

# Model 238TSC

## High Precision Transmitter—Sanitary Style Connection

### Applications

- Sanitary Applications
- Food & Beverage Industry
- Pharmaceutical Industry
- Water Treatment
- Industrial Environments
- Automotive Paint Systems



Model 238TSC

### Features

- Ranges from 0 to 10 psi thru 0 to 600 psi
- FDA Approved Fill Fluid
- 4:1 Turndown with optional programming tool
- Zero Point adjustment can made using permanent magnet
- 4-20mA and 0-10Vdc Standard Industrial Output Signals
- 316L stainless steel wetted parts / 304 stainless steel body
- Industry standard electrical connections including DIN 175301-803A, C and Shielded Cable
- Highly flexible modular design
- Protection Class IP65/NEMA 4X, PUR Cable Connection IP68/NEMA 6P, M12 4 pin IP67 NEMA 6

The **TRERICE 238TSC** "Sanitary Connection" Digital-Programmable, Pressure Transmitter is the ideal choice for demanding pharmaceutical, food & beverage, water treatment and chemical applications. By use of the optional programming tool this transmitter provides 4 to 1 turn down and adjustable zero-point & span, allowing for multiple units of measure. The stainless membrane is completely vacuum-sealed, extremely burst resistant and is applicable for use with a variety of process mediums. Stainless steel wetted parts provide long-term durability even in the harshest environments.

In addition, the modular design of the 238TSC Pressure Transmitter allows for a wide variety of electrical connections, output signals and process connections to be specified to meet the requirements of any application.

### Specifications

**Model** 238TSC • Sanitary Connection Transmitter

**Sensor Element** Capsule Type - Thin film resistors on a Silicon Membrane, Oil-Filled, Stainless Steel Diaphragm

**Process Connection**  
1 1/2" or 2" Tri-Clamp Sanitary Style Connection

**Materials of Construction**  
Housing: 304 stainless steel  
Wetted Parts: 316L stainless steel  
Pressure Transmission Liquid: FDA Approved Oil  
Diaphragm Surface Finish (Ra): <30 µin

	BFSL	Full Scale
<b>Accuracy at 77° F (25°C)</b>	0.35%	0.50%
Non-Linearity:	0.15%	0.30%
Hysteresis:	0.10%	0.10%
Repeatability:	0.10%	0.10%

**Operating Temperature Ranges**  
Medium: 14/+257°F (-10/+125°C)  
Ambient: 14/+185°F (-10/+85°C)

**Temperature Error Band**  
Temperature compensated to within  
1% between 41°F to 185°F (5 to +85 °C)

**Humidity**  
95% RH Non-condensing  
100% RH with Shielded Cable Connection (E3)

**Electronic Connection**  
90° Angle "Standard" Connector / DIN 175301-803 (A)  
PUR (Polyurethane) Cable (3 Feet Standard)  
M12 (S723) 4 pin Circular Connector

**Output Signal**  
4-20mA (2 wire) and 0-10Vdc (3 wire)

**Overpressure Limit**  
at least: 1.5 x FS  
burst pressure at least: 2.9 x FS

**Response Time (10-90%)** < 10 ms

**Power Supply**

Output Signal:	Minimum	Maximum	Recommended
4-20mA:	10Vdc	32Vdc	24Vdc
0-10Vdc:	12Vdc	32Vdc	24Vdc

**Load Resistance** 4-20mA:  $\leq \frac{V_{SUPPLY} - 10 \text{ Vdc}}{0.02 \text{ A}}$   
0-10 Vdc: > 5 kOhm

**Circuit Protection**  
Protected against reverse polarity and short circuits

**CE Conformity** RoHS2 Directive 2011/65/EU  
EMC Directive: 2014/30/EU - PED Directive: 2014/68/EU  
Applied standards: EN 61326-1:2013, EN 61326-2-3:2013

**Ingress Protection Rating**  
90° Angle Connector: IP65 / NEMA 4X  
PUR Cable: IP68 / NEMA 6P, M12 4 pin IP67/NEMA 6

**Approximate Shipping Weight** 0.4 lbs (0.20kg)

### HOW TO ORDER

Sample Order Number: **238TSC 15 C A 0/60 E1 3**

Model	Process Connection	Accuracy	Units of Measure	Range Code	Electrical Connection	Cable Length (omit if none)	Output Signal
238TSC	15 1 1/2" Tri-Clamp*	C 0.5% FS (0.35% BFSL)	A psi	See Standard Ranges	E1 DIN 175301-803 (A) "std"	Specify Length in Feet (ie., 3 Ft=003)	3 4-20mA (2-wire)
	20 2" Tri-Clamp				E4 PUR Cable (3 Ft Std)		2 0-10 Vdc (3-wire)
					E9 M12 (S723) 4 pin		

\* Use for 1" clamp connection.

Multiple electrical connections, output signals and process connections are available, Please consult factory.

# Model 238TSC

## High Precision Transmitter—Sanitary Style Connection

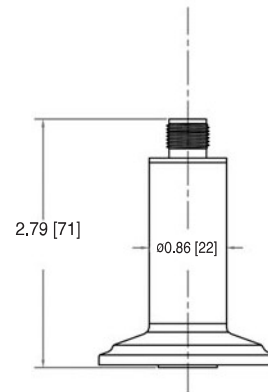
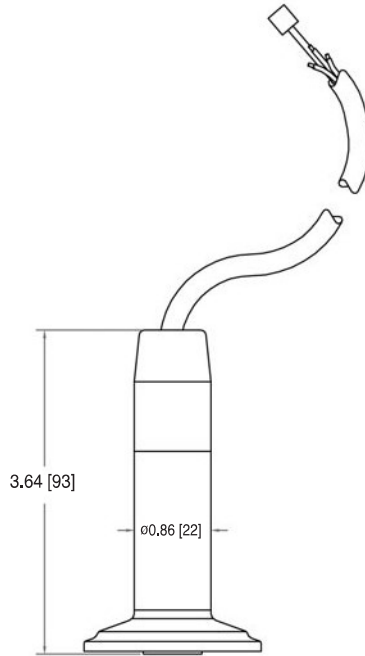
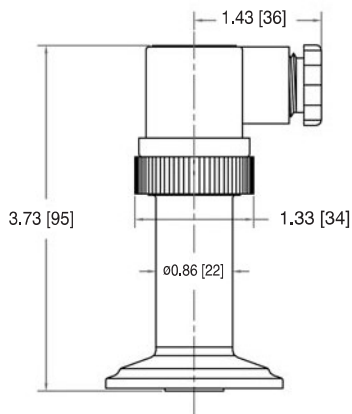
All dimensions are nominal.  
Dimensions in [ ] are in millimeters.

INDUSTRIAL TRANSMITTERS

**E1 90° Angle “std” Connector**  
DIN 175301-803 (A)

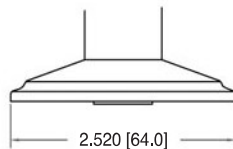
**E4 PUR Cable**  
(3 Feet Standard)

**E9 M12 (S723) 4 pin**

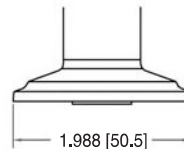


Clamps, gaskets and ferrules are not supplied by Trerice

Clamp Connections • ISO 2852



2" Clamp Connection



1" & 1 1/2" Clamp Connection

### Standard Ranges

psi Ranges (A)			
Range Code	Specific Range	Overpressure Limit	Burst Pressure
0/10	0 to 10 psi	15 psi	29 psi
0/15	0 to 15 psi	23 psi	44 psi
0/30	0 to 30 psi	45 psi	87 psi
0/60	0 to 60 psi	90 psi	174 psi
0/100	0 to 100 psi	150 psi	290 psi
0/160	0 to 160 psi	240 psi	464 psi
0/200	0 to 200 psi	300 psi	580 psi
0/300	0 to 300 psi	450 psi	870 psi
0/400	0 to 400 psi	600 psi	1160 psi
0/600	0 to 600 psi	900 psi	1740 psi

Actual working pressures should never exceed the “Specific Range” or the maximum process connection rating. “Overpressure Limits” and “Burst Pressures” shown refer to the sensor or body of the transmitter and are for reference purposes only. For correct use and application See: ASTM F2070-00.

**Classification;** UL® Classified and Listed to NSF/ANSI Standard 61 & 372 of “Safe Drinking Water Act”