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

1800PT
Standard Over Pressure

1800HP
High Over Pressure

1800DP
Differential Pressure

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	
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	1800PT Conventional Standard Over Pressure Transmitter			1800HP Conventional High Over Pressure Transmitter		
Pressure Ranges	**Gauge**	**Over Pressure**	**Turndown**	**Gauge**	**Over Pressure**	**Turndown**
	-5.8 to 5.8 psi	145 psi	20:1	-0.9 to 0.9 psi	3,625 psi	6:1
	-14.5 to 36.3 psi	580 psi	20:1	-5.8 to 5.8 psi	3,625 psi	20:1
	-14.5 to 145 psi	870 psi	20:1	-14.5 to 36.3 psi	3,625 psi	20:1
	-14.5 to 435 psi	2,175 psi	20:1	-14.5 to 145 psi	3,625 psi	20:1
	-14.5 to 1,450 psi	2,900 psi	20:1	-14.5 to 435 psi	3,625 psi	20:1
	-14.5 to 5,800 psi	11,600 psi	8:1	-14.5 to 1,450 psi	3,625 psi	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

Model	815DT Compact Smart Differential Pressure Switch-Transmitter			1800DP 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	-0.9 to 0.9 psid	3,625 psid	30:1
	0 to 15 psid	1,000 psi	5:1	-5.8 to 5.8 psid	5,800 psid	100:1
	0 to 50 psid	1,000 psi	5:1	-36.3 to 36.3 psid	5,800 psid	100:1
	0 to 100 psid	1,000 psi	5:1	-72.5 to 145 psid	5,800 psid	100:1
	0 to 300 psid	1,000 psi	5:1	-72.5 to 435 psid	5,800 psid	100:1
	0 to 500 psid	1,000 psi	5:1	-72.5 to 1,450 psid	5,800 psid	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	-0.9 to 0.9 psid	3,625 psid	2,320 psid
	0 to 15 psid	45 psid	45 psid	-5.8 to 5.8 psid	3,625 psid	2,320 psid
	0 to 50 psid	150 psid	150 psid	-36.3 to 36.3 psid	3,625 psid	2,320 psid
	0 to 100 psid	300 psid	300 psid	-72.5 to 145 psid	3,625 psid	2,320 psid
	0 to 300 psid	900 psid	900 psid	-72.5 to 435 psid	3,625 psid	2,320 psid
	0 to 500 psid	1,500 psid	1,500 psid	-72.5 to 1,450 psid	3,625 psid	2,320 psid
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, III; 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)
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 0-15 psi)
	17-4SST (for pressure ranges above 0-15 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

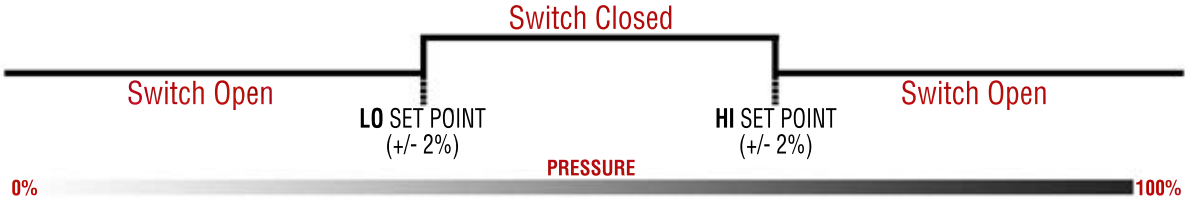
Design and specifications are subject to change without notice. For latest revision, see sorinc.com.

The primary switch output of the 805QS is a “Normally Open Solid State Relay” rated 30V, 120mA. It can be configured three 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).

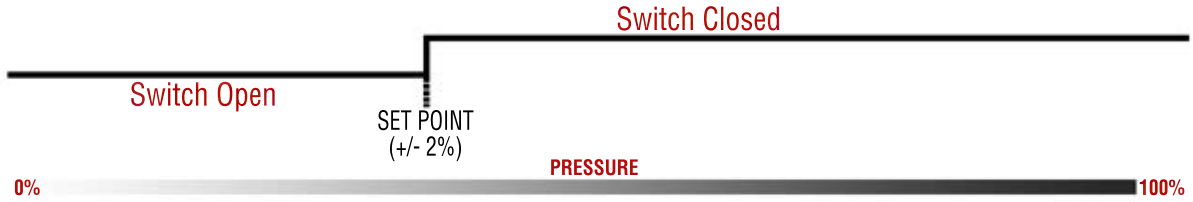
❶ Window Mode

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 0-15 psi and below) (17-4SS for ranges above 0-15 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

805QS - C 07 - A - RR Example Model No.

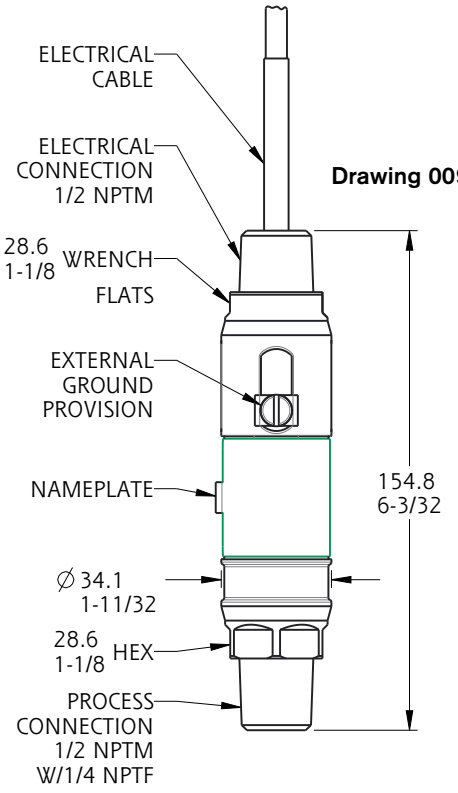
* Only available for range option 04 thru 08
** For pressure ranges above 0-10000psi (range options 10 and 11)
*** Dual Seal version is not hermetically sealed, only available for range options 00 thru 09.

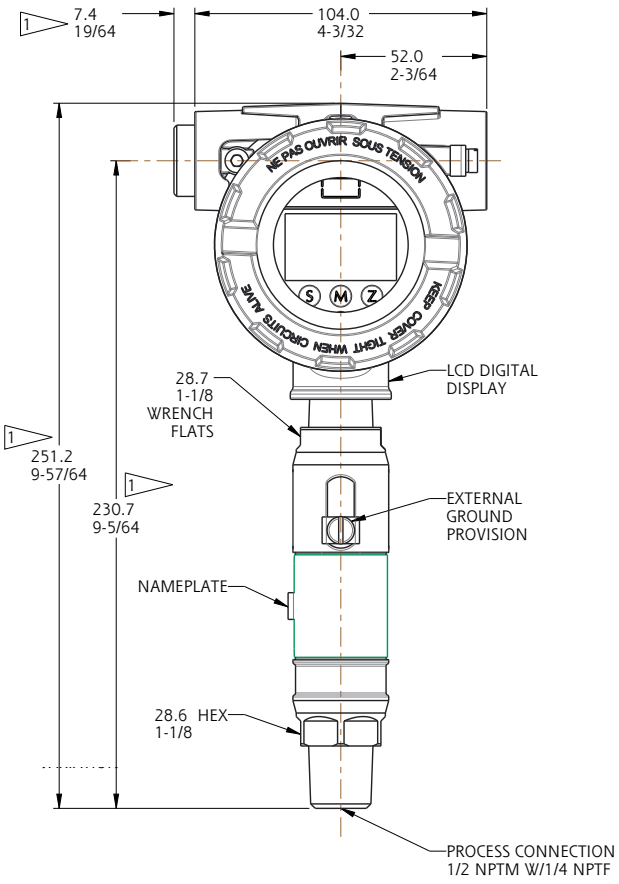
See page 18 for agency and options.

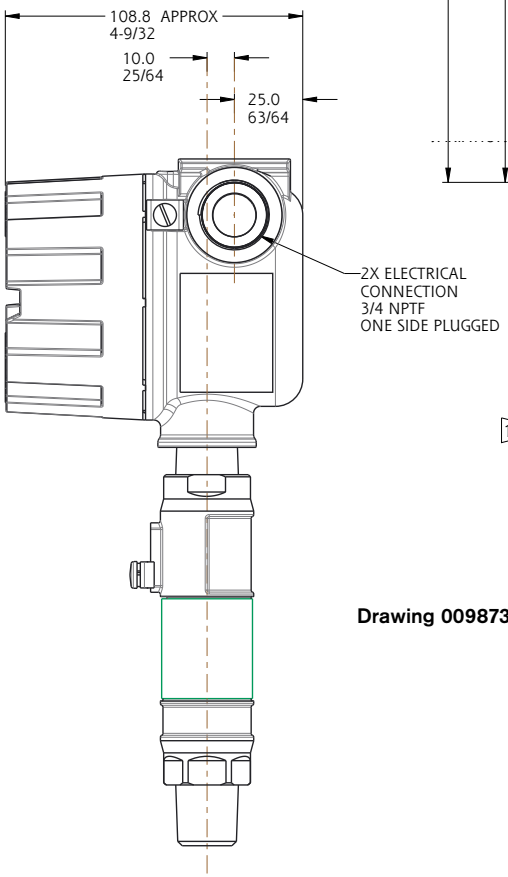
Dimensions shown are for reference only. Contact the factory for certified dimension drawings.
Linear = mm/in.

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
- 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

HART COMMUNICATION PROTOCOL

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)
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 0-15 psi & psia pressure ranges) 17-4SST (for pressure ranges above 0-15 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.

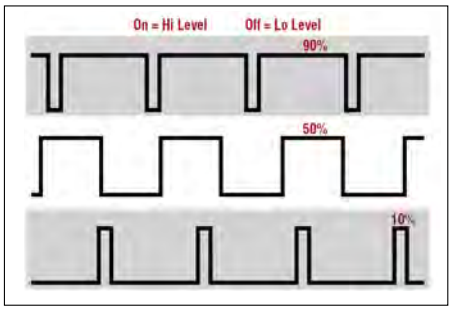
❹ Single Point, Normally-Open (Close on Rise/ Open on Fall)

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.

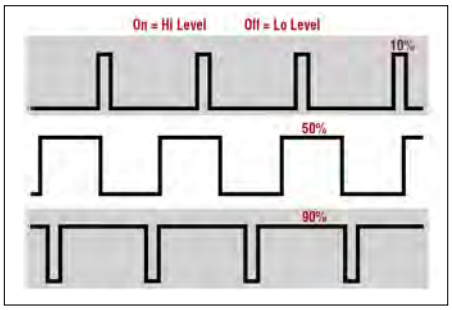
❺ Single Point, Normally-Closed (Open on Rise/ Close on Fall)

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

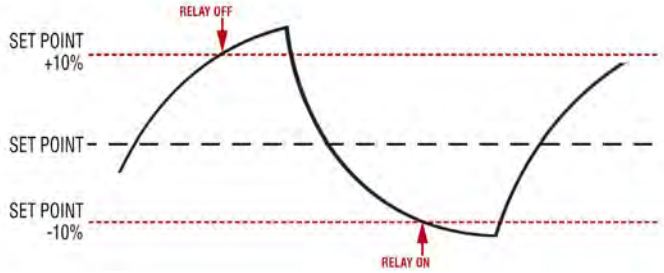


❼ Pulse Width Modulation - Pulsed Hi



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.

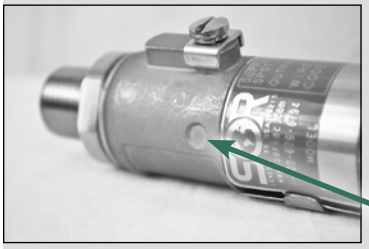


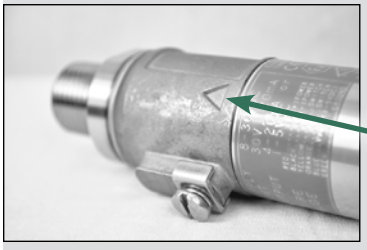
EXAMPLE: A 20% total dead band is applied to the setpoint of a monitored parameter. The relay will turn on and off as indicated in the graph above.

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 0-15 psi and below, 17-4SS for ranges above 0-15 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)

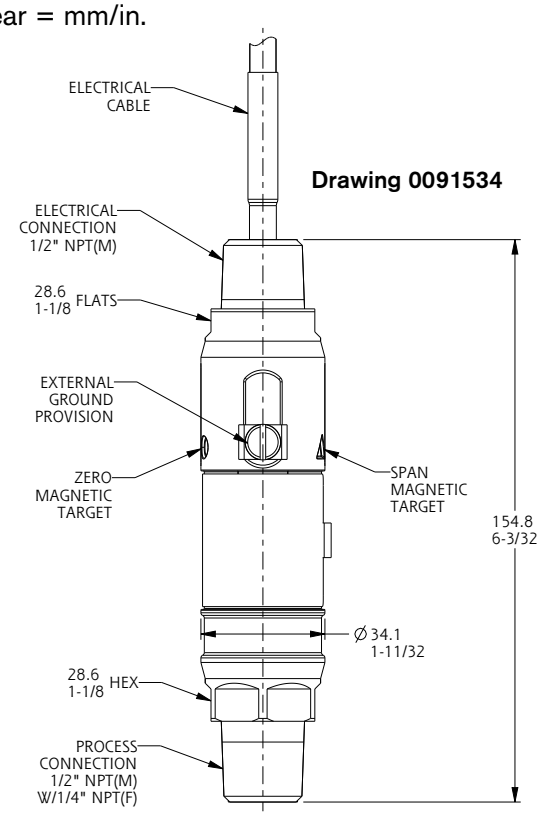
***Dual Seal version is not hermetically sealed. Only available for Range options 00 thru 09 and 21 thru 26.

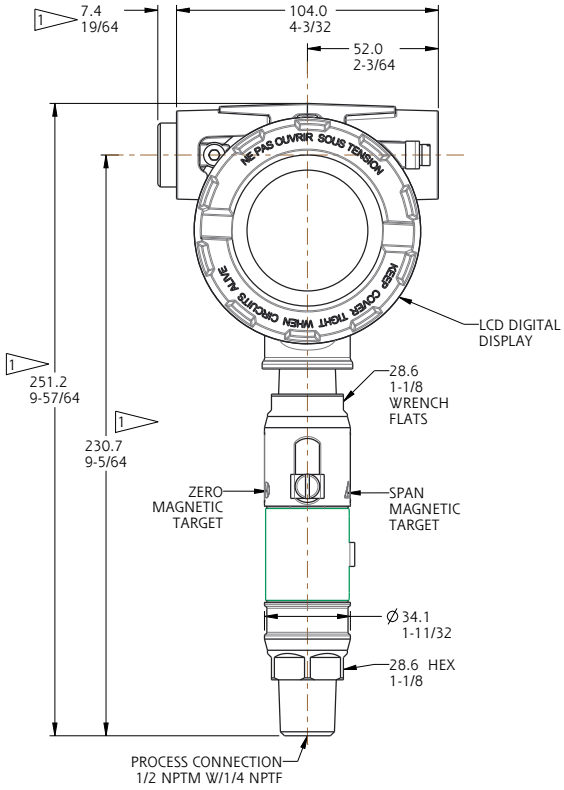
See page 18 for agency and options.

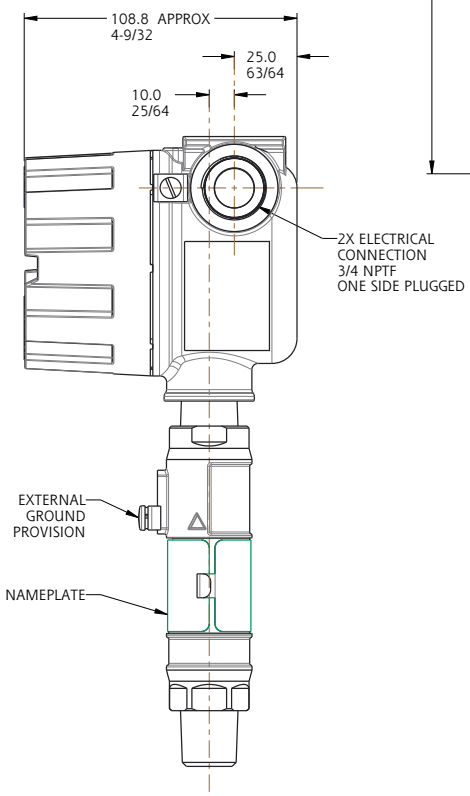
Dimensions shown are for reference only. Contact the factory for certified dimension drawings.
Linear = mm/in.

815PT Smart Pressure Switch-Transmitter

Drawing 0091534







Drawing 0098750

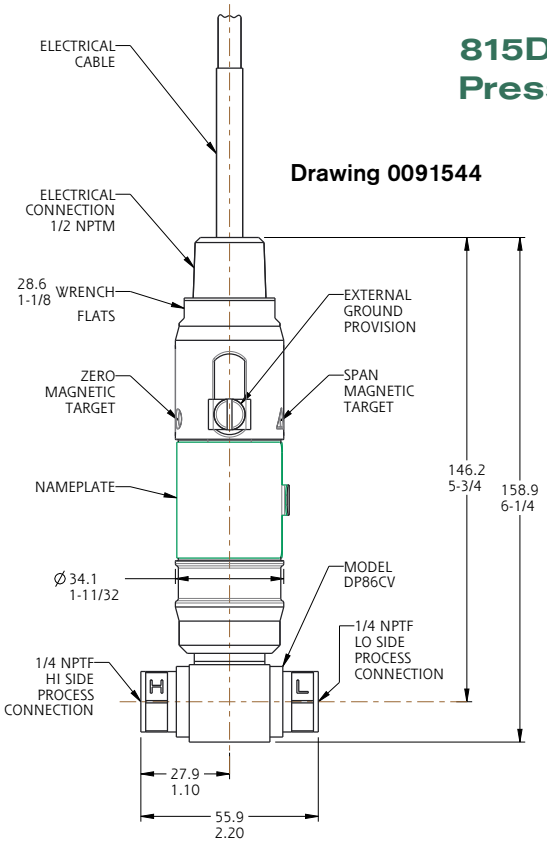
1. 1. DIMENSION APPROXIMATE AND BASED ON A FIVE THREAD ENGAGEMENT.
2. TRANSMITTER ORIENTATION MAY VARY IN RELATION TO THE LCD DIGITAL DISPLAY. VARIATION WILL NOT AFFECT FUNCTIONALITY.

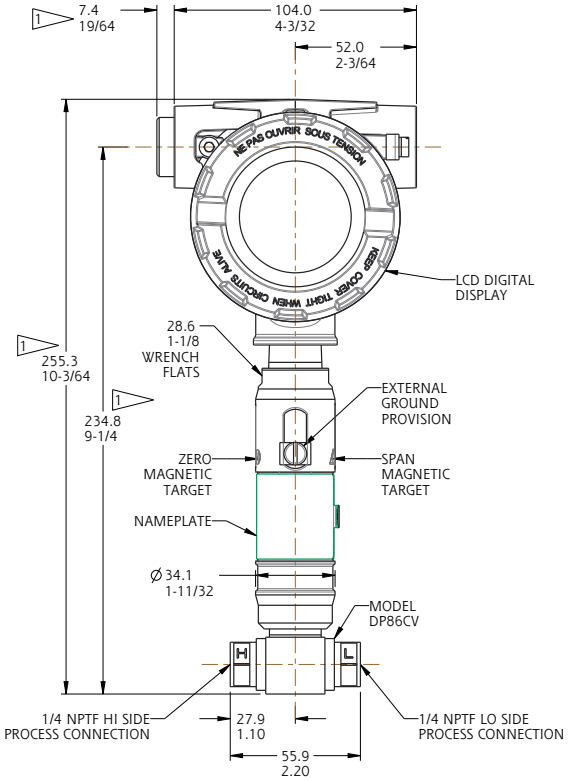
Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

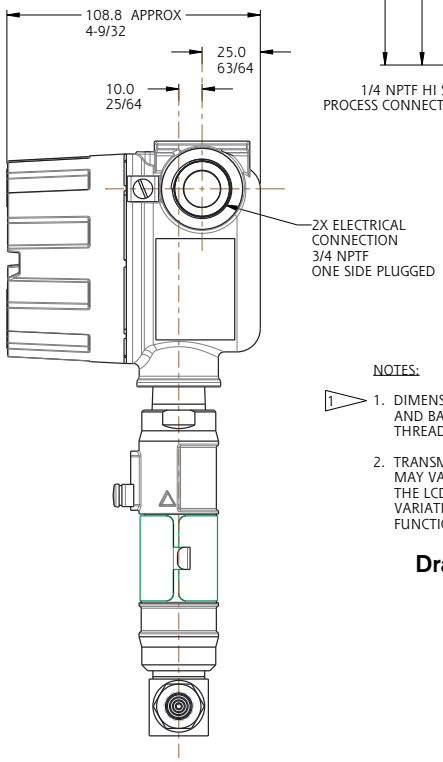
Dimensions shown are for reference only. Contact the factory for certified dimension drawings.
Linear = mm/in.

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 0-15 psi and below) (17-4SS for ranges above 0-15 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
  -0.9 to 0.9 psi through -14.5 to 5,800 psi
  -6 kPa to 6 kPa through -100 kPa to 40 MPa
- Differential Pressure Ranges
  -0.9 to 0.9 psid through -72.5 to 1,450 psid
  -6 kPa to 6 kPa through -500 kPa to 10 MPa
- 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

1800PT
Standard Over Pressure

1800HP
High Over Pressure

1800DP
Differential Pressure

Product Specifications - 1800PT

Output	4-20mA
	HART® (Optional)
Turndown	
-5.8 to 5.8 psi thru -14.5 to 1,450 psi	20:1
-14.5 to 5,800 psi	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
	@ -4 to 176°F
Temperature Range	
Compensated	-4 to 176°F
Ambient (Limited by both Approvals and Display)	
No Approvals or Display	-40 to 185°F
With Integral LCD Display (No Approvals)	-4 to 158°F
Intrinsically Safe	-40 to 140°F
Flameproof	-13 to 140°F
Process	
Silicone Oil Fill Fluid	-40 to 248°F
Fluorocarbon Oil Fill Fluid	-40 to 248°F
Flameproof	Limits Max Temperature to 176°F
Storage	
No Display	-40 to 230°F
With Integral LCD Display	-40 to 185°F

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. @ 104°F
Construction	Aluminum Ex-Pf Housing
IP Rating	IP67

Over Pressure

Designator	Range	Value
040	-5.8 to 5.8 psi	145 psi
250	-14.5 to 36.3 psi	580 psi
01K	-14.5 to 145 psi	870 psi
03K	-14.5 to 435 psi	2,175 psi
10K	-14.5 to 1,450 psi	2,900 psi
40K	-14.5 to 5,800 psi	11,600 psi

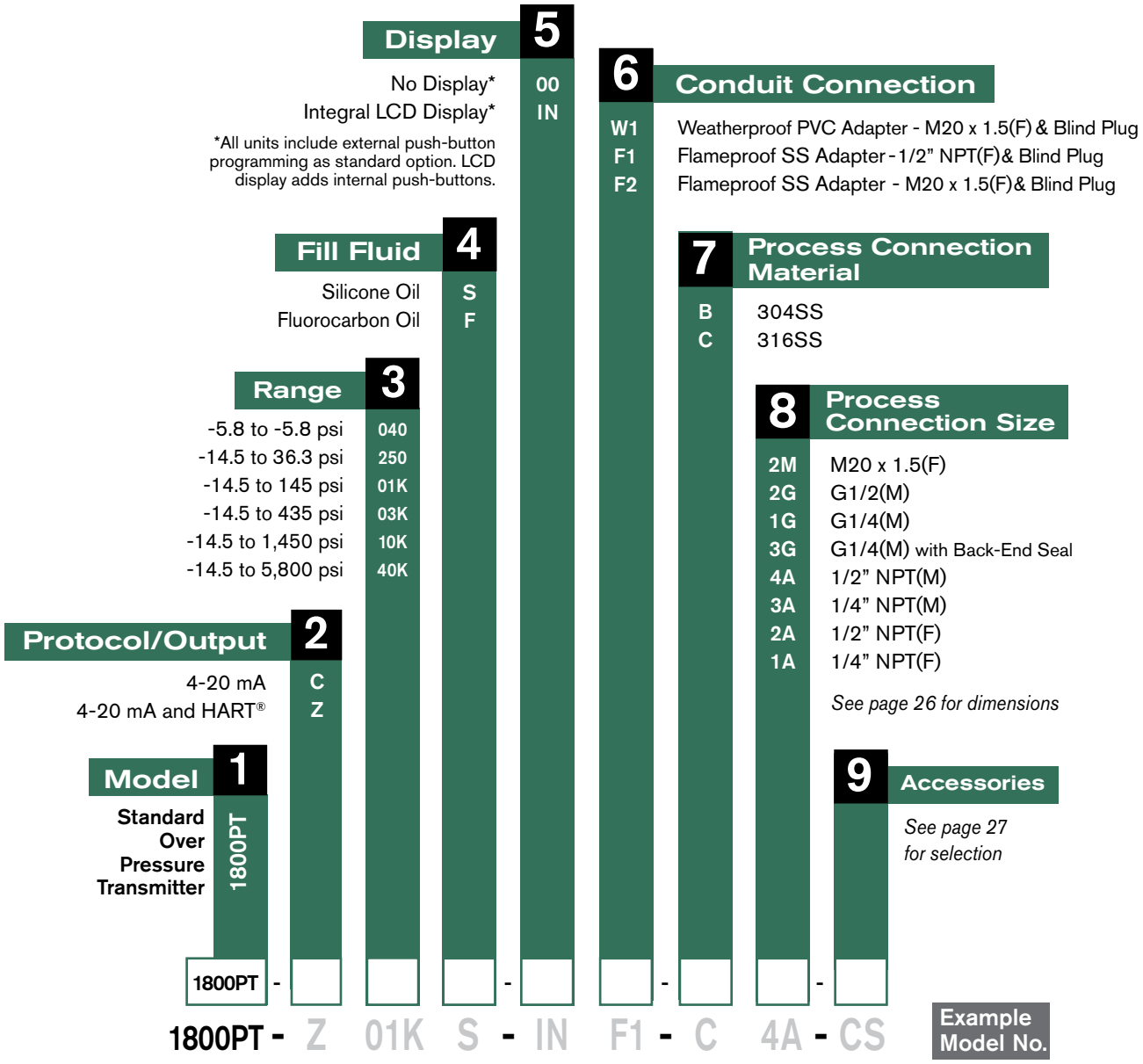
Weight (No Adapters or Brackets)	3.44 lbs
Warranty	2 years

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.

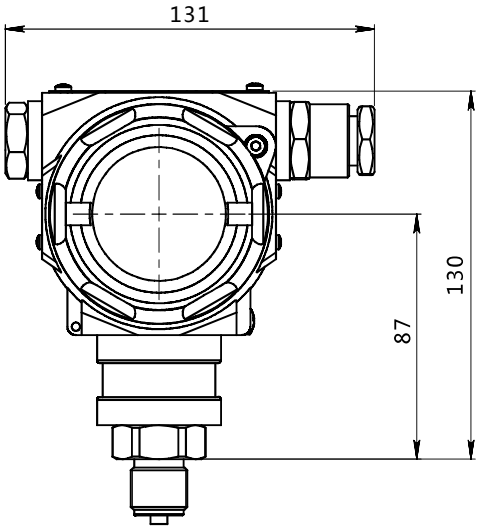
- You must select a designator for each component
- Reference tables, charts and additional information are provided throughout the catalog to help you make your selections, see pages noted in the tree.

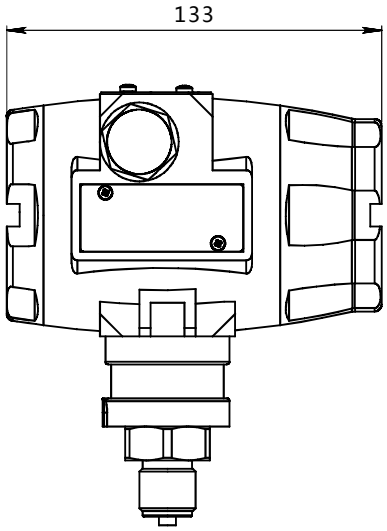


See page 33 for agency and options.

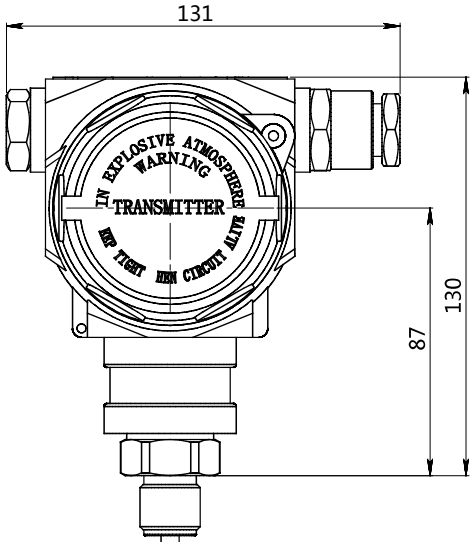
Dimensions shown are for reference only.
Dimensions = mm

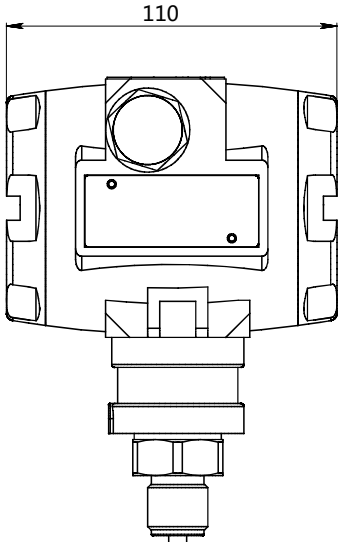
With Integral LCD Display (option IN)





Without Display (option 00)





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

Product Specifications - 1800HP

Output	4-20mA
	HART® (Optional)
Turndown	
-0.9 to 0.9 psi	6:1
-5.8 to 5.8 psi thru -14.5 to 1,450 psi	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
	@ -4 to 176°F
Temperature Range	
Compensated	-4 to 176°F
Ambient (Limited by both Approvals and Display)	
No Approvals or Display	-40 to 185°F
With Integral LCD Display (No Approvals)	-4 to 158°F
Intrinsically Safe	-40 to 140°F
Flameproof	-13 to 140°F
Process	
Silicone Oil Fill Fluid	-40 to 248°F
Fluorocarbon Oil Fill Fluid	-40 to 248°F
Flameproof	Limits Max Temperature to 176°F
Storage	
No Display	-40 to 230°F
With Integral LCD Display	-40 to 185°F

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. @ 104°F
Construction	Aluminum Ex-Pf Housing
IP Rating	IP67

Over Pressure

Designator	Range	Value
006	-0.9 to 0.9 psi	3,625 psi
040	-5.8 to 5.8 psi	3,625 psi
250	-14.5 to 36.3 psi	3,625 psi
01K	-14.5 to 145 psi	3,625 psi
03K	-14.5 to 435 psi	3,625 psi
10K	-14.5 to 1,450 psi	3,625 psi

Weight (No Adapters or Brackets)	4.12 lbs
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

High Over Pressure Transmitter	1800HP

2 Protocol/Output

4-20 mA	C
4-20 mA and HART®	Z

3 Range

-0.9 to 0.9 psi	006
-5.8 to 5.8 psi	040
-14.5 to 36.3 psi	250
-14.5 to 145 psi	01K
-14.5 to 435 psi	03K
-14.5 to 1,450 psi	10K

4 Fill Fluid

Silicone Oil	S
Fluorocarbon Oil	F

5 Display

No Display*	00
Integral LCD Display*	IN

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

6 Conduit Connection

W1	Weatherproof PVC Adapter - M20 x 1.5(F) & Blind Plug
F1	Flameproof SS Adapter - 1/2" NPT(F) & Blind Plug
F2	Flameproof SS Adapter - M20 x 1.5(F) & Blind Plug

7 Process Connection Material

B	304SS
C	316SS

8 Process Connection Size

2M	M20 x 1.5(F)
2G	G1/2(M)
1G	G1/4(M)
3G	G1/4(M) with Back-End Seal
4A	1/2" NPT(M)
3A	1/4" NPT(M)
2A	1/2" NPT(F)
1A	1/4" NPT(F)

See page 26 for dimensions

9 Accessories

See page 27 for selection

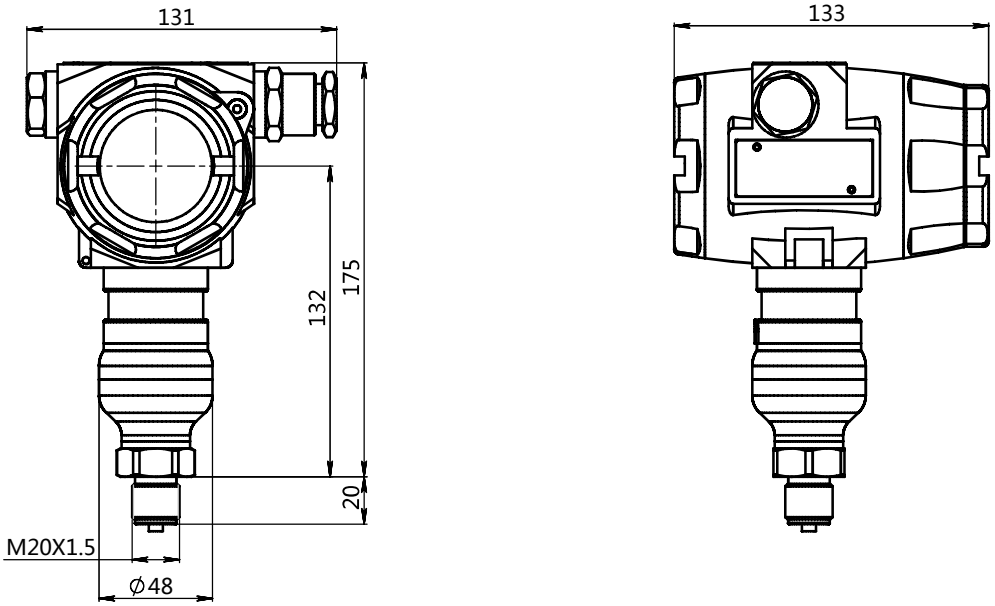
1800HP	-				-				-				-	
1800HP	-	Z	03K	S	-	IN	F1	-	C	4A	-	CS		

Example Model No.

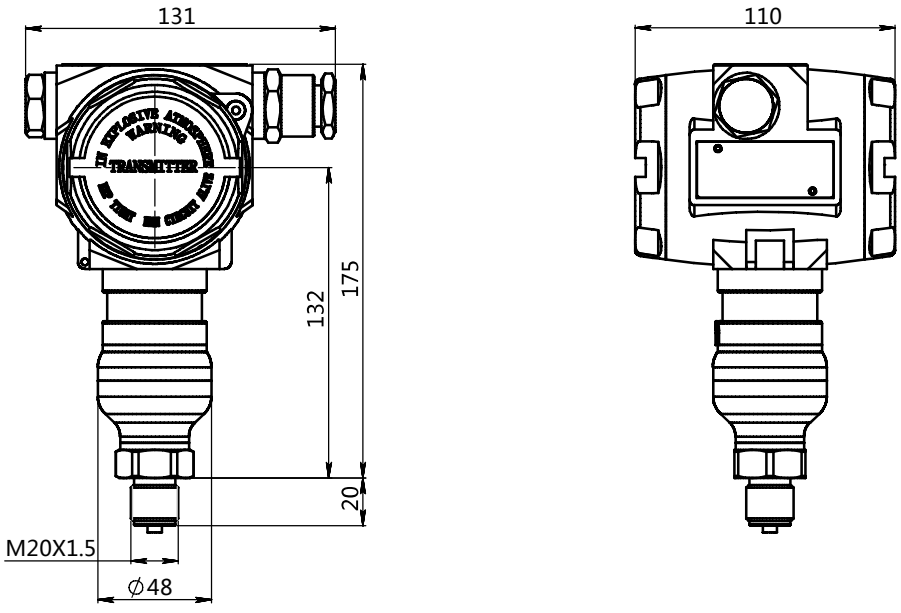
See page 33 for agency and options.

Dimensions shown are for reference only.
Dimensions = mm

With Integral LCD Display (option IN)

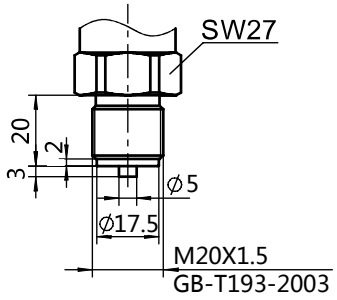
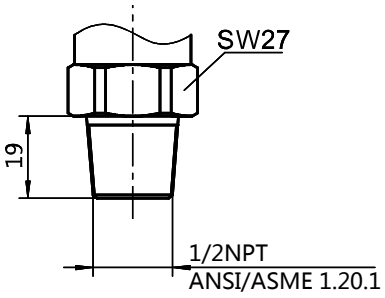
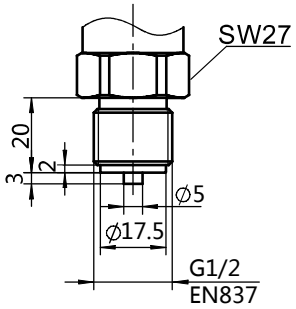
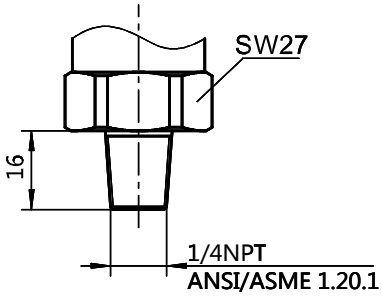
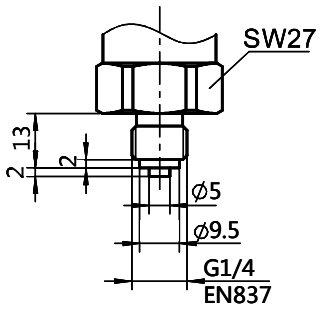
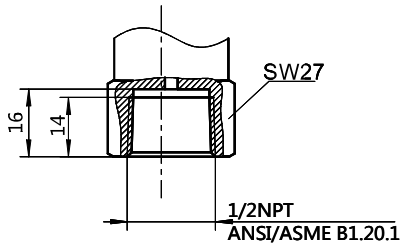
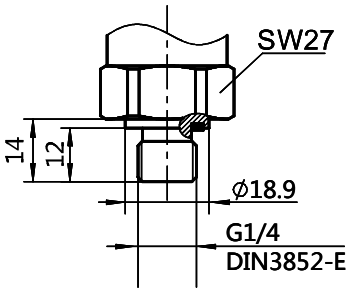
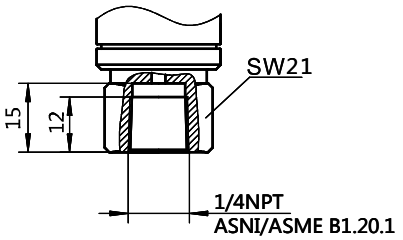


Without Display (option 00)



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

Process Connections

Designator	Dimensions = mm	Designator	Dimensions = mm
2M M20 x 1.5(F)		**4A** 1/2" NPT(M)	
2G G1/2(M)		**3A** 1/4" NPT(M)	
1G G1/4(M)		**2A** 1/2" NPT(F)	
3G G1/4(M) with Back-End Seal		**1A** 1/4" NPT(F)	

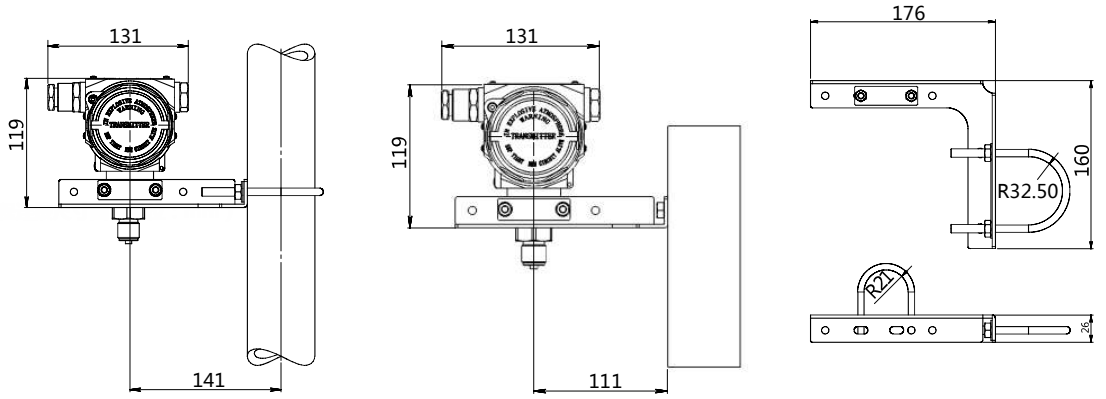
Accessories

Description	Designator
Pipe Mounting Kit (U-Shaped Bracket for 2" Pipe) *Dimension drawing below.*	PK
Customer-Specified Display Settings [1, 6]	SC
ATEX and IECEx Approved Flameproof [1, 2]	CL
CSA Certified Explosion Proof [2, 5]	CS
ATEX and IECEx Approved Intrinsically Safe [1]	CK
CE Certificate	CE
Degrease Treatment of Wetted Parts	BB
Electropolishing Treatment of Wetted Parts	CC
Coiled Tube Heat Exchange Connector [3] *Dimension drawing below.*	ET
Finned Heat Exchange Connector [3] *Dimension drawing below.*	FE
Calibration Certificate	C1
Welding Adapter M20 x 1.5(M) 304SS [3] *Dimension drawing below.*	WM
Welding Adapter G1/2(F) 304SS [4] *Dimension drawing below.*	WG

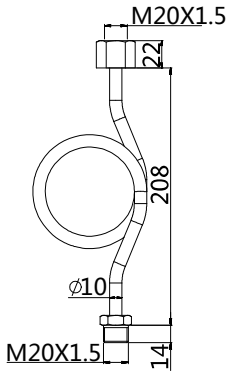
[1] Requires Display option IN
[2] Requires Conduit Connection option F1 or F2
[3] Requires 2M Process Connection Size
[4] Requires 2G Process Connection Size
[5] Not available with ATEX / IECEx Approvals
[6] Form 1835_1800 Series SC Accessory Data Sheet must be completed and submitted with order

Dimensions = mm

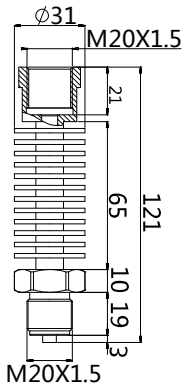
PK - Pipe Mounting Kit



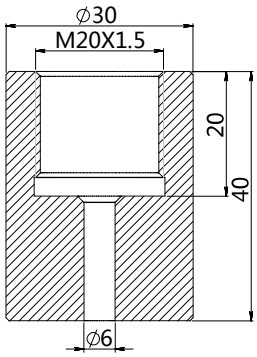
ET- Coiled Tube Heat Exchange Connector



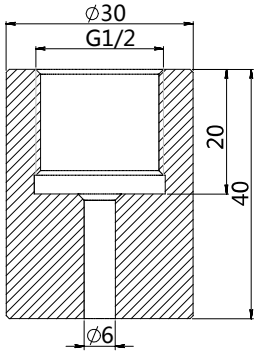
FE - Finned Heat Exchange Connector



WM - Welding Adapter M20 x 1.5(M)



WG - Welding Adapter G1/2(F)



Product Specifications - 1800DP

Output	**4-20mA**
	Linear (Default) or Square Root
	HART® (Optional)
Turndown	
-0.9 to 0.9 psid	**30:1**
-5.8 to 5.8 psid thru -72.5 to 1,450 psid	**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**
	@ -4 to 176°F
Temperature Range	
Compensated	**-4 to 176°F**
Ambient (Limited by both Approvals and Display)	
No Approvals or Display	**-40 to 185°F**
With Integral LCD Display (No Approvals)	**-4 to 158°F**
Intrinsically Safe	**-40 to 140°F**
Flameproof	**-13 to 140°F**
Process	
Silicone Oil Fill Fluid	**-40 to 248°F**
Fluorocarbon Oil Fill Fluid	**-40 to 248°F**
Flameproof	**Limits Max Temperature to 176°F**
Storage	
No Display	**-40 to 230°F**
With Integral LCD Display	**-40 to 185°F**

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. @ 104°F**
Construction	**Aluminum Ex-Pf Housing**
IP Rating	**IP67**
Max Static Pressure	

Designator	Range	Value
006	-0.9 to 0.9 psid	3,625 psid
040	-5.8 to 5.8 psid	3,625 psid
250	-36.3 to 36.3 psid	3,625 psid
01K	- 72.5 to 145 psid	3,625 psid
03K	-72.5 to 435 psid	3,625 psid
10K	-72.5 to 1,450 psid	3,625 psid

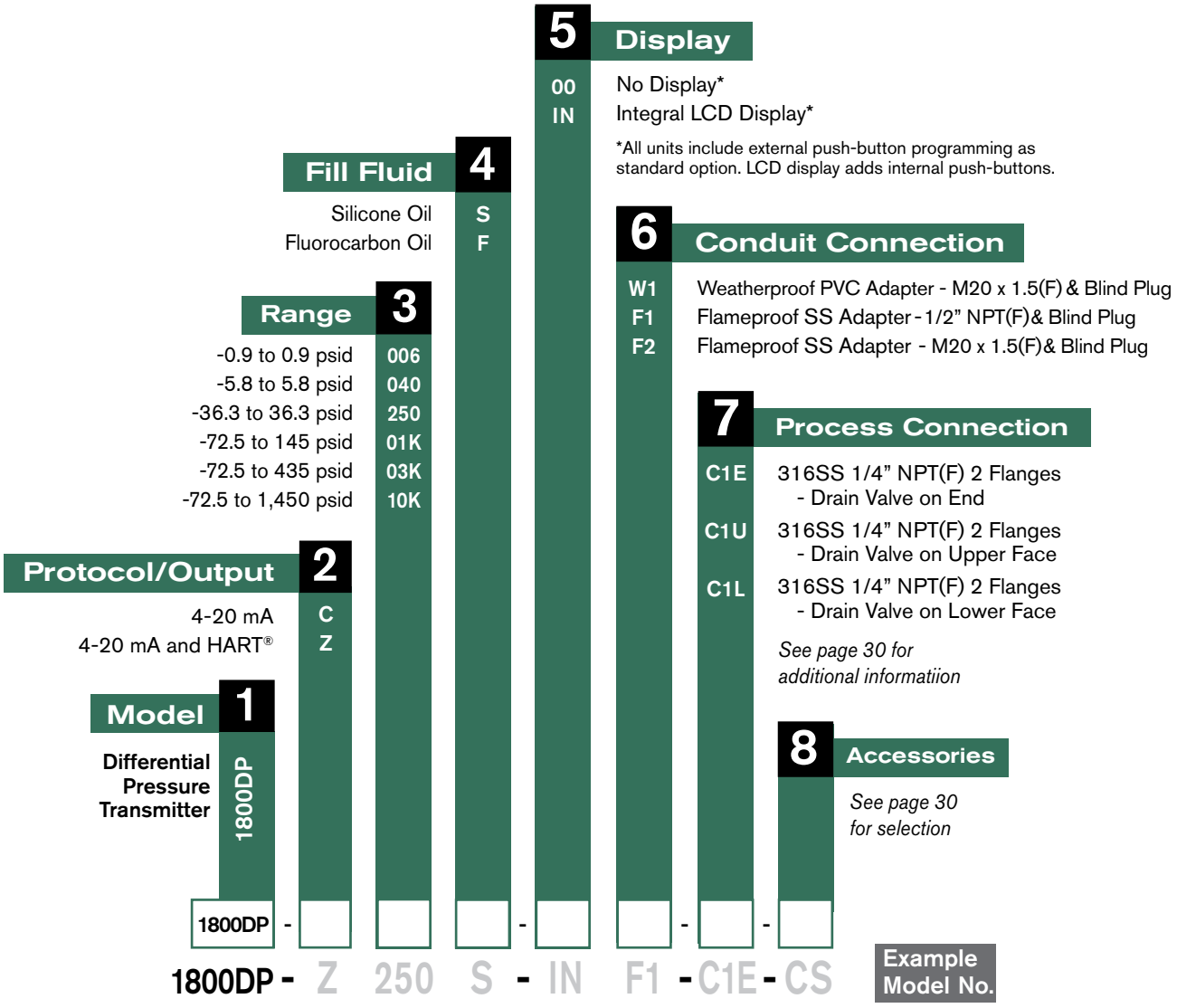
Over Pressure	
HI Side	**3,625 psid**
LO Side	**2,320 psid**
Weight (No Adapters or Brackets)	**8.82 lbs**
Warranty	**2 years**

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.

Process Connections

C1E Drain Valve on Flange End	C1U Drain Valve on Flange Upper Face	C1L Drain Valve on Flange Lower Face
		

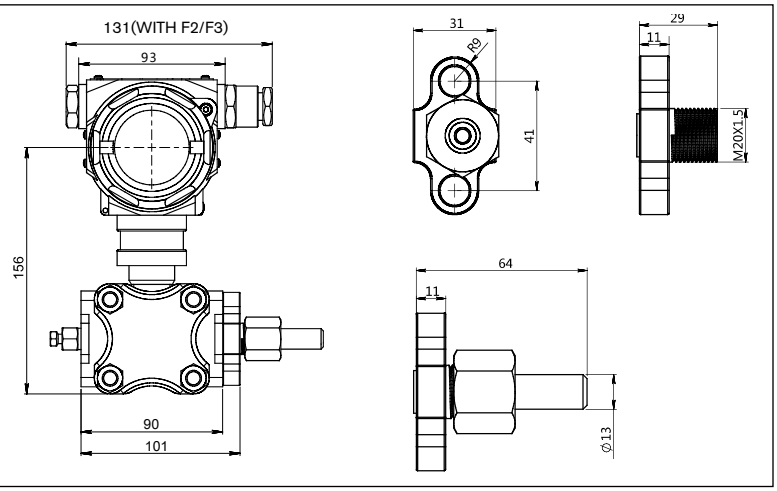
Accessories

Description	Designator
Process Connection Adapter M20 x 1.5(M) 304SS *Dimension drawing below.*	CM
Process Connection Adapter 1/2" NPT(F) 304SS *Dimension drawing page 31.*	CN
Pipe Mounting Kit (Carbon Steel Bent Bracket for 2" Pipe) *Dimension drawing page 31.*	PK
Plate Mounting Kit (Carbon Steel Bent Bracket) *Dimension drawing page 31.*	PL
Pipe Mounting Kit (Carbon Steel Flat Bracket for 2" Pipe) *Dimension drawing page 31.*	PM
Customer-Specified Display Settings [1, 4]	SC
ATEX and IECEx Approved Flameproof [1, 2]	CL
CSA Certified Explosion Proof [2, 3]	CS
ATEX and IECEx Approved Intrinsically Safe [1]	CK
CE Certificate	CE
Degrease Treatment of Wetted Parts	BB
Electropolishing Treatment of Wetted Parts	CC
Calibration Certificate	C1
Static Pressure Report	C2

[1] Requires Display option IN [2] Requires Conduit Connection option F1 or F2 [3] Not available with ATEX / IECEx Approvals
[4] Form 1835_1800 Series SC Accessory Data Sheet must be completed and submitted with order

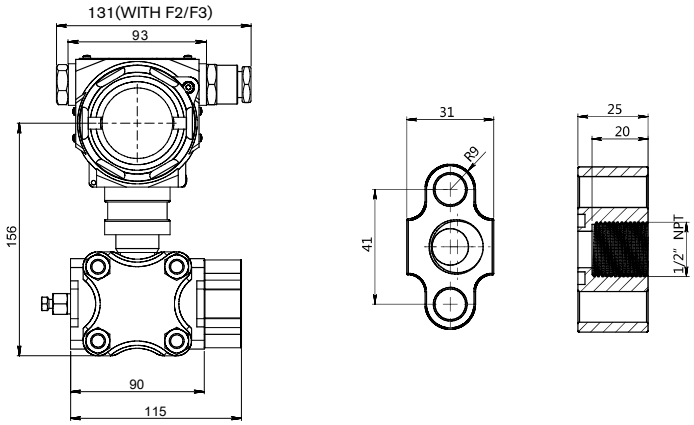
Dimensions = mm

CM
Process
Connection Adapter
M20 x 1.5(M) 304SS

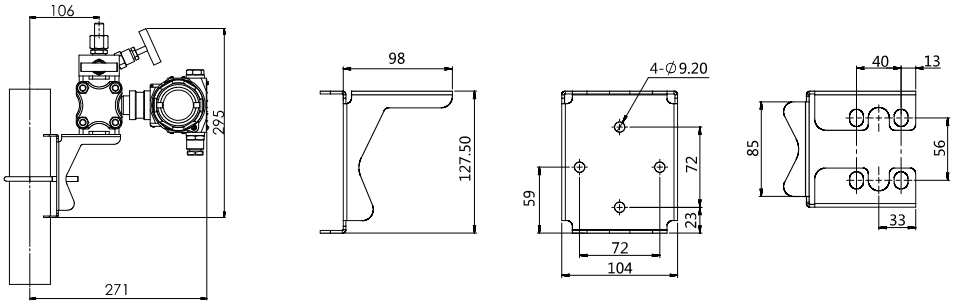


Dimensions = mm

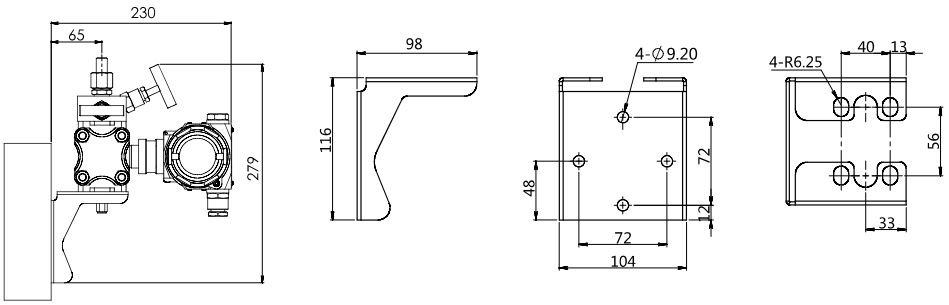
CN
Process Connection Adapter 1/2" NPT(F) 304SS



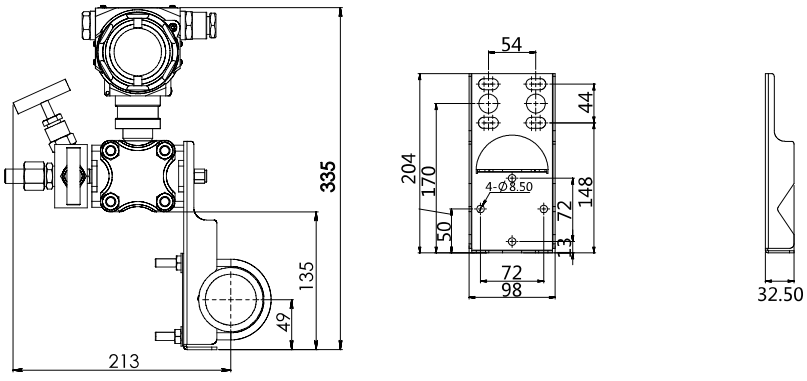
PK
Pipe Mounting Kit (Carbon Steel Bent Bracket for 2" Pipe)



PL
Plate Mounting Kit (Carbon Steel Bent Bracket)

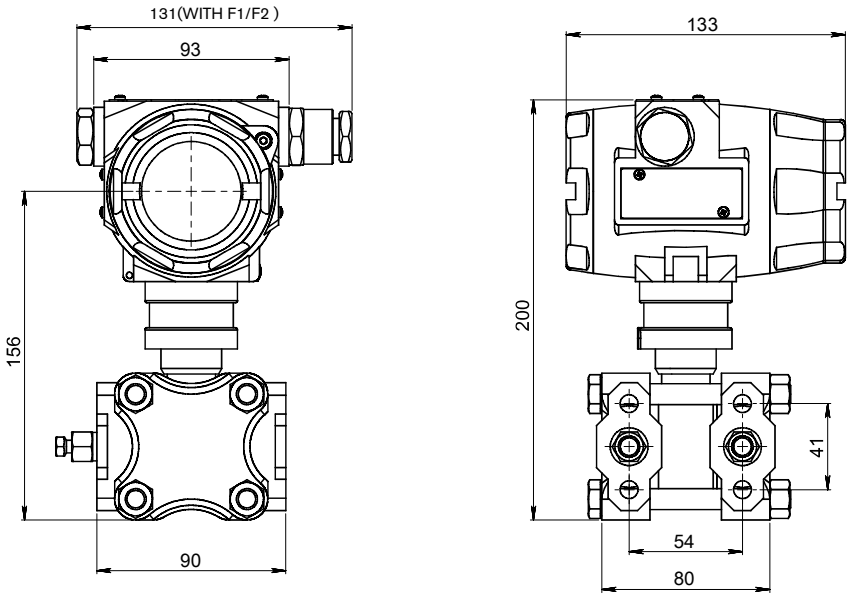


PM
Pipe Mounting Kit (Carbon Steel Flat Bracket for 2" Pipe)

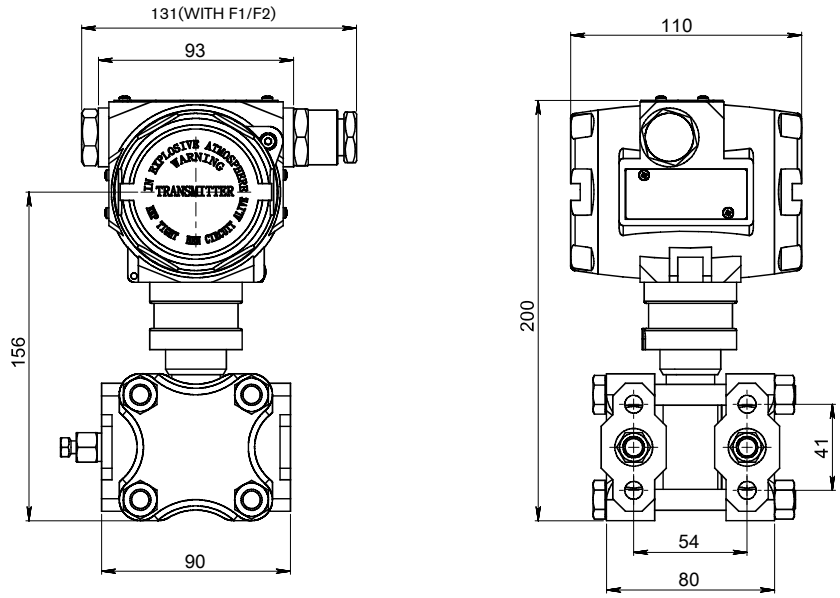


Dimensions shown are for reference only.
Dimensions = mm

With Integral LCD Display (option IN)



Without Display (option 00)



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, III; Division 1 Groups A-D; T6 Groups E-G; T80°C

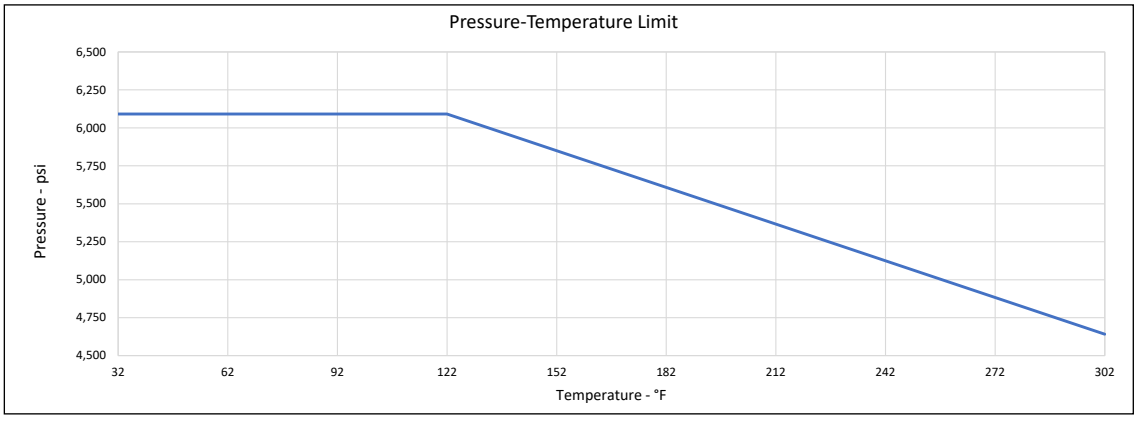
Manifolds

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	**≤ 302°F**
Ambient Temperature	**-22 to 199°F**

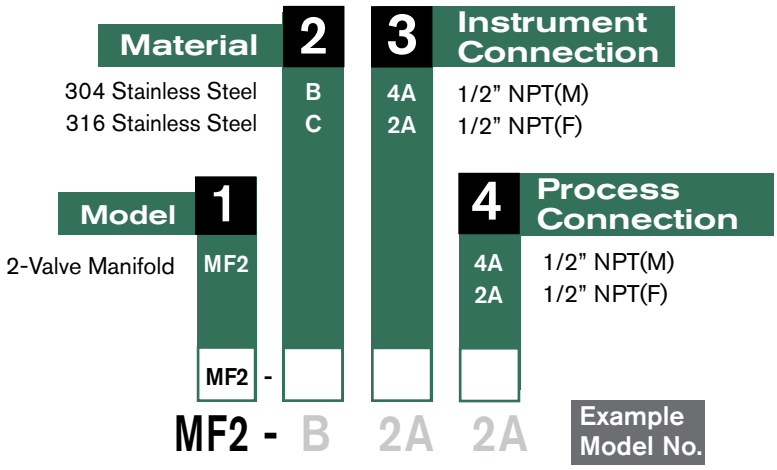
Design and specifications are subject to change without notice. For latest revision, see SORInc.com.



How to Order

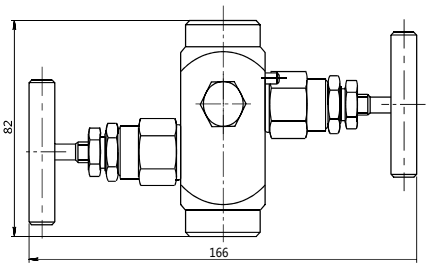
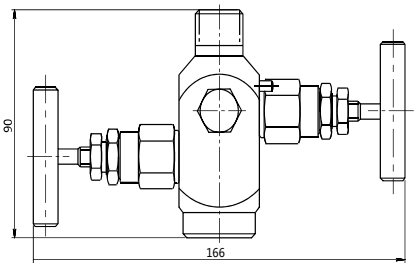
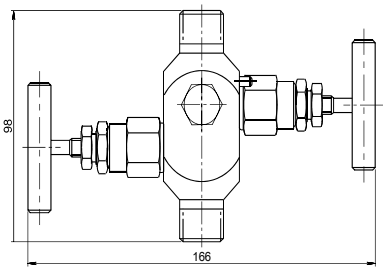
Below is the SOR quick select model number tree that provides you with all the options to configure and order a product for your application.

- You must select a designator for each component



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

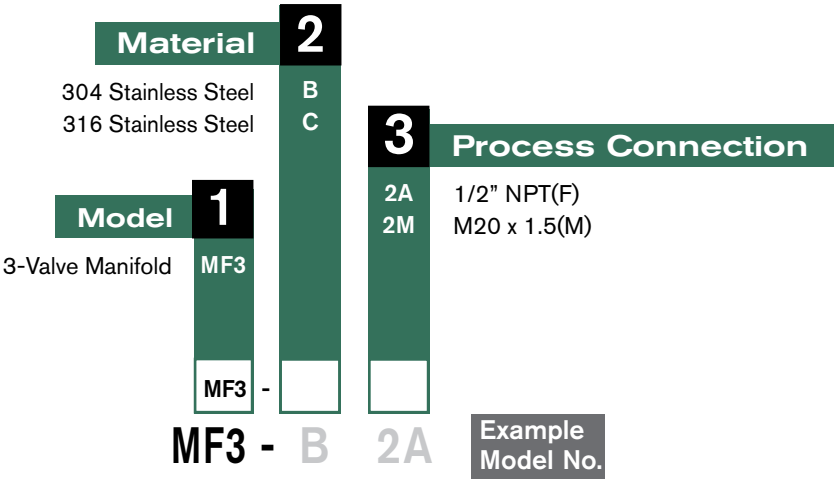
Dimensions = mm

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

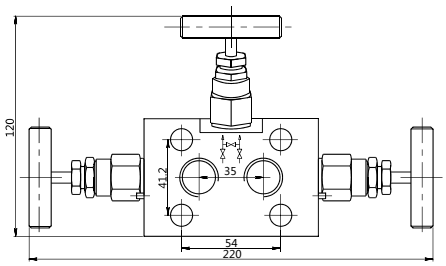
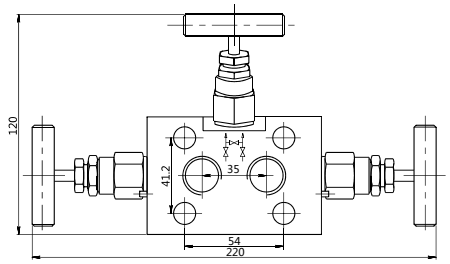
Below is the SOR quick select model number tree that provides you with all the options to configure and order a product for your application.

- You must select a designator for each component



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

Material 2
- B — 304 Stainless Steel
- C — 316 Stainless Steel

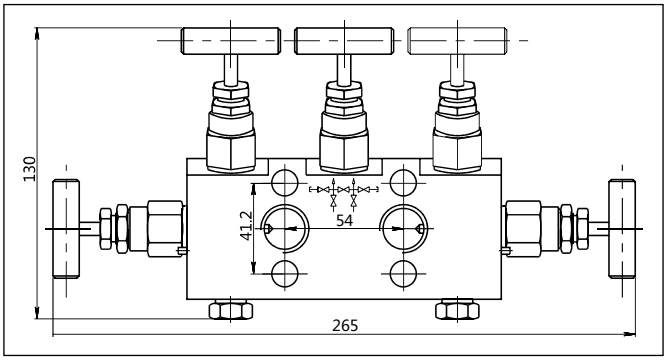
Model 1
- MF5 — 5-Valve Manifold

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

MF5 - B 2A — Example Model No.

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

Dimensions = mm



MEASUREMENT AND CONTROL
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