SS2 Pressure Transducers (ATEX Compliant)

Superior stability and reliability in pressure measurement based on proven sensing technologies for harsh environments

- » Optimum choice for outdoor applications
- » Ultimate stability and reliability
- » Enhanced thermal compensation over a temperature range of -4° to 140° F (-20° to 60° C) for gas distribution equipment
- » For Class I, Div. II, Groups A–D, with approved barriers



The Celerity SS2 (formerly SolidSense[®] II) (ATEX compliant) pressure transducers are designed for stable, accurate, and reliable pressure monitoring in ultra-high purity applications in the harshest environments.

The Celerity third generation UHP pressure transducer utilizes glassfused strain gauge technology, developed for the demanding requirements of aerospace and proven in high volume automotive applications, enabling a new level of performance.

The ultra stable, micro machined silicon strain gauges are matched and fused, at high temperature to the metal diaphragm to relieve manufacturing induced stress. The process reduces the "drift" (lack of zero stability) commonly associated with competitive products. Consequently, down time for zero adjustment to compensate for "drift" are exponentially reduced. In addition, the SS2's (ATEX compliant) unique mechanical design eliminates the torque effects during installation.

The SS2's (ATEX compliant) digital architecture enables automated software driven calibration and a wide range of thermal compensation routines, unlike the passive compensation used in competitive devices. This not only enhances (measurement) repeatability regardless of changes to the operational environment, but also drives consistency of performance from one transducer to the next even in the harshest environments.

For specific pressure ranges, output signal types, and process fittings available, see www.celerity.net.

Features

- Ultra stable glass bonded sensing elements
- Electropolished wetted material for UHP applications
- 4 to 20 mA and 0.05 to 5.05 V outputs available
- Digital signal processing, high performance digital electronics
- ATEX compliant
- CE compliant
- · RoHS compliant
- FM approved
- Nema 4X
- 2 year warranty

Applications

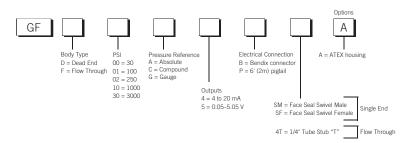
Gas delivery systems and tools used for semiconductor processing, including:

- Specialty gas cabinets
- Valve Manifold Boxes (VMBs)
- · Gas panels
- Outdoor bulk gas distribution systems

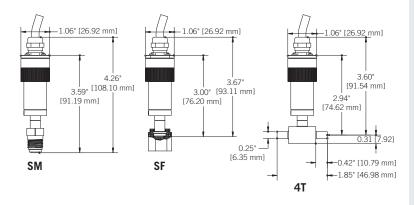


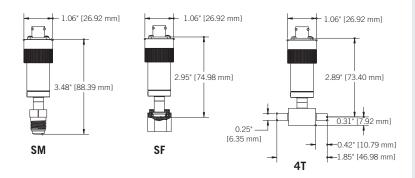
SS2 Pressure Transducers (ATEX Compliant) Specifications

Product Configurations



Product Dimensions





Supply Current Power Requirements Electrical Connections Electrical Protection Operating Temp. Storage Compensated Housing Burst Pressure Proof Pressure

Wetted Parts Surface Finish Cleanliness Internal Volume Process Connections

Accuracy

Linearity (BFSL) Hysteresis Repeatability Response Time Zero and Span Temp. Coefficient (each) ≥100 PSI Range F.S. <100 PSI Range F.S. Approximate Shipping Weight CE ATEX RoHS FM Approved Max. 10 mA for 5.05 VDC output 10 to 30 VDC for 4 to 20 mA output 11 to 30 VDC for 0.05 to 5.05 VDC output 4-pin male Bendix[®] connector, 6 ft. (2 m) Pigtail (24 AWG shielded) Reverse polarity for power connections

-20 to 180°F (-29° to 82°C)
-4° to 140°F (-20° to 60°C)
Stainless steel
400% full scale
200% full scale up to 1000 psi, 150% full scale for higher ranges
316L stainless steel, SEMI F20
Compliant with SEMI F19
Compliant to ASTM F1374-92 (2005)
1.79cc
See ordering guide for options.

±0.25% full scale (RSS) <5 msec

 $\pm 0.02\%$ F.S./°F (–4 to 140°F, –20° to 60°C) $\pm 0.04\%$ F.S./°F (–4 to 140°F, –20° to 60°C)

0.70 lb. (0.32 kg)

Compliant to EMC directive EN61326 Compliant to EU directive 94/9/EC Compliant to EU directive 2002/95/EC Nonincendive for use in Class I, Div. II Groups A, B, C, and D Hazardous Applications



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For technical assistance, contact Celerity Technical Support at 972.359.4000.

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