

Pressure switch for gas and air

GAO A4
GMH A4
GML A4

DUNGS®



UL Listed

- UL 353
- File # MH 16628

CSA Certified

- CSA C22.2 Number 14-M1987
- Certification # 201527

FM Approved

- Class 3510, 3530
- File # J.I. 1T7A8.AF



European models tested to EN 1854 per Gas Appliance Directive 90/396/EEC.

DUNGS is an ISO 9001 manufacturing facility.

Description

The DUNGS GAO, GMH and GML A4 pressure switches are adjustable pressure switches for automatic burner controls.

A4 pressure switches are suitable for making and/or breaking a circuit relative to changes in medium pressure 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 setpoint.

Application

The DUNGS 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 natural gas, propane, butane, air and other inert gases.

GAO A4 SPDT pressure switch that 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 that 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 that 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

Max. operating pressure	GAO A4-4-2,3,5,6 GMH, GML A4-4-4,6 GAO, GMH and GML A4-4-8	7 PSI (500mbar) 7 PSI (500mbar) 14 PSI (1000 mbar)
Max. body pressure	15 PSI (1033 mbar)	
Pressure connection	Standard: 1/4" NPT female thread centered underside of housing.	
Temperature range GAO, GMH and GML	Ambient temperature Medium temperature	-40 °F to +140 °F (-40 °C to +60 °C) -40 °F to +140 °F (-40 °C to +60 °C)
GAO, GMH and GML A4-4-8	Ambient temperature Medium temperature	-22 °F to +140 °F (-10 °C to +60 °C) -22 °F to +140 °F (-10 °C to +60 °C)
Materials	Housing Switch Diaphragms Switching contact	Aluminium Polycarbonate NBR-based rubber Silver or Gold
Electrical ratings	AC eff. DC min. 24 V max. 48 V	min. 24 Vac max. 240 V
Current ratings	Silver (Ag) contact ratings AC 10A resistive @ 120 Vac AC 8A inductive @ 120 Vac DC min. 20 mA @ 24 Vdc DC max. 1 A @ 48 Vdc	Gold (Au) contact ratings DC min. 5 mA @ 5 Vdc DC max. 10mA @ 24 Vdc
Electrical connection	Screw terminals via 1/2" NPT conduit connection	
Enclosure rating	NEMA 4	
Setting tolerance	± 15% switching point deviation referred to set point, adjusted as pressure rises, vertical diaphragm position	

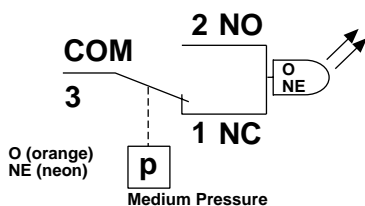
GAO switching function

As pressure rises:

1 NC opens, 2 NO closes

As pressure falls:

1 NC closes, 2 NO opens

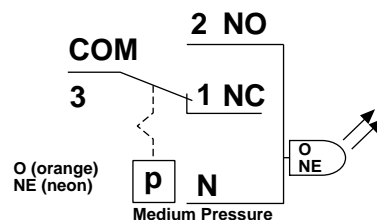


GMH switching function

As pressure rises

2 NO closes, 1 NC opens

Neon light ON, tripped.



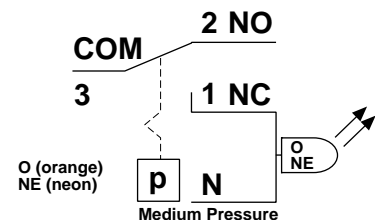
GML switching function

shown in operating state.

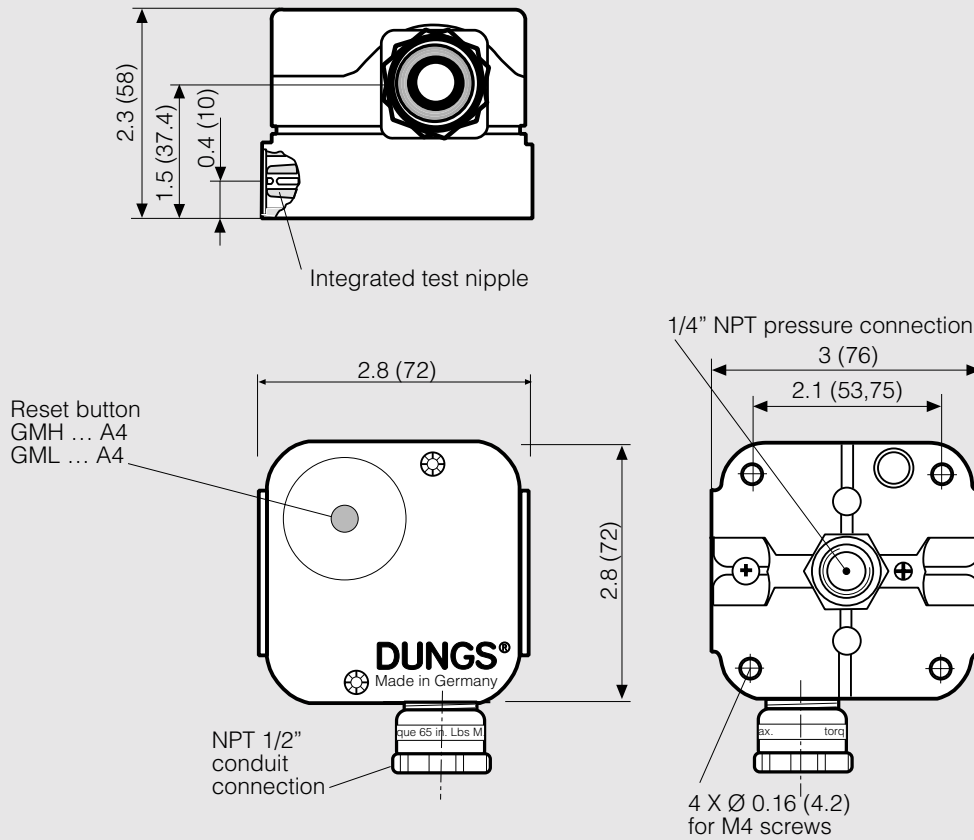
As pressure falls

2 NO opens, 1 NC closes

Neon light ON, tripped.



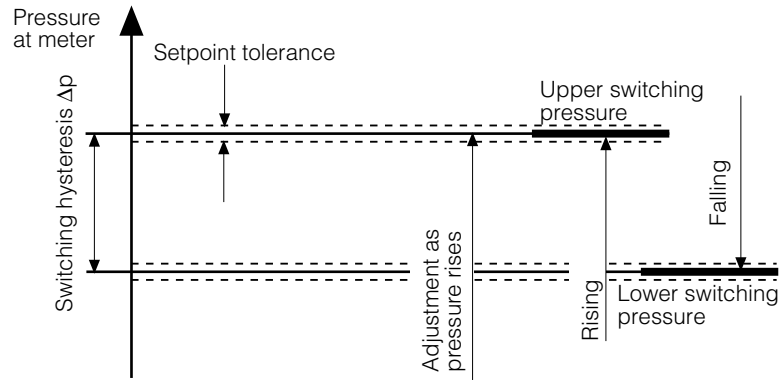
**Dimensions inch (mm)
GAO, GMH, GML ...A4**



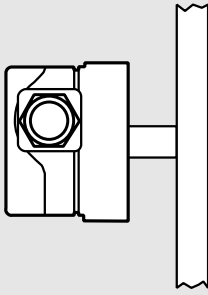
A4 Accessories	Order No.	For equipment	Notes
Replacement Cover	D223 798	GAO	NEMA 4
	D233 116	GMH, & GML	NEMA 4
Replacement Conduit Adapter	46000-14	GAO, GMH, & GML	1/2" NPT
Replacement Neon Light	46000-7	GAO, GMH, & GML	120 Vac, Red bulb
Replacement Neon Light	D231 771	GAO, GMH, & GML	24 Vac / Vdc, Red bulb Gold contact versions
Electrical Plug for A4 (For use with D210 318)	D219 659	GAO	N/A
Electrical Plug for A4 (For use with D210 318)	D227 664	GMH & GML	N/A
Din Connector for A4 (For use with D210 659 & D227 664)	D210 318	GAO, GMH, & GML	N/A
Double pressure switch mounting kit	D239 812	GAO, GMH, & GML	N/A
Metal mounting bracket	D230 288	GAO, GMH, & GML	N/A

Definition of switching hysteresis

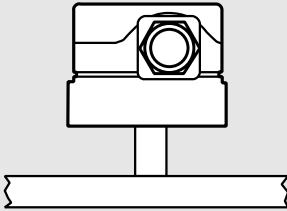
The pressure difference between the upper and lower switching pressures



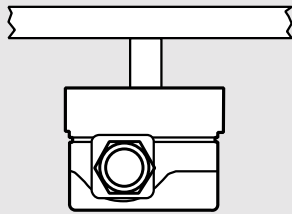
Installation position



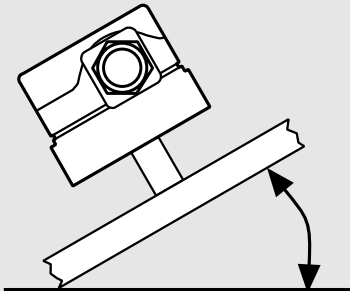
Standard installation position




When installed horizontally, the pressure switch switches at a pressure higher by approximately 0.2 in wc (0.5 mbar).



When installed upside down, the pressure switch switches at a pressure lower by approximately 0.2 in wc (0.5 mbar).



When installed in other position the pressure switch switches at pressure deviating from the set reference value by max. ± 0.2 in wc (0.5 mbar).

 **NOTE: Always calibrate the switch in the desired mounting position**

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Technical data

Type	Version	Order No.	Setting range In. W.C.	Switching hysteresis In. W.C. (calibrated at)	
GAO A4 pressure switch	GAO A4-4-2	46014-2	0.16 - 1.20"	≤ 0.12"	
	GAO A4-4-3	46014-3	0.40 - 4.00"	≤ 0.20"	
	GAO A4-4-5	46014-5	2.00 - 20.00"	≤ 0.40"	
	GAO A4-4-6	46014-6	12.0 - 60.00"	≤ 1.20"	
	GAO A4-4-8	46014-8	40.00-200.00"	≤ 4.00"	
	GAO A4-4-2 Gold	46014-12	0.16 - 1.20"	≤ 0.12"	
	GAO A4-4-3 Gold	46014-13	0.40 - 4.00"	≤ 0.20"	
	GAO A4-4-5 Gold	46014-15	2.00 - 20.00"	≤ 0.40"	
	GAO A4-4-6 Gold	46014-16	12.0 - 60.00"	≤ 1.20"	
	GAO A4-4-8 Gold	46014-18	40.00-200.00"	≤ 4.00"	
GMH A4 pressure switch	GMH A4-4-4	46015-4	1.00 - 20.00"	--	
	GMH A4-4-6	46015-6	12.00 - 60.00"	--	
	GMH A4-4-8	46015-8	40.00-200.00"	--	
	GMH A4-4-4 Gold	46015-14	1.00 - 20.00"	--	
	GMH A4-4-6 Gold	46015-16	12.00 - 60.00"	--	
GML A4 pressure switch	GML A4-4-4	46016-4	1.00 - 20.00"	--	
	GML A4-4-6	46016-6	12.00 - 60.00"	--	
	GML A4-4-8	46016-8	40.00-200.00"	--	
	GML A4-4-4 Gold	46016-14	--	--	

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



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