

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

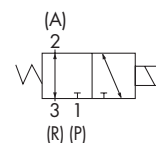
Port size

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

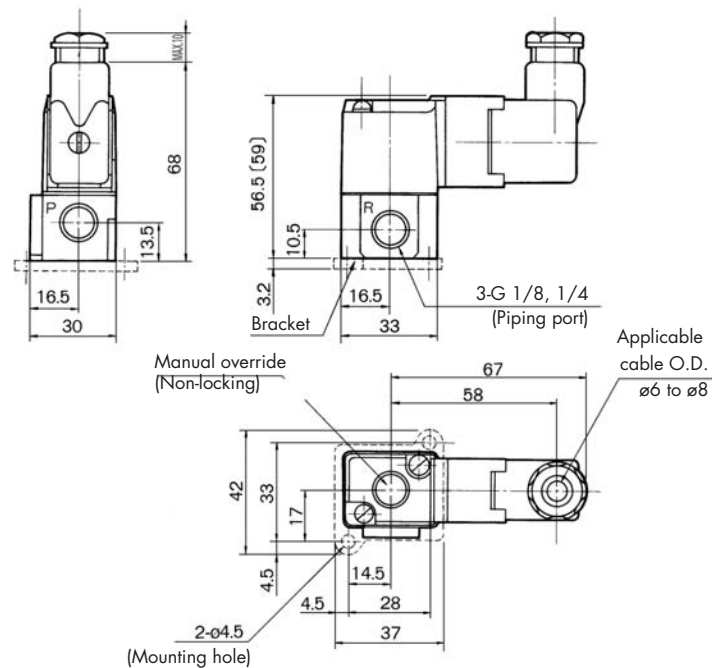
Valve model	Port size	Flow characteristics												Weight
		1 → 2 (P → A)			2 → 3 (A → R)			3 → 2 (R → A)			2 → 1 (A → P)			
		C [dm³/(sbar)]	b	Cv	C [dm³/(sbar)]	b	Cv	C [dm³/(sbar)]	b	Cv	C [dm³/(sbar)]	b	Cv	
EVT307	1/8	0.71	0.35	0.18	0.68	0.27	0.17	0.65	0.36	0.17	0.63	0.35	0.17	0.14 kg
EVT307E (Continuous 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 [dm³/(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv	C [dm³/(s·bar)]	b	Cv	C [dm³/(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)													

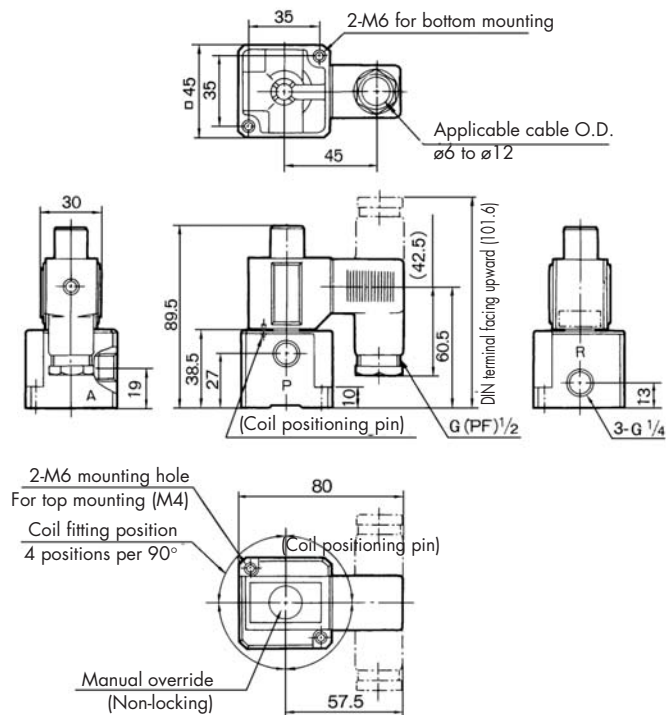
Note) Values for a single valve unit. It differs in the manifold case. Refer to manifold specifications.

Dimensions: EVT307-□D



[]: With light/surge voltage suppressor

Dimensions: EVT317-□D



Manifold Specifications

Series **VO307/VO317**



EVV307-01-052-F



EVV307-01-063-□-F



EVV317-02-051-02



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.

Option

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

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

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 ^{Note)}		
Applicable solenoid valve		VO307□□□□ / VO317		
Exhaust port		Port location (Direction)/Port size		
Symbol	Type	P	A	R
	Common ⁽²⁾	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
	1 → 2 (P → A)			2 → 3 (A → R)			3 → 2 (R → A)			2 → 1 (A → P)			
	C [dm³/[s·bar]]	b	Cv	C [dm³/[s·bar]]	b	Cv	C [dm³/[s·bar]]	b	Cv	C [dm³/[s·bar]]	b	Cv	Grommet
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



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

Valves



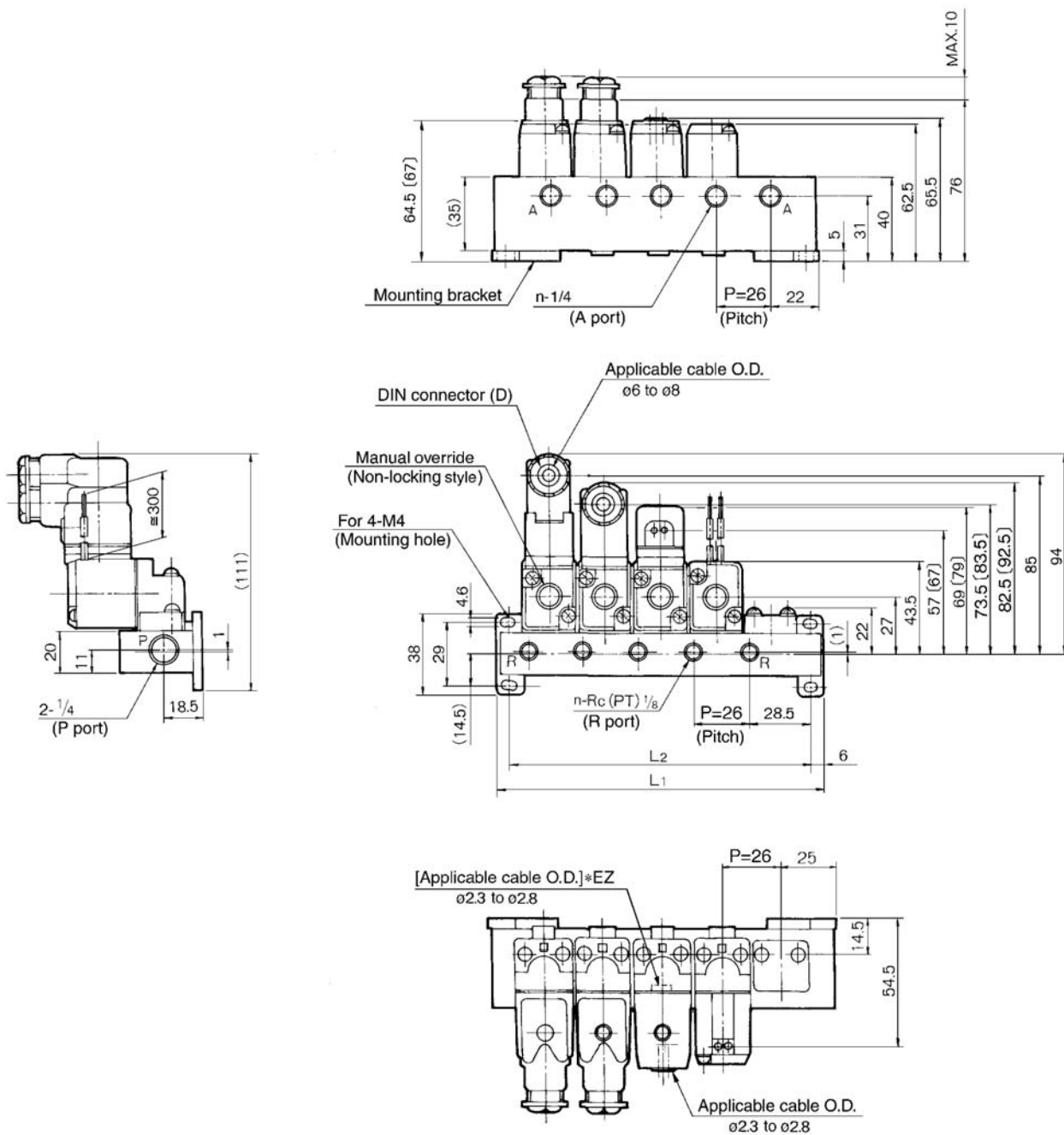
[]: With light/surge voltage suppressor

L Dimension										n: Stations
L \ n	2	3	4	5	6	7	8	9	10	Formula
L ₁	88	114	140	166	192	218	244	270	296	$L_1 = 26 \times n + 36$
L ₂	62	88	114	140	166	192	218	244	270	$L_2 = 26 \times n + 10$

Dimensions: Individual Exhaust

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

VV307-01-□3-□-F



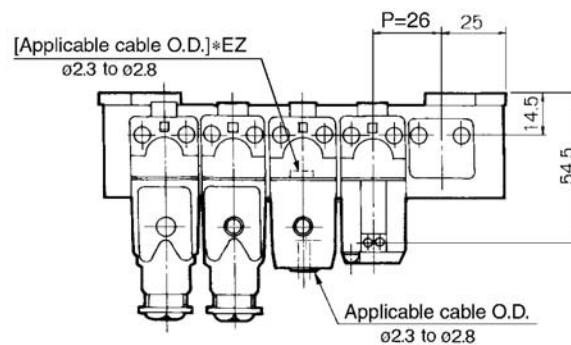
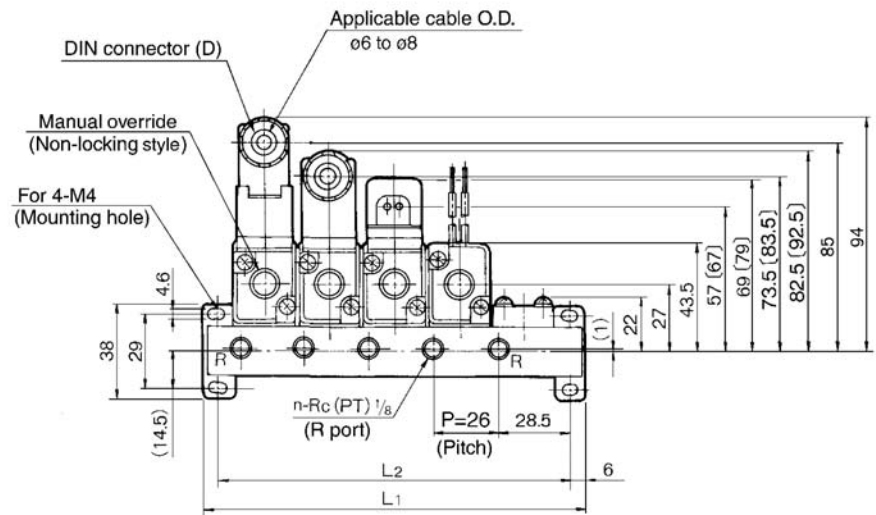
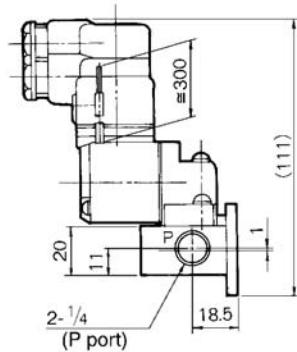
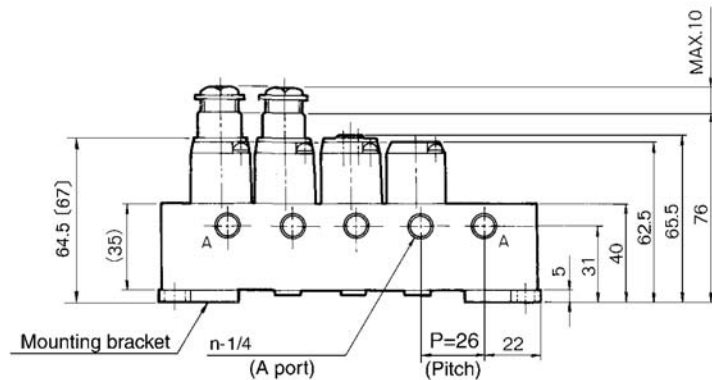
[]: With light/surge voltage suppressor

L Dimension

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

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

VV307-01-□3-□-F



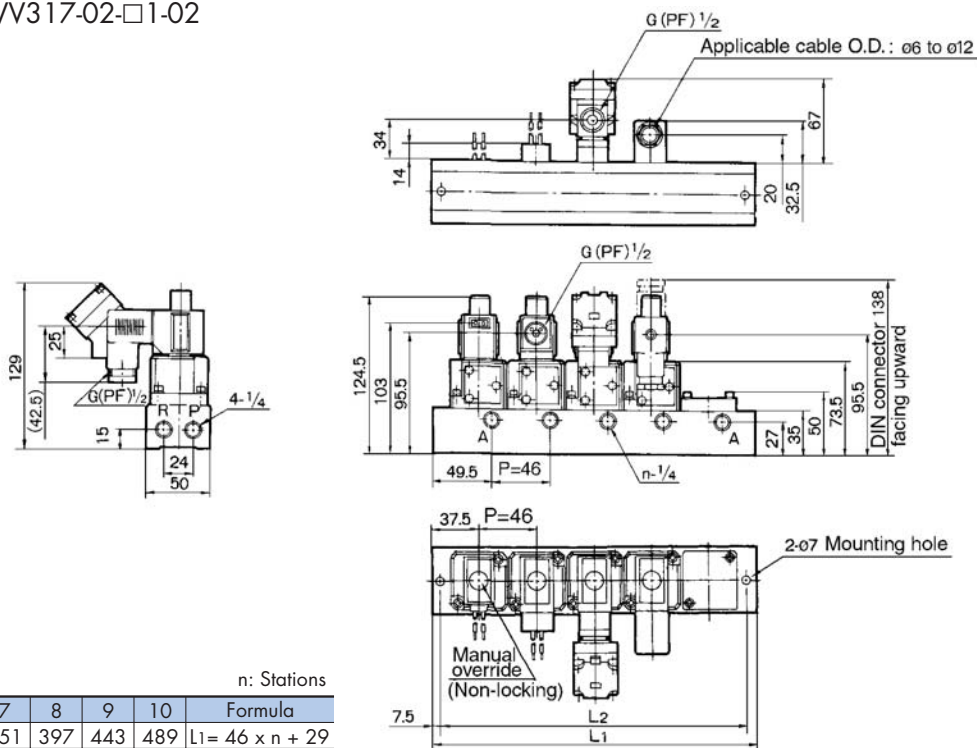
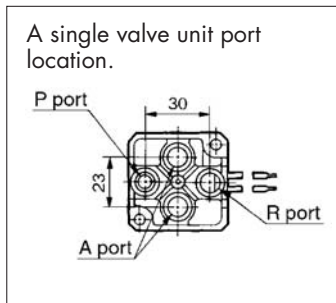
[]: With light/surge voltage suppressor

L Dimension										n: Stations
Stations	2	3	4	5	6	7	8	9	10	Formula
L ₁	76	102	128	154	180	206	232	258	284	$L_1 = 26 \times n + 24$
L ₂	64	90	116	142	168	194	220	246	272	$L_2 = 26 \times n + 12$

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

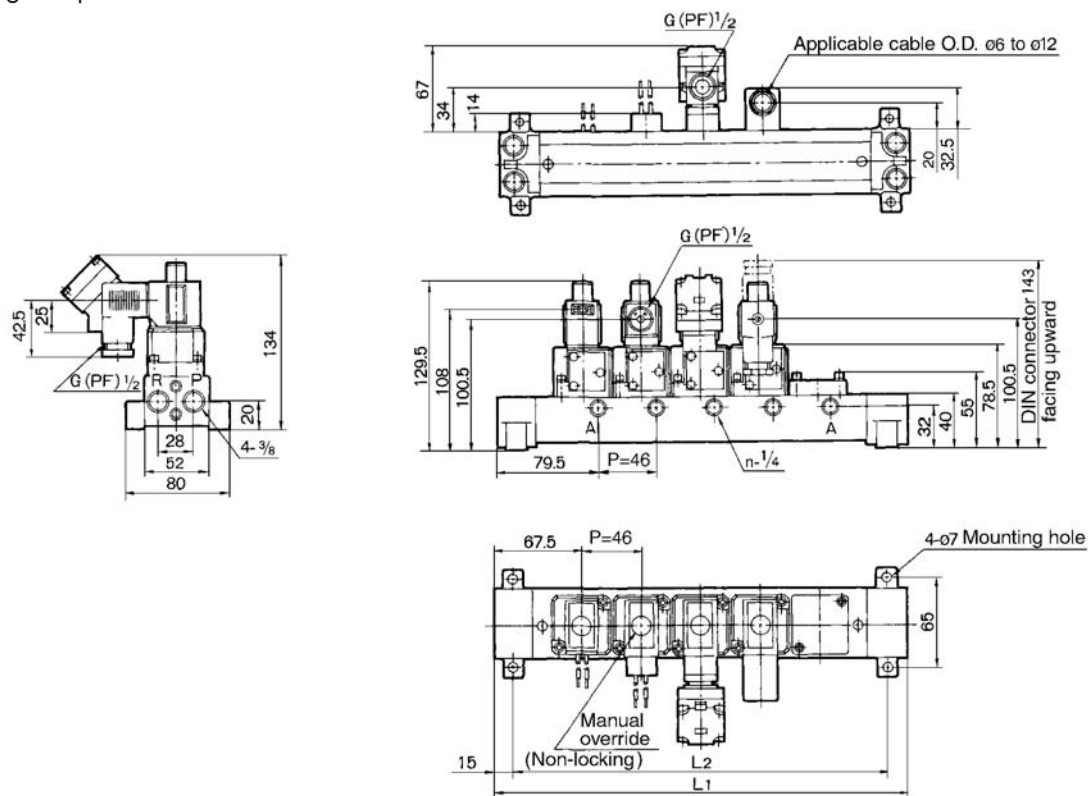


L Dimension

n: Stations

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

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



L Dimension

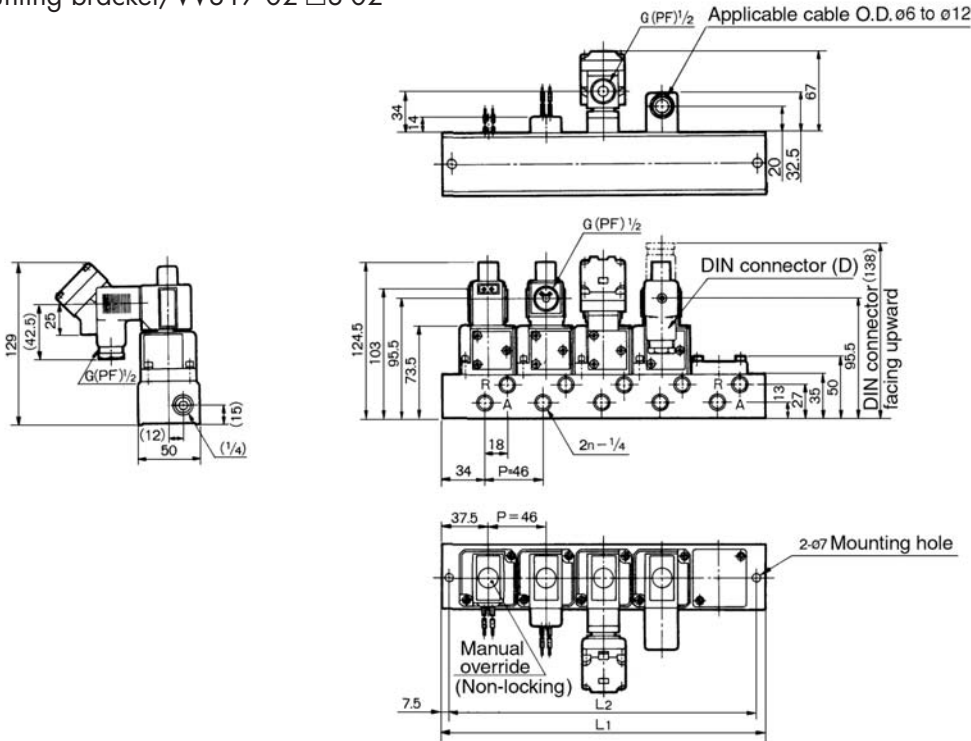
n: Stations

Stations	2	3	4	5	6	7	8	9	10	Formula
L ₁	181	227	273	319	365	411	457	503	549	L ₁ = 46 x n + 89
L ₂	151	197	243	289	335	381	427	473	519	L ₂ = 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	2	3	4	5	6	7	8	9	10	Formula
L1	121	167	213	259	305	351	397	443	489	$L1 = 46 \times n + 29$
L2	106	152	198	244	290	336	382	428	474	$L2 = 46 \times n + 14$