Compact pressure switch
for multiple actuators

GW…A5
GW…A5/1

5.02

Technical description
The GW…A5 pressure switch is a compact pressure switch as per EN 1854 for DUNGS multiple actuators. The pressure switches are suitable for switching a circuit on, off or over on changes in actual pressure relative to the set switching point (reference value).

The switching point can be set easily and quickly using a setting wheel provided with a scale without using a pressure gauge.

Suitable for gases of families 1,2,3 and other neutral gaseous media.

Approvals
EC-type testing certificate as per:
• EC-Gas Appliances Regulation
• EC-Pressure Equipment Directive

Pressure switch class "S" as per EN 1854.

Approvals in other important gas-consuming countries.

Application
Pressure switches for DUNGS multiple actuators GasMultiBloc and DMV double solenoid valve which can be either mounted directly on housing or by using an adapter.
Functional description
Single-acting pressure switch in over-pressure range.
The pressure switches operate without any power supply.

Switching response
GW…A5
Short response time during pressure fluctuations.

GW…A5/1
Slow response time during short-term pressure fluctuations by additional damping nozzle.

Pressure Switch
The GW…A5 is a single-acting pressure switch acting in pressure range. The control unit responds to pressure. If the set reference value is exceeded or undershot, the circuit is switched on, off or over.

Specifications

<table>
<thead>
<tr>
<th>Max. operating pressure</th>
<th>GW 3 A5 - GW 150 A5</th>
<th>500 mbar (50 kPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GW 500 A5</td>
<td>600 mbar (60 kPa)</td>
<td></td>
</tr>
</tbody>
</table>

Pressure connection
O ring flange connection on underside of pressure switch

Measuring connection
ø 9, length 10 mm, with screw plug

Temperature range
Ambient temperature: -15 °C to +70 °C
Medium temperature: -15 °C to +70 °C
Storage temperature: -30 °C to +80 °C

Materials
Housing: Aluminium die casting
Switch: Polyamide
Diaphragms: NBR
Switching contact: Ag

Switching voltage
AC eff. min. 24 V max. 250 V
DC min. 24 V max. 48 V

Nominal current
GW 10…500 A5
AC eff. max. 10 A
GW 3 A5
AC eff. max. 6 A

Switching current
AC eff. max. 6 A at cos ϕ 1
AC eff. max. 3 A at cos ϕ 0,6
AC eff. min. 20 mA
DC min. 20 mA
DC max. 1 A

Electrical connection
Plug connection for line sockets as per DIN EN 175 301-803, 3-pin, protection insulated without ground connection

Degree of protection
IP 54 as per IEC 529 (EN 60529)

Setting tolerance
±15% switching point deviation referred to reference value, adjusted at pressure rises, vertical diaphragm position

Deviation
Permissible deviation of the set value ≤ ± 15 % in the service life test according to EN 1854
**Definition of Δp switching difference**

The Δp switching difference is the pressure difference between the upper and lower switching pressure.

**Switching difference Δp @ GW...A5/A6**

Depending on the corresponding set value (p↓)

<table>
<thead>
<tr>
<th>Installation position</th>
<th>Standard installation position; GW 3…50 A5 max. ± 0,6 mbar</th>
<th>GW 150 A5 max. ± 1 mbar</th>
<th>GW 500 A5 max. ± 3 mbar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In the horizontal installation position the switching pressure is increased.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>When the pressure switch is mounted horizontally overhead, its switching pressure decreases.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>When the pressure switch is mounted in an intermediate position, its switching pressure deviates.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Dimensions [mm]

**Designation**

GW 150 A5 [Ag-G3-MS6-V12]

- **Pressure connection**
  - V12: Pressure connection G 1/4 position 12
- **Test nipple**
  - MS6: Test nipple at position 6
- **Electrical connection**
  - G3: Equipment connector, 3 pin protection-insulated, w/o grounding
- **Contact material**
  - Ag
- **Setting ranges**
  - 3: 0.1 - 0.3 kPa, 1 - 3 mbar
  - 10: 0.2 - 1 kPa, 2 - 10 mbar
  - 50: 0.5 - 5 kPa, 5 - 50 mbar
  - 150: 0.5 - 15 kPa, 5 - 150 mbar
  - 500: 10.0 - 50 kPa, 100 - 500 mbar
- **Pressure switch design**
  - GW...A5: Pressure switch switches when the setpoint is exceeded or undershot.
  - GW...A5/1: Pressure switch with damping nozzle switches on if the set reference value is exceeded or undershot

**Order example**

- **Pressure switch design**
  - Pressure Switch GW...A5
- **Setting range**
  - 0.5 - 15 kPa (5 - 150 mbar)
- **Contact material**
  - Ag
- **Electrical connection**
  - Equipment connector
- **Pressure connection**
  - At position 12
- **Test nipple**
  - MS6

**GW 150 A5 [Ag-G3-MS6-V12]**
### Accessories

<table>
<thead>
<tr>
<th>Accessories</th>
<th>Order-No. for Type</th>
<th>Nominal diameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mounting kit (2 x M4x20,1 x O-ring)</td>
<td>223 280</td>
<td></td>
</tr>
<tr>
<td>Adapter $p_{br}$</td>
<td>273 777</td>
<td>Rp 3/8 - Rp 2</td>
</tr>
<tr>
<td>Adapter on threaded flange (G 1/8)</td>
<td>221 630</td>
<td>Rp 3/8 - Rp 1 1/4</td>
</tr>
<tr>
<td>Adapter kit for GW ... A5 with G 1/4 connection</td>
<td>222 982</td>
<td>Rp 3/8 - Rp 2</td>
</tr>
<tr>
<td>Special adapter on request</td>
<td>MB- ...</td>
<td>DN 40 - DN 125</td>
</tr>
<tr>
<td>Line socket 3-pin + E grey GDMW</td>
<td>210 318</td>
<td></td>
</tr>
</tbody>
</table>

### Brief technical data

1 kPa = 10 mbar = 1000 Pa = 100 mm WS

<table>
<thead>
<tr>
<th>Type</th>
<th>Version [AG-G3-MS6-V12]</th>
<th>Order No. 1 piece</th>
<th>Order No. 100 pieces</th>
<th>Setting range [mbar] max.</th>
<th>Switching difference $\Delta p$ [mbar] $p_{\text{min.}}$ $p_{\text{max.}}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>GW...A5</td>
<td>GW 3 A5</td>
<td>272 362</td>
<td>–</td>
<td>1 - 3 ± 15 %</td>
<td>≤ 0,7 ≤ 0,8</td>
</tr>
<tr>
<td>pressure</td>
<td>GW 10 A5</td>
<td>272 350</td>
<td>225 938</td>
<td>2 - 10 ± 15 %</td>
<td>≤ 1,3 ≤ 1,5</td>
</tr>
<tr>
<td>switch</td>
<td>GW 50 A5</td>
<td>272 340</td>
<td>225 939</td>
<td>5 - 50 ± 15 %</td>
<td>≤ 2,5 ≤ 3</td>
</tr>
<tr>
<td></td>
<td>GW 150 A5</td>
<td>272 339</td>
<td>225 940</td>
<td>5 - 150 ± 15 %</td>
<td>≤ 5 ≤ 10</td>
</tr>
<tr>
<td></td>
<td>GW 500 A5</td>
<td>272 349</td>
<td>227 639</td>
<td>100 - 500 ± 15 %</td>
<td>≤ 18 ≤ 25</td>
</tr>
<tr>
<td></td>
<td>with mounting kit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GW...A5/1</td>
<td>GW 10 A5/1</td>
<td>241 245</td>
<td>–</td>
<td>2 - 10 ± 15 %</td>
<td>≤ 1,3 ≤ 1,5</td>
</tr>
<tr>
<td>pressure</td>
<td>GW 50 A5/1</td>
<td>241 246</td>
<td>–</td>
<td>5 - 50 ± 15 %</td>
<td>≤ 2,5 ≤ 3</td>
</tr>
<tr>
<td>switch</td>
<td>GW 150 A5/1</td>
<td>241 247</td>
<td>–</td>
<td>5 - 150 ± 15 %</td>
<td>≤ 5 ≤ 10</td>
</tr>
<tr>
<td></td>
<td>GW 500 A5/1</td>
<td>241 248</td>
<td>–</td>
<td>100 - 500 ± 15 %</td>
<td>≤ 18 ≤ 25</td>
</tr>
<tr>
<td></td>
<td>with damping orifice and mounting kit</td>
<td></td>
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</tbody>
</table>
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for multiple actuators

GW…A5
GW…A5/1

We reserve the right to make any changes in the interest of technical progress.