



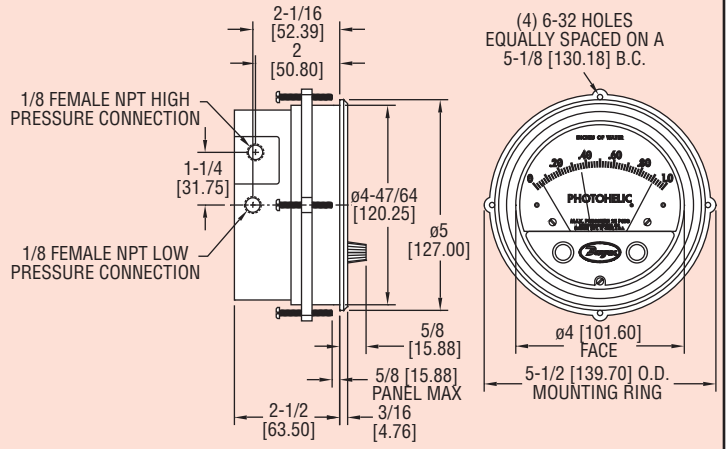
Series  
3000MR  
3000MRS

# Photohelic® Switch/ Gages

Combines Differential Pressure Gage with Low/ High Set-points



Differential Pressure Gages/Switches, Dial



Using solid state technology, the Series 3000MR and 3000MRS Photohelic® switch/gages combine the functions of a precise, highly repeatable differential pressure switch with a large easy-to-read analog pressure gage employing the durable, time-proven Magnehelic® gage design. Switch setting is easy to adjust with large external knobs on the gage face. Gage reading is unaffected by switch operation – will indicate accurately even if power is interrupted. Solid state design now results in greatly reduced size and weight. Units can be flush mounted in 4-13/16" (122 mm) hole or surface mounted with hardware supplied. 3000MR models employ versatile electromechanical relays with gold over silver contacts – ideal for dry circuits. For applications requiring high cycle rates, choose 3000MRS models with SPST (N.O.) solid state relays. All models provide both low and high limit control and include 18-inch (45 cm) cable assemblies for electrical connections. Gage accuracy is ±2% of full scale and switch repeatability is ±1%. Switch deadband is one pointer width – less than 1% of full scale. Compatible with air and other non-combustible, non-corrosive gases, they can be used in systems with pressures to 25 psig (1.725 bar). Optional construction is available for use to either 35 psig (2.42 bar) or 80 psig (5.51 bar).

**INCLUDED ACCESSORIES**

- Mounting ring, snap ring (4) 6-32 x 1-1/4" RH machine screws (panel mounting)
- 18" (45 cm) cable assembly (2) 3/16" tubing to 1/8" NPT adapters (3) 6-32 x 5/16" RH machine screws (surface mounting)
- (2) 1/8" NPT pipe plugs



**A-320-B1**

Custodia con attacchi pneumatici e pressacavo già predisposti. IP66

**SPECIFICATIONS**

**GAGE SPECIFICATIONS**

- Service:** Air and non-combustible, compatible gases.
- Wetted Materials:** Consult factory.
- Accuracy:** ±2% of full scale (3000-0 ±3% of full scale). (3000-00 ±4% of full scale).
- Pressure Limit:** -20" Hg. to 25 psig (-0.677 bar to 1.72 bar). MP option; 35 psig (2.41 bar), HP option; 80 psig (5.52 bar).
- Temperature Limits:** 20 to 120°F (-6.67 to 48.9°C).
- Process Connections:** 1/8" female NPT (duplicated side and back).
- Size:** 4" (101.6 mm) dial face, 5" (127 mm) O.D. x 3-1/8" (79.38 mm).
- Weight:** 1.8 lb (816 g).

**SWITCH SPECIFICATIONS 3000MR**

- Switch Type:** Each setpoint has 1 form C relays (SPDT).
- Relay Contacts:** (Resistive load) 1 form C rated 1.0A @ 30 VDC, 0.3A @ 110 VDC or 0.5A @ 125 VAC. Gold over clad silver - suitable for dry circuits.
- Electrical Connections:** 18" (46 cm) cable assembly with 8 conductors. Optional lengths to 100' (30.5 m).

**Power Requirements:** 24 VDC, regulated ±10%.

- Mounting Orientation:** Diaphragm in vertical position. Consult factory for other position orientations.
- Set Point Adjustment:** Adjustable knobs on face.
- Agency Approvals:** CE.

**SWITCH SPECIFICATIONS 3000MRS**

- Switch Type:** Each setpoint has a solid state relay.
- Switching Voltage:** 20-280 VAC (47-63 Hz).
- Switching Current:** 1.0 amp (AC) max., 0.01 mA (AC) min., (2) SPST N.O.
- Electrical Connections:** 18" (46 cm) cable assembly with 6 conductors, optional lengths to 100' (30.5 m).
- Power Requirements:** 24 VDC, regulated ±10%.
- Mounting Orientation:** Diaphragm in vertical position. Consult factory for other position orientations.
- Set Point Adjustment:** Adjustable knobs on face.
- Agency Approvals:** CE.

**OPTIONS & ACCESSORIES**

- Tamper-proof Knobs,** require spanner type key (supplied) to change setpoints. Add suffix **-TAMP**
- Low Temperature Option** for use under 20°F (-6.7°C). Add suffix **-LT**
- Medium Pressure** increases maximum rated pressure to 35 psig (2.41 bar). Add suffix **-MP**
- High Pressure** increases maximum rated pressure to 80 psig (5.5 bar). Add suffix **-HP**
- Weatherproof Housing Option.** Add Suffix **-WP**
- A-298, Flat Aluminum Bracket** for flush mounting 3000MR/MRS
- A-370, Mounting Bracket** flush mount 3000MR/MRS bracket. Bracket is then surface mounted. Steel with gray hammertone epoxy finish
- A-600, R/C Snubber** recommended for inductive loads like a solenoid or contactor

**Series 3000MR, 3000MRS Photohelic®**

Model	Range, Inches w.c.	Minor Divs.	Model	Range, Kilopascals	Minor Divs.	
3000(MR)(MRS)**-00	0-0.25	.005	3000(MR)(MRS)-1KPA	0-1.0	.02	
3000(MR)(MRS)*-0	0-0.5	.01	3000(MR)(MRS)-3KPA	0-3.0	.10	
3001(MR)(MRS)	0-1.0	.02	3000(MR)(MRS)-4KPA	0-4.0	.10	
3002(MR)(MRS)	0-2.0	.05	<b>Model</b> <b>Range, MM W.C.</b> <b>Minor Divs.</b>	3000(MR)(MRS)-6MM*	0-6	.20
3003(MR)(MRS)	0-3.0	.10		3000(MR)(MRS)-10MM	0-10	.50
3005(MR)(MRS)	0-5.0	.10		3000(MR)(MRS)-25MM	0-25	.50
3010(MR)(MRS)	0-10	.20		3000(MR)(MRS)-50MM	0-50	1.0
3015(MR)(MRS)	0-15	.50		3000(MR)(MRS)-100MM	0-100	2.0
3020(MR)(MRS)	0-20	.50		<b>Model</b> <b>Range, CM W.C.</b> <b>Minor Divs</b>	3000(MR)(MRS)-20CM	0-20
3030(MR)(MRS)	0-30	1.0				
3050(MR)(MRS)	0-50	1.0				
3100(MR)(MRS)	0-100	2.0				
<b>Model</b>	<b>Range, Pascals</b>	<b>Minor Divs.</b>	When ordering, select either MR or MRS suffix to Series 3000 number. Examples: 3001MR or 3001MRS			
3000(MR)(MRS)-60PA*	0-60	2.0				
3000(MR)(MRS)-125PA	0-125	5.0				
3000(MR)(MRS)-250PA	0-250	5.0				
3000(MR)(MRS)-500PA	0-500	10.0				

\* ±3% of full scale. \*\* ±4% of full scale.



## ULTERIORI SCALE

3150 = 0-150" w.c.	3000-20MM = 0-20 mm acqua	3000-750PA = 0-750 Pa
3250 = 0-250" w.c.	3000-30MM = 0-30 mm acqua	3000-1.5KPA = 0-1.5 kPa
3000-00N = -0.05/+0.2" w.c.	3000-80MM = 0-80 mm acqua	3000-2KPA = 0-2 kPa
3301 = -0.5/+0.5" w.c.	3000-150MM = 0-150 mm acqua	3000-5KPA = 0-5 kPa
3302 = -1/+1" w.c.	3000-250MM = 0-250 mm acqua	3000-8KPA = 0-8 kPa
3320 = -10/+10" w.c.	3000-300MM = 0-300 mm acqua	3000-10KPA = 0-10 kPa
3330 = -15/+15" w.c.	3000-500MM = 0-500 mm acqua	3000-15KPA = 0-15 kPa
3340 = -20/+20" w.c.	3000-1CM = 0-1 cm acqua	3000-20KPA = 0-20 kPa
3360 = -30/+30" w.c.	3000-2CM = 0-2 cm acqua	3000-25KPA = 0-25 kPa
3380 = -40/+40" w.c.	3000-5CM = 0-5 cm acqua	3000-30KPA = 0-30 kPa
3201 = 0-1 psi	3000-8CM = 0-8 cm acqua	3000-40KPA = 0-40 kPa
3202 = 0-2 psi	3000-10CM = 0-10 cm acqua	3000-50KPA = 0-50 kPa
3203 = 0-3 psi	3000-15CM = 0-15 cm acqua	3000-15MBAR = 0-15 mbar
3204 = 0-4 psi	3000-20CM = 0-20 cm acqua	3000-20MBAR = 0-20 mbar
3205 = 0-5 psi	3000-25CM = 0-25 cm acqua	3000-100MBAR = 0-100 mbar
3210 = 0-10 psi	3000-30CM = 0-30 cm acqua	3000-500MBAR = 0-500 mbar
3215 = 0-15 psi	3000-40CM = 0-40 cm acqua	
3220 = 0-20 psi	3000-50CM = 0-50 cm acqua	
3230 = 0-30 psi	3000-80CM = 0-80 cm acqua	
3000-5HG = 0-5" Hg	3000-100CM = 0-100 cm acqua	
3000-10HG = 0-10" Hg	3000-150CM = 0-150 cm acqua	
3000-15HG = 0-15" Hg	3000-200CM = 0-200 cm acqua	
3000-20HG = 0-20" Hg	3000-250CM = 0-250 cm acqua	
3000-25HG = 0-25" Hg	3000-300CM = 0-300 cm acqua	
3000-30HG = 0-30" Hg	3000-500CM = 0-500 cm acqua	
3000-40HG = 0-40" Hg		
3000-50HG = 0-50" Hg		
3000-60HG = 0-60" Hg		

## ULTERIORI OPZIONI

- 24VAC = 24Vac relay
- AT = targhetta in alluminio, max 2 linee, max 9 caratteri per linea
- BUNA = guarnizioni in buna
- COO = certificato d'origine
- DEED = relay impostati Deenerg./Energ. , E./Deen.
- EDED = relay impostati E./D. , E./D.
- EDDE = relay impostati E./D., D./E.
- EXPL = explosion-prof
- G/Y/R = con scale verdi, rosse e gialle lunghe a piacere
- HC = calibrato per funzionare in orizzontale
- M = con specchio di precisione
- NIST = con certificato NIST
- CBL3/5/10/15/20/25/30/40/50/60/70/80/90/100 = lunghezza dei cavi
- SF = senza silicone
- SS = custodia in inox 304 SS
- ST =targhetta in inox, max 3 linee , 13-15 caratteri
- TA = Tarato per funzionare montato in obliquo
- VIT = guarnizioni in FKM

