Pressure Switch for gas and air

GAO-A4…
GMH-A4…
GML-A4…

Description
The GAO-, GMH- and GML-A4… ventless pressure switches are adjustable pressure switches for automatic burner controls.

These pressure switches are suitable for making and/or breaking a circuit when the medium pressure changes relative to the set point. The set point can be set in the field by an adjustable dial with an integrated scale. Test nipple integrated in metal housing to verify set point.

Application
The GAO-, GMH-, and GML-A4… pressure switch is recommended for industrial and commercial heating, ventilation and air-conditioning systems.

The GAO-, GMH-, and GML-A4… pressure switch is suitable for dry natural gas, propane, butane, air and other inert gases. Suitable for up to 0.1 % by volume, dry H₂S.

A “dry” gas has a dew point lower than +15 °F and its relative humidity is less than 60 %.

UL Listed
• UL 353
• File # MH 16628

CSA Certified
• CSA C22.2 No. 13 and No. 0
• Certification file # 201527

FM Approved
• Class 3510, 3530
• File # J.I. 1Y919.AF

Commonwealth of Massachusetts Approved Product
• Approval code G3-0106-191
• Gas pressure switch

Codes and Standards
This product is intended for installations covered by but not limited to NFPA 85, NFPA 86, UL 795, CSD-1, ANSI Z83.4, ANSI Z83.18, ANSI Z21.13, CSA B149.1, CSA B149.3 and CSA B149.6.

DUNGS is an ISO 9001 manufacturing facility.
GAO-A4… SPDT pressure switch requires no auxiliary power. The GAO-A4… is suitable for making and/or breaking a circuit when the set point is exceeded or undershot. A tripped switch is indicated by a neon light after set point is exceeded or undershot. Automatic reset when pressure returns below or above set point.

GMH-A4… SPDT pressure switch requires no auxiliary power. The GMH-A4… is suitable for making and/or breaking a circuit when the set point is exceeded. A tripped switch is indicated by a neon light after set point is exceeded. Manual reset is required to reset the switch.

GML-A4… SPDT pressure switch requires no auxiliary power. The GML-A4… is suitable for making and/or breaking a circuit when the set point is undershot. A tripped switch is indicated by a neon light after set point is undershot. Manual reset is required to reset the switch.

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>GAO-A4-4-2,3,5,6</th>
<th>GMH- and GML-A4-4-4,6</th>
<th>GAO-, GMH- and GML-A4-4-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. operating pressure</td>
<td>7 PSI (500 mbar)</td>
<td>7 PSI (500 mbar)</td>
<td>14 PSI (1000 mbar)</td>
</tr>
<tr>
<td>Max. body pressure</td>
<td>15 PSI (1033 mbar)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure connection</td>
<td>Standard: 1/4” NPT female thread centered underside of housing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature range:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GAO-, GMH- and GML-A4-4</td>
<td>Ambient temperature: -40 °F to +140 °F (-40 °C to +60 °C)</td>
<td>Medium temperature: -40 °F to +140 °F (-40 °C to +60 °C)</td>
<td></td>
</tr>
<tr>
<td>GAO-, GMH- and GML-A4-4-8</td>
<td>Ambient temperature: -22 °F to +140 °F (-30 °C to +60 °C)</td>
<td>Medium temperature: -22 °F to +140 °F (-30 °C to +60 °C)</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>Housing: Aluminium</td>
<td>Switch: Polycarbonate</td>
<td>Diaphragm: NBR-based rubber</td>
</tr>
<tr>
<td>Electrical ratings</td>
<td>AC eff. min. 24 V max. 240 V</td>
<td>DC min. 24 V max. 48 V</td>
<td></td>
</tr>
<tr>
<td>Nominal current</td>
<td>Silver (Ag) contact ratings</td>
<td>Gold (Au) contact ratings</td>
<td></td>
</tr>
<tr>
<td>Indication light</td>
<td>0.30 W energy consumption</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical connection</td>
<td>Screw terminals via 1/2” NPT conduit connection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enclosure rating</td>
<td>NEMA Type 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setting tolerance</td>
<td>±15% switching point deviation referred to set point. Adjusted as pressure rises or as pressure falls, vertical diaphragm position.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vent Limiter</td>
<td>Incorporates a vent limiter as per UL 353 and limits the escape of gas less than 1.0 CFH of natural gas at 7 PSI if internal switch diaphragm ruptures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Dimensions inch (mm)
GAO-, GMH-, GML-A4...

Integrated 1/8" test nipple

Reset button
GMH-A4...
GML-A4...

NPT 1/2" conduit connection

1/4" NPT pressure connection
3 (76)

4 X Ø 0.16(4,2)
for M4 screws

2.8 (72)
Definition of switching hysteresis Δp
The pressure difference between the upper and lower switching pressures

GAO (Shown as a high gas limit)
As pressure rises above set point, 1 NC opens, 2 NO closes, Neon light ON (fault). As pressure falls below setpoint, switch resets: 1 NC closes and 2 NO opens, Neon light off.

GMH (Operating state shown)
As pressure rises, 2 NO closes, 1 NC opens, and Neon light ON (fault), switch trips and locks out.

GML (Operating state shown)
As pressure falls, 2 NO opens, 1 NC closes, Neon light ON (fault), switch trips and locks out.
NOTE: Always calibrate the switch in the desired mounting position.
## Pressure Switch for gas and air

**GAO-A4…**
**GMH-A4…**
**GML-A4…**

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### Type | Version | Order No. | Setting range in W.C. | Switching hysteresis in W.C. | Factory Calibration
--- | --- | --- | --- | --- | ---
**GAO-A4… pressure switch**
GAO-A4-4-2 | 266919 | 0.16 - 1.20 | ≤ 0.12 |
GAO-A4-4-3 | 266920 | 0.40 - 4.00 | ≤ 0.20 |
GAO-A4-4-4-5 | 266921 | 2.00 - 20.00 | ≤ 0.40 |
GAO-A4-4-6 | 266922 | 12.00 - 60.00 | ≤ 1.2 |
GAO-A4-4-8 | 266923 | 40.00 - 200.00 | ≤ 4.0 |
GAO-A4-4-2 Gold | 266965 | 0.16 - 1.20 | ≤ 0.12 |
GAO-A4-4-3 Gold | 266958 | 0.40 - 4.00 | ≤ 0.20 |
GAO-A4-4-5 Gold | 266959 | 2.00 - 20.00 | ≤ 0.40 |
GAO-A4-4-6 Gold | 266960 | 12.00 - 60.00 | ≤ 1.2 |
GAO-A4-4-8 Gold | 266966 | 40.00 - 200.00 | ≤ 4.0 |

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### GMH-A4… pressure switch
GMH-A4-4-4 | 266927 | 1.00 - 20.00 | -- |
GMH-A4-4-6 | 266928 | 12.00 - 60.00 | -- |
GMH-A4-4-8 | 266930 | 40.00 - 200.00 | -- |
GMH-A4-4-4 Gold | 266961 | 1.00 - 20.00 | -- |
GMH-A4-4-6 Gold | 266962 | 12.00 - 60.00 | -- |

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### GML-A4… pressure switch
GML-A4-4-4 | 266945 | 1.00 - 20.00 | -- |
GML-A4-4-6 | 266947 | 12.00 - 60.00 | -- |
GML-A4-4-8 | 266948 | 40.00 - 200.00 | -- |
GML-A4-4-4 Gold | 266963 | 1.00 - 20.00 | -- |

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**Accessories for pressure switch**

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>267182</td>
<td>Replacement cover (with screws)</td>
</tr>
<tr>
<td>220566</td>
<td>PG 11 - 1/2&quot; NPT conduit adapter</td>
</tr>
<tr>
<td>240671</td>
<td>M 20 - 1/2&quot; NPT conduit adapter</td>
</tr>
<tr>
<td>244156</td>
<td>120 VAC neon light (orange)</td>
</tr>
<tr>
<td>244157</td>
<td>24 VAC/VDC light (orange)</td>
</tr>
<tr>
<td>210318</td>
<td>DIN connector (female plug)</td>
</tr>
<tr>
<td>219659</td>
<td>Male plug for DIN connector</td>
</tr>
</tbody>
</table>

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