

2/2- or 3/2-Way, G 1/8, NPT 1/8, UNF 1/4-28



Advantages/Benefits

- ▶ Thermal decoupling between coil and fluid
- ▶ High back-pressure tightness
- ▶ Simplified manifold wiring available
- ▶ LED-display
- ▶ Body material: PVDF, ETFE
- ▶ Hermetic isolation of fluid from the actuator
- ▶ G 1/8, NPT 1/8, UNF 1/4-28, push-on tube connections, manifold mounting
- ▶ Normally closed or open, or 3-way universal functions
- ▶ 16 mm design

Design/Function

An isolating diaphragm between the actuator and body, operated via a rocker, separates the actuator from the fluid.

The design provides a valve with minimal internal volume, low dead volume which can be easily purged.

Special dead volume free designs are available on request.

Heat transfer between the actuator and the fluid is minimised, as the coil is not directly in contact with the diaphragm. The coil is available with 24 V/UC rectifier electronics, protective circuit and LED.

The valves can be manifold mounted and a simplified common wiring system is available.

Applications

- Strong acids and bases, oxydizing solutions
- Disinfectants and solvents
- Analytical instruments
- Bio technology
- Medical technology

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Fluid Control Systems

Miniature Rocker Solenoid Valve

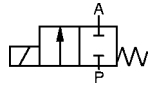
With Isolating Diaphragm, 5/8-inch

Type 127

Technical Data

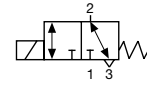
Circuit Function

A 2/2-way valve, direct-acting normally closed



Circuit Function

T 3/2-way valve, direct-acting, universal functions



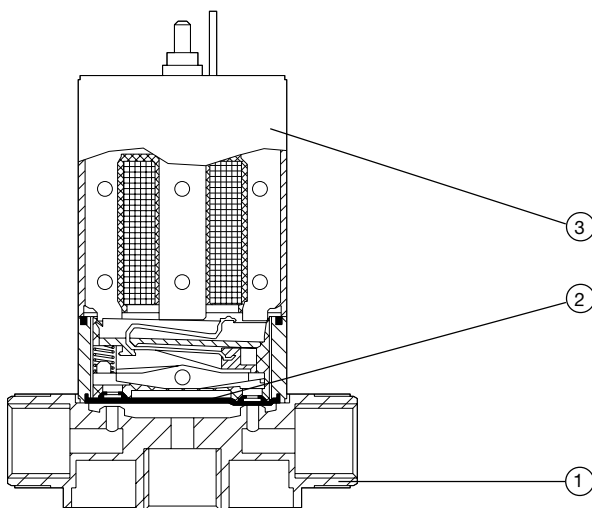
Operating Data (Valve)

Pressure range max.	0 - 28 PSI (see specifications)	
Port connection	G 1/8, NPT 1/8, sub-base, tube connection for silicone or FPM (Viton) -tube, internal diameter 1/6 up to 5/64", UNF 1/4-28	
Orifice	1/16"	
Body material	Polyvinylidenfluoride (PVDF) Tefzel (ETFE)	
Seal material	FFKM (Simriz), FPM (Viton) - on request	
Fluids	FFKM (Simriz): aromatics, ethers, esters, ketones.	
Fluid temperature	32°F to 122°F	FFKM (Simriz)
	0°C to +50°C	FPM (Viton)
Ambient temperature	Max. 131°F	
Response Times	approx. 30 ms	
Internal volume	G 1/8, NPT:	85 µl
	Flange:	68 µl
	UNF 1/4-28, tube connection:	
	2/2-way	30 µl
	3/2-way	55 µl
	Special version on request	< 5 µl

Operating Data (Actuator)

Operating voltages	24 V/UC (universal current) with rectifier and LED.
Voltage tolerance	±10 %
Power consumption	3.4 W
Duty cycle	100 % continuously rated, with manifold assembly and ambient/ fluid temperatures above 104°F, 40 % intermittent operation in 10 min.
Cycling rate	Approx 300 c.p.m.
Protection class	NEMA 4 (IP 65) with cable plug Type 1054 or single leads, IP20 with cable plug 1057
Electrical connection	<ul style="list-style-type: none"> • cable plug Type 1054 (supplied as standard) • cable plug Type 1057 • 2 FEP-leads 0.2 mm², length 19 inches
Installation	As required, but preferably with solenoid system upright

Materials



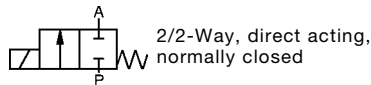
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|---|----------------------|--|
| 1 | Valve body: | PVDF, ETFE |
| 2 | Isolating diaphragm: | FFKM (Simriz),
FPM (Viton) - on request |
| 3 | Coil body: | PA (Polyamide) |

Miniature Rocker Solenoid Valve

With Isolating Diaphragm, 5/8-inch

Type 127

Ordering Chart (Other Versions on Request)

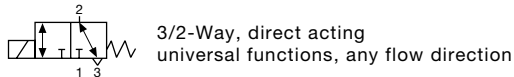


PVDF/ETFE valve body

Port connection	Orifice DN [inch]	Cv-	SCFM (air) ²⁾	Pressure Range ¹⁾ [PSI]	Back-pressure [PSI]	Valve body material	Seal Material	Electrical Connection	Weight [oz]	ITEM - No.	
										Voltage / Frequency [V/Hz]	
										24/UC ¹⁾	
UNF 1/4-28	1/16	0.046	1.48	0 - 28	14.0	ETFE	FFKM	cable plug 1054	2.11	455 329 B	
UNF 1/4-28	1/16	0.046	1.48	0 - 28	14.0	ETFE	FFKM	2 leads 19 inches	2.11	455 330 G	
Sub-base	1/16	0.046	1.48	0 - 28	28.0	PVDF	FFKM	cable plug 1054	1.86	455 137 K	
Sub-base	1/16	0.046	1.48	0 - 28	28.0	PVDF	FFKM	2 leads 19 inches	1.86	455 138 U	
Tube	1/16	0.046	1.48	0 - 28	14.0	PVDF	FFKM	cable plug 1054	2.01	455 145 T	
Tube	1/16	0.046	1.48	0 - 28	14.0	PVDF	FFKM	2 leads 19 inches	2.01	455 146 U	
G 1/8	1/16	0.071	2.30	0 - 28	28.0	PVDF	FFKM	cable plug 1054	2.18	124 454 M	
G 1/8	1/16	0.071	2.30	0 - 28	28.0	PVDF	FFKM	2 leads 19 inches	2.18	136 359 H	
NPT 1/8	1/16	0.071	2.30	0 - 28	28.0	PVDF	FFKM	cable plug 1054	2.18	455 157 X	
NPT 1/8	1/16	0.071	2.30	0 - 28	28.0	PVDF	FFKM	2 leads 19 inches	2.18	455 158 G	

¹⁾ for universal current 24 VDC and 24 VAC

²⁾ measured at 68°F with 85 psi upstream pressure and 14.0 psi pressure drop across valve



PVDF/ETFE valve body

Port connection	Orifice DN [inch]	Cv-	Q _{Nn} (air) ²⁾	Pressure Range ¹⁾ [PSI]	Back-pressure [PSI]	Valve body material	Seal Material	Electrical Connection	Weight [oz]	ITEM - No.	
										Voltage / Frequency [V/Hz]	
										24/UC ¹⁾	
UNF 1/4-28	1/16	0.029	0.95	0 - 28	14.0	ETFE	FFKM	cable plug 1054	2.11	455 131 M	
UNF 1/4-28	1/16	0.029	0.95	0 - 28	14.0	ETFE	FFKM	2 leads 19 inches	2.11	455 132 N	
Sub-base	1/16	0.038	1.20	0 - 28	28.0	PVDF	FFKM	cable plug 1054	1.86	455 167 Z	
Sub-base	1/16	0.038	1.20	0 - 28	28.0	PVDF	FFKM	2 leads 19 inches	1.86	455 168 A	
Tube	1/16	0.029	0.95	0 - 28	14.0	PVDF	FFKM	cable plug 1054	2.01	455 151 Z	
Tube	1/16	0.029	0.95	0 - 28	14.0	PVDF	FFKM	2 leads 19 inches	2.01	455 152 S	
G 1/8	1/16	0.055	1.80	0 - 28	28.0	PVDF	FFKM	cable plug 1054	2.18	136 360 E	
G 1/8	1/16	0.055	1.80	0 - 28	28.0	PVDF	FFKM	2 leads 19 inches	2.18	136 361 T	
NPT 1/8	1/16	0.055	1.80	0 - 28	28.0	PVDF	FFKM	cable plug 1054	2.18	455 163 V	
NPT 1/8	1/16	0.055	1.80	0 - 28	28.0	PVDF	FFKM	2 leads 19 inches	2.18	455 164 W	

¹⁾ for universal current 24 VDC and 24 VAC

²⁾ measured at 68°F with 85 PSI upstream pressure and 14.0 PSI pressure drop across valve

Options

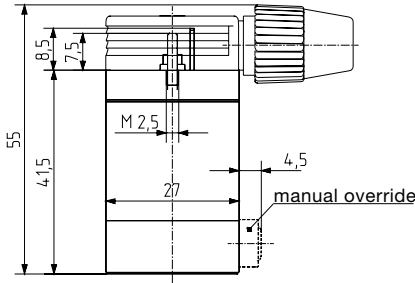
- Function normally open
- Dead volume free design
- Other voltages

Miniature Rocker Solenoid Valve With Isolating Diaphragm, 5/8-inch

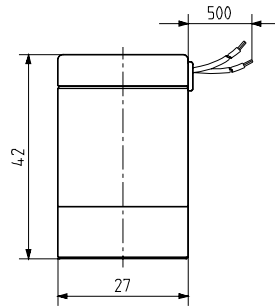
Type 127

Dimensions [mm]

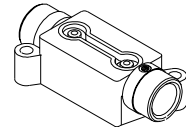
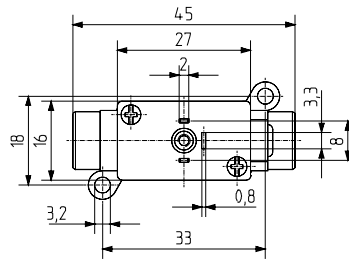
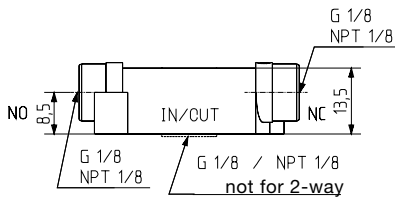
Coil with cable plug Type 1054



Coil with flying leads

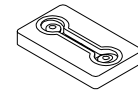
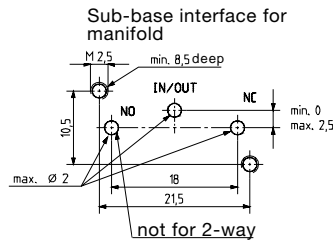
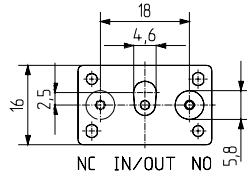
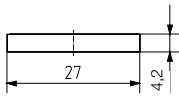


Body with threaded connection



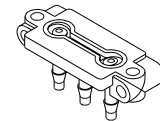
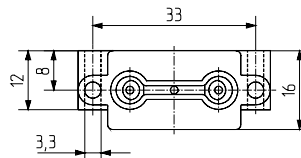
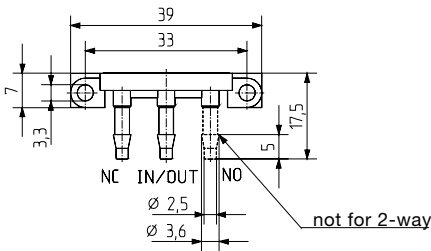
Body G1/8
NPT1/8

Sub-base body



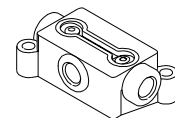
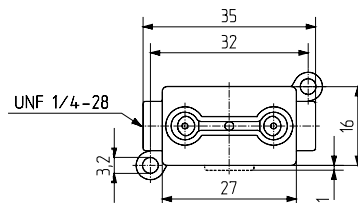
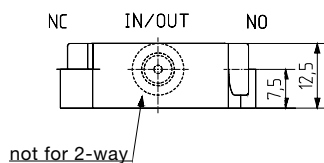
Sub-base body

Body with tube connection



Body with push-on
tube connection

UNF Body 1/4 - 28 UNF



Body
UNF 1/4 - 28