ARGUS ULTRA LOW PRESSURE
P560 ARGUS
ATEX/IECEEx Exia & INDUSTRIAL ULTRA LOW PRESSURE SWITCH

These switches have been designed to suit applications where ultra low pressure are to be sensed. The Argus provides very competitively priced, lightweight and durable instrumentation.

FEATURES

- 316 stainless steel or PPS engineering polymer switchcase to IP66/IP67 standards.
- Internal adjustment scale.
- Settings from 2 mbar to 50 bar.
- Single or dual microswitch option.
- Wetted parts NACE MR-01-75 compliant.
- ATEX/IECEEx Intrinsically Safe CE Ex II 1G Exia IIC T6...T2 T5...T2 T amb -50 to +93˚C
- SIL 2 - IEC 61508 proven reliability
ULTRA LOW PRESSURE RANGES

<table>
<thead>
<tr>
<th>ADJUSTMENT RANGE mbar</th>
<th>ADJUSTMENT RANGE *wg</th>
<th>MAX WORKING PRESSURE (bar)</th>
<th>DEADBAND FIXED mbar</th>
<th>DIAPHRAGM MAT: NITRILE  VITON</th>
<th>DIAPHRAGM CODE</th>
<th>SPRING CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 50</td>
<td>6 - 20</td>
<td>0.35</td>
<td>&lt;5</td>
<td>&lt;7</td>
<td>08SB</td>
<td>R</td>
</tr>
<tr>
<td>2 - 38</td>
<td>1 - 15</td>
<td>0.35</td>
<td>&lt;4</td>
<td>&lt;6</td>
<td>08SB</td>
<td>T</td>
</tr>
</tbody>
</table>

SPECIFICATION

Temperature Limitations :
Diaphragm code : 08SB
Viton : -20 to +150°C
Nitrile : -30 to +100°C

Wetted parts:
316 Stainless steel

Process connections: See table overleaf.
**PART NUMBER BREAKDOWN - P560**

<table>
<thead>
<tr>
<th>MICROSWITCH</th>
<th>SPRING CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = 1x SPDT INDUSTRIAL &amp; Exia</td>
<td>PLEASE REFER TO RANGE TABLE</td>
</tr>
<tr>
<td>8 = 2 x SPDT FLYING LEAD Exia &amp; INDUSTRIAL</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MOUNTED</th>
<th>DIAPHRAGM MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>P: 56 = LOW PRESSURE</td>
<td>A = NITRILE</td>
</tr>
<tr>
<td></td>
<td>B = VITON - STD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CERTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>I = ATEX/IECEx Exia</td>
</tr>
<tr>
<td>S = INDUSTRIAL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CASE MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>P = PPS (ENGINEERING POLYMER)</td>
</tr>
<tr>
<td>S = 316 STAINLESS STEEL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>W = STANDARD BRACKET</td>
</tr>
<tr>
<td>T = 2” PIPE MOUNTING BRACKET</td>
</tr>
<tr>
<td>A = Exe JUNCTION BOX (6 TERMINALS)</td>
</tr>
<tr>
<td>B = Exe JUNCTION BOX (HIGH AMB. TEMP)</td>
</tr>
<tr>
<td>R = MONITORING RESISTORS</td>
</tr>
</tbody>
</table>

- IF MORE THAN ONE OPTION IS REQUIRED IT SHOULD BE WRITTEN AFTER THE PART NUMBER

**PART NUMBER**

P S 5 6 1 S P R 1 1 / B R 0 8 S B 4 / S T

**CASE MATERIAL**

- P = PPS (ENGINEERING POLYMER)
- S = 316 STAINLESS STEEL

**ELECTRICAL CONNECTION**

- T = M20 FEMALE
- A = 1 OR 2, 3 CORE CABLE
- P = DIN 175301-803-A PLUG & SOCKET (WAS DIN 43650)
- R = M20 MALE ST. STEEL
- S = 1/2” NPT MALE ST. STEEL
- L = M12 x 1 CIRCULAR CONNECTOR

**DIAPHRAGM MATERIAL**

- A = NITRILE
- B = VITON - STD

**DETAILED OPTIONS**

- **4** = 1/4” O/D TUBE POSI. ELBOW PR
- **9** = SPECIAL
- **B** = 6mm O/D TUBE PR
- **D** = 8mm O/D TUBE PR
- **F** = 10mm O/D TUBE PR
- **H** = 12mm O/D TUBE PR
- **K** = 1/4” BSP.P FEMALE STRAIGHT PR
- **M** = 1/4” BSP.T FEMALE STRAIGHT PR
- **P** = 1/4” BSP.P MALE STRAIGHT PR
- **R** = 1/4” NPT FEMALE STRAIGHT PR
- **T** = 1/4” NPT MALE STRAIGHT PR
- **V** = 1/2” NPT FEMALE STRAIGHT PR

**PROCESS CONNECTIONS**

- **4** = 1/4” O/D TUBE POSI. ELBOW PR
- **9** = SPECIAL
- **B** = 6mm O/D TUBE PR
- **D** = 8mm O/D TUBE PR
- **F** = 10mm O/D TUBE PR
- **H** = 12mm O/D TUBE PR
- **K** = 1/4” BSP.P FEMALE STRAIGHT PR
- **M** = 1/4” BSP.T FEMALE STRAIGHT PR
- **P** = 1/4” BSP.P MALE STRAIGHT PR
- **R** = 1/4” NPT FEMALE STRAIGHT PR
- **T** = 1/4” NPT MALE STRAIGHT PR
- **V** = 1/2” NPT FEMALE STRAIGHT PR
INTRODUCTION

The Argus pressure, differential pressure, temperature, level and flow switches are designed for use in environments where explosive gases and extremes of both high and low ambient temperature can be present (e.g. gas fields, oil rigs and chemical plants etc.) They have been ATEX & IECEx certified suitable for CAT 1 CE Ex II1G Exia IIC environments.

These switches are manufactured from either PPS (engineering polymer) or high quality investment cast 316 stainless steel both offering a robust construction and protection to IP66/IP67 for use within heavily polluted industrial and marine environments. Declaration available for SIL2 - IEC61508 proven reliability.

CALIBRATION

The design features a simple form of calibration adjustment against a scale block. This allows users to either order units with a specific setting, or stock a mid range setting and then adjust to suit the application. This can be set safely with the switch supply live.

On removal of the adjustment cover the adjusting screw can be turned with a suitable Tommy bar. The setting is read from the centre of the red indicating ring against the internal scale plate. Rotation to the left will increase the set point and to the right decrease the set point. The adjustment mechanism incorporates a friction device to ensure set point will not change under vibration conditions.

(For ultra low pressure, vacuum and differential pressure switches the switchcase in inverted. Set point adjustment will be opposite to that shown above)

TECHNICAL SPECIFICATION

Switchcase and covers: 316 Stainless steel or PPS (Polyphenylene Sulphide) + stainless steel fibres engineering polymer.


Vibration and shock parameters: Switches have been tested and certified by an external test house to BS EN 60068-2-6 : 1995 (test Fc vibration) and BS EN 60068-2-27 : 1987 (test Ea shock).

Microswitch: 1 or 2 SPDT (dual switches mechanically linked to give DPDT).

Microswitch rating: 5 Amps @ 250 VAC resistive, 2 Amps @ 250 VAC inductive.

Accuracy: +/-1% at 20°C.
Our products are designed to work in demanding and hazardous environments which require fast and cost effective solutions in instrumentation and control. Pyropress control sensors provide safe and reliable electrical switching of alarm or control circuits in response to changes in temperature, pressure, differential pressure, vacuum, flow and level conditions.

Exia Intrinsically Safe: ATEX 2014/34/EU marked CE Ex II 1G Exia IIC T6...T2 Ga, T6...T5 T amb -50 to +78°C, T5...T2 T amb -50 to +93°C

Special conditions for safe use. During live maintenance, adjustment or servicing of the equipment the aluminium parts may be exposed. Care should be taken to avoid the risk of ignition from incendiary impact or abrasion sparks. The DIN plug cover is made of non-conductive plastic material. Care shall be taken to avoid electrostatic discharge during maintenance, adjustment or servicing. Clean only with a damp cloth.

Industrial: 2014/35/EU (Low voltage directive).

TEMPERATURE LIMITATIONS

Pressure, Vacuum and Differential Pressure.

Process temperature: Diaphragm actuated unless otherwise stated -30 to +100°C (Nitrile) or -20 to +150°C (Viton). Piston actuated -30 to +100°C (Nitrile) or -20 to +150°C (Viton) or -40 to +150°C (PTFE) -35 to +100°C (EPDM).

Ambient temperature: -40 to +85°C (-50°C & +125°C options – refer to sales office).

Storage temperature: -40 to +85°C (For temperature, level and flow switches please refer to specific pages).

Certification temperature: (Exia only) T6...T5 T amb -50 to +78°C, T5...T2 T amb -50 to +93°C. Please refer to ATEX & IECEx certificate showing permitted process temperature in relation to temperature class.

Continuous development may result in changes to specification without prior notice