



Series
DM-1000

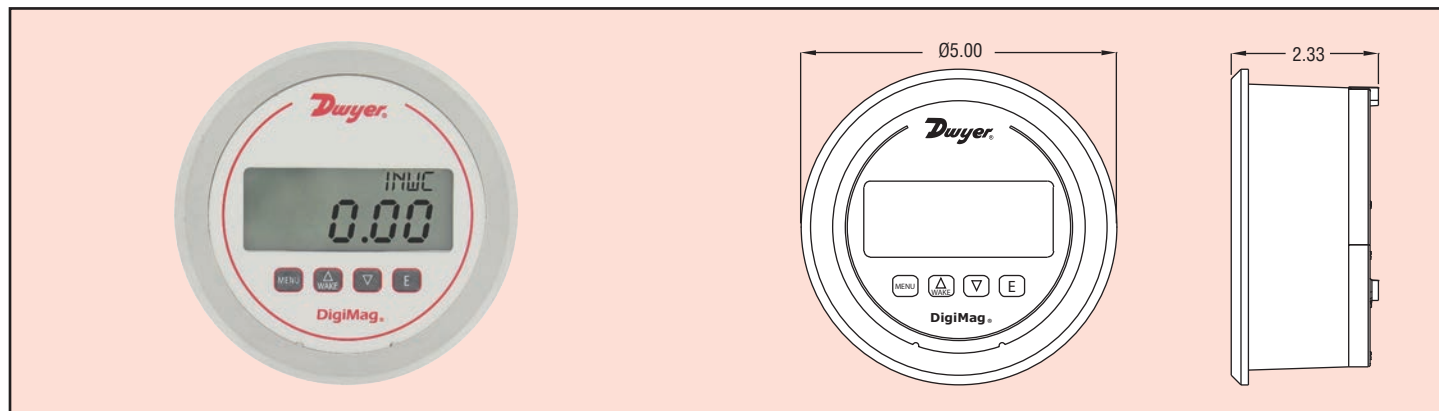
DigiMag® Digital Differential Pressure and Flow Gages

24 Volt or Battery Powered, Fits in Magnehelic® Gage Cut-Out



PRESSURE

Differential Pressure Gages



The DigiMag® Series DM-1000 Digital Differential Pressure and Flow Gages monitor the pressure of air and compatible gases, just as its famous analog predecessor the Magnehelic® Differential Pressure Gage. All models are factory calibrated to specific ranges as listed in the chart below. The 4-digit LCD can display readings in common English and metric units so conversions are not necessary. The simplified four button operation reduces set up time and simplifies calibration with its digital push button zero and span.

The DigiMag® Digital Gages are more versatile than analog gages with their ability to be field-programmed to select pressure, air velocity or flow operation depending on model. The DigiMag® Digital Gages have an added feature for filter applications where a set point can be input where the display will blink when the filter is dirty, alerting the user that a maintenance action needs to occur.

Programming the Series DM-1000 is easy using the menu key to access 4 simplified menus which provide access to depending on model: Security level; engineering units; K-factor for use with various Pitot tubes and flow sensors, circular or rectangular duct size for volumetric flow operation; filter set point; view peak and valley process readings; digital damping for smoothing erratic process applications; display update to conserve battery life; zero and span field calibration.

The Series DM-1000 DigiMag® Digital Differential Pressure and Air Flow Gages possess a full-scale accuracy of 1% on ranges down to 2 in w.c. and 2% accuracy down to the very low ranges of 1 in to 0.25 in w.c. DigiMag® Digital Differential Pressure Gages offer power versatility by working with 9-24 VDC line power or simply 9V battery power. If using line power and connecting the 9V battery, the battery will act as a back-up if line power is lost or interrupted.

ACCESSORIES

A-299, Surface Mounting Bracket

A-300, Flat Flush Mounting Bracket

A-286, 4-1/2" Gage Panel Mounting Flange

A-489, 4" Straight Static Pressure Tip with Flange

A-480, Plastic Static Pressure Tip

SPECIFICATIONS

Service: Air and non-combustible, compatible gases.

Wetted Materials: Consult factory.

Housing Materials: Glass filled plastic.

Accuracy: ±1% FS including linearity, hysteresis and repeatability; ±2% FS for ranges 1 in w.c. and below.

Temperature Limits: 0 to 140°F (-18 to 60°C).

Compensated Temperature Limits: 32 to 122°F (0 to 50°C).

Long Term Stability: ±1% FS per year.

Thermal Effect: ±0.05% FS/°F typ.; ±0.10% FS/°F for ranges 1 in w.c. and below.

Display: 4-digit LCD (digits: 0.60H x 0.33W).

Display Update: Selectable for 1 second to 10 minutes or update only from button push.

Pressure Limits: Normal and bi-directional ranges 5 in w.c. and lower = 2 psi (13.7 kPa); Normal and bi-directional ranges 10 in w.c. and higher = 11 psi (75 KPa).

Selectable Engineering Units: in w.c., psi, kPa, Pa, mm w.c., mBar, in Hg, mm Hg, FS (0-100%).

Power Requirements: 9 V alkaline battery, included, user replaceable or external power supply 9-24 VDC.

Battery Service Life: Battery life depending on the display update setting: 150 hours (typical) if display update = 1 second; 9 month (typical) if display update = 10 minutes; 1.5 years (typical) if display update is disabled. Battery may last up to four times longer when using lithium-based battery ULTRALIFE U9VL-J.

Current Consumption: 5 mA max.

Electrical Connections: Removable terminal block for 16 to 26 AWG.

Electrical Entry: Cable gland for 0.114 to 0.250" (2.9 to 6.4 mm) diameter cable.

Process Connections: 1/8" (3 mm) ID tubing.

Enclosure Rating: NEMA 4X (IP66).

Weight: 1.18 lb (535 g).

Size: 5" (127 mm) OD front face.

Agency Approvals: CE.

OPTION

For NIST traceable calibration certificate, add suffix -NIST to model numbers.

Example: DM-1103-NIST.

Model	Range									Resolution (in w.c.)
	(in w.c.)	psi	kPa	Pa	mbar	mm w.c.	in Hg	mm Hg	% of FS	
DM-1102	0.250	—	0.062	62.20	0.622	6.35	—	0.467	100.0	0.001
DM-1103	0.500	—	0.124	124.5	1.245	12.70	—	0.934	100.0	0.001
DM-1104	1.000	—	0.249	249.1	2.492	25.40	—	1.868	100.0	0.001
DM-1105	2.000	—	0.498	498.2	4.982	50.80	—	3.736	100.0	0.001
DM-1107	5.000	0.181	1.245	1245	12.45	127.0	0.368	9.34	100.0	0.002
DM-1108	10.00	0.361	2.491	2491	24.91	254.0	0.736	18.68	100.0	0.010
DM-1109	15.00	0.543	3.738	3738	37.38	381.0	1.104	28.02	100.0	0.010
DM-1110	25.00	0.903	6.227	6227	62.27	635.0	1.839	46.71	100.0	0.010
DM-1111	50.00	1.806	12.45	—	124.5	1270	3.678	93.42	100.0	0.020
DM-1112	100.0	3.613	24.91	—	249.1	2540	7.355	186.8	100.0	0.100

Contact the factory for available bi-directional ranges from ±0.25 to ±10 in w.c.

Note: For air flow models change -11XX to -12XX.

Process Tubing Options: See page 547 (Gage Tubing Accessories)

