



G 1/4, G 1/2



### Advantages/Benefits

- ▶ II 2G EEx m IIC T4 02 PTB ATEX 2173X
- ▶ Normally closed
- ▶ Body material:  
Brass, stainless steel
- ▶ Compact design

### Design/Function

The Type 741 is a direct-acting plunger-type solenoid valve, normally closed by spring action, assisted by the fluid pressure (circuit function A).

When energized, the solenoid armature is drawn in against the spring to open the valve.

Single-phase bridge and varistor are housed in a flameproof enclosure to protection classification "d". Coil and terminal box correspond to protection classification "e", i.e. increased safety.

The solenoid epoxy encapsulation efficiently dissipates the heat generated by the coil.

### Applications

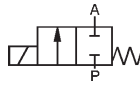
- Dosing systems
- Analytical devices
- Fuels
- Petrochemical
- Compressed air motors
- Offshore-technology
- Vacuum



## Technical Data

### Circuit Function

**A** 2/2-way valve,  
Normally closed



### Body Materials

Body of brass  
Body and seat 1.4410  
Valve internals 1.4105, 1.4303

II 2G EEx m II T4 PTB 02 ATEX 2173X

### Specifications

Orifice DN [mm]	Kv-Value Water [m <sup>3</sup> /h]	QnN-Value Air <sup>1)</sup> [l/min]	Pressure Range <sup>2)</sup> [bar]	Weight [kg]
2	0,12	130	0-22	0,90
4	0,50	540	0- 4	0,90
6	0,80	860	0- 1	0,90
10	1,50	1600	0- 0,2	0,90

<sup>1)</sup> Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C, <sup>2)</sup> Also suitable for technical vacuum.

All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.

### Operating Data (Valve)

#### Seal Materials / Fluids Handled / Temp.-Range

**NBR** Neutral fluids, e.g. compressed air, gas, water, hydraulic oil, oils and fat without additives, town gas  
-10 to +90 °C

**FPM** Hot air, oxygen, per-solutions, hot oils, oils with additives  
-10 to +90 °C

For more detailed information please refer to resistance chart (Leaflet-No. 1896009).

Max. ambient temperature +40 °C

Max. viscosity approx. 21 mm<sup>2</sup>/s

Response times opening approx. 30 ms  
closing approx. 60 ms

The response times have been measured with water at a working pressure of max. 6 bar. They depend upon pressure and viscosity of the fluid handled.

### Operating Data (Actuator)

Operating voltages 240, 220, 110, 24 V/UC  
(universal current)

A bridge rectifier has been incorporated in the solenoid system, which makes it suitable for both direct and alternating current operation for the same nominal voltage (universal current to DIN 40 700).

Voltage tolerance ±10 %

Power consumption 10 W (hold)

Rating IP 65

Duty cycle 100% continuously rated

Cycling rate up to 600 c.p.m. depending on operating pressure

### Installation / Accessories

Installation as required, but preferably with solenoid system upright

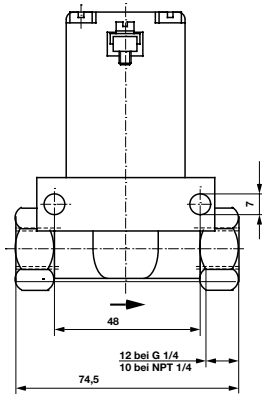
Electrical connection

- moulded-in cable length 3 m, with tension relieving cable gland
- junction box on request

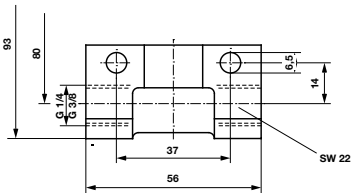
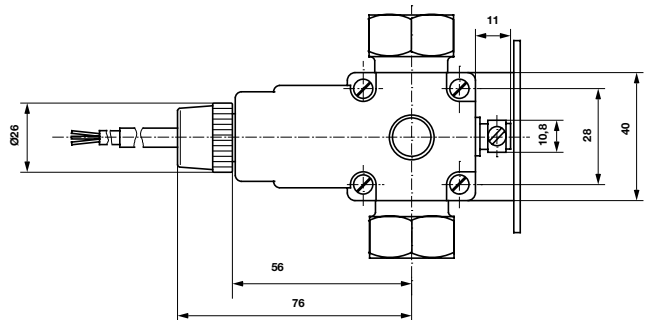
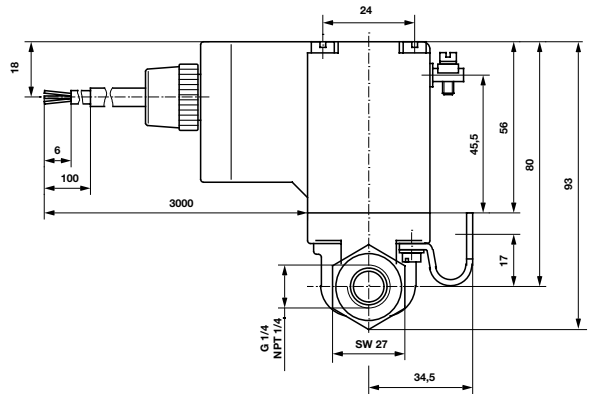
Safety fuse A safety fuse with a medium response time and rated according to the nominal current should be incorporated in the circuit. The nominal current rating is printed on the actuator.



Dimensions in mm



Brass body DN 2 - 6  
Stainless steel body DN 4 - 10



Brass body DN 10



## Ordering Chart (Other Versions on Request)

Circuit Function	Orifice [mm]	Flow Rate		Port Connect. QNn [mm]	Pressure Range <sup>2)</sup> [bar]	Body Material	Seal Material	Weight [kg]	Voltage/ Frequency [V/Hz]	Order-No.
		Water DN [m <sup>3</sup> /h]	Air Kv-Value [l/min]							
A	2,0	0,12	140	G 1/4	0-22	Brass	NBR	0,90	024/UC	089 473 Z
									110/UC	089 474 S
									220/UC	089 475 T
									240/UC	089 476 U
	4,0	0,50	540	G 1/4	0- 4	Brass	NBR	0,90	024/UC	089 450 E
									110/UC	089 451 T
									220/UC	089 452 U
									240/UC	089 453 V
						Stainless	FKM	0,90	024/UC	059 095 T
									110/UC	076 299 D
									220/UC	087 290 U
									240/UC	076 300 J
	6,0	0,80	860	G 1/4	0- 1	Brass	NBR	0,90	024/UC	089 466 S
									110/UC	089 467 T
									220/UC	089 468 C
									240/UC	089 469 D
						Stainless	FKM	0,90	024/UC	076 301 F
									110/UC	076 302 G
									220/UC	076 303 H
									240/UC	076 304 A
	10,0	1,50	1600	G 1/2	0- 0,2	Brass	NBR	0,90	024/UC	076 294 Y
									110/UC	076 295 Z
									220/UC	076 297 T
									240/UC	076 298 C
						Stainless	FKM	0,90	024/UC	057 297 Y
									110/UC	076 305 B
									220/UC	085 932 H
									240/UC	076 306 C

<sup>1)</sup> Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C, <sup>2)</sup> Also suitable for technical vacuum.

## Order-No. for Accessories

Safety Fuses II 2G EEx m II T4 PTB01 ATEX 2064U	[mA]	Order-No.
24 V	1000	153 738
110 V	315	153 733
220/240 V	160	153 720