10 mm
Pilot Valve
The 10 mm pilot valve has been designed and developed by Amisco as a further evolution of the traditional product range manufactured for the pneumatic automation market.

The 10mm solenoid valve is designed for those applications, where high performances in terms of pressure and flow are specified, together with very low power consumption and miniaturized dimension. High reliability even at high cycling rates is granted in any case.

This system is designed for use with air. The solenoid valve is composed by an encapsulated coil joined to a plastic valve body made by PBT. The assembly is not detachable.

All the 10 mm pilot valves feature:

- heat resistant bobbin moulded with 30% glass filled polyethylene terephtlate (PET)
- class H 180°C copper wire according to IEC 60317-51
- encapsulation with high quality specially designed glass filled polypropylene homopolymer
- plunger and core made by a magnetic stainless steel specially designed for solenoid applications.

The pilot assembly is designed for more than 50 million cycles. The valve is normally equipped with HNBR seals and monostable manual override.

The coil is designed and manufactured according to EN 60204.1 and VDE 0580 and it’s suitable for industrial ambient conditions. The pilot is designed only for low voltage DC applications.

Copper and plastic material used are UL-Listed.

The pneumatic connections are located in the valve body. The Amisco 10 mm pilot valve is suitable for the use of subbases or the assembly in batteries, for common pressure and exhaust location. More technical specifications are reported in the following pages.

Pilot valve can be supplied and marked EAC for use in Russian Market. More details about EAC certification can be given on customer request.

The specifications and drawings contained herein are believed to be correct and are given in good faith, however no liability is accepted therefore. Manufacturer reserves the right to modify said specifications and drawings without notice for technical or commercial reasons.
## TECHNICAL DATA

### Pilot Valve technical data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve function</td>
<td>3/2 NC</td>
</tr>
<tr>
<td>Media</td>
<td>air following ISO 8573-1 class 3-4-3</td>
</tr>
<tr>
<td>Lubrification</td>
<td>not necessary</td>
</tr>
<tr>
<td>Temperature</td>
<td>ambient: -5°C to + 50°C</td>
</tr>
<tr>
<td>Fluid</td>
<td>-5°C to + 50°C</td>
</tr>
<tr>
<td>Orifice size</td>
<td>0.8 mm</td>
</tr>
<tr>
<td>Pressure</td>
<td>0 ÷ 8 bar</td>
</tr>
<tr>
<td>Flow rate @ 6 bar and Δp = 1 bar</td>
<td>13NL/min (port1 to port2)</td>
</tr>
<tr>
<td>Kv flow factor</td>
<td>0.20</td>
</tr>
<tr>
<td>Response time</td>
<td>10 ms</td>
</tr>
<tr>
<td>Max cycling time</td>
<td>2400 cpm</td>
</tr>
<tr>
<td>Life time expectancy</td>
<td>50 million cycles</td>
</tr>
<tr>
<td>Manual override</td>
<td>monostable</td>
</tr>
<tr>
<td>Assembly</td>
<td>in any position</td>
</tr>
<tr>
<td>Fixing</td>
<td>n°2 screws M1,6 x 14</td>
</tr>
<tr>
<td></td>
<td>Torque = 0.20 ÷ 0.25 Nm</td>
</tr>
</tbody>
</table>

### Materials

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve body</td>
<td>PBT (Polybutylene terephthalate)</td>
</tr>
<tr>
<td>Seals</td>
<td>HNBR (other materials on request)</td>
</tr>
<tr>
<td>Cores</td>
<td>stainless steel</td>
</tr>
<tr>
<td>Springs</td>
<td>stainless steel</td>
</tr>
<tr>
<td>Coil</td>
<td>PET (polyethylene terephthalate)</td>
</tr>
<tr>
<td>Copper wire</td>
<td>class H 180°C</td>
</tr>
<tr>
<td></td>
<td>IEC 60317-51</td>
</tr>
</tbody>
</table>

### Coil technical data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duty Cycle</td>
<td>ED 100%</td>
</tr>
<tr>
<td>Power</td>
<td>1W</td>
</tr>
<tr>
<td>Voltage</td>
<td>12-24V DC (other voltages on request)</td>
</tr>
<tr>
<td>Voltage variation</td>
<td>± 10%</td>
</tr>
<tr>
<td>Insulation Class</td>
<td>F</td>
</tr>
<tr>
<td>Degrees of protection</td>
<td>IP 40 (according to EN 60529)</td>
</tr>
<tr>
<td>Electrical connection</td>
<td>connector</td>
</tr>
<tr>
<td>Coil construction</td>
<td>according to EN 60204.1 and VDE 0580</td>
</tr>
</tbody>
</table>
10 mm PILOT VALVE axial connection
10 mm PILOT VALVE perpendicular connection
MARKING

Alternative possibilities for CUSTOMER LOGO

ASSEMBLING EQUIPMENTS - to be ordered separately

<table>
<thead>
<tr>
<th>electrical connector</th>
<th>P/N 540471</th>
</tr>
</thead>
</table>

Molex Connector 35155-0200

Leads AWG 26 - UL Style 1007 - 1569
10 mm PILOT VALVE CODING SPECIFICATIONS

**PART NUMBER:**

```
1 O Z P A A K B Y W C * *
```

**ELECTRICAL CONNECTION**

- P = Perpendicular
- A = Axial

**PACKAGING**

- 1 = Plastic tray
- 2 = Single plastic bag

**NOMINAL VOLTAGE**

- C1 = 12VDC
- C2 = 24VDC
- Other voltages available on demand

**WINDING CONFIGURATION**

- B = 1.0 W
- Other winding configurations available on demand

**ASSEMBLING COIL-VALVE**

- 1 = pneumatic and electrical ports on the opposite side

**VALVE TYPES**

- B = 3/2 NC Ø 0.8/1 mm

**SEAL MATERIALS**

- H = HNBR

**MANUAL OVERRIDE**

- M = monostable (no lock) brass

**MARKING**

- AM = Amisco logo and technical specifications
- XX = according to customer demand
- ZN = no marking
Amisco S.p.A.                                                                                                                           Tel. +39 02.9900181
Via Piaggio 70                                                                                                                         Fax +39 02.99001860
20037, Paderno Dugnano (MI) – Italy                                                                                                  www.amisco.it

UE DECLARATION OF CONFORMITY

We declare under our sole responsibility that the product:

**Electrovalve: 10mm**

- Nominal voltage: up to 24V
- Nominal Power: up to 1W [DC]
- Ambient temperature: -5 ÷ +50 °C
- Tolerance range on nominal values: ±10 %

Type of connection and other information are available on AMISCO catalogue or on request.

Is in conformity with the following directives:
- 2014/30/UE EMC
- 2014/35/UE LV
- 2011/65/UE RoHS

with reference (if applicable) to the following harmonized standards:
- EN 12100          [2010]
- EN 60204/1       [2006]
- EN 60100-6-2     [2006]
- EN 60100-6-4     [2006]
- EN 664/1         [2007]
- VDE 0580        [2011]
- EN 61000 - 6.2  [2006]
- EN 61000 - 6.4  [2014]

Filippo Rotondo
Amisco Technical Division Manager
Paderno Dugnano, 20 April 2016

The data supplied in AMISCO Catalogues are to be consulted, and pertinent accident prevention regulations are to be followed during product installation and use. Any unauthorized work performed by purchaser or by third parties can impair its functions, and relieve AMISCO of all warranty claims and liability for any resulting damage.

Certifications

This Certificate does not replace the original EAC Document

In accordance with
SERCONS INTERNATIONAL
Russian Certification Authority in Europe

the company:
AMISCO S.p.A.
Via Piaggio 70,
Paderno Dugnano (MI), 20037
ITALY

fulfills the necessary requirements to be certified according to EAC regulations.

Valid until: 22.05.2023