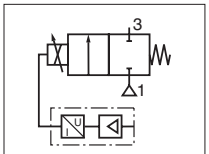
SERIES
068

FLAPPER PROPORTIONAL FLUID ISOLATION VALVES

- Flapper proportional valves are designed to proportionally control the flow of neutral and aggressive liquids and gases by varying the electrical input signal to the coil
- Special Flapper mechanism results in no pumping or sticking effects
- Reduced heat transfer between control mechanism and fluid make them ideal for use with heat-sensitive reagents and biological samples
- Hysteresis (< 20%), excellent repeatability (< 5%), and high sensitivity (< 1%) make these valves ideal for high precision flow control of liquids
- Excellent self-draining capability and easy-to-flush internal cavity
- Valves do not require a minimum operating pressure
- Meets all relevant CE directives, and is RoHS compliant
- Typical Applications include:
  - Chromatography
  - DNA Sequencing
  - In-vitro Diagnostics
  - Industrial Liquid Analyzers



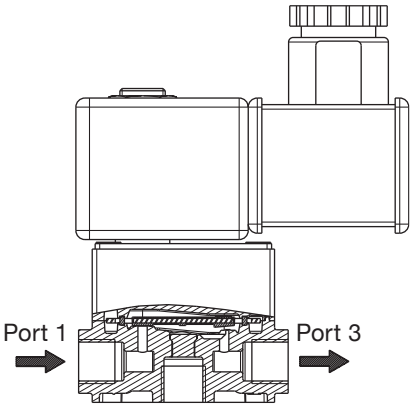
2/2 Normally Closed

CE

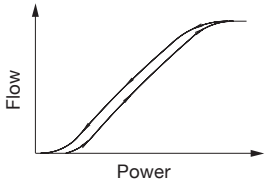
Fluids*	Temperature Range	Seal Materials*
Liquids or Gases[1]	5 °C to 50 °C (41 °F to 122 °F)	FKM/FFKM/EPDM

1 Filtration: 50µm

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



General Valve Information	
Body	PEEK
Seals	FKM/FFKM/EPDM
Diaphragm	FKM/FFKM/EPDM
Others	Stainless Steel
Response Time	< 20ms
Internal Volume	0.48ml
Max. Viscosity	20 cSt (mm^2/s)



Electrical Characteristics	
Coil Insulation Class	F
Connector	Lead Wires 24 AWG; L = 500mm (19.685in)
Electrical Safety	IEC 335
Electrical Enclosure Protection	IP65 (EN 60529)
Standard Voltages	12 VDC, 24 VDC (-5%/+10%)
Voltage Regulation	0-12 VDC, 0-24 VDC Pulse-width Modulation (> 1000Hz)
Flow Regulation Characteristics	Hysteresis typ. 20%; Repeatability typ. 5%; Sensitivity typ. 1%

Voltage	Max. Operating Current	Power Ratings				Ambient Temperature Range
		Inrush	Holding		Hot/ Cold	
V	mA	VA	VA	W	W	°C (°F)
12	0	-	-	-	9	5 to 55 (41 to 131)
	750				9	
24	0				9	
	375				9	

Specifications

Connection	Orifice Size	Flow Coefficient		Pressure Differential bar (psi)		Power Coil (W)	Catalog Number
				min.	max.		Body PEEK
	mm (inches)	Kv (m3/h)	Cv		gases, liquids		
G1/8	2 (0.079)	0.069	0.080	0	4.5 (65)	9	G068A317xxx10xx
	3 (0.118)	0.123	0.142	0	2.0 (29)	9	G068A318xxx10xx
Pad Mounting[1]	2 (0.079)	0.069	0.080	0	4.5 (65)	9	R068A317xxx10xx
	3 (0.118)	0.123	0.142	0	2.0 (29)	9	R068A318xxx10xx

1 4 hexagon socket screws M3 x 8mm (0.315), stainless steel, ISO 4762 (supplied)

How to Order

G068A317 xx x 10 xx

Catalog Number
(see Specifications table)

Connector
S1 = spade terminals with connector

Voltage
F3 = 12 VDC
F1 = 24 VDC

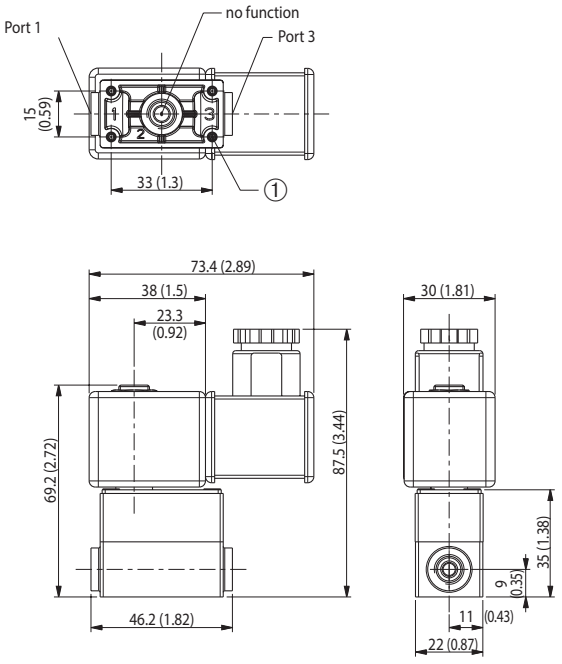
Seal Materials
V = FKM
1 = FFKM
E = EPDM

Ordering Example: **R068A317S1E10F1** = 2-way NC (normally closed), orifice size 2mm (0.079in), pad-mounting body, spade terminals with connector, EPDM seals, 24 VDC

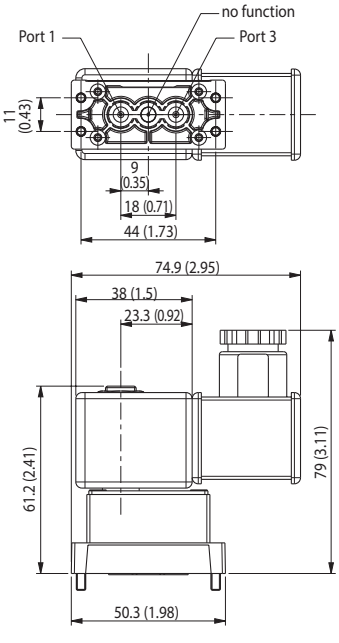
Dimensions: mm (inches)

Dimensional Drawings

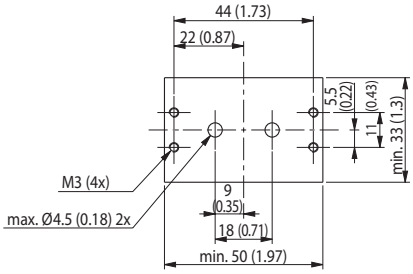
G 1/8



Pad-mounting Body



Subbase Mounting Pattern



① 4 mounting holes, max. depth 7mm (0.276in), for self-tapping screw (type EJOT PT, K30)

Options

- Digital control module Control^{D} for DIN EN 50022 rail mounting
  - Used as a current regulator in open loop applications
  - Used with an external sensor for closed-loop applications
- Other voltages and coils with flying leads on request
- Subbases available on request

Installation

- The solenoid valves can be mounted in any position without affecting operation
- Pad-mounting solenoid valve supplied with seal
- Pipe connections 1/8 have standard thread according to ISO 228/1