Air and Gas Pressure Transducers

INTEC CONTROLS

DESCRIPTION

750D

Very low range gage and differential pressure transducers.

certified
ISO 9001

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.

FEATURES

- *Signal conditioned*
- *Temperature compensated*
- *Long life sensor*
- *Compact size*
- *Lifetime stability of ± 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 comsumption	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	± 0.25% F.S.O.
- D version, 1-5" WC	± 0.75% F.S.O.
- D version, < 1" WC	± 1.00% F.S.O.
Stability	± 0.5% F.S.O. over the life of transducer
Thermal effects	± 0.006%/°F (± 0.01%/°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
Wire connection	Pig tail cable, 3-wire, color coded
Wire size	22 AWG (0.34 mm^2)
Pressure connection	Brass barbed fittings for 1/8" or 1/4" I.D. tubing
- P1. high port	Positive or high pressure
- P2. low port	Negative or low pressure
Weight	0.36 lb. (0.16 kg)
Warranty	Two years material and workmanship

OPTIONS

N4	NEMA 4 enclosure
D	Enclosure w/DIN rail mounting

Phone (858) 578-7887 & (888) GO IN*TEC* Fax (858) 578-4633 & (888) FX IN*TEC*
IN*TEC* Controls, Inc., P.O. Box 12506, La Jolla, CA 92039 www.inteccontrols.com

ORDERING INFORMATION

750D - 0.5"S - 24V - 20

Accuracy	
D	0.75% F.S.O.
D4	0.25% F.S.O.

Pressure Range		
0.1" S	-0.05 to +0.05" WC	*
0.25" S	-0.125 to +0.125" WC	*
0.5" S	-0.25 to +0.25"WC	
0.1"	0-0.1" WC	*
0.25"	0-0.25" WC	*
0.5"	0-0.5" WC	
0.75"	0-0.75" WC	
1"	0-1" WC	
2"	0-2" WC	
2.5"	0-2.5" WC	
3"	0-3" WC	
4"	0-4" WC	
5"	0-5" WC	

Custom split ranges are available on request.

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

Signal Range	
4	1-5 VDC
5	1-6 VDC
9	1-10 VDC
20	4-20 mA

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

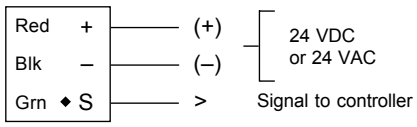
** With gage application, the low pressure port is vented to atmosphere.

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

WIRING CONFIGURATION

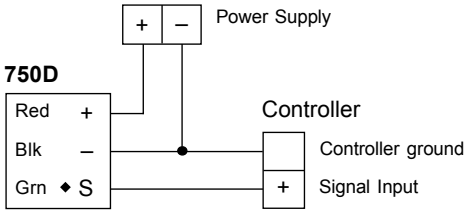
750D...

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.