

Direct Operated 2 Port Solenoid Valve For Air

Series VCA

How to Order Valves (Single Unit)

VC A 2 1 1 G 3 02

For air

Series

2	Class 2
3	Class 3
4	Class 4

Valve type

Fluid

Nil	General air
A	Dry air

Voltage

1	100 VAC
2	200 VAC
3	110 VAC
4	220 VAC
5	24 VDC
6	12 VDC
36	230 VAC

* Please consult with SMC regarding other voltages.

Electrical entry

G – Grommet	C – Conduit
T – Conduit terminal TL – Conduit terminal with indicator light	D – DIN terminal DL – DIN terminal with indicator light DO – DIN terminal (without connector)

Option

Nil	None
F	Foot type bracket

* When a bracket is separately required, refer to Table 2 given below.

Thread type (for single unit only)

Nil	Rc
F	G
N	NPT
T	NPTF

Port size

Symbol	Port size	Class 2	Class 3	Class 4
02	1/4 (8A)	○	○	—
03	3/8(10A)	—	○	○
04	1/2(15A)	—	—	○
06	3/4(20A)	—	—	○

Orifice size

Symbol	Orifice size (mmø)	Class 2	Class 3	Class 4
3	3	○	—	—
4	4	—	○	—
5	5	○	—	○
7	7	—	○	○
10	10	—	—	○

* Refer to the below table for orifice and port size combinations.

Manual override

Nil	None
B	Slotted locking type (Tool required)

Table (1) Orifice and Port Size Combinations

Class	Port size	Orifice size (mmø)				
		3	4	5	7	10
2	1/4 (8A)	●	—	●	—	—
	3/8 (10A)	—	●	—	●	—
3	3/8 (10A)	—	—	●	●	●
	1/2 (15A)	—	—	●	●	●
4	1/2 (15A)	—	—	—	—	●
	3/4 (20A)	—	—	—	—	●

Table (2) Bracket Assembly Part No.

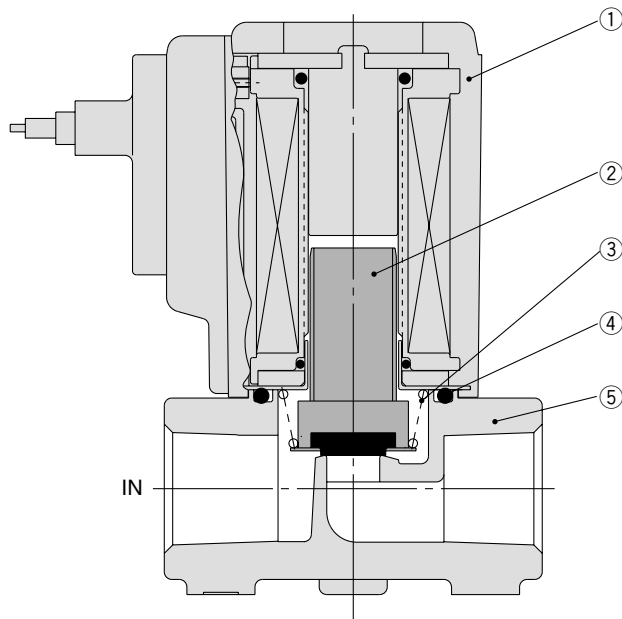
Valve model	Bracket assembly part no.
VCA21	VCA20-12-1A
VCA31	VCA30-12-1A
VCA41	VCA40-12-1A

* Mounting screws (2 pcs.)

* All types are equipped with surge voltage suppressor.

Series VCA

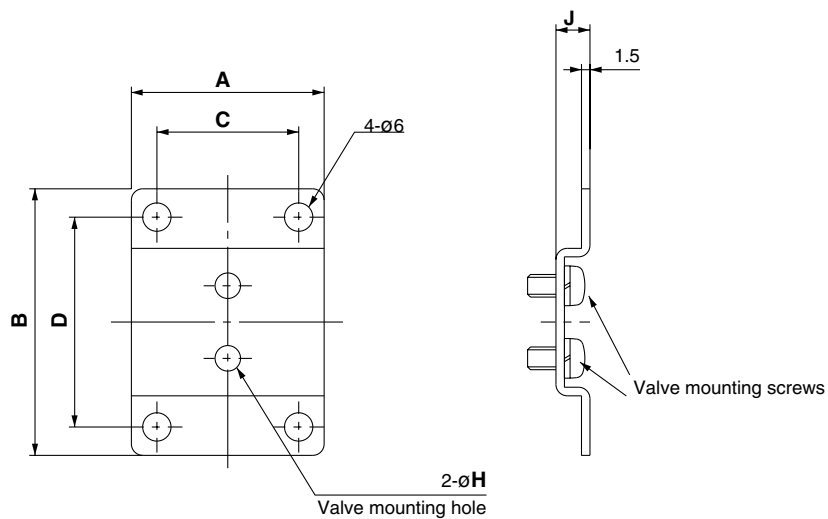
Construction



Component Parts

No.	Description	Material
①	Solenoid coil	—
②	Armature assembly	Stainless steel, HNBR, PPS
③	Return spring	Stainless steel
④	O-ring	HNBR
⑤	Body	Aluminum

Bracket Assembly Dimensions



Bracket Mounting Dimensions/Bracket Material: Stainless Steel (mm)

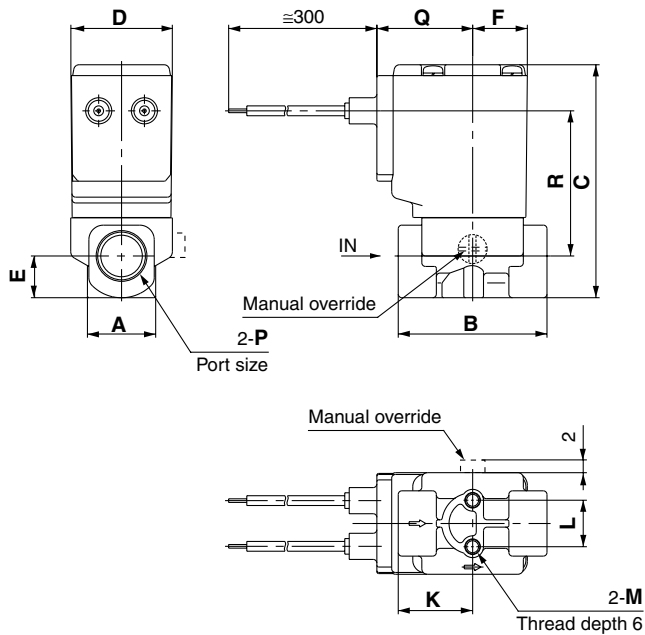
Assembly part no.	A	B	C	D	H	J
VCA20-12-1A	41	52	30	40	4.5	6
VCA30-12-1A	48	56	36	44	5.5	7
VCA40-12-1A	50	62	38	50	5.5	7

* 2 mounting screws (for mounting brackets) are included in bracket part no.

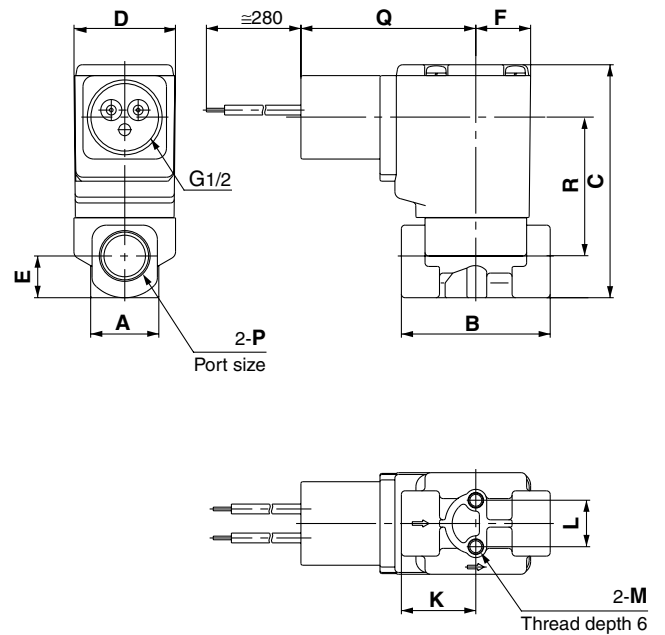
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Dimensions

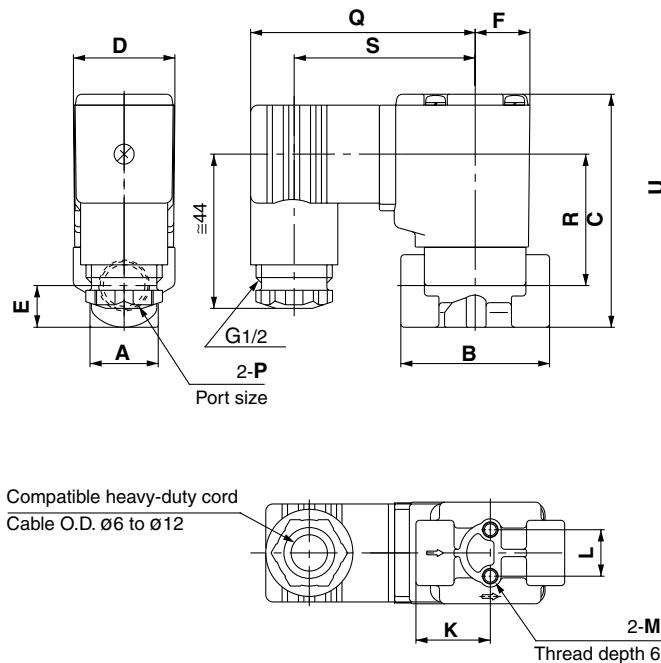
Grommet: G



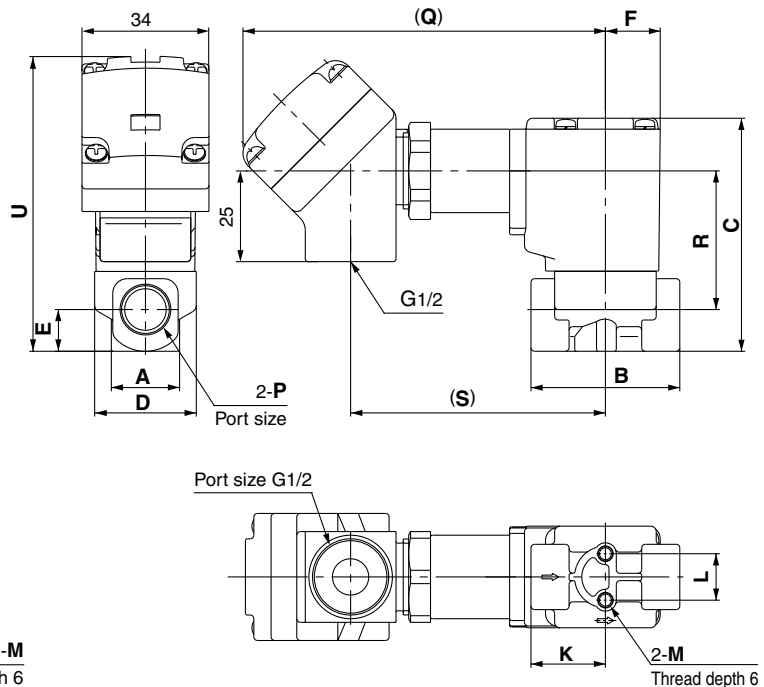
Conduit: C



DIN terminal: D



Conduit terminal: T



- VC□
- VDW
- VQ
- VX2
- VX□
- VX3
- VXA
- VN□
- LVC
- LVA
- LVH
- LVD
- LVQ
- LQ
- LVN
- TI/
TIL
- PA
- PAX
- PB

Model	P Port size	A	B	C	D	E	F	K	L	M	Electrical entry										
											Grommet: G		Conduit: C		DIN terminal: D			Conduit terminal: T			
											Q	R	Q	R	Q	R	S	Q	R	S	U
VCA21	1/4	18	41	64	28	11.5	15	20.5	12.8	M4	27	40	46	36	63	35	51	98	36	68	81
VCA31	1/4, 3/8	24	50	76	34	14	17	25	19	M5	30	48	50	44	66	42	54	101	44	71	91.5
VCA41	3/8, 1/2	30	60	86	40	15	20	30	23	M5	32	56	52	53	69	51	57	104	53	74	101
	3/4	35	68	91	40	17.5	20	34	23	M5	32	58.5	52	55.5	69	53.5	57	104	55.5	74	103.5