



## Differential Pressure Controller

Digital Controller in Photohelic Gauge, Square Root Output for Flow

<b>Models Select Chart</b>	
<b>Model</b>	<b>Description</b>
3000MR-0	Pressure switch/gage, range 0-0.5" w.c., .01 minor divisions.
3001MR	Pressure switch/gage, range 0-1" w.c., .02 minor divisions.
3002MR	Pressure switch/gage, range 0-2" w.c., .05 minor divisions.
3003MR	Pressure switch/gage, range 0-3" w.c., .10 minor divisions.
3005MR	Pressure switch/gage, range 0-5" w.c., .10 minor divisions
3010MR	Pressure switch/gage, range 0-10" w.c., .20 minor divisions.
3015MR	Pressure switch/gage, range 0-15" w.c., .50 minor divisions.
3020MR	Pressure switch/gage, range 0-20" w.c., .50 minor divisions.
3030MR	Pressure switch/gage, range 0-30" w.c., 1.0 minor divisions.
3050MR	Pressure switch/gage, range 0-50" w.c., 1.0 minor divisions.
3100MR	Pressure switch/gage, range 0-100" w.c., 2.0 minor divisions.
3000MR-60PA	Pressure switch/gage, range 0-60 Pa, 2.0 minor divisions.
3000MR-125PA	Pressure switch/gage, range 0-125 Pa, 5.0 minor divisions.
3000MR-250PA	Pressure switch/gage, range 0-250 Pa, 5.0 minor divisions.
3000MR-500PA	Pressure switch/gage, range 0-500 Pa, 10.0 minor divisions.
3000MR-6MM	Pressure switch/gage, range 0-6 mm w.c., .20 minor divisions.
3000MR-10MM	Pressure switch/gage, range 0-10 mm w.c., .50 minor divisions.
3000MR-25MM	Pressure switch/gage, range 0-25 mm w.c., .50 minor divisions.
3000MR-50MM	Pressure switch/gage, range 0-50 mm w.c., 1.0 minor divisions.
3000MR-100MM	Pressure switch/gage, range 0-100 mm w.c., 2.0 minor divisions.
3000MR-1KPA	Pressure switch/gage, range 0-1 kPa, .02 minor divisions.
3000MR-3KPA	Pressure switch/gage, range 0-3 kPa, .10 minor divisions.
3000MR-4KPA	Pressure switch/gage, range 0-4 kPa, .10 minor divisions.
3000MR-20CM	Pressure switch/gage, range 0-20 cm w.c., .50 minor divisions.

<b>Model Select Chart</b>	
<b>Model</b>	<b>Description</b>
3000MRS-0	Pressure switch/gage, range 0-0.5" w.c., .01 minor divisions.
3001MRS	Pressure switch/gage, range 0-1" w.c., .02 minor divisions.
3002MRS	Pressure switch/gage, range 0-2" w.c., .05 minor divisions.
3003MRS	Pressure switch/gage, range 0-3" w.c., .10 minor divisions.
3005MRS	Pressure switch/gage, range 0-5" w.c., .10 minor divisions
3010MRS	Pressure switch/gage, range 0-10" w.c., .20 minor divisions.
3015MRS	Pressure switch/gage, range 0-15" w.c., .50 minor divisions.
3020MRS	Pressure switch/gage, range 0-20" w.c., .50 minor divisions.
3030MRS	Pressure switch/gage, range 0-30" w.c., 1.0 minor divisions.
3050MRS	Pressure switch/gage, range 0-50" w.c., 1.0 minor divisions.
3100MRS	Pressure switch/gage, range 0-100" w.c., 2.0 minor divisions.
3000MRS-60PA	Pressure switch/gage, range 0-60 Pa, 2.0 minor divisions.
3000MRS-125PA	Pressure switch/gage, range 0-125 Pa, 5.0 minor divisions.
3000MRS-250PA	Pressure switch/gage, range 0-250 Pa, 5.0 minor divisions.
3000MRS-500PA	Pressure switch/gage, range 0-500 Pa, 10.0 minor divisions.

3000MRS-6MM	Pressure switch/gage, range 0-6 mm w.c., .20 minor divisions.
3000MRS-10MM	Pressure switch/gage, range 0-10 mm w.c., .50 minor divisions.
3000MRS-25MM	Pressure switch/gage, range 0-25 mm w.c., .50 minor divisions.
3000MRS-50MM	Pressure switch/gage, range 0-50 mm w.c., 1.0 minor divisions.
3000MRS-100MM	Pressure switch/gage, range 0-100 mm w.c., 2.0 minor divisions.
3000MRS-1KPA	Pressure switch/gage, range 0-1 kPa, .02 minor divisions.
3000MRS-3KPA	Pressure switch/gage, range 0-3 kPa, .10 minor divisions.
3000MRS-4KPA	Pressure switch/gage, range 0-4 kPa, .10 minor divisions.
3000MRS-20CM	Pressure switch/gage, range 0-20 cm w.c., .50 minor divisions.

## Options

- **-SS** 304 brushed stainless steel bezel.<sup>+</sup>Backward compatible with standard Magnehelic gage installation diameter
- **-TAMP** Tamper-Proof Knobs, require special spanner-type key (included) to adjust set points.
- **-LT** Low Temperature Option for use under 20°F (-6.7°C).
- **-MP** Medium Pressure increases maximum rated pressure to 35 psig (2.41 bar).
- **-WP** Weatherproof housing option.
- **-HP** High Pressure increases maximum rated pressure to 80 psig (5.5 bar).

## ACCESSORIES

Model	Description
A-600	R/C snubber (recommended for inductive loads like a solenoid or contactor).
A-298	Flat aluminum bracket for flush mounting Photohelic® & Capsuhelic® gages, 603A, 605, and 3000MR.
A-370	Flush mount bracket used with: Photohelic® 3000MR/MRS, Capsuhelic®, 631B Transmitter, EDA. Bracket is then surface mounted. Steel with gray hammertone epoxy finish.
A-320-B	Enclosure for 3000MR/MRS Photohelic® Switch/Gage, 605 Magnehelic® DP Transmitter, DH3 Digihelic® Pressure Controller, 2000 Magnehelic® Gage with medium and high pressure options, 4-13/16" (122.24 mm).
420563-10	Backward compatible to Magnehelic® Gage, 4.5" brushed 304SS bezel, also for DH3, 3000MR and 605 Series.

## Specifications:-

<b>Service</b>	:	Air and non-combustible, compatible gases
<b>Wetted Materials</b>	:	Consult factory
<b>Housing Materials</b>	:	Die cast aluminum case and bezel
<b>Accuracy</b>	:	$\pm 1.5\%$ for 0.25" and $\pm 0.25$ " w.c. ranges. Ranges 0.5" to 5" w.c. and corresponding bi-directional (except $\pm 2.5$ " w.c.) $\pm 1\%$ ; All other ranges: $\pm 0.5\%$ @ 77°F (25°C) including hysteresis and repeatability (after 1 hour warm-up)
<b>Stability</b>	:	< $\pm 1\%$ per year
<b>Pressure Limits</b>	:	Ranges $\leq 2.5$ in w.c.: 25 psi; $\pm 2.5$ ", 5 in w.c.: 5 psi; 10 in w.c.: 5 psi; 25 in w.c.: 5 psi; 50 in w.c.: 5 psi; 100 in w.c.: 9 psi
<b>Temperature Limits</b>	:	32 to 140°F (0 to 60°C)
<b>Compensated Temperature Limits</b>	:	32 to 140°F (0 to 60°C)
<b>Thermal Effects</b>	:	0.020%/°F (0.036/°C) from 77°F (25°C). For 0.25" and $\pm 0.25$ " w.c. ranges: $\pm 0.03\%$ /°F ( $\pm 0.054\%$ /°C)
<b>Power Requirements</b>	:	12 to 28 VDC, 12 to 28 VAC 50 to 400 Hz
<b>Power Consumption</b>	:	3 VA max
<b>Output Signal</b>	:	4 to 20 mA DC into 900 $\Omega$ max
<b>Zero &amp; Span Adjustments</b>	:	Accessible via menus
<b>Response Time</b>	:	250 ms (damping set to 1)

<b>Display</b>	:	Backlit 4 digit LCD 0.4" height LED indicators for set point and alarm status.
<b>Electrical Connections</b>	:	15 pin male high density D-sub connection. 18" (46 cm) cable with 10 conductors included
<b>Process Connections</b>	:	1/8" female NPT. Side or back connections
<b>Mounting Orientation</b>	:	Mount unit in vertical plane
<b>Size</b>	:	5" (127 mm) OD x 3-1/8" (79.38 mm)
<b>Weight</b>	:	1.75 lb (794 g)
<b>Agency Approvals</b>	:	CE
<b>SWITCH SPECIFICATIONS</b>		
<b>Switch Type</b>	:	2 SPDT relays
<b>Electrical Rating</b>	:	1 A @ 30 VAC/VDC
<b>Set Point Adjustment</b>	:	Adjustable via keypad on face