

# 3 Port Direct Operated Poppet Solenoid Valve Rubber Seal

## Series **EVT307/EVT317 (VT307/317)**



### Features

- ➔ 3 Port Poppet valve.
- ➔ Robust construction.
- ➔ Universal porting.
- ➔ Suitable for vacuum applications.



Note: Part numbering for Europe is EVT3\*7. The Japanese standard series is VT3\*7, the only difference is the Rc (taper thread) port in the Japanese version. The manifold mounted valves V03\*7 do not use the E prefix.

### How to Order

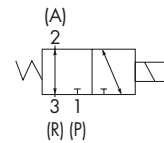
**EV T 3 0 7** — **5** D — **01** F-Q

Body type	
EVT	Body ported
V0	Manifold
Body size	
0	1/8 Body ported
1	1/4 Body ported
Valve option	
Nil	Standard type
E	Continuous duty type
Rated voltage	
1	100 VAC, 50/60 Hz
2	200 VAC, 50/60 Hz
3*	110 VAC, 50/60 Hz
4*	220, 230 VAC, 50/60 Hz
5	24 VDC
6*	12 VDC
7*	240 VAC, 50/60 Hz

\* Option

Port size	
Nil	Without port (For manifold)
01	1/8 (EVT307 only)
02	1/4 (EVT317 only)
Light/Surge voltage suppressor	
Nil	None
Z	With light/surge voltage suppressor (Except grommet type)

### Symbol



### Accessories

Description	Part no.
Bracket (EVT307)	DXT152-25-1A

\* No product for EVT317.

### Universal Porting

Valve function	3-way normally closed	3-way normally open	2-way normally closed	2-way normally open	Selector	Diverter
De-energized						
Energized						

## Standard Specifications

Valve model	EVT307, VO307		EVT317, VO317		
Type of actuation	Direct operated type 2 position single solenoid				
Fluid	Air				
Operating pressure range	0 to 0.9 MPa				
Ambient and fluid temperature	-10 to 50°C (No freezing)				
Response time	20 ms or less (at the pressure of 0.5 MPa)		30 ms or less (at the pressure of 0.5 MPa)		
Max. operating frequency	10 Hz				
Lubrication	Not required (Use turbine oil Class 1 ISO VG32, if lubricated.)				
Mounting orientation	Unrestricted				
Enclosure	Dustproof				
Electrical entry	DIN terminal				
Coil rated voltage (V)	AC (50/60 Hz)	100, 200, 24°, 48°, 110°, 220°, 240°			
	DC	24, 6°, 12°, 48°, 100°			
Allowable voltage fluctuation	-15 to +10% of rated voltage				
Apparent power	AC	Inrush	12.7 VA (50 Hz)		19 VA (50 Hz)
		Holding	7.6 VA (50 Hz)		11 VA (50 Hz)
Power consumption	DC	Without indicator light: 4.8 W, With indicator light: 5 W		Without indicator light: 6 W, With indicator light: 6.3 W	

## Flow Characteristics/Weight

For EVT07

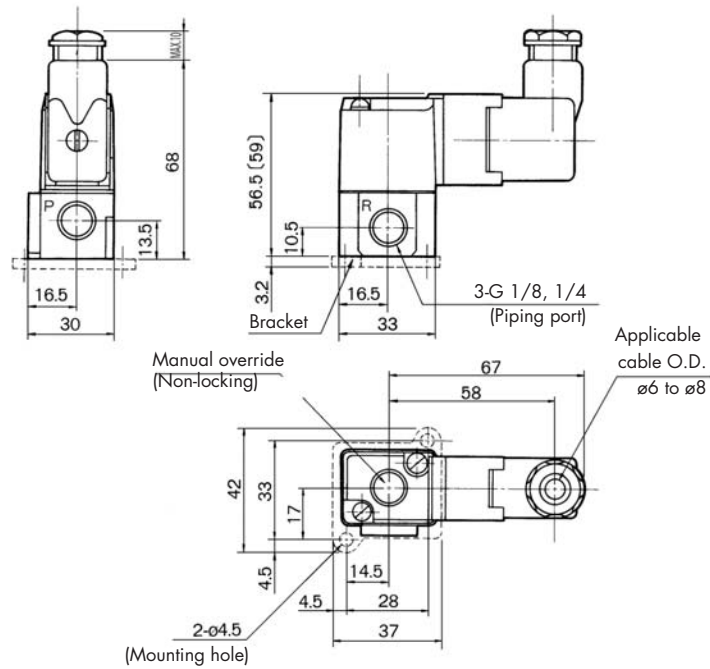
Valve model	Port size	Flow characteristics												Weight
		1 → 2 (P → A)			2 → 3 (A → R)			3 → 2 (R → A)			2 → 1 (A → P)			
		C [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(s·bar)]	b	Cv	
EVT307	1/8	0.71	0.35	0.18	0.68	0.27	0.17	0.65	0.36	0.17	0.63	0.35	0.17	0.14 kg
EVT307E (Continuous duty type)		0.41	0.26	0.10	0.44	0.35	0.11	0.48	0.27	0.12	0.35	0.33	0.10	
EVT307	1/4	0.71	0.31	0.19	0.71	0.25	0.17	0.68	0.33	0.17	0.71	0.26	0.18	
EVT307E (Continuous duty type)		0.49	0.20	0.12	0.44	0.34	0.11	0.48	0.17	0.12	0.46	0.28	0.11	

For EVT17

Valve model	Flow characteristics												Weight
	1 → 2 (P → A)			2 → 3 (A → R)			3 → 2 (R → A)			2 → 1 (A → P)			
	C [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(s·bar)]	b	Cv	C [dm <sup>3</sup> /(s·bar)]	b	Cv	
EVT317	2.4	0.26	0.62	2.6	0.34	0.67	2.8	0.25	0.67	2.5	0.37	0.66	0.29 kg
EVT317E (Continuous duty type)													

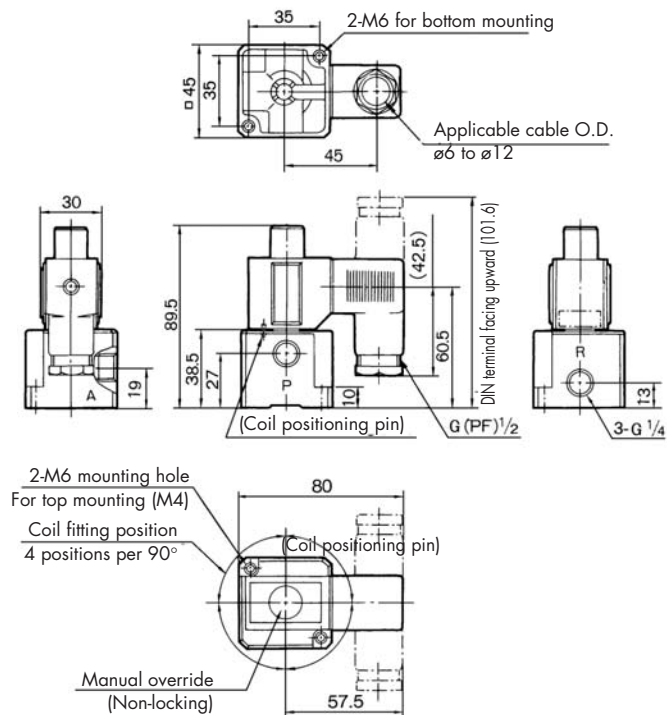
Note) Values for a single valve unit. It differs in the manifold case. Refer to manifold specifications .

Dimensions: EVT307-□D



[ ]: With light/surge voltage suppressor

Dimensions: EVT317-□D





# Manifold Specifications

## Series **VO307/VO317**



### How to Order Manifold

Manifold for VO307: **EVV307 - 01 - 05 2 - 01 F - F**

Manifold for VO317: **EVV317 - 02 - 05 1 - 02 F - A**

#### Valve stations

02	2 stations
⋮	⋮
20	20 stations

Max. 20 stations.

#### Exhaust port type

1	Common exhaust for VO317
2	Common exhaust for VO307
3	Individual exhaust (see table below)

#### A port size (Base mounted)

01	1/8 common exhaust/individual exhaust
02	1/4 individual exhaust

#### Option

F, A Mounting bracket\*  
\* Common exhaust type only.

#### Note)

VO307 manifold valve can be easily converted from N.C. (Normally Closed) to N.O. (Normally Open) merely by turning over the switch cover.

VO317 manifold valve can be easily converted from N.C. (Normally Closed) to N.O. (Normally Open) by rotating the valve 180° on the manifold.

### Manifold Specifications

Manifold type	B mount			
Max. number of stations	20 stations <sup>Note)</sup>			
Applicable solenoid valve	VO307□□□□ / VO317			
Exhaust port		Port location (Direction)/Port size		
Symbol	Type	P	A	R
	Common <sup>(2)</sup>	Base (Side) 1/4 (3/8)	Base (Side) 1/4	Base (Side) 1/4 (3/8)
2	Common	Base (Side) 1/8	Base (Side) 1/8	Base (Side) 1/8
3	Individual	Base (Side) 1/4	Base (Side) 1/8, 1/4	Base (Top) 1/8

### Blanking Plates

Description	Part no.	Applicable to
Blanking plate (With gasket, screw)	DXT060-51-13A	VO307
Blanking plate (With gasket, screw)	DXT060-51-13B	VO307E
Blanking plate (With gasket, screw)	PVT317-53-1A	VT317

### Flow Characteristics/Weight

Valve model	Flow characteristics												Weight Grommet
	1 → 2 (P → A)			2 → 3 (A → R)			3 → 2 (R → A)			2 → 1 (A → P)			
	C [dm <sup>3</sup> /[s·bar]]	b	Cv	C [dm <sup>3</sup> /[s·bar]]	b	Cv	C [dm <sup>3</sup> /[s·bar]]	b	Cv	C [dm <sup>3</sup> /[s·bar]]	b	Cv	
VO307	0.34	0.28	0.089	0.34	0.22	0.082	0.36	0.28	0.091	0.34	0.18	0.080	0.14 kg
VO307E (Continuous duty type)	0.30	0.18	0.070	0.30	0.15	0.072	0.32	0.20	0.075	0.30	0.15	0.069	
VO317													
VO317E (Continuous duty type)	2.0	0.11	0.47	2.2	0.12	0.49	2.0	0.14	0.45	2.1	0.14	0.48	0.32 kg

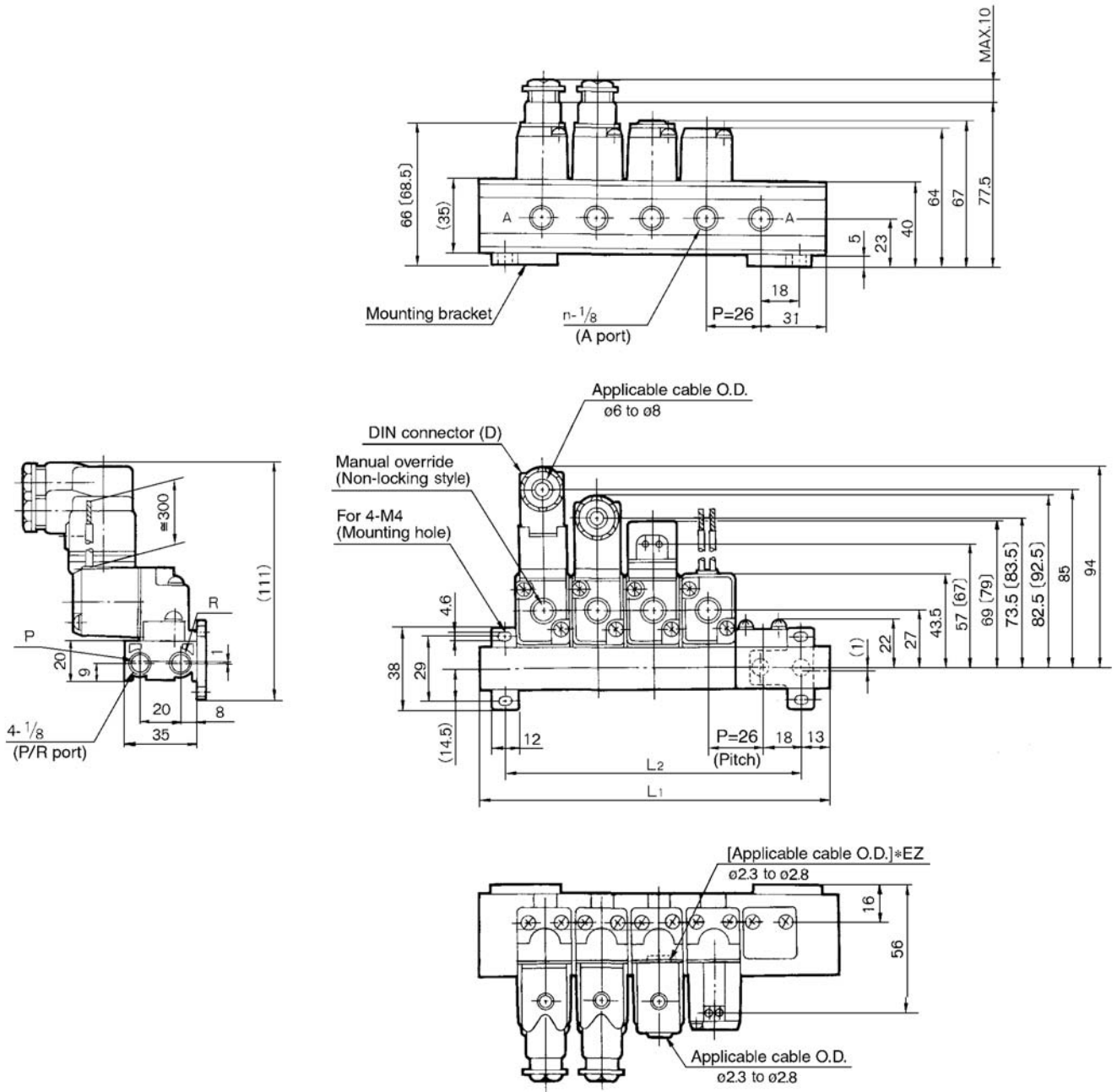


**Dimensions: Common Exhaust**

Note: Grommet, Grommet terminal and conduit terminal valve types shown, are not available in Europe.

VV307-01-□2-01-F

Valves



[ ]: With light/surge voltage suppressor

**L Dimension**

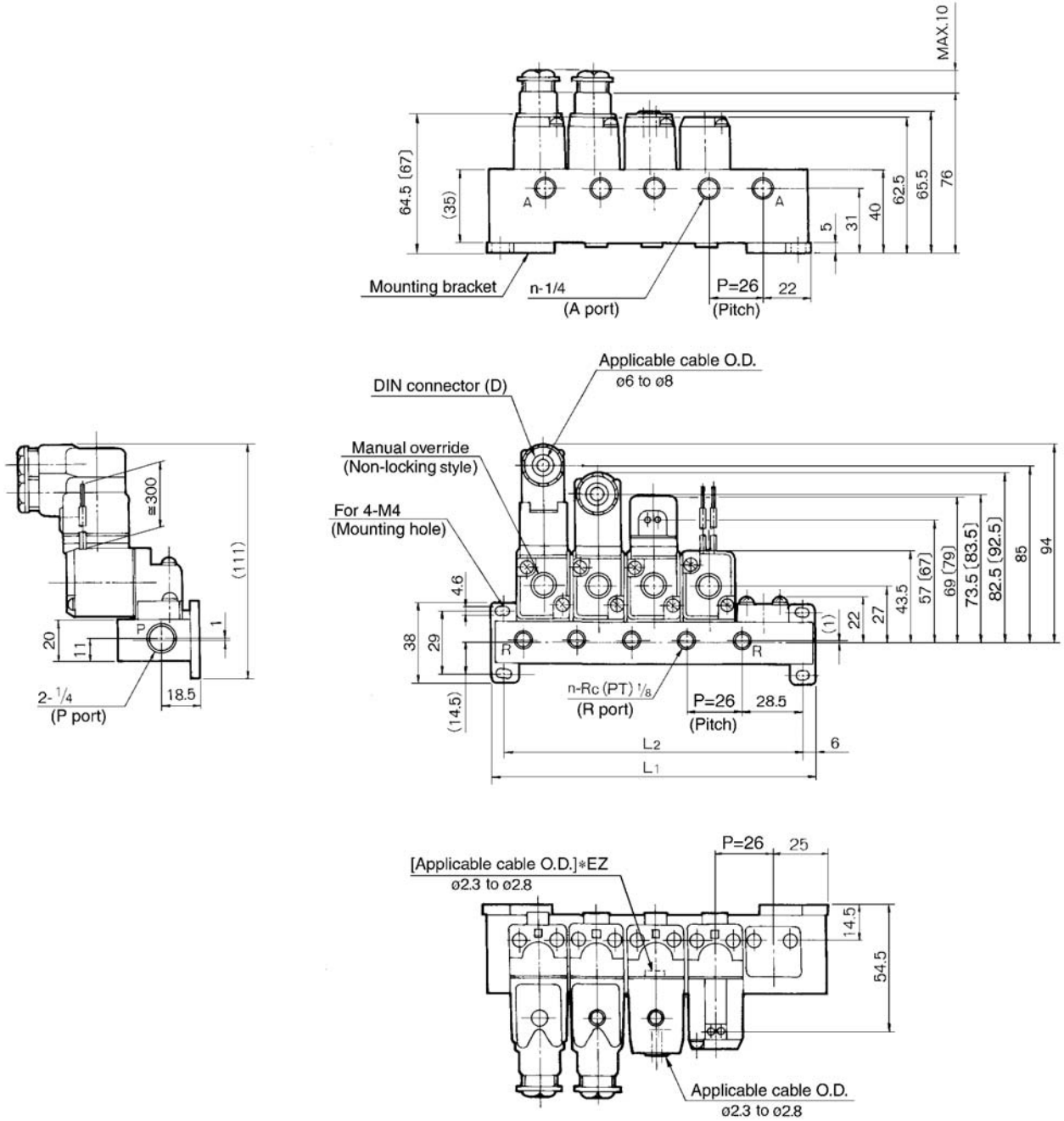
n: Stations

L \ n	2	3	4	5	6	7	8	9	10	Formula
L <sub>1</sub>	88	114	140	166	192	218	244	270	296	L <sub>1</sub> = 26 × n + 36
L <sub>2</sub>	62	88	114	140	166	192	218	244	270	L <sub>2</sub> = 26 × n + 10

## Dimensions: Individual Exhaust

Note: Grommet, Grommet terminal and conduit terminal valve types shown, are not available in Europe.

VV307-01-□3-□-F



[ ]: With light/surge voltage suppressor

### L Dimension

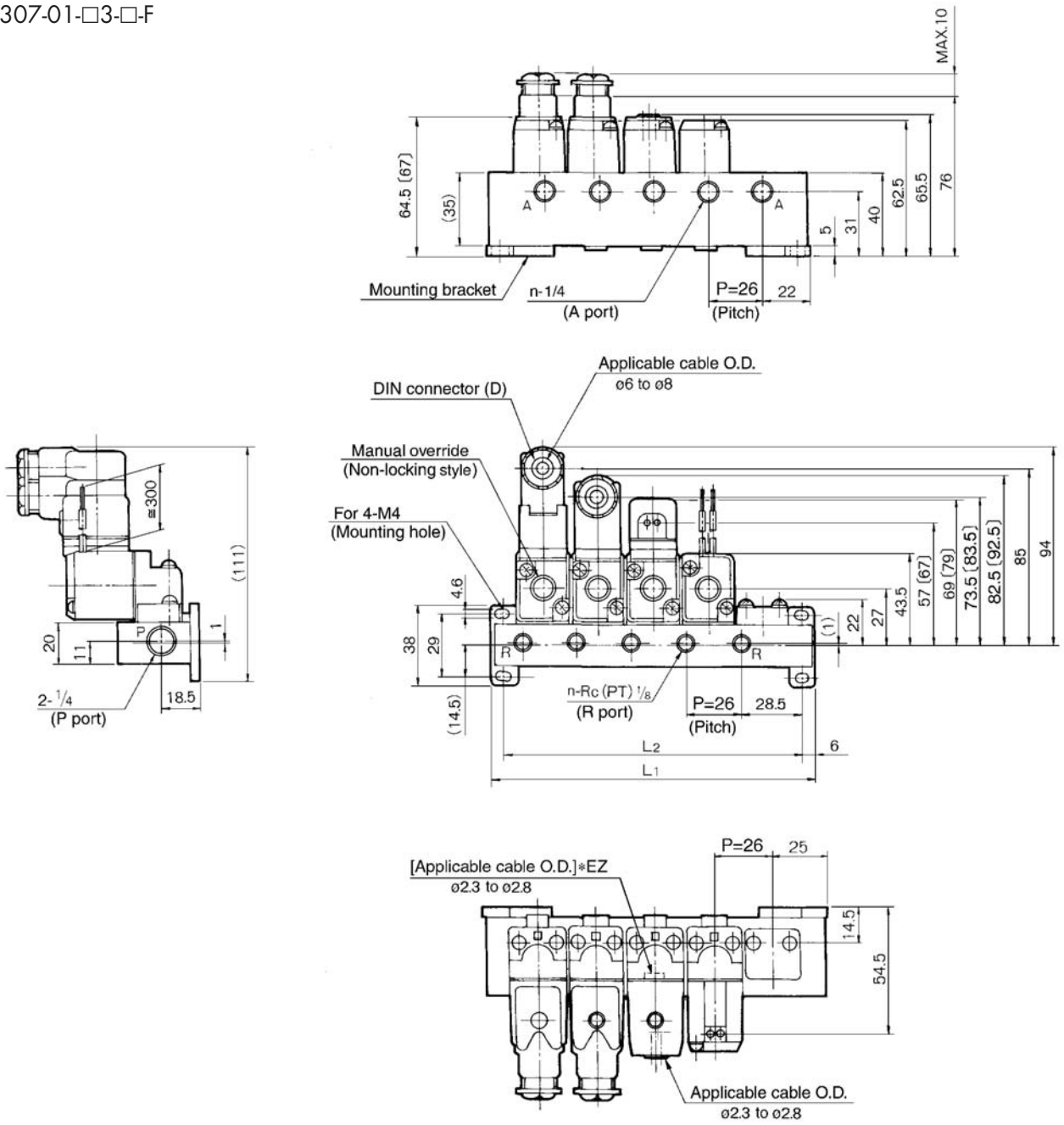
L Stations	n: Stations										Formula
	2	3	4	5	6	7	8	9	10		
L <sub>1</sub>	76	102	128	154	180	206	232	258	284	L <sub>1</sub> = 26 x n + 24	
L <sub>2</sub>	64	90	116	142	168	194	220	246	272	L <sub>2</sub> = 26 x n + 12	

**Dimensions: Individual Exhaust**

Note: Grommet, Grommet terminal and conduit terminal valve types shown, are not available in Europe.

VV307-01-□3-□-F

Valves



[ ]: With light/surge voltage suppressor

**L Dimension**

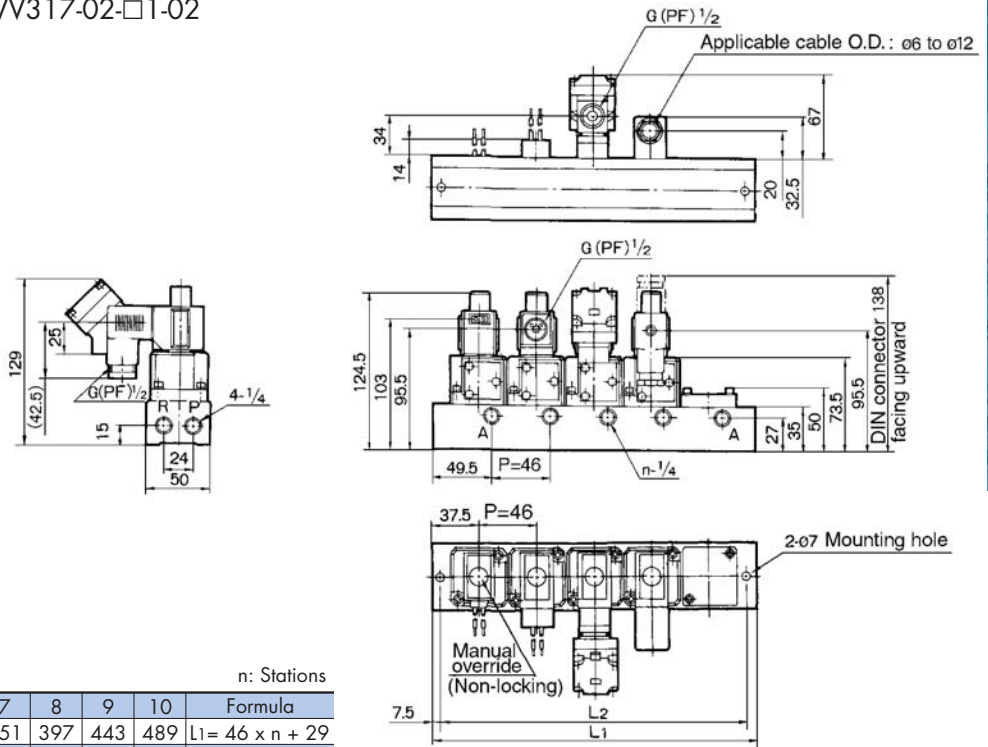
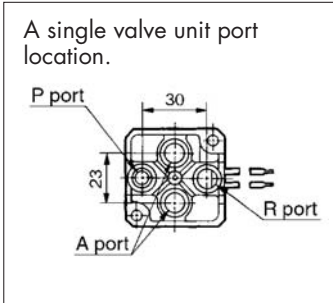
n: Stations

Stations	2	3	4	5	6	7	8	9	10	Formula
L <sub>1</sub>	76	102	128	154	180	206	232	258	284	L <sub>1</sub> = 26 x n + 24
L <sub>2</sub>	64	90	116	142	168	194	220	246	272	L <sub>2</sub> = 26 x n + 12

## Dimensions: Common Exhaust

Note: Grommet, Grommet terminal and conduit terminal valve types shown, are not available in Europe.

Without mounting bracket: VV317-02-□1-02

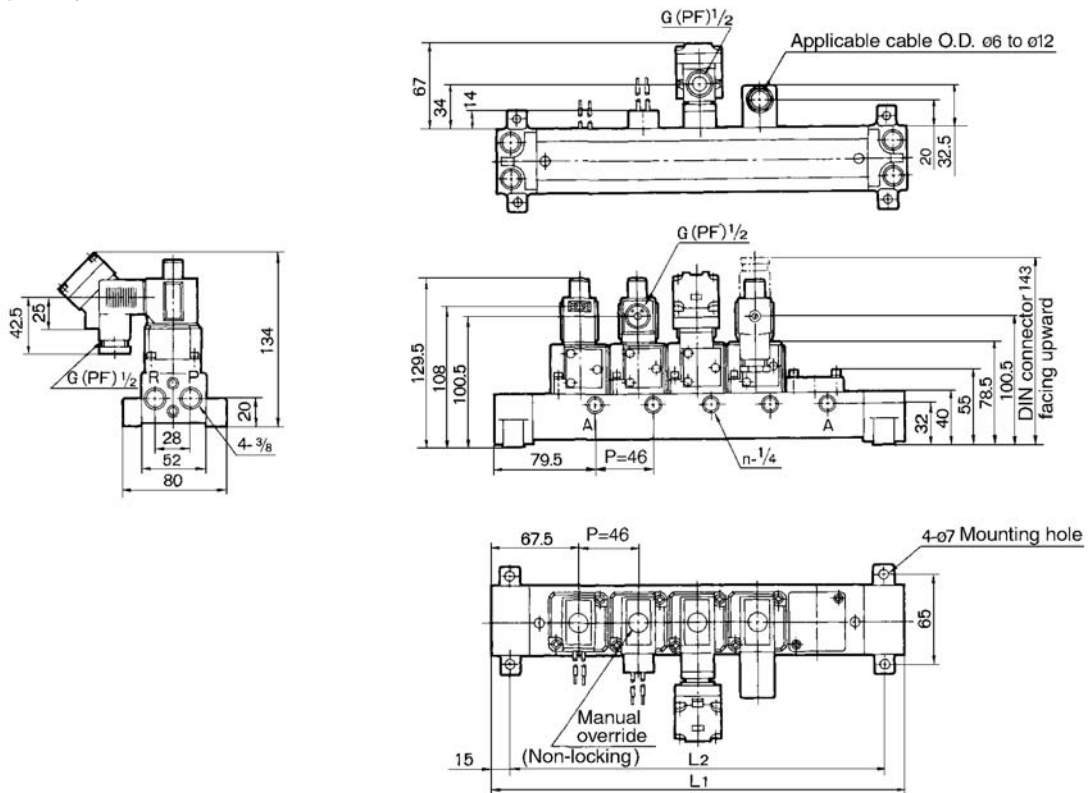


### L Dimension

n: Stations

Stations	2	3	4	5	6	7	8	9	10	Formula
L <sub>1</sub>	121	167	213	259	305	351	397	443	489	L <sub>1</sub> = 46 x n + 29
L <sub>2</sub>	106	152	198	244	290	336	382	428	474	L <sub>2</sub> = 46 x n + 14

With mounting adaptor: VV317-02-□1-02-A



### L Dimension

n: Stations

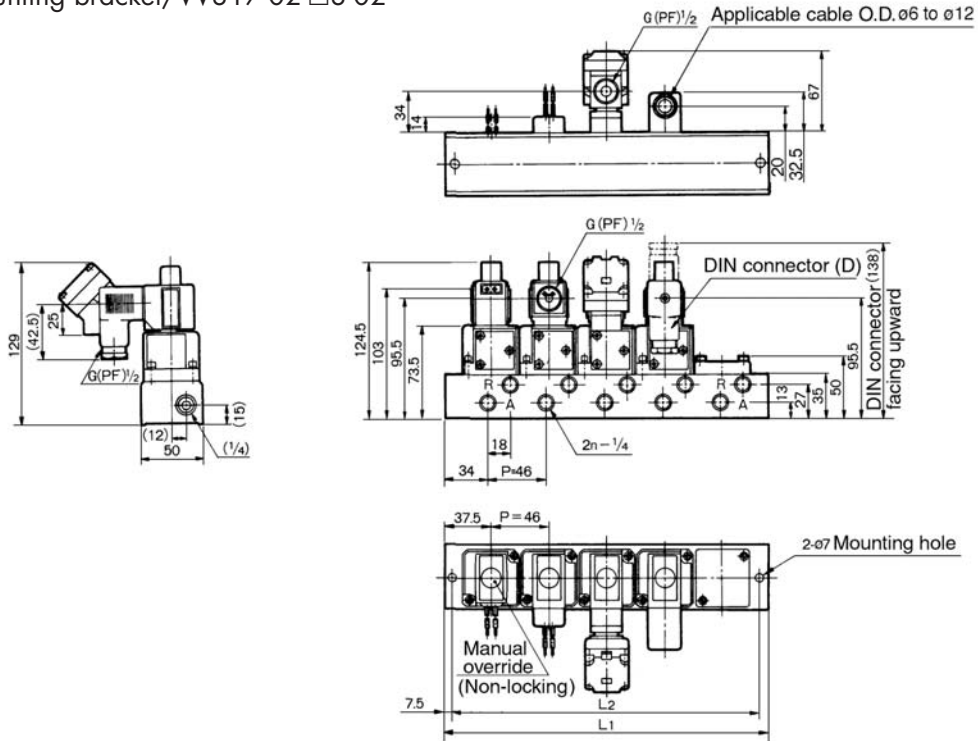
Stations	2	3	4	5	6	7	8	9	10	Formula
L <sub>1</sub>	181	227	273	319	365	411	457	503	549	L <sub>1</sub> = 46 x n + 89
L <sub>2</sub>	151	197	243	289	335	381	427	473	519	L <sub>2</sub> = 46 x n + 59



**Dimensions: Individual Exhaust**

Note: Grommet, Grommet terminal and conduit terminal valve types shown, are not available in Europe.

Without mounting bracket/VV317-02-□3-02



**L Dimension**

n: Stations

L Stations	2	3	4	5	6	7	8	9	10	Formula
L <sub>1</sub>	121	167	213	259	305	351	397	443	489	L <sub>1</sub> = 46 x n + 29
L <sub>2</sub>	106	152	198	244	290	336	382	428	474	L <sub>2</sub> = 46 x n + 14