DPS3100D Smart Pressure Transmitter

The Taco DPS3100D Smart Pressure Transmitter is a microprocessorbased high performance transmitter which has flexible pressure calibration, push button configuration and programmable using HART® Communication. The DPS3100D is capable of being configured for differential pressure or level applications with the zero and span buttons. A field calibrator is not required for configuration. The transmitter software compensates for thermal effects, improving performance. EEPROM stores configuration settings and stores sensor correction coefficients in the event of shutdowns or power loss. The DPS3100D is FM approved for use in hazardous (classified) locations. The 100:1 rangeability allows the smart transmitter to be configured to fit any application.

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Do your best work.

Supersedes: New

Effective Date: 09/05/12
Printed in USA

Submittal Data Information
DPS3100D Smart Pressure Transmitter

Submittal Data # 301-2121
Supersedes: New

Effective: 09/05/12

Specifications

Service:
Compatible gases, steam, liquids or vapors

Wetted Materials: 316L SS

Accuracy:
±0.075% FS (@ 20°C)

Rangeability:
100:1 turn down

Stability: ±0.125% FSO/year

Temperature Limits:
Process .....-40 to 248°F (-40 to 120°C)
Ambient *without LCD*.....-40 to 185°F (-40 to 85°C)
Ambient *with LCD* .....-22 to 176°F (-30 to 80°C)

Pressure Limits:
Max pressure range.....-14.5 to 2000 psi
Burst pressure ..... 10000 psi

Thermal Effect: ±0.125% span/32°C

Power Requirements: .....1.9 to 45 VDC

Output Signal:
4 to 20 mA / HART® Communication

Response Time: 0.12 seconds

Damping Time: 0.25 to 60 seconds

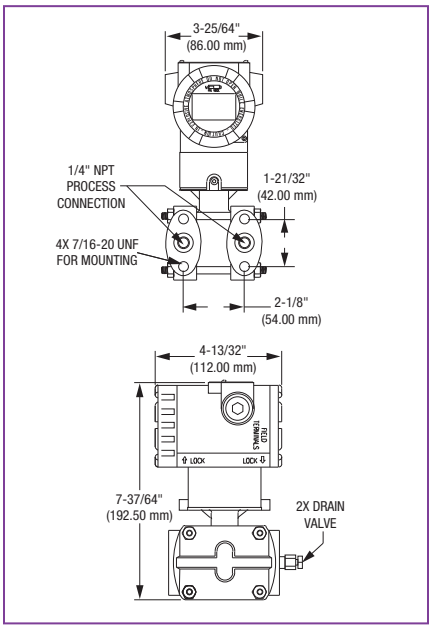
Loop Resistance:
Operation .....0 to 1500Ω
HART® Communication.....250 to 500Ω

Electrical Connections:
Two 1/2" female NPT conduit, screw terminal

Process Connections:
1/4" female NPT

Enclosure Rating:
NEMA 4X (IP66) and explosion-proof for Class 1, Div 1, Groups A, B, C and D

Weight: 8.6 lb (3.9 kg)



Features:

- Configurable using zero/span buttons (no calibrator required)
- Rangeability (100:1)
- High accuracy (±0.075%)
- Automatic sensor temperature compensation
- Fail-mode process function
- Selectable engineering units

Applications:

- Flow measurement
- Level monitoring
- Filter or pump differential pressure
- Critical process monitoring

Accessories:

DPS3100A-1F — flanged 3-valve block manifold

Model	Calibrated Span (Min to Max)		Lower Range Limit		Upper Range Limit		LCD Display
DPS3100D-05	1 to 100 psi	6.9 to 690 kPa	-100 psi	-690 kPa	100 psi	690 kPa	No
DPS3100D-05D	1 to 100 psi	6.9 to 690 kPa	-100 psi	-690 kPa	100 psi	690 kPa	Yes

Custom Calibration Values:

Primary Units	in H_2O, ft H2O, mm H_2O, in Hg, psig, g/cm², kg/cm², MPa, Pa, kPa, bar, mbar, Torr, Atm, mm Hg
Upper Range Limit	20 mA value
Lower Range Limit	4 mA value
Output	Linear or square root
Damping Time	0 to 60 seconds
Display Mode	Unit, %, mA, rotate
Display Units	Primary unit or Engineering unit
Engineering Units*	**Volumetric Flow Units**: US gal/s, US gpm, US gal/hr, US gpd, imp gal/s, imp gpm, imp gal/hr, imp gpd, l/s, l/min, l/hour, ft/s, m/s, metric gal/day, metric l/day, ft³/s, ft³/min, ft³/hr, ft³/day, m³/s, m³/min, m³/hr, m³/day, normal l/hr, normal m³/hr, standard ft³/min, barrels/s, barrels/min, barrels/hr, barrels/day **Mass Flow Units**: g/s, g/min, g/hr, kg/s, kg/min, kg/hr, kg/day, metric ton/min, metric ton/hour, metric ton/day, lg/s, lb/min, lb/hr, lb/day, short ton/min, short ton/hr, short ton/day, long ton/hr, long ton/day **Volume Units:** gallons, liters, imp gallons, m³, barrels, bushels, yd³, ft³, in³, bbl liq, normal cubic meter, normal liter, standard cubic feet, hectoliters
Engr. Upper Range Limit *	Engr. upper value
Engr. Lower Range Limit *	Engr. lower value
Engr. Function *	Linear or square root

** Engineering Units, Engr. Upper Range Limit, Engr. Lower Range Limit, and Engr. Function values are only required if engineering unit is selected.*

Do your **best work.**

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