Solenoid Valves

Pilot Operated, Spool Type
Single/Dual Solenoid
Aluminium Body, 1/4 - 1/2

Features
- All the exhaust ports of the spool valve are connectable, providing better environmental protection. Particularly recommended for sensitive areas, such as clean rooms, and applications in the pharmaceutical and food processing sectors.
- The valves offer environmental protection against the ingress of liquids, dusts or other foreign matter (environmentally-protected construction).
- Can be externally piloted (external air pilot supply) to convert valve to zero minimum operation by flipping a gasket.
- The monostable spool valves in conformity with IEC 61508 Standard (2010 route 2, version) have TÜV (551 series) and EXIDA (551-553 series) certified with integrity levels: SIL 2 for HFT = 0 / SIL 3 for HFT = 1.
- The solenoid valves satisfy all relevant EU directives.

General
Differential Pressure
2 - 10 bar [1 bar = 100 kPa]
Flow (Qv at 6 bar)
L/min (ANR)

<table>
<thead>
<tr>
<th>fluids (+)</th>
<th>temperature range (TS)</th>
<th>seal materials (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>air, inert gas, filtered</td>
<td>-25°C to +60°C</td>
<td>NBR (nitrile) + PUR (polyurethane)</td>
</tr>
</tbody>
</table>

Materials in Contact with Fluid
(+) Ensure that the compatibility of the fluids in contact with the materials is verified.

Body, end cover: Aluminium, black anodized
End cover (spring return): Glass fibre filled PA
Spool valve internal parts: Zamak, stainless steel, POM, aluminium
Core tube, core spring: Stainless steel
Core and plugnut: Stainless steel
Top disc: PA
Pilot seals: FPM, NBR
Shading coil: Copper

Others Materials
Solenoide enclosure: Zinc plated steel (epoxy coated).

Electrical Characteristics

Coil insulation class: F
Coil connection: Embedded screw terminal (cable ø 7 - 12 mm)
Cable entry: Cable gland, polyamide (PA), M20x1,5
Electrical safety: IEC 335
Electrical enclosure protection: IP67 (EN 60529)
Standard voltages: DC (=) : 24V - 48V
(Other voltages and 60 Hz on request) AC (=) : 24V - 48V - 115V - 230V / 50 Hz

Table: Power Ratings

<table>
<thead>
<tr>
<th>prefix option</th>
<th>power ratings</th>
<th>operator temperature range (TS)</th>
<th>replacement coil</th>
</tr>
</thead>
<tbody>
<tr>
<td>–/VA-(VA)-W</td>
<td>–/W-(C)</td>
<td>230 V/50 Hz</td>
<td>400405-117</td>
</tr>
<tr>
<td>WP55</td>
<td>23</td>
<td>10,5</td>
<td>400405-142</td>
</tr>
</tbody>
</table>

Notes:
1) Refer to the dimensional drawings on the following page.

Specifications

<table>
<thead>
<tr>
<th>pipe size</th>
<th>orifice size</th>
<th>flow coefficient</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>0.75</td>
<td>12.5</td>
<td>10</td>
<td>10.5, 11.2</td>
</tr>
<tr>
<td>1/2</td>
<td>3.15</td>
<td>52.5</td>
<td>10</td>
<td>10, 10.5, 11.2</td>
</tr>
</tbody>
</table>

Options:

- MO - single solenoid
- DS - dual solenoid

All leaflets are available on: www.asco.com
OPTIONS

- Valves configured for external pilot air supply with ASCO solenoid interface, TPL 20547
- Compliance with “UL”, “CSA” and other local approvals available on request
- Coil insulation class H for max. ambient temperature +80°C, prefix “WPHT”
- 1/2” NPT (prefix “T”) and M20 x 1.5 (prefix “ET”) conduits (aluminium or 316 SS) available for steel solenoid enclosure
- Other pipe connections are available on request

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- It is necessary to connect pipes or fittings to the exhaust ports to protect the internal parts of the spool valve and its pneumatic operator if used outside or in harsh environments (dusts, liquids etc.)
- IEC 61508 Functional Safety (suffix SL). Check temperature range of valve body and solenoid for suitability. For probability of failure, contact us
- Threaded pipe connection is standard: G = G (ISO 228/1)
- Solenoid enclosure has a cable gland with integral strain relief for cables with an O.D. from 7 to 12 mm and is provided with internal and external grounding terminals
- Valves with suffix “SL” are supplied with specific exhaust protectors
- Installation/maintenance instructions are included with each valve

ACCESSORIES

<table>
<thead>
<tr>
<th>series</th>
<th>pipe size</th>
<th>exhaust protector (stainless steel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>551-553</td>
<td>G 1/8</td>
<td>34600418 (1)</td>
</tr>
<tr>
<td>551</td>
<td>G 1/4</td>
<td>34600419 (1)</td>
</tr>
<tr>
<td>553</td>
<td>G 1/2</td>
<td>34600479 (1)</td>
</tr>
</tbody>
</table>

(1) Supplied with suffix “SL”.

DIMENSIONS (mm), WEIGHT (kg)

A 2 mounting holes: 5.3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm)
B 2 mounting holes: 6.5 mm dia. (Spotfacing: 11 mm dia., depth 6 mm)

TYPE 01
Prefix “WP” Solenoid Metal; epoxy coated IEC 335 IP67

ORDERING EXAMPLES:

- WP G 551 B 417 230V / 50 Hz
- WP G 551 B 417 SL 230V / 50 Hz
- WP G 553 A 418 MO 24V / DC
- WPHT G 551 B 418 MO 230V / 50 Hz
- WP G 553 A 418 MO 115V / 50 Hz

prefix   pipe thread   basic number

- including coil and cable gland.