Safety Standard ISO 13849-1 Certified (Corresponding to Categories 3 and 4)

Safety Exhaust Valve
Modular Connection Type

New

CE UKCA cULus RoHS

* The type without a pressure gauge and with digital pressure switch specification are UL certified. Refer to page 7 for details.

New Double common specification has been added.

Exhaust flow rate characteristics [L/min(ANR)]

10,500 (VPX406-A3)

13,000 (VPX406-A4)

15,000 (VPX406-A6)

* At 0.6 MPa

Space saving & Lightweight

3 functions have been integrated.

Safety Exhaust + Soft Start + Monitoring

Modular connection is possible.
(AC30/40/50/60-D Series)

VPX400 Series

SMC

3 functions Safety Exhaust + Soft Start + Monitoring have been integrated into one.

VPX406-A4

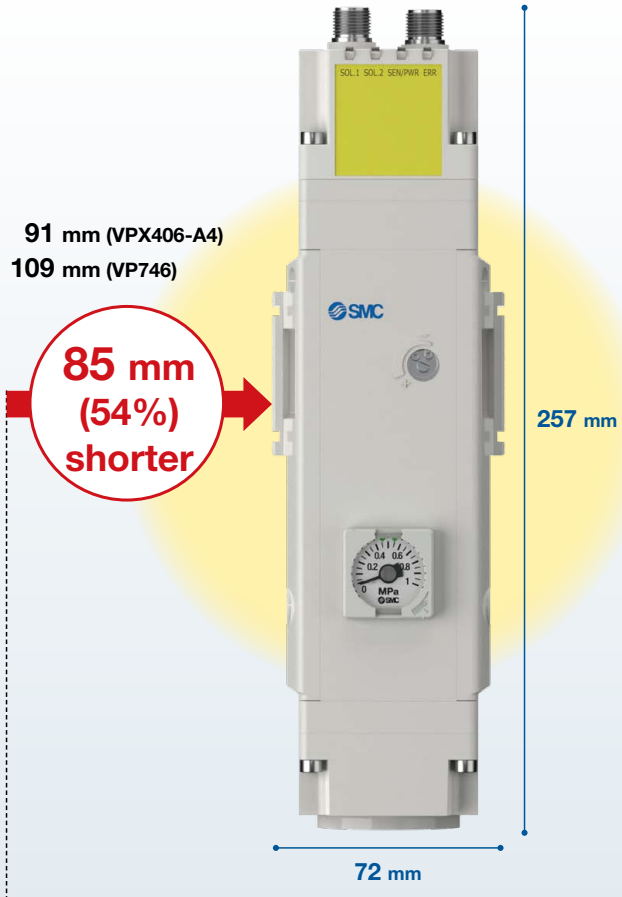
Compact
Size 60% reduction

Lightweight
Weight 9% reduction

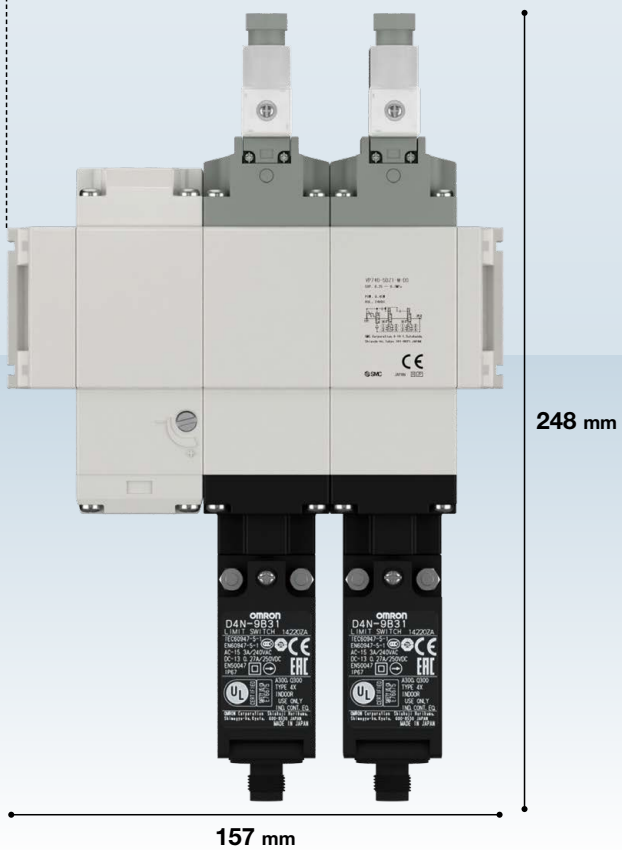
＊ Compared with the VP746

Depth **91 mm (VPX406-A4)**
109 mm (VP746)

85 mm (54%) shorter



VP746



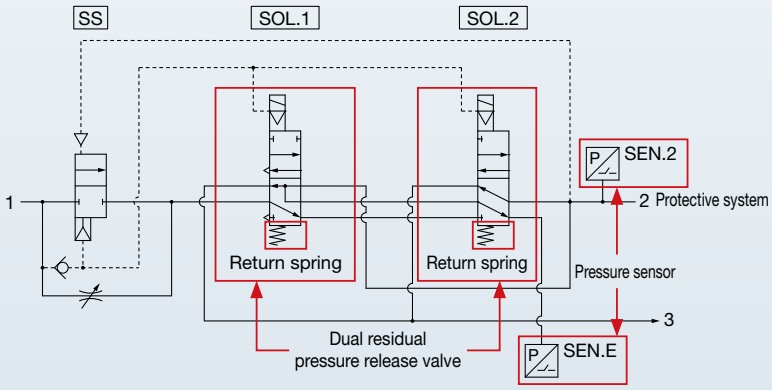
Series variations

High flow rate: Approx. 3.0 times (AC30 connection) / Approx. 2.5 times (AC40 connection)

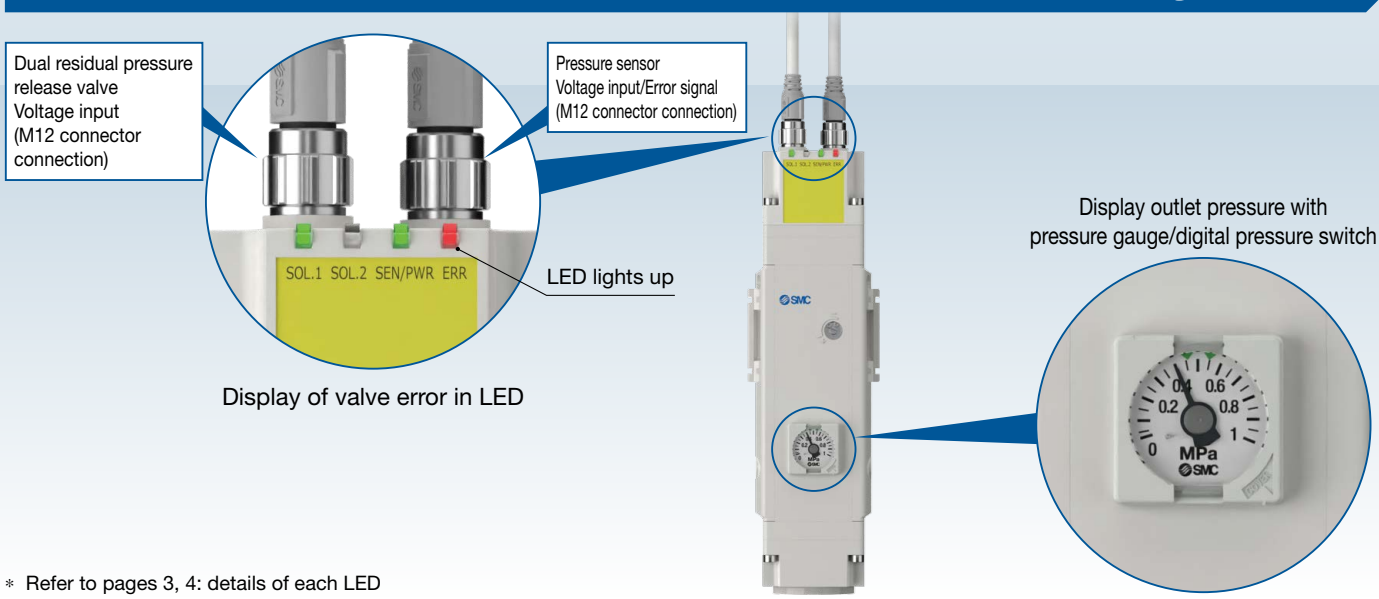
Series	Model	Category	Compatible Max. PL	Connected AC size	Flow rate characteristics C[dm³/(s·bar)] (5 10 15 20 25 30 35)	Passage
Safety exhaust valve VPX400	VPX406-A3 (AC30 connection)	3, 4	PL e	AC30	25.0	2 ⇒ 3 (A ⇒ R)
	VPX406-A4 (AC40 connection)			AC40	31.0	
	VPX406-A6 (AC50/60 connection)			AC50/60	35.8	
Residual pressure release valve VP546		3, 4	PL e	AC30	8.3	2 ⇒ 3 (A ⇒ R)
Residual pressure release valve VP746				AC40	12.3	

System protection through “Safety Exhaust” function

- Valves return to de-energised position via spring force in the case of power loss.
- If one of the residual pressure release valves fails to operate, the other one releases the residual pressure.
- Built in pressure sensor monitors valve operations.



Display of monitoring status: Fault can be checked visually as well as by signal.



∗ Refer to pages 3, 4: details of each LED

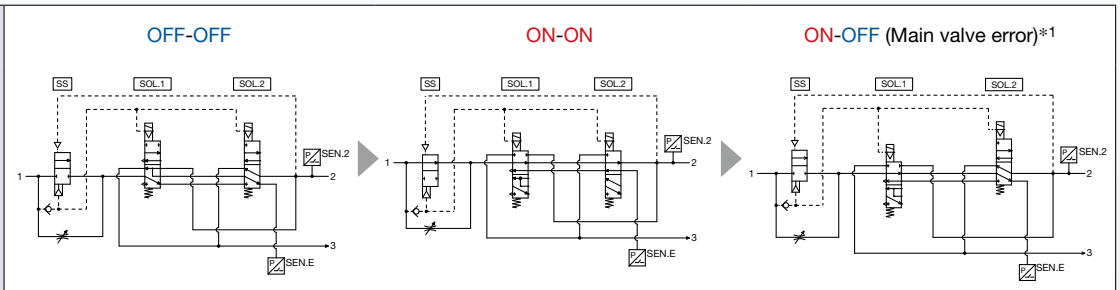
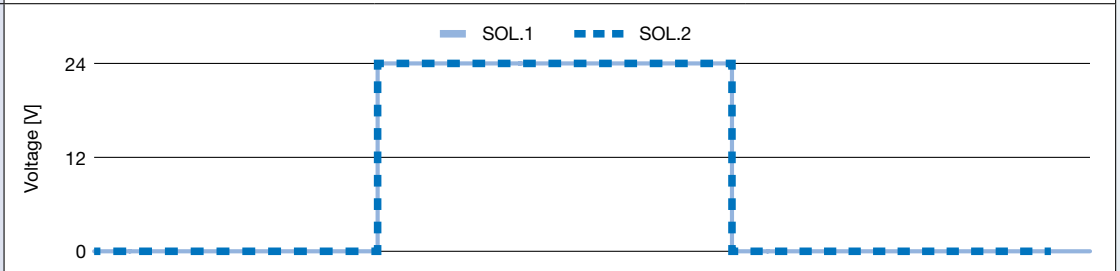
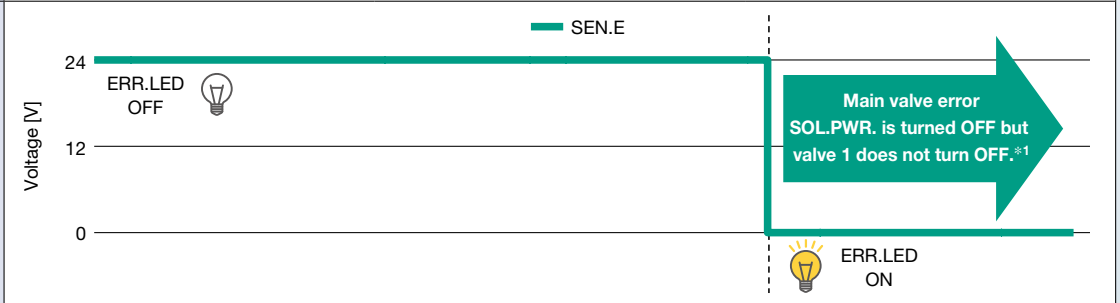
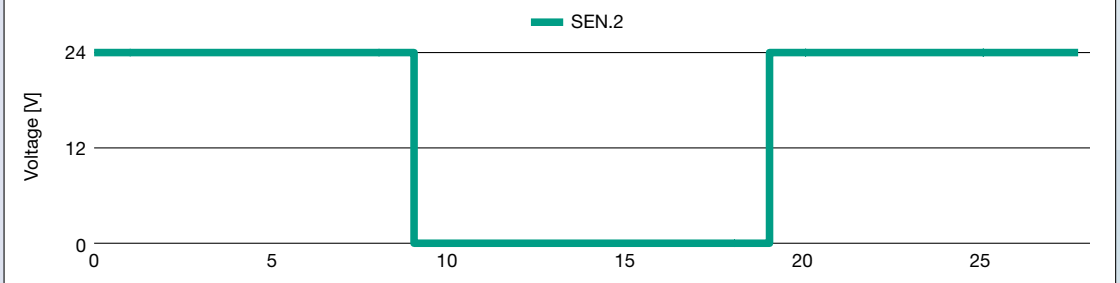
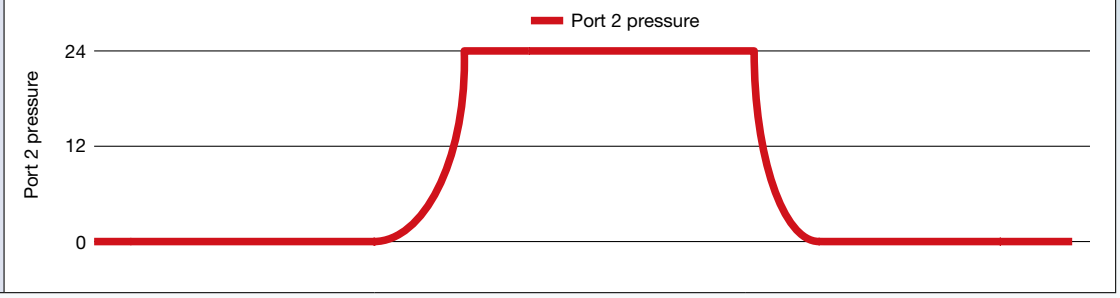
SOL.1/SOL.2/SEN.E/SEN.2 input/output signal diagram

This valve is dual channel safety exhaust valve. The valve can be monitored via built-in pressure sensors, allowing the safety controller to diagnose main valve faults or normal operation. The table below shows the energizing status of the respective valve, sensor waveform, and port 2 pressure waveform.

SOL.1 (Valve 1) : 1st residual pressure release valve
SOL.2 (Valve 2) : 2nd residual pressure release valve
Sensor E (SEN.E): Sensor to monitor the error status between two valves (SOL.1/SOL.2)
Sensor 2 (SEN.2) : Sensor to monitor pressure in output port (Port 2) of valve

Sensor Output Chart

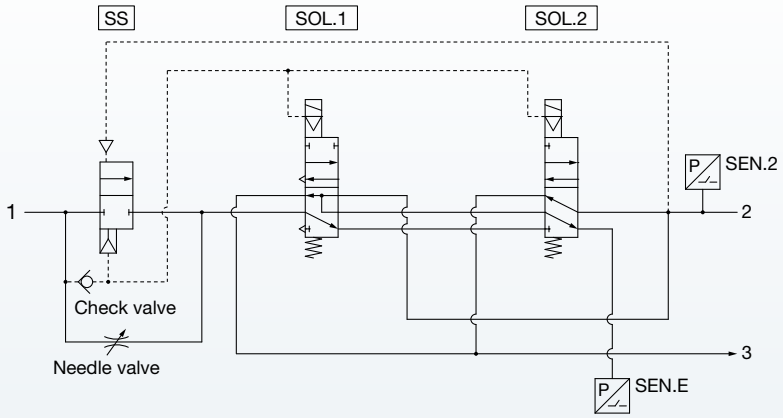
Actuation	Valve energization		Pressure sensor output			
	SOL.1	SOL.2	SEN.E		SEN.2	
				ERR.LED		Port 2 pressure
Normal operation	OFF	OFF	ON	OFF	ON	OFF
	ON	ON	ON	OFF	OFF	ON
Main valve error	ON	OFF	OFF	ON	ON	OFF
	OFF	ON	OFF	ON	ON	OFF

Pneumatic circuit diagram	
SOL.PWR.	
SEN.E output*2 (Main valve error detection sensor)	
SEN.2 output*2 (Port 2 pressure monitoring sensor)	
Port 2 pressure	

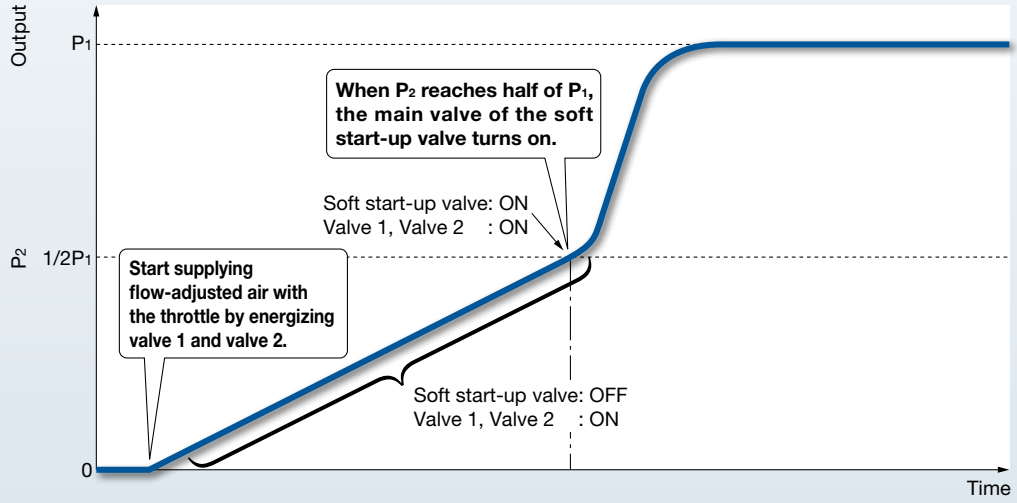
*1 This assumes that SOL.1 (valve 1) does not OFF.
*2 In SEN.E and SEN.2, relation of pressure and output are inverted. When pressure is detected in SEN.E or SEN.2 their output signal is 0 V

With soft start-up function & pilot flow path check valve

A function to gradually increase the initial pressure of the pneumatic system has been added.



Output Pressure (P_2) vs Time Graph



Built-in check valve to the pilot flow path prevents the pilot pressure drop. (to prevent malfunction due to inlet pressure fluctuation)

Standards and Enclosure

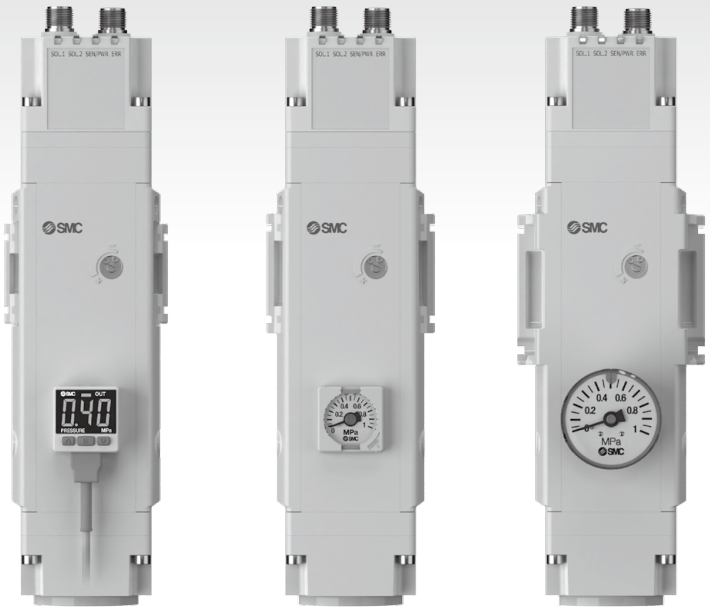
Series	Category	Required performance level (Max.)	Standards					Soft start-up valve	Enclosure
			Machinery directive	2006/42/EC		CE/ UKCA	UL/ cUL	RoHS		
			Harmonized standards	EN ISO 13849-1: 2023 EN ISO 13849-2: 2012	EN ISO 4414: 2010					
Safety exhaust valve **VPX400**	3, 4*1	PL e		●	●	●	●	●	●	IP65*2

*1 Depending on the applied diagnostic test
*2 It is IP40 depending on the type of pressure gauge. For details, refer to the valve specifications.

Regarding to safety standard ISO 13849-1, refer to this leaflet.

CONTENTS

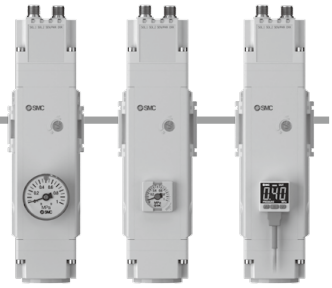
Safety Exhaust Valve/Modular Connection Type
VPX400 Series



Safety Exhaust Valve/ Modular Connection Type

VPX400 Series

∗ The type without a pressure gauge and with digital pressure switch specification are UL certified.



How to Order

VPX406 ❶ T – 5 ❹KO ❺NZ – ❻D ❼ ❽ – ❾A4 ❿

❶ Pressure specifications

Nil	Standard (0.25 to 0.7 MPa)
K	High pressure (0.25 to 1.0 MPa)

❷ Coil specifications

T	With power-saving circuit

❸ Rated voltage

5	24 VDC

❹ Electrical entry

KO	M12 connector, Without connector cable
K	With M12 connector, Cable length: 3000 mm

∗ When option "K" (With M12 connector cable) is selected, 2 cables are included.

❺ Light/surge voltage suppressor and common specification

Symbol	Specifications	Compatible CAT.
NZ	With light/surge voltage suppressor Negative common	4
D1Z	With light/surge voltage suppressor Double common, Wiring type 1	3
D2Z	With light/surge voltage suppressor Double common, Wiring type 2	3

❻ Pressure sensor wiring specifications

D	Double common
N1	Negative common, Wiring type 1
N2	Negative common, Wiring type 2

∗ They are not wiring specifications of pressure gauge type and digital pressure switch. Refer to page 14: Valve wiring Diagrams and M12 connector pin assignment for pressure sensor (SEN.)

❼ Pressure gauge type

			UL-compliant
Nil∗1	Pressure gauge	Without pressure gauge	○
G∗2		Round type pressure gauge (with limit indicator)	—
M∗2		Round type pressure gauge (with color zone)	—
E		Square embedded type pressure gauge (with limit indicator)	—
E1	Digital pressure switch	Output: NPN output, Electrical entry: Wiring bottom entry	○
E2		Output: NPN output, Electrical entry: Wiring top entry	○
E3		Output: PNP output, Electrical entry: Wiring bottom entry	○
E4		Output: PNP output, Electrical entry: Wiring top entry	○

∗1 Without pressure gauge, pressure gauge connection thread is fitted with a plug.
∗2 Pressure gauge type G, M is included with pressure gauge.

❽ Pressure gauge unit

		Pressure gauge type		
		Nil/M	**G/E**	**E1 to E4**
Nil	Pressure gauge in SI units: MPa	○	○	○
Z∗1	Pressure gauge: MPa/psi dual scale	—	○	○
ZA∗2	Digital pressure switch: With unit selection function	—	—	○

∗1 This product is for overseas use only according to the New Measurement Act. (The SI unit is provided for use in Japan.) The digital pressure switch will be equipped with the unit selection function, setting to psi initially.
∗2 This product is for overseas use only according to the New Measurement Act. (The SI unit is provided for use in Japan.)

❾ Connected AC size

Symbol	Connected AC size 1/2 port	Flow rate characteristics (2 ⇒ 3)		Port size Port 3
		C [dm³/(s·bar)]	b	
A3	AC30	25.0	0.20	G1"
A4	AC40	31.0	0.15	
A6	AC50/60	35.8	0.10	

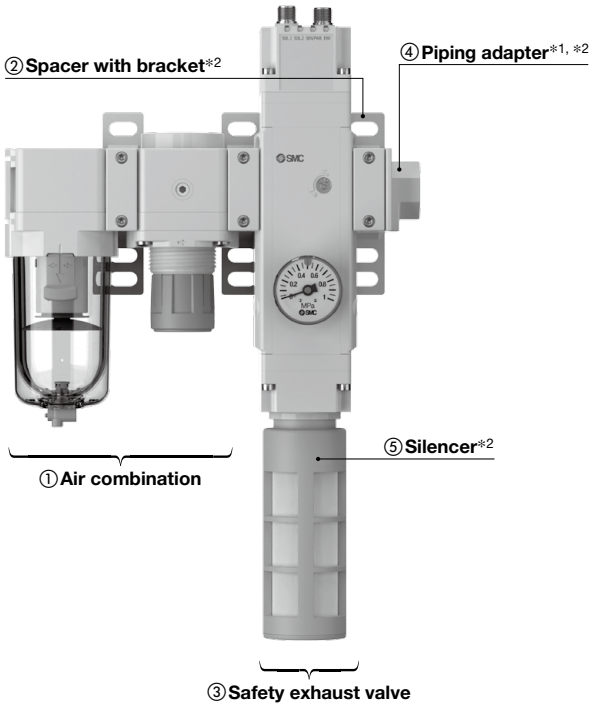
❿ Thread type

[Pressure gauge connection thread (1/8")]∗1

Symbol	Pressure gauge type / Thread type	Nil/ G/M	E/E1 to E4
Nil	Rc	△∗2	○
N	NPT	○∗2	—
F	G	△∗2	—

∗1 The thread is cut only when pressure gauge type "Nil," "G," or "M" is selected.
∗2 When "G" is selected for the pressure gauge type, and "Z" is selected for the pressure gauge unit, only "N" (NPT) is supported.
∗ Port (exhaust port) is only G thread regardless of thread type.

Assembly Example



*1 No connection thread in safety exhaust valve
Order a piping adapter separately.
*2 Refer to page 15 for details on the spacer with bracket, piping adapter, and silencer.
* Combination with lubricator cannot be used.
* Between the air combination and the safety exhaust valve, and between the safety exhaust valve and piping adapter, we recommend installing a spacer with bracket to consider the effect of moments, vibration, and impact.

Products do not come assembled. They should be ordered separately and assembled by the customer.

Please contact your local sales representative for more details.

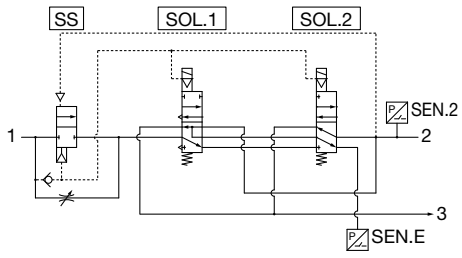
Assembly Example

- **①Air combination AC40B-04E-D ····· 1 pc.**
- **②Spacer with bracket Y400T-D ····· 2 pcs.**
- **③Safety exhaust valve VPX406KT-5KONZ-DG-A4 ····· 1 pc.**
- **④Piping adapter E400-04-D ····· 1 pc.**
- **⑤Silencer INA-25-100 ····· 1 pc.**

Applicable Combinations/Attachment Part Nos.

Safety exhaust valve	Air combination		Spacer with bracket	Piping adapter	Silencer
	Model	Component			
VPX406-A3	AC30□-D	AF30-D	Y300T-D	E300-□ □-D	INA-25-100
		AR30-D			
VPX406-A4	AC40□-D	AF40-D	Y400T-D	E400-□ □-D	
		AR40-D			
VPX406-A6	AC50□-D	AF50-D	Y600T-D	E600-□ □-D	
		AR50-D			
	AC60□-D	AF60-D			
		AR60-D			

Symbols



Valve Specifications

Valve specifications	Fluid		Air	
	Type of actuation		N.C. (Spring return)*1	
	Operating pressure range	Pressure: Standard	0.25 to 0.7 MPa	
		Pressure: High pressure	0.25 to 1.0 MPa	
	Proof pressure	Pressure: Standard	1.05 MPa*2	
		Pressure: High pressure	1.5 MPa*2	
	Ambient and fluid temperatures		0 to 50°C (No freezing)	
	Humidity range		Operating/Stored: 35 to 85%RH (No condensation)	
	Max. operating frequency*3		1 Hz	
	Manual override		No	
	Pilot exhaust		Individual exhaust	
	Lubrication		Not possible	
	Mounting orientation		Unrestricted	
	Impact/Vibration resistance*4		150/30 m/s^2	
	Enclosure	Pressure gauge type: Nil, G, M, E	IP65	
		Pressure gauge type: E1, E2, E3, E4	IP40	
	Operating environment		Indoors	
	Electrical wiring		M12 connector x 2 pcs.	
	Compatible Max. CAT. (PL)	With light/surge voltage suppressor, Negative common: ZN	CAT.4 (PLe)	
		With light/surge voltage suppressor, Double common, Wiring type 1: D1Z	CAT.3 (PLe)	
		With light/surge voltage suppressor, Double common, Wiring type 2: D2Z		
	Indicator light	SOL.1/SOL.2/SEN.PWR.*5	LED (Green)	
		ERR.*6	LED (Red)	
	Surge voltage suppressor		Diode	
	Polarity protection circuit		Yes	
	B_{10D}		1,083,893 cycles	
Coil specifications (SOL.)	Rated voltage		24 VDC	
	Allowable voltage fluctuation		Rated voltage	+10%
				−8%
	Power consumption	Inrush	0.45 W x 2	
		Holding	0.2 W x 2	
Fault detection specifications (SEN.)	Pressure sensor	Sensor E	For fault detection	
		Sensor 2	For port 2 output detection	
	Rated voltage		24 VDC	
	Allowable voltage fluctuation		±10% of the rated voltage with 10% voltage ripple or less	
	Power consumption		0.3 W x 2	
	Output type		PNP open collector output	
	Output mode		Hysteresis mode	
	Max. load current		80 mA	
	Internal voltage drop		1 V or less (at load current of 80 mA)	
	Short circuit protection		No	
Digital pressure switch (Pressure gauge type: E1/E2/E3/E4 selected)*7	Display/Smallest settable increment		0.01 MPa	
	Rated voltage		24 VDC	
	Allowable voltage fluctuation		±10% of the rated voltage with 10% voltage ripple or less	
	Output type		NPN or PNP open collector output	
	Repeatability		±1% F.S.	
	Display accuracy		±1% F.S. ±1 digit (at 25°C ±3°C)	
	Electrical wiring		M12 connector	

*1 Soft-start valve is air return type.
*2 Proof pressure is the maximum applied pressure with no damage, do not apply a pressure more than operating pressure range. Malfunction or air leakage may result.
*3 Duty ratio: 50%, With no load
*4 Impact resistance: No malfunction occurred when it is tested in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Values at the initial period)
*5 SEN.PWR. lights up when 2 pressure sensors are energized simultaneously.
*6 ERR.LED lights up when spools are in different states.
*7 For other specifications, refer to the ISE35 series operation manual.
* This valve is a large flow rate pilot-operated solenoid valve. If the operating pressure falls below 0.25 MPa due to a pressure drop caused by insufficient air supply, it may not be able to switch properly.

Flow Rate Characteristics/Weight

Model	Flow rate characteristics				Weight [kg]
	1 → 2		2 → 3		
	C [dm^3/(s·bar)]	b	C [dm^3/(s·bar)]	b	
VPX406-A3	16.2	0.40	25.0	0.20	1.71
VPX406-A4	20.0	0.30	31.0	0.15	
VPX406-A6	22.6	0.25	35.8	0.10	1.81

* Weight is when there is no M12 connector cable (V100-200-5-30). M12 connector cable weight (2 pcs.) = 0.4 kg

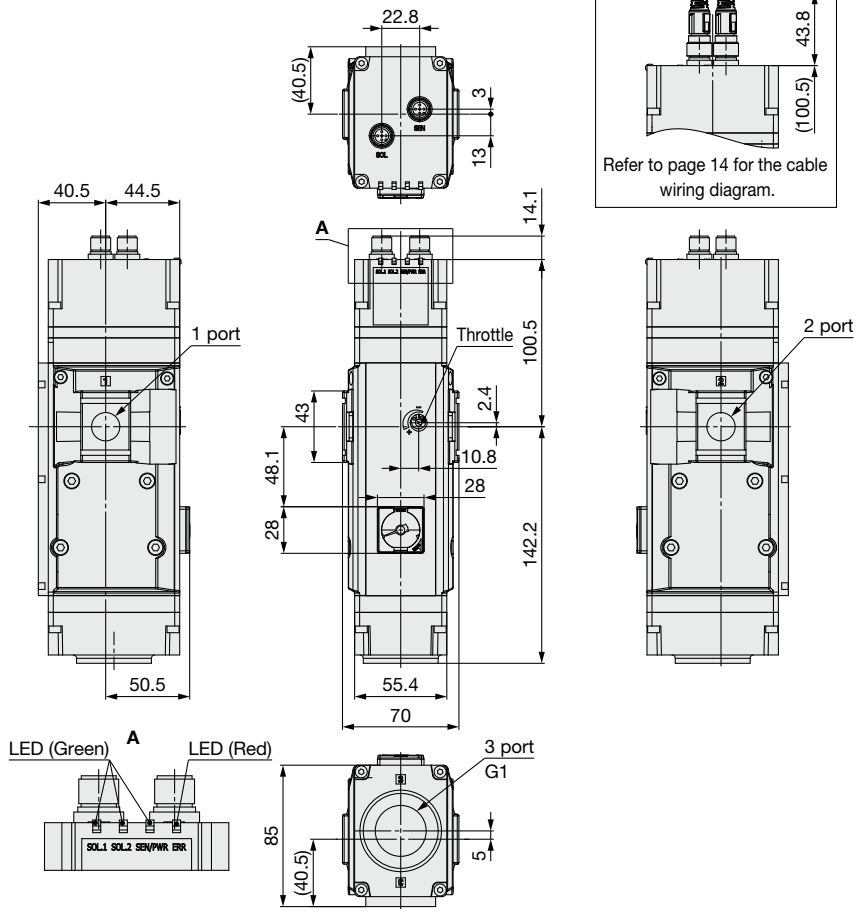
Response Time

Model	Pressure	Response time [ms]*1
VPX406	Standard (0.25 to 0.7 MPa)	70/210
VPX406K	High pressure (0.25 to 1.0 MPa)	110/350

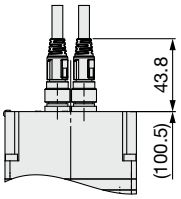
*1 Indicates the ON/OFF response
* Based on dynamic performance test, JIS B 8419: 2010. (Coil temperature: 20°C, at rated voltage)

Dimensions

VPX406□T-5KO□-□E□-A3
Square embedded type pressure gauge

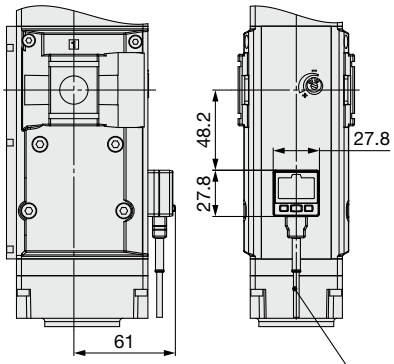


With M12 connector cable



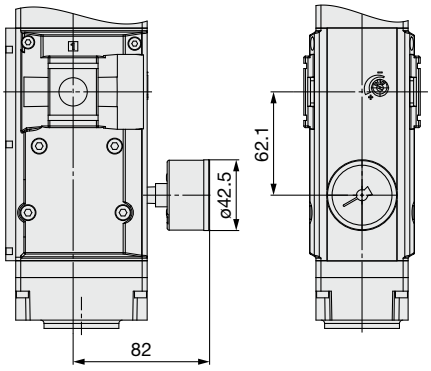
Refer to page 14 for the cable wiring diagram.

VPX406□T-5KO□-□$^{E1}_{E3}$□-A3
Digital pressure switch/
Electrical entry: Bottom entry

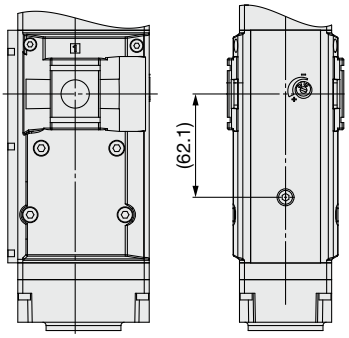


M12 connector (Refer to page 14.)
Cable length: 300

VPX406□T-5KO□-□$^{G}_{M}$□-A3
Round type pressure gauge

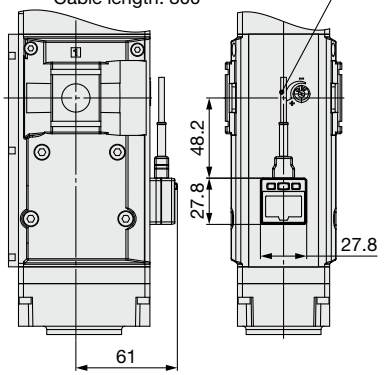


VPX406□T-5KO□-□□-A3
Without pressure gauge



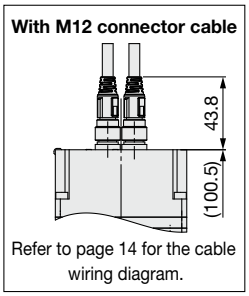
VPX406□T-5KO□-□$^{E2}_{E4}$□-A3
Digital pressure switch/
Electrical entry: Top entry

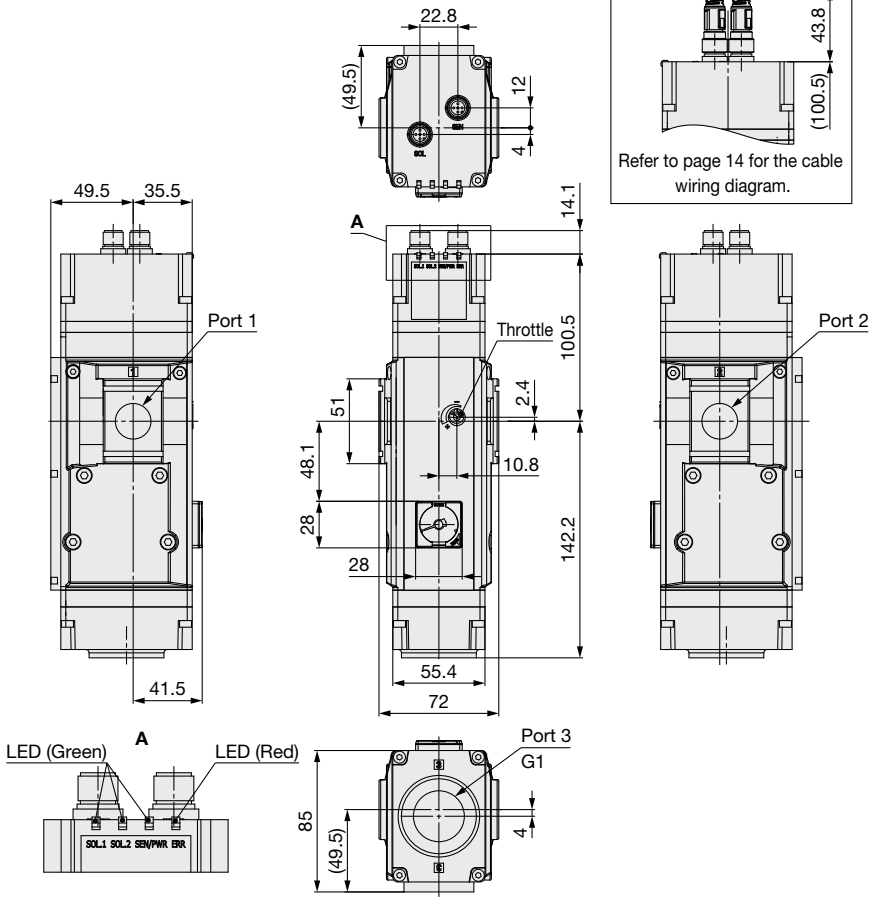
M12 connector (Refer to page 14.)
Cable length: 300



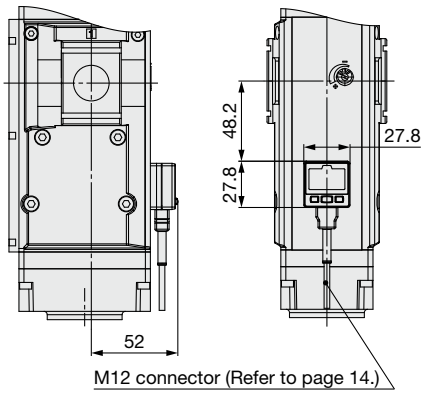
Dimensions

VPX406□T-5KO□-□E□-A4
Square embedded type pressure gauge

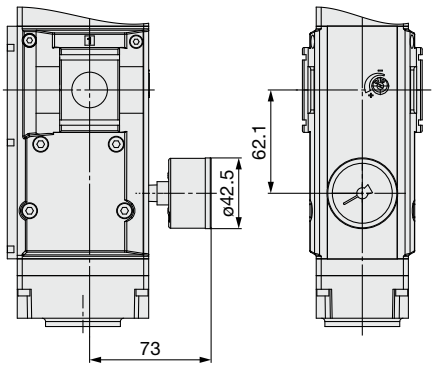




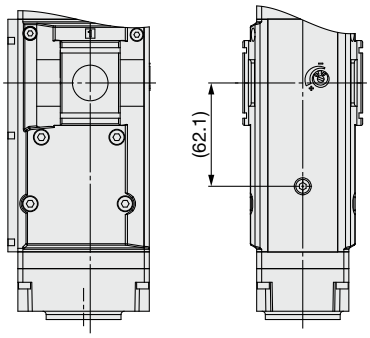
VPX406□T-5KO□-□$^{E1}_{E3}$□-A4
Digital pressure switch/
Electrical entry: Bottom entry



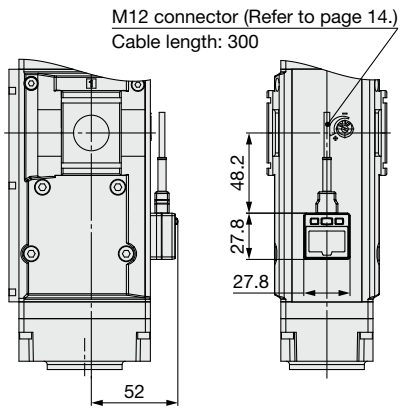
VPX406□T-5KO□-□$^{G}_{M}$□-A4
Round type pressure gauge



VPX406□T-5KO□-□□-A4
Without pressure gauge

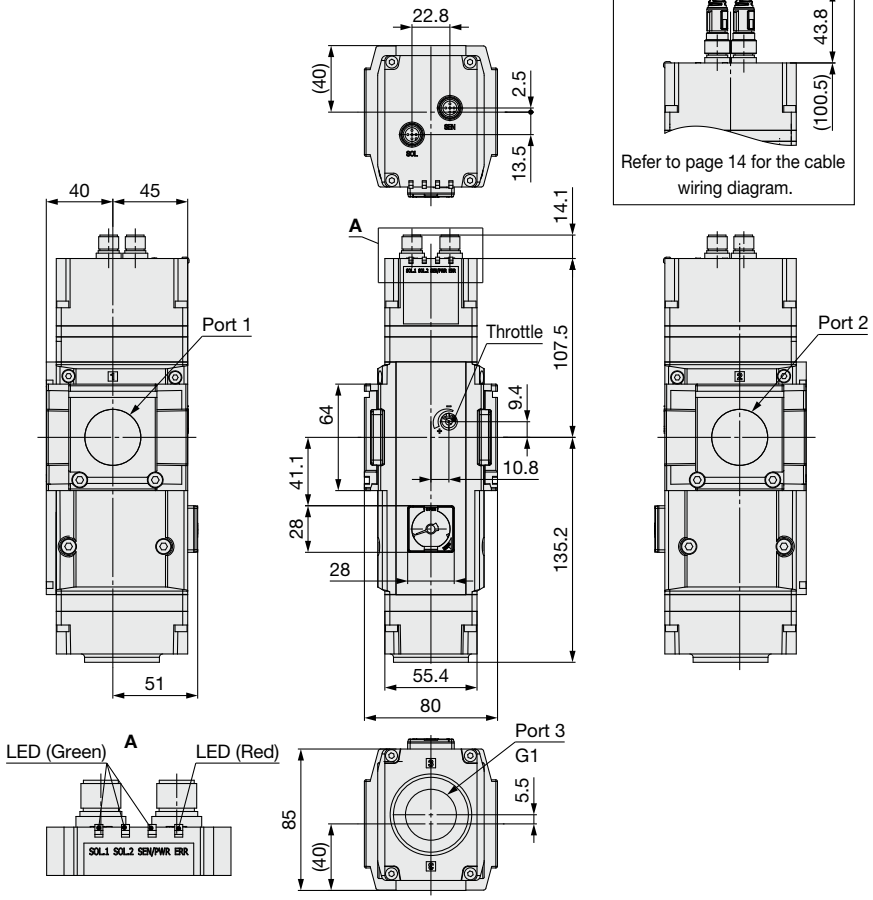


VPX406□T-5KO□-□$^{E2}_{E4}$□-A4
Digital pressure switch/
Electrical entry: Top entry

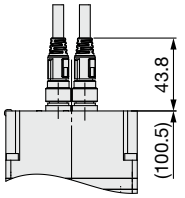


Dimensions

VPX406□T-5KO□-□E□-A6
Square embedded type pressure gauge

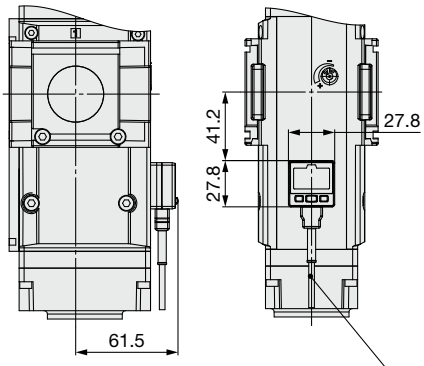


With M12 connector cable



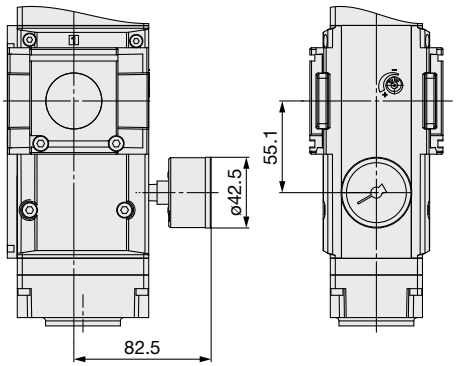
Refer to page 14 for the cable wiring diagram.

VPX406□T-5KO□-□$^{E1}_{E3}$□-A6
Digital pressure switch/
Electrical entry: Bottom entry

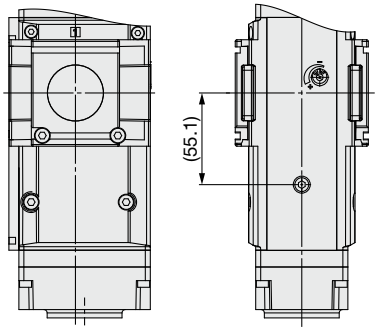


M12 connector (Refer to page 14.)
Cable length: 300

VPX406□T-5KO□-□$^{G}_{M}$□-A6
Round type pressure gauge

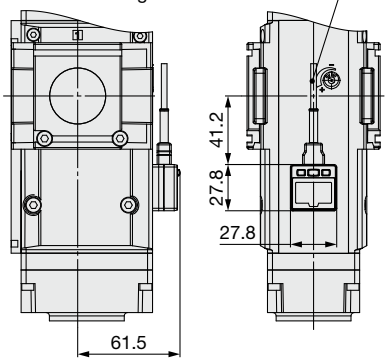


VPX406□T-5KO□-□□-A6
Without pressure gauge

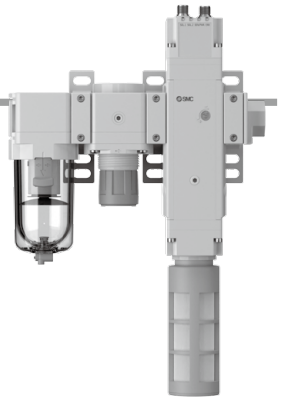


VPX406□T-5KO□-□$^{E2}_{E4}$□-A6
Digital pressure switch/
Electrical entry: Top entry

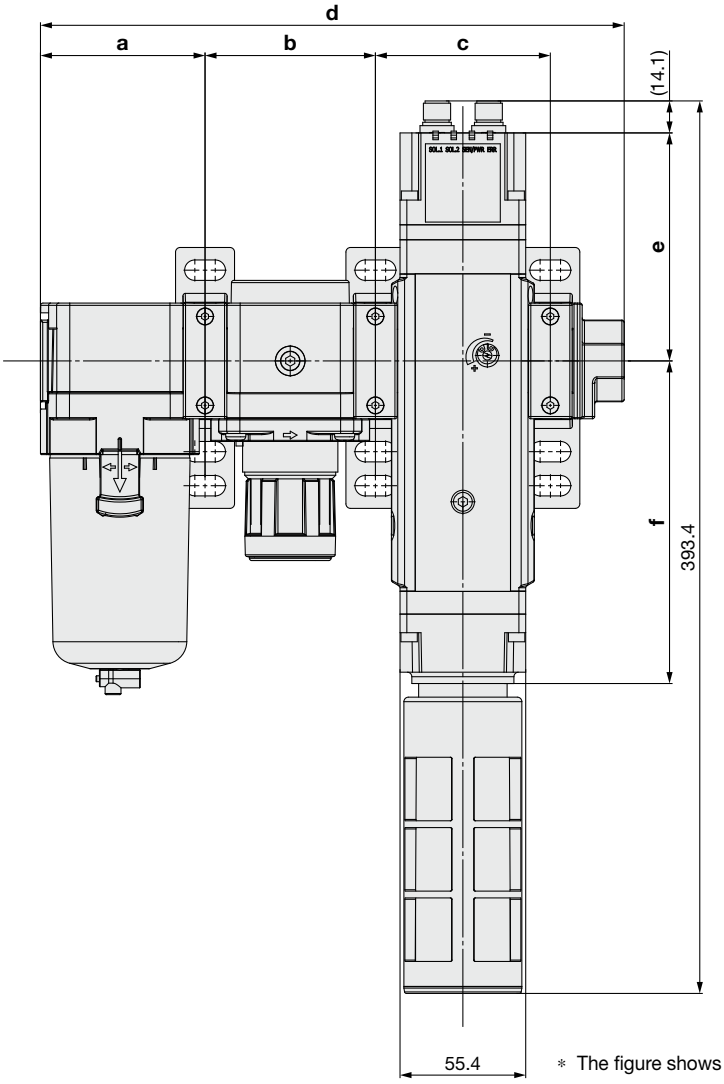
M12 connector (Refer to page 14.)
Cable length: 300



Dimensions



Assembly drawing of VP406 and AC



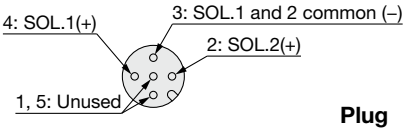
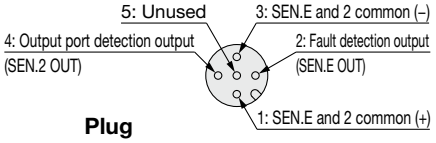
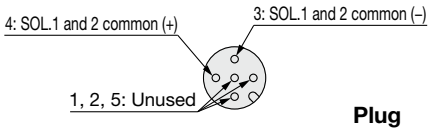
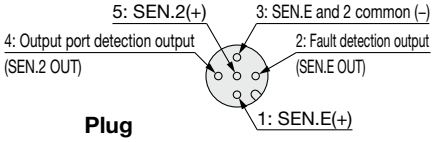
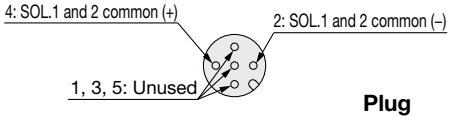
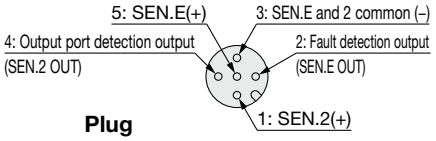
∗ The figure shows connection of VPX406-A4 and AC40.

Model	a	b	c	d	e	f	Note
VPX406□T-5□□-□□□-A3□	55.1	57.2	74.2	215.6	100.5	142.2	AC30B-03-D Y300T-D E300-03-D
VPX406□T-5□□-□□□-A4□	72.6	75.2	77.1	257.3	100.5	142.2	AC40B-04-D Y400T-D E400-04-D
VPX406□T-5□□-□□□-A6□	93.1	96.2	86.2	317.6	107.5	135.2	AC50B-10-D Y600T-D E600-10-D
	98.1	101.2	86.2	327.6	107.5	135.2	AC60B-10-D Y600T-D E600-10-D

VPX400 Series
Valve Wiring Diagrams, Optional Accessories

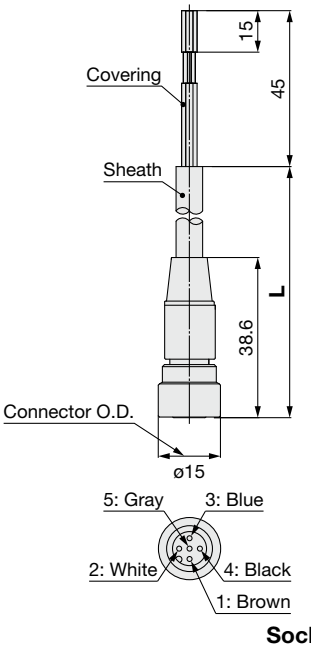
For details on optional accessories, refer to the **Web Catalog**.

Valve Wiring Diagrams

M12 connector pin assignment for pilot valve (SOL.)	M12 connector pin assignment for pressure sensor (SEN.)
Negative common  **Plug**	**Double common**  **Plug**
Double common (Wiring type 1)  **Plug**	**Negative common (Wiring type 1)**  **Plug**
Double common (Wiring type 2)  **Plug**	**Negative common (Wiring type 2)**  **Plug**

M12 Connector Cable (For SOL., SEN., and Pressure switch)

For SOL. and SEN.



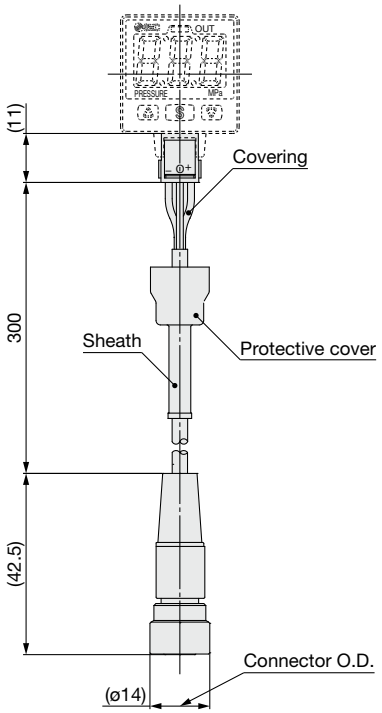
Socket

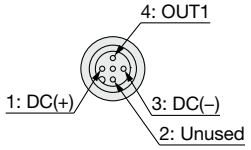
Part no.	Lead wire length (**L**)
V100-200-5-10	1000 mm
V100-200-5-30	3000 mm
V100-200-5-50	5000 mm

* The cable wiring numbers correspond to the wiring numbers in the valve wiring diagram above. Refer to the valve wiring diagram for wiring.

Sheath O.D.	ø6.5 mm
Cover diameter	ø1.8 mm
Conductor cross section	0.5 mm^2

For pressure switch (when E1, E2, E3, or E4 is selected)





Plug

Sheath O.D.	ø3.4 mm
Cover diameter	ø1.16 mm
Conductor cross section	0.2 mm^2

Spacer with Bracket

Y 300 T – D

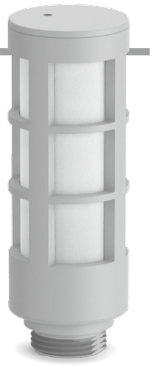
❶

Spacer with bracket (Y□T-D)

❶ Symbol	Connected AC size
300	A3 (AC30)
400	A4 (AC40)
600	A6 (AC50/60)

∗ For specifications and dimensions, refer to the AC series catalog.

Silencer



INA – 25 – 100

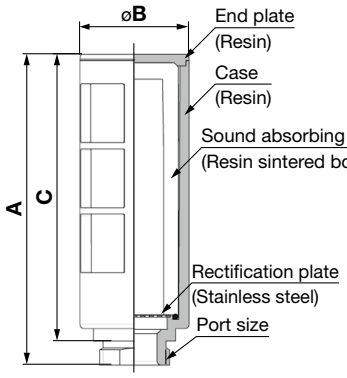
Specifications

Fluid	Air
Max. operating pressure∗1	1.0 MPa
Noise reduction	24 dB(A)∗2
Ambient and fluid temperatures	0 to 50°C (No freezing)

∗1 It indicates the inlet pressure of the valve.
∗2 The value may vary depending on the pneumatic circuit or pressure that is exhausted from the valve.

Performance

Effective area [mm^2]	Sonic conductance C [$dm^3/(s \cdot bar)$]	Weight [g]
180	36	150



Dimensions [mm]

Port size	A	B	C
G1	148.1	ø52	136.6

∗ Refer to the AN series for precautions such as mounting.

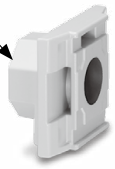
Piping Adapter: 1/4, 3/8, 1/2, 3/4, 1, 1 1/4, 1 1/2

· Using on the inlet side or the outlet side of the valve makes it easier to perform maintenance, as the component can be installed/removed without removing the piping.

E 300 – □ 03 – D

❶ ❷ ❸

Port size



		Symbol	Description	❶ Body size [Applicable AC size] 300 [AC30]	400 [AC40]	600 [AC50/60]
❷	Pipe thread type	Nil	Rc	●	●	●
		N	NPT	●	●	●
		F	G	●	●	●
		+				
❸	Port size	02	1/4	●	●	–
		03	3/8	●	●	–
		04	1/2	●	●	–
		06	3/4	–	●	●
		10	1	–	–	●
		12	1 1/4	–	–	●
		14	1 1/2	–	–	●

∗ For specifications and dimensions, refer to the AC series catalog.

Safety standard ISO 13849-1 compliant.

⚠ Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of **"Caution," "Warning"** or **"Danger."** They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)*1), and other safety regulations.

⚠ Danger : **Danger** indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

⚠ Warning: **Warning** indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

⚠ Caution: **Caution** indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

*1) ISO 4414: Pneumatic fluid power - General rules and safety requirements for systems and their components
ISO 4413: Hydraulic fluid power - General rules and safety requirements for systems and their components
IEC 60204-1: Safety of machinery - Electrical equipment of machines - Part 1: General requirements
ISO 10218-1: Robots and robotic devices - Safety requirements for industrial robots - Part 1:Robots
etc.

⚠ Warning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

3. Do not service or attempt to remove product and machinery/ equipment until safety is confirmed.

1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

4. Our products cannot be used beyond their specifications. Our products are not developed, designed, and manufactured to be used under the following conditions or environments. Use under such conditions or environments is not covered.

1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
2. Use for nuclear power, railways, aviation, space equipment, ships, vehicles, military application, equipment affecting human life, body, and property, fuel equipment, entertainment equipment, emergency shut-off circuits*2), press clutches, brake circuits*2), safety equipment*2), etc., and use for applications that do not conform to standard specifications such as catalogs and operation manuals.
3. Use for interlock circuits, except for use with double interlock such as installing a mechanical protection function in case of failure. Please periodically inspect the product to confirm that the product is operating properly.

*2) Except for machinery safety in factory automation applications

⚠ Caution

We develop, design, and manufacture our products to be used for automatic control equipment, and provide them for peaceful use in manufacturing industries.
Use in non-manufacturing industries is not covered.
Products we manufacture and sell cannot be used for the purpose of transactions or certification specified in the Measurement Act.
The new Measurement Act prohibits use of any unit other than SI units in Japan.

Limited warranty and Disclaimer/ Compliance Requirements

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements".
Read and accept them before using the product.

Limited warranty and Disclaimer

1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.*3)
   Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided.
   This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalog for the particular products.

***3) Vacuum pads are excluded from this 1 year warranty.**
A vacuum pad is a consumable part, so it is warranted for a year after it is delivered.
Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty.

Compliance Requirements

1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

⚠ Safety Instructions	Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.

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https://www.smcworld.com