

Air and Gas Pressure Transducers, mA or VDC

Specifications subject to change without notice. | USA 200204 | Page 1 of 2



DESCRIPTION

750D

Very low range gage and differential pressure transducers.

APPLICATION

Measure gage or differential pressure of air or inert non-conductive gases in laboratories, isolation and clean rooms, and for building room statics, fume hoods, VAV, and other air conditioning applications. The transducers transmit to any compatible electronic analog controller, DDC/PLC control or automation system.



certified
ISO 9001

FEATURES

- *Signal conditioned*
- *Temperature compensated*
- *Long life sensor*
- *Compact size*
- *Lifetime stability of $\pm 0.5\%$ F.S.O.*
- *Accuracy of 0.25% or 0.75% F.S.O.*
- *Auto-zeroing*
- *No re-calibration required*

SPECIFICATIONS

Electrical

Power supply	24 VDC 24 VAC, + 15%, 50 to 60 Hz
Power consumption	70 mA, 100 mA peak

Sensor Performance

Media sensed	Dry air or inert non conductive gas
Sensor element	Piezoresistive, with silicon diaphragm
Compensation	Built-in temperature and signal conditioning
- range	41°F to 140°F (5°C to 60°C)
Accuracy	
- D4 version	$\pm 0.25\%$ F.S.O.
- D version, 1-5" WC	$\pm 0.75\%$ F.S.O.
- D version, < 1" WC	$\pm 1.00\%$ F.S.O.
Stability	$\pm 0.5\%$ F.S.O. over the life of transducer
Thermal effects	$\pm 0.006\%/^{\circ}\text{F}$ ($\pm 0.01\%/^{\circ}\text{C}$)
Adjustment	
- zero offset	Screw adjustable, up to 85% of F.S.O.
Auto-zeroing	Every 45 sec., no need to adjust zero point after initial start-up
Pressure ranges	0-0.1" WC to 0-5" WC (split ranges available), refer to ordering information
Overpressure	14.5 PSI
Type of Control	
General	Continuous proportional analog sensor signal output
Analog output	
- current version	4-20 mA
- voltage versions	1-5 VDC, 1-6 VDC, or 1-10 VDC

Load requirement

- current output	Max loop resistance 500 Ω @ 24 VDC power (= wire resistance, plus controller input resistance)
- voltage output	Min load 2K Ω

Environmental

Permissible ambient	
- humidity	0 to 90%, RH non-condensing
- working temperature	32°F to 149°F (0°C to 65°C)
- storage temperature	32°F to 149°F (0°C to 65°C)

Physical

Enclosure	
- material	High impact ABS, fire retardant
- color	Black
- protection	NEMA 1
- installation	Surface mounted or DIN rail mounted

Dimensions

	3 x 1.5 x 4.3 in. (76 x 38 x 11 mm), with mounting flanges
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Wire connection

	Pig tail cable, 3-wire, color coded 22 AWG (0.34 mm ²)
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Wire size

Pressure connection	Brass barbed fittings for 1/8" or 1/4" I.D. tubing
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- P1. high port	Positive or high pressure
- P2. low port	Negative or low pressure

Weight

0.36 lb. (0.16 kg)	Two years material and workmanship
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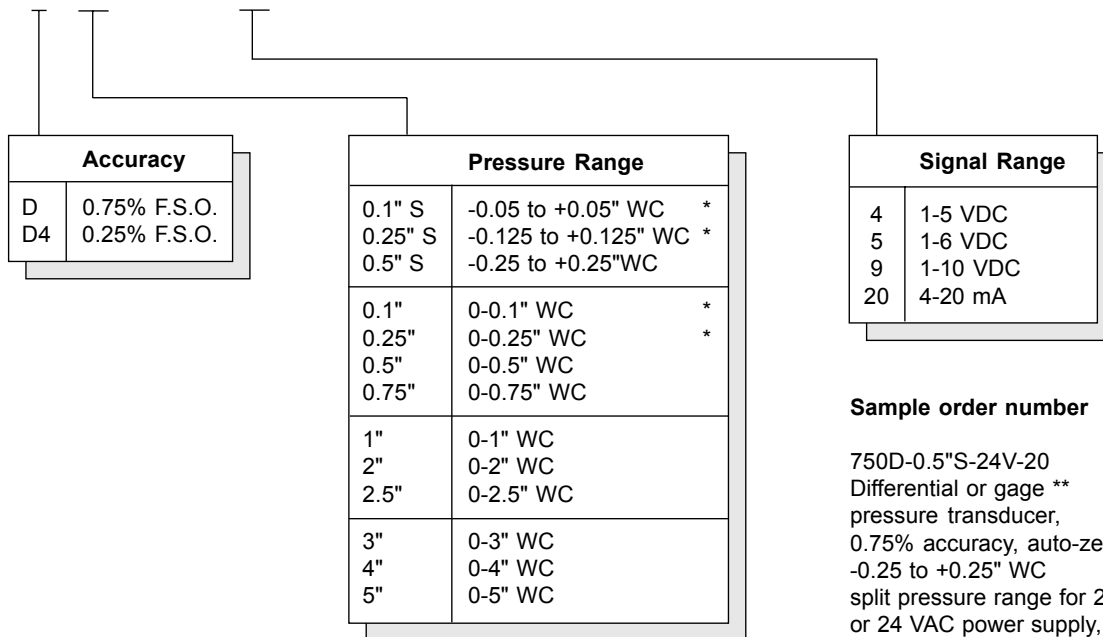
Warranty

OPTIONS

N4	NEMA 4 enclosure
D	Enclosure w/DIN rail mounting

ORDERING INFORMATION

750D - 0.5"S - 24V - 20



Custom split ranges are available on request.

note: * Only available with "D" version, 0.75% accuracy

Sample order number

750D-0.5"S-24V-20
 Differential or gage **
 pressure transducer,
 0.75% accuracy, auto-zeroing,
 -0.25 to +0.25" WC
 split pressure range for 24 VDC
 or 24 VAC power supply,
 4-20 mA output signal

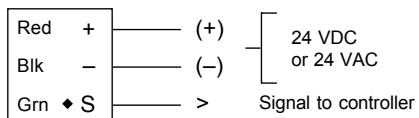
** With gage application, the low pressure port is vented to atmosphere.

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

WIRING CONFIGURATION

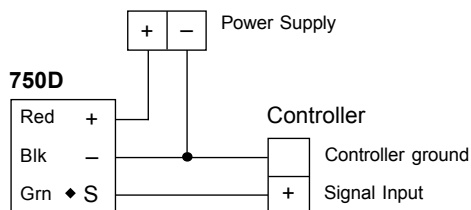
750D...

750D



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

3-Wire to 2-Wire Connection



♦ Be Alert: 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.

