SOR
MEASUREMENT AND CONTROL

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**)

Page

Model Selection Overview

800 Series Compact Pressure Transmitters

800 Series Options

1800 Series Conventional Pressure Transmitters

1800 Series Options

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, II; 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

Model	815DT Compact Smart Differential Pressure Switch-Transmitter			DMP305X-**DST-S** Conventional Differential Pressure Transmitter		
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
	0 to 500 psid	1,000 psi	5:1	-500 kPa to 10 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
	0 to 500 psid	1,500 psid	1,500 psid	-500 kPa to 10 Mpa	25 MPa	16 MPa
Analog Output	4-20mA / 1-5VDC (Low Power) Output is field configurable.			4-20mA		
Communication Protocol	HART® 7 / Modbus RTU Output is field configurable.			HART® (Optional)		
Output Signal Characteristic	Linear (Default) Square Root Strapping Table			Linear (Default) Square Root		
Accuracy	± 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	ATEX / IECEx	Intrinsically Safe	Ex ia IIC T4 Ga
	ATEX/IECEx or INMETRO	Flameproof	Ex db IIC T5 Gb; IP66		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)	
Accuracy	±2% URL
Type	Normally Open Solid State Relay
Electrical Rating	30V, 120mA
Temperature Effect	±2% URL/100°F @ -40 to 176°F
Continuous Output	
Accuracy	±0.25% URL (BFSL) (Linearity, Hysteresis, and Repeatability)
Turndown	5:1
Output	4-20 mA 1-5 VDC option (27mW ± 5mW @ 9 VDC)
Zero Offset	+10% URL
Temperature	±1% URL/100°F @ -40 to -176°F
Temperature Range	
Compensated	-40 to 176°F (-40 to 80°C)
Ambient	-40 to 176°F (-40 to 80°C)
Process	-40 to 194°F (-40 to 90°C)
Storage	-40 to 194°F (-40 to 90°C)
Long Term Stability	≤ ±0.5% URL per year
Response Time	≤ 5 ms
Supply Voltage	8-30VDC
Loop Resistance	800 ohms @ 24VDC
Circuit Protection	Reverse polarity and EMI/RFI protected

Construction	316SS housing (CF8M)
Process Connection	1/2" NPT(M) with 1/4" NPT(F) and Autoclave F250C(F) for 1/4" OD tubing
Electrical Connection	
Size	1/2" NPT(M)
Termination	18 AWG shielded cable, 72-inch length
(Consult factory for alternate electrical connections)	
Wetted Materials	316/316L-SST (for pressure ranges 0-5 psi thru 0-100 psi) 17-4SST (for pressure ranges above 0-100 psi)
Over Pressure	
0-5 thru 0-100 psi	3 times FSPR
0-250 thru 0-10,000 psi	2 times FSPR
Up to 30,000 psi	1.4 times FSPR
Burst Pressure	
0-5 thru 0-100 psi	4 times FSPR
0-250 psi	40 times FSPR
0-500 thru 0-1000 psi	20 times FSPR
0-2500 psi	10 times FSPR
0-5000 psi	8 times FSPR
0-10,000 thru 0-15,000 psi	4 times FSPR
0-30,000 psi	1.8 times FSPR
Weight	1.8 lb (0.8 kg)
Warranty	3 years

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.

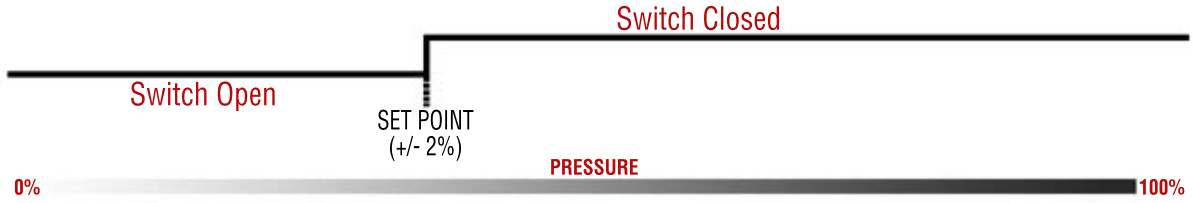
In all three configurations, the fail-safe state for the 805QS switch output will be open (i.e., if power is removed from the 805QS, the switch contacts will open automatically).

❶ Window Mode

Switch is closed when the process pressure is within the user selected range (LO and HI set points), and open when the pressure is above or below that range.

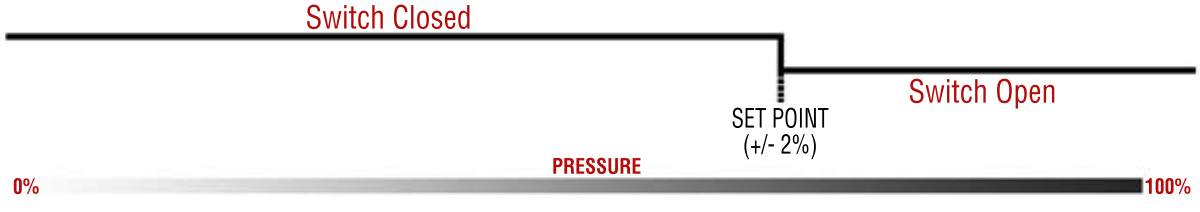
❷ Close on Rise/Open on Fall

Switch is open when the process pressure is below the user selected set point and closed when the pressure is above that set point.



❸ Open on Rise/Close on Fall

Switch is closed when the process pressure is below the user selected set point and open when the pressure is above that set point.



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.

1 Model

Pressure Transmitter	PT
Pressure Switch-Transmitter	QS

2 Supplemental Output

4-20 mA	C
1-5 VDC	V

3 Range

0-5 psi	00
0-15 psi	01
0-50 psi	02
0-100 psi	03
0-250 psi	04
0-500 psi	05
0-1000 psi	06
0-2500 psi	07
0-5000 psi	08
0-10000 psi	09
0-15000 psi	10
0-30000 psi	11
0-15 psia	13
0-50 psia	14
0-100 psia	15

4 Process Connection Size

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)
S	316L SS, 1/2" NPT(M) flush-mount, liquid filled, diaphragm seal, Process Connection*
H	17-4SS, Autoclave F250C Female (For 1/4" OD Tubing), Process Connection**

See page 17 for more information.
If alternate process connection is required, consult factory.

5 Accessories

IN	LCD Display for local indication (see page 5 for more information)
BB	Cleaned for industrial oxygen service
DS	Dual Seal approval (FM)***
HB	SS universal terminal box, 1/2" NPT(F), ATEX/IECEx approved
HBME	SS universal terminal box, M20 x 1.5(F), ATEX/IECEx approved
HT	SS universal terminal box, 1/2" NPT(F), FM and CSA certified
NM	INMETRO approved (not available for ranges 13-15)
NC	Compliance to NACE Certification MR0 175/ISO 15156 (Only available with S process connection. Consult factory for other ranges.)
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

Example Model No.

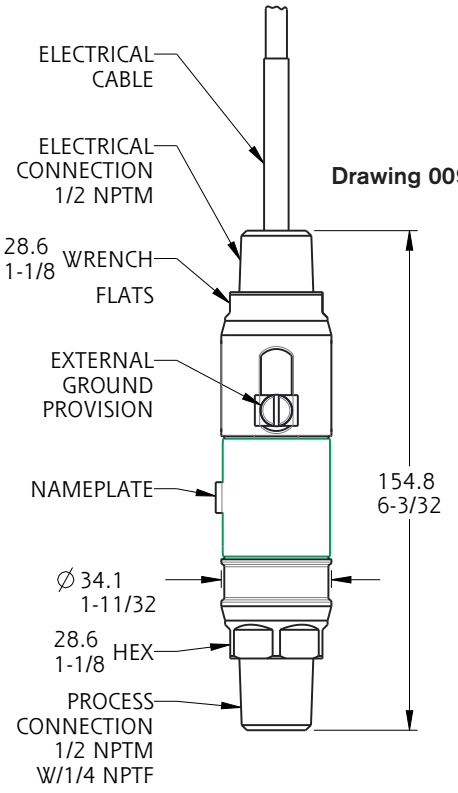
805QS - C 07 - A - RR

* 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.

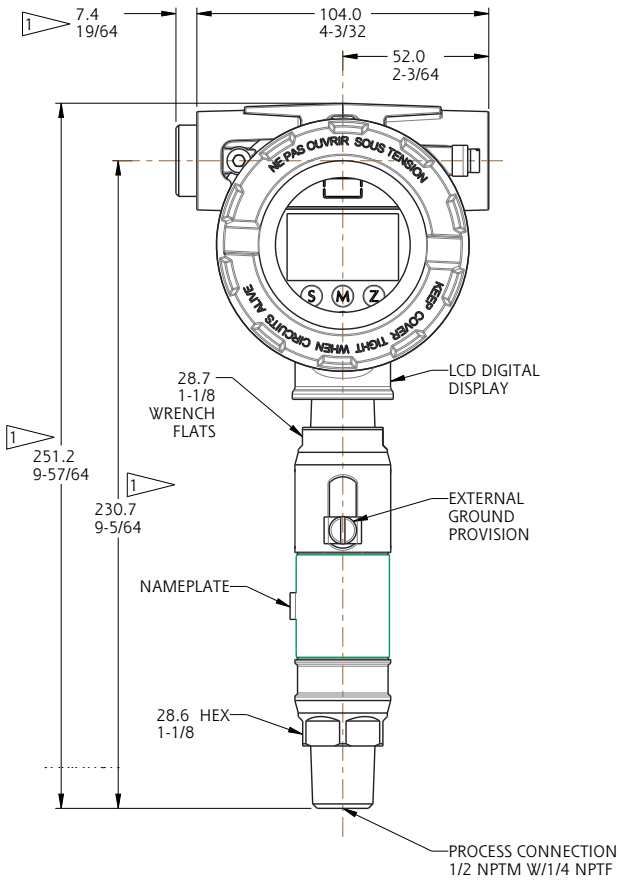
See page 18 for agency and options.

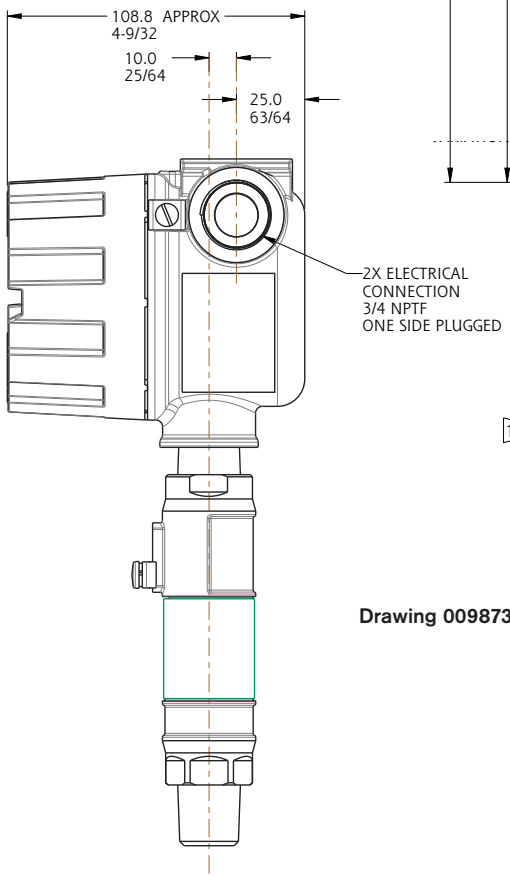
Dimensions shown are for reference only. Contact the factory for certified dimension drawings.
Linear = mm/in.

805PT/805QS Pressure Switch-Transmitter



Drawing 0091438





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.

Drawing 0098738

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)
- ±0.10% (URL) continuous output accuracy
- Zero balance & URL: ±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	
Accuracy	±0.10% URL (BFSL) (Linearity, Hysterisis and Repeatability)
Zero Balance & URL	±0.25% URL (Each)
Turndown	5:1
Output	4-20mA HART® 7 Communications Protocol Modbus RTU (RS-485) Serial Communications 1-5VDC (Low Power) Mode of Operation (36mW ± 5mW @ 10VDC)
Temperature Effect	±1% URL/100°F @ -40 to 176°F
Switch Output	
1: Off	
2: Windowed, Normally-Open	
3: Windowed, Normally-Closed	
4: Single Point, Normally-Open	
5: Single Point, Normally-Closed	
6: PWM (Pulse Width Modulation), Pulsed Low	
7: PWM (Pulse Width Modulation), Pulsed High	
8: Dead Band, Normally-Open	
9: Dead Band, Normally-Closed	
Accuracy	±0.25% URL
Type	Normally Open Solid State Relay (SPST)
Electrical Rating	30V, 120mA
Temperature Effect	±1% URL/100°F @ -40 to 130°F
Temperature Range	
Compensated	-40 to 176°F (-40 to 80°C)
Ambient	-40 to 176°F (-40 to 80°C)
Process	-40 to 194°F (-40 to 90°C)
Storage	-40 to 194°F (-40 to 90°C)
Long Term Stability	≤ ±0.5% URL per year
Response Time	≤ 70 ms
Supply Voltage	10-36VDC
Loop Resistance	667 ohms @ 24VDC
Circuit Protection	Reverse polarity and EMC (EMI/RFI) protected

Construction	316SS housing (CF8M)
Process Connection	
815PT	1/2" NPT(M) with 1/4" NPT(F) or Autoclave F250C (F) for 1/4" OD Tubing
815DT	(H & L side) 1/4" NPT(F)
Electrical Connection	
Size	1/2" NPT(M)
Termination	18 AWG shielded cable, 72-inch length
Wetted Materials	
815PT	316/316L-SST (for 0-5 psi thru 0-100 psi & psia pressure ranges) 17-4SST (for pressure ranges above 0-100 psi)
815DT	316/316L-SST
Max Static Line Pressure	
815DT	1,000 psi
Over Pressure	
815PT	
0-5 thru 0-100 psi	3 times FSPR
0-250 thru 0-10,000 psi	2 times FSPR
Up to 30,000 psi	1.4 times FSPR
815DT	3 times FSPR
Burst Pressure	
815PT	
0-5 thru 0-100 psi	4 times FSPR
0-250 psi	40 times FSPR
0-500 thru 0-1000 psi	20 times FSPR
0-2500 psi	10 times FSPR
0-5000 psi	8 times FSPR
0-10,000 thru 0-15,000 psi	4 times FSPR
0-30,000 psi	1.8 times FSPR
815DT	4 times FSPR
Weight	1.8 lb (0.8 kg)
Warranty	3 years

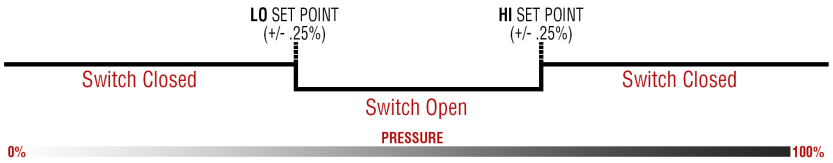
Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

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).

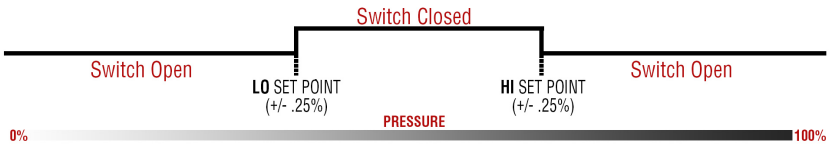
❶ Off
❷ Windowed, Normally-Open
❸ Windowed, Normally-Closed
❹ Single Point, Normally-Open
❺ Single Point, Normally-Closed
❻ PWM (Pulse Width Modulation), Pulsed Low
❼ PWM (Pulse Width Modulation), Pulsed High
❽ Dead Band, Normally-Open
❾ Dead Band, Normally-Closed

❷ Windowed, Normally-Open



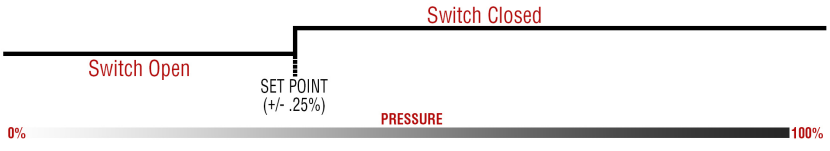
In this configuration, the switch output will be open when the process pressure is within a user selectable range and closed when the pressure is outside of these boundaries. This is designed for applications where there is a known acceptable operating pressure range.

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)

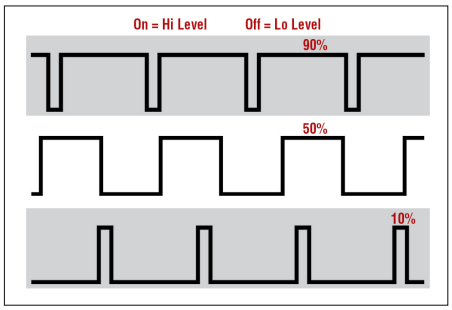


In this configuration, the switch output will be open for pressures less than the selected setpoint. The switch output would then be closed for pressures greater than the setpoint.

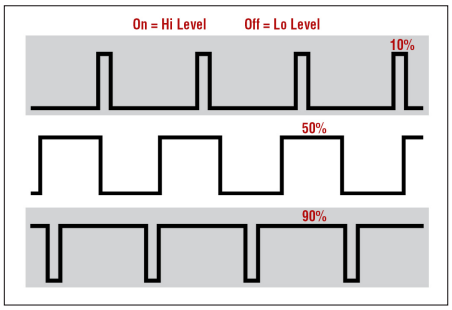
❺ Single Point, Normally-Closed (Open on Rise/ Close on Fall)

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.

❻ Pulse Width Modulation - Pulsed Lo



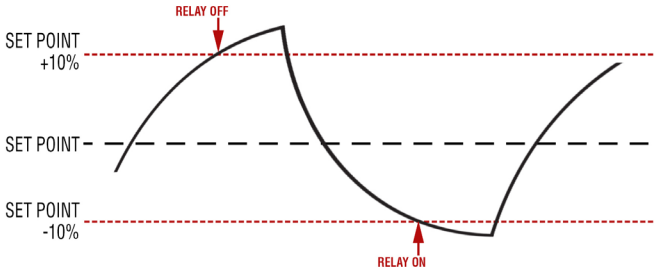
❼ Pulse Width Modulation - Pulsed Hi



❽&❾ 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.

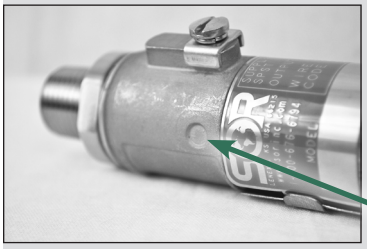
EXAMPLE: A 20% total dead band is applied to the setpoint of a monitored parameter. The relay will turn on and off as indicated in the graph above.

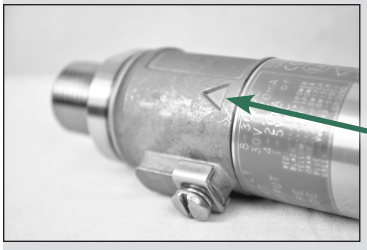


Note: The continuous zero and span points and the Switch Configuration Mode and set point(s) must be specified. Refer to switch configuration diagrams on page 12.

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.

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.

1 Model

Smart Gauge Pressure Transmitter	815PT
Smart Differential Pressure Transmitter	815DT

2 Protocol/Output

HART® 7 and ModBus RTU 4-20 mA and 1-5 VDC	Z

3 Range

815PT

0-5 psi	00
0-15 psi	01
0-50 psi	02
0-100 psi	03
0-250 psi	04
0-500 psi	05
0-1000 psi	06
0-2500 psi	07
0-5000 psi	08
0-10000 psi	09
0-15000 psi	10
0-30000 psi	11
0-15 psia	13
0-50 psia	14
0-100 psia	15

815DT

0-138 in H_2O (0-5 psid)	21
0-415 in H_2O (0-15 psid)	22
0-50 psid	23
0-100 psid	24
0-300 psid	25
0-500 psid	26

4 Process Connection Size

815PT

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)
S	316L SS 1/2"NPT(M) Flush-Mount, Liquid-Filled, Diaphragm Seal, Process Connection*
H	17-4SS, Autoclave F250C Female (For 1/4" OD Tubing), Process Connection**

815DT

D	316/316L SS, 1/4"NPT(F) Differential Process Connection (HI & LO side)

See page 17 for more information.

5 Accessories

IN	LCD Display for local indication (see page 6 for more information)
BB	Cleaned for industrial oxygen service
DS	Dual Seal approval (FM)***
NC	Compliance to NACE Certification MR0 175/ISO 15156 (Only available with S process connection. Consult factory for other ranges.)
NM	INMETRO approved (not available for ranges 13-15)
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

Example Model No. 815PT- **Z** 07 - A - RRINC1

*Only available for Range options 04 thru 08

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

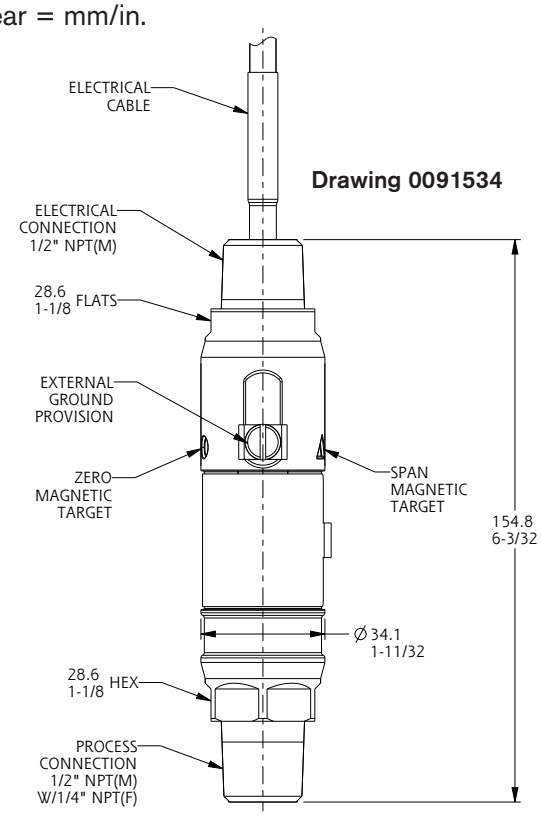
***Dual Seal version is not hermetically sealed. Only available for Range options 00 thru 09 and 21 thru 26.

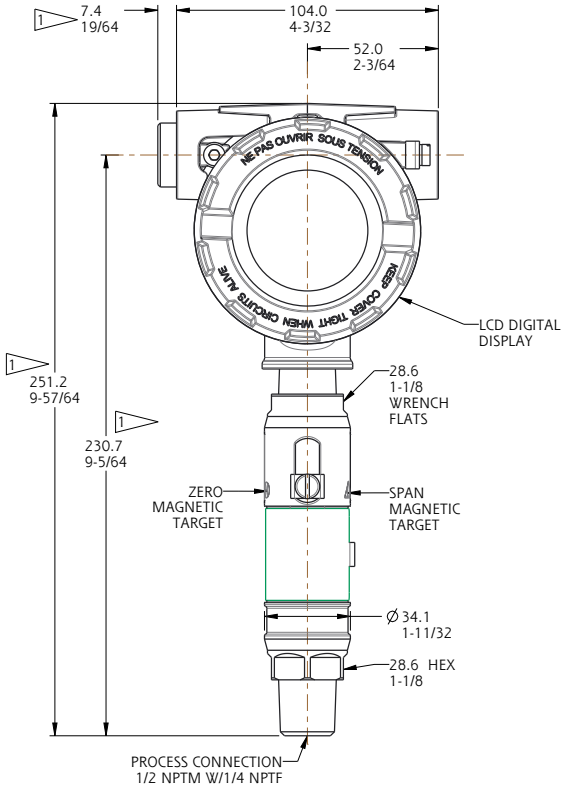
See page 18 for agency and options.

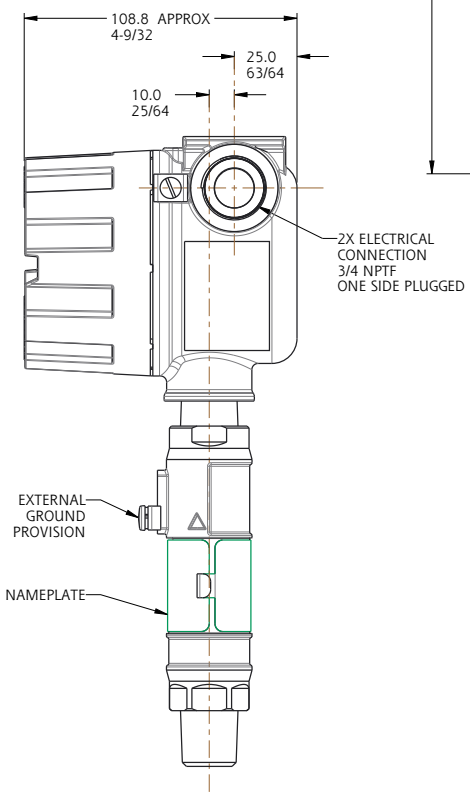
Dimensions shown are for reference only. Contact the factory for certified dimension drawings.
Linear = mm/in.

815PT Smart Pressure Switch-Transmitter

Drawing 0091534







Drawing 0098750

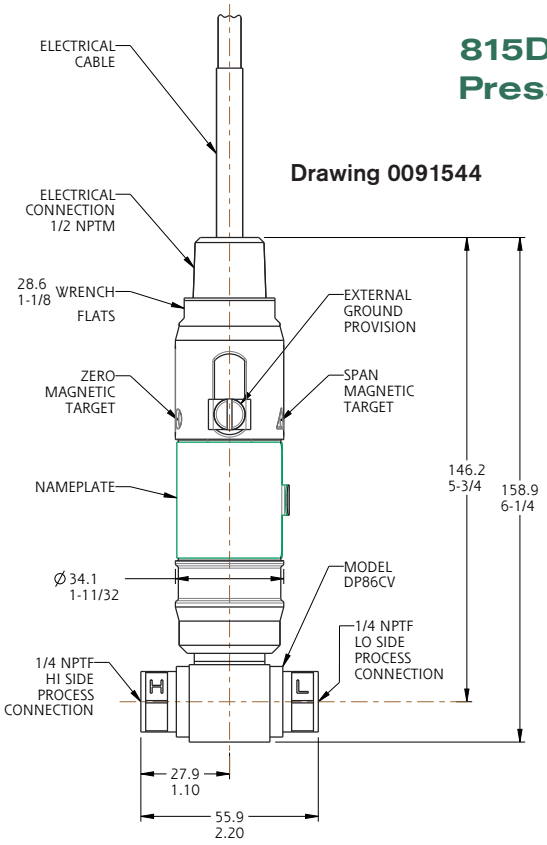
1. DIMENSION APPROXIMATE AND BASED ON A FIVE THREAD ENGAGEMENT.
2. TRANSMITTER ORIENTATION MAY VARY IN RELATION TO THE LCD DIGITAL DISPLAY. VARIATION WILL NOT AFFECT FUNCTIONALITY.

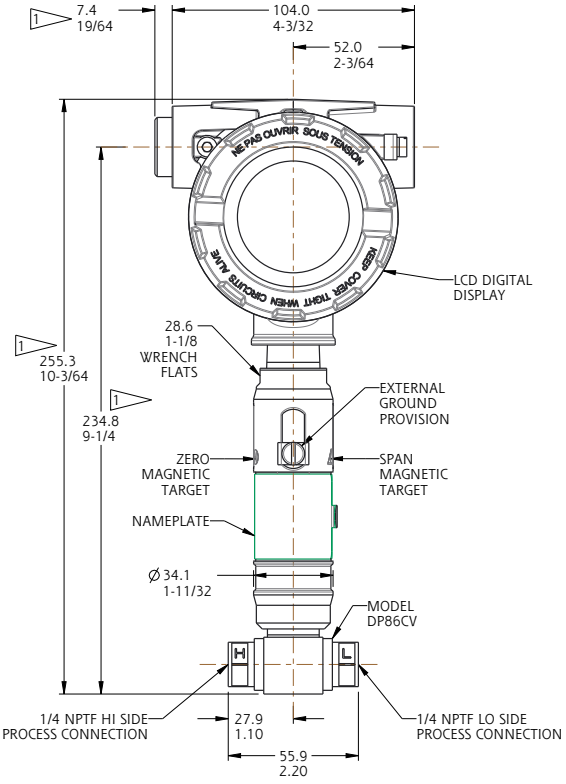
Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

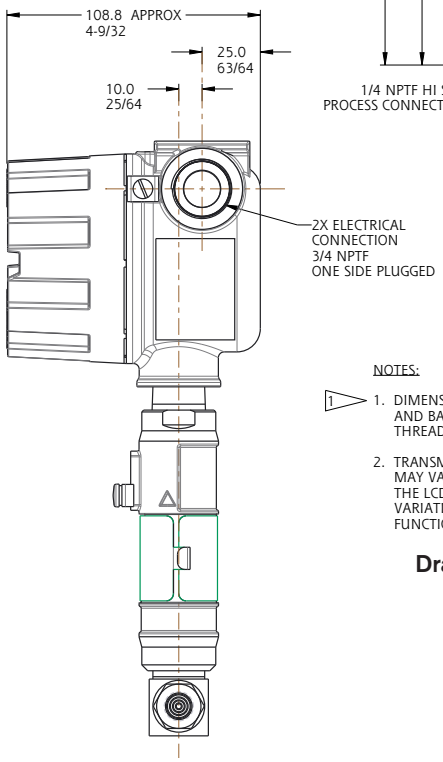
Dimensions shown are for reference only. Contact the factory for certified dimension drawings.
Linear = mm/in.

815DT Smart DIfferential Pressure Switch-Transmitter

Drawing 0091544







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.

Drawing 0098752

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

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: ▪ 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
Power Supply (with 805 series transmitter)	16-30 VDC
Permissible Temperature	-20 to +70°C
Accuracy	≤0.1% F.S.
Digits	4½ neg; 5 pos
Units	Blank, kPa, MPa, Pa, bar, mbar, psi, mH20, mmH20, cmH20, 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
Instrument Connection	½" NPTF
Electrical Conduit Connection	¾" NPTF
Housing Material	Die-casting Aluminum with chromating and chemically resistant paint
Window Material	Glass
Housing Agency Approvals	FM (US and Canada) CSA ATEX IEC Ex d IP68
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 ±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
- ±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

Product Specifications - DMP305X-TST-S

Output	4-20mA
	HART® (Optional)
Turndown	
-40 kPa to 40 kPa thru -100 kPa to 10 MPa	20:1
-100 kPa to 40 MPa	8:1
Accuracy	±0.075% F.S. (BFSL)
	(Linearity, Hysterisis and Repeatability)
TD = Turndown	TD ≤ 10 ±0.1% Span
TD = URL / |URV - LRV|	10 < TD ≤ 20
	±(0.01 x TD)% Span
URL = Upper Range Limit	
URV/LRV = Upper/Lower Range Value	
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 (No Approvals)	-20 to 70°C
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

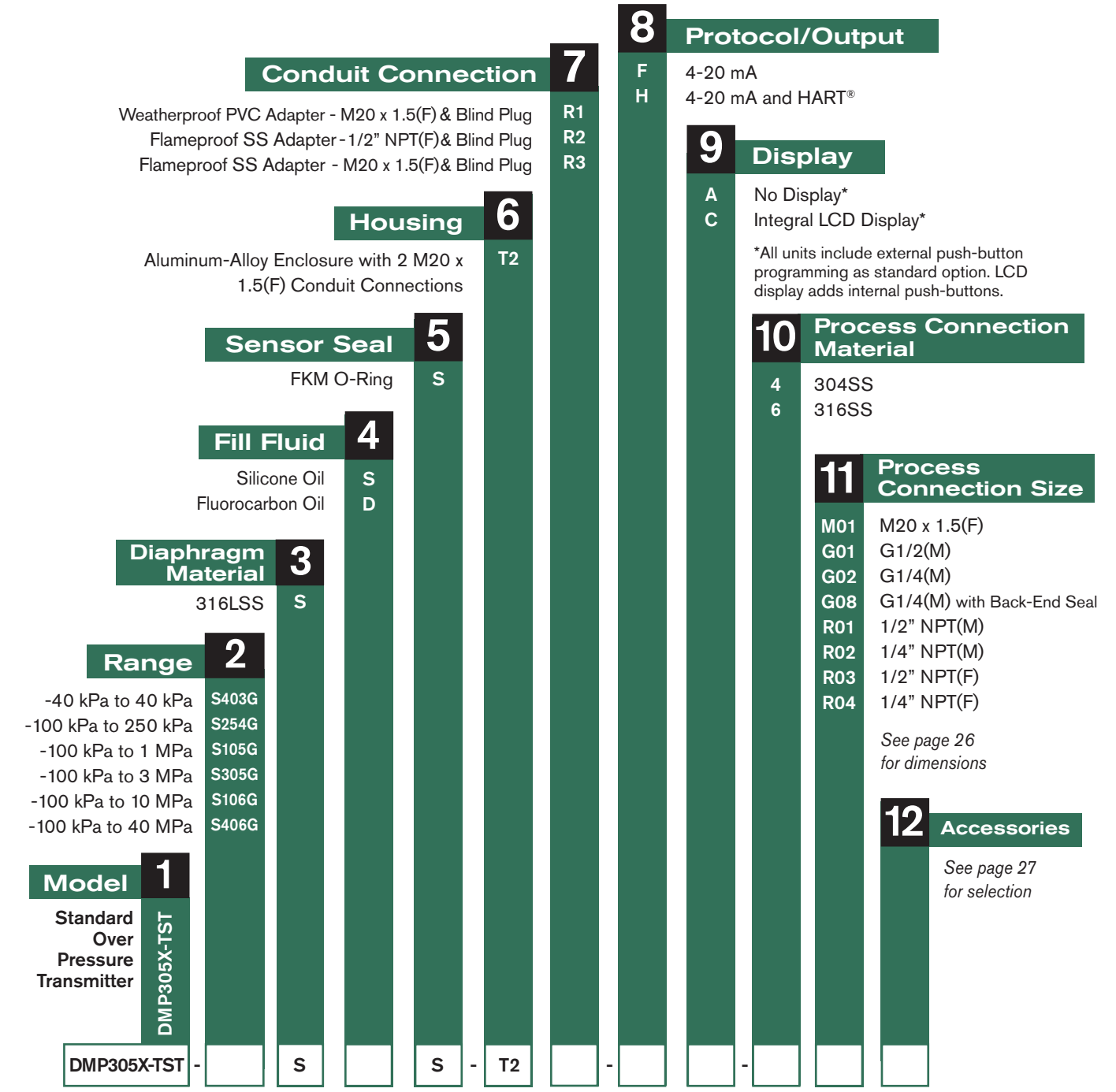
Long Term Stability	≤ ±0.2% Span per 5 years
Response Time	≤ 200 ms
Damping Time	0-100 s (Configurable)
Startup Time	< 6 s
Supply Voltage	10.5-55VDC
HART® with 250 ohm load	16.5-55VDC
Loop Resistance	0-2119 ohms
HART® Protocol	250-600 ohms
Circuit Protection	Reverse Polarity and
	EMC (EMI/RFI) protected
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
	GB/T 1827.3/IEC61928-3 tests
Relative Humidity	5-100% R.H. @ 40°C
Construction	Aluminum Ex-Pf Housing
IP Rating	IP67
Over Pressure	
S403G -40 kPa to 40 kPa	1 MPa
S254G -100 kPa to 250 kPa	4 MPa
S105G -100 kPa to 1 MPa	6 MPa
S305G -100 kPa to 3 MPa	15 MPa
S106G -100 kPa to 10 MPa	20 MPa
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.

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.

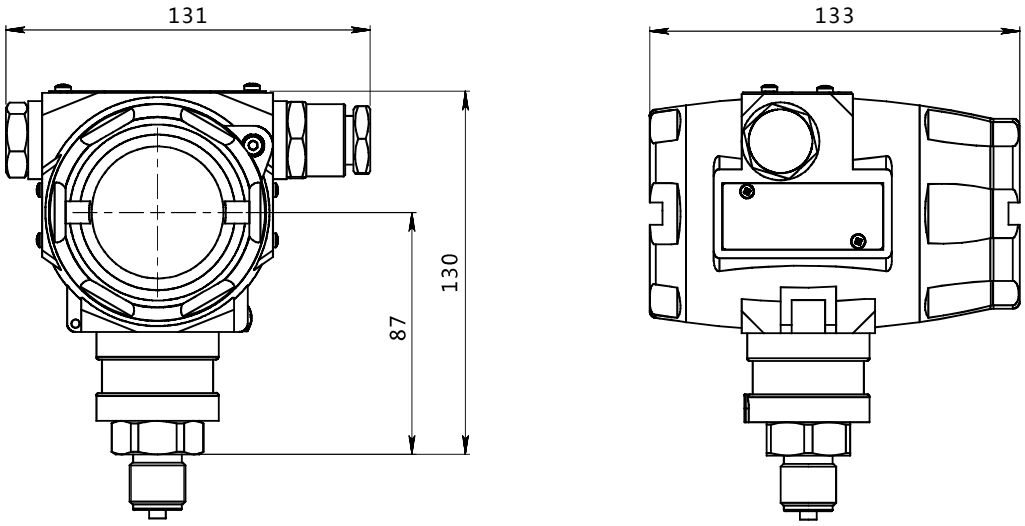
- You must select a designator for each component
- Reference tables, charts and additional information are provided throughout the catalog to help you make your selections, see pages noted in the tree.



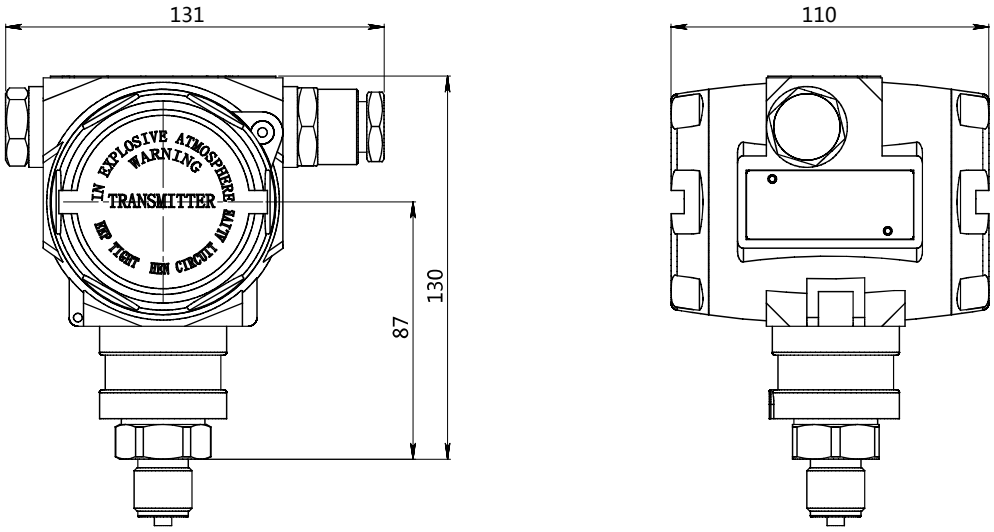
See page 33 for agency and options.

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.

Product Specifications - DMP305X-TST-H

Output	4-20mA
	HART® (Optional)
Turndown	
-6 kPa to 6 kPa	6:1
-40 kPa to 40 kPa thru -100 kPa to 10 MPa	20:1
Accuracy	±0.075% F.S. (BFSL)
	(Linearity, Hysterisis and Repeatability)
TD = Turndown	TD ≤ 10 ±0.075% Span
TD = URL / |URV - LRV|	10 < TD ≤ 20
	±(0.0075 x TD)% Span
URL = Upper Range Limit	
URV/LRV = Upper/Lower Range Value	
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 (No Approvals)	-20 to 70°C
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
	GB/T 1827.3/IEC61928-3 tests
Relative Humidity	5-100% R.H. @ 40°C
Construction	Aluminum Ex-Pf Housing
IP Rating	IP67
Over Pressure	
H602G	-6 kPa to 6 kPa 25 MPa
H403G	-40 kPa to 40 kPa 25 MPa
H254G	-100 kPa to 250 kPa 25 MPa
H105G	-100 kPa to 1 MPa 25 MPa
H305G	-100 kPa to 3 MPa 25 MPa
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.

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.

1 Model

DMP305X-TST
High Over Pressure Transmitter

2 Range

-6 kPa to 6 kPa	H602G
-40 kPa to 40 kPa	H403G
-100 kPa to 250 kPa	H254G
-100 kPa to 1 MPa	H105G
-100 kPa to 3 MPa	H305G
-100 kPa to 10 MPa	H106G

3 Diaphragm Material

316LSS — S

4 Fill Fluid

Silicone Oil	S
Fluorocarbon Oil	D

5 Sensor Seal

FKM O-Ring — S

6 Housing

Aluminum-Alloy Enclosure with 2 M20 x 1.5(F) Conduit Connections — T2

7 Conduit Connection

Weatherproof PVC Adapter - M20 x 1.5(F) & Blind Plug	R1
Flameproof SS Adapter - 1/2" NPT(F) & Blind Plug	R2
Flameproof SS Adapter - M20 x 1.5(F) & Blind Plug	R3

8 Protocol/Output

F	4-20 mA
H	4-20 mA and HART®

9 Display

A	No Display*
C	Integral LCD Display*

*All units include external push-button programming as standard option. LCD display adds internal push-buttons.

10 Process Connection Material

4	304SS
6	316SS

11 Process Connection Size

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

See page 26 for dimensions

12 Accessories

See page 27 for selection

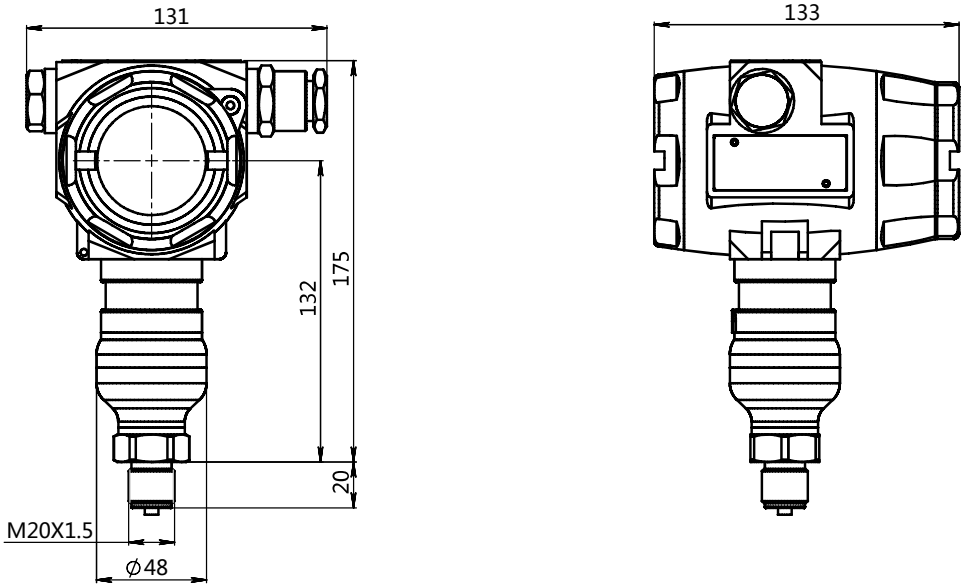
DMP305X-TST- H305G S S S - T2 R2 - H C - 6 R01 /E1/I1

Example Model No.

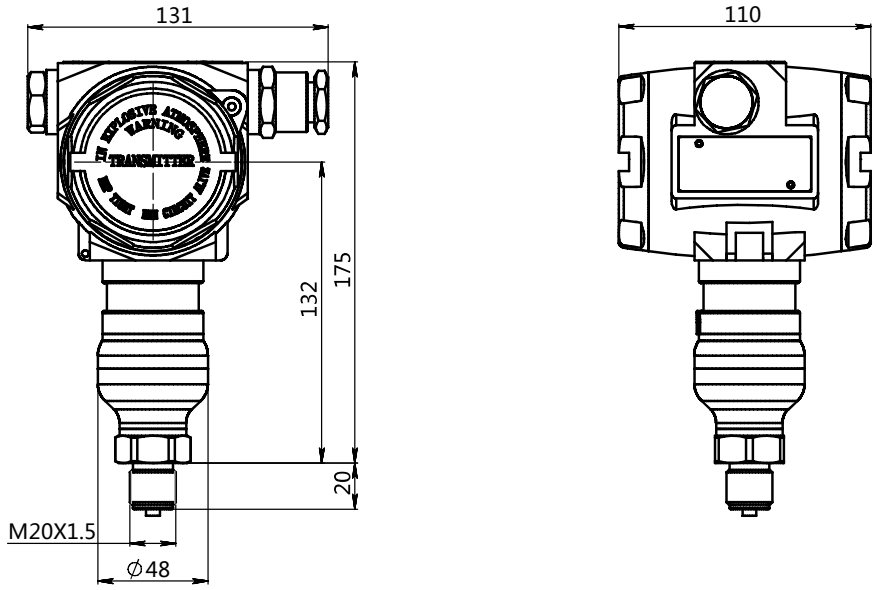
See page 33 for agency and options.

Dimensions shown are for reference only.
Dimensions = mm

With Integral LCD Display (option C)

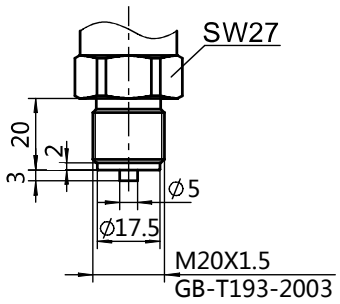
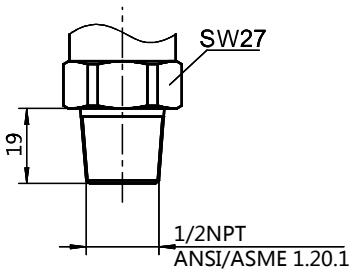
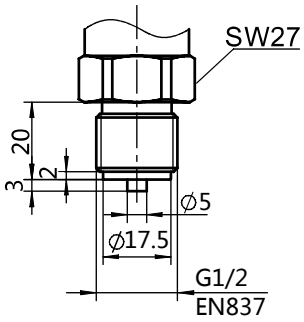
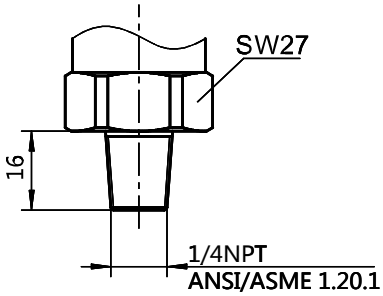
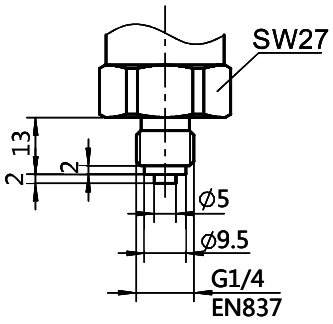
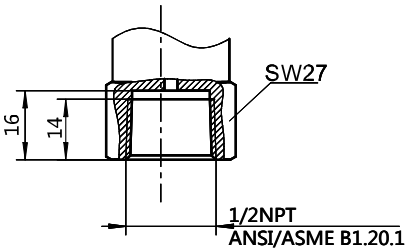
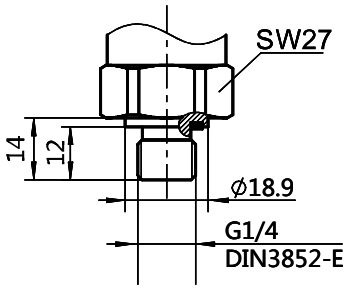
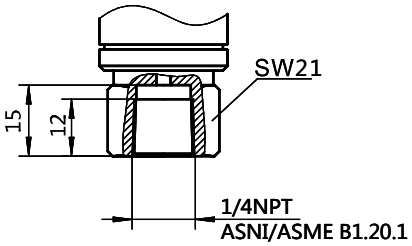


Without Display (option A)



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

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)	

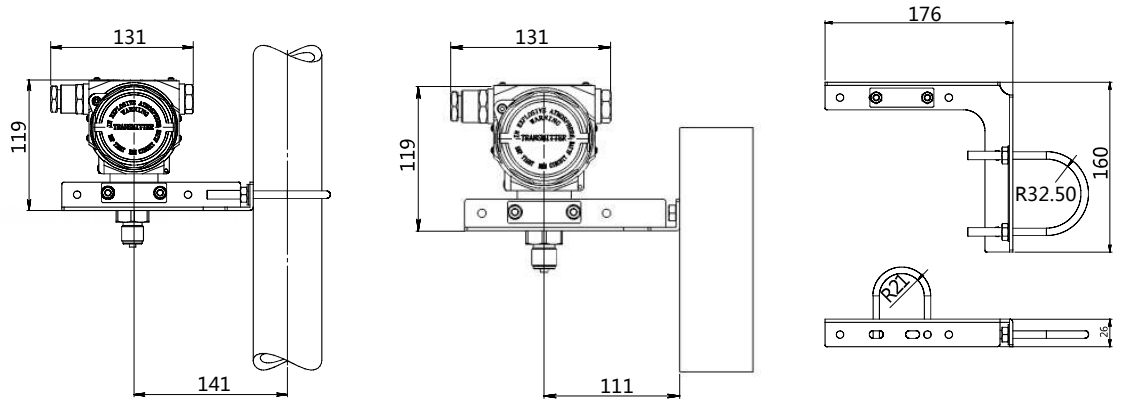
Accessories

Description	Designator
Pipe Mounting Kit (U-Shaped Bracket for 2" Pipe) *Dimension drawing below.*	/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] *Dimension drawing below.*	/N1
Finned Heat Exchange Connector [3] *Dimension drawing below.*	/N2
Calibration Certificate	/Q1
Welding Adapter M20 x 1.5(M) 304SS [3] *Dimension drawing below.*	/Z1
Welding Adapter G1/2(F) 304SS [4] *Dimension drawing below.*	/Z2

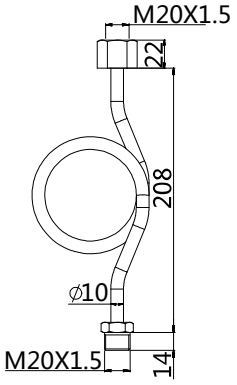
[1] Requires Display option C
[2] Requires Conduit Connection option R2 or R3
[3] Requires M01 Process Connection Size
[4] Requires G01 Process Connection Size
[5] Not available with ATEX / IECEx Approvals
[6] Form 1835_1800 Series /D1 Accessory Data Sheet must be completed and submitted with order

Dimensions = mm

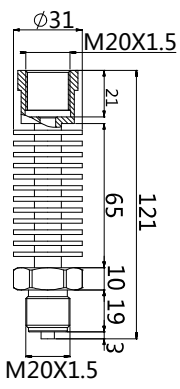
/B4 - Pipe Mounting Kit



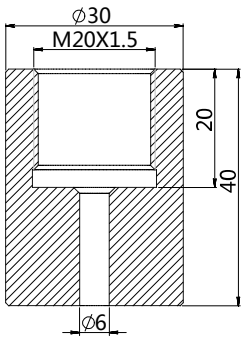
/N1 - Coiled Tube Heat Exchange Connector



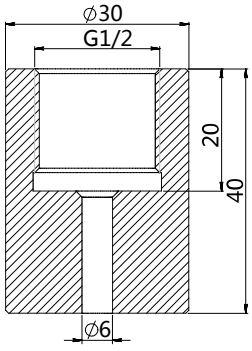
/N2 - Finned Heat Exchange Connector



/Z1 - Welding Adapter M20 x 1.5(M)



/Z2 - Welding Adapter G1/2(F)



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, Hysterisis 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 Ouput 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 (No Approvals)	-20 to 70°C
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.

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.

1 Model

Differential Pressure Transmitter — DMP305X-DST

2 Range

-6 kPa to 6 kPa	S602D
-40 kPa to 40 kPa	S403D
-250 kPa to 250 kPa	S254D
-100 kPa to 1 MPa	S105D
-500 kPa to 3 MPa	S305D
-500 kPa to 10 Mpa	S106D

3 Diaphragm Material

316LSS — S

4 Fill Fluid

Silicone Oil	S
Fluorocarbon Oil	D

5 Sensor Seal

PTFE O-Ring — S

6 Housing

Aluminum-Alloy Enclosure with 2 M20 x 1.5(F) Conduit Connections — T2

7 Conduit Connection

Weatherproof PVC Adapter - M20 x 1.5(F) & Blind Plug	R1
Flameproof SS Adapter - 1/2" NPT(F) & Blind Plug	R2
Flameproof SS Adapter - M20 x 1.5(F) & Blind Plug	R3

8 Protocol/Output

4-20 mA	F
4-20 mA and HART®	H

9 Display

No Display*	A
Integral LCD Display*	C

*All units include external push-button programming as standard option. LCD display adds internal push-buttons.

10 Process Connection

316SS 1/4" NPT(F) 2 Flanges - Drain Valve on End	H1
316SS 1/4" NPT(F) 2 Flanges - Drain Valve on Upper Face	H2
316SS 1/4" NPT(F) 2 Flanges - Drain Valve on Lower Face	H3

See page 30 for additional information

11 Accessories

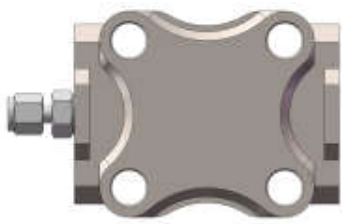
See page 30 for selection

DMP305X-DST - [ ] S [ ] S - T2 [ ] - [ ] [ ] - [ ]

DMP305X-DST-S254D S S S - T2 R2 - H C - H1 /E1/I1 — Example Model No.

See page 33 for agency and options.

Process Connections

H1 Drain Valve on Flange End	H2 Drain Valve on Flange Upper Face	H3 Drain Valve on Flange Lower Face
		

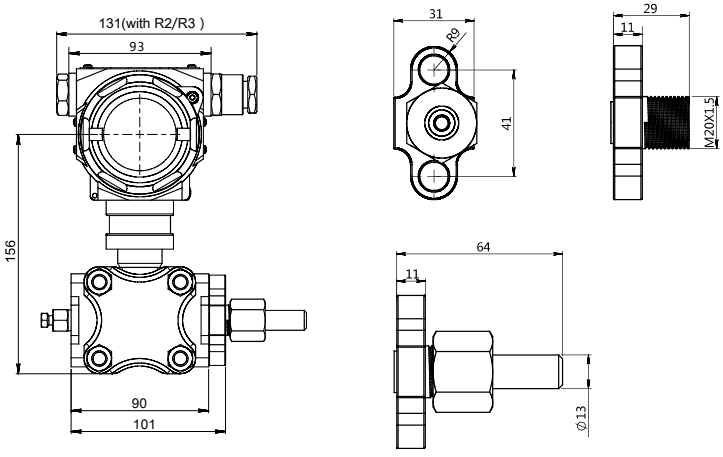
Accessories

Description	Designator
Process Connection Adapter M20 x 1.5(M) 304SS *Dimension drawing below.*	/A1
Process Connection Adapter 1/2" NPT(F) 304SS *Dimension drawing page 31.*	/A2
Pipe Mounting Kit (Carbon Steel Bent Bracket for 2" Pipe) *Dimension drawing page 31.*	/B1
Plate Mounting Kit (Carbon Steel Bent Bracket) *Dimension drawing page 31.*	/B2
Pipe Mounting Kit (Carbon Steel Flat Bracket for 2" Pipe) *Dimension drawing page 31.*	/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

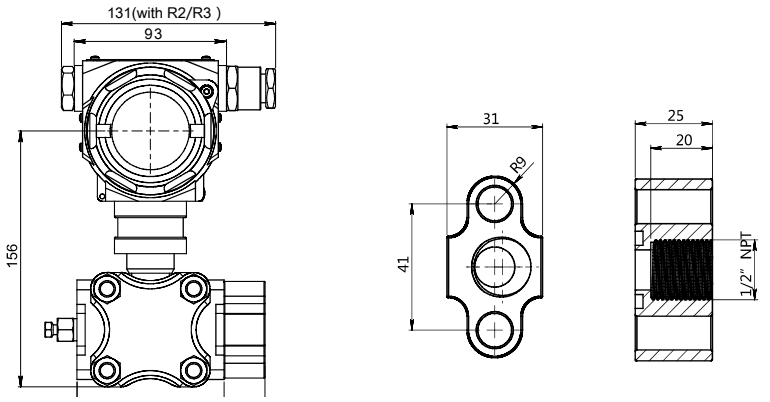
Dimensions = mm

/A1
Process
Connection Adapter
M20 x 1.5(M) 304SS

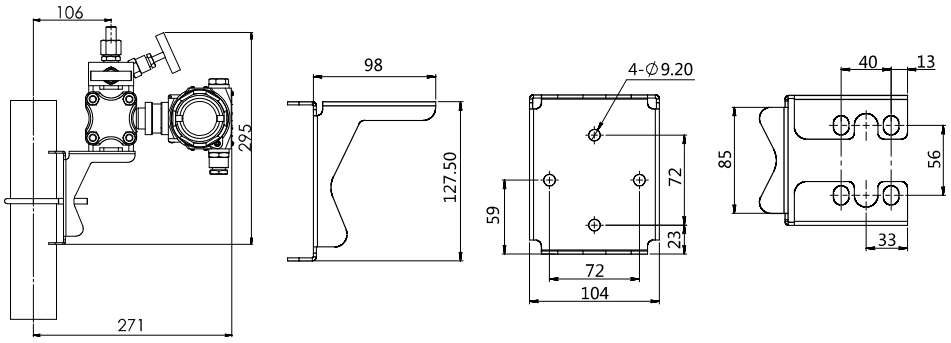


Dimensions = mm

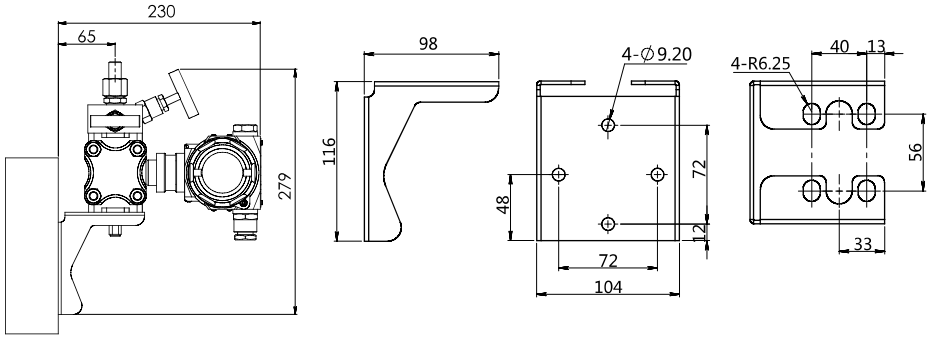
/A2
Process Connection Adapter 1/2" NPT(F) 304SS



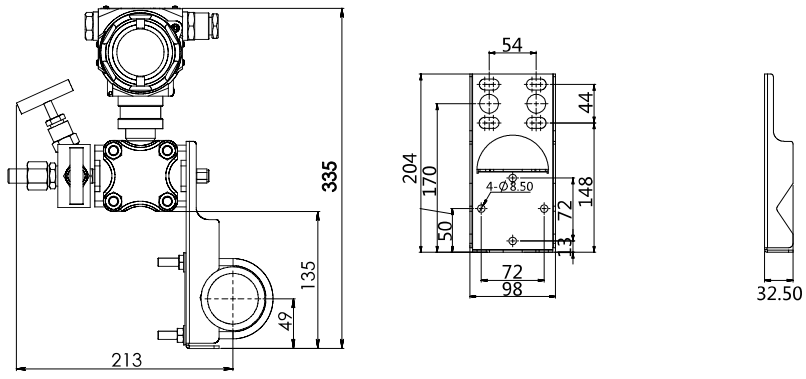
/B1
Pipe Mounting Kit (Carbon Steel Bent Bracket for 2" Pipe)



/B2
Plate Mounting Kit (Carbon Steel Bent Bracket)

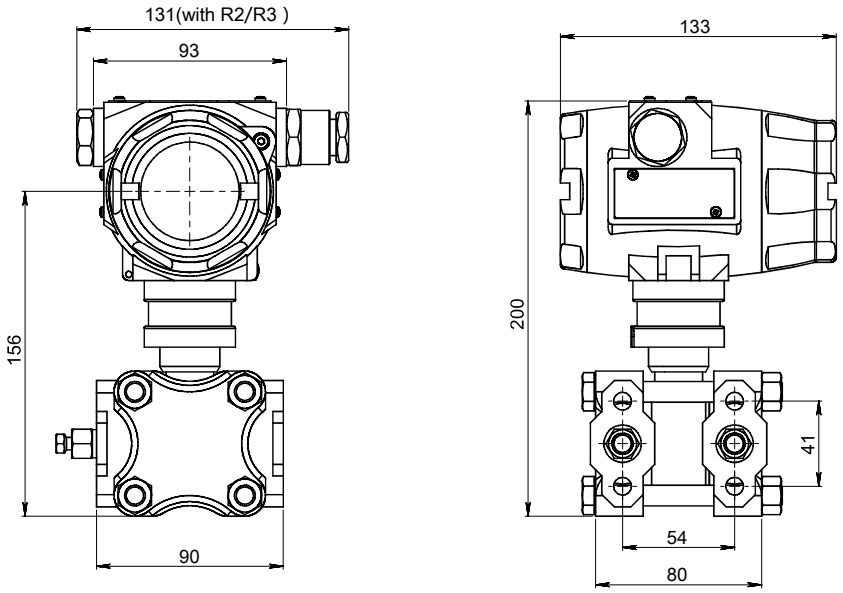


/B3
Pipe Mounting Kit (Carbon Steel Flat Bracket for 2" Pipe)

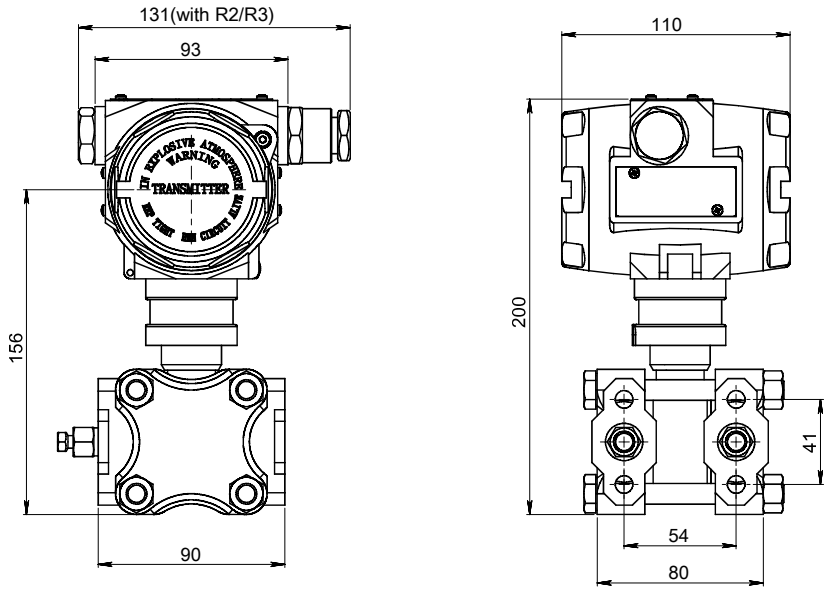


Dimensions shown are for reference only.
Dimensions = mm

With Integral LCD Display (option C)



Without Display (option A)



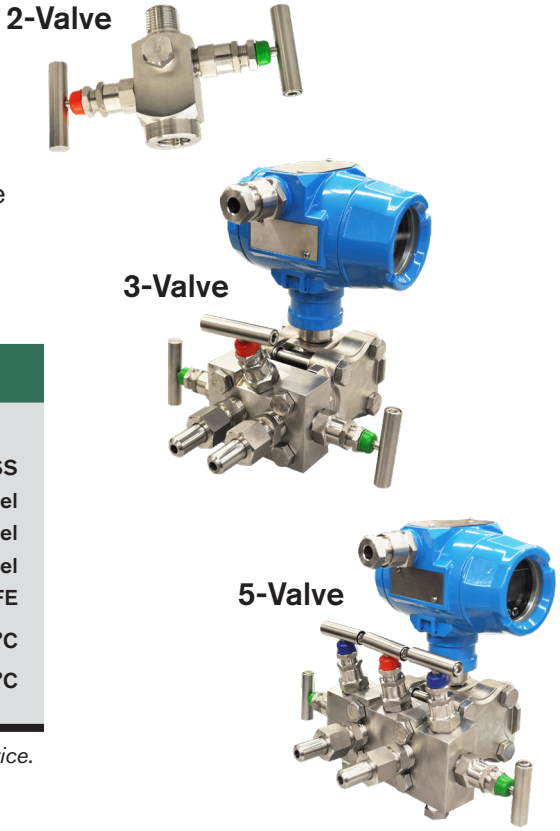
Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

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

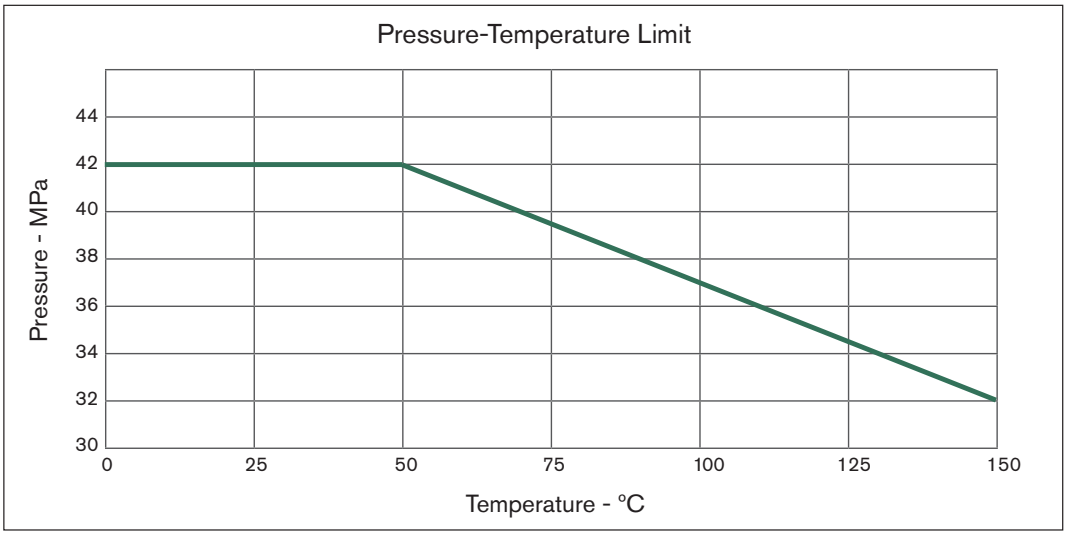
The 1800 Series Conventional Pressure Transmitters are available with two, three, or five-valve manifolds. If specified on the order notes the manifold can be shipped assembled with the 1800 Series Pressure Transmitter. The information in the Product Specifications table and Pressure-Temperature Limit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



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

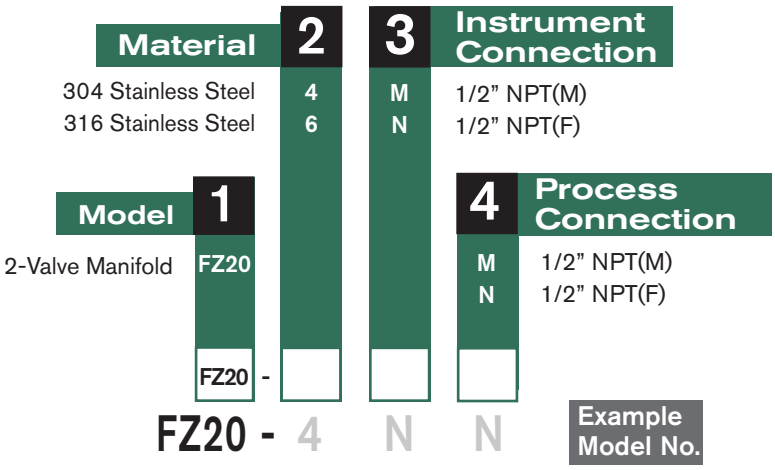
Design and specifications are subject to change without notice. For latest revision, see SORInc.com.



How to Order

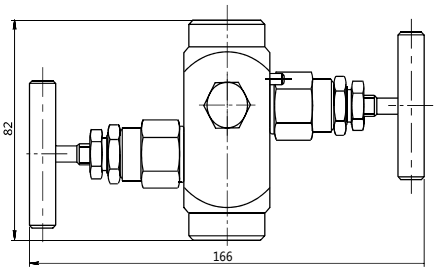
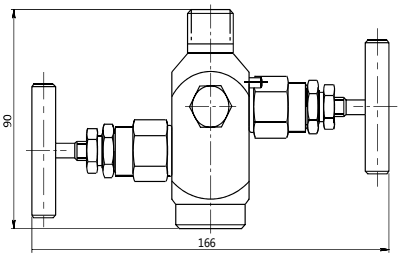
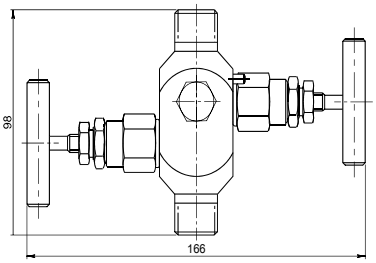
Below is the SOR quick select model number tree that provides you with all the options to configure and order a product for your application.

- 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)	

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

1 Model
3-Valve Manifold — FZ30

2 Material
304 Stainless Steel — 4
316 Stainless Steel — 6

3 Process Connection
N — 1/2" NPT(F)
J — M20 x 1.5(M)

4 Instrument Connection Distance
A — 54 mm Center-to-Center

5 Process Connection Distance
S — 35 mm Center-to-Center

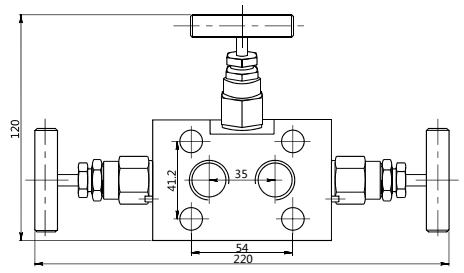
FZ30 - [ ] [ ] [ ] [ ]

Example Model No.
FZ30 - 4 N A S

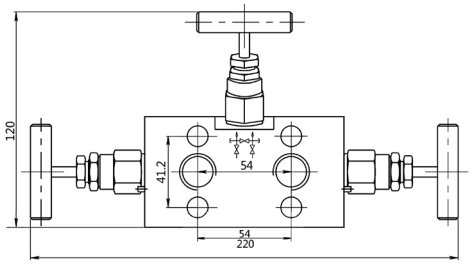
Alternative materials and connections are available. Consult factory for details.

Dimensions = mm

Process Connections



Instrument Connections



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

1 Model
- FZ50 — 5-Valve Manifold

2 Material
- 4 — 304 Stainless Steel
- 6 — 316 Stainless Steel

3 Process Connection
- N — 1/2" NPT(F)
- J — M20 x 1.5(M)

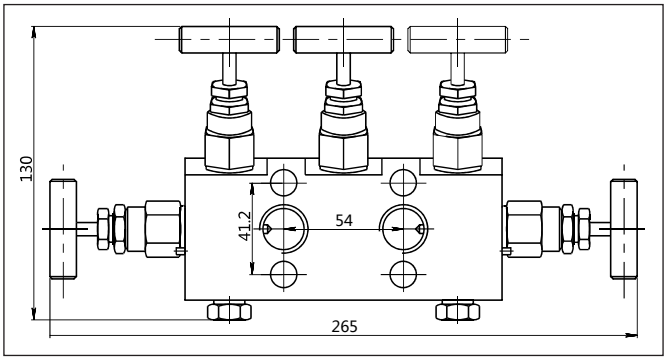
4 Instrument Connection Distance
- A — 54 mm Center-to-Center

5 Process Connection Distance
- S — 54 mm Center-to-Center

Example Model No.: FZ50 - 4 N A S

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

Dimensions = mm



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