

# TECHNICAL DATA SHEET

## Digital Differential Pressure Controller



### DESCRIPTION

Dwyer Digihelic differential pressure controller complete with digital display gage, control relay switches and transmitter. Ideal for measuring pressure, velocity and flow applications, with 1% full scale accuracy. Provided with 2 SPDT control relays with adjustable deadbands.

Bi-Directional Pressure Controllers are also available - please enquire.



### TECHNICAL SPECIFICATION

Material	Aluminium
Temperature Limits	32 to 140°F (0 to 60°C)
Display	Backlit 4 digit LCD 0.4" height LED indicators
Weight	1.75 lb (794 g)
Compliance	CE Marked

### FEATURES

- Digital display gage
- Control relay switches
- Photohelic gage style housing
- 1% full scale accuracy
- Transmitter
- Alarm
- Easy programming

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Programming is easy using the menu key to access 5 simplified menus which provide access to; security level; selection of pressure, velocity of flow operation; selection of engineering units; K-factor for use with flow sensors; rectangular or circular duct for inputting area in flow applications; set point control or set point alarm operation; alarm operation as a high, low or high/ low alarm; automatic or manual alarm reset; alarm delay; view peak and valley process reading; digital damping for smoothing erratic processing applications; scaling the 4-20 mA process output to fit your applications range and field calibration.

### SWITCH SPECIFICATIONS

Switch Type	2 SPDT relays
Electrical Rating	1 A @ 30 VAC/VDC
Set Point Adjustment	Adjustable via keypad on face

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### SPECIFICATIONS

Service	Air and non-combustible, compatible gases
Wetted Materials	Consult factory
Housing Material	Die cast aluminium case and bezel
Accuracy	$\pm 1.5\%$ 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).
Stability	$< \pm 1\%$ per year
Pressure Limits	Ranges (uni- and corresponding bidirectional), $\leq 1$ in w.c.: 9 psi; 2.5 and 5 in w.c.: 1.5 psi; 10 in w.c.: 3 psi; 25 in w.c.: 8 psi; 50 in w.c.: 15 psi; 100 in w.c.: 20 psi
Temperature Limits	32 to 140°F (0 to 60°C)
Compensated Temperature Limits	32 to 140°F (0 to 60°C)
Thermal Effects	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)
Power Requirements	12 to 28 VDC, 12 to 28 VAC 50 to 400 Hz
Power Consumption	3 VA max
Output Signal	4 to 20 mA DC into 900 $\Omega$ max
Zero & Span Adjustments	Accessible via menus
Response Time	250 ms (damping set to 1)
Display	Backlit 4 digit LCD 0.4" height LED indicators for set point and alarm status
Electrical Connections	15 pin male high density D-sub connection. 18" (46 cm) cable with 10 conductors included
Process Connection	1/8" female NPT. Side or back connections
Mounting Operation	Mount unit in vertical plane
Size	5" (127 mm) OD x 3-1/8" (79.38 mm)
Weight	1.75 lb (794 g)
Agency	CE