DC or AC valve solenoid

- According to DIN VDE 0580
- Armature space pressure tight up to 50 bar static pressure
- Armature with spring-supported sealing nipples at both ends
- Insulation materials of the excitation winding correspond to thermal class F
- Electrical connection and protection class when properly installed:
  - Plug connection by spade connectors according to DIN 46247
    Protection class according to DIN VDE 0470 / DIN EN 60529 – IP 00
  - Plug connection via plug connector type Z KB according to DIN EN 175301-803
    Cable gland (4 times 90° rotatable)
    Protection class according to DIN VDE 0470 / DIN EN 60529 – IP 54
- Mounting via central thread
- Simple exchange of the solenoid body without opening the pneumatic circuit
- Please contact us for application related solutions
- Please take into consideration that the physically generated noise caused by AC solenoids may be disturbing in quiet rooms, particularly if mounted on a resonant base!
- Application examples:
  Actuation of 2/2 and 3/2-way-seat-valves, especially for pneumatics and other gasiform and fluid neutral media
Technical data

**X BP X 030 K54 A01**

<table>
<thead>
<tr>
<th>Operating mode</th>
<th>Rated Power $P_{20}$</th>
<th>Stroke s</th>
<th>Reference temperature $\theta_{11}$</th>
<th>Magnetic force $F_m$ (N)</th>
<th>Solenoid weight $m_s$</th>
<th>Armature weight $m_a$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DC (W)</td>
<td>(mm)</td>
<td>(°C)</td>
<td>DC Stroke 0 mm</td>
<td>36</td>
<td>0,2</td>
</tr>
<tr>
<td></td>
<td>AC (VA)</td>
<td></td>
<td></td>
<td>Stroke s mm</td>
<td>8,5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AC Stroke 0 mm</td>
<td>16,7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Stroke s mm</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

Rated voltage 24 V, resp. 230 V / 50 Hz, the exciter coil can be adjusted to a rated voltage of maximum 250 V resp. 250 V / 50 Hz on request.

Standard values for voltage and operating mode: 24 V DC, 24 V / 50 Hz, S1 (100%).

The force values indicated in the tables refer to 90% of the rated voltage without spring (UN = 24 V resp. 230 V / 50 Hz, for other voltages deviations of the magnetic force may occur) and to the normal operating temperature. Due to natural dispersion the force values may deviate by + 10% from the values indicated in the tables.

We recommend using compressed air corresponding to DIN ISO 8573/1, class 3. Elastomer neutral oils should be used for lubricating the compressed air, otherwise we ask you to please contact the manufacturer.

The normal operation temperature is based on:
- a) Mounting on a valve block with the dimensions 50 x 50 x 22 mm
- b) Rated voltage: 24 V, AC 230 V / 50 Hz
- c) Operating mode S1 100%
- d) Reference temperature 60 °C

The response times and the maximum operating frequency are not indicated, because they depend on the respective application case and pressure. According to the application the maximum operating frequency may be up to 36,000 S/h.

These date apply to media compressed air for application as 3/2-way-valve de-energized closed. The nominal width of deaeration has to be adapted accordingly to the nominal width of the valve.

Fig. 2: Switchable pressure as function of the nominal width of the valve seat Standard type NW = ∅ 2.5 mm

Information and remarks concerning European directives can be taken from the correspondent information sheet which is available under Produktinfo.Magnet-Schultz.com.

Note on the RoHS Directive

According to our current state of knowledge the devices pictured in this document do not contain any substances in concentration values or applications for which putting into circulation with products manufactured from them is prohibited in accordance to RoHS.

Please make sure that the described devices are suitable for your application. Our offers for these devices are based on the assumption of maximal 8 in an FMEA severity table, i.e. in case of malfunction of the device model as offered, there is, amongst others, no jeopardy of life or limb. Supplementary information concerning its proper installation can be taken also from the –Technical Explanation, the effective DIN VDE0580 as well as the relevant specifications.

This part list is a document for technically qualified personnel. The present publication is for informational purposes only and shall not be construed as mandatory illustration of the products unless otherwise confirmed expressively.
Dimensional drawing

Fig. 3: X BPX 030 K54 A01

Application example and switching function

Fig. 4: X BP X 030 K54 A01
for 3/2-way-valve, de-energized closed
The valve construction shall be executed according to fig. 7.

Valve seat with largest possible rectangularity to the armature axis of the solenoid and a conical profile with a smooth surface ensure a maximum performance and service life of the solenoid valve.

**Fig. 5:** Valve to X BP X 030 K54 A01

**Type code**

- **Device group**
- **Series**
- **Modifications**
- **Size in the series**
- **Execution in the series**
- **Protection code**
- **Design number**

**Order example**

- **DC**
  - Type: X BP X 030 K54 A01
  - Voltage: 24 V DC
  - Operating mode: S1 (100 %)

- **AC**
  - Type: X BP X 030 K54 A01
  - Voltage: 230 V / 50 Hz
  - Operating mode: S1 (100 %)

**Specials designs**

Please do not hesitate to ask us for application-oriented problem solutions. In order to find rapidly a reliable solution we need complete details about your application conditions. The details should be specified as precisely as possible in accordance with the relevant Technical Explanations.

If necessary, please request the support of our corresponding technical office.