



SPECIFICATIONS

High/low gas pressure switch (SPDT) with automatic or manual reset and with visual indication of switch position. Mounts directly to various ports on the DMV series valves and/or FRI series regulators.

Gases

Natural gas, Propane, Butane; Other Noncorrosive gases

Switch

SPDT

Switch action

GAO: high/low limit, NC breaks on rise, automatic reset

GMH: high limit, NC breaks on rise, manual reset

GML: low limit, NO breaks on fall, manual reset

Contact Rating

10 A res., 8 FLA, 48 LRA @120 Vac

Electrical Connection

1/2" NPT NPT 1/2" conduit connection

Enclosure

NEMA Type 4

Maximum Operating Pressure

7 PSI (500 mbar)

Ambient / Fluid Temperature

-40°F to +140°F; (-40°C to +60°C)

Materials in contact with Gas

Housing: Aluminum, Steel; Seals: NBR-based rubber

Approvals

UL Listed: File No. MH 16628, Guide No. MFHX

FM Approved: Report J.I. 1T7A8.AF and J.I. 1Y9A9.AF

CSA Certified: LR 73925

ATTENTION

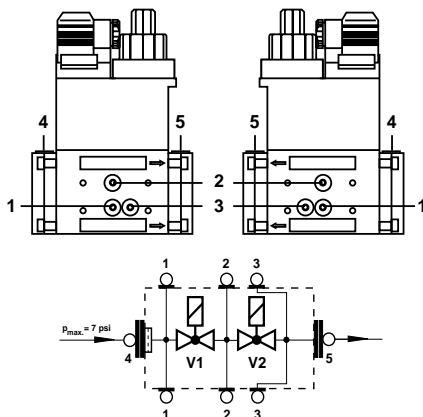
- Read these instructions carefully.
- Failure to follow them and/or improper installation may cause explosion, property damage and injuries.
- Installation must be done with the supervision of a licensed burner technician.
- The system must meet all applicable national and local code requirements.
- Check the ratings in the specifications and on the switch to make sure that it is suitable for your application.
- Never perform work if gas pressure or power is applied, or in the presence of an open flame.
- Once installed, perform a complete checkout including leak testing.
- Label all wires prior to disconnection when servicing. Wiring errors can cause improper and dangerous operation
- Verify proper operation after servicing.

MOUNTING

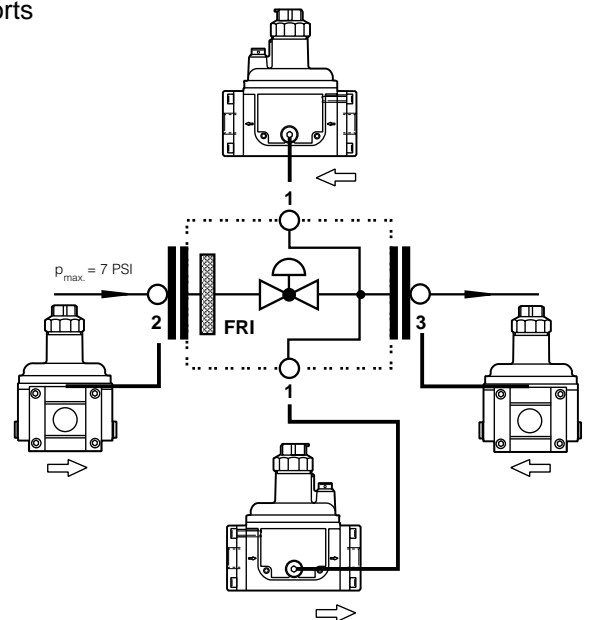
Location

Model GAO-A2-4, GMH-A2-4, and GML-A2-4 can be mounted directly to various ports on the DMV system. The pressure switch should be mounted in locations meeting the requirements of the applicable code. Order mounting kit D214975 for DMV port 3 mount.

DMV ports



FRI ports



KARL DUNGS INC.

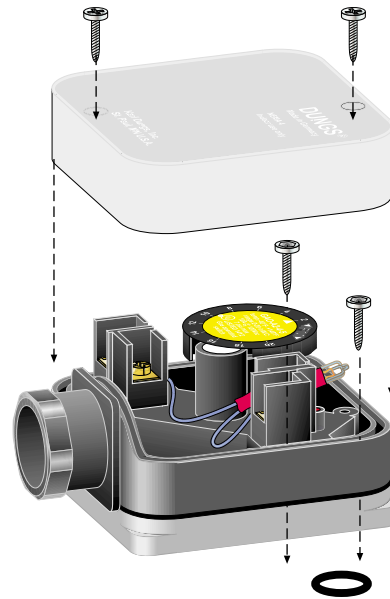
524 Apollo Drive, Suite 10 Lino Lakes, MN 55014 U.S.A.

Phone: (651) 792-8912 Fax: (651) 792-8919 E-mail: info@karldungsusa.com

MOUNTING

Recommended Mounting Procedure

- Remove the clear cover of the switch.
- Take out the self tapping socket head screws.
- Make sure the O-ring and the groove are clean and in good condition.
- Place the O-ring into the groove on the back of the pressure switch.
- Remove the G 1/8 plug from the port on the flange, the regulator, or the valve with a 3 mm hex key wrench.
- Mount the switch onto the port using the M 4 x 20 mm socket head screws.
- Make sure that the O-ring is located in the groove.
- Tighten the screws snugly, do not exceed 22 lb-in
- Perform a leak test to verify that no leakage occurs around the O-ring.



ATTENTION: Venting is NOT required. The switches have a built in restricting orifice.

WIRING

- Remove the clear cover from the switch.
- Use 14 or 16 AWG wire rated for at least 75°C
- Route the wires through the conduit connector
- Connect the wiring to the appropriate screw terminals on the terminal strip.

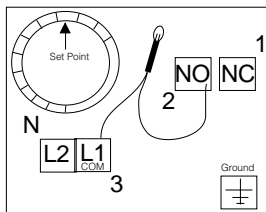


CAUTION: All wiring must comply with local electrical codes, ordinances and regulations.



CAUTION: Do not exceed the switch ratings given in the specifications and on the switch.

Wiring terminal illustration



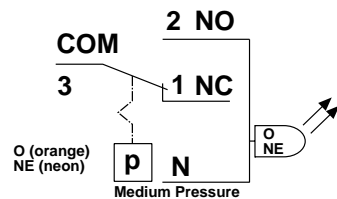
GAO switching function (upper)

As pressure rises:

1 NC opens, 2 NO closes

As pressure falls:

1 NC closes, 2 NO opens

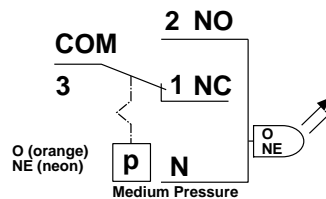


GMH switching function

As pressure rises

2 NO closes, 1 NC opens

Neon light ON, tripped.

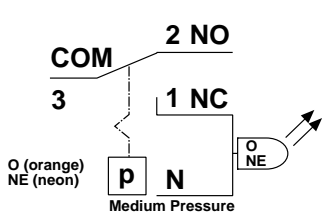


GML switching function shown in Operating state.

As pressure falls

2 NO opens, 1 NC closes

Neon light ON, tripped.



OPERATION

Set Point Calibration

The set point dial of the GAO and GMH is factory calibrated with increasing pressure (GML: decreasing pressure). Due to hysteresis the GAO switch will actuate at a slightly lower point when the pressure decreases.

Adjusting the Set Point

- Remove the clear cover from the switch.
- Adjust the set point to the desired set point pressure by turning the dial until the desired pressure is opposite the white arrow on the yellow dial face.
- After adjusting the set point for normal operation check to see that the gas pressure switch operates as intended.
- Use an accurate pressure gauge connected upstream from the switch to measure the actual pressure.
- Replace the clear cover.

Automatic Reset

The NC contact of the GAO-A2-4 breaks when pressure rises above the set point. It makes automatically when pressure falls below set point.

Manual Reset

The NC contact of the GMH-A2-4 breaks when pressure rises to the set point. The NO contact of the GML-A2-4 breaks when pressure falls to set point. Neither of the switches will return to their former position automatically. To reset one of these pressure switches, wait until the pressure falls (GML-A2-4: rises) below (GML-A2-4: above) the set point. Then press the clear cover over the red reset button in the center of the yellow dial face and release it.