

2/2-Way, G 1/8, UNF 1/4-28



Advantages/Benefits

- ▶ Compact design
- ▶ Low electrical power consumption
- ▶ Short response times
- ▶ Hermetically sealing isolating diaphragm
- ▶ Body material: ETFE
- ▶ Non-metallic valve internals
- ▶ Customized System Solutions

Design/Function

Type 117 is a normally-closed direct-acting plunger-type solenoid valve with PTFE-coated diaphragm. The diaphragm isolates the fluid from the solenoid system.

When deenergized (in circuit function A) the valve is closed by spring action. When energized, the solenoid armature is drawn in

against a spring to open the valve. The solenoid epoxy encapsulation efficiently dissipates the heat generated by the coil.

Applications

- Liquid and gaseous fluids
- Aggressive fluids
- Disinfectants and preserving fluids
- Solvents
- Ultra-pure fluids
- For de-ionised water
- Food processing
- Medical technology

burkert
Easy Fluid Control Systems

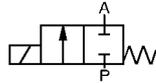
Miniature Solenoid Valve with Isolating Diaphragm for Analytical Applications

Type 117

Technical Data

Circuit Function

A 2/2-way valve,
normally closed



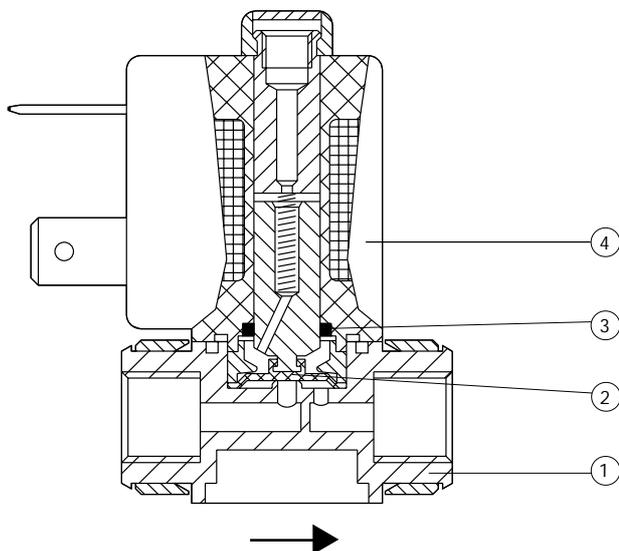
Operating Data (Valve)

Pressure range max.	0-1.5 bar (see specifications)
Port connection	G 1/8", UNF1/4-28
Orifice	DN 1.6 - 2.4 mm DN 1.2 (0-2 bar) on request.
Fluid	Oxidising acids and substances, salt solutions, exhaust gas.
Medium temperature max.	-10 to +70 °C
Max. ambient temperature	+55 °C
Max. viscosity	21 mm ² /s
Response times	
opening	approx. 20 ms
closing	approx. 20 ms
Installation	as required, but preferably with solenoid system upright

Operating Data (Actuator)

Operating voltages	DC 12, 24 V/= (others on request)
Voltage tolerance	±10 %
Power consumption	4 W
Duty cycle	100% continuously rated
Cycling rate	up to 300 c.p.m.
Protection class with cable plug	IP 65
Electr. connection	Delivery standard: Cable plug DIN 43 650 Form B, 0-250 V. Flying leads 300 mm length

Materials

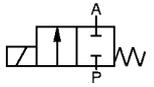


- | | |
|------------------------|---------------|
| 1 Valve body: | Tefzel (ETFE) |
| 2 Isolating diaphragm: | PTFE/Viton |
| 3 O-Rings: | Viton (FPM) |
| 4 Coil body: | Epoxy |

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Type 117

Specifications - Ordering Chart (Other Versions on Request)



2/2-Way, direct acting,
normally closed

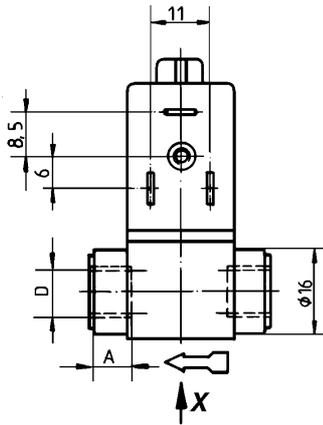
ETFE valve body, cable plug DIN 43 650 form B

Port connection	Orifice DN [mm]	Kv-Value (water) [m³/h]	Q _{Nn} (air) [l/min]	Pressure Range (in arrow direction) [bar]	Pressure Range (against arrow direct.) [bar]	Seal Material	Electrical Connection	Weight [kg]	ITEM - No.	
									Voltage / Frequency [V/Hz]	
									12/DC	24/DC
G 1/8	1.6	0.06	70	0-1.5	0-0.3	FFKM	cab.plug 2507	0.12	085 486 B	056 664 E
UNF	1.6	0.06	70	0-1.5	0-0.3	FFKM	cab.plug 2507	0.12	136 278 G	136 281 L
G 1/8	2.0	0.09	105	0-1.0	0-0.3	FFKM	cab.plug 2507	0.12	045 779 N	040 947 E
UNF	2.0	0.09	105	0-1.0	0-0.3	FFKM	cab.plug 2507	0.12	-----	-----
G 1/8	2.4	0.1	116	0-1.0	0-0.3	FFKM	cab.plug 2507	0.12	042 215 W	056 535 M
UNF	2.4	0.1	116	0-1.0	0-0.3	FFKM	cab.plug 2507	0.12	136 283 N	136 285 Q

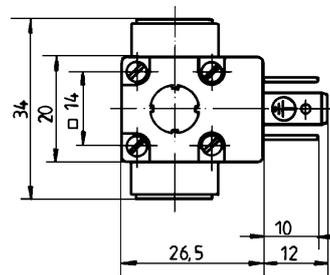
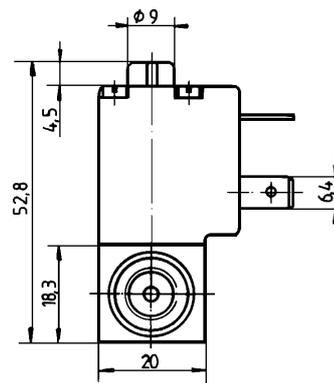
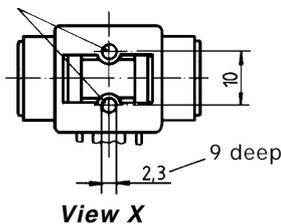
ETFE valve body, coil with two flying leads, 300 mm length

Port connection	Orifice DN [mm]	Kv-Value (water) [m³/h]	Q _{Nn} (air) [l/min]	Pressure Range (in arrow direction) [bar]	Pressure Range (against arrow direct.) [bar]	Seal Material	Electrical Connection	Weight [kg]	ITEM - No.	
									Voltage / Frequency [V/Hz]	
									12/DC	24/DC
G 1/8	1.6	0.06	70	0-1.5	0-0.3	FFKM	leads 300 mm	0.12	136 273 T	136 274 U
UNF	1.6	0.06	70	0-1.5	0-0.3	FFKM	leads 300 mm	0.12	136 280 X	136 282 M
G 1/8	2.0	0.09	105	0-1.0	0-0.3	FFKM	leads 300 mm	0.12	136 275 V	058 975 G
UNF	2.0	0.09	105	0-1.0	0-0.3	FFKM	leads 300 mm	0.12	-----	-----
G 1/8	2.4	0.1	116	0-1.0	0-0.3	FFKM	leads 300 mm	0.12	136 276 W	136 277 X
UNF	2.4	0.1	116	0-1.0	0-0.3	FFKM	leads 300 mm	0.12	136 284 P	136 286 R

Dimensions [mm]



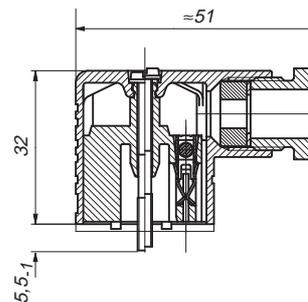
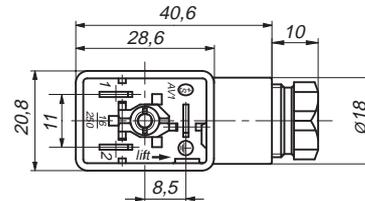
Use sheet metal screws BZ 2.9 x... DIN 7971-A2 for mounting



Technical Data Cable Plug

Body material	PA (polyamide)
Contact material	brass, tinned
Cable outlet	vertically to the plug bottom
Isolation between cable plug and coil	gasket (NBR)
Temperature range	-30°C ... +90°C
Cable diameter	4.5 ... 7 mm
Electr. connection	terminal screws max. 1,5 mm ²
Poles	2pole + protective earth
Nominal voltage	0-250 V (Standard)
Isolation group	3
Rating	IP 65
Max. continuous current	16 A without wiring
Contact resistance	≤ 4 mΩ
Options	LED display Rectifier Varistor

Dimensions Cable Plug [mm]



Wiring Diagrams/Connection Specifications

