# PRODUCT Overview

A guide to products for the Oil & Gas, Petrochemical, Chemical and Power segments. Measurement and Control

Temperature Sensors Grab Sampling Systems Electronic Instrumentation



SOR<sup>®</sup> customer service representative discusses pressure solutions with a plant manager at a mining and cement facility in Sugar Creek, Missouri.



## **Pressure Transmitters**

#### **800 Series Compact Transmitters**

- Includes Modbus communications
- HART<sup>®</sup> 7 with 4-20 mA or 1-5 VDC output
- Durable, compact 316 stainless steel explosion proof housing
- 9-way configurable normally-open solid state switch output
- Accuracy of +/-0.25% (URL)
- FM and ATEX certified for hazardous locations in U.S., Canada and Europe
- Dual Seal approval available
- 3 year warranty

815PT Smart Pressure Transmitter

BR

815DT Smart Differential Pressure Transmitter

#### 1800 Series **Conventional Transmitters**

- Gauge Pressure Ranges -1 psi to 1 psi through -14.5 psi to 14,500 psi -6 kPa to 6 kPa through -100 kPa to 100 MPa
- Differential Pressure Ranges -0.87 psid to 0.87 psid through -72.5 psid to 1,450 psid -6 kPa to 6 kPa through -500 kPa to 10 MPa
- 4-20 mA with optional HART<sup>®</sup>, 1-5VDC low power or Modbus output
- ±0.075% accuracy (F.S.)
- Aluminum explosion proof housing
- Standard push-buttons for setup
- Optional integral LCD display
- EMC (EMI/RFI) protection
- ATEX / IECEx certified for intrinsically safe and flameproof applications
- CSA certified for explosion proof applications
- 2, 3 & 5 valve manifolds available
- 3 year warranty



1800PT Conventional Gauge Pressure

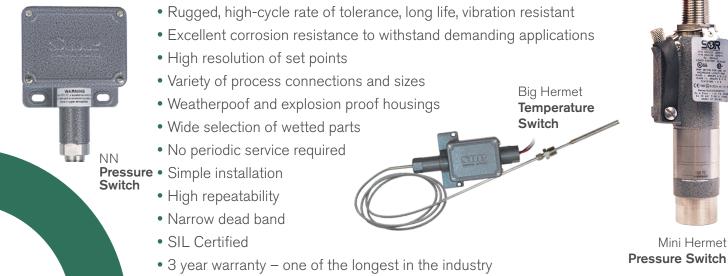
1800PR Piezoresistive Gauge Pressure



Differential 1800RM

**Differential Pressure** with Remote Mount **Diaphragm Seals** 

## **Pressure and Temperature Switches**



SORInc.com | SmartSensors.com | SENSOReng.com | PYRAGON.com

## **Level Switches**

700 Series **Top Mounted** 

Switches

Displacer Level



- Stainless steel switching mechanisms no aluminum or brass
- Carbon or stainless steel construction, exotic materials available
- High pressure capabilities
- Wide variety of agency approvals
- Float, displacer and electronic level switches available
- Versatile switching mechanisms for retro-fit situations
- Excellent corrosion resistance to perform in harsh environments
- Easy to install and maintain with low cost of ownership

1500 Series

Level Switches with Manual Check

- 5 year warranty
- PED is available on some level products
- SIL certified

100 & 200 Series Flanged, Sealed Steam Trap Chambered Level Switches

670 Series

Level

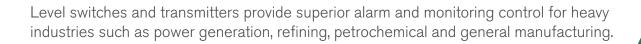
**RF Continuous** 

Transmitters

## **Level Transmitters**

- Versatile and long lasting
- Rugged, industrial quality transmitters designed to be versatile
- Models to handle all processes from liquids to solids
- Excellent performance in harsh conditions
- All SOR level transmitters may be customized to meet your specific requirements
- Variety of RF probes available for multiple applications
- Worldwide service and fast delivery
- Emergency shipments available
- Low cost of ownership
- Factory tested before shipping
- 815LT Submersible Smart Level-Pressure Transmitter

815DT Smart Differential Pressure Transmitter

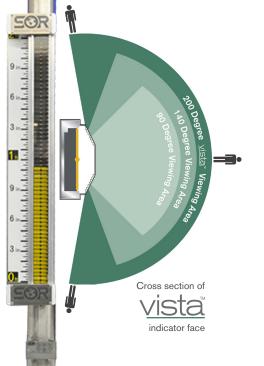


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### 1100 Series Magnetic Level Indicators





- 200° viewing angle with Vista indicator
- Forward viewing distance of 250 feet (76 meters)
- Chambers designed to ASME B31.1 B31.3 guidelines
- Schedule 10 & 40 316/316L stainless steel construction standard, schedule 80+ and other materials available
- ASME Section IX and AWS qualified welding system
- Standard dimensional drawings available at quotation
- No pressurized floats
- Interface detection capability
- NACE, CRN and PED certifications available
- High temperature and cryogenic designs suitable for extreme applicatons
- Extensive auxiliary instrumentation available
- 5 year warranty

Each 1100 Series MLI is engineered for your exact application and manufactured to our rigorous quality standards.

## 1000 Series Engineered Bypass Chambers

- Completely customizable design
- Chambers designed to ASME B31.1/B31.3 guidelines with certificates available
- 2-8" chamber size with Schedule 10 XXS wall thickness in a wide variety of materials
- ASME Section IX and AWS qualified welding system
- Hydrotested @ 1.5 MAWP standard
- NACE, CRN and PED certifications available
- Inspections and testing certifications done to SOR standards or your specific requirements
- Extensive list of auxiliary instrumentation available
- 5 year warranty



## **Temperature Sensors and Thermowells**

- Industrial, remote mount and field adjustable thermocouples and RTDs
- Sanitary RTDs and thermocouples
- High pressure thermocouples
- Hi temp and ceramic protection tube assemblies
- General purpose and specialty sensors
- Multipoint sensors and assemblies
- Transmitters and indicators
- Sample probes



- Complete custom application designs
- Size and material of thermowells are fully customizable
- Barstock and pipe thermowells
- Quick delivery on standard product offering





## **Specialty Sensors**

We offer a variety of specialty temperature sensors that can be customized to meet your specific application.

Used in applications where a representative sample needs to be extracted from a process.
Typically used in applications where there is a need for temperature profiling at various points over distance.
Measures temperature of the tube wall to determine tube life and temperature trending along with detection of coke buildup on tubes.
We have the capabilities to help design and manufacture custom temperature solutions for a variety of applications.
High temp assemblies are for applications where the temperatures are in excess of 2000°F/1093.3°C.





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## ELECTRONIC INSTRUMENTATION

- High quality industrial temperature transmitters, signal isolators, signal conditioners, alarm trip and custom OEM designs
- Field proven wide range ambient designs
- IEC pre-compliance testing
- Standard dimensional drawings available at quotation
- 100% final test and inspection
- Nuclear qualified products are available
- 4 year warranty

#### **2800 SERIES**

#### Universal T/C and RTD Temperature Transmitters

Self-contained, programmable

 Built in display
 -40 to +85°C
 Ambient Installation
 RFI protected
 Accuracy: <1 °C or °F</li>





#### ALARM MODULES

#### **Critical and Dedicated Point Monitoring**

- Inputs VAC, AAC, VDC, mADC, T/C RTD
- Adjustable Time Delay
- Latching Action
- Adjustable Deadband
- 10A, SPDT Relay Output

#### **100 SERIES**

Two Wire Temperature Transmitters (Hockey Puck Style)

- Temperature, T/C and RTD
- AC Current and AC Voltage
  - VDC and mVDC
  - Hz (Speed and rotation)
- -30°C to +85°C Ambient Installation



#### 200/300 SERIES

#### DIN Mounted Temperature Transmitters

- 2 and 3 Wire Output Powered
- Current and Voltage Outputs
- Temperature, T/C and RTD
- AC Current and AC Voltage
- Hz (Speed and rotation)
- -30°C to +85°C Ambient Installation



#### **ISOLATORS**

#### **Solves Ground Loop Problems**

- DIN and Hockey puck packaging
  - Input Loop Powered
- 2 and 3 Wire output loop power
  - Isolated Prime Power
  - Quick shipment available



# **Sampling Systems**



- SENSOR Sampling has a design to meet all your liquid and vapor applications, even the most difficult and dangerous.
- Systems are designed to meet Leak Detection Repair (LDAR), Maximum Achievable Control Standards (MACT) and Volatile Organic Compounds (VOC) emission standards.
- PED compliant and TPED components can be supplied when required.
- Since no two sampling systems are exactly alike, each of our products is engineered to order.



#### Low Vapor **Pressure Liquids**

- Inline Sampling Systems (ISS)
- Basic Bottle Sampling Systems (BBSS)
- Pressure Isolating Bottle Sampling Systems (PIBSS)

#### **Liquefied Gases and Vapors** • Liquefied Gas Sampling System (LGSS)

• Vapor Sampling System (**VSS**)



#### **Chemical Industry**

• Inline Valve Sampling System (IVSS)



#### Hydrofluoric (HF) Acid

• Hydrofluoric Acid (HF) (HFSS)



IVSS

#### **Heavy Liquids**

• Heavy Products Sampling System (HPSS) • RAM Sampling System (RSS)



#### **Other Applications**





- Steam Condensate & Boiler Blowdown (SCSS)
- Spot Sampling for Trace Gases (**DTSS**)
- Steam & Hot Condensate (SHCSS)
- Tank Farms (**TFSS**)
- Sulfuric Acid (**BBSS**)
- Phosgene (SHFVSS)



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