Sitron

STD96

Universal Pressure Transmitter with local LCD Display

STD96 Universal Pressure Transmitter with local LCD Display

Characteristics

- **Ideal for various industrial process environments**
- **Robust Aluminum or Fully Stainless Steel (316) Body and Process Connection (rotatable 330°)**
- **Multi-functional backlit 5 Digit LCD Display offer 20 different units of measure, bar graph indication, fully programmable with 3 push buttons**
- **Measuring range from -0.5…1 bar to -0.5…300 bar (Relative and Absolute).**
- **Scaleable pressure range via turndown, up to 10:1**
- **High measuring accuracy, stability and repeatability**
- **Excellent EMC performance**
- **HART Communication Protocol comes standard**
- **Piezoresisitve, 316SS pressure sensing element**
- **Output: 4...20mA (2 wire) + HART**
- **Protection: Reverse Polarity & Transient Power Surges**

Description

The STD96 Universal Pressure Transmitter is an ideal solution to measure the relative or absolute pressure of gases, liquids and vapors because they provide excellent accuracy, linearity and stable performance.

It's 10:1 turndown technology makes it is possible to re-calibrate the measuring range of the instrument (Example: A 40bar transmitter can be re-calibrated to 4 bar). This greatly reduces the need to keep instruments with various ranges in stock.

The multifunction 5 digit LCD display permits the user to visualize the variation of either the level or the pressure of the process by value, percentage or a real time graph.

The STD96 provides a 4...20mA analog signal with superimposed communication signal for HART protocol, programable Zero/Span adjustment, decimal point, damping and display mode parameters via three bottons. The sensing element of the unit utilizes a piezoresistive silicone filled 316SS diaphragm. For harsher applications Sitron also offers a thick film capacitive ceramic sensing element in the STD98, or a thin filmed piezoresitive ceramic sensor in the STD81.

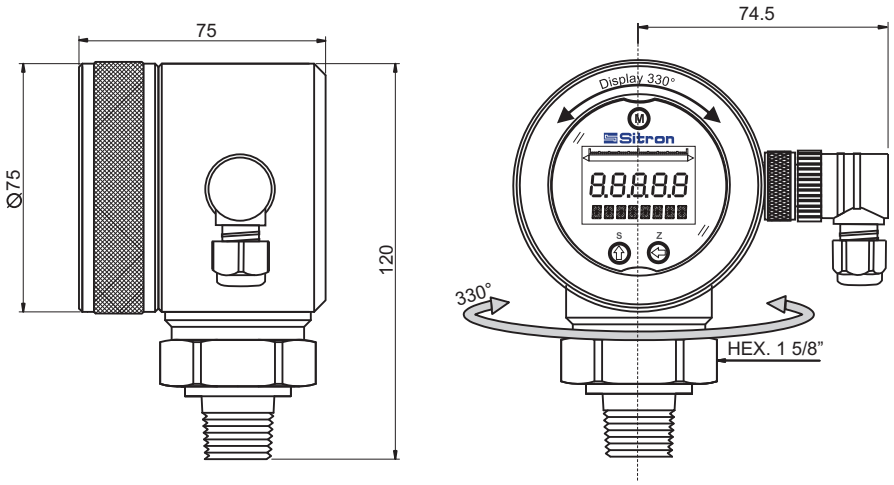
The housings (both A9 316SS and G3 aluminum) can be rotated to the desired position. The housings also feature an acrylic window so that the display (also rotatable) is always visible.

Specifications

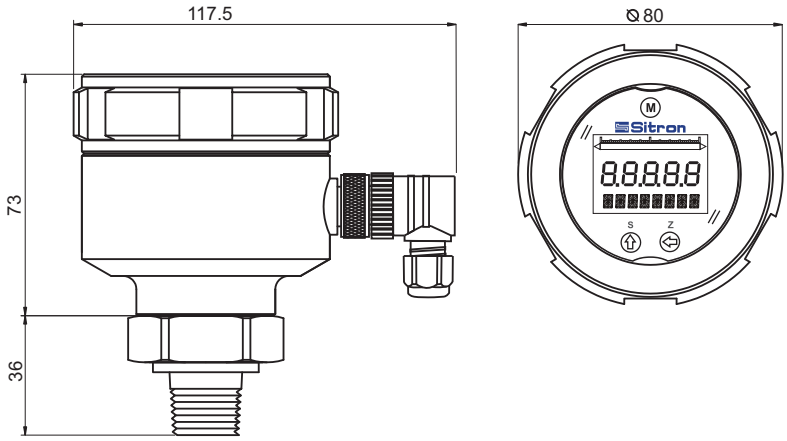
Application:	Pressure and Level measurement for liquids, gases and vapor		
Power Supply:	12...45Vdc		
Current Consumption:	Max. 22mA		
Output Signal:	4...20mA (2 wires) with superimposed communication signal for HART protocol		
Protection:	Reverse polarity / Power surge / Transient		
Load:	max. (V power supply - 15V)/0.002 A		
Eletromagnetic Compatibility (EMC):	Interference immunity & interference emission according to (GB/T17626.2-1998), compliance with IEC 61000-4-3:1995.		
Acurracy / Stability / Linearity:	5:1	0.25%	
(ambient temperature 25°C)	10:1	0.5%	
Operating Temperature:	-10 to 70°C		
Storage Temperature:	-10 to 80°C		
Temperature Influence (from 40°C)	Zero 0.2%/10°	Span 0.07%/10°	
Max. Temperature 70°	up to 5:1	Zero 0.7%	Span 0.25%
	5:1 to 10:1	Zero 0.7%	Span 0.5%
Temperature Compensation:	35°...70° (by software)		
Long Term Stability:	+/-0.05% / year		
Switch on Delay:	+/- 5s		
Response Time:	+/- 200ms		
Load Influence:	Negligible		
Power Supply influence:	Negligible		
Self Stability Configuration:	0 to 2%		
Filter Configuration	0 to 160 µA		
Body Material:	316 Stainless Steel / Aluminum with Acrilic window		
Seal:	Viton		
Sensor Material:	316 Stainless Steel (STD96)/ Ceramic (STD98)/ Piezo Ceramic (STD81) sensing element		
Process Connections:	BSP / NPT / Flange / Sanitary / SAE (others)		
Electrical Connections:	M12 connector / Crimped w/ polyurethane vent tube cable		
Measuring Range:	Sensor: 316 S.S (-0.5...300 Bar) / Piezoresistive Ceramic (0...600 Bar) / Capacitive Ceramic (-0.5...40 Bar)		
Over pressure:	3x F.S		
Vibration:	2g /20 - 500Hz		
Class Protection (IEC 60529):	IP66 to IP67		
Weight (Kg):	1.07		
Local Indicator:	Display w/ backlight - rotatable 330°/ 5 digits / 7 segments / 8mm		
Type:	LCD		
Range:	-9.9.9.9 to 9.9.9.9.9		
Digital Damping:	0 to 100s (step 0.1s)		
Units:	Bar / mbar / % / m / cm/ Kg / Torr / FtH2O / inHg / atm / g/cm³ / inH2O / Kg/cm² mH2O / mmH2O / PSI / mPa / KPa / Pa / mmHg / Real time graph		
Underranging:	Linear drop to 3.6 mA		
Overranging:	Linear rise to 20.5 mA		

Dimension (Unit: mm)

IP66 or IP67 - 316 SS Housing (A9) / M12 connector

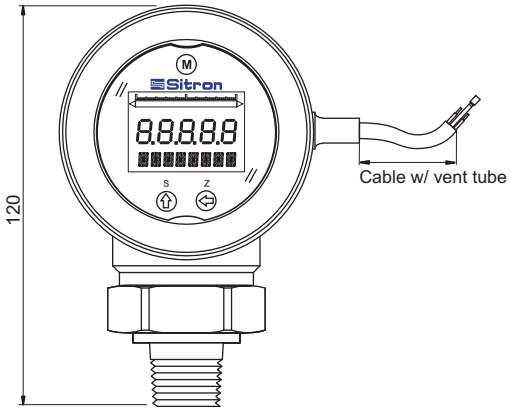


IP66 or IP67 - Aluminum Housing (G3) / M12 Connector

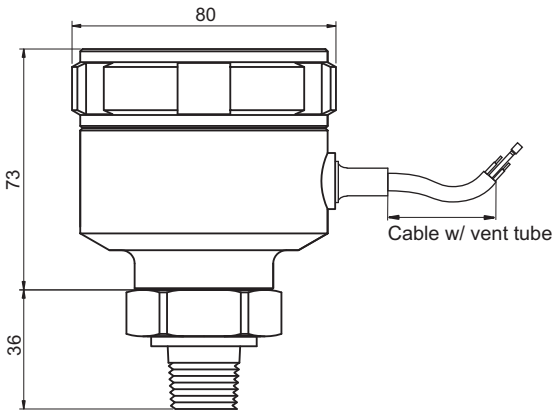


IP67 - Polyurethane crimped cable w/ vent tube

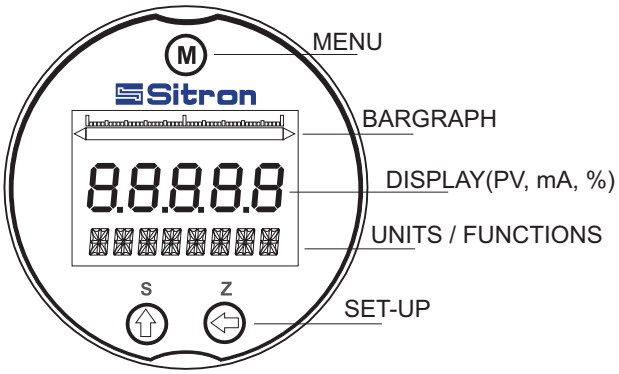
316 SS Housing (A9)



Aluminum Housing (G3)

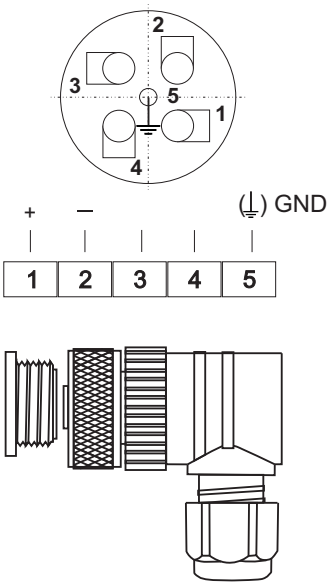


Display Overview

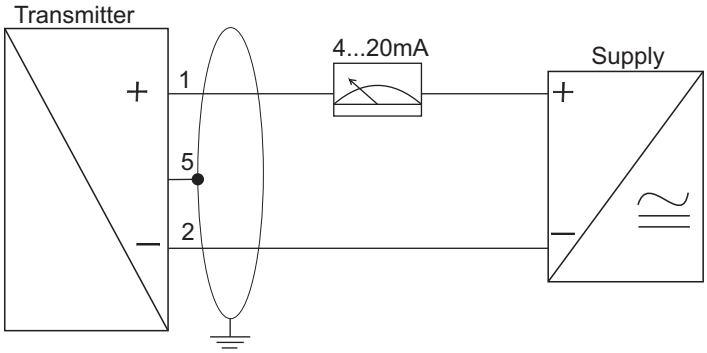


Wiring Diagram

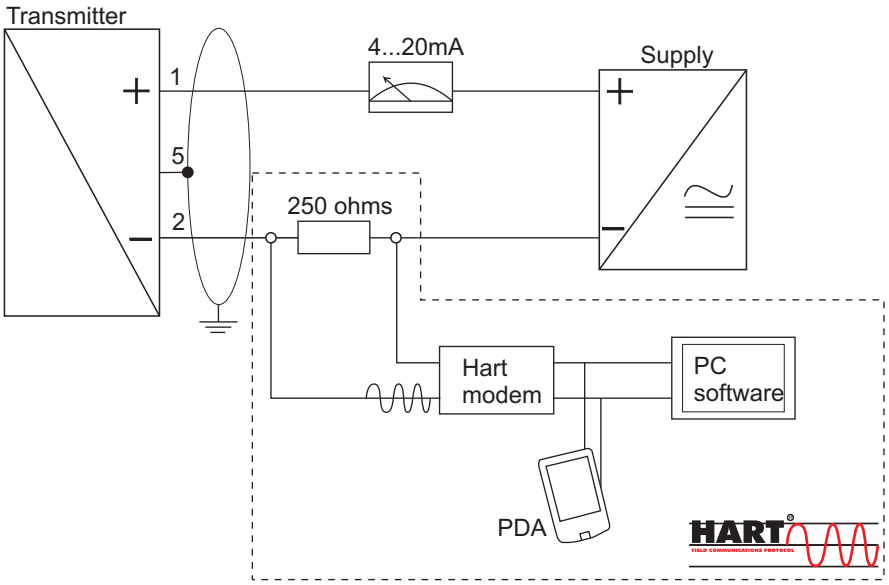
M12 connector



4...20mA (Standard)



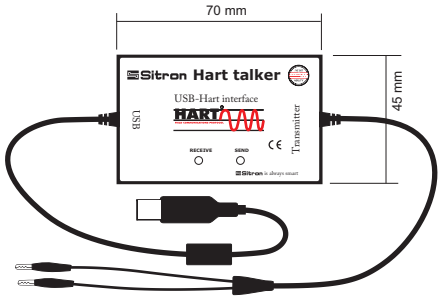
4...20mA HART



Accessories

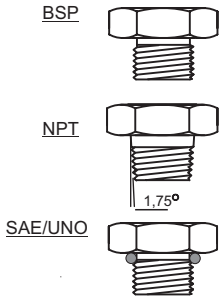
Hart Talker Modem

Digital communication via 4...20mA Analog signal. All parameters can be configured via software which allows for easy calibration, operation and maintenance.

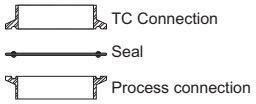


Process Connection

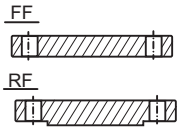
Thread	BSP	NPT	SAE/UNO
STD96			



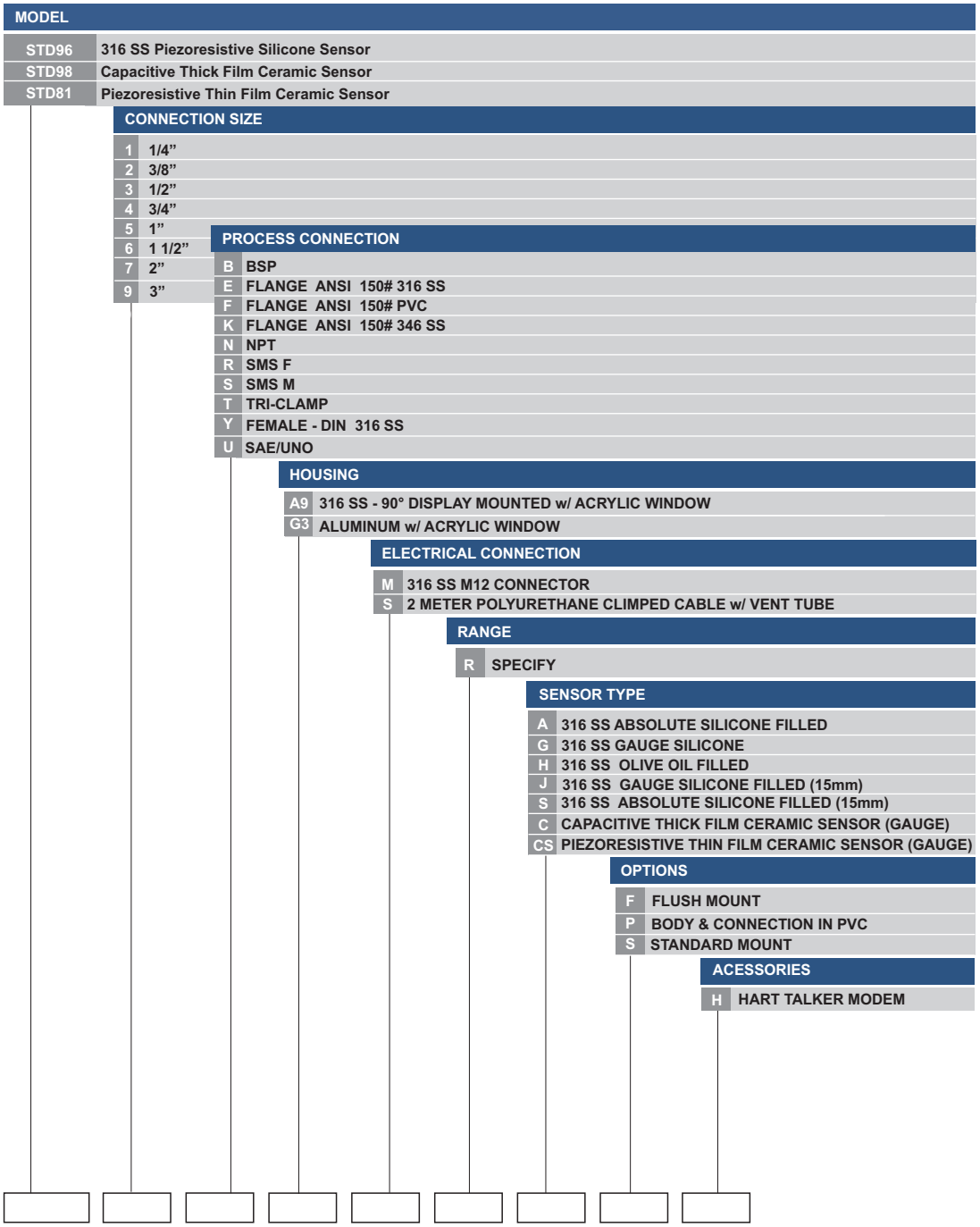
Tri-Clamp	Tri-Clamp - Sanitary
STD96	



Flange	ANSI 150#	ANSI 300#
STD96		



Order Code



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