Low Differential Pressure Transmitters
Type DP-10 - 0.2 INWCD to 200 INWCD
For inert, gaseous media

Tronic

(Previous model number 891.09.1968)

- 4-20 mA 2-wire or 0-10 V 3-wire output signal
- Available in ranges down to 0.2 INWC
- Optional digital LCD display
- Square root output and alarm contacts available

The WIKA DP-10 pressure transmitter is designed for the measurement of extremely low gauge and differential pressures of clean, dry, inert gaseous media. The transmitter uses a linear variable differential transformer (LVDT sensor) for exceptional sensitivity and performance at extremely low pressures. The built - in signal conditioning circuitry provides a 0-10 volt 3-wire output signal. 4-20 mA 2-wire signals are available. Other options include single or dual built-in programmable relays, 3.5 digit local LCD readout, AC line adapter, improved accuracy, and enhanced overpressure protection.

Computer controlled assembly and factory calibration provides excellent accuracy and long term stability. The durable construction is virtually maintenance free.

Applications for the DP-10 include HVAC draft flow control and monitoring, pollution control monitoring systems, dust collection systems, and medical equipment.

STANDARD RANGES

WORKING RANGE	MAXIMUM SINGLE END OVERLOAD [1]	MAXIMUM STATIC OVERLOAD [2]
0-0.2 INWC	1.2 INWC	200 INWC
0-0.5 INWC	2.0 INWC	200 INWC
0-1 INWC	5 INWC	200 INWC
0-2 INWC	12 INWC	200 INWC
0-5 INWC	20 INWC	200 INWC
0-10 INWC	50 INWC	200 INWC
0-20 INWC	80 INWC	200 INWC
0-30 INWC	120 INWC	200 INWC
0-60 INWC	320 INWC	200 INWC
0-100 INWC	400 INWC	200 INWC
0-200 INWC	400 INWC	200 INWC

Notes:
[1] Maximum overload differential between the two pressure ports.
[2] Maximum static line pressure when both ports are pressurized during differential pressure measurement.

Specifications

Input
19-30 VDC
(12-30 VDC for 4-20 mA output signal)

Output & load limitations

0-10 V 3-wire	$R_{(min)}$	**= 2 k Ohm**
0-20 mA 3-wire	$R_{(max)}$	= 500 Ohm
4-20 mA 2-wire	$R_{(max)}$	$=(V_S-12V)/0.02$ A
0-+/-5 V 3-wire	$R_{(min)}$	= 2 k Ohm

Accuracy

Linearity (B.F.S.L.)	≤ 1.0% of span
Hysteresis	≤ 0.1% of span
Repeatability	≤ 0.2% of span
1 yr. stability	≤ 0.5% of span
Response time (10-90% full scale)	≤ 0.02 sec
Zero & span adjustment	+/- 5.0% full scale
Square root signal Linearity	1.0% of span

Temperature

Temperature compensated	+50 °F to 122 °F
Media	+50 °F to 122 °F
Ambient	+50 °F to 122 °F
Storage	+14 °F to 158 °F

Temperature error (reference temperature 70 °F)

On zero (% of span/18 °F)	≤ 0.3
On span (% of span/18 °F)	≤ 0.3

Process connection
6.6 mm dia. x 11 mm long hose barbs fits 1/4" I.D. hose

Electrical connection
Inside solderless screw terminals with PG 7 gland entry (IP 54 / NEMA 5)

Material

Housing	Fiberglass reinforced ABS plastic
Wetted parts	Aluminum, silicone rubber, brass, CuBe
Suitable media	Dry, noncorrosive gases
Sensor volume	approximately 5 ml (≤1"WC~7ml)
Dispacement	approximately 1 ml (full span)
Weight	approximately 1 lb

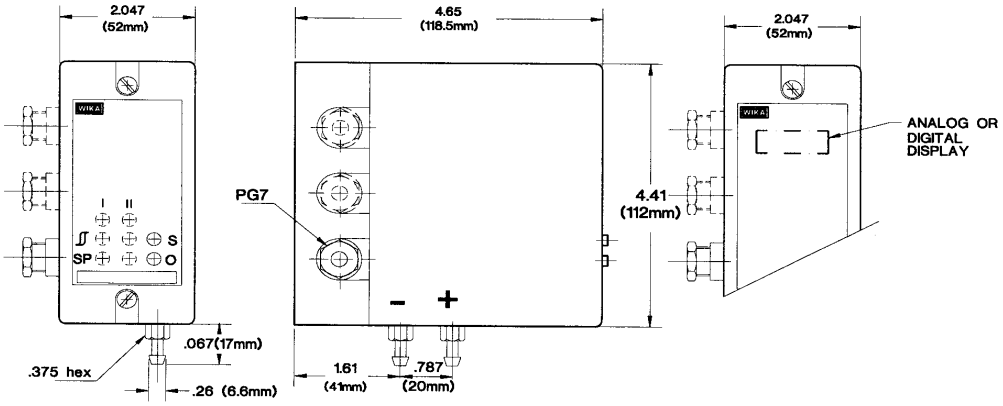
Options
Local readout

Digital	LCD display, 3.5 digit, 0.4" high
Analog	0-100% of scale

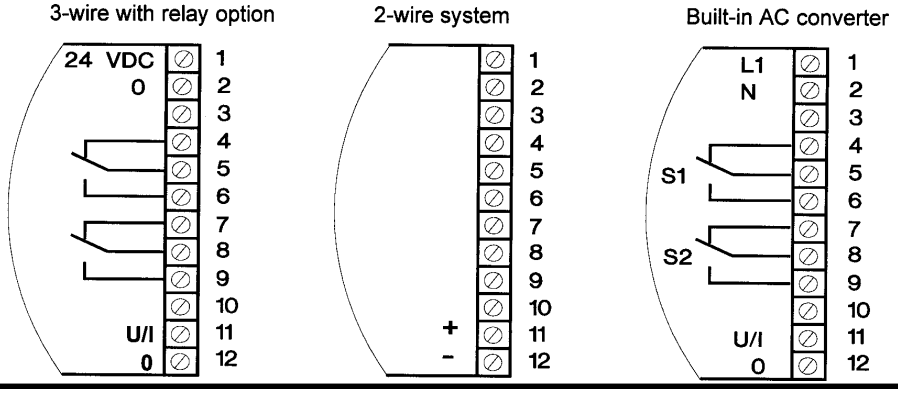
Relays (available with 3-wire system only)
1 or 2 SPDT, adjustable 0-100% of span

Hysteresis	adjustable 0-15% of span
Accuracy	% of span
Repeatability	0.2% of span typical
Rating	250 mA / 230V inductive load 960 mA, 230V ohmic load

Dimensions



Wiring



Ordering Information:
State computer part number (if available) / type number / range / output / process connection / electrical connection / other required options.

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