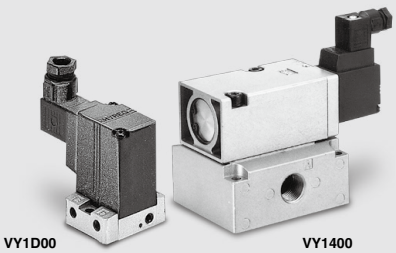
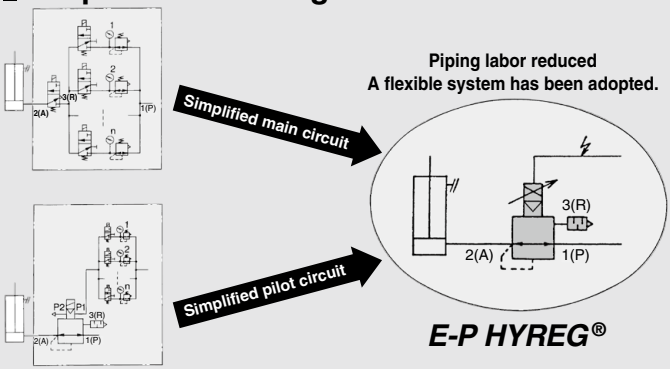
This hybrid regulator combines a regulator and a solenoid valve.



Stepless control through electric signals

Port sizes M5 to 2 inches can be covered by combining an ultra-compact electro-pneumatic pilot valve and a 3 port high-capacity exhaust main regulator.

Simple circuit configuration



Ease of handling

Having the amplifier built into the electro-pneumatic pilot valve, only an external power supply and signal (voltage, current) need to be connected.

Manifold capable

Using the VVEXB/2/4 series, a maximum 10 station manifold is possible.

Application example

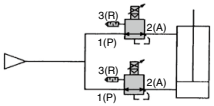
Capable of performing multistage pressure control and stepless pressure control by varying the electrical signals.

Drive and Thrust Control

Cylinder behavior and pressurization control for peening and stamping

Example

Welding pressure control of spot welding gun cylinder
Loading cylinder control

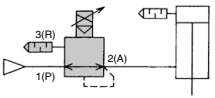


Cylinder Thrust Control

Tension control balancer

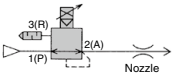
Example

Auto balancer



Air Flow Control of Nozzle Note)

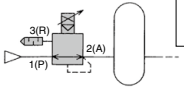
Air blowing
Air cooling



Note) Use for the sonic flow.

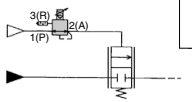
Pressure Control of Tank

Automatic adjustments



Flow Control of Various Fluids

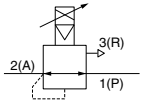
For remote control of another air operated valve



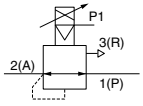
E-P HYREG®
Series VY1

Symbol

Internal pilot



External pilot



How to Order

E-P HYREG
Maximum operating pressure: 0.9 MPa

Pilot type

0	Internal pilot
1	External pilot Note)

Note) Except body size D

VY1 1 0 0 – □ 01 □ – □

Power source/Command signal

Symbol	Power source voltage DC	Command signal DC	Input impedance
Nil	24 V	1 to 5 V	67 kΩ
1		0 to 10V	10 kΩ
2		4 to 20 mA	120 Ω
3		0 to 20 mA	
5	12 V	1 to 5 V	67 kΩ
6		0 to 10 V	10 kΩ
7		4 to 20 mA	120 Ω
8		0 to 20 mA	

Thread type

Nil	Rc
F	G(1)
N	NPT
T	NPTF

Note 1) Not conforming to ISO1179-1.

Body size • **Port size Rc** • **Option**

Mounting	Symbol	Symbol	Port 1(P), 2(A)	Port 3(R)	B (Bracket)	F (Foot)	G (Pressure gauge)	N (Silencer)	Applicable pilot valve (3)
Base mounted	D	**00**	Without sub-plate		—	—	—	—	VY1D00-□00 (4)
		M5	M5		—	—	—	●	
	B	**00**	Without sub-plate		—	—	●	—	
		M5	M5						
		01	1/8						
	2	**00**	Without sub-plate		—	—	●	●	
		01	1/8						
		02	1/4						
	4	**00**	Without sub-plate		—	—	—	●	
		02	1/4						
		03	3/8						
		04	1/2						
Body ported	A	**M5**	M5		● (2)	● (2)	—	—	
	1	**01**	1/8		● (2)	● (2)	●	●	
		02	1/4						
	3	**02**	1/4		●	—	●	●	
		03	3/8						
		04	1/2						
	5	**04**	1/2		●	—	●	●	VY1B00-□00 (4)
		06	3/4						
		10	1						
	7	**10**	1	1 1/4	●	—	●	●	
		12	1 1/4						
		14	1 1/2						
	9	**20**	2	2	●	—	●	●	

Note 2) Only bracket or foot may be mounted.
Note 3) When replacing the pilot valve, it may not satisfy characteristics such as accuracy, etc. Confirm the product works under the operating conditions before using. If SMC is requested to repair the product, SMC confirms whether characteristics are satisfied.
Note 4) □ in the applicable pilot valve part number is designated for the power source/command signal.

Standard Specifications

Model		VY1D00	VY1A0$^{0}_{1}$	VY1B0$^{0}_{1}$		VY110$^{0}_{1}$		VY120$^{0}_{1}$		VY130$^{0}_{1}$			VY140$^{0}_{1}$			VY150$^{0}_{1}$			VY170$^{0}_{1}$		VY190$^{0}_{1}$	
Port size	Port	M5	M5	M5	01	01	02	01	02	02	03	04	02	03	04	04	06	10	10	12	14	20
	1(P)	M5	M5	M5	1/8	1/8	1/4	1/8	1/4	1/4	3/8	1/2	1/4	3/8	1/2	1/2	3/4	1	1	1 1/4	1 1/2	2
	2(A)																		1 1/4		2	
	3(R)																					
Weight (kg) (1)		0.11	0.16	0.19		0.25		0.35		0.55			0.75			1.5			2		4	
Hysteresis (2)		0.009 MPa	0.023 MPa										0.027 MPa			0.045 MPa						
Sensitivity (2)		0.005 MPa	0.009 MPa										0.014 MPa			0.018 MPa						
Repeatability (2)		± 0.005 MPa	± 0.009 MPa										± 0.009 MPa			± 0.018 MPa						
Response time (2)		10 ms	30 ms																			
Fluid		Air																				
Ambient and fluid temperature		0 to 50°C (No condensation)																				
Maximum operating pressure		0.9 MPa																				
Regulating pressure range		0.05 to 0.84 MPa (Supply pressure 0.9 MPa)																				
External pilot pressure		– (Direct operated)	Set pressure + 0.04 to 0.9 MPa (VY1□01)																			
Command signal (3)		1 to 5 VDC, 0 to 10 VDC, 4 to 20 mA DC, 0 to 20 mA DC																				
Power supply		12 VDC±10%, 24 VDC ±10%, 1.8 W or less																				
Electrical entry		DIN terminal																				
Applicable cable		Cable O.D. ø4 to 6.5																				
Bleed air flow (Port P2)		When not operating: Zero, When operating: 10 L/min (ANR) (Supply pressure 0.88 MPa)																				
Installation		Universal																				
Lubrication		Not required (4)																				

Note 1) The mass of the base mounting type (D/B/2/4 size) with sub-plate is indicated.
Note 2) All property values indicate maximum values.
Note 3) Cut off the command signal when the pressure control on the outlet side is not required, such as when the line is temporarily halted, etc.
Refer to Specific Product Precautions on page 919.
Note 4) To lubricate the outlet side of "VY", use "VY" as an external pilot. Avoid lubrication to the pilot air.
Note 5) The non-lubricated specification is not applicable to these models.
Note 6) The service life is approximately 4000 to 5000 operating hours. (When using AF + AFM)
This may be approximately 3000 hours with ultra-dry air (dew point –40°C or equivalent).

Option

Description		Part no.									
		VY1D00	VY1A0$^{0}_{1}$	VY1B0$^{0}_{1}$	VY110$^{0}_{1}$	VY120$^{0}_{1}$	VY130$^{0}_{1}$	VY140$^{0}_{1}$	VY150$^{0}_{1}$	VY170$^{0}_{1}$	VY190$^{0}_{1}$
Bracket (With bolt, washer)	B	—	VEXA-18-2A	—	VEX1-18-1A	—	VEX3-32A	—	VEX5-32A	VEX7-32A	VEX9-32A
	F	—	VEXA-18-3A	—	VEX1-18-2A	—	—	—	—	—	—
Pressure gauge	G	—	—	G27-10-R1-X207	G27-10-01		G36-10-01	—	G46-10-01		
Pilot EXH port silencer	N	AN120-M5	—	—	AN120-M5		AN101-01	AN120-M5	AN210-02		

Sub-plate and Base Gasket Part No.

Valve size	D	B
Sub-plate	**VEXD-5** (Port size: M5)	**VEXB-2-2** □ □ **P** **Port size**: Symbol A = M5, B = 1/8 **Thread type**: Nil = Rc, F = G (7), N = NPT, T = NPTF
Base gasket	**VEXD-7**	**VEXB-4-1**

Valve size	2	4
Sub-plate	**VEX1-9-1** □ □ **P** **Port size**: Symbol A = 1/8, B = 1/4 **Thread type**: Nil = Rc, F = G (7), N = NPT, T = NPTF	**VEX4-2A-** □ □ **P** **Port size**: Symbol A = 1/4, B = 3/8, C = 1/2 **Thread type**: Nil = Rc, F = G (7), N = NPT, T = NPTF
Base gasket	**VEX1-11-2**	**VEX4-4**

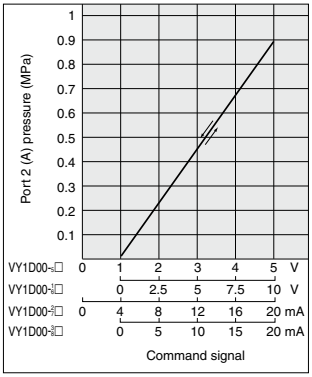
Note 7) Not conforming to ISO1179-1.

Characteristics

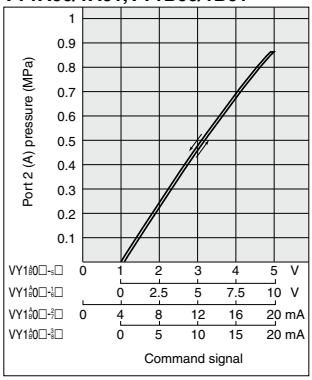
Command Signal — Outlet Pressure Characteristics (Characteristics of pressure setting)

Port 1(P) Pressure 0.9 MPa

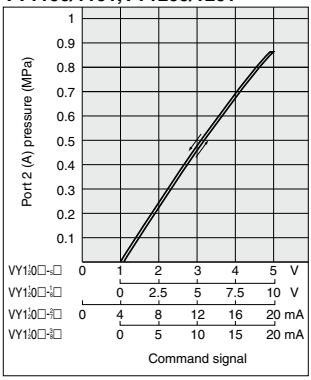
VY1D00



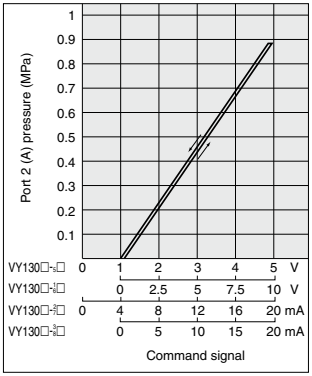
VY1A00/1A01,VY1B00/1B01



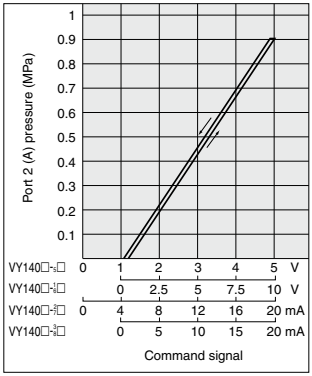
VY1100/1101,VY1200/1201



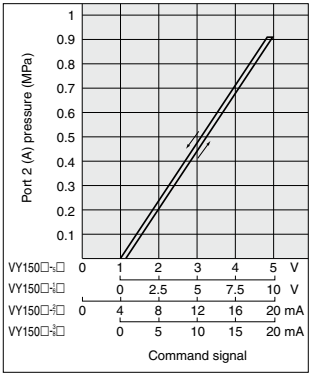
VY1300/1301



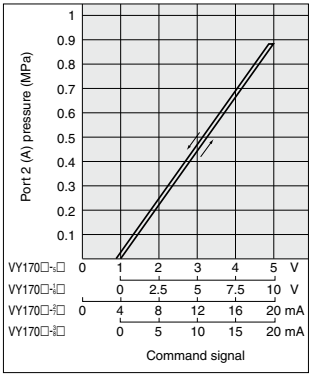
VY1400/1401



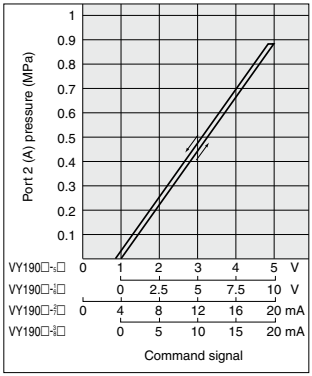
VY1500/1501



VY1700/1701



VY1900/1901



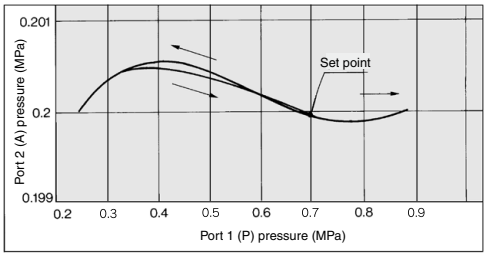
Command signal voltage (current) for starting the operation of a pilot valve VY1D00 (direct operated)
(There is dispersion in the following range)

Symbol (1)	Input signal	Operation start range
Nil, 5	1 to 5 VDC	0.93 to 1.07 VDC
1, 6	0 to 10 VDC	0.01 to 0.1 VDC
2, 7	4 to 20 mA DC	3.7 to 4.3 mA DC
3, 8	0 to 20 mA DC	0.02 to 0.2 mA DC

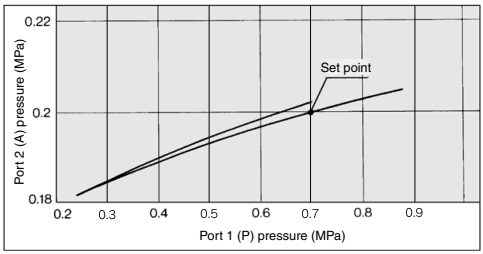
Note 1) Enter symbols above □ in VY1D00-□∗∗. □ indicates power supply and a command signal.
Note 2) Other body sizes add the dispersion on the above data when the main valve activates.

Pressure Characteristics

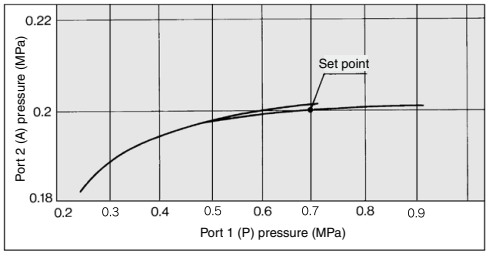
VY1D00



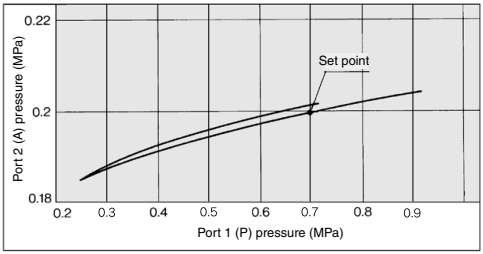
VY1A0 ⁰₁/1B0 ⁰₁



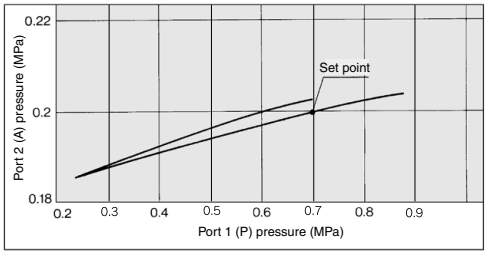
VY110 ⁰₁/120 ⁰₁



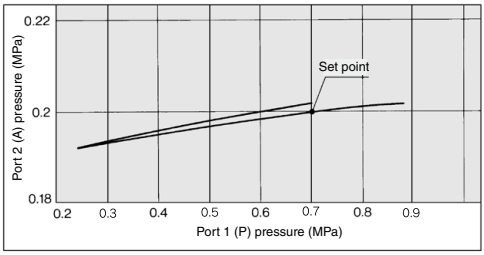
VY130 ⁰₁



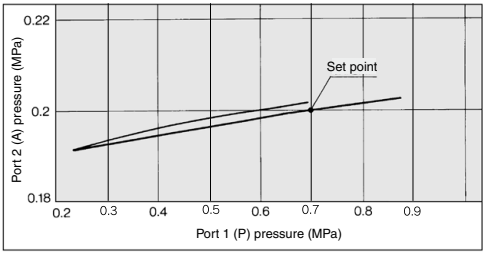
VY140 ⁰₁



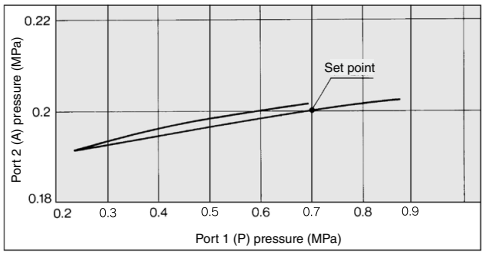
VY150 ⁰₁



VY170 ⁰₁



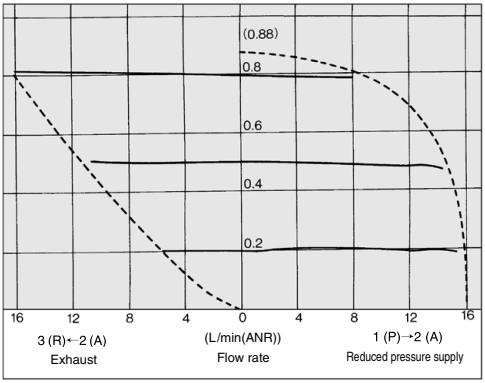
VY190 ⁰₁



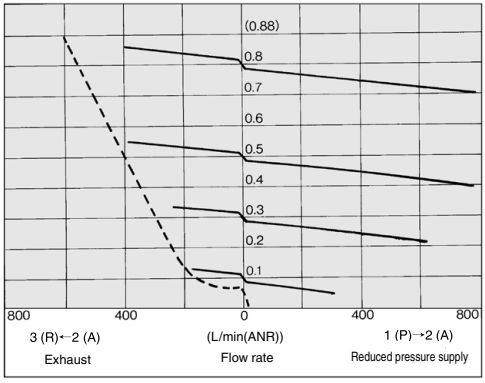
Characteristics

Flow Characteristics

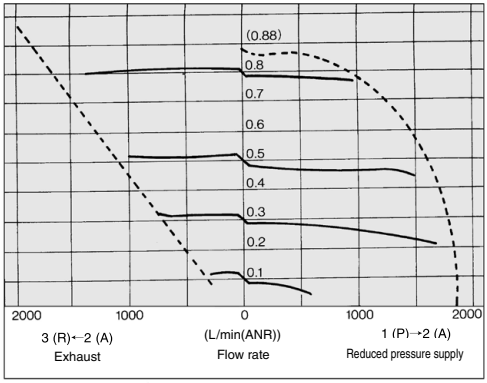
VY1D00 Port 2 (A) pressure (MPa) Port 1 (P) pressure 0.9 MPa



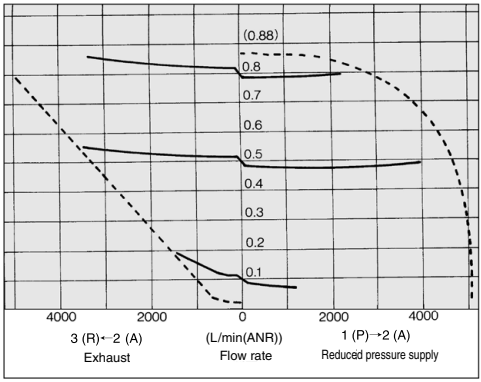
VY1A0 $^{0}_{1}$/1B0 $^{0}_{1}$ Port 2 (A) pressure (MPa) Port 1 (P) pressure 0.9 MPa



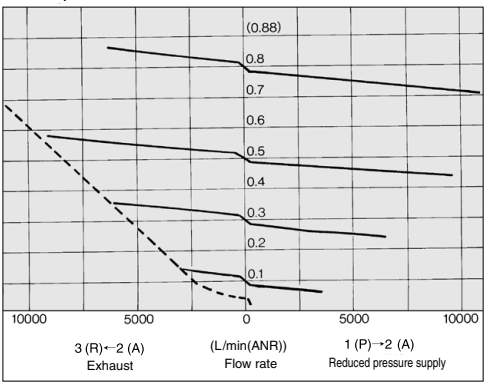
VY110 $^{0}_{1}$/120 $^{0}_{1}$ Port 2 (A) pressure (MPa) Port 1 (P) pressure 0.9 MPa



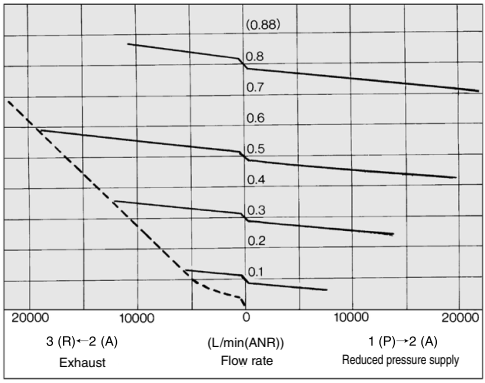
VY130 $^{0}_{1}$/140 $^{0}_{1}$ Port 2 (A) pressure (MPa) Port 1 (P) pressure 0.9 MPa



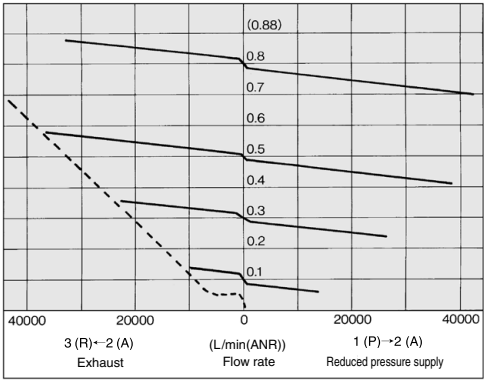
VY150 $^{0}_{1}$ Port 2 (A) pressure (MPa) Port 1 (P) pressure 0.9 MPa



VY170 $^{0}_{1}$ Port 2 (A) pressure (MPa) Port 1 (P) pressure 0.9 MPa

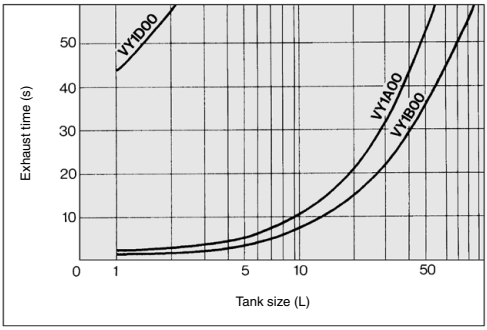


VY190 ⁰₁ Port 2 (A) pressure (MPa) Port 1 (P) pressure 0.9 MPa

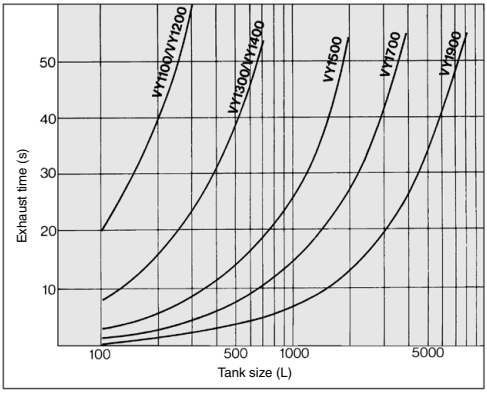


Exhaust Time

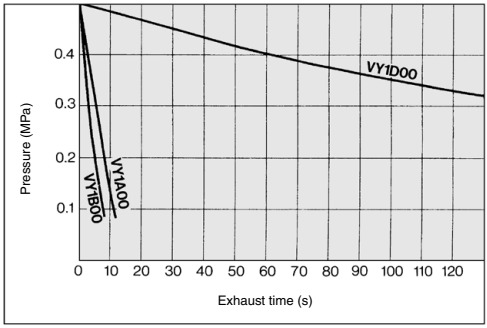
1. Exhaust Time from 0.5 MPa to 0.1 MPa



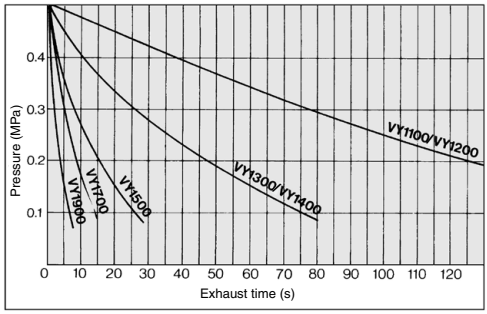
Exhaust Time from 0.5 MPa to 0.1 MPa



2. Exhaust Time from 10 L Tank



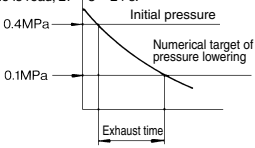
Exhaust Time from 1000 L Tank



3. Exhaust time from optional pressure point

Ex.] Using VY1500, lower the 500 L tank pressure from 0.4 to 0.1.

a) If describing the above graph in accordance with graphs, the exhaust time is read; 27 − 3 = 24 s.



b) Then, to convert the time into one from a 500 L tank.

$$t = \frac{\text{Tank capacity}}{1000} \times \left[\text{Read exhaust time}\right]$$

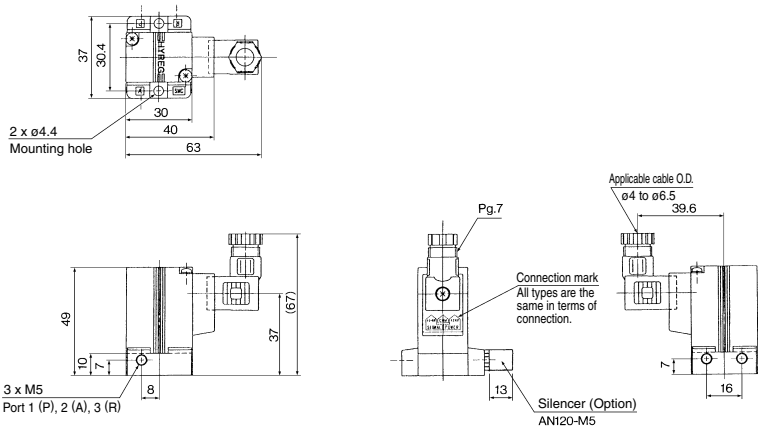
$$= \frac{500}{1000} \times 24$$

$$\cong 12$$

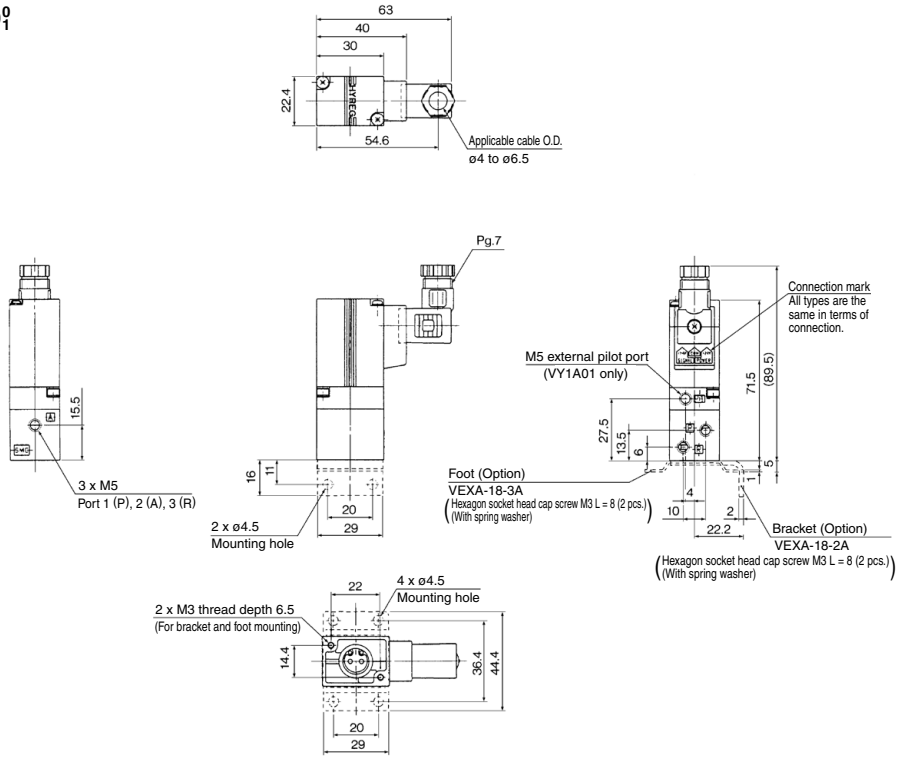
Then, the result is 12 s.

Dimensions

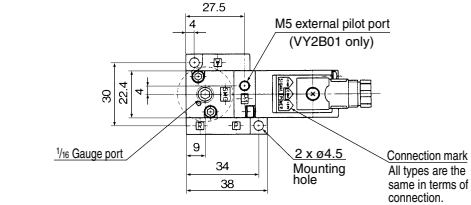
VY1D00

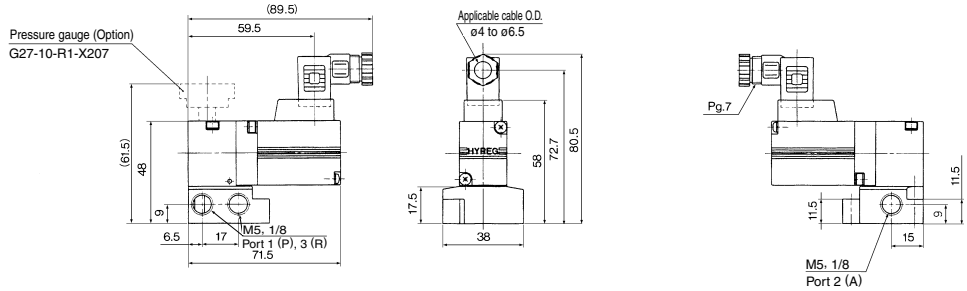


VY1A0$^{0}_{1}$

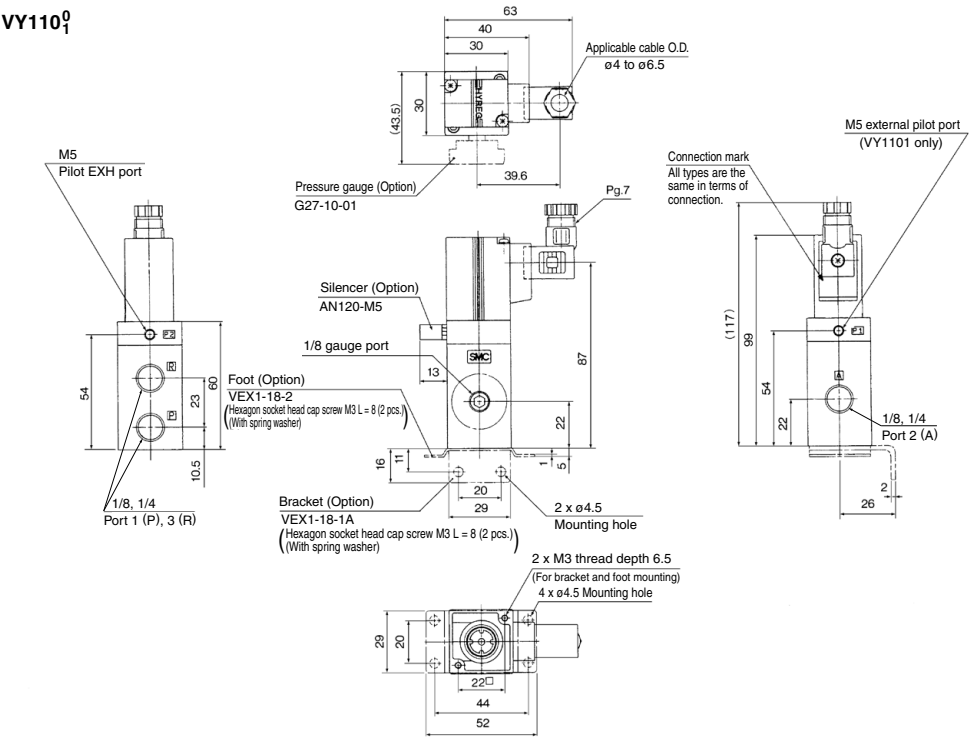


VY1B0$^{0}_{1}$



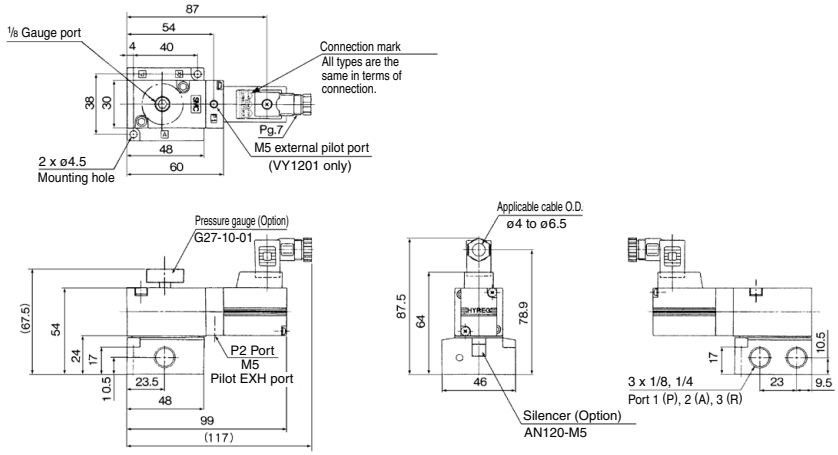


VY110$^{0}_{1}$

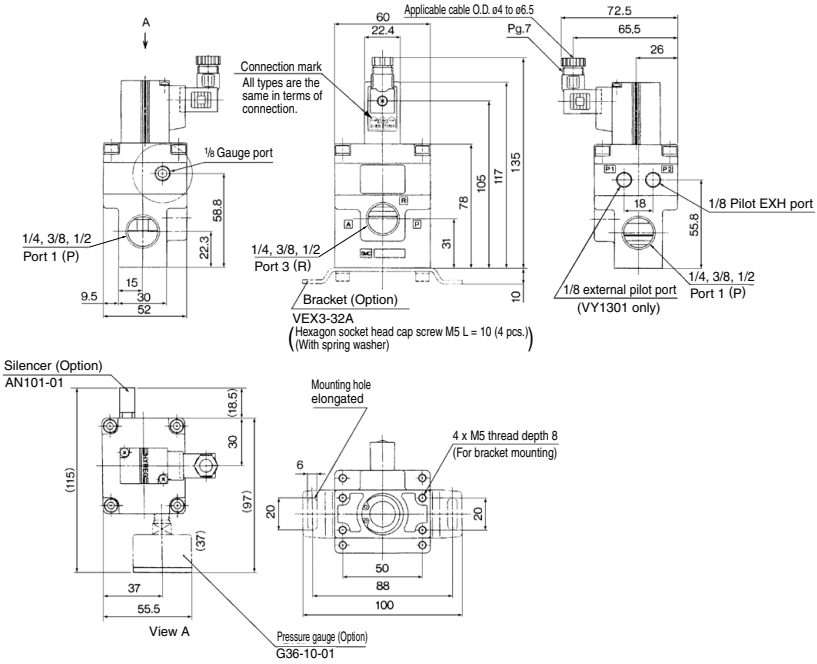


Dimensions

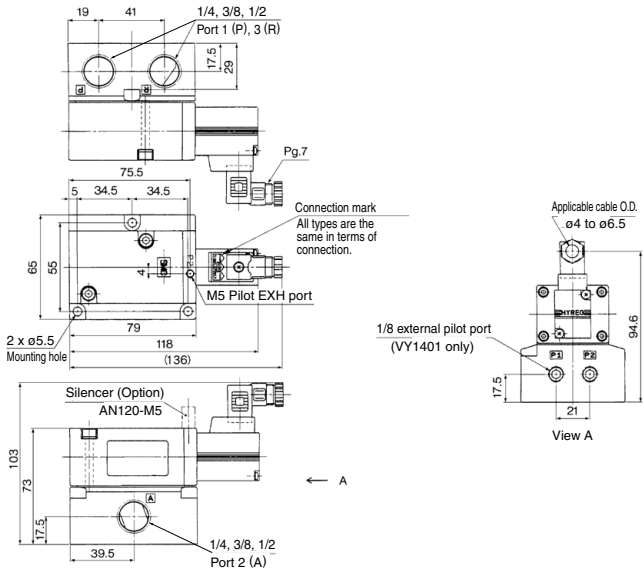
VY120$^{0}_{1}$



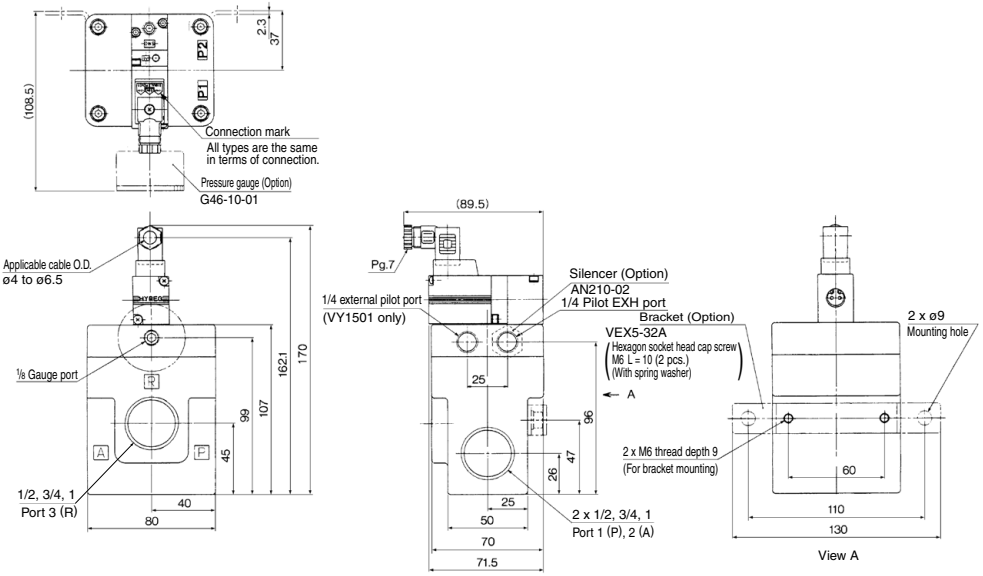
VY130$^{0}_{1}$



VY140$^{0}_{1}$

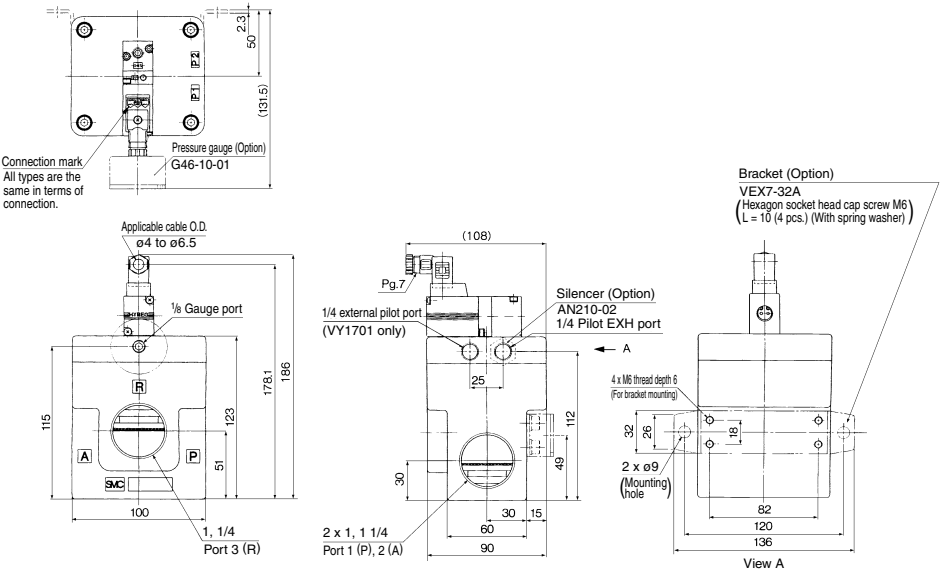


VY150$^{0}_{1}$

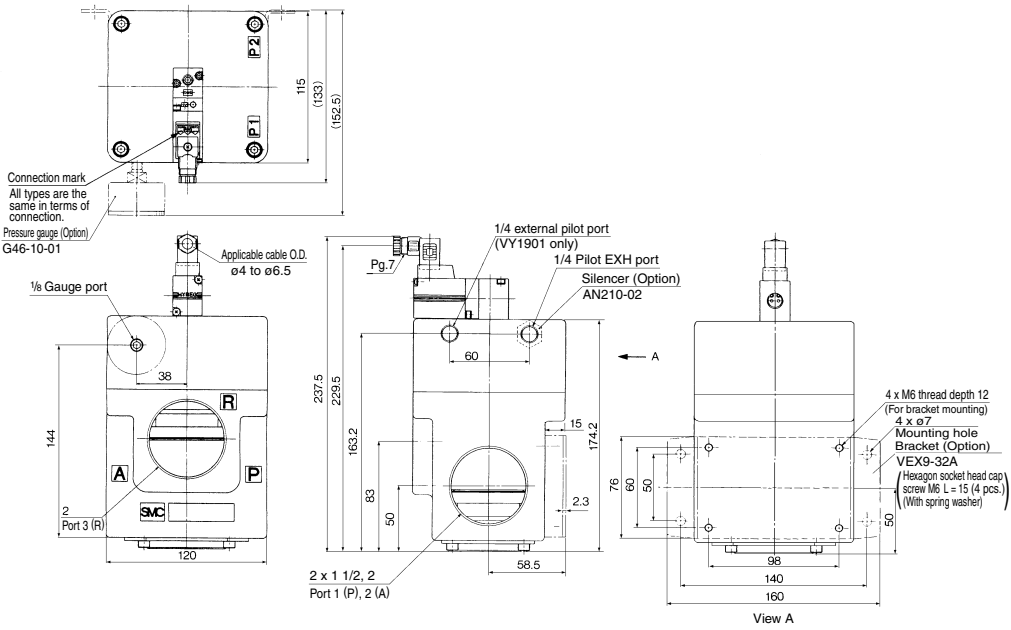


Dimensions

VY170$^{0}_{1}$

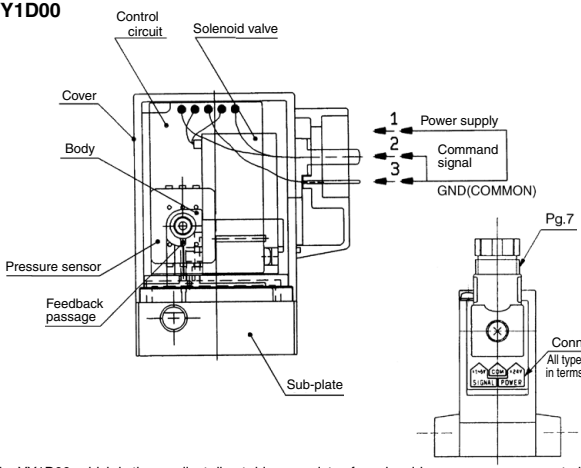


VY190$^{0}_{1}$



Construction/Component Parts/Working Principle

VY1D00



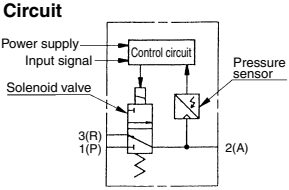
The VY1D00, which is the smallest direct drive, consists of a solenoid, pressure sensor, control circuit, body cover, and a sub-plate. The type with sub-plate can be used alone, and the type without sub-plate can also be used as a pilot valve.

Working principle

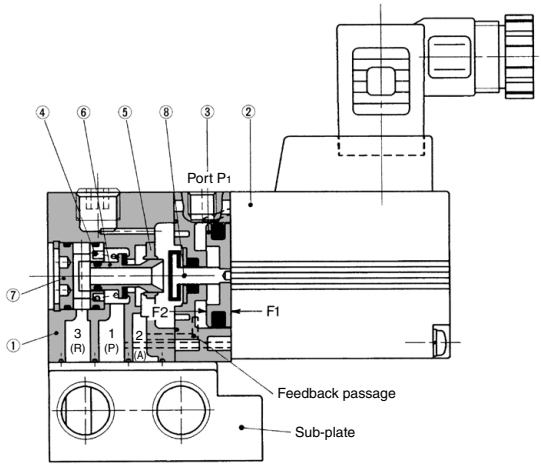
- When the command signal is below 1 VDC, (refer to page 906) the solenoid valve is inactive, and the port 2(A) pressure is zero.
- When a command signal between 1 and 5 VDC is provided, the solenoid is activated.
- The port 2(A) pressure is fed back to the control circuit by the pressure sensor.
- The control circuit compares the feedback signal with the size of the command signal that was provided, and:
  1) If the feedback signal is smaller, current is supplied to the solenoid valve to raise the port 2(A) pressure [from 1(P) to 2(A)].
  2) If the feedback signal is greater, current is not supplied to valve to reduce the port 2(A) pressure [from 2(A) to 3(R)].

The above processes 1) and 2) are repeated at high speeds to set the port 2(A) pressure.

Circuit



VY1A0⁰₁, VY1B0⁰₁ (Pilot valve: VY1D00-□00)



Working principle

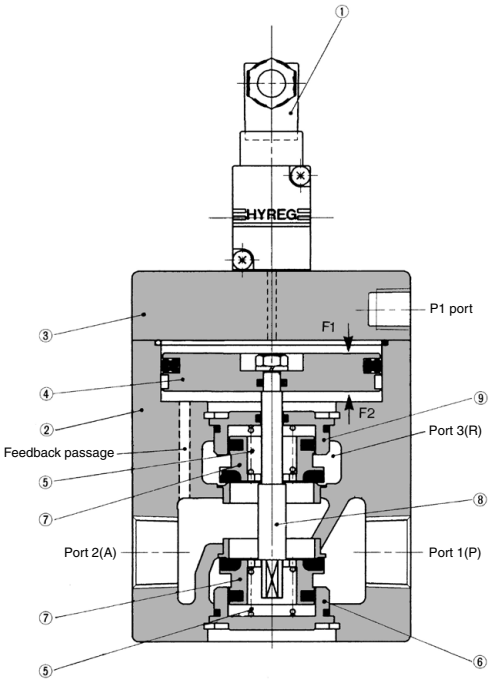
- The supply [1(P) to 2(A)] valve of valve ⑥ and the exhaust [2(A) to 3(R)] valve close due to the balance between actuating forces F1 and F2. Actuating force F1 is applied to the right surface of pressure regulation piston ③ by the pilot pressure (pilot valve assembly ②: **VY1D00-□00**), and actuating force F2 is applied to the left surface of the pressure regulation piston by the port and pressure that passes through the feedback passage. Thus, the port 2(A) pressure that coprresponds to the pilot pressure is established.
- When the port 2(A) pressure becomes higher than the pilot pressure, F2 becomes greater than F1. This causes only the pressure regulation piston to move to the right, and the exhaust valve seat to open, allowing the air to be discharged from port 2(A) to port 3(R). When the port 2(A) pressure drops to reach a balance, the regulator returns to the set state.
- Conversely, if the port 2(A) pressure is lower than the pilot pressure, F2 becomes lower than F1. This causes the pressure regulating piston to move the valve to the left, and the supply valve seat to open, allowing the air to be supplied from port 1(P) to port 2(A). When the port 2(A) pressure balances, the regulator reuturns to the set state.

Component Parts

	Description	Material
1	**Body**	Zinc alloy die-casted
2	**Pilot valve assembly**	—
3	**Adjusting piston**	Aluminum alloy
4	**Spring**	Stainless steel
5	**Valve guide**	Stainless steel
6	**Valve**	Aluminum alloy/Rubber
7	**Retainer**	Aluminum alloy
8	**Rod**	Stainless steel/Rubber

Construction/Component Parts/Working Principle

VY110$^{0}_{1}$, VY120$^{0}_{1}$, VY130$^{0}_{1}$, VY140$^{0}_{1}$ (Pilot valve: VY1D00-□00)
VY150$^{0}_{1}$, VY170$^{0}_{1}$, VY190$^{0}_{1}$ (Pilot valve: VY1B00-□00)



Working principle

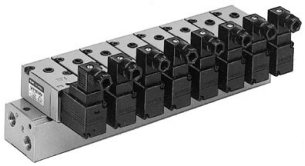
- The pair of poppet valves ⑦ close due to the balance between actuating forces F1 and F2. Actuating force F1 is applied to the top surface of pressure regulation piston ④ by the pilot pressure (pilot valve assembly ①: **VY1$^{D}_{B}$00-□00**), and actuating force F2 is applied to the bottom surface of the piston by the port 2(A) pressure that pases through the feedback passage. Thus, the port 2(A) pressure that corresponds to the pilot pressure is established. The poppet valve, which maintains a pressure balance with the port 2(A) pressure, is backed up by spring ⑤ (refer to the diagram on the left).
- When the port 2(A) pressure becomes higher than the pilot pressure, F2 becomes higher than F1. This causes the pressure regulation piston to move upward, and the top poppet valve to open, allowing the air to be discharged from port 2(A) to port 3(R). When the port 2(A) pressure drops to reach a balance, the regulator returns to the state shown in the diagram to the left.
- Conversely, if the port 2(A) pressure is lower than the pilot pressure, F2 becomes less than F1. This causes the pressure regulation piston to move downward, and the lower poppet valve to open, allowing the air to be supplied from port 1(P) to port 2(A). When the port 2(A) pressure rises to reach a balance, the regulator returns to the state shown in the diagram to the left.

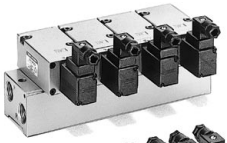
Component Parts

No.	Description	Material
1	**Pilot valve assembly**	—
2	**Body**	Aluminum alloy
3	**Cover**	Aluminum alloy
4	**Adjusting piston**	Aluminum alloy
5	**Spring**	Stainless steel
6	**Valve guide**	Aluminum alloy
7	**Poppet valve**	Aluminum alloy/Rubber
8	**Shaft**	Stainless steel
9	**Valve guide**	Aluminum alloy

E-P HYREG®
Manifold Specifications

Using the series VVEXB/2/4, a maximum of 10 stations manifold is possible.





Specifications

Applicable valve	VY1B0$^{0}_{1}$	VY120$^{0}_{1}$	VY140$^{0}_{1}$
Valve stations (1)	2 to 10 stations	2 to 8 stations	2 to 6 stations
Passage	Common supply/exhaust		
Pilot type	Internal pilot, Common external pilot (2)		
Pilot port size	M5		
Port size port 1(P), 2(A), 3(R)	1/8	1/4	1/4, 3/8, 1/2
Blanking plate assembly (3)	VEXB-6	VEX1-17	VEX4-5

Note 1) VY1B0$^{0}_{1}$6 stations or more, VY120$^{0}_{1}$5 stations or more, VY140$^{0}_{1}$4 stations or more supply pressure to the ports 1(P) on both sides of the manifold and exhaust pressure from the port 3(R) on the both sides.
Note 2) When used as a common external pilot, select the internal pilot specification as an applicable valve.
Note 3) Gasket and mounting bolts are equipped.

How to Order

VVEX B – 1 – 5 – 01

Body size · Pilot type · Valve stations · Port size

B	For VY1B0$^{0}_{1}$	**1**	Internal pilot	**22** Note 1)	2 stations	**01**	1(P), 3(R)	2(A)
				⋮	⋮		1/8	
		2	Common external pilot	**210** Note 1)	10 stations			
2	For VY120$^{0}_{1}$	**1**	Internal pilot	**2**	2 stations	**02**	1/4	
				⋮	⋮			
		2	Common external pilot	**8**	8 stations			
4	For VY140$^{0}_{1}$	**1**	Internal pilot	**2**	2 stations	**A**	3/8	1/4
				⋮	⋮	**B**	3/8	
		2	Common external pilot	**6**	6 stations	**C**	1/2	3/8

Enter the valves and the blank plates to be placed on a manifold in order, starting at the left side of the manifold base (with port 2(A) facing you).

Ex.) **VVEX2-2-5-02**
- VY1200-00-G– 4 pcs.
- VEX1-17 —— 1 pc.

Piping thread type

Nil	Rc
F	G Note 2)
N	NPT
T	NPTF

Note 1) In the case of VVEXB, the "2" in the first digit of the valve station number is a dummy part number.
Note 2) Not conforming to ISO 1179-1.

VY manifold pilot type
Body size B, 2

Pilot type	Manifold base part no.	Applicable valve part no.
Internal pilot manifold	VVEX□-1-□-□□	VY1□00
Common external pilot manifold	VVEX□-2-□-□□	
Individual external pilot manifold	VVEX□-□-□-□□	VY1□01

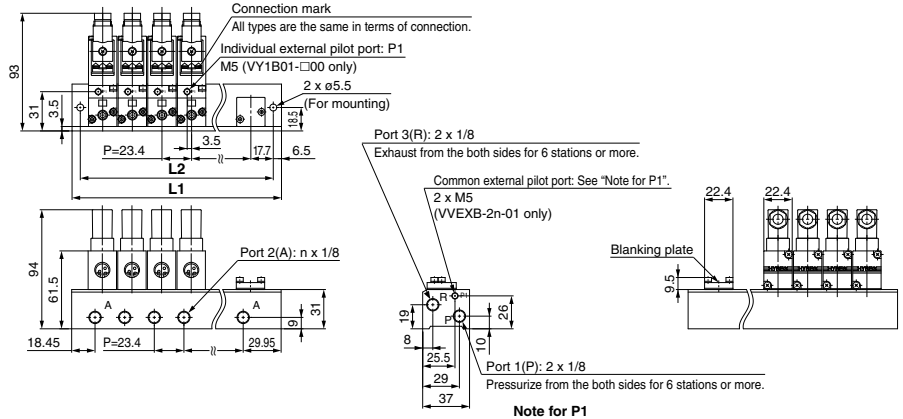
Note) It is recommended to use a common type when the external pilot type is used.

Body size 4

Pilot type	Manifold base part no.	Applicable valve part no.
Internal pilot manifold	VVEX4-1-□-□□	VY1400
Common external pilot manifold	VVEX4-2-□-□□	VY1401

Dimensions

VVEXB

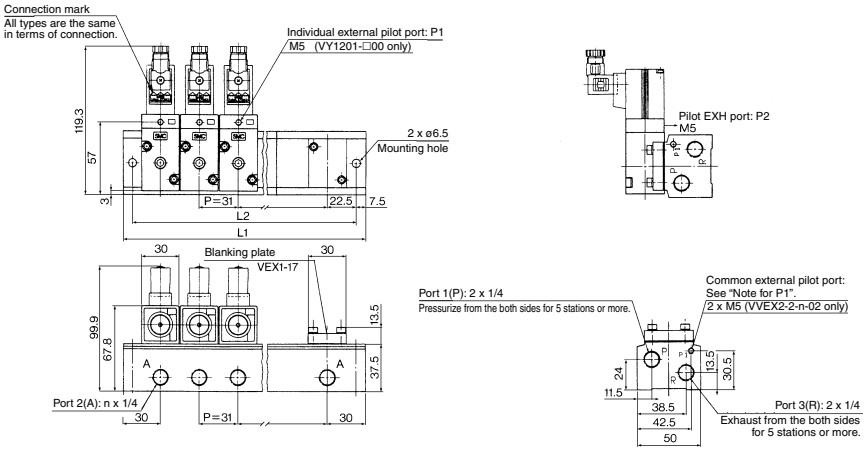


Dimension \ Stations	2	3	4	5	6	7	8	9	10
L1	71.8	95.2	118.6	142	165.4	188.8	212.2	235.6	259
L2	58.8	82.2	105.6	129	152.4	175.8	199.2	222.6	246

Note for P1
Confirm internal pilot or common external pilot by checking whether P1 has a M5 screw or not.
Internal pilot····· P1 has no M5 screw.
Common external pilot····· P1 has an M5 screw.

Dimensions

VVEX2

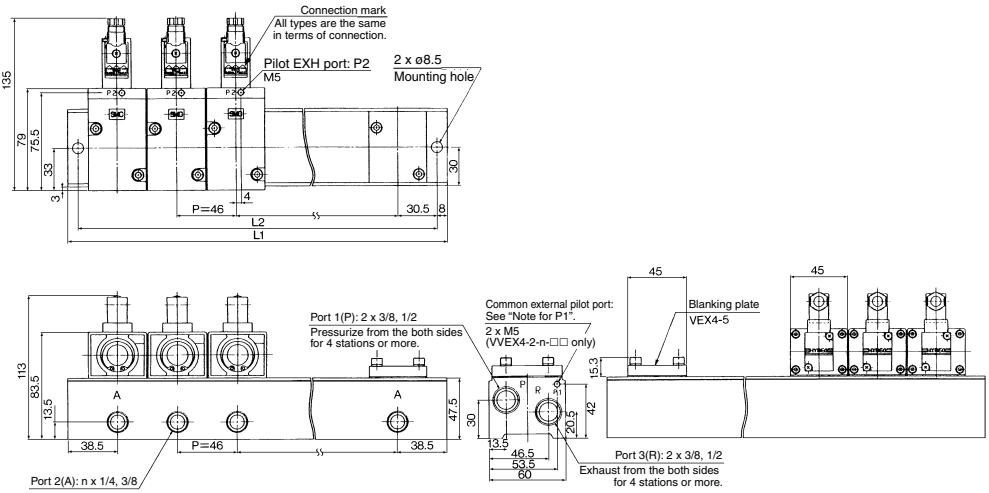


Dimension \ Stations	2	3	4	5	6	7	8
L1	91	122	153	184	215	246	277
L2	76	107	138	169	200	231	262

Note for P1

Confirm internal pilot or common external pilot by checking whether P1 has a M5 screw or not.
Internal pilot····· P1 has no M5 screw.
Common external pilot····· P1 has an M5 screw.

VVEX4



Dimension \ Stations	2	3	4	5	6
L1	123	169	215	261	307
L2	107	153	199	245	291

Note for P1

Confirm internal pilot or common external pilot by checking whether P1 has a M5 screw or not.
Internal pilot····· P1 has no M5 screw.
Common external pilot····· P1 has an M5 screw.

⚠ Precautions

Be sure to read before handling.
Refer to front matter 43 for Safety Instructions and each Best Pneumatics for Precautions on every series.

Piping

⚠ Caution

Tightening the fittings and their torque

When screwing fittings into the valves, make sure to tighten them to the proper torque values given below.

Tightening Torque when Piping

Connection thread	Applicable torque (N-m)
M5 x 0.8	1.5 to 2 ≡1/6 rotation
Rc 1/8	7 to 9
Rc 1/4	12 to 14
Rc 3/8	22 to 24
Rc 1/2	28 to 30
Rc 3/4	28 to 30
Rc1	36 to 38
Rc1 1/4	40 to 42
Rc1 1/2	48 to 50
Rc2	48 to 50

Air Supply

⚠ Caution

Poor quality air could enhance the spool's sliding resistance and may not achieve the specified properties. Use compressor oil with a minimal generation of oxidants and install a mist separator (SMC's Series AM/AFM). Refer to pages 2 and 3 in SMC Air Preparation System.

Pressure Gauge

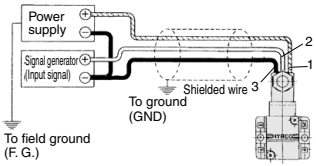
⚠ Caution

For products with pressure gauge, use caution about the durability of a pressure gauge, since it may be affected by the sudden pressure changes during operation.

Wires to be Used

⚠ Caution

Use 3 core shielded wires measuring 0.5 (mm^2) for the power supply and signal lines according to the respective number of conductors. When connecting the shielded braided wire, connect it to the ground of the signal generator. As a rule, the electro-pneumatic hybrid regulator should be installed in a location that is free of noise or is shielded. If it must be installed in an environment with poor noise conditions, eliminate the power supply noise by using a line filter, Z-wrap, or a spark killler on the 100 V power supply or signal source line. The length of the power suply and signal lines must be kept as short as possible.

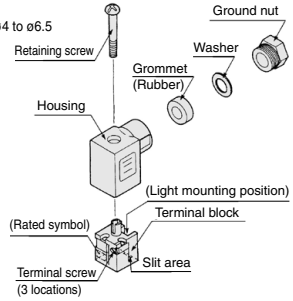


Terminal no.	Details of wire connection
1	Power supply
2	Command signal
3	GND (COMMON)

How to Use DIN Terminal

⚠ Caution

- **Wiring procedures**
  1. Loosen the retaining screw and pull the connector from the solenoid valve terminal block.
  2. Remove the retaining screw, insert a flat head screwdriver into the groove below the terminal block and pry it up to separate the terminal block from the housing.
  3. Loosen the terminal screws (slot head screws) on the terminal block. Then, in accordance with the wiring procedure, insert the cord of the lead wires into the terminals and tighten the terminal screws to secure in place.
  4. Tighten the ground nut to secure the cord.
- **Outlet changing procedure**
  After the terminal block has been separated from its housing, reassemble the housing in the desired direction (in four 90° increments) to change the direction of the cord outlet.
- **Precautions**
  Kindly insert the connector straight in without tilting it, and pull it out straight.
- **Applicable wire**
  Cord external diameter: ø4 to ø6.5
  c.f. 0.5 mm^2 3 core wire
  (JIS C 3306 equivalent)



- **Connector part no.:** VK300-82-1

Input Signal

⚠ Caution

- **Input signal when out of operation**
  There is dispersion in operation start voltage (current) for the input signal. (Refer to page 906.)
  If the command signal when out of operation exceeds the lower limit of the operation start voltage (current), the solenoid valve inside the pilot valve starts to activate and may be in the operation state. The service life of this product varies depending on the operating time of the solenoid valve inside the pilot valve. Be sure to cut off the command signal when the pressure control on the outlet side is not required, such as when the line is temporarily halted, etc. (Refer to "Service Life" below.)

Service Life

⚠ Caution

The pilot valve service life is approximately 4000 to 5000 operating hours. (When using AF + AFM) This may be approximately 3000 hours with ultra-dry air (dew point –40°C or equivalent).

Bleed

⚠ Caution

Since the pilot solenoid valve enters the normally operating status and the air is discharged continuously in the pressure setting status, the bleed sound is produced. However, this is not a abnormal phenomenon.

Related Products:

Silencer (Series AN)

- Noise reducing effect: 30 dB or more.
- Large effective area
- Refer to Best Pneumatics No. 6 for details.

Exhaust cleaner (Series AMC)

- Provides noise reduction and oil mist collecting functions.
- Can also be used in a common piping system.
- Oil mist recovering efficiency 99.9%
- Noise reduction efficiency 35 dB or more
- Refer to Best Pneumatics No. 6 for details.