



G 1/4, G 3/8



Advantages/Benefits

- ▶ EEx ed IIC T4
- ▶ Normally closed
- ▶ Body Materials:
brass, stainless steel
- ▶ Metal seal between guide
tube assembly and body
- ▶ Push-over coil

Design/Function

The Type 742 is a direct-acting plunger-type solenoid valve, normally closed by spring action, assisted by the fluid pressure (circuit function A). When energized, the armature and seal are drawn into the solenoid coil 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

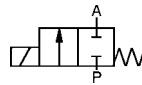
- Dosing systems
- Analytical devices
- Fuels
- Petrochemical
- Compressed air motors
- Offshore-technology
- Vacuum



Technical Data

Circuit Function

A 2/2-way valve,
normally closed



Body Material

Body of brass, seat 1.4305
Body and seat of stainless steel 1.4410
Valve internals 1.4105, 1.4303

PTB.-No. Ex-88.B.1049

Specifications

| Orifice DN [mm] | Kv-Value Water Liquids [m ³ /h] | QNn-Value Air ¹⁾ Gases [l/min] | Pressure Range ²⁾ [bar] | Weight [kg] |
|-----------------------|---|--|---------------------------------------|----------------|
| 2 | 0,12 | 130 | 0 - 20 | 0,9 |
| 4 | 0,50 | 540 | 0 - 3 | 0,9 |
| 6 | 0,80 | 860 | 0- 0,5 | 0,9 |

¹⁾ Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C, ²⁾ 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

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

PTFE Water, alcohols, oils, fuels, hydraulic
substances, organic solvents
-20 to +90 °C

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

Max. ambient temp. +40 °C

Max. viscosity approx. 21 mm²/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 24, 110, 220, 240 V/UC
(universal current)

A bridge rectifier has been incorporated in the solenoid
system, which makes it suitable for both direct and alter-
nating 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.

Installation / Accessories

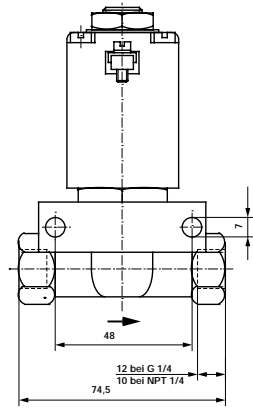
Installation as required, but preferably
with solenoid system upright

Electrical connection

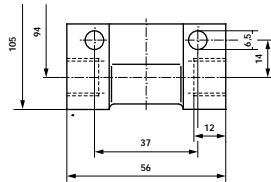
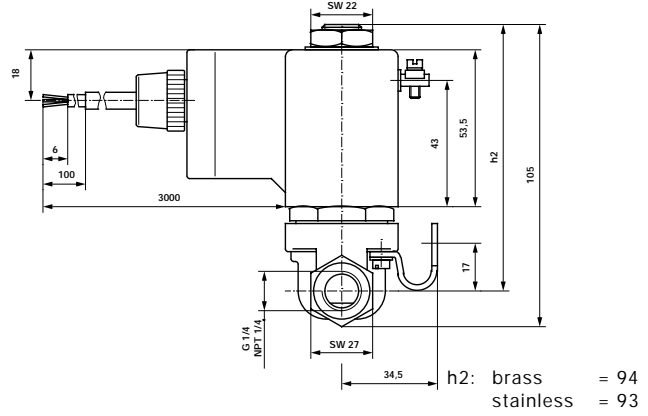
- moulded-in cable H05RN-F3 G, 3 x 0,75 mm², length 3 m, with tension relieving cable gland
- junction box on request

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.

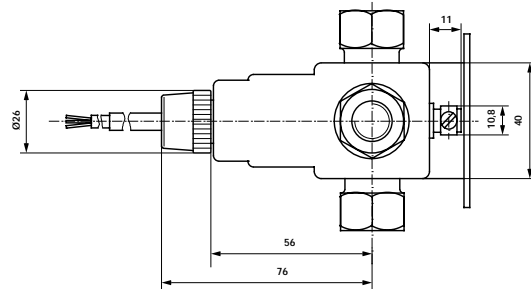
Dimensions in mm



Stainless steel body DN 4 - 6



Brass body DN 2 - 6



DTS 1000010944 EN Version: A Status: RL (released | freigegeben | validé) printed: 08.08.2008



Ordering Chart (Other Versions on Request)

| Circuit Function | Orifice DN [mm] | Flow Rate | | Port Connection [mm] | Pressure Range ²⁾ [bar] | Body Material | Seal Material | Weight [kg] | Voltage/Frequency [V/Hz] | Order-No. |
|------------------|-----------------|-----------------------|-------------------------------|----------------------|------------------------------------|---------------|---------------|-------------|--------------------------|-----------|
| | | Water Kv-Value [m³/h] | Air ¹⁾ QNn [l/min] | | | | | | | |
| A | 2,0 | 0,12 | 130 | G 1/4 | 0-20 | Brass | PTFE | 0,9 | 024/UC | 076 307 D |
| | | | | | | | | | 110/UC | 076 308 N |
| | | | | | | | | | 220/UC | 076 309 P |
| | | | | | | | | | 240/UC | 076 310 B |
| | 4,0 | 0,50 | 540 | G 1/4 | 0- 3 | Brass | PTFE | 0,9 | 024/UC | 089 500 H |
| | | | | | | | | | 110/UC | 089 501 W |
| | | | | | | | | | 220/UC | 089 502 X |
| | | | | | | | | | 240/UC | 089 503 Y |
| | | | | | | Stainless | PTFE | 0,9 | 024/UC | 076 311 Y |
| | | | | | | | | | 110/UC | 076 312 Z |
| | | | | | | | | | 220/UC | 076 313 S |
| | | | | | | | | | 240/UC | 076 314 T |
| 6,0 | 0,8 | 860 | G 3/8 | 0- 0,5 | Brass | PTFE | 0,9 | 024/UC | 089 512 Q | |
| | | | | | | | | 110/UC | 089 513 R | |
| | | | | | | | | 220/UC | 089 514 J | |
| | | | | | | | | 240/UC | 089 515 K | |
| | | | G 1/4 | 0- 0,5 | Stainless | FPM | 0,9 | 024/UC | 076 315 U | |
| | | | | | | | | 110/UC | 076 316 V | |
| | | | | | | | | 220/UC | 076 317 W | |
| | | | | | | | | 240/UC | 076 318 F | |

¹⁾ Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C.

²⁾ Also suitable for technical vacuum.

Order-No. for Accessories

| Safety Fuses | [mA] | Order-No. |
|--------------|------|-----------|
| 24 V | 1000 | 007 077 V |
| 110 V | 315 | 007 055 X |
| 220/240 V | 160 | 007 070 A |

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