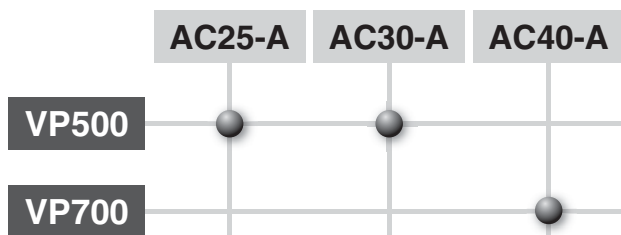


# Modular Connection Type Residual Pressure Relief 3 Port Solenoid Valve



**For connecting to  
F.R.L. units**



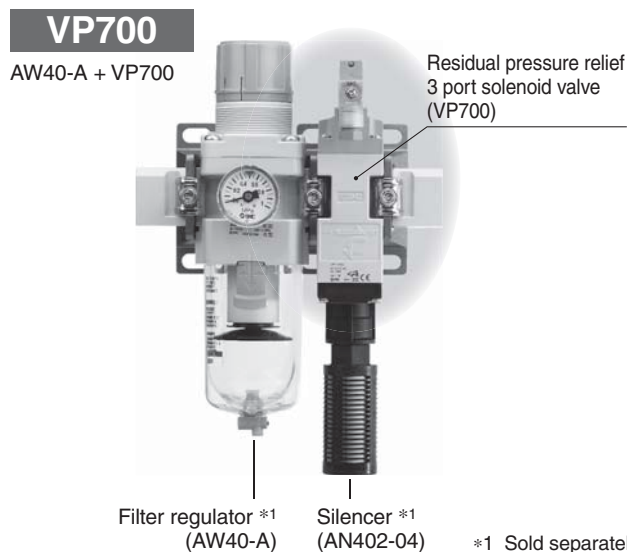
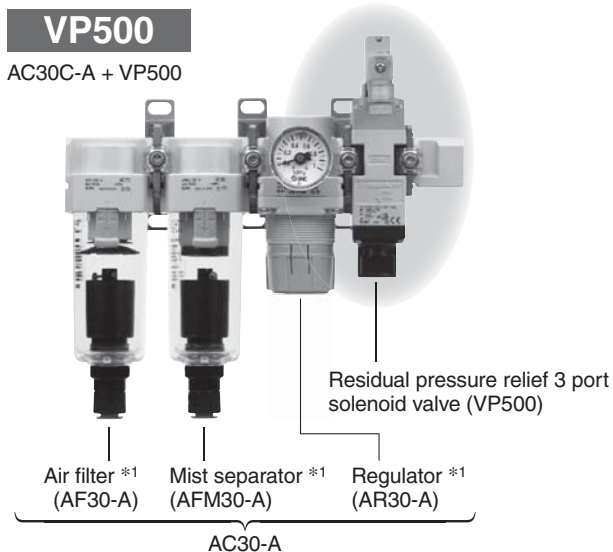
**Allows for space saving  
and reduced piping labour.**

**Power consumption:  
0.35 W (Without light)**

## Example of F.R.L. unit connections

### Simple Specials System

This system enables us to respond to your special needs (additional machining, accessory assembly, or the designing of a modular unit) and deliver your personalised products as quickly as standard products. Please contact your local sales representative for more details.



**VP500/700 Series**

# VP500/700 Series



## How to Order

### Modular connection type

VP 5 1 7 □ Y-5 D □ □ 1-□ □

**Series**

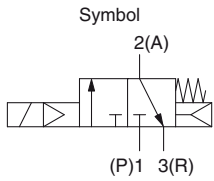
5	VP500
7	VP700

**Pressure specification**

—	Standard (0.7 MPa)
K	High-pressure type (1.0 MPa)

**Rated voltage**

DC		AC (50/60 Hz)	
5	24 V DC	1	100 V AC
6	12 V DC	2	200 V AC
		3	110 V AC [115 V AC]
		4	220 V AC [230 V AC]



**Flow direction**

—	Left to right
R	Right to left

**Bracket**

—	Without bracket
B	With bracket*1

\*1 Brackets are supplied loose, not assembled, at time of shipment. Includes 2 mounting screws.

### Manual override

—: Non-locking push type	A: Non-locking push type (Manual)	E: Push-turn locking type (Manual)

### Electrical entry

DIN terminal		DIN (EN175301-803(C)) terminal	
D: With connector	DO: Without connector	Y: With connector	YO: Without connector

\* Refer to our website [www.smc.eu](http://www.smc.eu) (VP300/500 Low wattage specification) for details of the DIN terminal.

**Light/surge voltage suppressor**

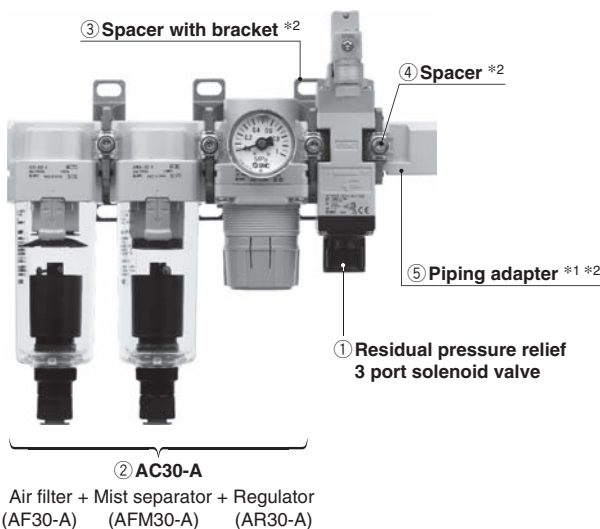
	DC	AC
—	Without light/surge voltage suppressor	○
S	With surge voltage suppressor	○ —*1
Z	With light/surge voltage suppressor	○

\*1 For AC voltage valves there is no "S" option. It is already built into the rectifier circuit.  
\* In the DIN terminal type, since a light is installed in the connector, DOZ and YOZ are not available.

### Caution

When using the surge voltage suppressor type, residual voltage will remain. For details, refer to our website [www.smc.eu](http://www.smc.eu) (VP300/500 Low wattage specification).

## Assembly Example



\*1 Connection threads are not available for the residual pressure relief 3 port solenoid valve. Order a piping adapter separately.  
\*2 Refer to page 3 for details of the spacer and piping adapter.

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

\* The Simple Specials System deals with product unification. Please contact your local sales representative for more details.

### Assembly example

① Residual pressure relief 3 port solenoid valve VP517Y-5DZ1 .....	1 pc.
② Air combination AC30C-03DG .....	1 pc.
③ Spacer with bracket Y300T-A .....	1 pc.
④ Spacer Y300-A .....	1 pc.
⑤ Piping adapter E300-03-A .....	1 pc.

### Applicable Combinations/Attachment Part Nos.

Residual pressure relief 3 port solenoid valve	Applicable air combination	Spacer	Spacer with bracket	Piping adapter	Silencer
VP517	AC25, AC30	Y300-A	Y300T-A	E300-□03-A	AN30-03 AN302-03
VP717	AC40	Y400-A	Y400T-A	E400-□04-A	AN40-04 AN402-04

\* Refer to page 3 for details of the spacer.

## Specifications

Fluid	Air	
Type of actuation	N.C.	
Internal pilot	Standard	0.2 to 0.7
	High-pressure type	0.2 to 1
Operating pressure range [MPa]		
Ambient and fluid temperature [°C]	-10 to 50 (No freezing)	
Maximum operating frequency [Hz]	5	
Manual override (Manual operation)	Non-locking push type Push-turn locking type (Manual) Non-locking push type (Manual)	
Pilot exhaust method	Individual exhaust	
Lubrication	Not required	
Mounting orientation	Unrestricted	
Impact/Vibration resistance [m/s <sup>2</sup> ]*1	150/30	
Enclosure	IP65	

\*1 Impact resistance: No malfunction occurred when it was tested in the axial direction and at right angles to the main valve and armature in both energised and de-energised states. Each condition was tested once. (Default settings)

Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed in both energised and de-energised states in the axial direction and at right angles to the main valve and armature. (Default settings)

## Solenoid Specifications

Electrical entry	DIN terminal (D) DIN terminal (Y) <EN175301-803 (C)>		
	D, Y		
Coil rated voltage [V]	DC	24, 12	
	AC (50/60 Hz)	100, 110, 200, 220	
Allowable voltage fluctuation	±10 % of rated voltage*2		
Power consumption [W]	DC	0.35 (With light: 0.45)	
	Standard	0.78 (With light: 0.87)	
Apparent power [VA]*1	AC	100 V	0.86 (With light: 0.97) [0.94 (With light: 1.07)]
		110 V [115 V]	1.15 (With light: 1.30)
		200 V	1.27 (With light: 1.46) [1.39 (With light: 1.60)]
		220 V [230 V]	
Surge voltage suppressor	Varistor (DC)		
Indicator light	LED (DC), Neon bulb (AC)		

\*1 The 110 V AC and 115 V AC are interchangeable. The 220 V AC and 230 V AC are interchangeable as well.

\*2 The allowable voltage fluctuation is -15 % to +5 % of the rated voltage for the 115 V AC or 230 V AC.

## Response Time/Weight

Model	Pressure specifications	Response time [ms](at 0.5 MPa)			Weight [g]
		Without light/surge voltage suppressor	With light/surge voltage suppressor	AC	
VP517Y	Standard (0.2 to 0.7 MPa)	27	32	44	222 (With bracket: 257)
	High-pressure type (0.2 to 1.0 MPa)	41	48	44	
VP717Y	Standard (0.2 to 0.7 MPa)	41	48	50	413 (With bracket: 468)
	High-pressure type (0.2 to 1.0 MPa)	67	76	50	

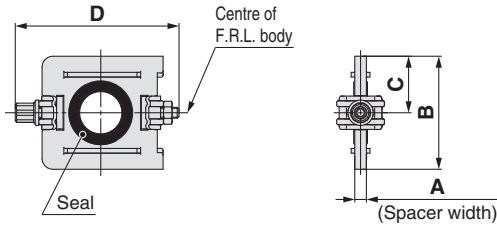
## Flow Rate Characteristics

Model	Port size EXH.	Flow rate characteristics							
		1→2 (P→A)				2→3 (A→R)			
		C [dm <sup>3</sup> /(s·bar)]	b	Cv	Q [l/min (ANR)]*1	C [dm <sup>3</sup> /(s·bar)]	b	Cv	Q [l/min (ANR)]*1
VP517Y	G 3/8	8.8	0.14	2	2040	8.2	0.15	1.8	1911
VP717Y	G 1/2	13.8	0.11	2.9	3149	12.9	0.18	2.9	3056

\*1 These values have been calculated according to ISO 6358 and indicate the flow rate under standard conditions with an inlet pressure of 0.6 MPa (relative pressure) and a pressure drop of 0.1 MPa.

# VP500/700 Series

## Spacer

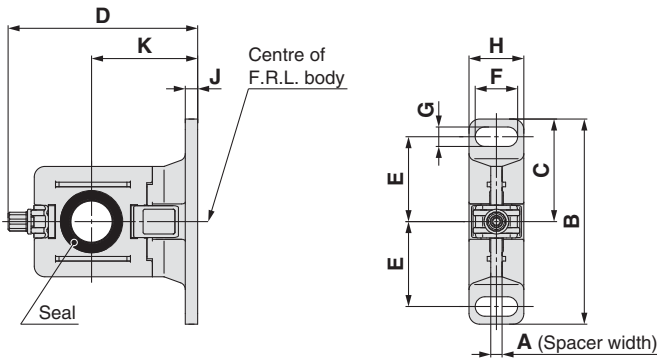


Y400-A

Model	A	B	C	D
Y300-A	4.2	43.4	21.7	57.9
Y400-A	5.2	53	26.5	68.5

[mm]

## Spacer with Bracket



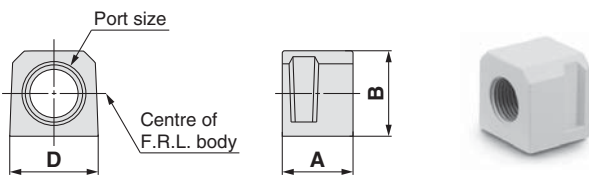
Y400T-A

Model	A	B	C	D	E	F	G	H	J	K
Y300T-A	4.2	82	41	71.5	35	14	7	19	4	41
Y400T-A	5.2	96	48	86.1	40	18	9	26	5	50

[mm]

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

A piping adapter allows installation/removal of the component without removing the piping and thus makes maintenance easier.

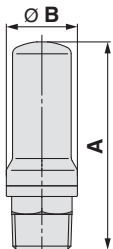


Model *1	Port size	A	B	D
E300-□03-A	3/8	31.8	30	30
E400-□04-A	1/2	31.8	36	36

\*1 □ in model numbers indicates a pipe thread type. No indication is necessary for Rc; however, indicate N for NPT, and F for G.  
\* Separate spacers are required for modular units.

## Silencer

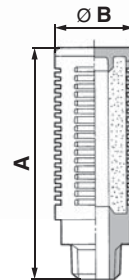
### Compact resin type



Model	Port size R	A	B
AN30-03	3/8	58.5	20
AN40-04	1/2	68	24

[mm]

### High noise reduction type

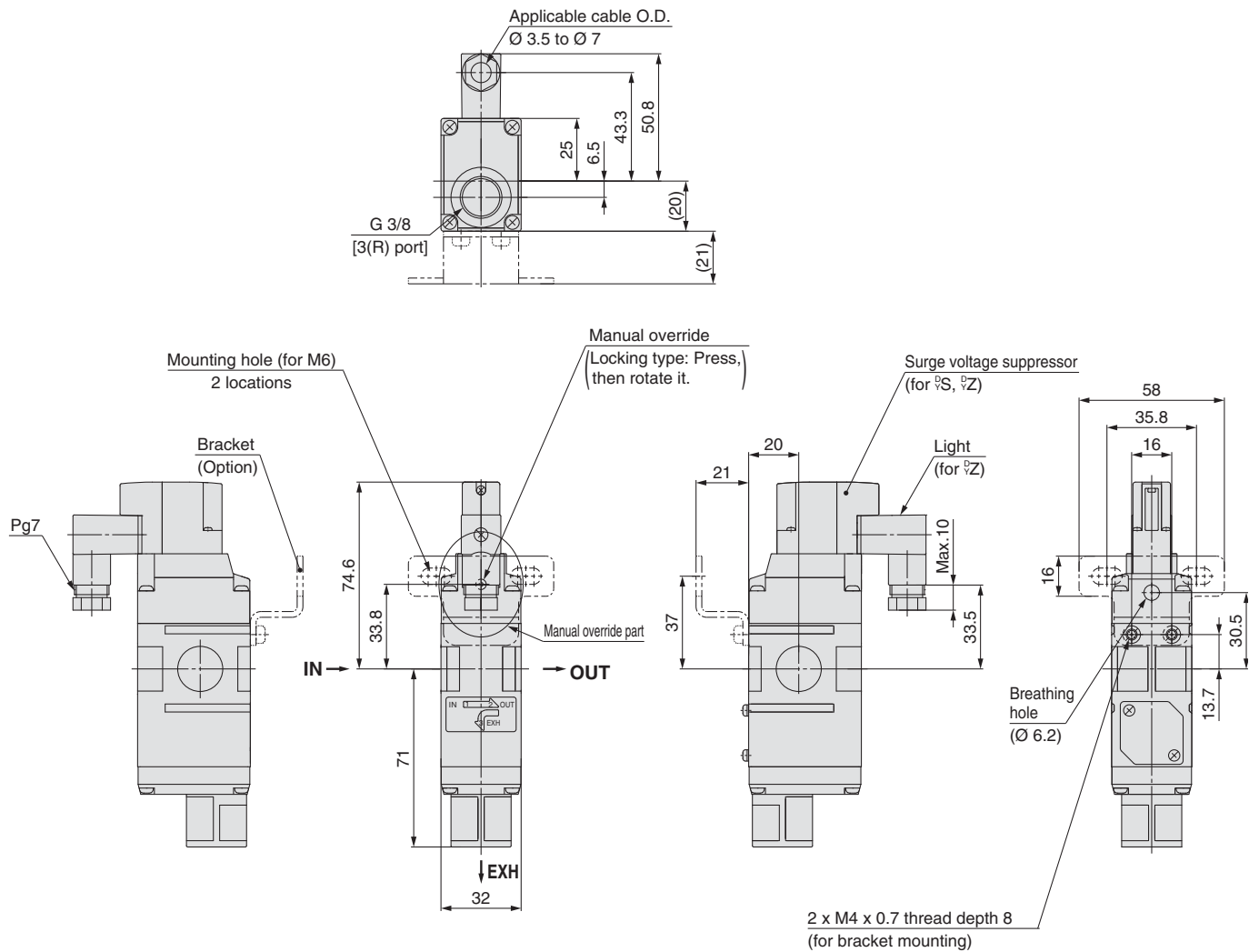


Model	Port size R	Dimensions [mm]	
		A	B
AN302-03	3/8	84	28
AN402-04	1/2	95	34

# Modular Connection Type Residual Pressure Relief 3 Port Solenoid Valve **VP500/700 Series**

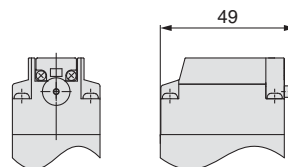
## Dimensions

### VP517

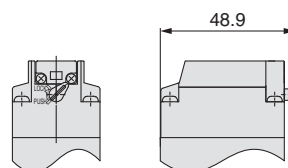


### Details of manual override part (for manual operation)

#### Type A



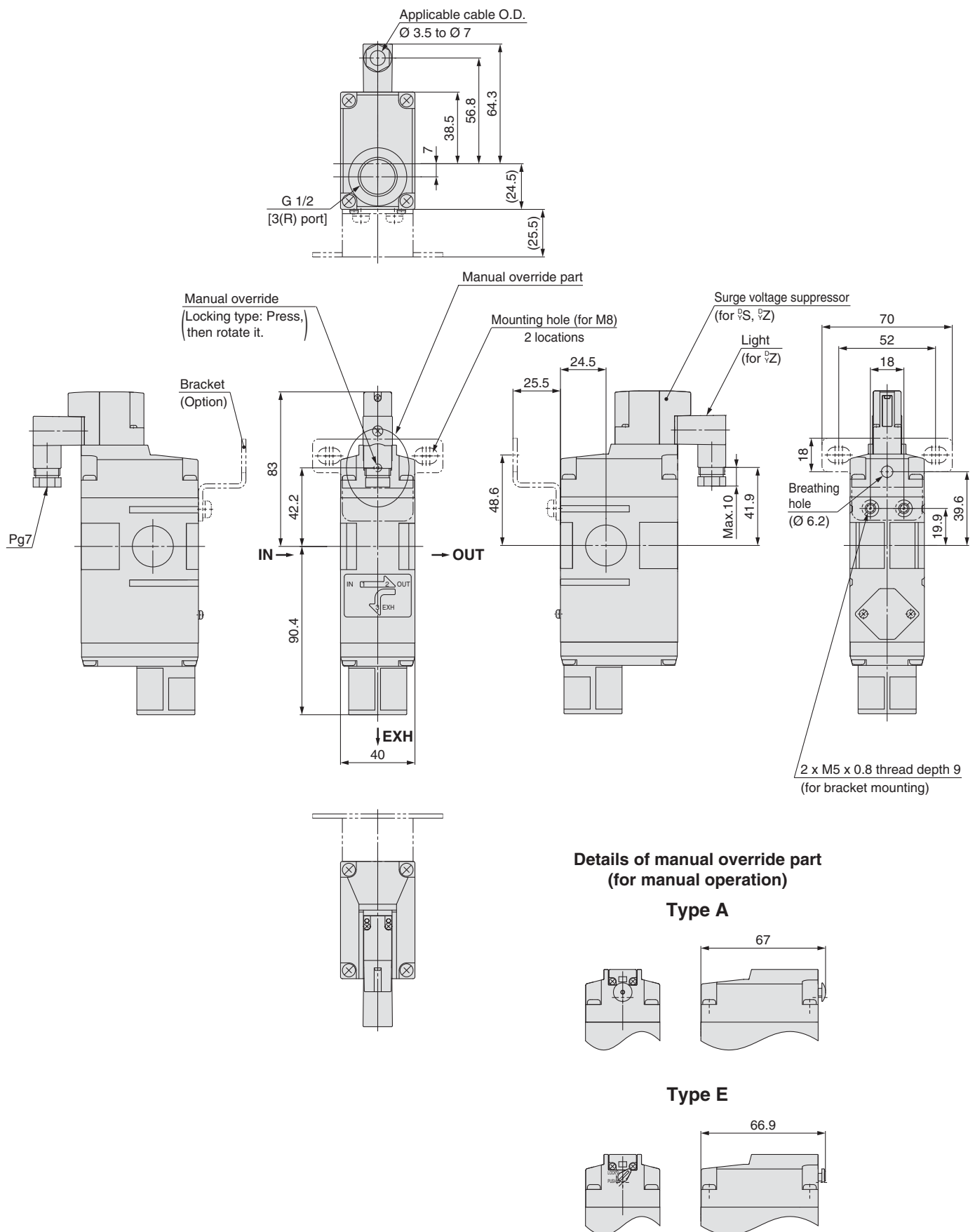
#### Type E



# VP500/700 Series

## Dimensions

### VP717







### SMC Corporation (Europe)

<b>Austria</b>	☎ +43 (0)2262622800	www.smc.at	office@smc.at
<b>Belgium</b>	☎ +32 (0)33551464	www.smc.pneumatics.be	info@smc.pneumatics.be
<b>Bulgaria</b>	☎ +359 (0)2807670	www.smc.bg	office@smc.bg
<b>Croatia</b>	☎ +385 (0)13707288	www.smc.hr	office@smc.hr
<b>Czech Republic</b>	☎ +420 541424611	www.smc.cz	office@smc.cz
<b>Denmark</b>	☎ +45 70252900	www.smc.dk.com	smc@smc.dk.com
<b>Estonia</b>	☎ +372 6510370	www.smc.pneumatics.ee	smc@smc.pneumatics.ee
<b>Finland</b>	☎ +358 207513513	www.smc.fi	smc.fi@smc.fi
<b>France</b>	☎ +33 (0)164761000	www.smc-france.fr	info@smc-france.fr
<b>Germany</b>	☎ +49 (0)61034020	www.smc.de	info@smc.de
<b>Greece</b>	☎ +30 210 2717265	www.smchellas.gr	sales@smchellas.gr
<b>Hungary</b>	☎ +36 23511390	www.smc.hu	office@smc.hu
<b>Ireland</b>	☎ +353 (0)14039000	www.smc.pneumatics.ie	sales@smc.pneumatics.ie
<b>Italy</b>	☎ +39 0292711	www.smc.italia.it	mailbox@smc.italia.it
<b>Latvia</b>	☎ +371 67817700	www.smc.lv	info@smc.lv

<b>Lithuania</b>	☎ +370 5 2308118	www.smclt.lt	info@smclt.lt
<b>Netherlands</b>	☎ +31 (0)205318888	www.smc.pneumatics.nl	info@smc.pneumatics.nl
<b>Norway</b>	☎ +47 67129020	www.smc-norge.no	post@smc-norge.no
<b>Poland</b>	☎ +48 222119600	www.smc.pl	office@smc.pl
<b>Portugal</b>	☎ +351 226166570	www.smc.eu	postpt@smc.smces.es
<b>Romania</b>	☎ +40 213205111	www.smcromania.ro	smcromania@smcromania.ro
<b>Russia</b>	☎ +7 8127185445	www.smc-pneumatik.ru	info@smc-pneumatik.ru
<b>Slovakia</b>	☎ +421 (0)413213212	www.smc.sk	office@smc.sk
<b>Slovenia</b>	☎ +386 (0)73885412	www.smc.si	office@smc.si
<b>Spain</b>	☎ +34 902184100	www.smc.eu	post@smc.smces.es
<b>Sweden</b>	☎ +46 (0)86031200	www.smc.nu	post@smc.nu
<b>Switzerland</b>	☎ +41 (0)523963131	www.smc.ch	info@smc.ch
<b>Turkey</b>	☎ +90 212 489 0 440	www.smc.pneumatik.com.tr	info@smc.pneumatik.com.tr
<b>UK</b>	☎ +44 (0)845 121 5122	www.smc.pneumatics.co.uk	sales@smc.pneumatics.co.uk