



MEASUREMENT AND CONTROL

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Pressure Transmitters

SOR® Pressure transmitters are versatile, rugged products designed for industrial process monitoring and control. This catalog contains application and ordering data for both compact and conventional styles of pressure transmitter. Pressure ranges for applications requiring measurement of gauge, absolute, or differential pressure are all available.

From cost-effective blind transmitters to fully-featured smart switch-transmitters, SOR pressure transmitters can be ordered with a multitude of options and accessories offering the best solution for your unique application.

800 Series Compact Pressure Transmitters



805PT/805QS



815PT
with "IN" LCD Display



815DT

1800 Series Conventional Pressure Transmitters



Standard Over Pressure
(DMP305X-TST-S)






High Over Pressure
(DMP305X-TST-H)



Differential Pressure
(DMP305X-DST-S)

Pressure Transmitters

Compact Model Overview

| Model |  805PT Compact Pressure Transmitter |  805QS Compact Pressure Switch-Transmitter |  815PT Compact Smart Pressure Switch-Transmitter | | | | | | |
|-------------------------------|---|--|--|------------------------------|--|-----------------|--|---------------------|-----------------|
| Pressure Ranges | Gauge (psi) | Over Pressure (psi) | Absolute (psia) | Gauge (psi) | Over Pressure (psi) | Absolute (psia) | Gauge (psi) | Over Pressure (psi) | Absolute (psia) |
| | 0 to 5 | 15 | | 0 to 5 | 15 | | 0 to 5 | 15 | |
| | 0 to 15 | 45 | 0 to 15 | 0 to 15 | 45 | 0 to 15 | 0 to 15 | 45 | 0 to 15 |
| | 0 to 50 | 150 | 0 to 50 | 0 to 50 | 150 | 0 to 50 | 0 to 50 | 150 | 0 to 50 |
| | 0 to 100 | 300 | 0 to 100 | 0 to 100 | 300 | 0 to 100 | 0 to 100 | 300 | 0 to 100 |
| | 0 to 250 | 500 | | 0 to 250 | 500 | | 0 to 250 | 500 | |
| | 0 to 500 | 1,000 | | 0 to 500 | 1,000 | | 0 to 500 | 1,000 | |
| | 0 to 1,000 | 2,000 | | 0 to 1,000 | 2,000 | | 0 to 1,000 | 2,000 | |
| | 0 to 2,500 | 5,000 | | 0 to 2,500 | 5,000 | | 0 to 2,500 | 5,000 | |
| | 0 to 5,000 | 10,000 | | 0 to 5,000 | 10,000 | | 0 to 5,000 | 10,000 | |
| | 0 to 10,000 | 20,000 | | 0 to 10,000 | 20,000 | | 0 to 10,000 | 20,000 | |
| | 0 to 15,000 | 21,000 | | 0 to 15,000 | 21,000 | | 0 to 15,000 | 21,000 | |
| | 0 to 30,000 | 42,000 | | 0 to 30,000 | 42,000 | | 0 to 30,000 | 42,000 | |
| Turndown | 5:1 | | | | | | | | |
| Analog Output | 4-20mA or 1-5VDC (Low Power) Output must be specified at time of order. | | | | | | 4-20mA / 1-5VDC (Low Power) Output is field configurable. | | |
| Communication Protocol | - | | | | | | HART® 7 / Modbus RTU Output is field configurable. | | |
| Accuracy | ± 0.25% URL | | | | | | ± 0.10% URL | | |
| Built in Switch | - | | | Yes 3 Switch Output Modes | | | Yes 9 Switch Output Modes | | |
| Switch Accuracy | - | | | ± 2% URL | | | ± 0.25% URL | | |
| Response Time | < 5ms | | | | | | < 70ms | | |
| Supply Voltage | 8-30VDC | | | | | | 10-36VDC | | |
| Field Calibration | SOR Calibration Kit and PC required | | | | | | External Magnetic Targets HART 7 / Modbus RTU | | |
| Agency Approvals | FM (U.S. and Canada) | | Explosion Proof | | Class I, II, III; Division 1 Groups A-G; T5; Type 4X | | | | |
| | | | Non-incendive | | Class I, II, III; Division 2 Groups A-G; T5; Type 4X | | | | |
| | ATEX/IECEX or INMETRO | | Flameproof | | Ex db IIC T5 Gb; IP66 | | | | |
| Warranty | 3 years | | | | | | | | |
| Catalog | See page 6 | | | | | | See page 11 | | |

Please consult Product Specifications Table and Model Tree for the complete details of each model.

Pressure Transmitters

Conventional Model Overview



| Model | DMP305X- TST-S Conventional Standard Over Pressure Transmitter | | | DMP305X- TST-H Conventional High Over Pressure Transmitter | | |
|------------------------|---|----------------------|---|---|----------------------|-----------------|
| Pressure Ranges | Gauge | Over Pressure | Turndown | Gauge | Over Pressure | Turndown |
| | -40 kPa to 40 kPa | 1 MPa | 20:1 | -6 kPa to 6 kPa | 25 MPa | 6:1 |
| | -100 kPa to 250 kPa | 4 MPa | 20:1 | -40 kPa to 40 kPa | 25 MPa | 20:1 |
| | -100 kPa to 1 MPa | 6 MPa | 20:1 | -100 kPa to 250 kPa | 25 MPa | 20:1 |
| | -100 kPa to 3 MPa | 15 MPa | 20:1 | -100 kPa to 1 MPa | 25 MPa | 20:1 |
| | -100 kPa to 10 MPa | 20 MPa | 20:1 | -100 kPa to 3 MPa | 25 MPa | 20:1 |
| | -100 kPa to 40 MPa | 80 MPa | 8:1 | -100 kPa to 10 MPa | 25 MPa | 20:1 |
| Analog Output | 4-20mA | | | | | |
| Communication Protocol | HART® (Optional) | | | | | |
| Accuracy | ± 0.075% F.S. | | | | | |
| Response Time | ≤ 200 ms | | | | | |
| Supply Voltage | 10.5-55VDC 16.5-55VDC (HART® with 250 Ω load) | | | | | |
| Field Calibration | Push-buttons HART® Communicator (only with HART® output) | | | | | |
| Agency Approvals | ATEX / IECEx | Intrinsically Safe | Ex ia IIC T4 Ga | | | |
| | | Flameproof | Ex db IIC T6 Gb; Ex tb IIIC T80°C Db | | | |
| | CSA (U.S. and Canada) | Explosion Proof | Class I, II, III; Division 1 Groups A-D; T6 Groups E-G; T80°C | | | |
| Warranty | 2 years | | | | | |
| Catalog | See page 20 | | | See page 23 | | |

Please consult Product Specifications Table and Model Tree for the complete details of each model.

Pressure Transmitters

Differential Model Overview



815DT
Compact Smart Differential Pressure Switch-Transmitter



DMP305X-DST-S
Conventional Differential Pressure Transmitter

| Model | 815DT | | | DMP305X-DST-S | | |
|------------------------------------|--|---------------------|--|---|---------------------|--|
| Pressure Ranges | Range | Max Static Pressure | Turndown | Range | Max Static Pressure | Turndown |
| | 0 to 5 psid | 1,000 psi | 5:1 | -6 kPa to 6 kPa | 25 MPa | 30:1 |
| | 0 to 15 psid | 1,000 psi | 5:1 | -40 kPa to 40 kPa | 40 MPa | 100:1 |
| | 0 to 50 psid | 1,000 psi | 5:1 | -250 kPa to 250 kPa | 40 MPa | 100:1 |
| | 0 to 100 psid | 1,000 psi | 5:1 | -500 kPa to 1 MPa | 40 MPa | 100:1 |
| | 0 to 300 psid | 1,000 psi | 5:1 | -500 kPa to 3 MPa | 40 MPa | 100:1 |
| HI & LO Side Over Pressure Ratings | Range | HI Side | LO Side | Range | HI Side | LO Side |
| | 0 to 5 psid | 15 psid | 15 psid | -6 kPa to 6 kPa | 25 MPa | 16 MPa |
| | 0 to 15 psid | 45 psid | 45 psid | -40 kPa to 40 kPa | 25 MPa | 16 MPa |
| | 0 to 50 psid | 150 psid | 150 psid | -250 kPa to 250 kPa | 25 MPa | 16 MPa |
| | 0 to 100 psid | 300 psid | 300 psid | -100 kPa to 1 MPa | 25 MPa | 16 MPa |
| | 0 to 300 psid | 900 psid | 900 psid | -500 kPa to 3 MPa | 25 MPa | 16 MPa |
| Analog Output | Range | HI Side | LO Side | Range | HI Side | LO Side |
| | 0 to 500 psid | 1,000 psi | 5:1 | -500 kPa to 10 Mpa | 40 MPa | 100:1 |
| | 4-20mA / 1-5VDC (Low Power) Output is field configurable. | | | 4-20mA | | |
| | HART® 7 / Modbus RTU Output is field configurable. | | | HART® (Optional) | | |
| | Linear (Default) Square Root Strapping Table | | | Linear (Default) Square Root | | |
| | ± 0.10% URL | | | ± 0.075% F.S. | | |
| Built in Switch | Yes | | | - | | |
| Switch Accuracy | ± 0.25% URL | | | - | | |
| Response Time | < 70ms | | | ≤ 200 ms | | |
| Supply Voltage | 10-36VDC | | | 10.5-55VDC 16.5-55VDC (HART® with 250 Ω load) | | |
| Field Calibration | External Magnetic Targets HART® 7 / Modbus RTU | | | Push-buttons HART® Communicator (only with HART® output) | | |
| Agency Approvals | FM (U.S. and Canada) | Explosion Proof | Class I, II, III; Division 1 Groups A-G; T5; Type 4X | CSA (U.S. and Canada) | Explosion Proof | Class I, II, II; Division 1 Groups A-D; T6 Groups E-G; T80°C |
| | | Non-incendive | Class I, II, III; Division 2 Groups A-G; T5; Type 4X | | Intrinsically Safe | Ex ia IIC T4 Ga |
| | ATEX/IECEX or INMETRO | Flameproof | Ex db IIC T5 Gb; IP66 | ATEX / IECEx | Flameproof | Ex db IIC T6 Gb; Ex tb IIIC T80°C Db |
| Warranty | 3 years | | | 2 years | | |
| Catalog | See page 10 | | | See page 28 | | |

Please consult Product Specifications Table and Model Tree for the complete details of each model.

805 Pressure Switch-Transmitters

The **805 pressure switch-transmitter** is a compact loop-powered pressure switch-transmitter. A supplemental continuous output is also available (either 4-20mA or 1-5VDC). Its rugged construction makes cost of ownership low and it carries a three-year warranty. The SOR 805 pressure switch-transmitter is suitable for hazardous locations and hostile environments where space is limited. It meets applications where low-cost, discrete and continuous monitoring is preferred. Switch set points and supplemental continuous output zero and span points are field adjusted via SOR Calibration Kit with USB communication cable.



Features

- Compact, 316 stainless steel, explosion proof housing
- Stainless steel sensor, no o-ring
- Solid state switch output (805QS only)
- 0.25% continuous output accuracy
- Hermetically sealed leads
- LCD display option available
- EMI/RFI protection
- NEMA 4X, IP 66 housing
- Dual Seal approval
- INMETRO approval
- FM and ATEX/IECEX certified for hazardous locations in U.S., Canada and Europe



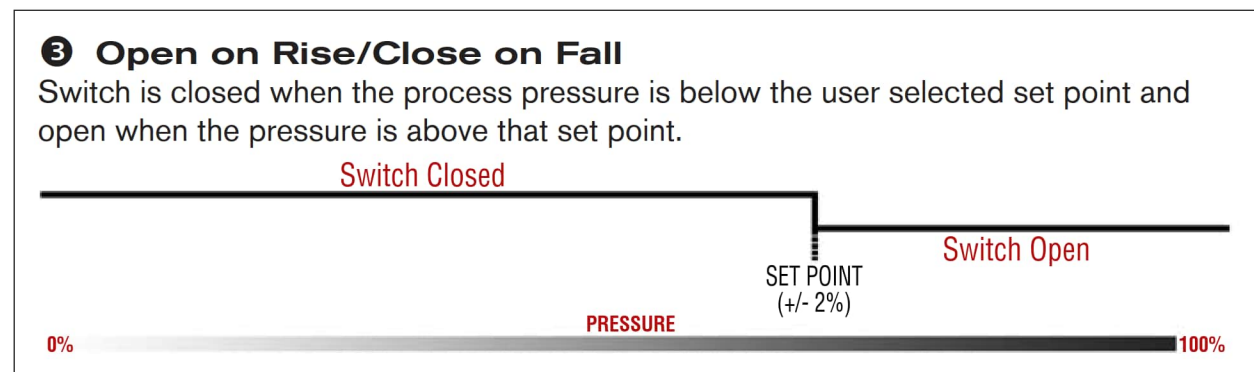
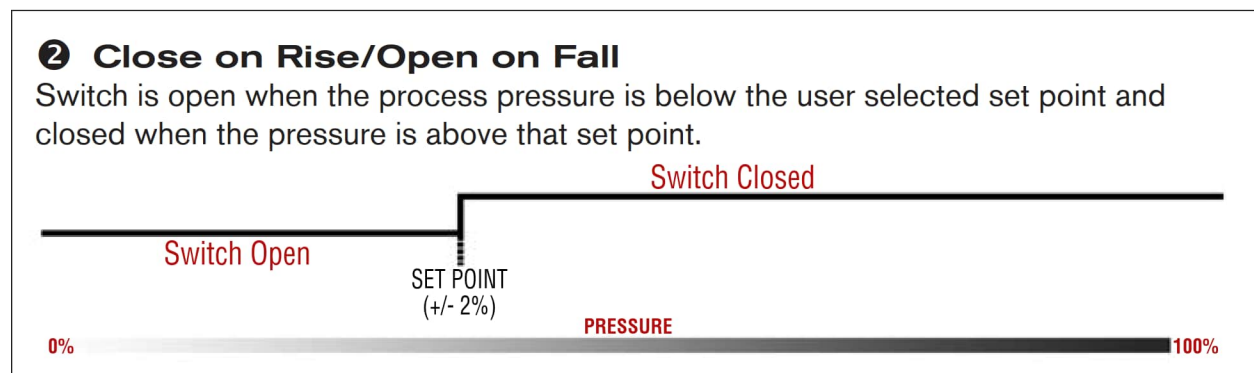
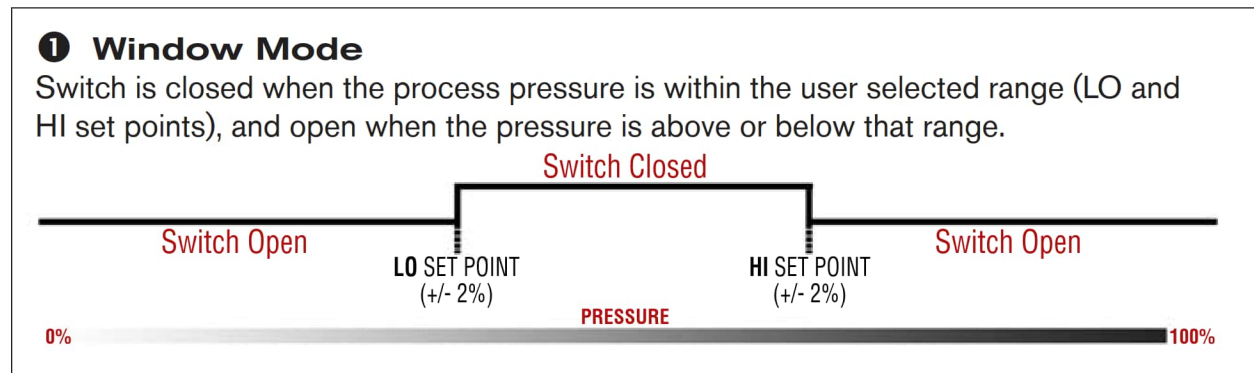
Product Specifications

| | | | |
|---|---|------------------------------|---|
| Primary Switch Output (805QS only) | | Construction | 316SS housing (CF8M) |
| Accuracy | ±2% URL | Process Connection | 1/2" NPT(M) with 1/4" NPT(F) and Autoclave F250C(F) for 1/4" OD tubing |
| Type | Normally Open Solid State Relay | Electrical Connection | |
| Electrical Rating | 30V, 120mA | Size | 1/2" NPT(M) |
| Temperature Effect | ±2% URL/100°F @ -40 to 176°F | Termination | 18 AWG shielded cable, 72-inch length <i>(Consult factory for alternate electrical connections)</i> |
| Continuous Output | | Wetted Materials | 316/316L-SST (for pressure ranges 0-5 psi thru 0-100 psi) 17-4SST (for pressure ranges above 0-100 psi) |
| Accuracy | ±0.25% URL (BFSL) (Linearity, Hysteresis, and Repeatability) | Over Pressure | |
| Turndown | 5:1 | 0-5 thru 0-100 psi | 3 times FSPR |
| Output | 4-20 mA 1-5 VDC option (27mW ± 5mW @ 9 VDC) | 0-250 thru 0-10,000 psi | 2 times FSPR |
| Zero Offset | +10% URL | Up to 30,000 psi | 1.4 times FSPR |
| Temperature | ±1% URL/100°F @ -40 to -176°F | Burst Pressure | |
| Temperature Range | | 0-5 thru 0-100 psi | 4 times FSPR |
| Compensated | -40 to 176°F (-40 to 80°C) | 0-250 psi | 40 times FSPR |
| Ambient | -40 to 176°F (-40 to 80°C) | 0-500 thru 0-1000 psi | 20 times FSPR |
| Process | -40 to 194°F (-40 to 90°C) | 0-2500 psi | 10 times FSPR |
| Storage | -40 to 194°F (-40 to 90°C) | 0-5000 psi | 8 times FSPR |
| Long Term Stability | ≤ ±0.5% URL per year | 0-10,000 thru 0-15,000 psi | 4 times FSPR |
| Response Time | ≤ 5 ms | 0-30,000 psi | 1.8 times FSPR |
| Supply Voltage | 8-30VDC | Weight | 1.8 lb (0.8 kg) |
| Loop Resistance | 800 ohms @ 24VDC | Warranty | 3 years |
| Circuit Protection | Reverse polarity and EMI/RFI protected | | |

Design and specifications are subject to change without notice. For latest revision, see sorinc.com.

The primary switch output of the 805QS is a “Normally Open Solid State Relay” rated 30V, 120mA. It can be configured 3 ways; as shown below. Switch set point(s) and supplemental continuous output zero and span points are set at the factory as specified by the customer.

In all three configurations, the fail-safe state for the 805QS switch output will be open (i.e., if power is removed from the 805QS, the switch contacts will open automatically).



805 Pressure Switch-Transmitters

How to Order

How to Order

Below is the SOR quick select model number tree that provides you with all the options to configure and order a product for your application.

- You must select a designator for each component
- Reference tables, charts and additional information are provided throughout the catalog to help you make your selections, see pages noted in the tree.

| | | | | | |
|---|----|----------------|----|--|--|
| | | 3 Range | | 4 Process Connection Size | |
| | | 0-5 psi | 00 | A | 316/316L SS, 1/2"NPT(M) with 1/4"NPT(F), Process Connection (316SS for ranges 0-100 psi and below) (17-4SS for ranges above 0-100 psi) |
| | | 0-15 psi | 01 | S | 316L SS, 1/2" NPT(M) flush-mount, liquid filled, diaphragm seal, Process Connection* |
| | | 0-50 psi | 02 | H | 17-4SS, Autoclave F250C Female (For 1/4" OD Tubing), Process Connection** |
| | | 0-100 psi | 03 | <i>See page 17 for more information.</i> | |
| | | 0-250 psi | 04 | <i>If alternate process connection is required, consult factory.</i> | |
| | | 0-500 psi | 05 | 5 Accessories | |
| | | 0-1000 psi | 06 | IN | LCD Display for local indication (see page 5 for more information) |
| | | 0-2500 psi | 07 | BB | Cleaned for industrial oxygen service |
| | | 0-5000 psi | 08 | DS | Dual Seal approval (FM)*** |
| | | 0-10000 psi | 09 | HB | SS universal terminal box, 1/2" NPT(F), ATEX/IECEX approved |
| | | 0-15000 psi | 10 | HBME | SS universal terminal box, M20 x 1.5(F), ATEX/IECEX approved |
| | | 0-30000 psi | 11 | HT | SS universal terminal box, 1/2" NPT(F), FM and CSA certified |
| | | 0-15 psia | 13 | NM | INMETRO approved (not available for ranges 13-15) |
| | | 0-50 psia | 14 | NC | Compliance to NACE Certification MR0 175/ISO 15156 (Only available with S process connection. Consult factory for other ranges.) |
| | | 0-100 psia | 15 | PK | Pipe mounting kit |
| | | | | RR | SS tag wired to housing with customer specified information |
| | | | | Certificates | |
| | | | | C1 | Calibration |
| | | | | C2 | Hydrostatic Pressure Test (not available with range option 11) |
| | | | | C3 | Inspection Report |
| | | | | C4 | Compliance/Conformance |
| | | | | C8 | Typical Material of Wetted Parts |
| | | | | D1 | Certificate of Origin |
| | | | | D2 | Manufacturer's Certification |
| Supplemental Output | | 4-20 mA | C | | |
| | | 1-5 VDC | V | | |
| Model | | | | | |
| Pressure Transmitter | PT | | | | |
| Pressure Switch-Transmitter | QS | | | | |
| | | | | | |
| 805 QS - C 07 - A - RR | | | | | |
| | | | | Example Model No. | |

* Only available for range option 04 thru 08

** For pressure ranges above 0-10000psi (range options 10 and 11)

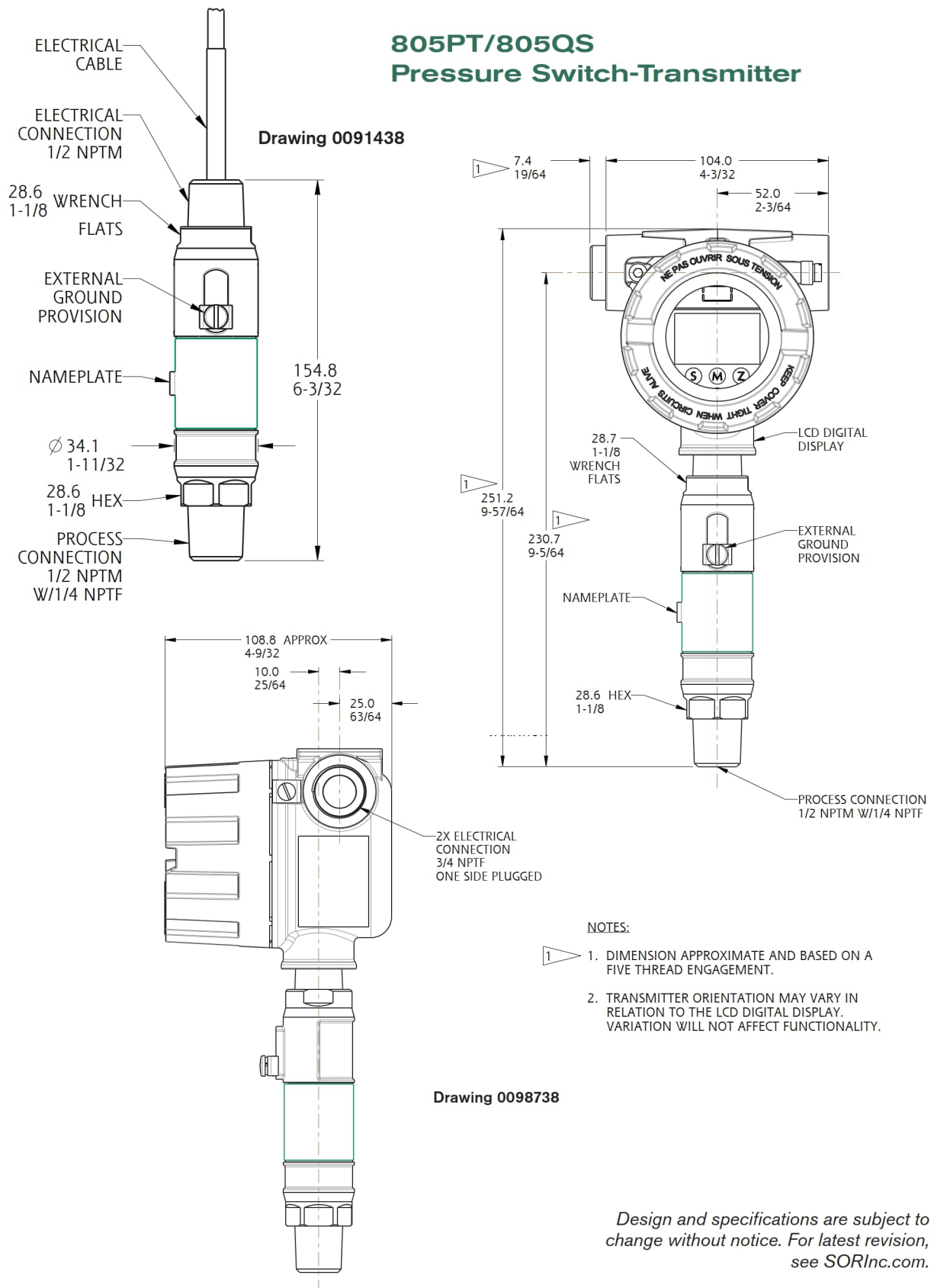
*** Dual Seal version is not hermetically sealed, only available for range options 00 thru 09.

See page 18 for agency and options.

805 Pressure Switch-Transmitters

Dimensions

Dimensions shown are for reference only. Contact the factory for certified dimension drawings.
Linear = mm/in.



Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

815 Smart Pressure Switch-Transmitters

The **815 smart pressure switch-transmitters** are rugged, compact, loop-powered instruments that are ideally suited for hazardous locations and hostile environments where space is limited. The 815 offers many industry standard outputs to meet applications where low-cost, discrete and continuous monitoring is required or preferred. This versatile instrument may be used to safely monitor and control many process applications, but is specifically designed for upstream, midstream, and downstream oil & gas applications. Its stainless-steel construction and three-year warranty dramatically reduces the total cost of ownership.

The 815 is easily configured using HART®7 Communication Protocol and Modbus RTU Serial Communications; it is also very easy to set the zero and span set points with a magnet, as the zero and span magnetic targets are clearly identified on the casting. The SOR 815 is a feature rich, low cost, compact transmitter that sits at the top of its class.

Features

- HART®7 communication protocol with 4-20 mA output
- 1-5 VDC (low-power) mode of operation
- Modbus RTU (RS-485) serial communications
- Configurable normally-open solid-state switch output (SPST)
- $\pm 0.10\%$ (URL) continuous output accuracy
- Zero balance & URL: $\pm 0.25\%$ URL (each)
- Compact, 316 stainless steel, explosion proof housing
- NACE MRO 175/ISO 15156 certification option available
- Hermetically sealed leads
- Pressure ranges: 0-5 psi to 0-30,000 psi for 815PT, 0-5 psid to 0-500 psid for 815DT
- Turndown: 5 to 1
- Zero and span magnetic targets located on casting
- LCD display option available
- EMC (EMI/RFI) protection
- NEMA 4X, IP66 housing
- FM and ATEX/IECEX certified for hazardous locations in U.S., Canada and Europe
- Dual Seal approval
- 3 year warranty



**815PT
Smart Pressure
Switch-Transmitter**



**815DT Smart
Differential Pressure
Switch-Transmitter**



Product Specifications

| | | | |
|--|--|---------------------------------|---|
| Continuous Output | | Construction | 316SS housing (CF8M) |
| Accuracy | ±0.10% URL (BFSL) (Linearity, Hysteresis and Repeatability) | Process Connection | |
| Zero Balance & URL | ±0.25% URL (Each) | 815PT | 1/2" NPT(M) with 1/4" NPT(F) or Autoclave F250C (F) for 1/4" OD Tubing |
| Turndown | 5:1 | 815DT | (H & L side) 1/4" NPT(F) |
| Output | 4-20mA | Electrical Connection | |
| | HART® 7 Communications Protocol | Size | 1/2" NPT(M) |
| | Modbus RTU (RS-485) Serial Communications | Termination | 18 AWG shielded cable, 72-inch length |
| | 1-5VDC (Low Power) Mode of Operation (36mW ± 5mW @ 10VDC) | Wetted Materials | |
| Temperature Effect | ±1% URL/100°F @ -40 to 176°F | 815PT | 316/316L-SST (for 0-5 psi thru 0-100 psi & psia pressure ranges) 17-4SST (for pressure ranges above 0-100 psi) |
| Switch Output | | 815DT | 316/316L-SST |
| 1: Off | | Max Static Line Pressure | |
| 2: Windowed, Normally-Open | | 815DT | 1,000 psi |
| 3: Windowed, Normally-Closed | | Over Pressure | |
| 4: Single Point, Normally-Open | | 815PT | |
| 5: Single Point, Normally-Closed | | 0-5 thru 0-100 psi | 3 times FSPR |
| 6: PWM (Pulse Width Modulation), Pulsed Low | | 0-250 thru 0-10,000 psi | 2 times FSPR |
| 7: PWM (Pulse Width Modulation), Pulsed High | | Up to 30,000 psi | 1.4 times FSPR |
| 8: Dead Band, Normally-Open | | 815DT | 3 times FSPR |
| 9: Dead Band, Normally-Closed | | Burst Pressure | |
| Accuracy | ±0.25% URL | 815PT | |
| Type | Normally Open Solid State Relay (SPST) | 0-5 thru 0-100 psi | 4 times FSPR |
| Electrical Rating | 30V, 120mA | 0-250 psi | 40 times FSPR |
| Temperature Effect | ±1% URL/100°F @ -40 to 130°F | 0-500 thru 0-1000 psi | 20 times FSPR |
| Temperature Range | | 0-2500 psi | 10 times FSPR |
| Compensated | -40 to 176°F (-40 to 80°C) | 0-5000 psi | 8 times FSPR |
| Ambient | -40 to 176°F (-40 to 80°C) | 0-10,000 thru 0-15,000 psi | 4 times FSPR |
| Process | -40 to 194°F (-40 to 90°C) | 0-30,000 psi | 1.8 times FSPR |
| Storage | -40 to 194°F (-40 to 90°C) | 815DT | 4 times FSPR |
| Long Term Stability | ≤ ±0.5% URL per year | Weight | 1.8 lb (0.8 kg) |
| Response Time | ≤ 70 ms | Warranty | 3 years |
| Supply Voltage | 10-36VDC | | |
| Loop Resistance | 667 ohms @ 24VDC | | |
| Circuit Protection | Reverse polarity and EMC (EMI/RFI) protected | | |

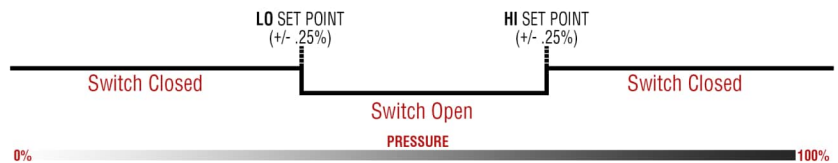
Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

The switch output of the 815 is a Normally Open Solid State Relay rated for 30V, 120mA. It can be configured 9 ways; as shown in the following diagrams. Switch set point(s) and continuous output zero and span points are set at the factory as specified by the customer.

In all nine configurations, the fail-safe state for the 815 switch output will be open (i.e., if power is removed from the 815, the switch contacts will open automatically).

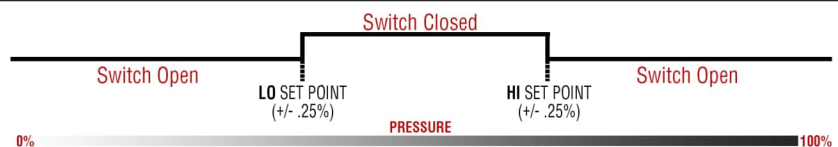
- ❶ Off
- ❷ Windowed, Normally-Open
- ❸ Windowed, Normally-Closed
- ❹ Single Point, Normally-Open
- ❺ Single Point, Normally-Closed
- ❻ PWM (Pulse Width Modulation), Pulsed Low
- ❼ PWM (Pulse Width Modulation), Pulsed High
- ❽ Dead Band, Normally-Open
- ❾ Dead Band, Normally-Closed

❷ Windowed, Normally-Open



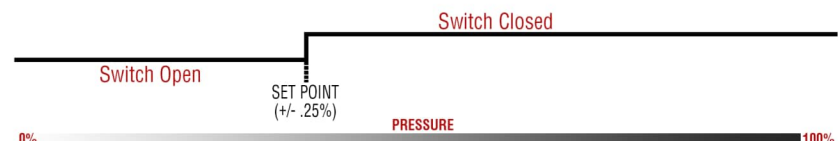
In this configuration, the switch output will be open when the process pressure is within a user selectable range and closed when the pressure is outside of these boundaries. This is designed for applications where there is a known acceptable operating pressure range.

❸ Windowed, Normally-Closed



In this configuration, the switch output will be closed when the process pressure is within a user selectable range and open when the pressure is outside of these boundaries. This is designed for applications where there is a known acceptable operating pressure range.

❹ Single Point, Normally-Open (Close on Rise/ Open on Fall)



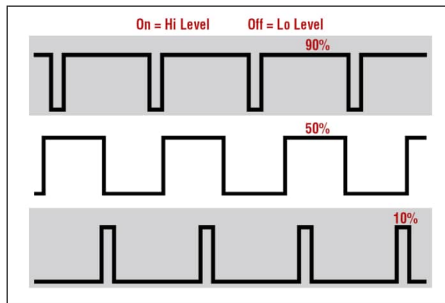
In this configuration, the switch output will be open for pressures less than the selected setpoint. The switch output would then be closed for pressures greater than the setpoint.

❺ Single Point, Normally-Closed (Open on Rise/ Close on Fall)

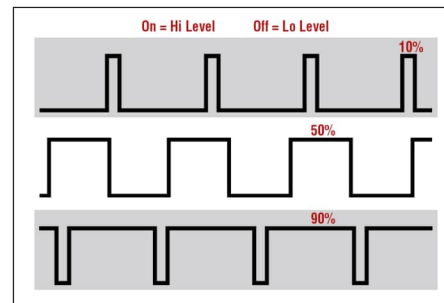


In this configuration, the switch output will be closed for pressures less than the selected setpoint. The switch output would then be open for pressures greater than the setpoint.

⑥ Pulse Width Modulation - Pulsed Lo



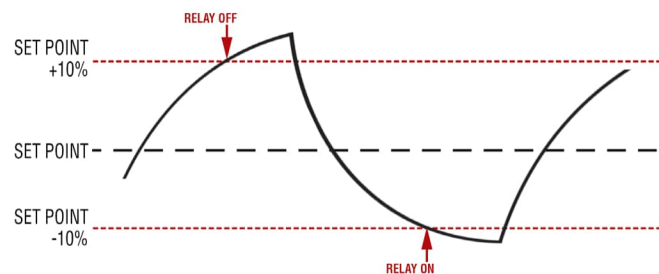
⑦ Pulse Width Modulation - Pulsed Hi



⑧ & ⑨ Dead Band

This diagram depicts an adjustable dead band. Dead band is the range through which an input can be varied without initiating an observable response. Dead band is usually expressed in percent of span.

EXAMPLE: A 20% total dead band is applied to the setpoint of a monitored parameter. The relay will turn on and off as indicated in the graph above.



Note: The continuous zero and span points and the Switch Configuration Mode and set point(s) must be specified. Refer to switch configuration diagrams on [page 12](#).

Example: **815PT-Z07-A-RR**, which has a range of **0-2500 psi** could be ordered with zero and span of 200 psi and 2300 psi. The window mode switch configuration could have a LO set point of 210 psi and a HI set point of 2290 psi.

External Magnetic Zero & Span



The 815PT and 815DT can be easily configured externally with a magnet. Simply place a magnet to the targets located on the housing for 3 seconds and set the zero and span.

To set the Zero, simply follow the steps below:

- Step 1: Bring the pressure to the desired Zero value.
- Step 2: Place the magnet on the circle target located on the housing and hold for 3 seconds.
- Step 3: After zero value is set, remove the magnet.



To set the Span, follow the same steps except place the magnet on the triangle on the housing for 3 seconds. Using this method requires a power and a pressure source. Almost any magnet can be used, and SOR can provide the magnetic tool if needed.

815 Smart Pressure Switch-Transmitters

How to Order

How to Order

Below is the SOR quick select model number tree that provides you with all the options to configure and order a product for your application.

- You must select a designator for each component
- Reference tables, charts and additional information are provided throughout the catalog to help you make your selections, see pages noted in the tree.

| 3 | | 4 | | 5 | |
|---|----|---|--|---------------------|--|
| Range | | Process Connection Size | | Accessories | |
| 815PT | | A | 815PT | IN | LCD Display for local indication (see page 6 for more information) |
| 0-5 psi | 00 | | 316/316L SS, 1/2"NPT(M) with 1/4"NPT(F) Process Connection (316SS for ranges 0-100 psi and below, 17-4SS for ranges above 0-100 psi) | BB | Cleaned for industrial oxygen service |
| 0-15 psi | 01 | S | 316L SS 1/2"NPT(M) Flush-Mount, Liquid-Filled, Diaphragm Seal, Process Connection* | DS | Dual Seal approval (FM)*** |
| 0-50 psi | 02 | | | NC | Compliance to NACE Certification MR0 175/ISO 15156 (Only available with S process connection. Consult factory for other ranges.) |
| 0-100 psi | 03 | H | 17-4SS, Autoclave F250C Female (For 1/4" OD Tubing), Process Connection** | NM | INMETRO approved (not available for ranges 13-15) |
| 0-250 psi | 04 | | | PK | Pipe mounting kit |
| 0-500 psi | 05 | | | RR | SS tag wired to housing with customer specified information |
| 0-1000 psi | 06 | | | Certificates | |
| 0-2500 psi | 07 | D | 815DT | C1 | Calibration |
| 0-5000 psi | 08 | | 316/316L SS, 1/4"NPT(F) Differential Process Connection (HI & LO side) | C2 | Hydrostatic Pressure Test (not available with range option 11) |
| 0-10000 psi | 09 | | | C3 | Inspection Report |
| 0-15000 psi | 10 | | | C4 | Compliance/Conformance |
| 0-30000 psi | 11 | | | C8 | Typical Material of Wetted Parts |
| 0-15 psia | 13 | | | D1 | Certificate of Origin |
| 0-50 psia | 14 | | | D2 | Manufacturer's Certification |
| 0-100 psia | 15 | | | | |
| 815DT | | | | | |
| 0-138 in H ₂ O (0-5 psid) | 21 | | | | |
| 0-415 in H ₂ O (0-15 psid) | 22 | | | | |
| 0-50 psid | 23 | | | | |
| 0-100 psid | 24 | | | | |
| 0-300 psid | 25 | | | | |
| 0-500 psid | 26 | | | | |
| 2 | | 1 | | | |
| Protocol/Output | | Model | | | |
| HART® 7 and ModBus RTU 4-20 mA and 1-5 VDC | Z | Smart Gauge Pressure Transmitter | 815PT | | |
| | | Smart Differential Pressure Transmitter | 815DT | | |

815PT- Z 07 - A - RRINC1

Example Model No.

*Only available for Range options 04 thru 08

**For pressure Ranges above 0-10,000 psi (Range options 10 and 11)

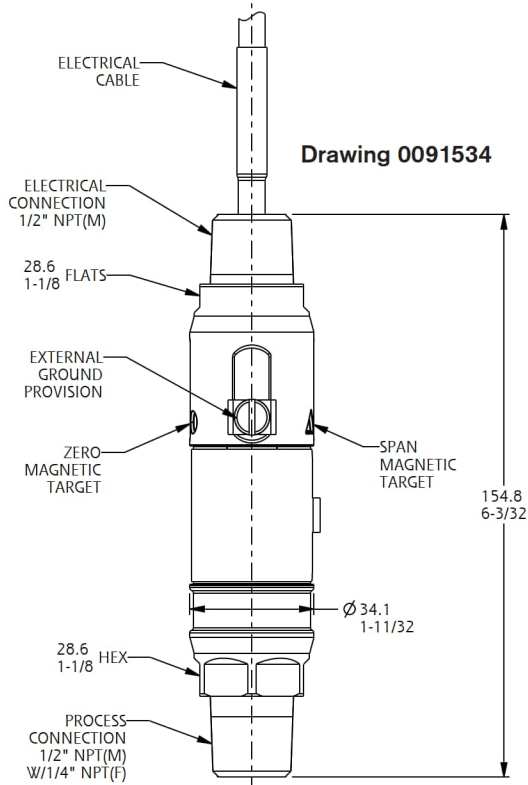
***Dual Seal version is not hermetically sealed. Only available for Range options 00 thru 09 and 21 thru 26.

See page 18 for agency and options.

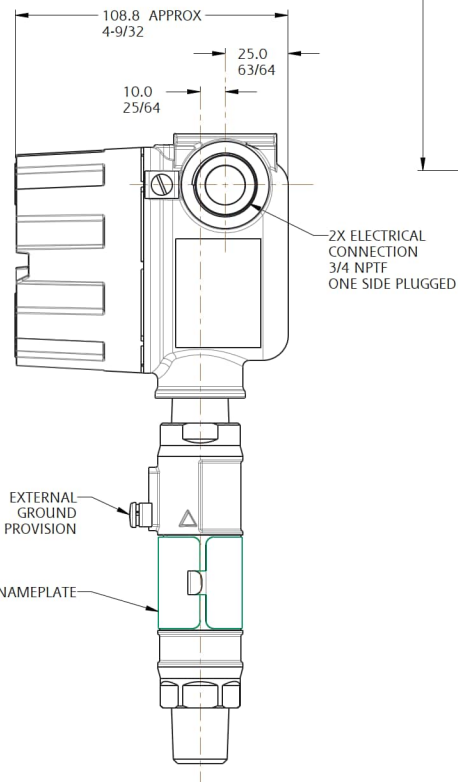
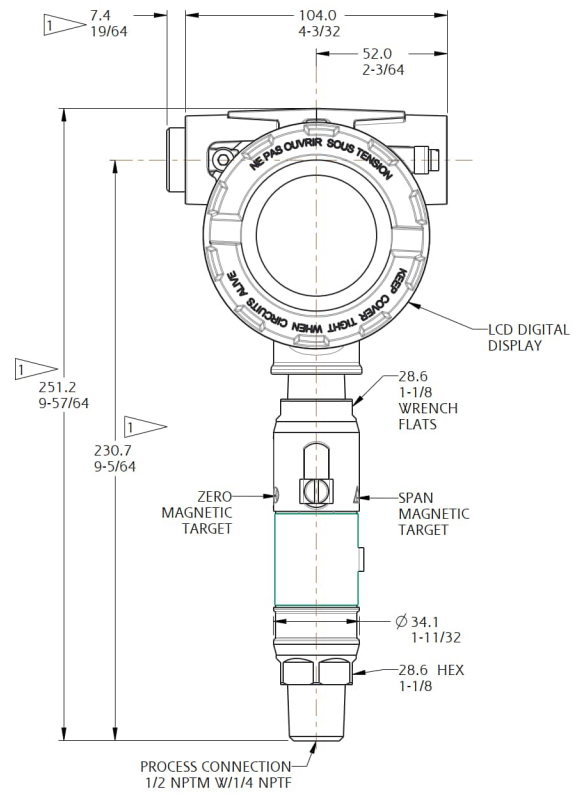
815 Smart Pressure Switch-Transmitters

Dimensions

Dimensions shown are for reference only. Contact the factory for certified dimension drawings.
Linear = mm/in.



815PT Smart Pressure Switch-Transmitter



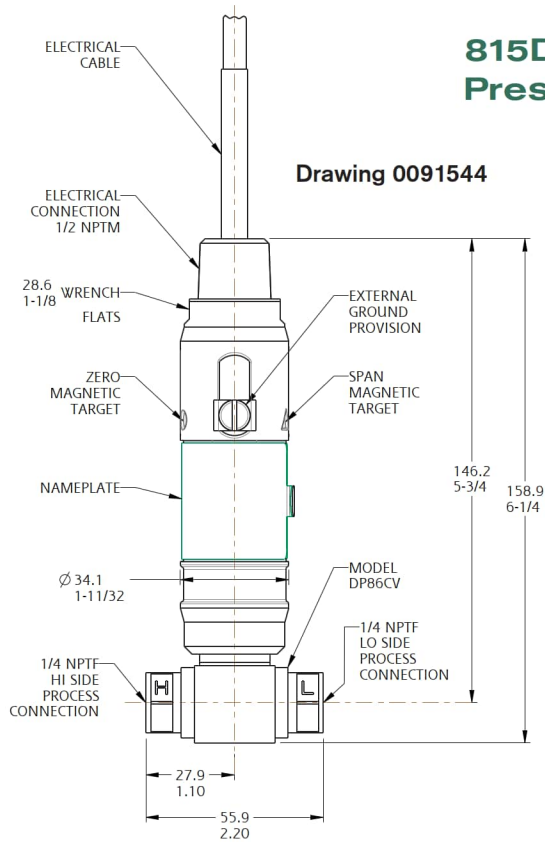
1. DIMENSION APPROXIMATE AND BASED ON A FIVE THREAD ENGAGEMENT.
2. TRANSMITTER ORIENTATION MAY VARY IN RELATION TO THE LCD DIGITAL DISPLAY. VARIATION WILL NOT AFFECT FUNCTIONALITY.

Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

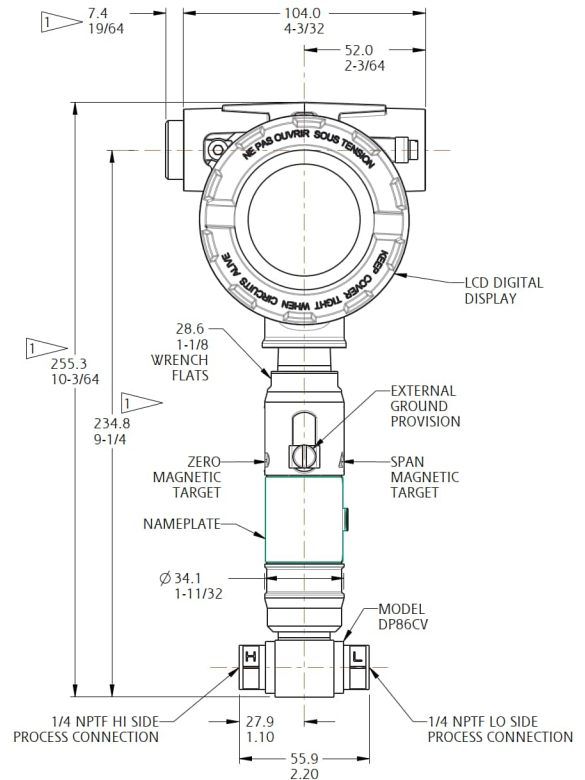
815 Smart Pressure Switch-Transmitters

Dimensions

Dimensions shown are for reference only. Contact the factory for certified dimension drawings.
Linear = mm/in.



815DT Smart Differential Pressure Switch-Transmitter



NOTES:





1. DIMENSION APPROXIMATE AND BASED ON A FIVE THREAD ENGAGEMENT.
2. TRANSMITTER ORIENTATION MAY VARY IN RELATION TO THE LCD DIGITAL DISPLAY. VARIATION WILL NOT AFFECT FUNCTIONALITY.

Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

800 Series Pressure Transmitters

Process Connections

805/815 Process Connections

| Designator | A | S | H | Alternate |
|-------------|---|--|--|---|
| Description | Stainless Steel, 1/2"NPT(M) with 1/4"NPT(F), (316/316L SS for ranges 0-100 psi and below) (17-4SS for ranges above 0-100 psi) | 316L SS, 1/2" NPT(M) flush-mount, liquid filled, diaphragm seal. | 17-4SS, Autoclave F250C Female (For 1/4" OD Tubing) | If alternate process connection is required, please consult the factory. |
| Application | General applications with process materials not containing heavy particulates that could induce clogging of pressure port. | Use when applications contain dirty, sticky or high particulate process material such as paraffin. | Use for applications where pressures are greater than 10,000 psi, Standard NPT threads are not suitable at these high pressures. | SOR can provide many other process connections including: <ul style="list-style-type: none"> ▪ Thread & port size adapters ▪ Direct & remote mount diaphragm seals ▪ Tri-clamp/sanitary fittings ▪ Flanged ▪ Other |
| Photo |  |  |  |  |

Agency Approvals

| Approved* | Safety Method | Approval |
|-------------------------|--|---|
| FM (U.S. and Canada) | Explosion Proof Hazardous Locations | Class I, II, III; Division 1 Groups A-G; T5; Type 4X |
| | Non-incendive | Class I, II, III; Division 2 Groups A-G; T5; Type 4X |
| ATEX/IECEX or INMETRO | Flameproof | Ex db IIC T5 Gb; IP66 |

* Product holds a Canadian Registration Number (CRN) in all provinces, only available for Range options 04 thru 09.

LCD Display “IN” Option

The “IN” LCD display is a low cost option for when simple local indication is needed. The “IN” option provides a 5-digit backlit loop powered LCD display enclosed in an explosion proof housing with terminal block connections inside. For configuring the display, push buttons are provided on the front of the housing. Configuration of the display and transmitter are done separately.



Display Specifications

| | | | |
|---|---|-------------------------------|--|
| Analog Signal | 2 wire: 4-20mA | Instrument Connection | 1/2" NPTF |
| Power Supply (with 805 series transmitter) | 16-30 VDC | Electrical Conduit Connection | 3/4" NPTF |
| Permissible Temperature | -20 to +70°C | Housing Material | Die-casting Aluminum with chromating and chemically resistant paint |
| Accuracy | ≤0.1% F.S. | Window Material | Glass |
| Digits | 4½ neg; 5 pos | Housing Agency Approvals | FM (US and Canada) CSA ATEX IEC Ex d IP68 |
| Units | Blank, kPa, MPa, Pa, bar, mbar, psi, mH2O, mmH2O, cmH2O, mmHg, Torr, atm, kg, g, mg, N, kN, °C, °F, K, %RH, %VOL, PPM, %LEL, pH, m, cm, mm, inch, m/s, Ω (ohm), k Ω (kohm), mV, V, L/min, M3/hr | Weight (Display only) | ≈2.0 lbs |

Display option can be sold separately without transmitter installed and will work with any 4-20mA two-wire device. Part number 9231526.

805PT/805QS Calibration Kit

This kit includes an SOR Calibration Interface and SOR Calibration Manager software that allows the user to verify, adjust and re-calibrate a device from scratch to implement turndown and zero offset, or adjust the zero output of a device to account for environmental effects. For the 805QS, the software also allows the user to verify, adjust, and re-calibrate the switch output settings.



The SOR Calibration Manager is economical, proprietary software which is compatible with all Windows XP SP3 or newer operating systems including Windows Vista® and Windows 7, and Windows 8 operating systems.

To order 805PT/805QS Calibration Kit use part number 9231026.

1800 Series Conventional Pressure Transmitters

The **1800 Series pressure transmitters** are well suited for intrinsically safe applications or conventional transmitter installations where a compact footprint is impractical. The 1800 Series transmitters utilize an advanced monosilicon pressure sensor and incorporate a patented encapsulation technology to achieve exceptional mechanical and thermal isolation.

All 1800 Series transmitters include external push-buttons for device setup and calibration. If ordered with HART® output they can also be programmed with a HART® communicator. Additionally, they are available with 2, 3, or 5-valve manifolds. With a standard $\pm 0.075\%$ accuracy, the SOR 1800 Series conventional transmitters are an exceptional solution for continuous pressure monitoring.

Features

- Gauge Pressure Ranges
 - 40 kPa to 40 kPa through -100 kPa to 40 MPa
 - 5.8 to 5.8 psi through -14.5 to 5,801 psi
- Differential Pressure Ranges
 - 6 kPa to 6 kPa through -500 kPa to 10 MPa
 - 0.87 to 0.87 psid through -72.5 to 1,450 psid
- 4-20 mA output with optional HART® communication protocol
- $\pm 0.075\%$ accuracy (F.S.)
- Aluminum explosion proof housing
- Standard push-buttons for setup
- Optional integral LCD display
- EMC (EMI/RFI) protection
- ATEX / IECEx certified for intrinsically safe and flameproof applications
- CSA certified for explosion proof applications
- 2 year warranty



DMP305X-TST-S
Standard Over Pressure



DMP305X-TST-H
High Over Pressure



DMP305X-DST-S
Differential Pressure

1800 Series Pressure Transmitters

Product Specifications DMP305X-TST-S



Product Specifications - DMP305X-TST-S

| | | | |
|---|--|----------------------------------|---|
| Output | 4-20mA HART® (Optional) | Long Term Stability | ≤ ±0.2% Span per 5 years |
| Turndown | -40 kPa to 40 kPa thru -100 kPa to 10 MPa 20:1 -100 kPa to 40 MPa 8:1 | Response Time | ≤ 200 ms |
| Accuracy | ±0.075% F.S. (BFSL) (Linearity, Hysterisis and Repeatability) | Damping Time | 0-100 s (Configurable) |
| TD = Turndown | TD ≤ 10 ±0.1% Span | Startup Time | < 6 s |
| TD = URL / URV - LRV | 10 < TD ≤ 20 ±(0.01 x TD)% Span | Supply Voltage | 10.5-55VDC HART® with 250 ohm load 16.5-55VDC |
| URL = Upper Range Limit | | Loop Resistance | 0-2119 ohms |
| URV/LRV = Upper/Lower Range Value | | HART® Protocol | 250-600 ohms |
| Temperature Effect | ±(0.1 + 0.015 x TD)% Span @ -20 to 80°C | Circuit Protection | Reverse Polarity and EMC (EMI/RFI) protected |
| Temperature Range | | Power Consumption | ≤ 500mW @ 24VDC, 20.8mA |
| Compensated | -20 to 80°C | Power Supply Effects | < ±0.005% URL/V |
| Ambient (Limited by both Approvals and Display) | | Mounting Position Effect | < 400 Pa |
| No Approvals or Display | -40 to 85°C | Vibration Effect | Can be corrected by re-zeroing < 0.1% URL |
| With Integral LCD Display (No Approvals) | -20 to 70°C | Relative Humidity | 5-100% R.H. @ 40°C |
| Intrinsically Safe | -40 to 60°C | Construction | Aluminum Ex-Pf Housing |
| Flameproof | -25 to 60°C | IP Rating | IP67 |
| Process | | Over Pressure | |
| Silicone Oil Fill Fluid | -40 to 120°C | S403G | -40 kPa to 40 kPa 1 MPa |
| Fluorocarbon Oil Fill Fluid | -40 to 120°C | S254G | -100 kPa to 250 kPa 4 MPa |
| Flameproof | Limits Max Temperature to 80°C | S105G | -100 kPa to 1 MPa 6 MPa |
| Storage | | S305G | -100 kPa to 3 MPa 15 MPa |
| No Display | -40 to 110°C | S106G | -100 kPa to 10 MPa 20 MPa |
| With Integral LCD Display | -40 to 85°C | S406G | -100 kPa to 40 MPa 80 MPa |
| | | Weight (No Adapters or Brackets) | 1.56 kg |
| | | Warranty | 2 years |

Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

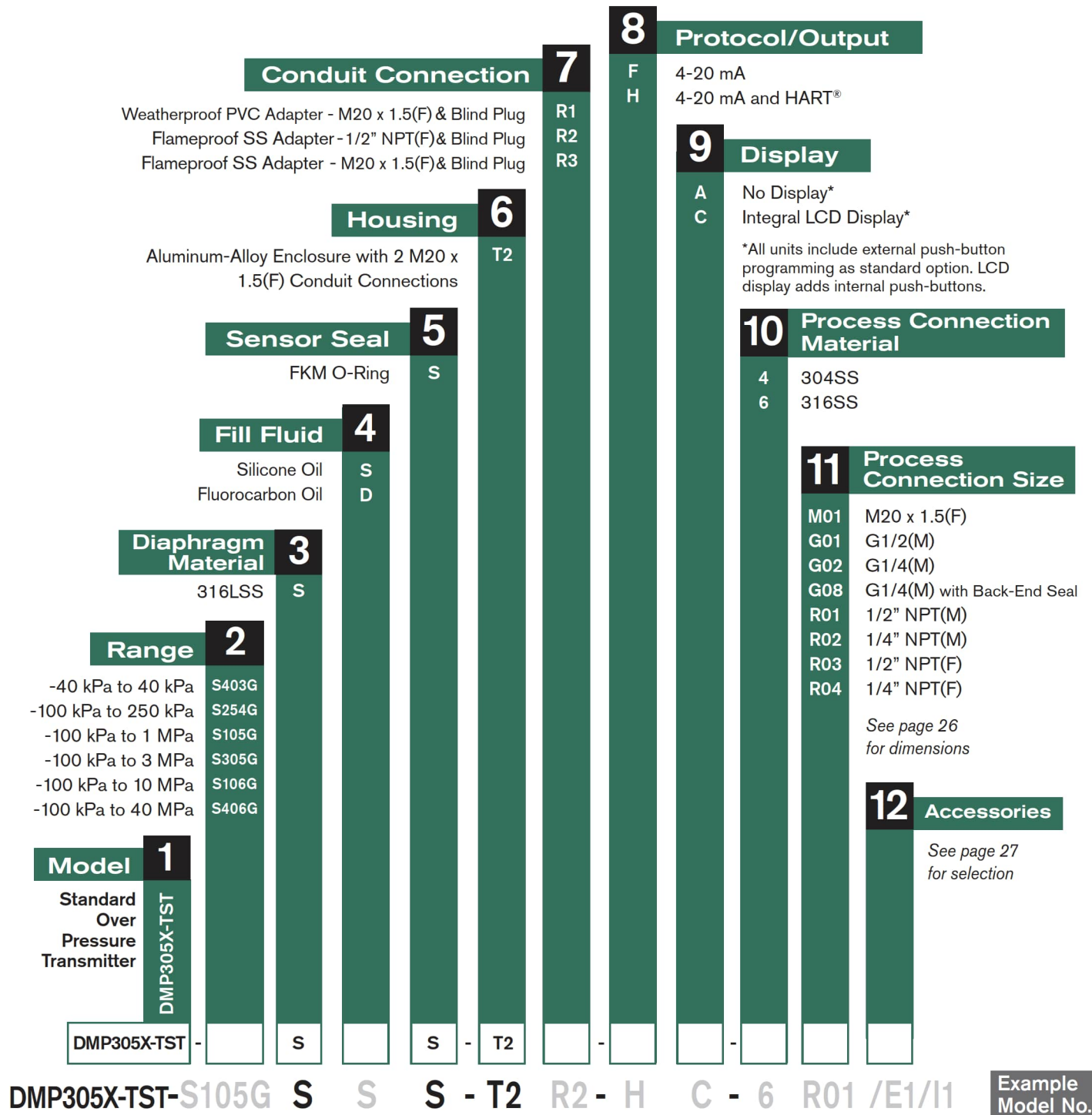
1800 Series Pressure Transmitters

How to Order DMP305X-TST-S

How to Order

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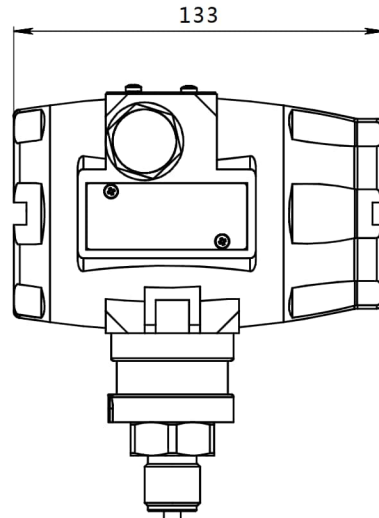
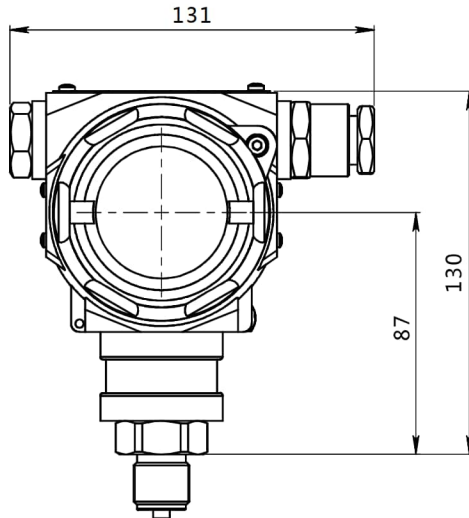
See page 33 for agency and options.

1800 Series Pressure Transmitters

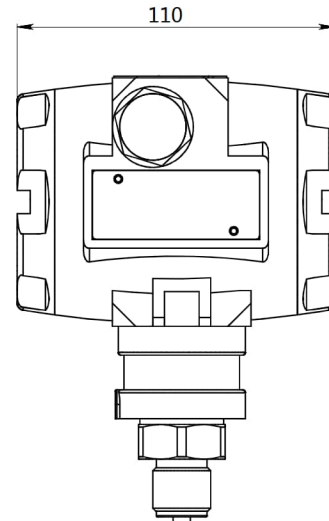
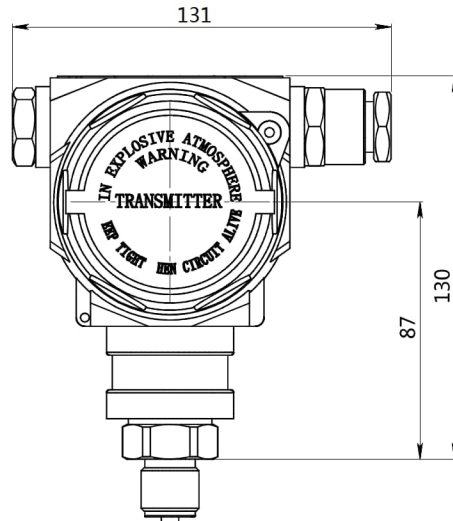
Dimensions DMP305X-TST-S

Dimensions shown are for reference only.
Dimensions = mm

With Integral LCD Display (option C)



Without Display (option A)



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1800 Series Pressure Transmitters

Product Specifications DMP305X-TST-H



Product Specifications - DMP305X-TST-H

| | | | |
|---|---|----------------------------------|--|
| Output | 4-20mA HART® (Optional) | Long Term Stability | ≤ ±0.2% Span per 5 years |
| Turndown | -6 kPa to 6 kPa 6:1 -40 kPa to 40 kPa thru -100 kPa to 10 MPa 20:1 | Response Time | ≤ 200 ms |
| Accuracy | ±0.075% F.S. (BFSL) (Linearity, Hysteresis and Repeatability) | Damping Time | 0-100 s (Configurable) |
| TD = Turndown | TD ≤ 10 ±0.075% Span | Startup Time | < 6 s |
| TD = URL / URV - LRV | 10 < TD ≤ 20 ±(0.0075 x TD)% Span | Supply Voltage | 10.5-55VDC HART® with 250 ohm load 16.5-55VDC |
| URL = Upper Range Limit | | Loop Resistance | 0-2119 ohms |
| URV/LRV = Upper/Lower Range Value | | HART® Protocol | 250-600 ohms |
| Temperature Effect | ±(0.1 + 0.015 x TD)% Span @ -20 to 80°C | Circuit Protection | Reverse Polarity and EMC (EMI/RFI) protected |
| Temperature Range | | Power Consumption | ≤ 500mW @ 24VDC, 20.8mA |
| Compensated | -20 to 80°C | Power Supply Effects | < ±0.005% URL/V |
| Ambient (Limited by both Approvals and Display) | | Mounting Position Effect | < 400 Pa Can be corrected by re-zeroing |
| No Approvals or Display | -40 to 85°C | Vibration Effect | < 0.1% URL GB/T 1827.3/IEC61928-3 tests |
| With Integral LCD Display (No Approvals) | -20 to 70°C | Relative Humidity | 5-100% R.H. @ 40°C |
| Intrinsically Safe | -40 to 60°C | Construction | Aluminum Ex-Pf Housing |
| Flameproof | -25 to 60°C | IP Rating | IP67 |
| Process | | Over Pressure | |
| Silicone Oil Fill Fluid | -40 to 120°C | H602G | -6 kPa to 6 kPa 25 MPa |
| Fluorocarbon Oil Fill Fluid | -40 to 120°C | H403G | -40 kPa to 40 kPa 25 MPa |
| Flameproof | Limits Max Temperature to 80°C | H254G | -100 kPa to 250 kPa 25 MPa |
| Storage | | H105G | -100 kPa to 1 MPa 25 MPa |
| No Display | -40 to 110°C | H305G | -100 kPa to 3 MPa 25 MPa |
| With Integral LCD Display | -40 to 85°C | H106G | -100 kPa to 10 MPa 25 MPa |
| | | Weight (No Adapters or Brackets) | 1.87 kg |
| | | Warranty | 2 years |

Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

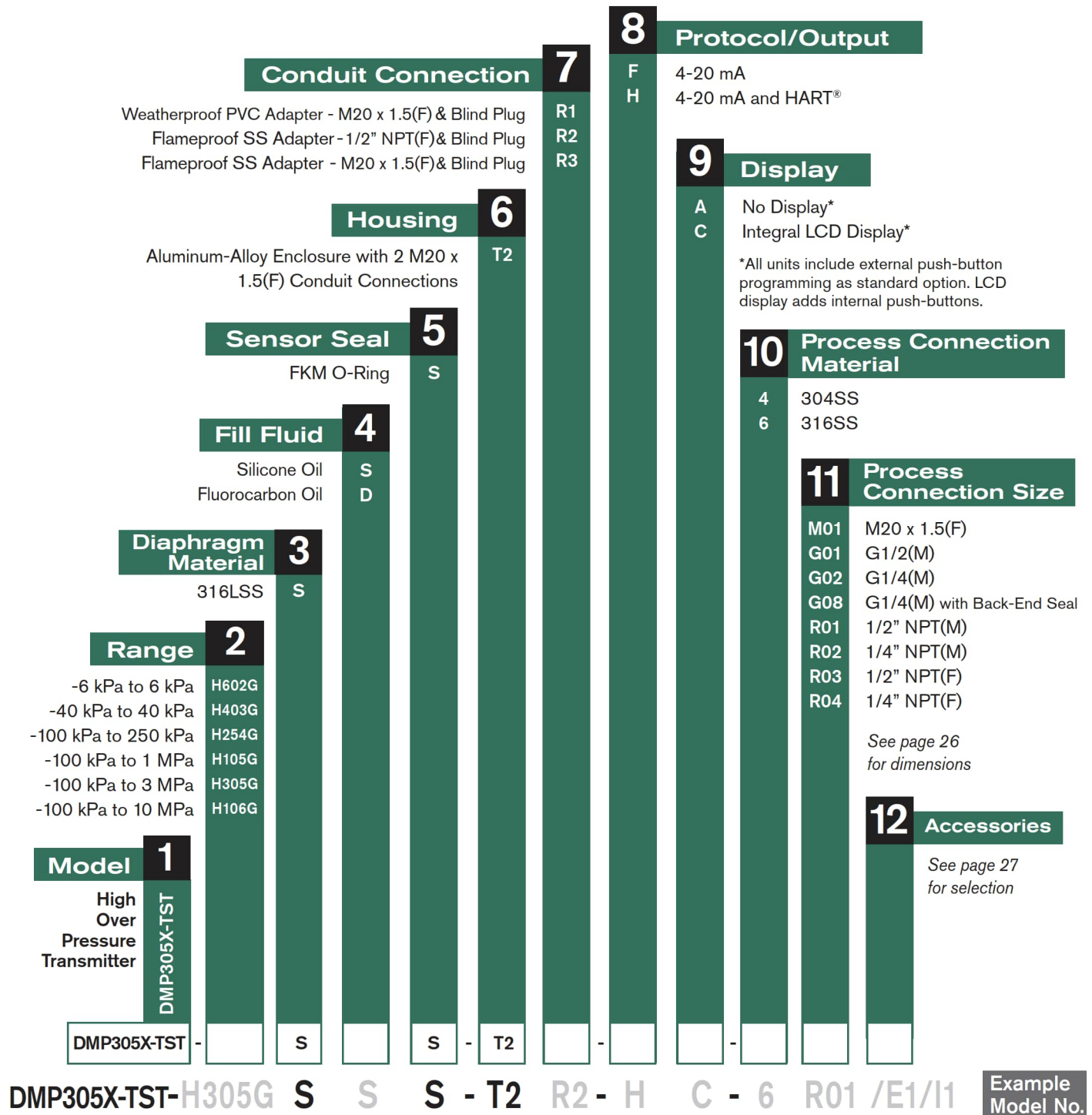
1800 Series Pressure Transmitters (High Over Pressure)

How to Order DMP305X-TST-H

How to Order

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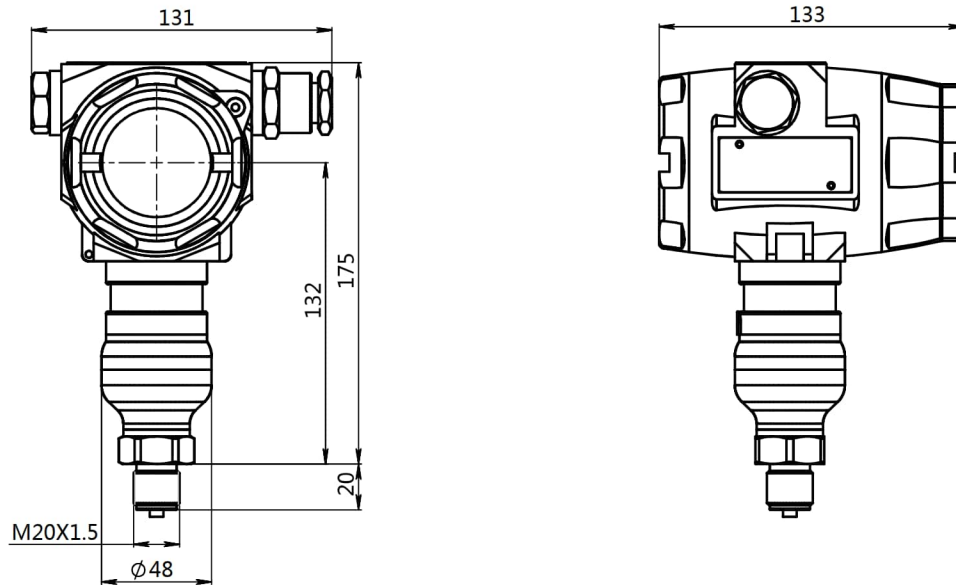
See page 33 for agency and options.

1800 Series Pressure Transmitters (High Over Pressure)

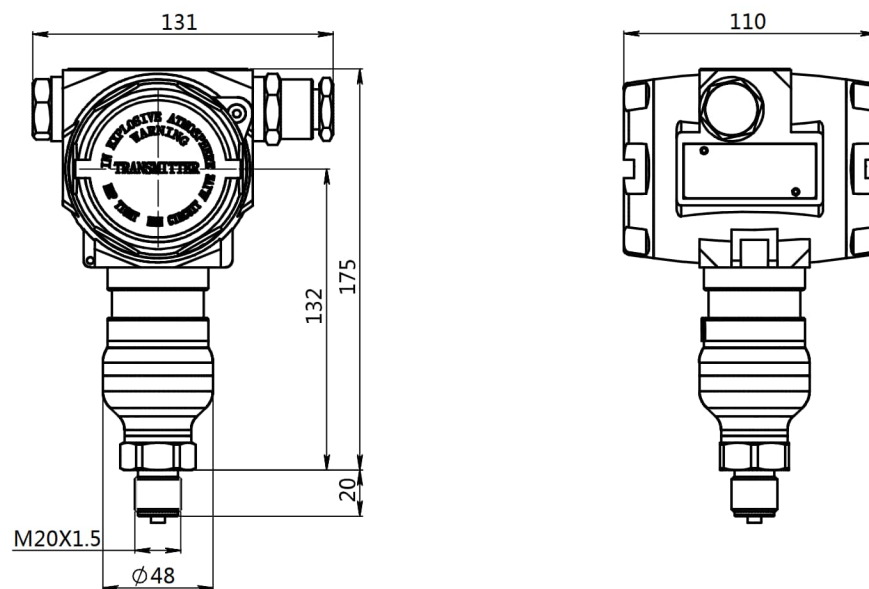
Dimensions
DMP305X-TST-H

Dimensions shown are for reference only.
Dimensions = mm

With Integral LCD Display (option C)



Without Display (option A)



Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

1800 Series Pressure Transmitters

Process Connections DMP305X-TST-S/H

Process Connections

| Designator | Dimensions = mm | Designator | Dimensions = mm |
|---|-----------------|---------------------------|-----------------|
| M01 M20 x 1.5(F) | | R01 1/2" NPT(M) | |
| G01 G1/2(M) | | R02 1/4" NPT(M) | |
| G02 G1/4(M) | | R03 1/2" NPT(F) | |
| G08 G1/4(M) with Back-End Seal | | R04 1/4" NPT(F) | |

Accessories

| Description | Designator |
|--|------------|
| Pipe Mounting Kit (U-Shaped Bracket for 2" Pipe) <i>Dimension drawing below.</i> | /B4 |
| Customer-Specified Display Settings ^{1, 6} | /D1 |
| ATEX and IECEx Approved Flameproof ^{1, 2} | /E1 |
| CSA Certified Explosion Proof ^{2, 5} | /E2 |
| ATEX and IECEx Approved Intrinsically Safe ¹ | /I1 |
| CE Certificate | /F3 |
| Degrease Treatment of Wetted Parts | /G1 |
| Electropolishing Treatment of Wetted Parts | /G2 |
| Coiled Tube Heat Exchange Connector ³ <i>Dimension drawing below.</i> | /N1 |
| Finned Heat Exchange Connector ³ <i>Dimension drawing below.</i> | /N2 |
| Calibration Certificate | /Q1 |
| Welding Adapter M20 x 1.5(M) 304SS ³ <i>Dimension drawing below.</i> | /Z1 |
| Welding Adapter G1/2(F) 304SS ⁴ <i>Dimension drawing below.</i> | /Z2 |

¹ Requires Display option C

² Requires Conduit Connection option R2 or R3

³ Requires M01 Process Connection Size

⁴ Requires G01 Process Connection Size

⁵ Not available with ATEX / IECEx Approvals

⁶ Form 1835_1800 Series /D1 Accessory Data Sheet must be completed and submitted with order

Dimensions = mm

| /B4 - Pipe Mounting Kit | | | |
|---|--------------------------------------|------------------------------------|-------------------------------|
| | | | |
| /N1 - Coiled Tube Heat Exchange Connector | /N2 - Finned Heat Exchange Connector | /Z1 - Welding Adapter M20 x 1.5(M) | /Z2 - Welding Adapter G1/2(F) |
| | | | |

1800 Series Differential Pressure Transmitter

Product Specifications DMP305X-DST-S



Product Specifications - DMP305X-DST-S

| | | | |
|--|---|--------------|--|
| Output | 4-20mA | | |
| | Linear (Default) or Square Root | | |
| | HART® (Optional) | | |
| Turndown | | | |
| -6 kPa to 6 kPa | 30:1 | | |
| -40 kPa to 40 kPa thru -500 kPa to 10 MPa | 100:1 | | |
| Accuracy | ±0.075% F.S. (BFSL) | | |
| | (Linearity, Hysteresis and Repeatability) | | |
| TD ≤ 10 | ±0.075% Span | | |
| 10 < TD ≤ 100 | ±(0.0075 x TD)% Span | | |
| | When URV ≥ LRV , TD = URL / URV | | |
| | TD = Turndown When URV ≤ LRV , TD = URL / LRV | | |
| | URL = Upper Range Limit | | |
| | URV/LRV = Upper/Lower Range Value | | |
| | *Square Root Output Accuracy = 1.5 x Linear | | |
| | Output Accuracy | | |
| Static Pressure Effects | | | |
| Effect on Zero | ±(0.15 x TD)% URL / 10 MPa | | |
| Effect on Full Scale | ± 0.2% URL / 10 MPa | | |
| Temperature Effect | ±(0.1 + 0.015 x TD)% Span | | |
| | @ -20 to 80°C | | |
| Temperature Range | | | |
| Compensated | -20 to 80°C | | |
| Ambient (Limited by both Approvals and Display) | | | |
| No Approvals or Display | -40 to 85°C | | |
| With Integral LCD Display | -20 to 70°C | | |
| (No Approvals) | | | |
| Intrinsically Safe | -40 to 60°C | | |
| Flameproof | -25 to 60°C | | |
| Process | | | |
| Silicone Oil Fill Fluid | -40 to 120°C | | |
| Fluorocarbon Oil Fill Fluid | -40 to 120°C | | |
| Flameproof | Limits Max Temperature to 80°C | | |
| Storage | | | |
| No Display | -40 to 110°C | | |
| With Integral LCD Display | -40 to 85°C | | |
| Long Term Stability | ≤ ±0.2% Span per 5 years | | |
| Response Time | ≤ 200 ms | | |
| Damping Time | 0-100 s (Configurable) | | |
| Startup Time | < 6 s | | |
| Supply Voltage | 10.5-55VDC | | |
| | HART® with 250 ohm load | 16.5-55VDC | |
| Loop Resistance | 0-2119 ohms | | |
| | HART® Protocol | 250-600 ohms | |
| Circuit Protection | Reverse Polarity and | | |
| | EMC (EMI/RFI) protected | | |
| Power Consumption | ≤ 500mW @ 24VDC, 20.8mA | | |
| Power Supply Effects | < ±0.005% URL/V | | |
| Mounting Position Effect | < 400 Pa | | |
| | Can be corrected by re-zeroing | | |
| Vibration Effect | < 0.1% URL | | |
| | IEC61928-3 tests | | |
| Relative Humidity | 5-100% R.H. @ 40°C | | |
| Construction | Aluminum Ex-Pf Housing | | |
| IP Rating | IP67 | | |
| Max Static Pressure | | | |
| S602D | -6 kPa to 6 kPa | 25 MPa | |
| S403D | -40 kPa to 40 kPa | 40 MPa | |
| S254D | -250 kPa to 250 kPa | 40 MPa | |
| S105D | -100 kPa to 1 MPa | 40 MPa | |
| S305D | -500 kPa to 3 MPa | 40 MPa | |
| S106D | -500 kPa to 10 MPa | 40 MPa | |
| Over Pressure | | | |
| HI Side | | 25 MPa | |
| LO Side | | 16 MPa | |
| Weight (No Adapters or Brackets) | | 4 kg | |
| Warranty | | 2 years | |

Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

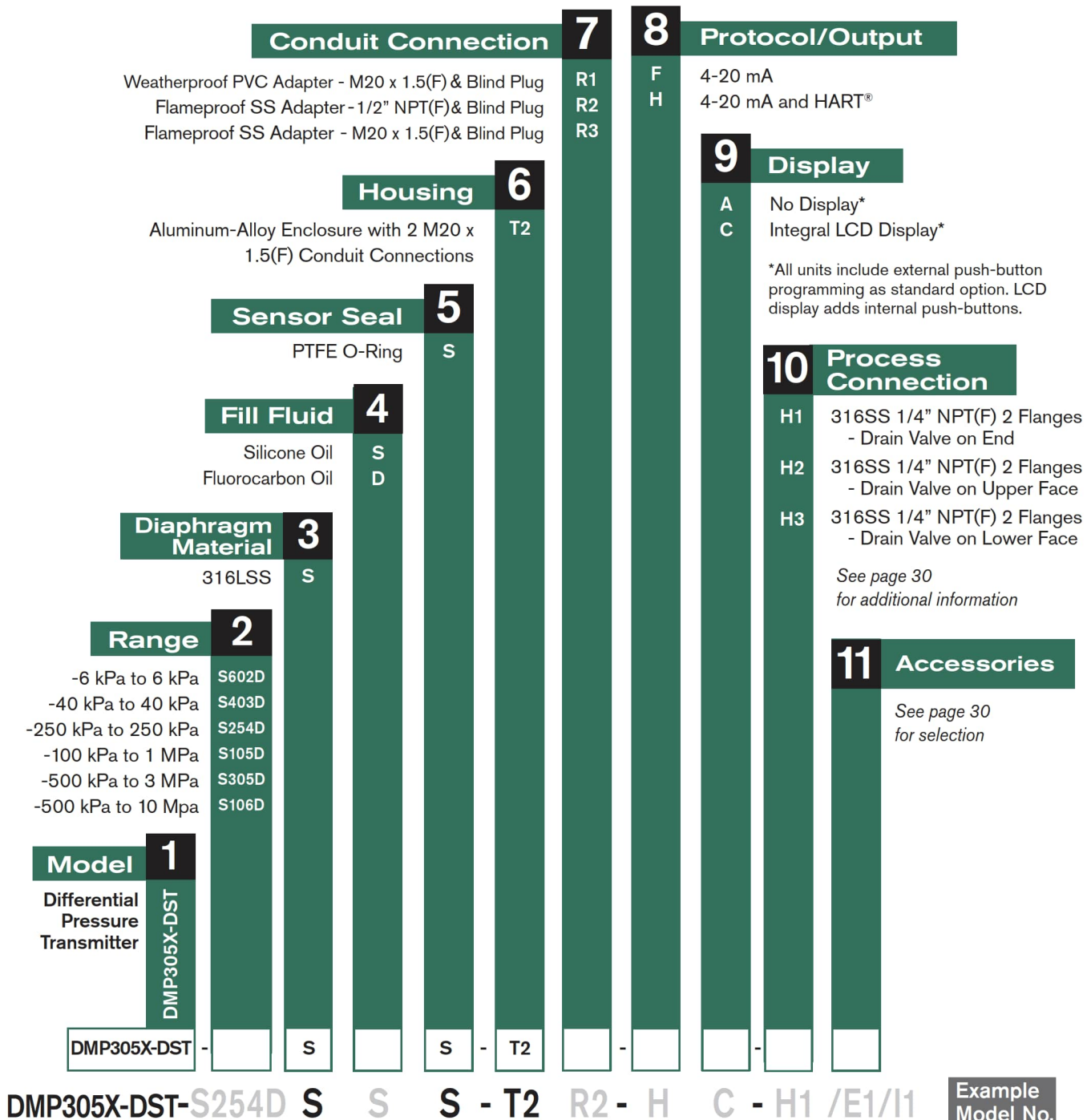
1800 Series Differential Pressure Transmitter

How to Order DMP305X-DST-S

How to Order

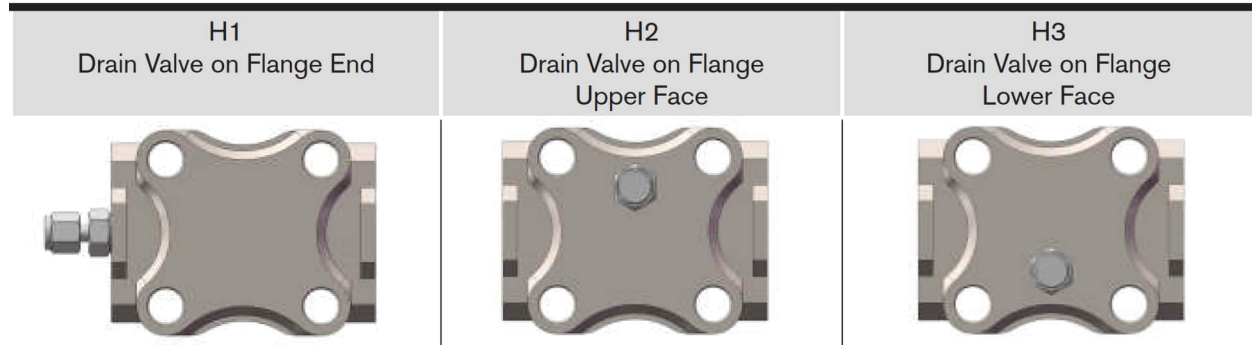
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See page 33 for agency and options.

Process Connections

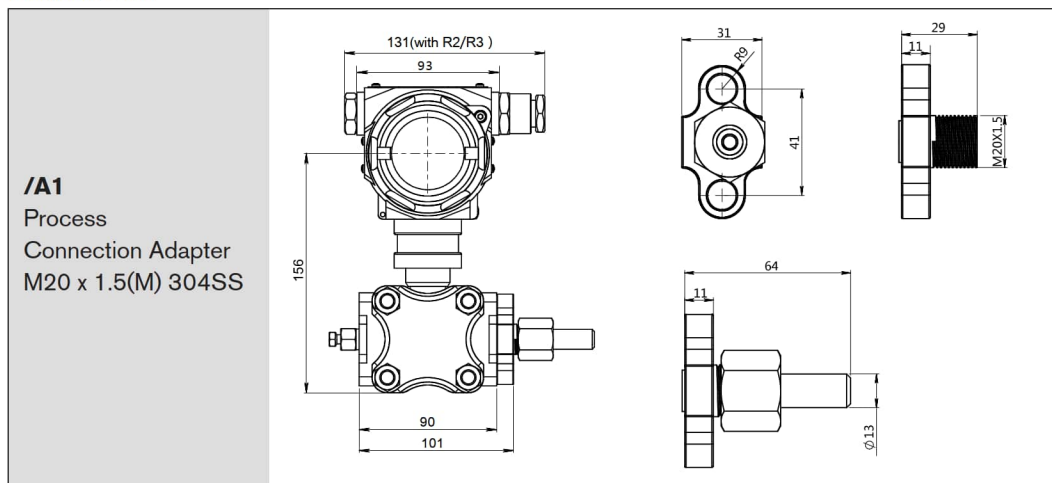


Accessories

| Description | Designator |
|---|------------|
| Process Connection Adapter M20 x 1.5(M) 304SS <i>Dimension drawing below.</i> | /A1 |
| Process Connection Adapter 1/2" NPT(F) 304SS <i>Dimension drawing page 31.</i> | /A2 |
| Pipe Mounting Kit (Carbon Steel Bent Bracket for 2" Pipe) <i>Dimension drawing page 31.</i> | /B1 |
| Plate Mounting Kit (Carbon Steel Bent Bracket) <i>Dimension drawing page 31.</i> | /B2 |
| Pipe Mounting Kit (Carbon Steel Flat Bracket for 2" Pipe) <i>Dimension drawing page 31.</i> | /B3 |
| Customer-Specified Display Settings ^{1, 4} | /D1 |
| ATEX and IECEx Approved Flameproof ^{1, 2} | /E1 |
| CSA Certified Explosion Proof ^{2, 3} | /E2 |
| ATEX and IECEx Approved Intrinsically Safe ¹ | /I1 |
| CE Certificate | /F3 |
| Degrease Treatment of Wetted Parts | /G1 |
| Electropolishing Treatment of Wetted Parts | /G2 |
| Calibration Certificate | /Q1 |
| Static Pressure Report | /Q3 |

¹ Requires Display option C ² Requires Conduit Connection option R2 or R3 ³ Not available with ATEX / IECEx Approvals
⁴ Form 1835_1800 Series /D1 Accessory Data Sheet must be completed and submitted with order

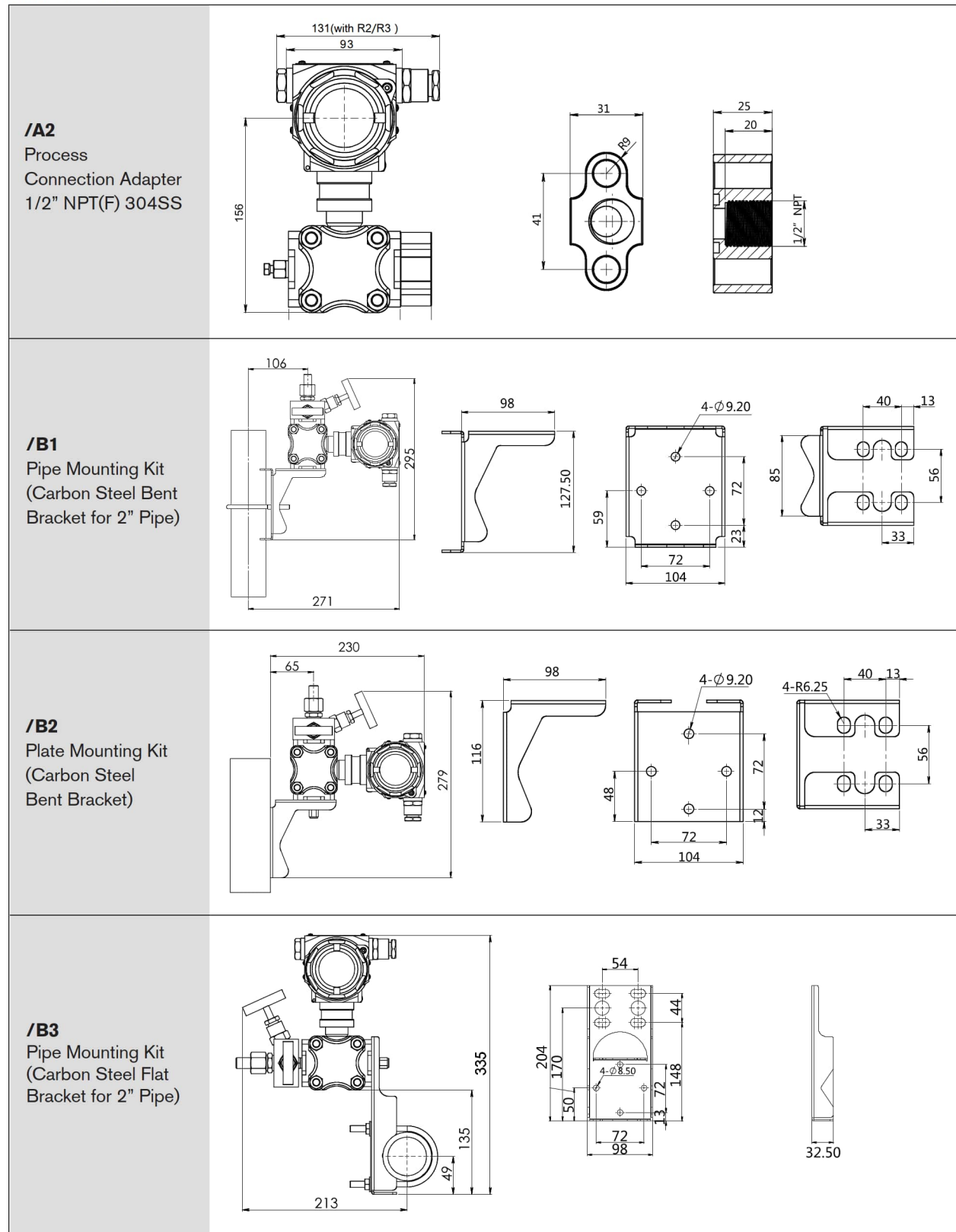
Dimensions = mm



1800 Series Differential Pressure Transmitter

Accessories DMP305X-DST-S

Dimensions = mm

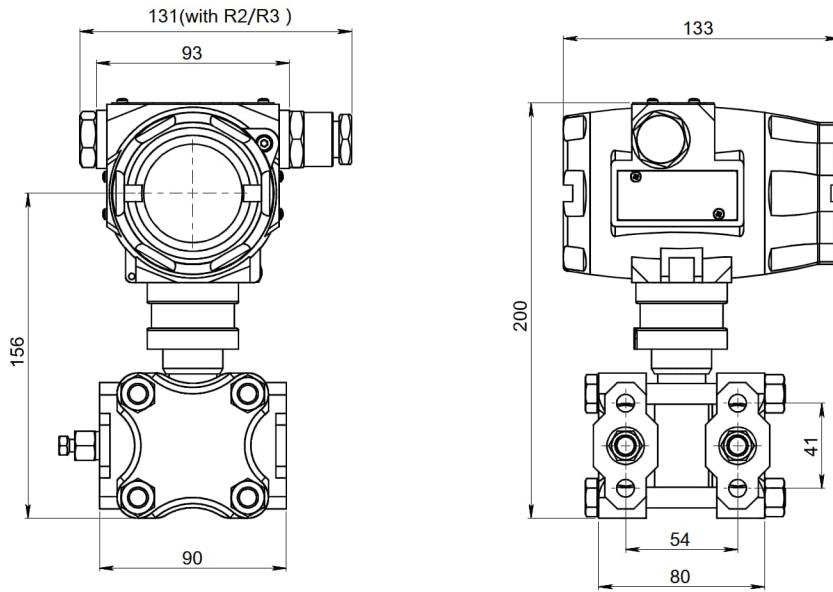


1800 Series Differential Pressure Transmitter

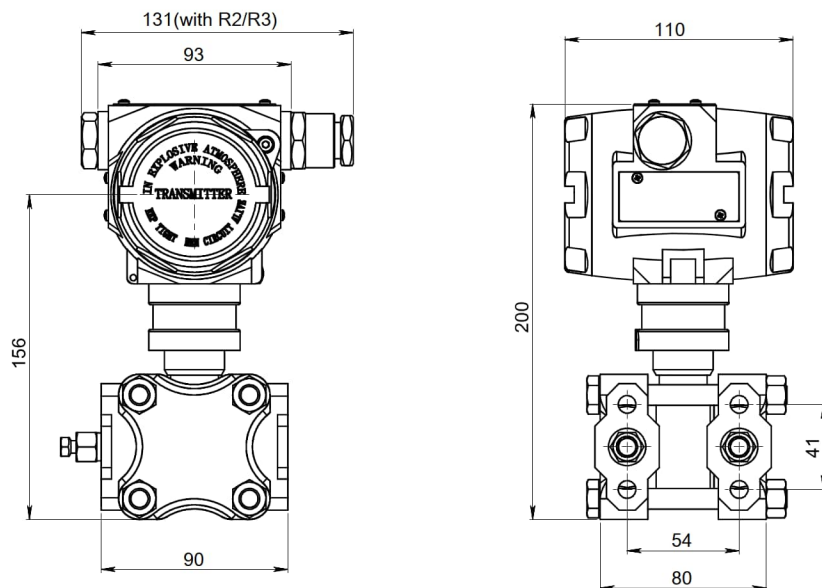
Dimensions DMP305X-DST-S

Dimensions shown are for reference only.
Dimensions = mm

With Integral LCD Display (option C)



Without Display (option A)



Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

1800 Series Pressure Transmitters

Agency and Options

Agency Approvals

| Approved | Safety Method | Approval |
|-----------------------|--------------------|--|
| ATEX / IECEx | Intrinsically Safe | EX ia IIC T4 Ga |
| | Flameproof | Ex db IIC T6 Gb Ex tb IIIC T80°C Db |
| CSA (U.S. and Canada) | Explosion Proof | Class I, II, II; Division 1 Groups A-D; T6 Groups E-G; T80°C |

Manifolds

The 1800 Series Conventional Pressure Transmitters are available with two, three, or five-valve manifolds. If specified on the order notes the manifold can be shipped assembled with the 1800 Series Pressure Transmitter. The information in the Product Specifications table and Pressure-Temperature Limit chart below applies to all manifold models.

2-Valve



3-Valve



5-Valve

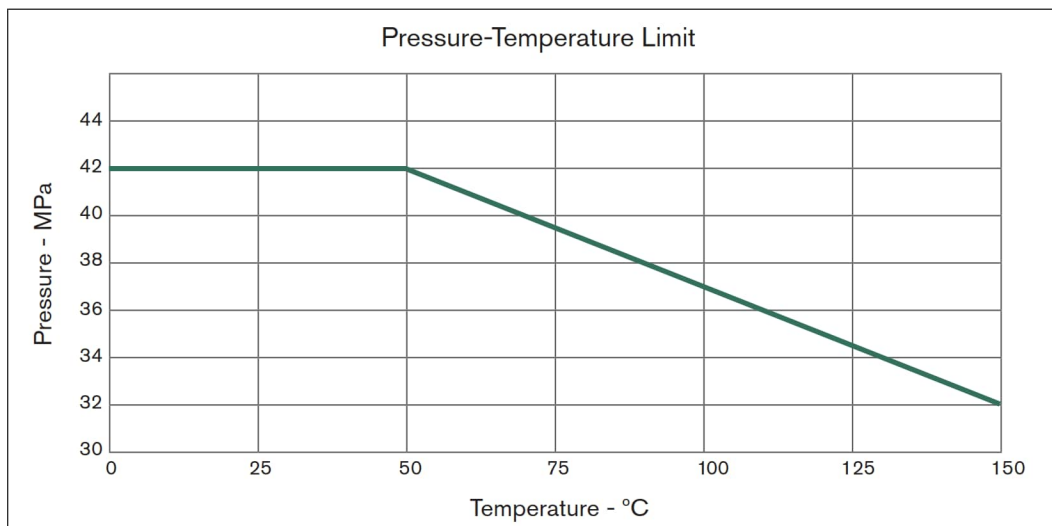


Product Specifications

Materials of Construction

| | |
|---------------------|------------------------|
| Valve Body | 304SS or 316SS |
| Valve Seat | Stainless Steel |
| Valve Tip | Duplex Stainless Steel |
| Stop Pin | Stainless Steel |
| Packing | PTFE |
| Process Temperature | ≤ 150°C |
| Ambient Temperature | -30°C to +93°C |

Design and specifications are subject to change without notice. For latest revision, see SORInc.com.



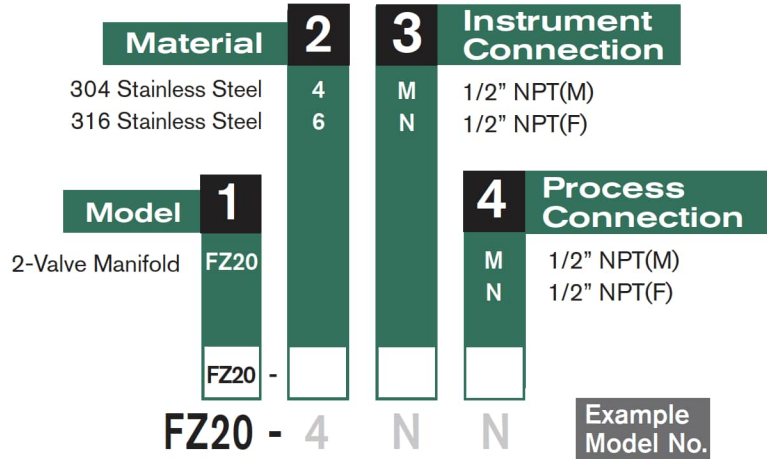
1800 Series Pressure Transmitters

2-Valve Manifold

How to Order

Below is the SOR quick select model number tree that provides you with all the options to configure and order a product for your application.

- You must select a designator for each component



Alternative materials and connections are available. Consult factory for details.

Dimensions = mm

| Connections | |
|---|--|
| Instrument - 1/2" NPT(F) Process - 1/2" NPT(F) | |
| Instrument - 1/2" NPT(M) Process - 1/2" NPT(F) | |
| Instrument - 1/2" NPT(M) Process - 1/2" NPT(M) | |

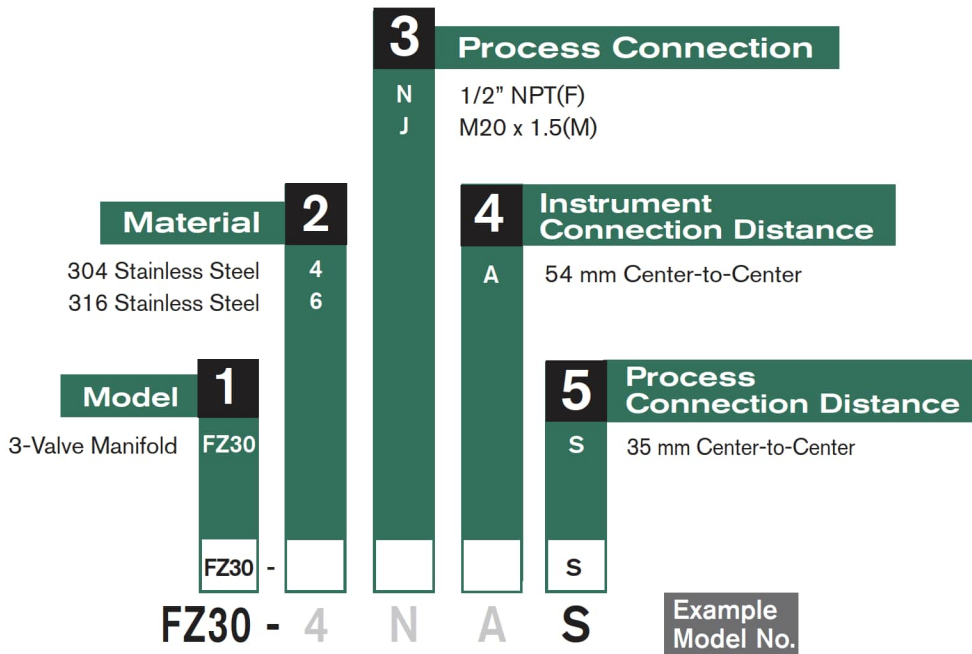
1800 Series Pressure Transmitters

3-Valve Manifold

How to Order

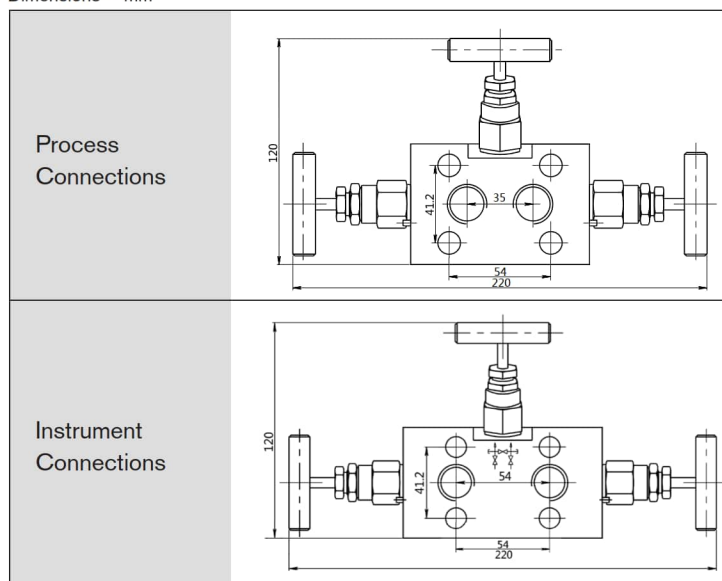
Below is the SOR quick select model number tree that provides you with all the options to configure and order a product for your application.

- You must select a designator for each component



Alternative materials and connections are available. Consult factory for details.

Dimensions = mm



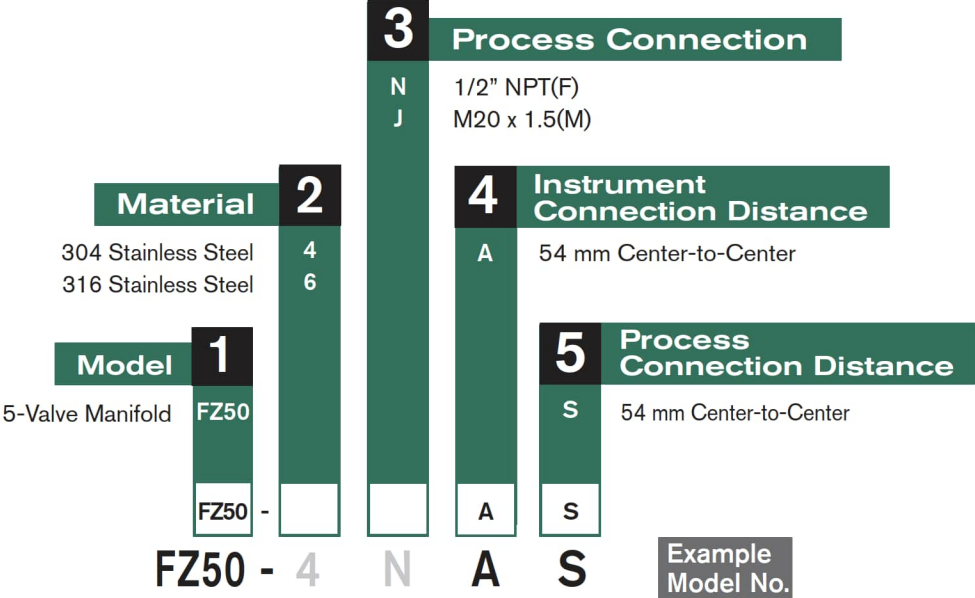
1800 Series Pressure Transmitters

5-Valve Manifold

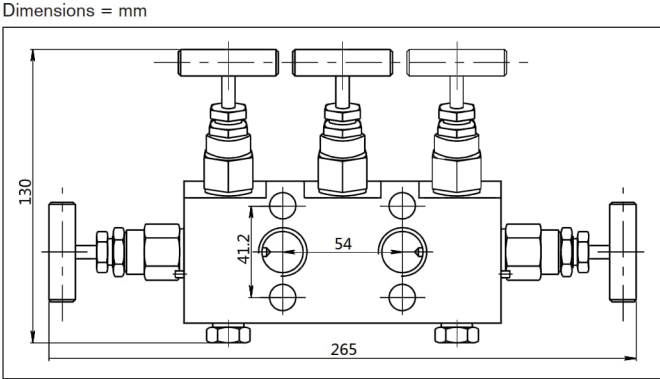
How to Order

Below is the SOR quick select model number tree that provides you with all the options to configure and order a product for your application.

- You must select a designator for each component



Alternative materials and connections are available. Consult factory for details.



MEASUREMENT AND CONTROL

Lenexa, KS USA | 913-888-2630 | Fax 913-888-0767 | SORInc.com