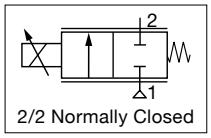
ASCO™ Miniature Solenoid Valves

Proportional Valves | PRECIFLOW 12.7 mm

Series 202

- Preciflow solenoid valves are designed to proportionally control the flow of air and inert gases by varying the electrical input signal to the coil
- Low hysteresis (typ. < 5%), excellent repeatability (typ. < 1%), and high sensitivity (typ. < 0.1%) make these valves ideal for high precision flow control
- Compact frictionless architecture saves valuable space in analytical and medical instrumentation
- Valves do not require a minimum operating pressure, and are well-suited for vacuum operation
- Power consumption as low as 1 W to meet the most stringent instrument power requirements
- Meets all relevant CE directives, and is RoHS compliant
- Typical applications include:
  - Gas Chromatography
  - Mass Flow Controllers
  - Dental Equipment
  - Blood Pressure Monitoring

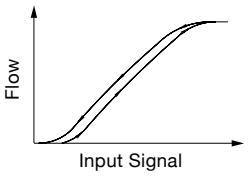


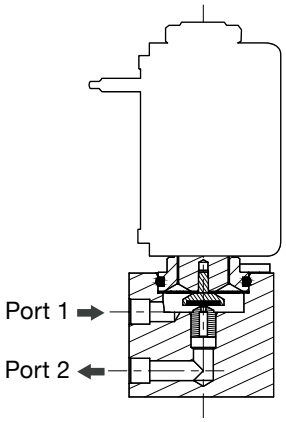
Fluids*	Temperature Range	Seal Materials*
Air, Oxygen, Inert Gas[1]	0 °C to 55 °C (32 °F to 131 °F)	FKM/FFKM

* Ensure that the compatibility of the materials in contact with the fluids is verified.

General Valve Information	
Body	Brass
Others	Stainless Steel
Filtration (available as options)	15 Micron

Electrical Characteristics	
Coil Insulation Class	F
Connector	Lead Wires 24 AWG; L = 500mm (19.7in)
Electrical Safety	IEC 335
Electrical Enclosure Protection	IP50
Standard Voltages	6 VDC, 12 VDC, 24 VDC
Input Signal	0-6 VDC, 0-12 VDC, 0-24 VDC Pulse-width Modulation (> 1000Hz), Current control recommended
Flow Regulation Characteristics	Hysteresis typ. 5%; Repeatability typ. 1%; Sensitivity typ. 0.1%





Voltage	Max. Operating Current	Power Ratings				Ambient Temperature Ranges
		Inrush	Holding		Hot/Cold	
V	mA	VA	VA	W	W	°C (°F)
6	170	-	-	-	1	0 to 55 (32 to 131)
	420				2.5	
12	85				1	
	210				2.5	
24	45				1	
	110				2.5	

Specifications						
Orifice Size	Flow Coefficient		Operating Pressure bar (psi)		Power Rating	Catalog Number
mm (inches)	Kv (m3/h)	Cv	min.	max.	W	pad mount version
0.045 (0.0018)	0.00006	0.00007	-0.9 (-13)	10 (145)	1	R202A540L0xxxxx
0.07 (0.0023)	0.00012	0.00014	-0.9 (-13)	10 (145)	1	R202A541L0xxxxx
0.1 (0.0040)	0.0003	0.00035	-0.9 (-13)	10 (145)	1	R202A542L0xxxxx
0.2 (0.0079)	0.0012	0.0014	-0.9 (-13)	10 (145)	1	R202A543L0xxxxx
0.4 (0.0157)	0.0048	0.0055	-0.9 (-13)	10 (145)	2.5	R202A544L0xxxxx
0.6 (0.0236)	0.0096	0.0111	-0.9 (-13)	10 (145)	2.5	R202A545L0xxxxx
0.8 (0.0315)	0.018	0.0208	-0.9 (-13)	10 (145)	2.5	R202A546L0xxxxx

* Specifications based on valve without inlet/outlet filter

How to Order

R202A540 L0 X XX XX

Catalog Number
(see Specifications table)

Electrical Connection

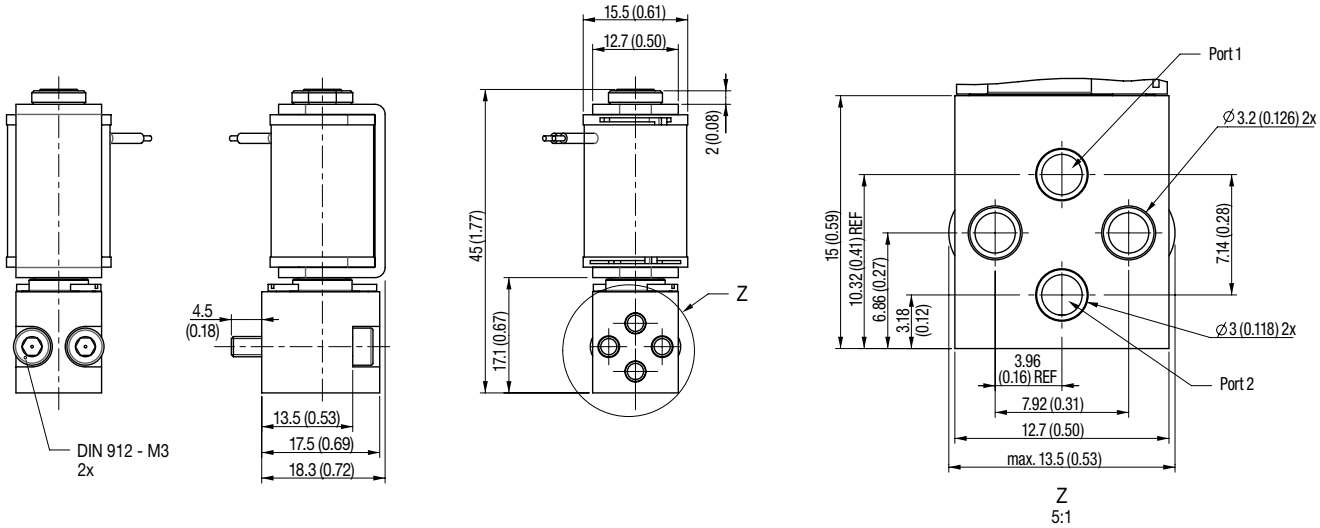
Seal Materials
V = FKM
1 = FFKM

Voltage
F1 = 24 VDC
F3 = 12 VDC
E7 = 6 VDC

Options
00 = no option
70 = Inlet filter
77 = Inlet and outlet filter

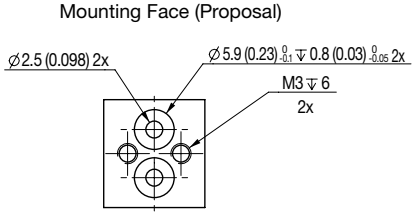
Ordering Example: **R202A542L0V00F1** = 2-way NC (normally closed), orifice size 0.1mm (0.004in), with lead wires L=500mm, FKM seal, 24 VDC

Dimensions: mm (inches)

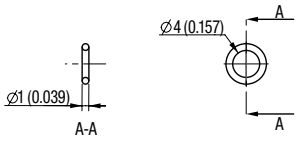


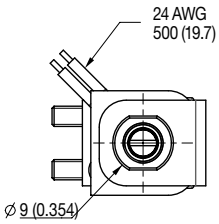
Mounting Pattern

Mounting Face (Proposal)



Sealing
(optional)





Options

- Digital control module Control^{D} for DIN EN 50022 rail mounting (for more information see specifications on page 185)
- Other materials and voltages available on request
- Low Temperature option available
- Sealing FKM: 514684-001, FFKM: 514684-002 (minimum order quantity required)
- Subbase with M5 connections and O-ring seals available:
  - 517973-001 --> Subbase with FKM O-rings
  - 517973-002 --> Subbase with FFKM O-Rings

Installation

- The solenoid valves can be mounted in any position without affecting operation
- Manifold and O-Rings not included

01062GB-2019-R01