

890 Series – 3A Sanitary Pressure Transducer

- ▶ For Clean-In-Place (CIP) and Sterilize-In-Place (SIP)
- ▶ 0.20% Full Scale Accuracy
- ▶ No Liquid Fill Diaphragms

The 890 Series meets 3A sanitary design standards and is fully sealed to withstand external high pressure washdowns. These units are packaged in rugged welded stainless steel housings and are exceptionally insensitive to vibration, shock and environmental extremes. A small size and tri-clover sanitary pressure fitting allow direct mounting in most CIP and SIP installations. Other features include IC-based circuitry, a 1/2" NPT conduit fitting and shielded cable with vent tube. Sealed screws provide access to zero and span adjustments.

Specifications

Input	
Pressure Range	Vacuum to 1000 psig
Proof Pressure	see ordering chart
Burst Pressure	see ordering chart
Fatigue Life	>1 million cycles
Performance	
Output	4-20 mA (2 Wire)
Supply Voltage (Vs)	18-38 VDC
Accuracy	0.20% FS
Thermal Error Zero	0.02% FS/°F (0.036%FS/°C)
Thermal Error Span	0.02% FS/°F (0.036%FS/°C)
Compensated Temperatures	20°F to 180°F (-7°C to +80°C)
Operating Temperatures	-40°F to +260°F (-40°C to +125°C)
Storage Temperatures	-65°F to +260°F (-54°C to +127°C)
Zero Tolerance	1% FS (±0.5 mA adjustable)
Span Tolerance	1% FS (±0.5 mA adjustable)
Maximum Loop Resistance	(Vs-18) x 50
Response Time	10 ms
Mounting Effects	0.15% FS (.25% FS for 1.5" Tri-Clover)
Mechanical Configuration	
Pressure Port	1.5" or 2" Tri-Clover Sanitary Fitting
Wetted Parts	316 Stainless Steel
Electrical Connection	1/2" NPT Conduit Fitting and Strain Relief with 15 ft. Cable
Enclosure	Stainless Steel
Vibration	10g Peak Sinusoidal, 50 to 1000 Hz
Acceleration	10g
Shock	50g
Approvals	Meets 3-A Sanitary Standards
Weight	8 oz



CE

Applications

- Food Processing
- Dairy & Beverage Processing
- Pharmaceutical Processing
- Sanitary Pipelines

How They Operate

A stainless steel diaphragm and an insulated electrode form a variable capacitor. Pressure on the diaphragm alters the sensor's capacitance, which is then detected and converted to a highly accurate linear 4-20 mA signal by electronic circuitry featuring GemS' patented charge-balance principle. Low hysteresis, very stable operation and negligible clamping effect are inherent.

