STAINLESS STEEL
SPDT Pressure
AST20SW

Overview

The Model 20SW is a high accuracy Industrial ASIC Pressure Switch, designed for use in a variety of applications. Applying digital compensation, this product offers top performance over a wide temperature range. Utilizing Krystal Bond Technology™, the sensing element will measure pressure in the most extreme temperature conditions.

Where other sensor technologies will freeze or boil, the 20SW uses a one piece stainless steel sensor to offer continuous operation. If linearity and repeatability are critical for your application, this product will exceed your expectations at an affordable price.

Benefits

• ASIC Compensation
• Superb Temperature Performance
• Wide Operating Temperature Range
• Excellent Accuracy
• High Proof and Burst Pressure
• Factory Sealed

Applications

• Hydraulics Controls
• Boilers
• Marine
• Railways
Performance @ 25°C (77°F)

- **Error Tolerance**: < ±0.1% BFSL of line pressure
- **Over Range**: 2X Rated Pressure, standard
- **Protection**: (For higher proof pressures, contact factory)
- **Burst Pressure**: 5X or 60,000PSI of line pressure, whichever is less
- **Pressure Cycles**: > 100 million full pressure cycle

Environmental Data

**Temperature**
- **Operating**: -40 to 85°C (-40 to 185°F)
- **Storage**: -50 to 105°C (-58 to 221°F)

0-100% relative humidity, non-condensing

**Thermal Limits**
- **Compensated Range**: -20-70°C (-4 to 158°F)

**Other**
- **Shock**: 100G, 11 msec, 1/2 sine
- **Vibration**: 10G peak, 20 to 2000 Hz.
- **EMI/RFI Protection**: Yes
- **Rating**: IP-66

**Electrical Data**
- **Excitation**: 10-28VDC
- **Current Consumption**: < 10mA
- **Set Point**: See Chart
- **Output Load**: 1 Amp, Resistive
- **Reverse Polarity Protection**: Yes
Ordering Information

<table>
<thead>
<tr>
<th>AST20SW</th>
<th>A</th>
<th>05</th>
<th>P</th>
<th>E</th>
<th>Y</th>
<th>1</th>
<th>G</th>
<th>00025</th>
<th>F</th>
<th>05</th>
<th>000</th>
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</thead>
</table>

**Series Type**

- **A**: 1/4"-18 Male NPT
- **B**: 1/8"-27 Male NPT
- **C**: 1/4"BSPP
- **W**: F250C Female Autoclave

**System Pressure**

Insert 2 digit code

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<tr>
<th>System Pressure</th>
<th>Code</th>
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<tbody>
<tr>
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<tr>
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<td>10</td>
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<tr>
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<td>11</td>
</tr>
</tbody>
</table>

consult factory for pressures not shown

**Pressure Unit**

- **P**: PSI

**Switch Configurations**

- **E**: SPDT [Form C]

**Electrical Connection**

- **Y**: M12x1

**Wetted Material**

- **0**: 17-4PH
- **1**: 316L
- **2**: Inconel 718

**Pressure Reference**

Number (0, 1, 2) = Sealed Gauge

G = Vented Gauge Pressure

**Switching Point Pressure**

Insert 5 digit code [99.95% of system line pressure]

<table>
<thead>
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<tbody>
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<td>05000</td>
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<td>10000</td>
</tr>
</tbody>
</table>

consult factory for pressures not shown

**Switching Direction**

- **F**: Falling
- **R**: Rising

**Hysteresis**: Insert 2 digit code (example: 1% is 01) [1% of line pressure minimum]

**Options**: 000

*For optional pressure ports and electrical interfaces please consult factory. 1/8" NPT Male not available under 50PSI or with 316L. F250C Female Autoclave is the only option for 10,000 to 20,000PSI, not available in 316L. 316L available up to 10,000PSI. For Inconel 718 consult factory on availability.

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