

## Model S950 Precision Sanitary Series

Pressure/Temperature Transducer



- Transducer is customized to your specific temperature and pressure conditions.
- Maximum RF!/EMI protection supplied as standard
- All welded stainless steel construction
- Outputs - 4-20mA, 0-5V, 0-10V, TC, RTD, RS232, RS485, USB 2.0
- Pressure ranges 0-5 to 0-1,000 PSI
- Accuracies to 0.03% BFSL
- Unparalleled long-term stability
- Temperature compensation at the sensor element.
- Custom designs available (contact factory)



Spectre's S950 Sanitary Series Pressure Transducers offer the first available sensors that are manufactured, designed and calibrated to each customer's specific operating conditions. The Model S950 is ideal for critical pharmaceutical and chemical applications where product contamination is unacceptable.

Each Model S950 transducer output is digitally mapped to correct for any non-linearity or inaccuracies in the sensor.

### Performance @ 25°C (77°F)

Accuracy:  $<\pm 0.05\%$  BFSL (0.03% optional)  
Stability (2 year):  $<\pm 0.05\%$  FS, typical  
Over pressure protection: 2X Rated Pressure  
Burst Pressure: 2.5X minimum  
Pressure Cycles: >50 Million  
Temperature range: -40 to +100°C (-40 to + 212°F)  
Optional: -60 to + 130°C (-76 to +266°F)  
Temperature Accuracy:  $\pm 1^\circ\text{C}$  ( $\pm 1^\circ\text{F}$ )

### Environmental Data

Operating temp: -40 to + 85°C (-40 to +185°F)  
(Optional to +275°F – con sult factory)  
Storage temp: -50 to +125°C (-60 to +250°F)  
Compensated range: 0 to 50°C (+32 to +125°F)  
Temp comp Zero:  $<\pm 1.5\%$  FS  
Temp comp Span:  $<\pm 1.5\%$  FS

### Electrical Data

Excitation:  
9-36 Vdc (4-20mA and 0-5 Vdc outputs)  
13-36 Vdc (0-10 Vdc output)  
Option: C29: Maximum 29 Vdc excitation  
Current consumption: <5 mA (voltage outputs)  
Zero offset:  $<\pm 0.25\%$  of FS  
Span tolerance:  $<\pm 1.0\%$  of FS  
Output load: >100K Ohm

### Physical data

Sensor wetted material: 316 stainless steel)  
Pressure connection: 2" Tri-clover  
(other sizes optional)  
Electrical Connection: Cable, DIN, Cannon, Bendix  
(others available on application)

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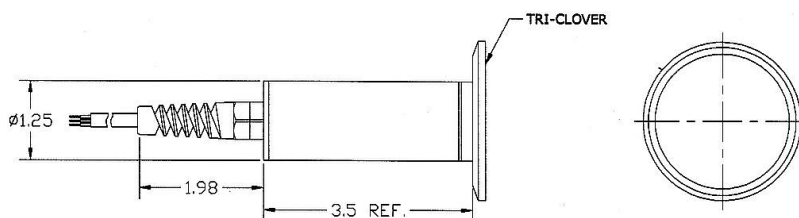
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### Ordering guide – Example: S950-D-(0-500PSI)-2-D-1-05-EC1

D Pressure Port	(0-500) Range	2 Units	D Pressure Output	1 Temperature Output	5 Accuracy BFUL*	EC1 Connector
C=1.5" D=2" E=2.5" F=3"	Specify Pressure Range in PSI, BAR or kPa	1=Absolute 2=Gauge 3=Vacuum 4=Sealed 5=Compound 6=Other	D=4-20mA E=0-5VDC F=0-10VDC G=RS232 H=RS485 UC=USB 2.0 X=Other	0=None 1=4-20mA 2=0-5VDC 3=Thermocouple (specify J or K) 4=RTD, 100 ohm Platinum, 2-wire. X=Other	05=0.05% 03=0.03%	EC1=36" pigtail EC2=DIN 43650 with mate-Large EC3=Mini DIN EC4=Bendix 6-pin EC9=1/2" NPT conduit connection with 36" leads UA=USB "A" male with 4' cable

\*BFSL = Best Full Scale Line

### Dimensions



OPTIONS MAY CHANGE OVERALL DIMENSIONS,  
CONSULT FACTORY

Typical wiring configurations. Exact wiring info supplied with calibration sheet

#### Current output wiring

Wiring	4-20mA, DIN 43650
Pin 1	+ excitation
Pin 2	- excitation/signal
Pin 3	no connection
Pin 4	no connection
Power	9-32 Vdc

Wiring	4-20mA, Cable
White	+ excitation
Black	- excitation/signal
Power	9-32 Vdc

#### Voltage output wiring

Wiring	Voltage, DIN 43650
Pin 1	+ excitation
Pin 2	- excitation/signal
Pin 3	+ signal
Pin 4	no connection
Output	Power
0-5 Vdc	9-32 Vdc
0-10 Vdc	13-32 Vdc

Wiring	Voltage, Cable
Red	+ excitation
Green	+ signal
Black	- excitation/signal
White	no connection
Output	Power
0-5 Vdc	9-32 Vdc
0-10 Vdc	13-32 Vdc