

Differential Pressure Transmitter

FC0318



- Accuracy 0.25% of reading
- Ultra low pressure measurement
- Wide span adjustment
- 2-wire mA, 3-wire or 4-wire voltage output
- Two configurable relays and bi-colour LED indicators
- Square root function for flow/velocity
- Auto zero and remote zero options
- Backlit display
- Panel mount enclosure with front panel user interface

The FC0318 is a fully configurable differential pressure transmitter in a DIN43700 panel mounted enclosure, with dual trip relays, to suit a wide range of input and output configurations.

The output is scalable as linear to differential pressure or as a square-root function to facilitate the use of Pitot Static Tubes or other primary flow elements.

The large LCD may display a variety of engineering units, and two independent relays with bi-colour indicators can provide alarm signals.

Features

Models/Ranges	Model1: $\pm 50\text{Pa}$ Model2: $\pm 150\text{Pa}$ Model3: $\pm 500\text{Pa}$	Model4: $\pm 2500\text{Pa}$ Model5: $\pm 10\text{kPa}$ Model6: $\pm 20\text{kPa}$	High pressure ranges available on request
Output Options	2 wire 4-20mA, 3 wire voltage: 0-1 VDC to 0-10VDC full scale 4 wire voltage: 0-1 VDC to 0-10VDC full scale 4 wire voltage: ± 1 VDC to ± 10 VDC full scale 4 wire isolated: any of the mA or voltages above		
Display	Most common differential pressure, volumetric flow, mass flow, and velocity units		
Adjustable Damping	0.0 to 60.0 seconds		
Square Root function	Standard		
Trip Level Relays	2 relays, rated 2A @ 55Vac, 30Vdc Relay power supply (inc backlight) 24Vdc minimum 170mA		
Zero Control	Optional: Automatic or Remote		
Pneumatic Ports	Barbs with locknuts for 6mm OD x 4mm ID for flexible tubing		

Performance

Unipolar Accuracy @ 20°C	10% to 100% range: $< \pm (0.25\% \text{ reading} + 1 \text{ digit})$ 0 to 10% range: $< \pm (0.025\% \text{ range} + 1 \text{ digit})$	
Bipolar Accuracy @ 20°C	10% to 100% range: $< \pm (0.5\% \text{ reading} + 1 \text{ digit})$ 0 to 10% range: $< \pm (0.05\% \text{ range} + 1 \text{ digit})$	
Span Adjustment	10% to 100% of range	Note: Span can be set anywhere within instruments range. For span $< 20\%$ of range, accuracy is reduced to the bipolar specification
Long Term Drift	Typically 0.2% per annum	
Temperature Coefficients	Zero: $< 0.02\%/^{\circ}\text{C}$ Range: $< 0.02\%/^{\circ}\text{C}$	
Working Temperature	-10 to 60°C	
Output Resolution	Better than 0.033 % Span	
Overload	20 x DP range	
Static Pressure	± 1 bar Gauge	
Minimum Step Response	100ms	
Output Update	50ms	
Configuration	Output	Supply Voltage
2-Wire	4 to 20mA	9 to 40Vdc, 22mA
3-Wire	0 to 1V, 0 to 2V, 0 to 5V	9 to 36Vdc, 5mA
3-Wire	0 to 10V	14 to 36Vdc, 5mA
4-Wire	0 to 1V, 0 to 2V, 0 to 5V $\pm 1\text{V}, \pm 2\text{V}, \pm 5\text{V}$	± 9 to $\pm 18\text{Vdc}$, 5mA
4-Wire	$\pm 10\text{V}$	± 14 to $\pm 18\text{Vdc}$, 5mA
4-Wire Isolated	4 to 20mA, 0 to 1V, 0 to 2V, 0 to 5V, 0 to 10V, $\pm 1\text{V}, \pm 2\text{V}, \pm 5\text{V}, \pm 10\text{V}$	24Vdc $\pm 10\%$, 12mA
Backlight	24Vdc $\pm 10\%$, 120mA	
Relays	24Vdc $\pm 10\%$, 50mA	
Auto Zero	24Vdc $\pm 10\%$, 30mA	

Construction

Enclosure	DIN43700 Panel mounted Polycarbonate enclosure IP50 rated
Dimensions	Flush mount: 155 x 72 x 150mm
Materials in contact with media	Copper, brass, nickel, mica & PVC
Media Compatibility	Air and non-corrosive gases max 95% humidity non-condensing
Weight	0.7kg

23/10/2012

Furness Controls has a UKAS accredited laboratory which offers pressure calibration from 0 to 40 kPa and flow calibration from 0.1 ml/min to 2000 litres/min