

Compact Proportional Solenoid Valve Series *PVQ30*



How to Order

Body ported

PVQ 31-5 G-16-01

Base mounted

PVQ 33-5 G-16-01



Valve type
31 N.C.

Port size
01 1/8 (6A)

Option

Nil	None
F	Foot bracket

* Bracket is not mounted but is provided at the time of shipment.

Valve type
33 N.C.

Voltage

5	24 VDC
6	12 VDC

Electrical entry: Grommet

Body / Seal material

Symbol	Body	Seal
Nil	C37	FKM
H	Stainless steel	FKM

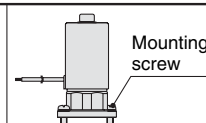
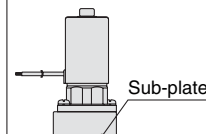
Thread type (with sub-plate)

Nil	Rc
F	G
N	NPT
T	NPTF

Orifice size

Symbol	Orifice dia.	Max. operating pressure
16	1.6 mmø	0.7 MPa
23	2.3 mmø	0.35 MPa
40	4 mmø	0.12 MPa

Port size

Nil	Without sub-plate (with mounting screw M3 x 8L, 2 pcs.)	
01	With sub-plate 1/8 (6A)	

Specifications

Standard specifications	Valve construction	Direct operated poppet	
	Fluid	Air, Inert gas	
	Seal material	FKM	
	Body material	C37 (Standard), Stainless steel	
	Fluid temperature	0 to +50C	
	Ambient temperature	0 to +50C	
	Action	N.C. (Normally closed)	
	Mounting orientation	Unrestricted	
	Enclosure	IP40	
	Port size	Rc 1/8	
Coil specifications	Power supply	24 VDC	12 VDC
	Coil current	0 to 165 mA	0 to 330 mA
	Power consumption	0 to 4 W	
	Coil insulation	Class B	

Note 1) Maximum operating pressure differential indicates pressure differential (difference between inlet and outlet pressure) which can be allowed for operation with the valve closed or open. If the pressure differential exceeds the max. operating pressure differential of orifice, the valve may leak.

Note 2) For vacuum application, max. operating pressure range is 0.1 Pa.abs to max. operating pressure differential. A (2) port is applicable for vacuum pressure.

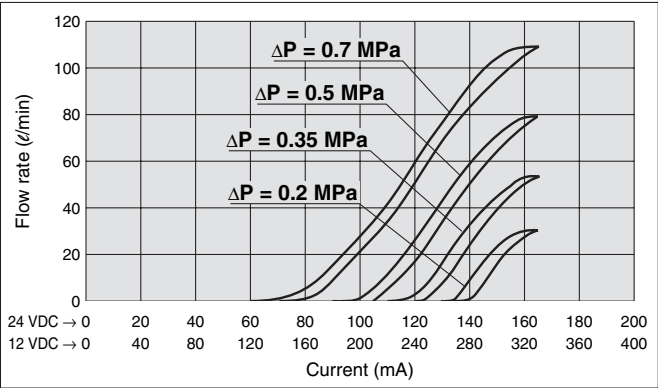
Characteristic specifications	Orifice diameter (mmø)	1.6	2.3	4.0
	Max. operating pressure differential (MPa) ^{Note 1)}	0.7	0.35	0.12
	Max. operating pressure (MPa)	1 MPa		
	Min. operating pressure (MPa) (Vacuum) ^{Note 2)}	0 (0.1 Pa.abs)		
	Flow rate (l/min) (at max. operating pressure differential)	0 to 100		0 to 75
	Hysteresis (at max. operating pressure differential)	10% or less		13% or less
	Repeatability (at max. operating pressure differential)	3% or less		
	Start-up current (at max. operating pressure differential)	50% or less		

Series PVQ10

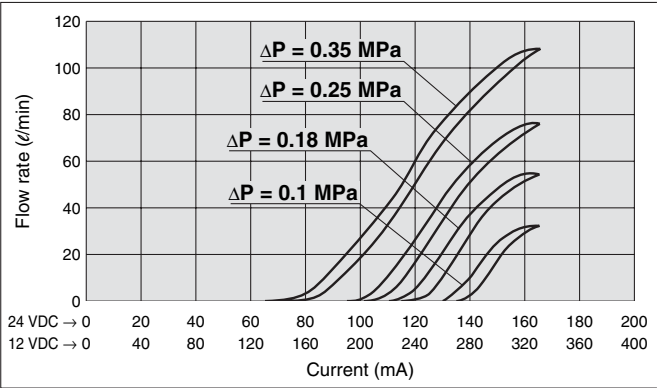
Flow Characteristics

Air

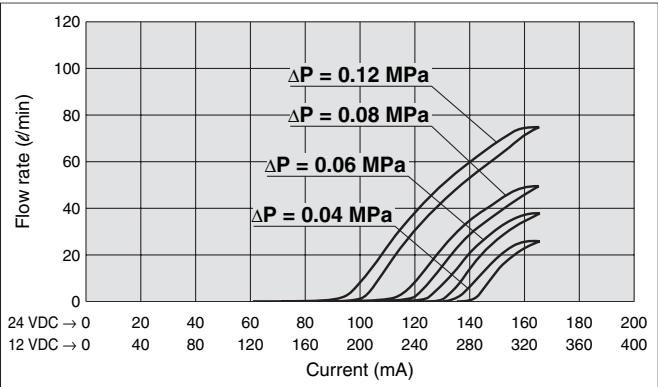
PVQ30 (ø1.6)



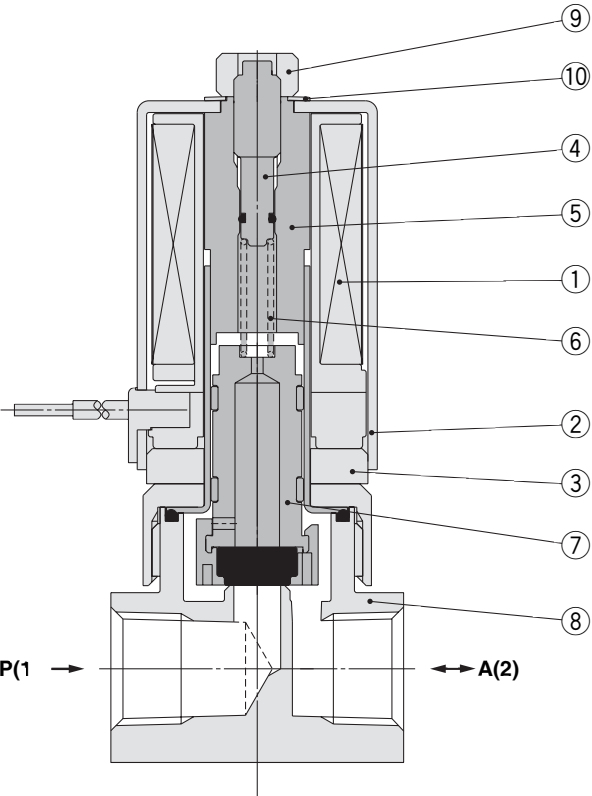
PVQ30 (ø2.3)



PVQ30 (ø4.0)



Construction



Component Parts

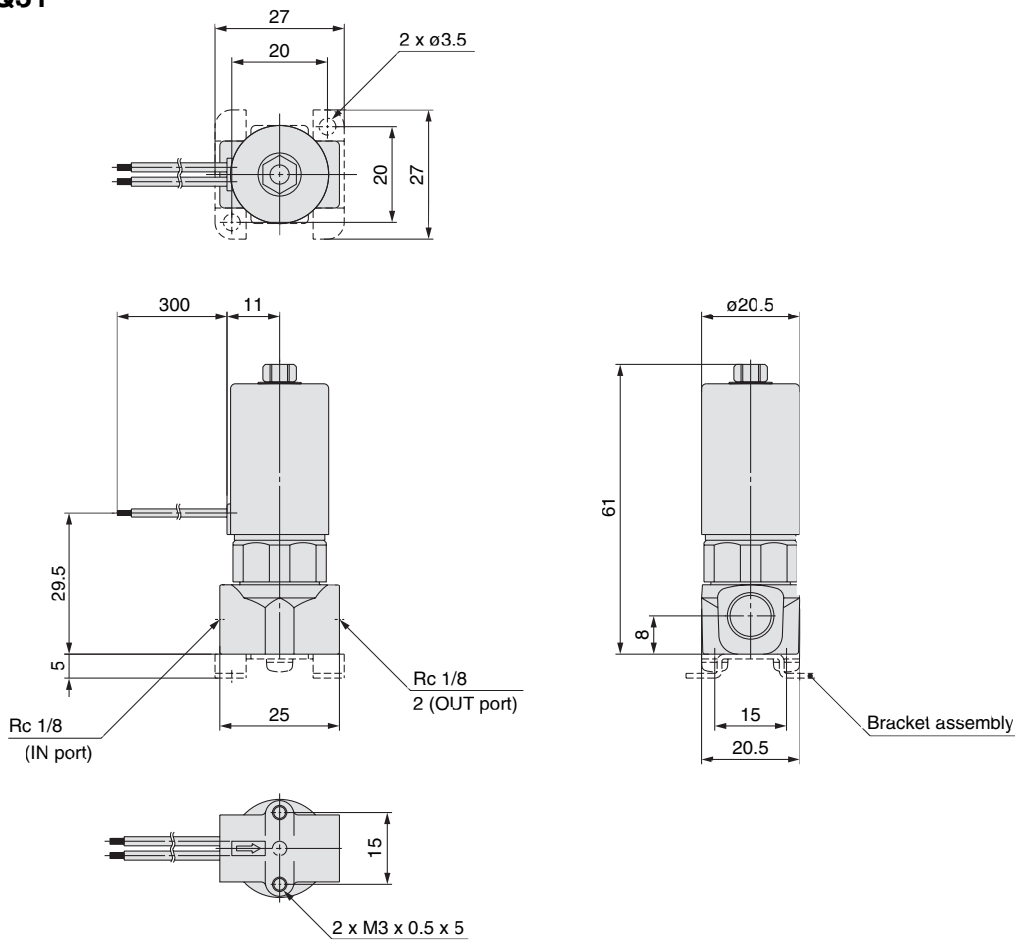
No.	Description	Material	Note
	Solenoid coil assembly	—	
2	Coil cover	SPCE	
3	Magnetic plate	SUY	
4	Adjusting screw	Stainless steel	
5	Tube assembly	Stainless steel	
6	Return spring	Stainless steel	
7	Armature assembly	Stainless steel, PPS, PTFE, FKM	
8	Body	C37 or Stainless steel	
9	Nut	Steel	
10	Wave washer	Stainless steel	
	Round head combination screw	Copper	M3 x 0.5 x 8L, 2 pcs.
12	Sub-plate	C37	Part no. PVQ30-5-0 □
13	O-ring	FKM	
4	O-ring	FKM	

Option (Body ported only)

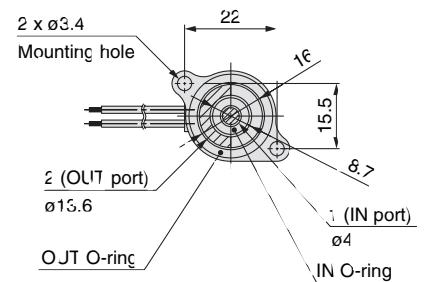
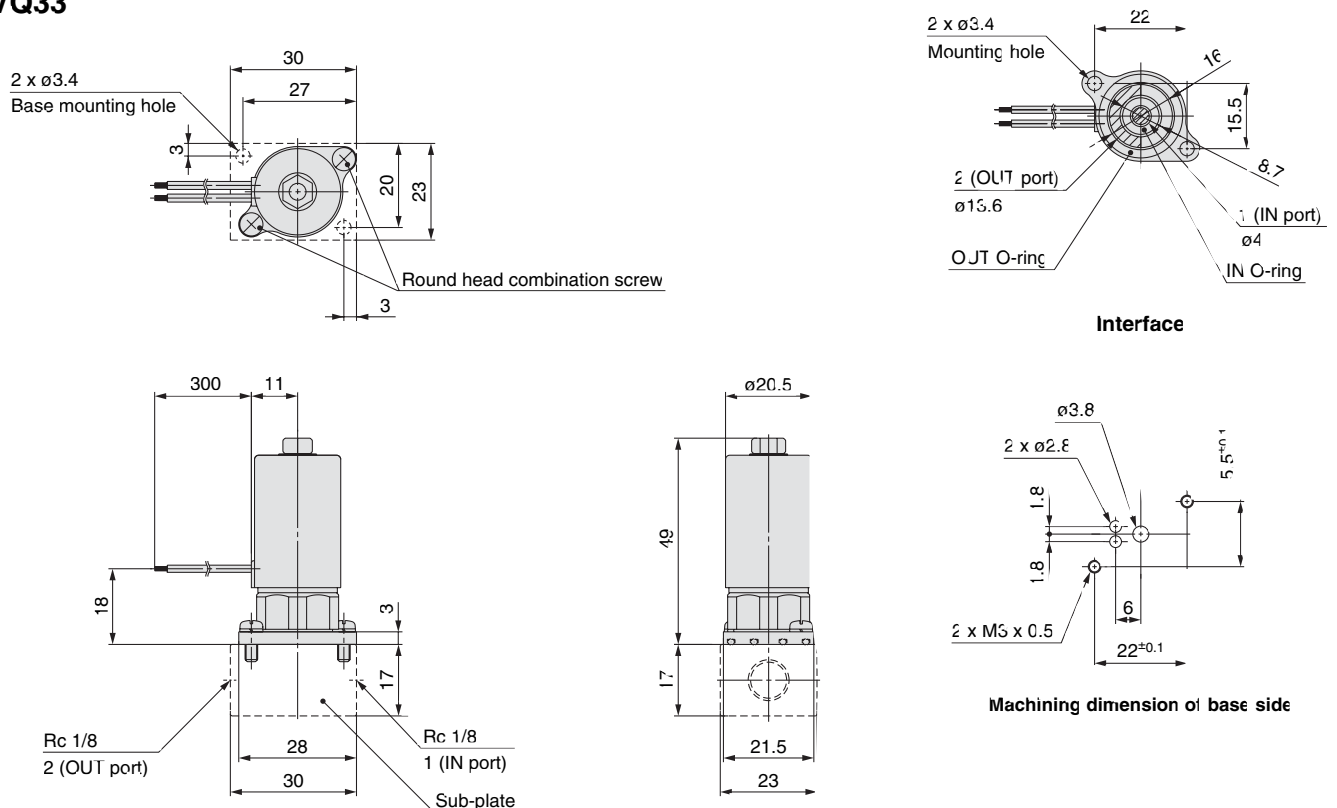
• Bracket assembly: VDW20-15A-1

Dimensions

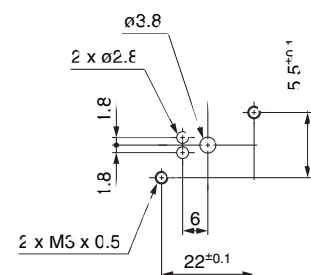
PVQ31



PVQ33



Interface



Machining dimension of base side