Air and Gas Pressure Transducers, mA or VDC

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DESCRIPTION

Low range gage and differential pressure transducers with digital display.

APPLICATION

Measure gage or differential pressure of air or inert non-conductive gases in VAV, fan-coil, duct systems, and other air conditioning equipment, and transmit to any compatible electronic analog controller, DDC/PLC control or automation system.

24 VDC (18 to 24 VDC);

polarity protected

or Fluorosilicone

diaphragm

conditioning

± 1% F.S.O.

30 mA, max.

24 VAC, ± 15%, 50 to 60 Hz,

Air, gases and liquids, limited

only to media that will not attack

PPS, PEI, Silicon, Silicon RTV,

Built-in temperature and signal

50°F to 122°F (10°C to 50°C)

incl. non-linearity, hysteresis,

and non-repeatability at a

Screw, up to 60% of F.S.O.

fixed temperature

± 0.5% F.S.O./yr.

± 0.042% F.S.O./°F

± 0.006% F.S.O./°F

Piezoresistive, with silicon

FEATURES

- Large digital display
- Signal conditioned
- Temperature compensated
- Long life sensor

SPECIFICATIONS

Electrical Power supply

Power consumption Sensor Performance Media sensed

Sensor element

Compensation

range
Accuracy

Stability

- Thermal effects
- zero
- span
- Adjustment
- zero offset

Pressure ranges

Overpressure

Type of Control General

Analog output

Load requirement - current output

- Compact size
- Low power consumption
- · Calibrated, traceable to NIST
- High overpressure
- · Pluggable terminal block



Height of digit Digit display

Environmental

Permissible ambient - humidity - working temperature - storage temperature Physical Enclosure - material - color - protection - installation Dimensions Wire connections Pressure connection - P2. low port Weight Warranty

Min load 2K Ω

One line liquid crystal display "LCD" 0.38" (9.75 mm) 3 1/2 (i.e. numbers max: 1.999, 19.99, 199.9 or 1999)

0 to 90% RH, non-condensing 32°F to 122°F (0°C to 50°C) -13°F to 158°F (-25°C to 70°C) High impact ABS, UL94-HB Black NEMA 1 Surface mounted or DIN rail mounted 3.4 x 2.7 x 1.4 in. (87 x 68 x 35 mm), with mounting flanges Pluggable two-wire screw terminal block Barbed fittings for 1/8" I.D. tubing Positive or high pressure Negative or low pressure 0.20 lb. (0.09 kg) Two years material and workmanship

OPTIONS

Ν

D

4	NEMA 4 enclosure
	Enclosure w/DIN rail mounting

0-0.5" WC to 0-40 PSI (split - P1. high port

ranges available), refer to ordering information 20 PSI or two times full scale pressure, whichever is greater

Continuous proportional analog sensor signal output 4-20 mA, 3-wire, 1-5 VDC, 1-6 VDC, or 1-10 VDC

Max loop resistance 250 or 500 Ω @ 24 VDC power (= wire resistance plus controller input resistance)





85

N/-

I-865D

certified

ISO 9001



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ORDERING INFORMATION



Sample order number

Differential or gage** pressure transducer, 0-3" WC pressure range, for 18-24 VDC or 24 VAC power supply, 4-20 mA (250 Ω load) output signal

** With gage application, the low pressure port is vented to atmosphere.

• For 500 Ω load version, a power supply of 24 VAC/VDC is required.

With NEMA 4 enclosure add "N4" to the ordering part number.

WIRING CONFIGURATION

I-865D...

I-865D



For AC voltage application, transducer must be referenced to controller ground.

0.5"S -0.25 to 0.25" WC	
00.5" 0-0.5" WC	
1"S -0.5 to +0.5" WC 1.5"S -0.75 to +0.75" WC 2"S -1.0 to +1.0" WC 2.5"S -1.25 to +1.25" WC	
01" 0-1" WC	
04" 0-4" WC	
05" 0-5" WC	
012" 0-12" WC	
00.5P 0-0.5 PSI	
00.9P 0-0.9 PSI	
01P 0-1 PSI	
04P 0-4 PSI	
05P 0-5 PSI	
014P 0-14 PSI	
015P 0-15 PSI	
029P 0-29 PSI	
030P 0-30 PSI	

Custom split ranges are available on request.

3-Wire to 2-Wire Connection



• CAUTION: Do not apply voltage to S terminal as permanent damage will occur.

Add 250 Ω resistor at controller input to convert transducer signal 4-20 mA to 1-5 VDC.



