

DESCRIPTION

Low range gage and differential pressure transducers.

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.

FEATURES

- 4-20 mA, 2-wire/loop powered
- Signal conditioned
- Temperature compensated
- Long life sensor
- Compact size
- Low power consumption
- Calibrated, traceable to NIST
- High overpressure
- Pluggable terminal block



certified
ISO 9001

SPECIFICATIONS

Electrical

Power supply 19 to 30 VDC
 - extended range 14 to 36 VDC for appropriate load/loop resistance*, polarity protected
 Power consumption 30 mA, max.

Sensor Performance

Media sensed Air, gases and liquids, limited only to media that will not attack PPS, PEI, Silicon, Silicon RTV, or Fluorosilicone

Sensor element Piezoresistive, with silicon diaphragm

Compensation Built-in temperature and signal conditioning

- range 50°F to 122°F (10°C to 50°C)
 Accuracy ± 1% F.S.O.

incl. non-linearity, hysteresis, and non-repeatability at a fixed temperature

Stability ± 0.5% F.S.O./yr.

Thermal effects

- zero ± 0.042% F.S.O./°F

- span ± 0.006% F.S.O./°F

Adjustment

- zero offset Screw, up to 60% of F.S.O.

Pressure ranges 0-1.0" WC to 0-40 PSI (split ranges available), refer to ordering information

Overpressure 20 PSI or two times full scale pressure, whichever is greater

Type of Control

* Load/Loop resistance calculation

- maximum allowable $RL_{max} = (VS - 14 \text{ VDC}) \times 50 \text{ Ohms}$

- minimum required only for voltage supply above 30 VDC

$RL_{min} = (VS - 30 \text{ VDC}) \times 40 \text{ Ohms}$

RL = resistance (Ω)

VS = voltage supply (VDC)

General

Analogue output
 Load requirement
 - current output

Environmental

Permissible ambient
 - humidity
 - working temperature
 - storage temperature

Physical

Enclosure
 - material
 - color
 - protection
 - installation

Dimensions

Wire connections

Pressure connection
 - P1. high port
 - P2. low port

Weight

Warranty

Continuous proportional analog sensor signal output
 4-20 mA, 2-wire

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

0 to 90% RH, non-condensing
 -13°F to 158°F (-25°C to 70°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

N4

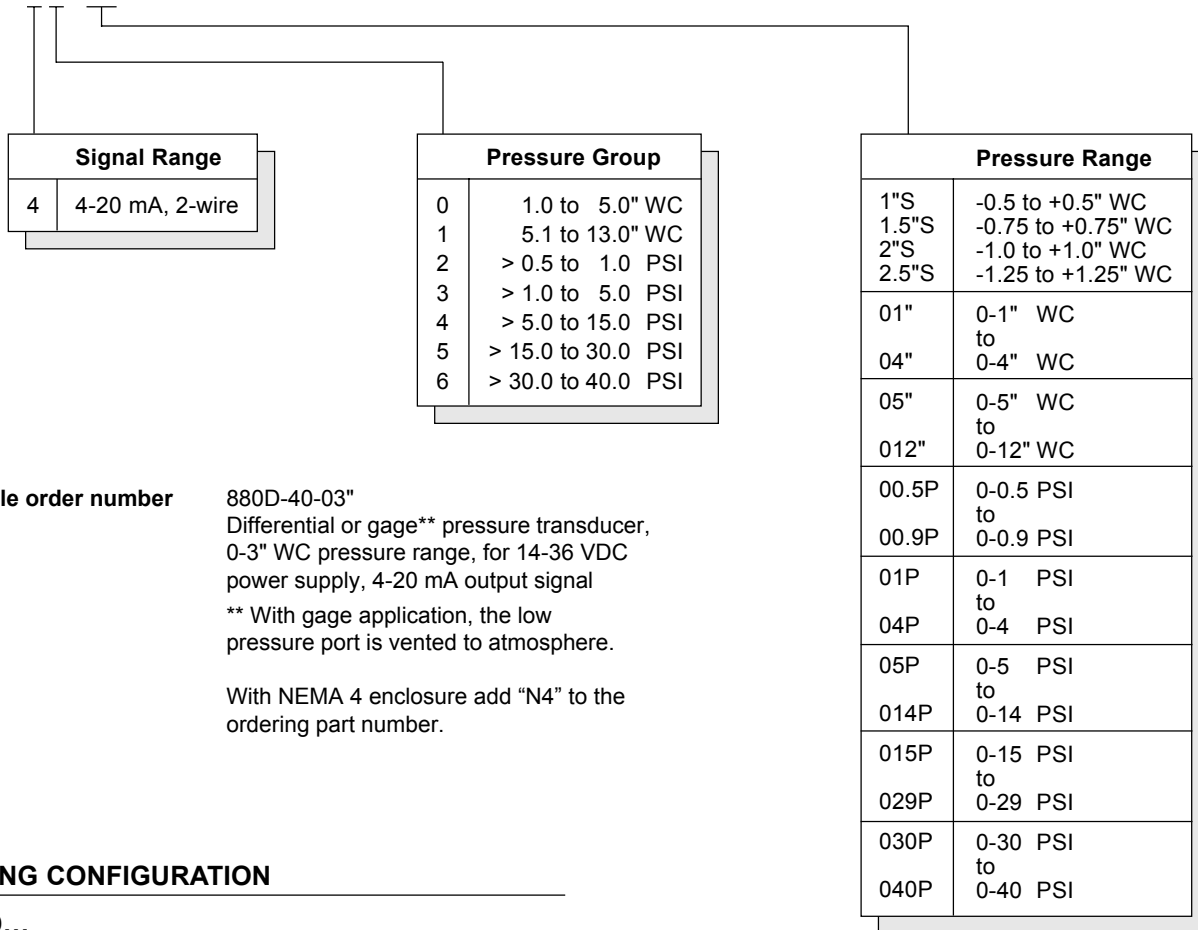
NEMA 4 enclosure

D

Enclosure w/DIN rail mounting

ORDERING INFORMATION

880D - 4 0 - 03"



Sample order number 880D-40-03"
 Differential or gage** pressure transducer,
 0-3" WC pressure range, for 14-36 VDC
 power supply, 4-20 mA output signal
 ** With gage application, the low
 pressure port is vented to atmosphere.

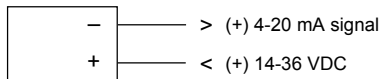
 With NEMA 4 enclosure add "N4" to the
 ordering part number.

Custom split ranges are
 available on request.

WIRING CONFIGURATION

880D...

880D
 24 VDC, 4-20 mA signal, 2-wire configuration



◆ Connect power supply ground
 and controller ground if necessary

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

