

3/2-Way, G 1/4



Advantages/Benefits

- ▶ Body material: brass
- ▶ Metal-sealed pressurized parts
- ▶ High sealing capacity, even with large temperature fluctuations

Design/Function

Type 355 is a direct-acting solenoid valve. The circuit functions A, B or F can be developed from the valve in circuit function C, by inter-changing the port connections.

When energized, the solenoid armature is drawn against a spring.

The flow path through the valve is dependent on the chosen circuit function.

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

Applications

- Neutral gases and liquids
- High temperatures, such as hot water, steam, hot air, thermal oils
- Heating
- Sterilizing
- Impregnating



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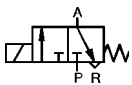
Solenoid Valve for neutral media and steam up to 180 °C

Type 355

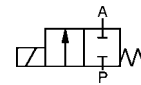
Technical Data

Circuit Function

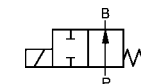
C 3/2-way valve, when de-energized, outlet A exhausted.



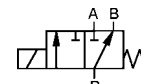
A 2/2-way valve, normally closed.



B 2/2-way valve, normally open.



F 3/2-way distributor valve, when de-energized, pressure port P connected to outlet B.



Body Material

Brass, seat 1.4305
Valve internals 1.4305, 14571

Specifications

| Orifice DN | Kv-Value Water | QnN-Value Air | Pressure Range ¹⁾ | | Weight |
|---------------|-------------------|------------------|------------------------------|-------|--------|
| | | | Seal Material NBR, EPDM | PTFE | |
| [mm] | [m³/h] | [l/min] | [bar] | [kg] | |
| 2 | 0,11 | 100 | 0- 16 | 0- 14 | 0,6 |
| 3 | 0,20 | 200 | 0- 10 | 0- 8 | 0,6 |
| 4 | 0,40 | 400 | 0- 6 | 0- 5 | 0,6 |
| 5 | 0,58 | 600 | - | 0- 2 | 0,6 |

¹⁾ 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, water, hydraulic oil, oils and fat without additives, town gas
-10 to +90 °C

EPDM Oils and fat-free fluids, e.g. hot water alkaline washing and bleaching lyes
-40 to +130 °C

PTFE As required, as long as body material is resistant
-40 to +180 °C ⁴⁾

⁴⁾ higher temperatures on request.

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

| | |
|--------------------------|------------------|
| Max. ambient temperature | 55 °C |
| Max. viscosity | approx. 21 mm²/s |
| Response times [ms] | AC DC |
| opening | 10-20 20-80 |
| closing | 20-30 20-30 |

Operating Data (Actuator)

Operating voltages 24, 110, 230, 240 V/50 Hz
220 V/UC (universal current)
24 V/=

Voltage tolerance ±10 %

Duty cycle 100% continuously rated

Power consumption AC 35 up to 40 VA
DC 12 W

Rating with IP 65 cable plug

Installation / Accessories

| | |
|-----------------------|--|
| Installation with | as required, but preferably solenoid system upright |
| Electrical connection | • cable plug for 6-7 mm Ø cable (supplied as standard) |

Solenoid Valve for neutral media and steam up to 180 °C

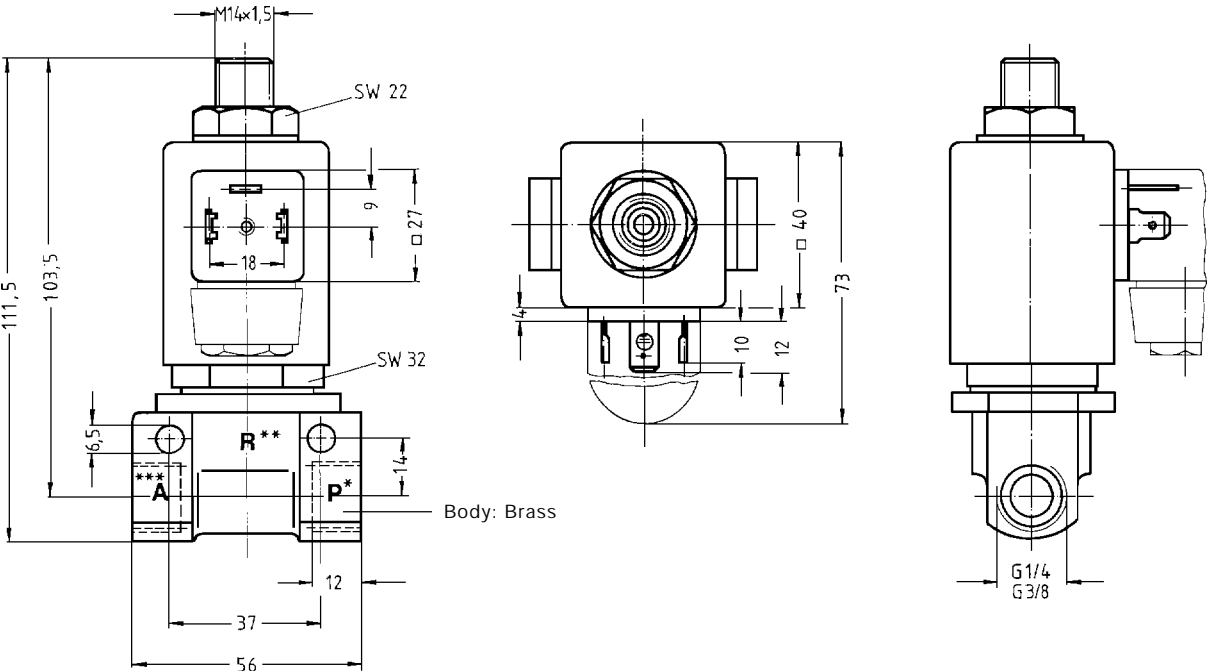
Type 355

Valve Used With Different Circuit Functions

The springs of each valve have been rated for a specific circuit function. If used for another circuit function, the recommended operating pressures will vary according to the following chart:

| Valve Version | | Max. operating pressure (bar) used in circuit function | | | | | |
|---------------|------------------|--|----|----|-----|-----|----|
| Orifice [mm] | Circuit Function | A | B | C | D | E | F |
| 2 | C | 16 | 25 | 16 | 2 | 2 | 25 |
| 3 | C | 10 | 16 | 10 | 1 | 1 | 16 |
| 4 | C | 6 | 10 | 6 | 0,5 | 0,5 | 10 |
| 5 | C | 3 | 4 | 3 | - | - | 4 |

Dimensions in mm



Port Connections

The adjacent chart shows the port connections for the chosen circuit function. Plug unused connections for circuit functions A and B using a G 1/4 (Order-No. 605 900 L) blanking plug.

| Circuit Function | * | ** | *** |
|------------------|----|----|-----|
| A | P | - | A |
| B | - | B | P |
| C | P | R | A |
| D | R | P | B |
| E | P1 | P2 | A |
| F | A | B | P |

Solenoid Valve for neutral media and steam up to 180 °C

Type 355

Ordering Chart (Other Versions on Request)

| Circuit Function | Orifice | Flow Rate | Air Q/Nn [l/min] | Port Connection | Pressure 1) | Body Material | Seal Material | Weight | Voltage/ Frequency | Order-No. | |
|---------------------|------------|-----------------------------|------------------------|--------------------|-------------|------------------|------------------|--------|-----------------------|-----------|-----------|
| | DN [mm] | Water Kv-Value [m³/h] | | | [bar] | | | [kg] | [V/Hz] | | |
| C | 02,0 | 0,11 | 100 | G 1/4 | 0-16 | Brass | EPDM | 0,6 | 230/50 | 066 007 S | |
| | | | | | | | NBR | | 024/50 | 026 069 X | |
| | | | | | | | | | 024/= | 043 089 V | |
| | | | | | | | | | 110/50 | 044 119 Y | |
| | | | | | | | | | 230/50 | 068 078 J | |
| | | | | | | 0-14 | Brass | PTFE | 0,6 | 024/50 | 049 998 F |
| | | | | | | | | | 024/= | 062 188 Y | |
| | | | | | | | | | 110/50 | 067 077 Y | |
| | | | | | | | | | 230/50 | 049 025 S | |
| | | | | | | | | | 240/50 | 086 485 B | |
| | | | | | | | | | | | |
| | | 03,0 | 0,20 | | 200 | G 1/4 | 0-10 | Brass | NBR | 0,6 | 024/50 |
| | | | | | | | | 024/= | 068 557 F | | |
| | | | | | | | | 110/50 | 025 790 S | | |
| | | | | | | | | 230/50 | 061 174 Y | | |
| | | | | | 0- 8 | Brass | PTFE | 0,6 | 024/50 | 067 817 K | |
| | | | | | | | | 024/= | 052 665 B | | |
| | | | | | | | | 110/50 | 067 146 S | | |
| | | | | | | | | 230/50 | 054 885 K | | |
| | | | | | | | | 240/50 | 067 176 Y | | |
| | | | | | | | | | | | |
| | 04,0 | 0,40 | 400 | G 1/4 | 0- 6 | Brass | NBR | 0,6 | 024/50 | 019 095 K | |
| | | | | | | | | 024/= | 061 104 T | | |
| | | | | | | | | 110/50 | 087 846 M | | |
| | | | | | | | | 230/50 | 061 019 Y | | |
| | | | | | 0- 5 | Brass | PTFE | 0,6 | 024/50 | 065 552 X | |
| | | | | | | | | 024/= | 052 078 A | | |
| | | | | | | | | 110/50 | 067 164 U | | |
| | | | | | | | | 230/50 | 058 403 C | | |
| | | | | | | | | 240/50 | 059 660 Z | | |
| | | | | | | | | | | | |
| | 05,0 | 0,58 | 600 | G 1/4 | 0- 2 | Brass | PTFE | 0,6 | 220/UC | 087 482 H | |