

1800 Series Conventional Pressure Transmitters

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

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

Features

- Gauge Pressure Ranges
-40 kPa to 40 kPa through -100 kPa to 40 MPa
-5.8 to 5.8 psi through -14.5 to 5,801 psi
- Differential Pressure Ranges
-6 kPa to 6 kPa through -500 kPa to 10 MPa
-0.87 to 0.87 psid through -72.5 to 1,450 psid
- 4-20 mA output with optional HART® communication protocol
- $\pm 0.075\%$ accuracy (URL)
- 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
- 2 year warranty



DMP305X-TST-S
Standard Over Pressure



DMP305X-TST-H
High Over Pressure



DMP305X-DST-S
Differential Pressure



Product Specifications - DMP305X-TST-H

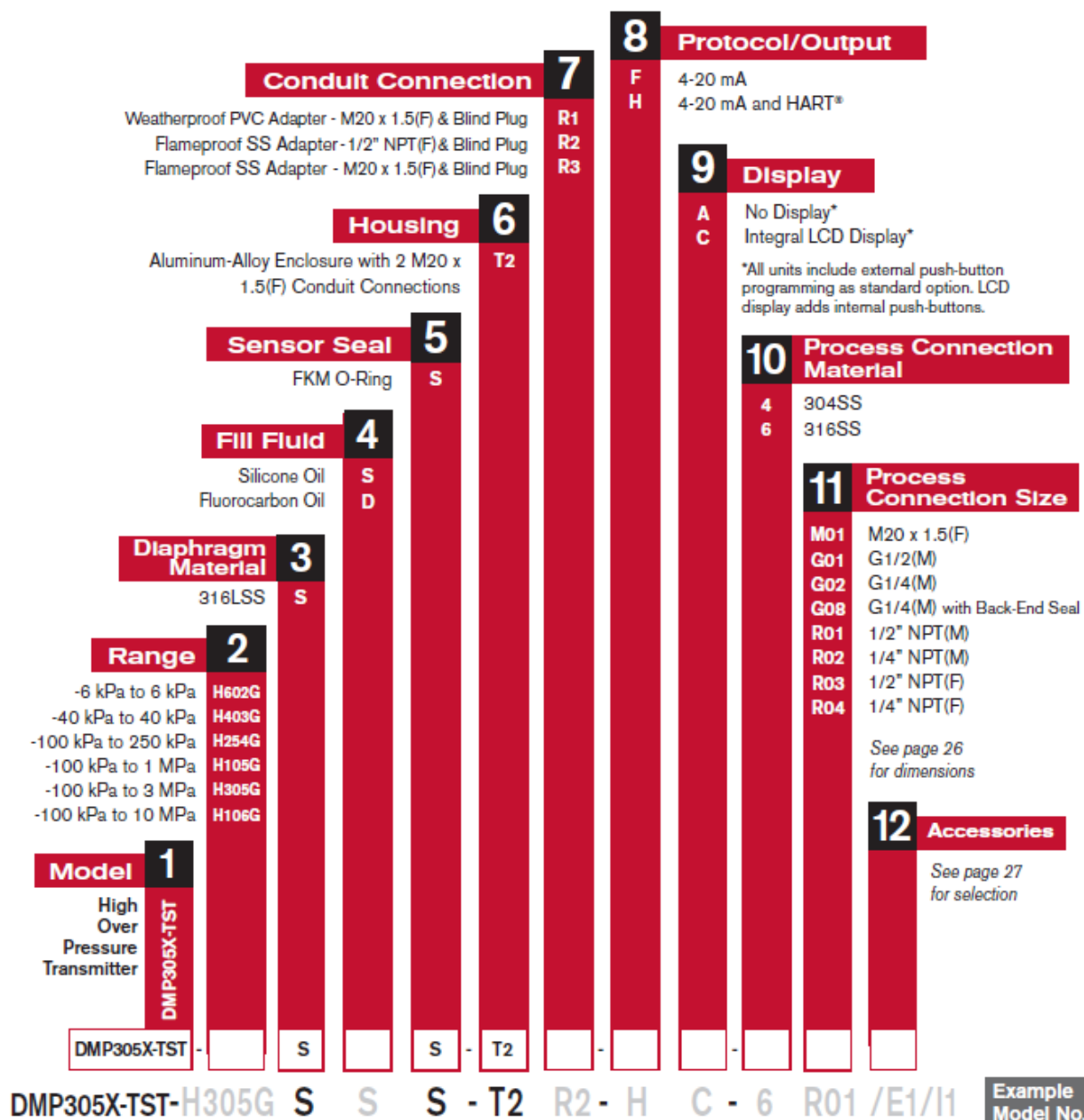
Output	4-20mA	Long Term Stability	≤ ±0.2% URL per 5 years
	HART® (Optional)	Response Time	≤ 200 ms
Turndown		Damping Time	0-100 s (Configurable)
-6 kPa to 6 kPa	6:1	Startup Time	< 6 s
-40 kPa to 40 kPa thru -100 kPa to 10 MPa	20:1	Supply Voltage	10.5-55VDC
Accuracy	±0.075% URL (BFSL)	HART® with 250 ohm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

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

How to Order

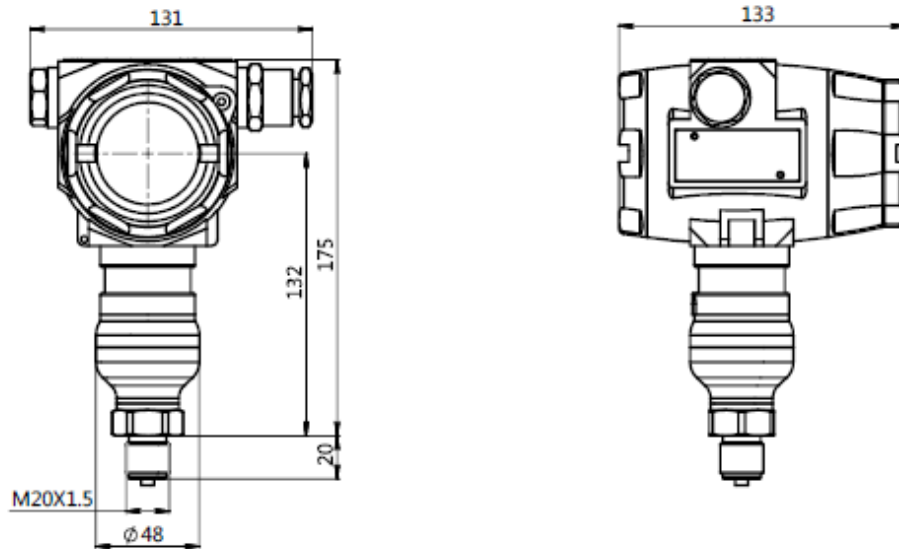
Below is the SOR quick select model number tree that provides you with all the options to configure and order a product for your application.

- 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.

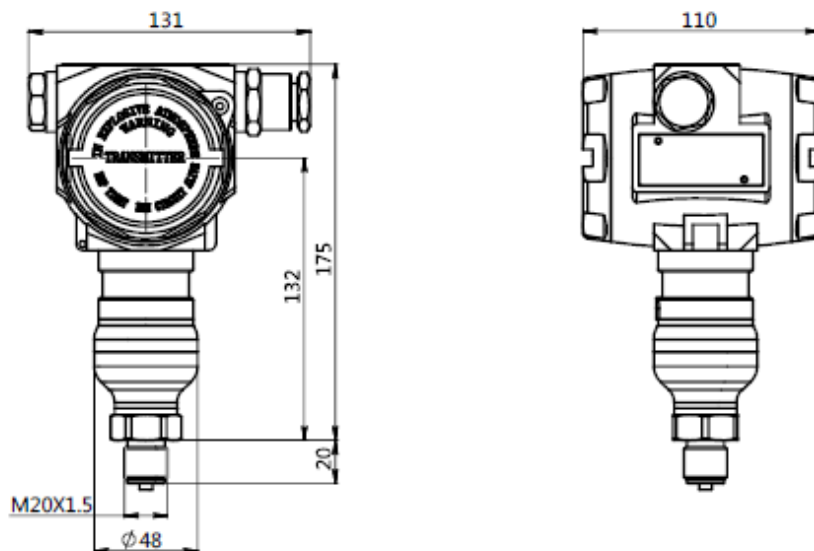


Dimensions shown are for reference only.
Dimensions = mm

With Integral LCD Display (option C)



Without Display (option A)



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Process Connections

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

Accessories

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

¹ Requires Display option C

³ Requires M01 Process Connection Size

² Requires Conduit Connection option R2 or R3

⁴ Requires G01 Process Connection Size

Dimensions = mm

