB2VD
Tubing Material	Nylon, Polyurethane, FEP, PFA	Nylon, Polyurethane, FEP, PFA, Polyolefin
Tubing O.D.	ø6, ø8, ø10	
Fluid	Air/Water ⁽¹⁾	
Operating Pressure Range	-100 kPa to 1 MPa ⁽²⁾	
Ambient and Fluid Temperature	-5 to 60°C Water: 0 to 40°C (No freezing) ⁽³⁾	-5 to 150°C (No freezing) ⁽⁴⁾

- Note 1) The surge pressure must be under the maximum operating pressure.
Note 2) Check the operating pressure range of the tubing.
Note 3) Check the temperature conditions of the cooling water of the mold.
Note 4) Check the operating temperature range of the tubing. Use inner sleeve under high temperature conditions. Check the temperature conditions separately.

How to Order and Dimensions (mm)



Applicable Tubing O.D. (mm)	Coaxial Fitting		Model	H1	H2	øD	L1	L2	L3	L4	L5	M	P	ød		
	T1	T2														
Resin Body Type	ø6	RC 1/16	5-44UNF	KQ2VD06-16F-U20-X972	14	4	12.8	24.5	10.9	17.3	23	40	17	13.4	2.5	
		M4x0.5	KQ2VD06-16F-M4-X972	14	4	12.8	24.5	10.9	17.3	23	40	17	13.4	2.5		
	ø8	RC 1/8	10-32UNF	KQ2VD08-01F-U30-X972	19	5	15.2	28.5	16	23	28.6	50	18.5	15.9	2.5	
		M4x0.5	KQ2VD08-01F-M4-X972	19	5	15.2	28.5	16	23	28.6	50	18.5	15.9	2.5		
	ø10	RC 1/4	M6x0.75	KQ2VD08-02F-M6-X972	21	6	18.5	32.5	16	25.1	34.5	57	18.5	19.2	4.5	
		RC 3/8	M8x0.75	KQ2VD08-03F-M8-X972	25	8	20.9	35.3	11.8	22.2	33.3	58	18.5	23.1	5.8	
	Metal Body Type	ø6	RC 1/16	5-44UNF	KQ2VD10-02F-U40-X972	21	6	18.5	31.5	15.8	25.1	34.5	57	21	19.2	4.5
			RC 3/8	RC 1/16	KQ2VD10-03F-R00-X972	25	8	20.9	39	11.8	22.2	33.3	58	21	23.1	5.8
		ø8	RC 1/8	M4x0.5	KQB2VD06-R1F-X819	14	4	11.5	20	10.8	17.5	23	40	13.6	13.4	2.5
			M4x0.5	KQB2VD06-R1F-X901	14	4	11.5	20	10.8	17.5	23	40	13.6	13.4	2.5	
ø10		RC 1/4	10-32UNF	KQB2VD08-R1F-X819	19	5	13.4	24.6	15.6	23.9	28.6	50	16.1	15.9	3.5	
		M4x0.5	KQB2VD08-R1F-X901	19	5	13.4	24.6	15.6	23.9	28.6	50	16.1	15.9	2.5		
ø8		RC 1/4	M6x0.75	KQB2VD08-R2F-X819	21	6	13.4	25.6	15.8	25.9	34.5	57	16.1	19.2	4.5	
		RC 3/8	M8x0.75	KQB2VD08-R3F-X901	25	8	13.4	27	11.8	23.4	33.3	58.1	16.1	21.6	5.8	
ø10	RC 1/4	1/4-28UNF	KQB2VD10-R2F-X819	21	6	16.4	27.3	15.8	25.9	34.5	57	17	19.2	4.5		
	RC 3/8	RC 1/16	KQB2VD10-R3F-X819	25	8	16.4	29.6	11.8	23.4	33.3	58.1	17	21.6	6.8		

Cyclone Filter for Vacuum

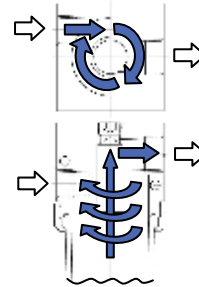
AF-T17

Able to capture 90% or more of solid powder with a specific gravity of 2.1 with the cyclone effect

Protection of equipment on the upstream side from vacuum

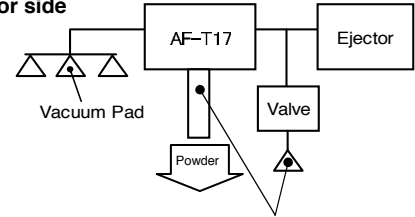
Working Principle

- 1) The gas enters from the port on the pad side and circles along the inner surface of the body.
- 2) Solid matter in the gas is separated by a centrifugal force that is generated by spinning, swirls down and accumulates in the bowl.
- 3) The gas, separated from the solid matter, flows towards the port the ejector side.



No element used (No clogging)

Automatic dust ejection possible by switching air on the ejector side



A positive pressure is supplied to the ejector side of AF-T17 to eject powder in AF-T17

AF-T17 has been used with vacuum flow to collect burrs from electronic parts.



Vacuum Flow/ZH□-□-X185

How to Order and Specifications

How to Order	AF-T17
Fluid	Air
Operating Pressure Range	-0.1 to 0 MPa
Proof Pressure	0.75 MPa
Vacuum Release Pressure	MAX. 0.5 MPa
Ambient and Fluid Temperature	-5 to 60°C (No freezing)
Port Size	Pad Side: Rc1/2, Ejector Side: Rc3/4 Ejection Port: Rc1/4

⚠ Safety Specifications

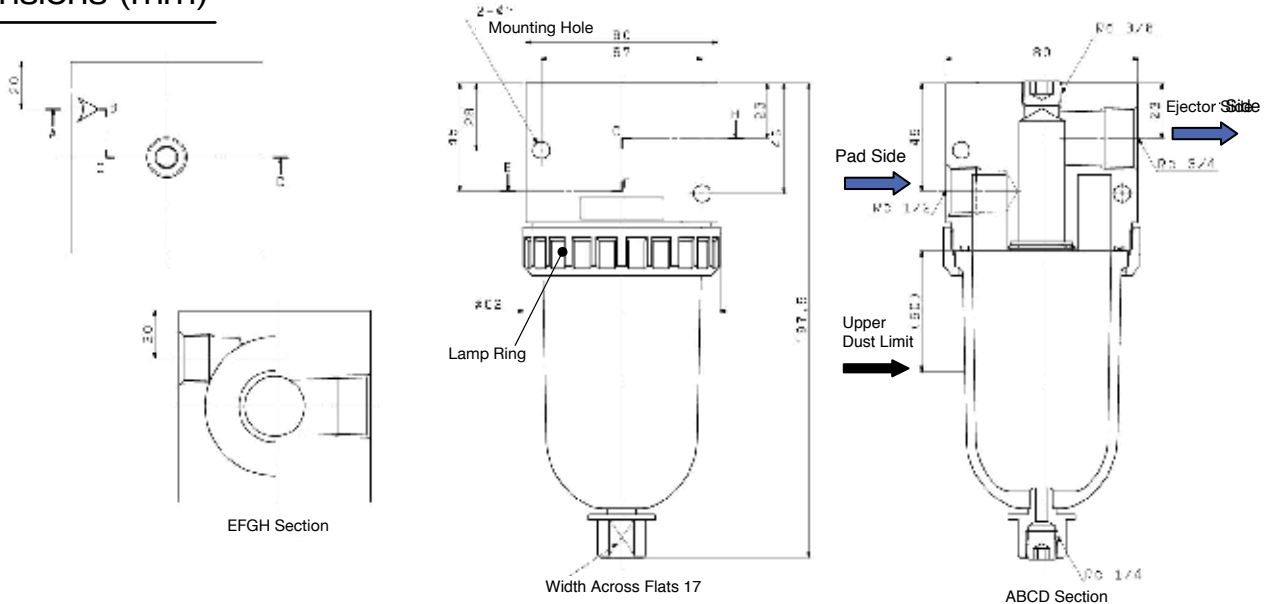
⚠ Danger Countermeasures against dust explosion

- Do not use this product to separate or collect explosive powder (aluminum powder, magnesium powder, coal powder, etc.), organic powder (epoxy resin, toner, paper dust, starch, etc.) or flammable organic solvent that is at risk of generating a dust explosion.
- Regarding the ignition quality or explosive nature of substances to be separated or collected, confirm safety before use by checking with the material manufacturers.

⚠ Danger Countermeasures against static electricity

- Powder in cyclone flow may generate static electricity. When static electricity is generated, take countermeasures using static eliminators (ionizers) or grounding with the mounting hole.

Dimensions (mm)



Notes:

1. Eject dust (particles) before it reaches the upper dust limit.
2. The bowl material is nylon. It may crack or break when solvent such as alcohol, amines, etc. attaches to the bowl. (Please consult SMC when solvent that may affect nylon is used.)
3. Since the bowl does not have protection, replace the bowl assembly before it cracks or breaks when discolorations or flaws are generated.
4. Please use a commercially available tool when the clamp ring screw gets stuck and the bowl cannot be removed manually. Tool: Hook spanner, size 80/85.
To remove the bowl attach a hook spanner to the clamp ring and turn it counterclockwise.

Vacuum Pad for Soft Film

ZP-606-25CS0J20

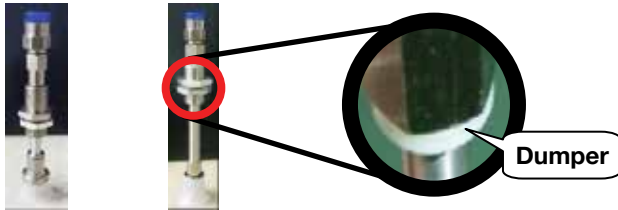
Reduction of wrinkles made on thin workpieces, such as film or vinyl, during adsorption. Wrinkle prevention with the flat surface in the center of the vacuum pad.

Reliable suction of film or vinyl. Adaption to workpiece improved with the soft skirt. Speed to reach vacuum improved with reduction in leakage!



Note) Suitable for suction of unstrained film of vinyl. Since a flat pad may be suitable depending on strain strength, please review your applications.

A buffer assembly with damper is mounted as standard.



Standard Buffer

ZP606 Buffer Assembly with Damper

Comparison test of vacuum achievement of flat or flat pad types



ZPT US (Flat) -3.8kPa



ZPT CS (Flat with rib) -28.0kPa



ZP2-B MTS (Flat Pad) -43.0kPa



Suction Pad for Thin Workpiece -90.8kPa

How to Order

The pad and the adapter should be ordered separately.

- Pad Only (ø25)

ZP - 606 - 25CSO - G

- Adapter Only (Including Gasket)

ZP - 606 - A2

- Buffer Assembly (Section (1) in the Dimensions)

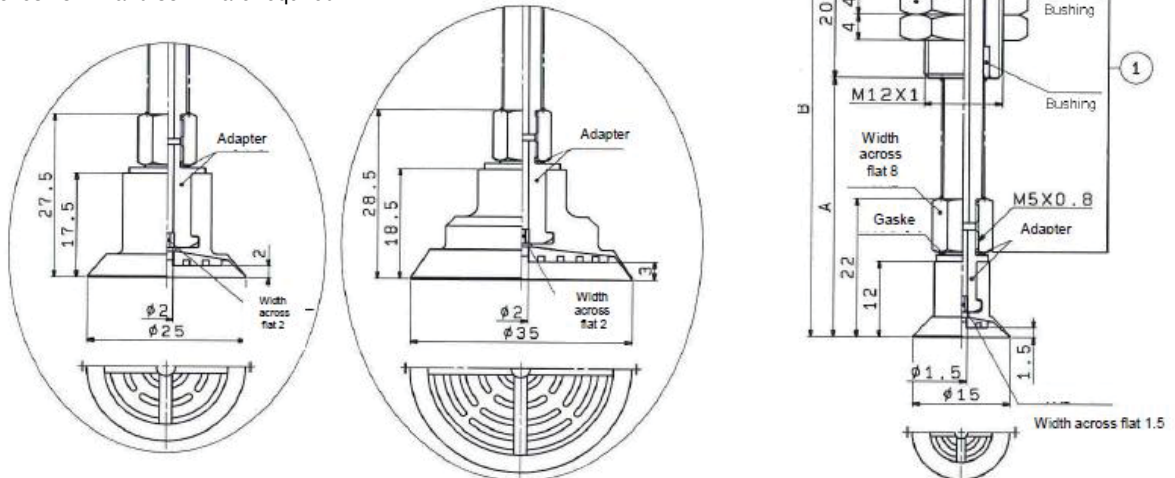
ZP - 606 - J20

Dimensions (mm)

Table 1. Dimensions (Stroke with Buffer)

Model	Pad Diameter: φ15		Pad Diameter: φ25		Pad Diameter: φ35	
	A	B	A	B	A	B
ZP-606-▲▲C××J10	41	72	46.5	77.5	47.5	78.5
ZP-606-▲▲C××J20	58.5	89.5	64	95	65	96
ZP-606-▲▲C××J30	76.5	107.5	82	113	83	114

1) Please contact our sales representative if (A) the pad sizes of ø15 and ø35 or (B) the buffer strokes 15mm and 35mm are required.



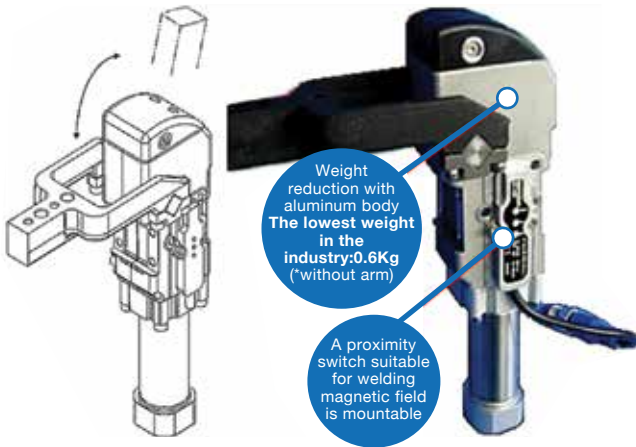
Rubber Material

	NBR	Silicone Rubber		Urethane Rubber	FKM	Conductive NBR	Conductive Silicone Rubber
Rubber Color	Black	White		Blown		Black	
Color Identification (dot)	-	-	Yellow Green(1)	-	Green(1)	Silver(1)	Silver(2)
Rubber Hardness HS: (±5)	A50	A30	A50	A60			A50

Power Clamp Cylinder: $\phi 25$

CKZT25-*-*DC*

- Force amplification with a toggle system/Max. clamp moment: 33Nm (Supply pressure: 0.5MPa)
- The self lock functions in case of air exhaust
- Weld spatter proof construction



Specifications

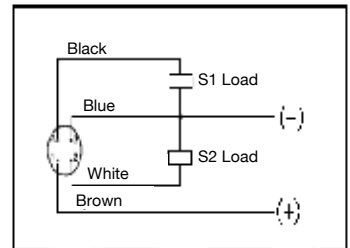
[Clamp Cylinder]

Bore Size	$\phi 25$ mm
Arm opening angle	105°
Cushion	Unclamping side rubber bumper
Proof pressure	1.2MPa
Max. Operating pressure	0.8MPa
Min. Operating pressure	0.3MPa
Operating Temperature Range	-10~60° (No freezing)
Max. Clamping Moment (Supply Pressure: 0.5mpa)	33N · m
Allowable Lock Moment	75N · m
Min. Operating Time	1 sec. to clamp, 1 sec. to unclamp
Weight	0.6Kg(Without Arm)

[Proximity Switch]

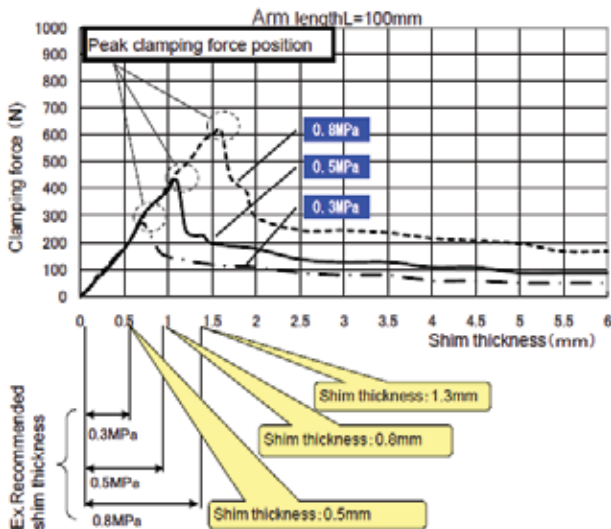
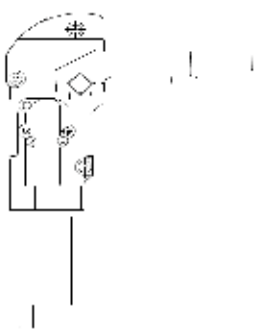
Maker	SENSTRONIC
Operating Range	1.8mm
Power Supply Voltage	10 to 30V DC
Output	N.O., PNP
Continuous Load Current	100mA
Enclosure	IP67
Housing Material	Aluminum alloy
Output Display	Clamp: Red Unclamp: Yellow
Voltage Display	Green

Wiring Diagram



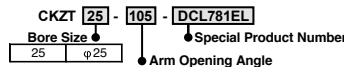
Relation between Shim Thickness and Clamping Force

Note) The self lock does not function when a shim, which is beyond the peak clamp force position in the graph, is inserted. For insertion of the shim, consider the safety margin for the thickness.
* The arm length L indicates the distance between the clamp arm rotating shaft to the clamping position.



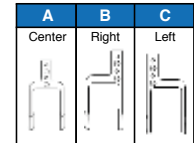
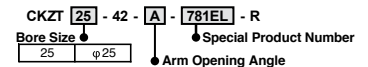
How to Order

Clamp Cylinder (without arms)



Model	Arm opening angle
CKZT25-105-DCL781EL	105°
CKZT25-90-DGN7018N	90°
CKZT25-45-DGN7017N	45°
CKZT25-30-DCN577NN	30°

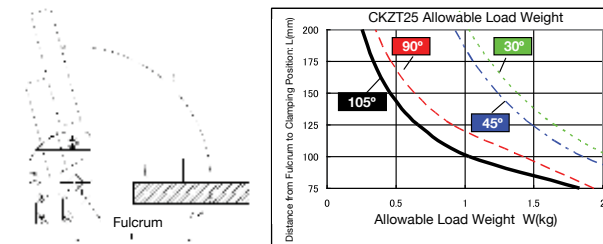
Clamp Arm



Allowable Clamp Arm End Load

Refer to the following figure regarding weight of parts mounted on the clamp arm

Note1) This weight does not include that of the clamp arm
Note 2) This weight is an allowable value under the following operating conditions
*Unclamp--> Clamp: 1 sec. or more
*Unclamp--> Clamp: 1 sec. or more



Unit: N·m	
Allowable Lock Moment	75

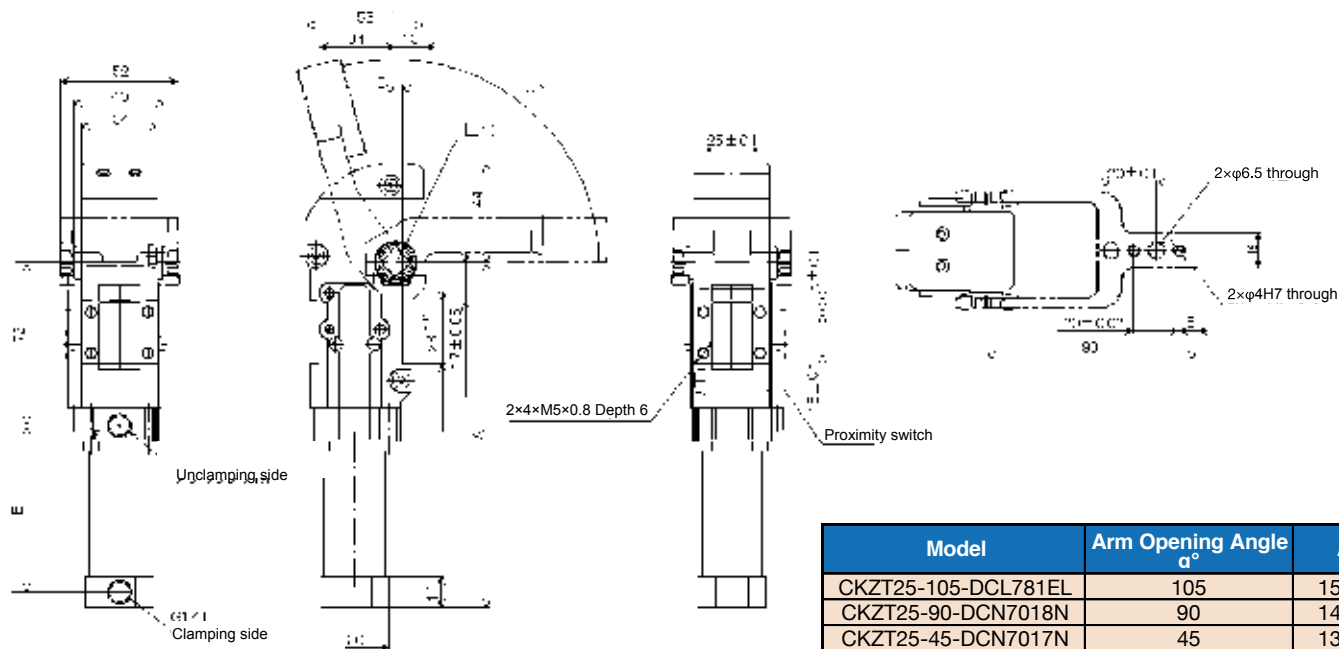
Unit: mm			
Cylinder Stroke			
30°	45°	90°	105°
18.7	22.9	35.4	39.5

* The moment at which the clamp arm is locked in a clamped state and exhausting air

Unit: N·m						
Max. Clamping Moment						
0.3MPa	0.4MPa	0.5MPa	0.6MPa	0.7MPa	0.8MPa	
20	26	33	39	46	53	

Dimensions

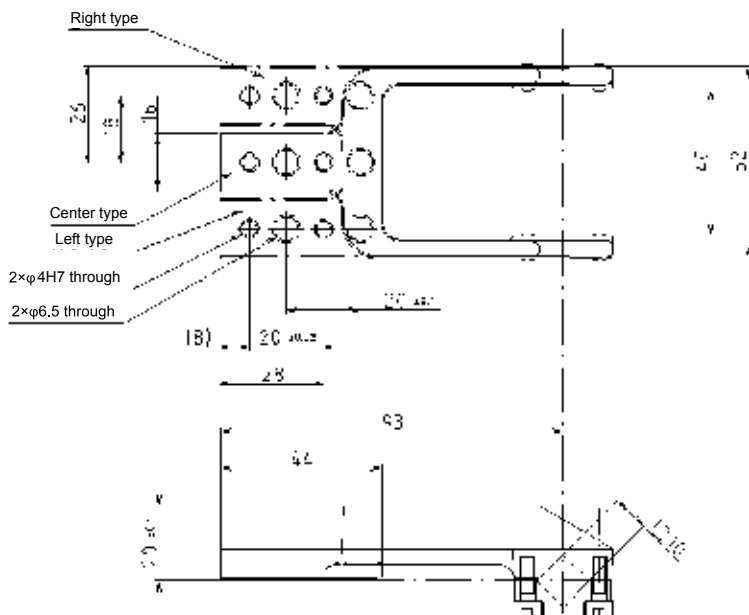
[Clamp Cylinder Body Dimensions]



Model	Arm Opening Angle α	A	B
CKZT25-105-DCL781EL	105	152.5	73.5
CKZT25-90-DCN7018N	90	148.4	69.4
CKZT25-45-DCN7017N	45	135.9	56.9
CKZT25-30-DCN577NN	30	131.7	52.7

Note) The product body does not include the clamp arm.

[Clamp Cylinder Body Dimensions]



CKZ 25 - 42 * 781EL - R

Model	Arm Position	Weight [kg]
CKZ25-42A781EL-R	Center	0.23Kg
CKZ25-42B781EL-R	Right	0.23Kg
CKZ25-42C781EL-R	Left	0.23Kg

Desktop Duster Box

ZVB Series

Devices necessary for manual dust removal work have been integrated. The dust collection function prevents removed dust from being scattered again to workplaces.

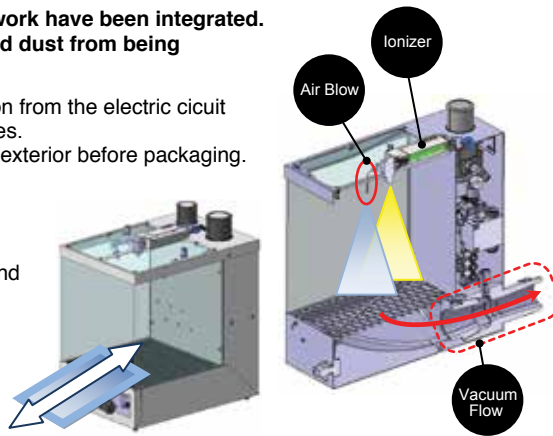
- Application: (1) Dust removal and dust collection from the electric circuit board in the assembly processes.
 (2) Dust removal from the product exterior before packaging.

Dust Removal (Ionizer & Air bow)

Removes attached dust with static electricity and prevents dust reattachment after dust removal.

Intermittent blowing removes dust effectively.

Less reduction of ion due to air blow by separating the construction of ionizer from the air blow nozzle.



Automatic Operation (Opto-electrical sensor)

Detects the workpiece and starts the dust collection.

Capability of timer-control of the electricity removing time.

Dust Collection (Vacuum Flow)

Vacuum dust. Prevents removed dust from being scattered again.

No moving parts, less failure due to dust, flux, etc.

Optional accessory: Dust bag/Hose

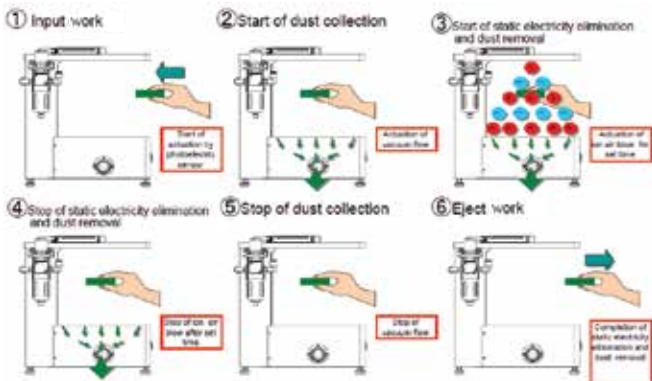
All in One (Air Control Equipment)

Control equipment for the ionizer, air blowing and vacuum blowing is unified

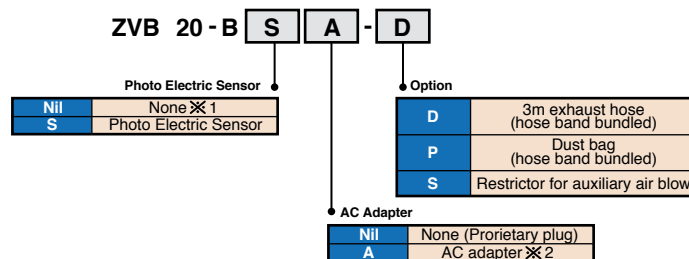
Control with the External Signal

External inputs, operating signal outputs.

Actuation Step



How to Order



* When using the product with this option, please connect a switch, etc to the external input terminal on the back panel of the product

* The shape of the accompanying AC power cable plug will be Japanese style.

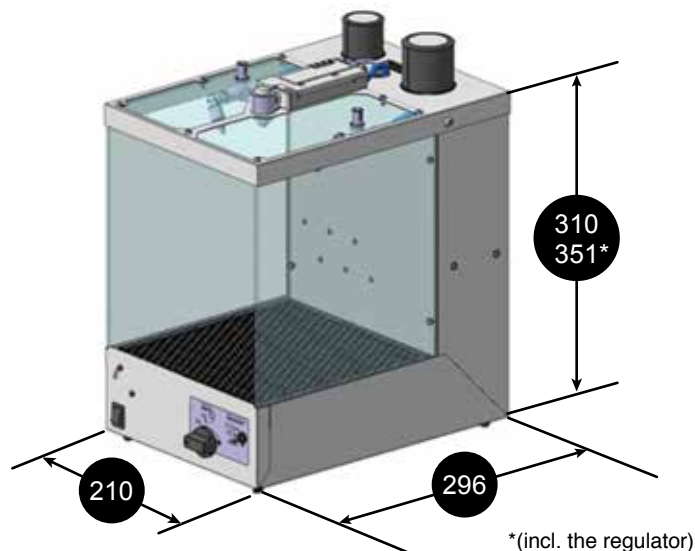
Specifications

Ion Generation Method Method of Applying Voltage	Corona discharge type (High frequency AC type)
Fluid	Air (Clean dry air)
Operating Pressure	0.2 to 0.7MPa
Static Electricity Elimination Time	1 sec or less (Note 1)
Ion Balance	±15V (Note 1)
Ambient and Fluid Temperature	-5 to 60 °C (No freezing)
Power Supply Voltage	AC85 to 264V 50/60Hz (when using the proprietary adaptor)
Air Blow Switching Frequency	50m, 100ms, Continuous
Operating Time	1 sec, 5sec, 10sec, Continuous
Air Consumption	340 L/min (ANR)
Built-in Valves and Devices	Ionizer: Valve, Regulator (adjustment free) Auxiliary Air Blow: Valve Regulator, Restrictor (Note 2) Dust Collector: Valve, Regulator
Weight	5.1kg

Note 1) The time to remove the electricity from 1000V to 100V based on the test data with a charged plate (size: 150mm x 150mm, capacitance: 20 pF) plate at 100mm height as defined in the U.S. ANSI standards (ANSI/ESD, STM3, 1-2000).

Note 2) The restrictor for the auxiliary air blow is optional.

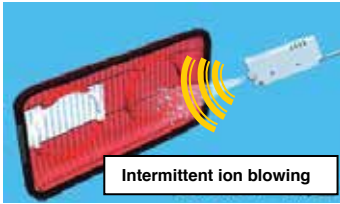
Dimensions (mm)



IZE110-X238

A digital timer that can control ON/OFF switches of valves etc.

Application: Improved dust removal effect under low air consumption by intermittent ion blowing

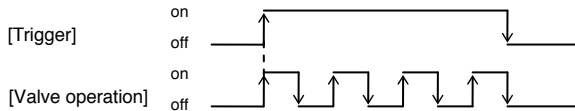


<Dust removal from resin parts>

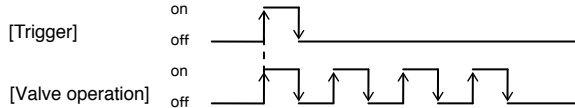
Features:

- Changeable frequency 0.1 to 50.0HZ
- Set individual ON and OFF times 0.1 to 99.9 seconds
- Display of accumulated number of changes. I can be used for maintaining valve or cylinder operation
- Switch output (Output under timer control)
- 2 types of trigger input

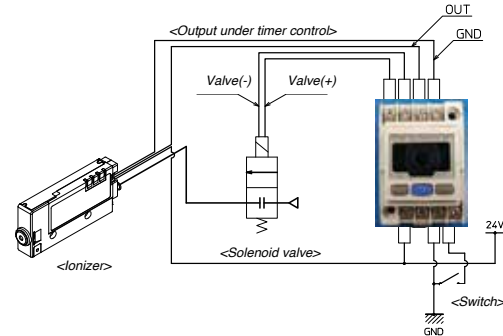
Repeat input (ON/OFF operation during trigger input)



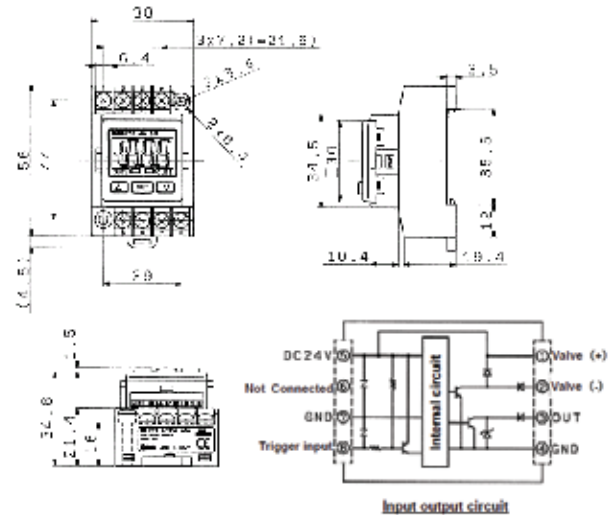
One-shot input (ON/OFF operation for a time set from trigger input)



- Solenoid valves up to 24VDC (4W) etc. are controllable



Dimensions/Input/Output Circuit



Specifications

Power supply voltage		24 VDC \pm 10% (with power supply polarity protection)
Current consumption		50 mA or less
Connection valve		24 VDC 4W or less
OUT Note)	Max. Load Current	80 mA
	Max. Applied Voltage	30 VDC
	Residual Voltage	1 V or less (with load current of 80 mA)
	Short Circuit Protection	With short circuit protection
Trigger Input		No-voltage input, Low level input 10ms or more, Low level 0.4V or less
Indicator Light		(Green/Red)
Environment	Enclosure	IP40
	Operating Temperature Range	Operating : 0 to 50°C, Stored: -10 to 60°C (With no freezing or condensation)
	Operating Humidity Range	Operating/Stored: 35 to 85%RH (With no condensation)
	Withstand Voltage	1000 VAC for 1 minute between terminals and housing
	Insulation Resistance	50 M Ω or more (500 VDC measured via ohmmeter) between terminals and housing
	Vibration Resistance	10 to 150 Hz at whichever is smaller of 1.5 mm amplitude or 20m/s ² acceleration, in X, Y, Z direction for 2 hrs. each (De-energized)
Material		Front case: PBT, Rear case: Denaturated PPE
Weight		50g

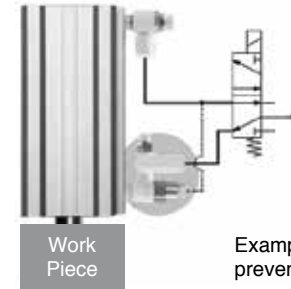
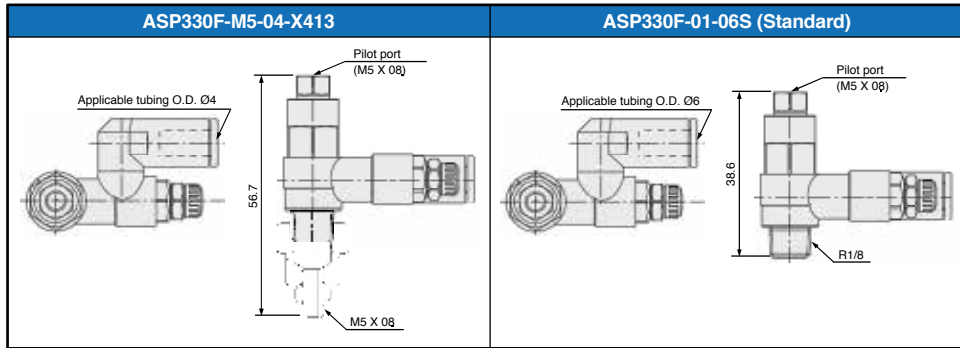
Note) Do not use a load that generates surge voltage.

Speed Controller with Pilot Check Valve with One-touch Fitting M5 Type

ASP330F-M5-X413

Applicable tubing O.D. $\varnothing 4$, Port size M5 X 0.8. Realizes momentary intermediate stoppage of a cylinder and able to adjust speed to control it.

Note) Precise intermediate stops are not guaranteed.

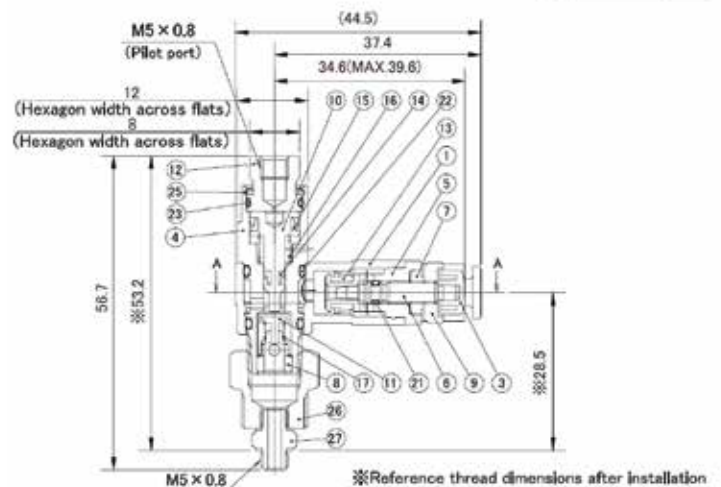
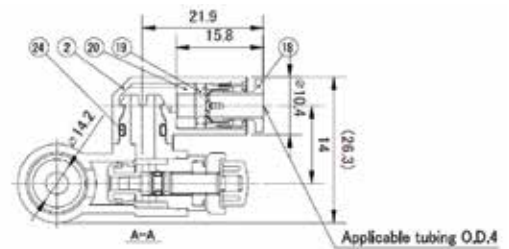


Specifications

Model	ASP330F-M5-04-X413
Fluid	Air
Proof Pressure	1.5 MPa
Max. Operating Pressure	1 MPa
Min. Operating Pressure	0.1 MPa
Pilot Check Valve Operating Pressure	More than 50% the operating pressure
Ambient and Fluid Temperature	-5~60°C (No freezing)
Number of Needle Rotations	10 turns
Applicable Tubing Material	Nylon, Soft nylon, Polyurethane
Port Size	M5X0.8, M5x0.8 (Pilot port), $\varnothing 4$ (Tube O.D.)

Construction, Dimensions: mm

No.	Description	Material
1	Body A	PBT
2	Elbow Body	PBT
3	Handle	PBT
4	Pilot Body	Brass (Electro-less nickel plated)
5	Body B	Brass (Electro-less nickel plated)
6	Needle	Brass (Electro-less nickel plated)
7	Needle Guide	Brass (Electro-less nickel plated)
8	Guide	Brass (Electro-less nickel plated)
9	Lock Nut	Brass (Electro-less nickel plated)
10	Piston	Brass (Electro-less nickel plated)
11	Valve	Stainless steel, NBR
12	Cover	Brass (Electro-less nickel plated)
13	U Seal	HNBR
14	DY Seal	NBR
15	DY Seal	NBR
16	Spring	Stainless steel
17	Spring	Stainless steel
18	Cassette	-
19	Seal	NBR
20	Spacer	POM
21	O-ring	NBR
22	O-ring	NBR
23	O-ring	NBR
24	O-ring	NBR
25	Ring	Stainless steel
26	Bulkhead Reducer	-
27	Nipple	-



Pilot Operated Check Valve ASP-X369 Series, XTO Series

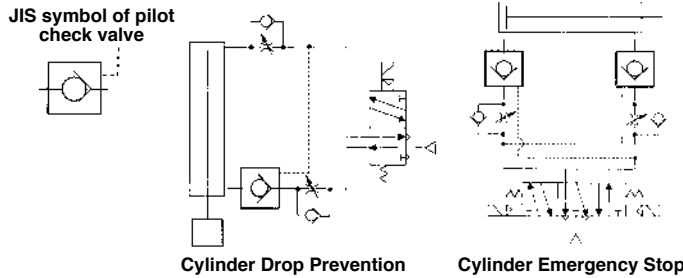
Intended use:

Drop prevention of cylinders and circuit configuration for temporary intermediate or emergency stops.

(Note) Precise intermediate stops are not guaranteed

<p>ASP-X369 Series</p> <ul style="list-style-type: none"> • Compact • With One-touch Fitting • Widesize variations 		<p><Reference> VQ1000 (2000) -FPG- Double check block</p> <p>DIN rail mountable With One-touch Fitting</p> <p>Best Pneumatics (1) VQ1000-FPG Refer to P.1053. VQ2000-FPG Refer to P.1059.</p>
<p>XTO Series</p> <ul style="list-style-type: none"> • High flow • Set screw piping (In-line) 		

Circuit Examples



Specifications

ASP-X369 Series

Model	ASP330F	ASP430F	ASP530F	ASP630F			
Fluid	Air						
Proof Pressure	1.5MPa						
Operating Pressure Range	0.1 to 1MPa						
Pilot Check Valve Operating Pressure	More than 50% the operating pressure						
Ambient and Fluid Temperature	-5 to 60°C (No freezing)						
Sonic Conductance dm ³ / (s-bar) [Effective are mm ²]	0.58 [2.9]	1.04 [5.2]	1.08 [5.4]	1.86 [9.3]	2.32 [11.6]	3.4 [17]	3.68 [18.4]
Port Size	φ6 φ1/4"	φ6	φ8 φ1/4" φ5/16" φ3/8"	φ8 φ5/16"	φ10 φ3/8"	φ10	φ12 φ3/8" φ1/2"

XTO Series

Model	XTO-2571	XTO-1239	XTO-1719
Fluid	Air		
Proof Pressure	1.5MPa		
Max. Operating Pressure	1MPa		
Min. Operating Pressure	0.2MPa	0.1MPa	0.2MPa
Pilot Check Valve Operating Pressure	0.2 to 1MPa	0.1 to 1MPa	0.2 to 1MPa
Ambient and Fluid Temperature	-5 to 60°C (no freezing)		
Effective Area mm ²	6	45	145
Port Size	Rc1/4 Rc3/8	Rc1/4 Rc3/8 Rc1/2	Rc3/4 Rc1

How to Order

ASP-X369 Series

ASP330F - 01 - 06 S - X369

Body size: 3 (1/8 standard), 4 (1/4 standard), 5 (3/8 standard), 6 (1/2 standard)

Port size:

Symbol	Cylinder Side
01	R1/8
02	R1/4
03	R3/8
04	R1/2
N01	NPT1/8
N02	NPT1/4
N03	NPT3/8
N04	NPT1/2

Applicable tubing O.D.:

Metric size	Inch size
06 φ6	07 φ1/4"
08 φ8	09 φ5/16"
10 φ10	11 φ3/8"
12 φ12	13 φ1/2"

XTO Series

XTO - 2571 - 02

Body size: 2571 (Body O.D.:φ52), 1239 (Body O.D.:φ84), 1719 (Body O.D.:φ98)

Port size:

Symbol	Port size
02	Rc1/4
03	Rc3/8
04	Rc1/2
06	Rc3/4
10	Rc1

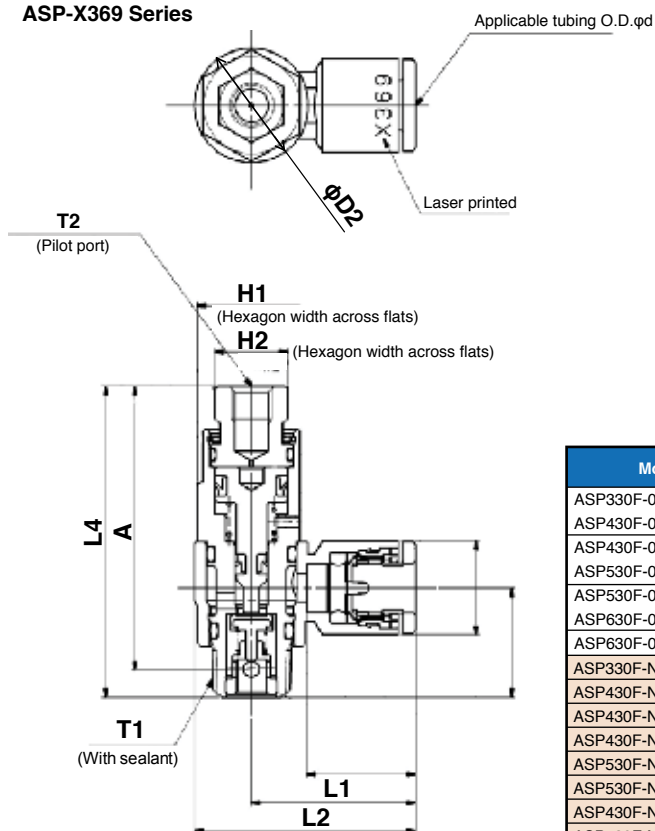
Model	Port size				
	Rc1/4	Rc3/8	Rc1/2	Rc3/4	Rc1
XTO-2571	●	●			
XTO-1239	●	●	●		
XTO-1719				●	●

Model	Cylinder Side Port Size	Pilot Port	Applicable Tubing O.D. φ												
			Metric Size				Inch Size								
			6	8	10	12	1/4"	5/16"	3/8"	1/2"					
ASP330F	R1/8	M5X0.8	●												
ASP430F	R1/4	Rc1/8	●	●											
ASP530F	R3/8			●	●										
ASP630F	R1/2	Rc1/4			●	●									
ASP330F	NPT1/8	10-32UNF						●							
ASP430F	NPT1/4	NPT1/8						●	●	●					
ASP530F	NPT3/8								●	●					
ASP630F	NPT1/2		NPT1/4							●	●				

SPEED CONTROLLER

Dimensions (mm)

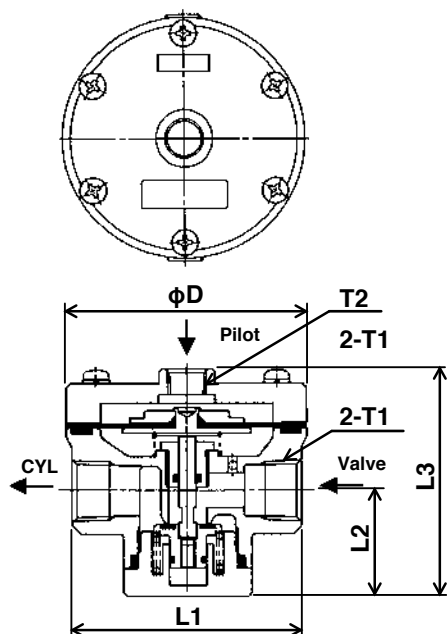
ASP-X369 Series



Model	d	T1	T2	H1	H2	D1	D2	L1	L2	L3	L4	A	M
ASP330F-01-06S-X369	6	R1/8	M5X0.8	12	8	11.6	14.2	20.4	27.5	13.6	38.6	35.2	13.5
ASP430F-02-06S-X369		R1/4		17				18.5	25.2	34.4			
ASP430F-02-08S-X369	8	R3/8	Rc1/8	19	12	15.2	23	29.7	41.2	21	56.2	50	18.7
ASP530F-03-10S-X369								31.6	43.1				20.8
ASP630F-04-10S-X369	10	R1/2	Rc1/4	24	17	18.5	28.6	33.6	47.9	25.6	70.3	61.8	20.8
ASP630F-04-12S-X369	12			21.7				35.2	49.5	25			21.8
ASP330F-N01-07S-X369	1/4"	NPT1/8	10-32UNF	12	8	13.2	14.2	23.9	31	13.6	38.6	35.2	16.8
ASP430F-N02-07S-X369				17.46	12.7			18.5	25.2	34.4			18.3
ASP430F-N02-09S-X369	5/16"	NPT1/4	NPT1/8	19	12	15.2	18.5	27.2	36.4	18.4	48.7	42.4	18.7
ASP430F-N02-11S-X369	3/8"							18.5	35.3	44.5			19
ASP530F-N03-09S-X369	5/16"	NPT3/8		19	12	15.2	23	29.7	41.2	21	56.2	50	18.7
ASP530F-N03-11S-X369	3/8"							31.6	43.1				20.8
ASP430F-N04-11S-X369	3/8"	NPT1/2	NPT1/4	24	17	18.5	28.6	33.6	47.9	25.6	70.3	61.8	20.8
ASP530F-N04-13S-X369								1/2"	21.7	35.2			49.5

*Reference dimensions after A thread installation.

XTO Series



Model	T1	T2	φD	L1	L2	L3
XTO-2571-02	Rc1/4	Rc1/4	52	52	21	57
XTO-2571-03	Rc3/8					
XTO-1293-02	Rc1/4					
XTO-1239-03	Rc3/8		84	80	37	79
XTO-1239-04	Rc1/2					
XTO-1719-06	Rc3/4					
XTO-1719-10	Rc1	98	98	40	90	

Pressure Relief 3-port Ball Valve Series VHA200

VHA200-02



Built-in Silencer

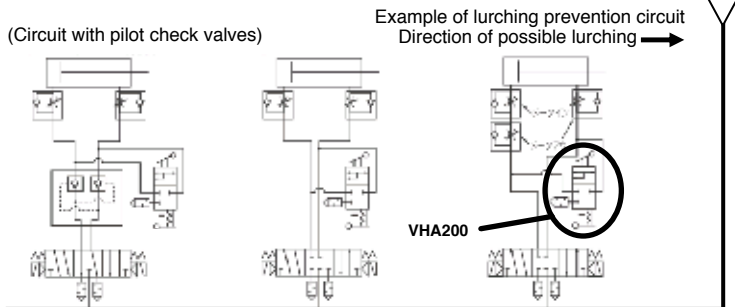
VHA200-C06-X410



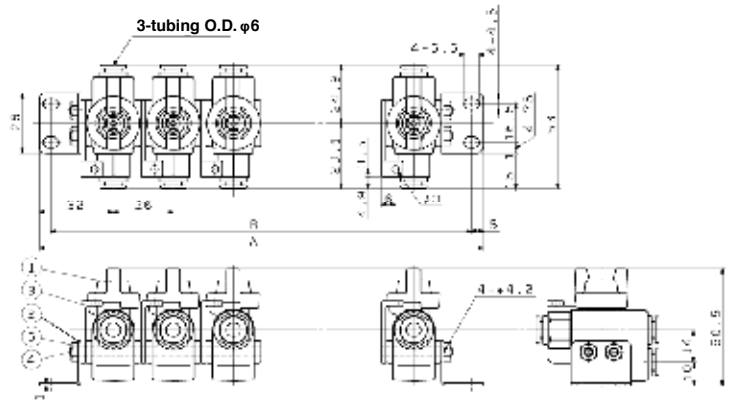
Low-profile body, universal porting
Built-in one-touch fitting

Examples of Residual Pressure Relief Circuit

- Circuits which retain the residual pressure regardless of the main valve position
- Application to hold the cylinder position in cases of supply pressure interruption



VHA200-C06-X410 Manifold Example



- Manifold design is available.

Manifold Model ^{Note 1)}	No. of Stations	A	B	Note
VHA200-C06-X410-B2	2	88	78	① VHA200-C06-X410 3-port ball valve ② Bracket ^{Note 2)} VHA200-C06B ③ Spacer ^{Note 2)} VHA200-C06B-1 ④ Screw ⑤ Hexagon nut
VHA200-C06-X410-B3	3	114	104	
VHA200-C06-X410-B4	4	140	130	
VHA200-C06-X410-B5	5	166	156	
VHA200-C06-X410-B6	6	192	182	
VHA200-C06-X410-B7	7	218	208	
VHA200-C06-X410-B8	8	244	234	
VHA200-C06-X410-B9	9	270	260	
VHA200-C06-X410-B10	10	296	286	

Note 1) Manifold design up to 10 stations is available.

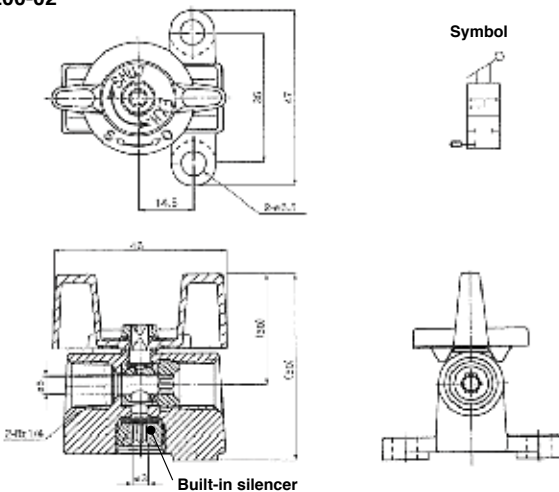
Note 2) The brackets and spacers are available separately for order.

Specifications

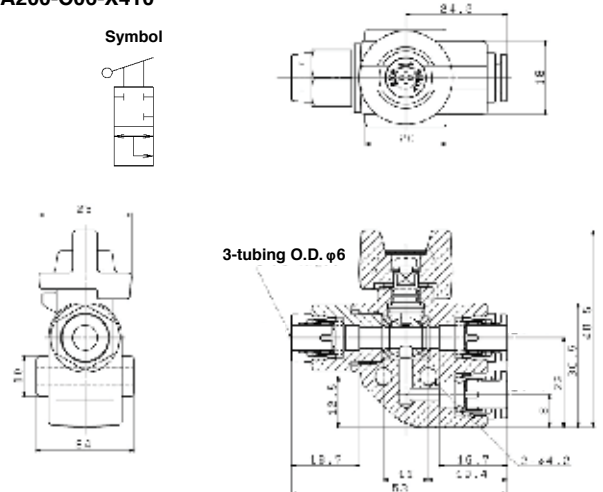
Model	VHA200-02	VHA200-C06-X410
Proof Pressure	1.5MPa	
Operating Pressure Range	0~1.0MPa	
Ambient and Fluid Temperature	-5~60°C (No freezing)	
Fluid	Air	
Port Size	Rc1/4	Applicable tubing φ6

Dimensions (mm)

VHA200-02



VHA200-C06-X410



VM130-01-30*-X31 / X41 / X246

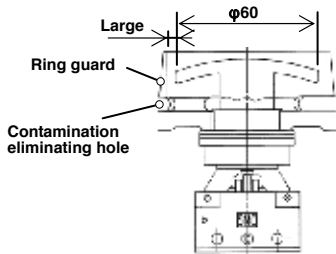
3 Port Mechanical Valve

Large push button type for control stand

- The outside diameter of the push button is expanded

X41

With Ring Guard and Contamination Eliminating Hole

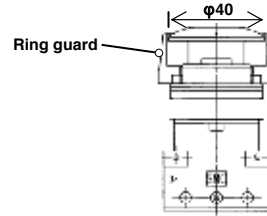


- Unintentional use prevented.
The button cannot be pushed by mistake. (The button is pushed with a finger tip.)

- A hole to eliminate foreign matter added.
Air blowing can be applied to the hole, eliminating foreign matter and dust. Also, the large clearance between the ring guard and push button helps prevent entry of foreign matter and dust as well.

X31

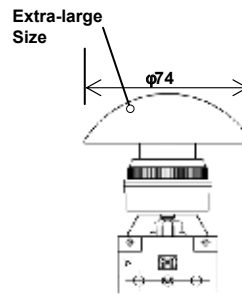
With Ring Guard



- Unintentional use prevented.
The button cannot be pushed by mistake. (The button is pushed with a finger tip.)

X246

Extra-Large Push Button



The button can be pushed with a palm, which reduces fatigue. However, since it is possible that the button is pushed unintentionally, be sure to use in combination with the two hand control valve (VR51)



	X31	X41	X246
Symbol			
Fluid		Air	
Max. Operating Pressure		1 MPa	
Min. Operating Pressure		-100kPa	
Effective Area (Cv)		2.5mm ² ×10 ²	
Ambient and Fluid Temperature	0~60°C (No freezing)	-5~60°C (No freezing)	
Color of Push Button	Red, Green, Black, Yellow	Red, Green, Black	

How to Order

VM130 - 01 - 30 **R** - **X31**

Color of push button ● Push button type

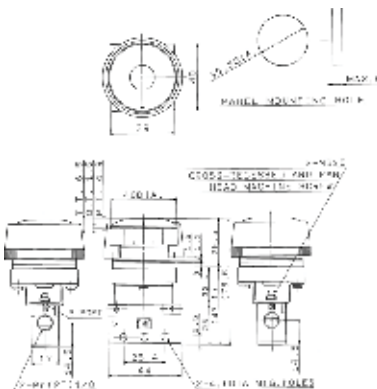
Symbol	Color	X31	X41	X246
R	Red	●	●	●
G	Green	●	●	●
B	Black	●	●	●
Y	Yellow	●	-	-

Symbol	Content	Type
X31	With ring guard	
X41	With ring guard and contamination eliminating hole	
X246	Extra-large push button	

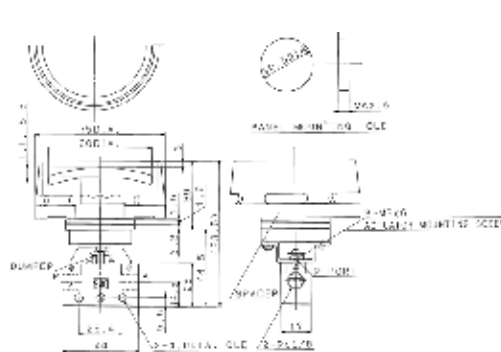
* Contact SMC for port size of NPT1/8 or G1/8.

Dimensions (mm)

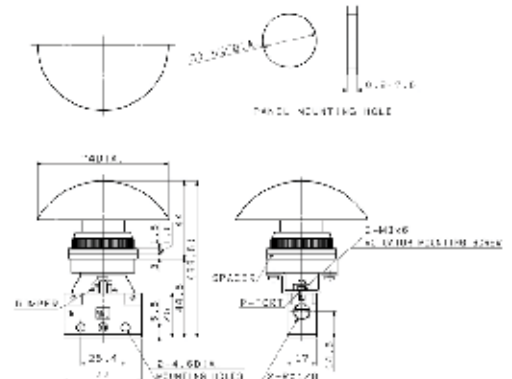
VM130-01-30*-X31



VM130-01-30*-X41



VM130-01-30□-X246



3 Port Air operated Valve

VPA - X23

External Pilot Air Operated Valve

- The pressure range from vacuum to 1.0MPa can be covered with a single valve.

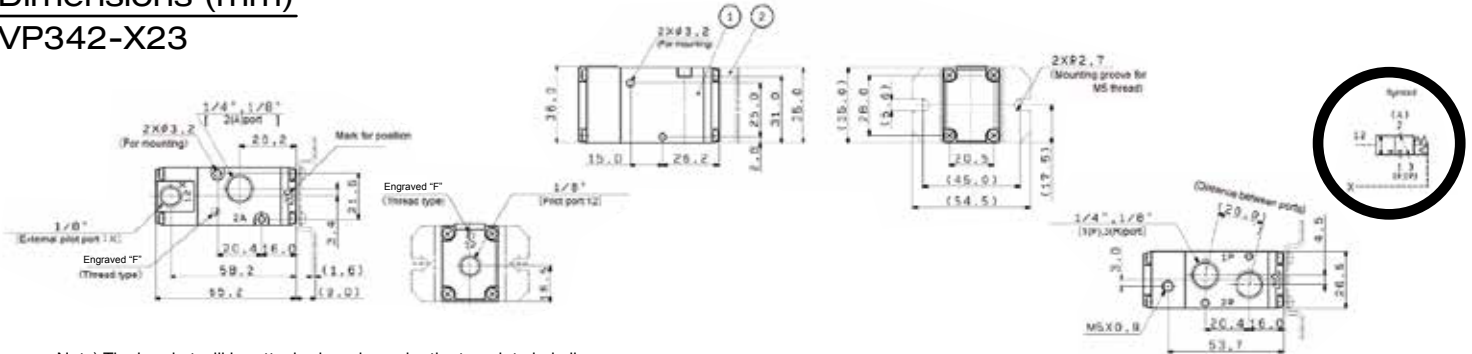
Model no.	Operating Pressure Range
Part number suffix: -X23	-100kPa~1.0MPa

Specifications

Other specifications are the same as the standard products. Refer to the catalog or operation manual.

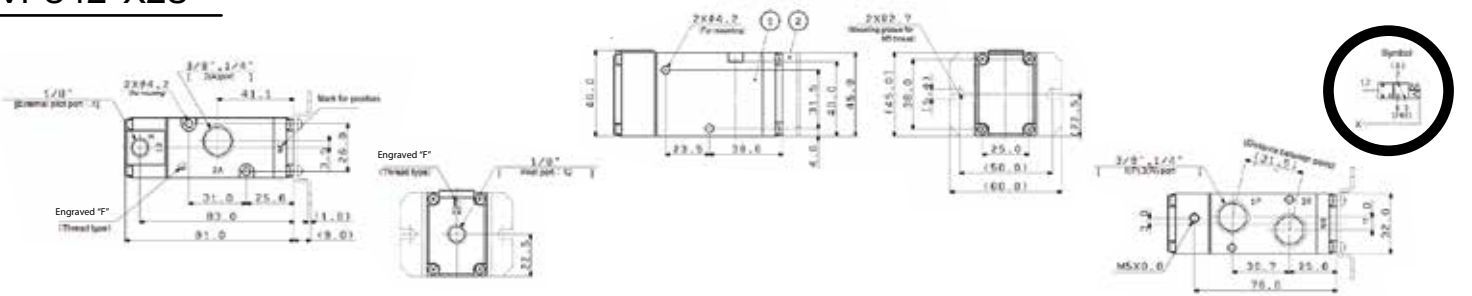
Dimensions (mm)

VP342-X23



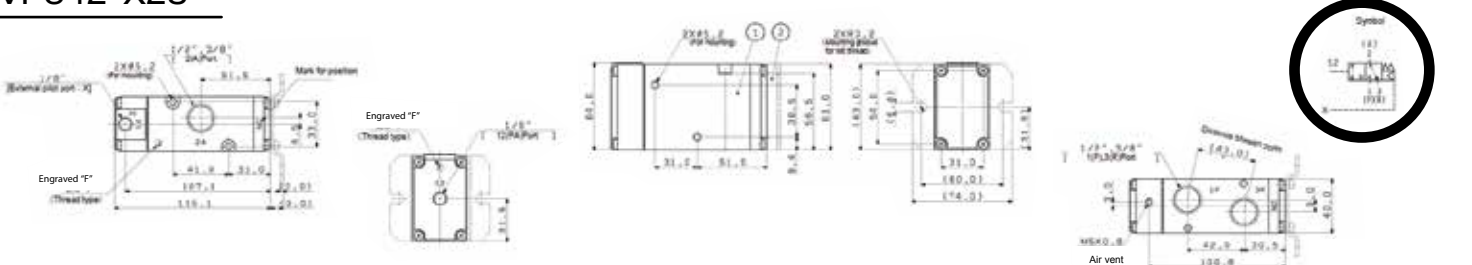
Note) The bracket will be attached as shown by the tow dot chain line.

VP542-X23



Note) The bracket will be attached as shown by the tow dot chain line.

VP542-X23



Note) The bracket will be attached as shown by the tow dot chain line.

How to Order

VPA※42-X23

VPA **3** **42** ※※※ - ※ - X23

Port size ●

3	VP300
4	VP500
5	VP700

Bracket ●

Nil	Without bracket
F	With bracket

Thread type ●

Nil	Rc
F	G
N	NPT
T	NPTF

Port size ●

Symbol	Port Size	VP300	VP500	VP700
01	1/8	●	-	-
02	1/4	●	●	-
03	3/8	-	●	●
04	1/2	-	-	●

Process Valve

VNB ※-X128

External Pilot Air Operated Valve

- Scraper added to the piston rod seal.
- Leakage check port (fluid discharge) added.



Leakage check port

Model no.	Specifications
VNB□-X 128	Improved piston rod sealing Leakage check port provided

Specifications

Other specifications are the same as the standard products. Refer to the VNB catalog or operation manual.

How to Order

VNB ※-X128

Seal material

A	NBR seals
B	FKM seals
C	EPR seals

Body material option

Nil	Standard
F	Stainless steel body <small>* Threaded port only</small>

Bracket (valve size: 1/2/3/4.)

Nil	None
B*	With bracket

* Only valve sizes 1, 2, 3 and 4. Shipped after assembled at our factory. Bracket part no. Valve sizes 2 to 4: VN -16

Air operated VNB 2 0 1 A □ - 15A - □ -X128

External pilot solenoid VNB 2 1 1 A □ - 15A - 1 T □ - □ -X128

Valve size ● **Valve type** ● **Port size**

Symbol	Orifice Diameter (mm)	Symbol				Symbol	Port Size Rc
		1 N.C. 0.5MPa	2 N.C. 0.5MPa	3 N.C. 0.5MPa	4 N.C. 0.5MPa		
2	ø11	-	-	-	•	10A	Rc3/8
	ø15	•	•	•	-	15A	Rc1/2
3	ø11	-	-	-	-	20A	Rc3/8
	ø15	•	•	•	-	25A	Rc3/4
4	ø14	-	-	-	-	32A	Rc1
	ø20	•	•	•	-	32F	Frang
5	ø16	-	-	-	-	40A	Rc1 1/2
	ø25	•	•	•	-	40F	Frang
6	ø22	-	-	-	•		
	ø32	•	•	•	-		
6	ø22	-	-	-	•		
	ø32	•	•	•	-		
6	ø22	-	-	-	•		
	ø32	•	•	•	-		

Rated voltage

1	AC100V 50/60Hz
2	AC200V 50/60Hz
3	AC110V 50/60Hz
4	AC220V 50/60Hz
5	DC24V
6	DC12V
7	AC240V 50/60Hz

Manual override

Nil:	Non-locking push type
A:	Non-locking push type A (projecting)
B:	Slotted locking type B (tool required)
Nil:	Non-locking push type

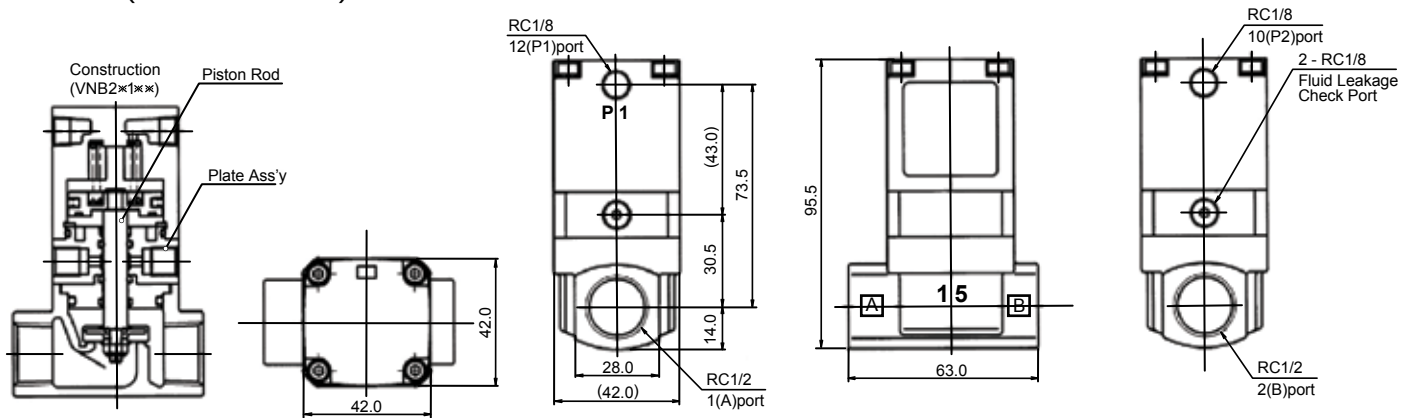
Valve Size 2 to 4

Electrical entry/with light/surge suppressor

Symbol	
G	Electrical Entry Grommet
GS	Grommet with surge voltage suppressor
E	Grommet terminal
EZ	Grommet terminal with light/surge voltage suppressor
T	Conduit terminal
TZ	Conduit terminal with light/surge voltage suppressor
D	DIN terminal
DZ	DIN terminal with light/surge voltage suppressor
G	Grommet
GS	Grommet with surge voltage suppressor
D	DIN terminal
DL	DIN terminal with indicator light

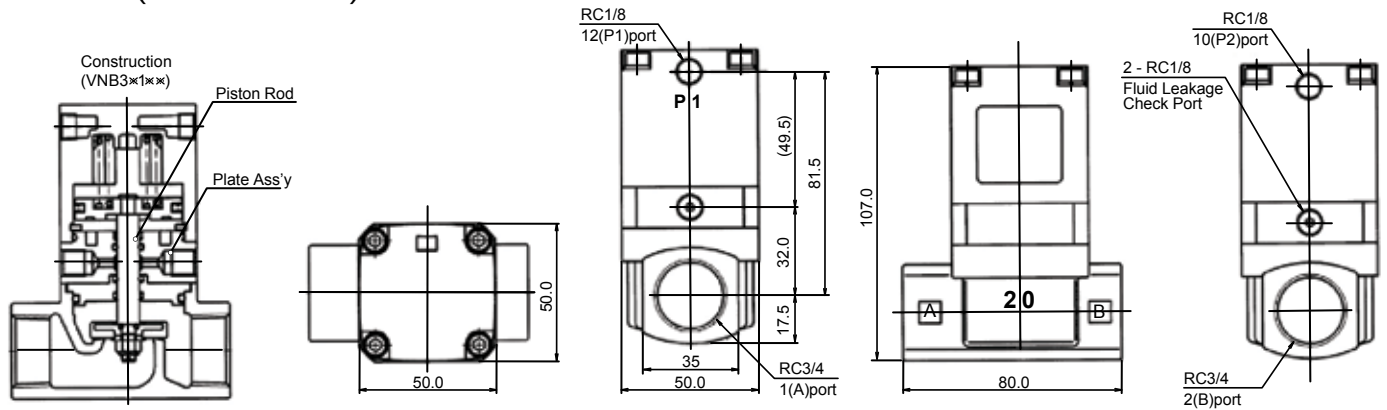
Dimensions (mm)

VNB2*-X128 (Valve Size 2)



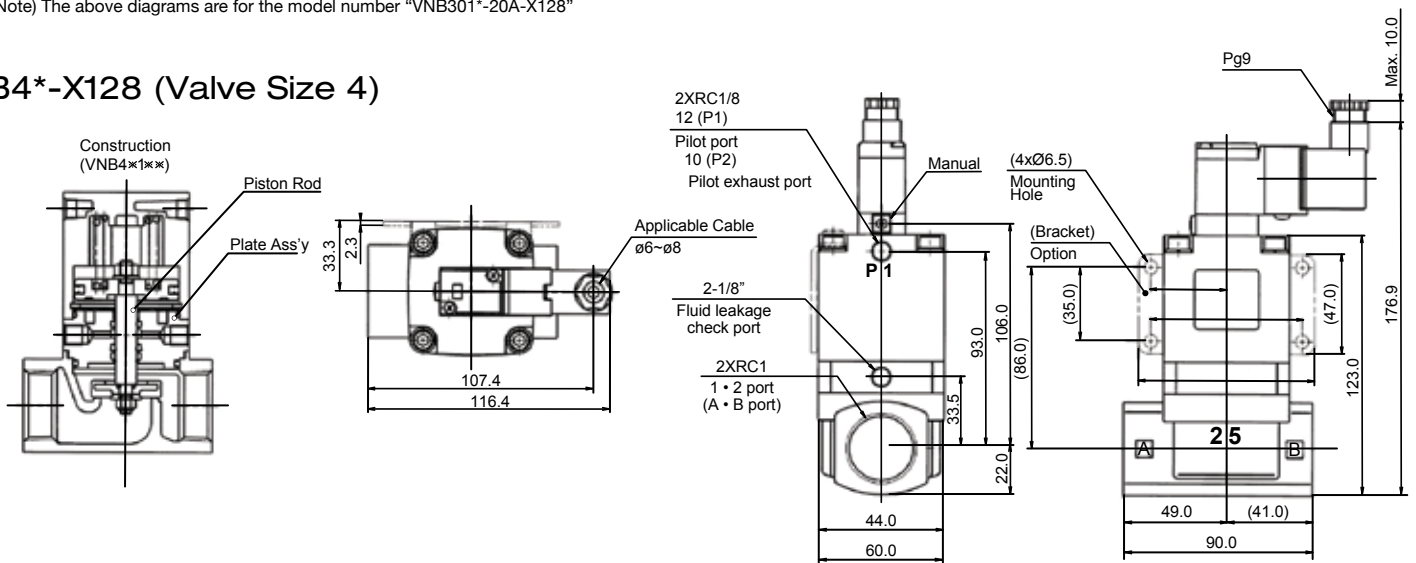
Note) The above diagrams are for the model number "VNB201*-15A-X128"

VNB3*-X128 (Valve Size 3)



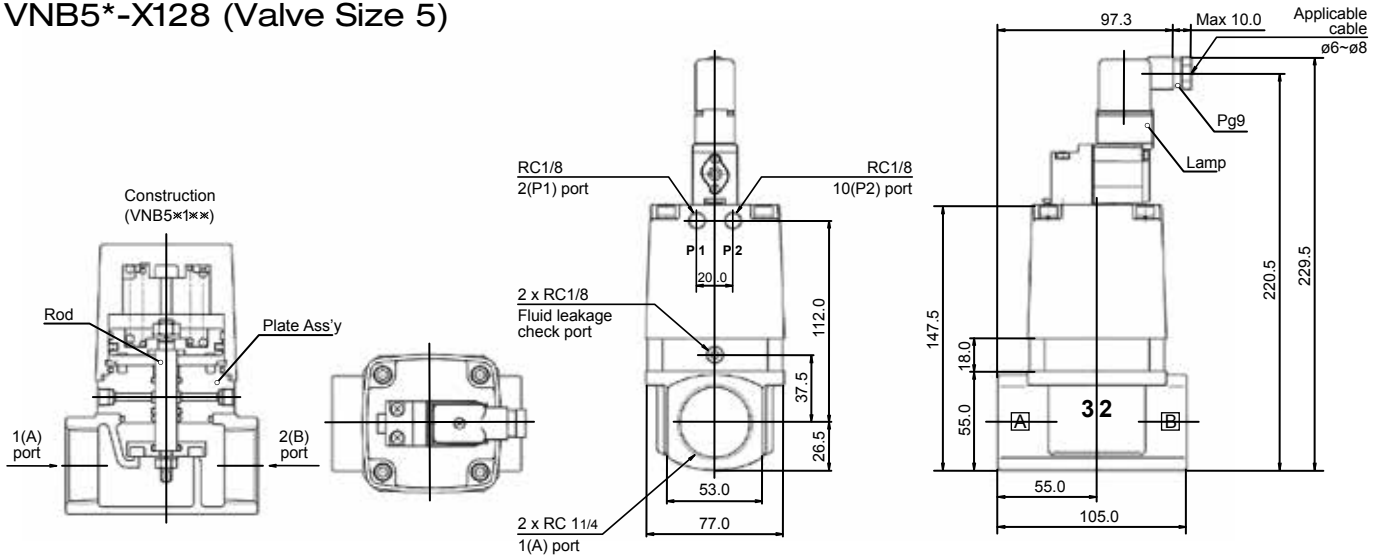
Note) The above diagrams are for the model number "VNB301*-20A-X128"

VNB4*-X128 (Valve Size 4)



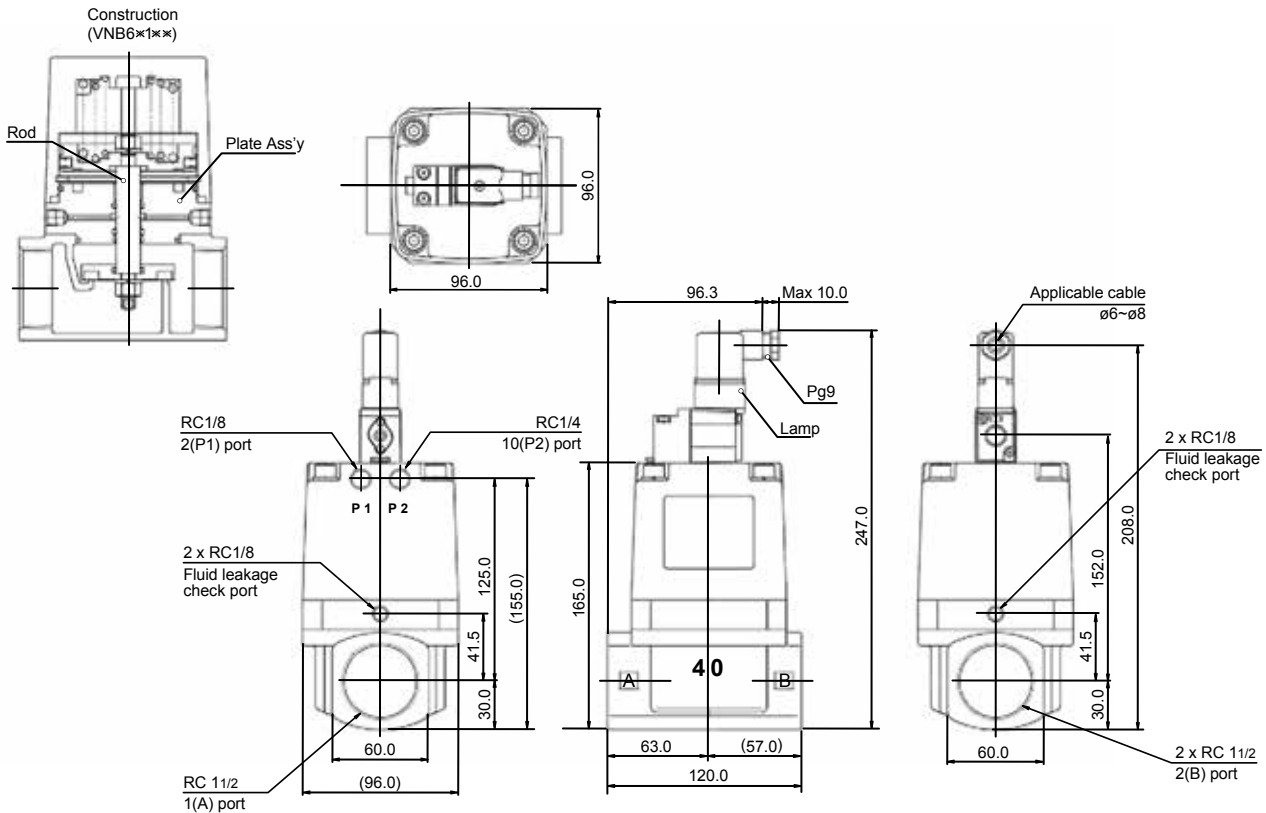
Note) The above diagrams are for the model number "VNB41**25A*-X128"

Dimensions (mm) VNB5*-X128 (Valve Size 5)



Note) The above diagrams are for the model number "VNB51**-32A-*DZ-X128"

VNB6*-X128 (Valve Size 6)



Note) The above diagrams are for the model number "VNB61**-40A-*DZ*-X128"

3 Port Solenoid Valve/VP 42R-X20

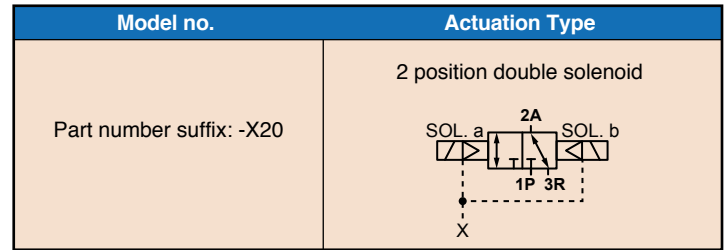
(1) Double Solenoid Pilot Type

- Capable of temporarily holding the air supply/vacuum at the time of emergency stop.
- Pilot valves are SY3240 series

Note) For applications with vacuum retention, please contact our sales for the details of the specifications.

(2) Universal Porting

- Suitable as a selector valve, divider valve or a valve for low vacuum (up to 100kPa).



Note) Available only for external pilot type.

Specifications

All specifications except the above Actuation Type are the same as that of standard products. Please refer to the external pilot type on the VP300/500/700 series standard catalog for more details.

Note) This product is not CE marked.

How to Order

VP 3 4 2 R - 5 G [] [] 1 - 01 [] - [] -X20

Series

3	VP300
5	VP500
7	VP700

Pilot type

R	External pilot
---	----------------

Pilot type

DC		AC (50/60Hz)			
5	DC24V	1	AC100		
6	DC12V	2	AC200V		
		3	AC110V (AC115V)		
		4	AC220V (AC230V)		

Electrical entry

DC24V, 12V/AC100V, 110V, 200V, 220V				DC24V, 12V/AC100V, 110V, 200V, 220V	
Grommet	L-Type plug Connector	M-Type plug connector		DIN terminal	
G:Lead wire length 300mm 	L:With lead wire (length 300mm) 	M:With lead wire (length 300mm) 	MN:Without lead wire 	D,Y:With connector 	
H:Lead wire length 600mm 	LN:Without lead wire 	LO:Without connector 	MO:Without connector 	DO, YO: Without 	

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

Bracket

Nil	Without bracket
F	With bracket

Port size

Symbol	Port Size	VP300	VP500	VP700
01	1/8	•	-	-
02	1/4	•	•	-
03	3/8	-	•	•
04	1/2	-	-	•

Manual

Nil: Non-Locking Push type	D: Push-turn locking (slotted type)	E: Push-turn locking (lever type)
----------------------------	-------------------------------------	-----------------------------------

Light/surge voltage suppressor

[Electrical entry: G, H, L or M]

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar)
U	With surge voltage suppressor (Non-polar)

* For the AC power type, there is no "S" option since generation of surge voltage is suppressed with the rectifier.
* "R" and "U" options are only available for DC power type.

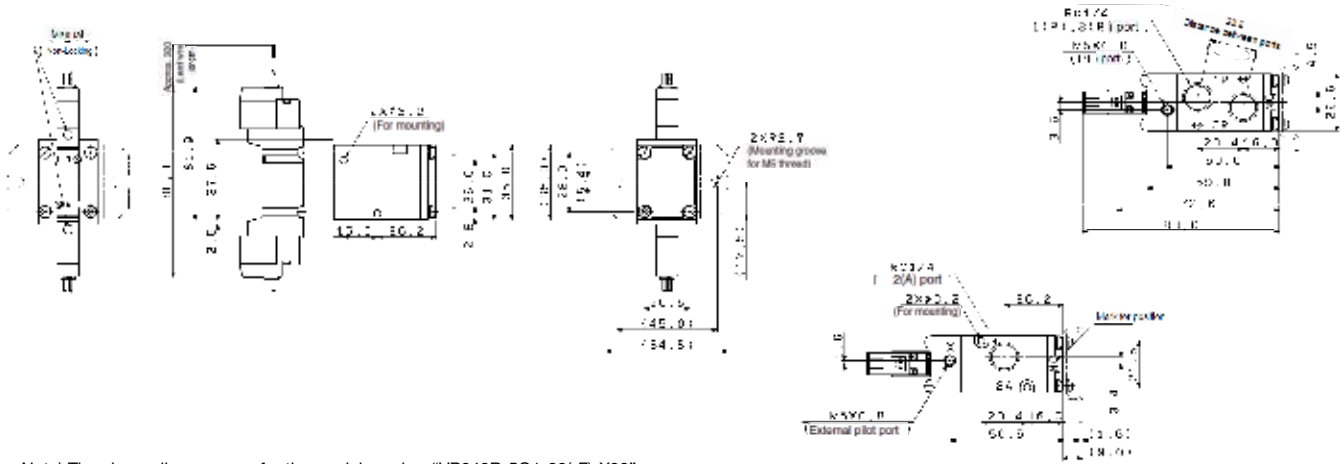
[Electrical entry: D or Y]

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

* The combinations of "DOZ" and "YOZ" are unavailable.
* For the AC power type, there is no "S" option since generation of surge voltage is suppressed with the rectifier.

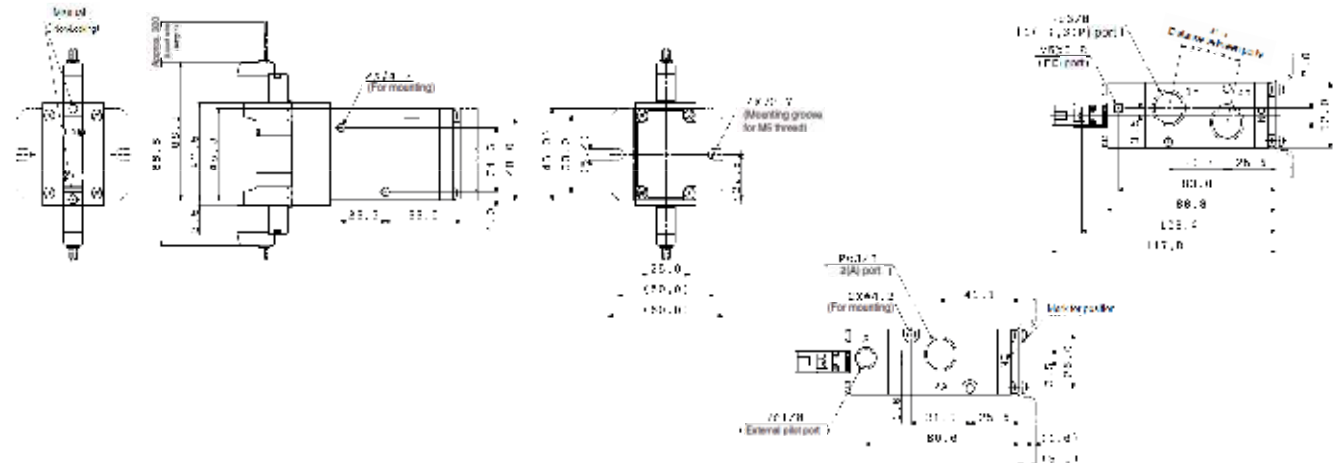
Dimensions (mm)

VP342R-X20



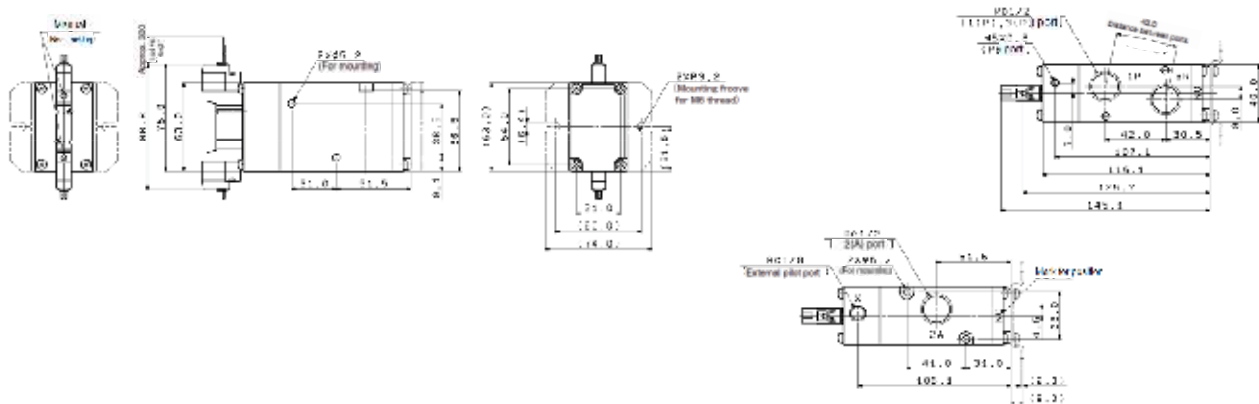
Note) The above diagrams are for the model number "VP342R-5G1-02-(F)-X20"

VP542R-X20



Note) The above diagrams are for the model number "VP542R-5G1-03-(F)-X20"

VP742R-X20



Note) The above diagrams are for the model number "VP742R-5G1-04-(F)-X20"

Global Manufacturing, Distribution and Service Network

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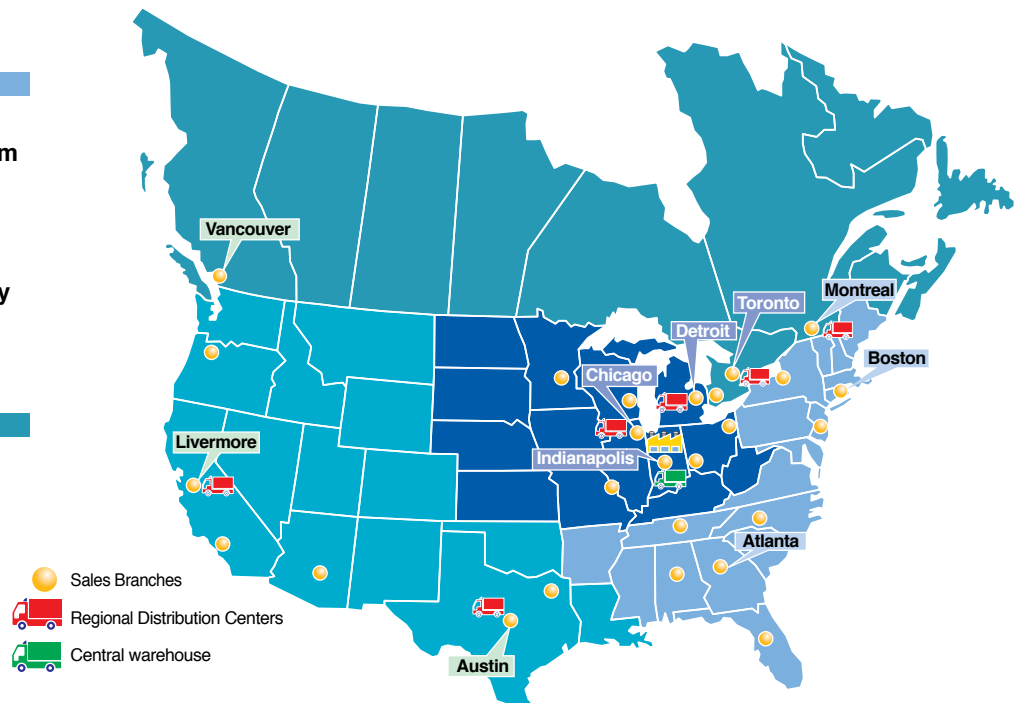
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