ARGUS

LOW PRESSURE

P510 ARGUS ATEX Exd, Exia CERTIFIED & INDUSTRIAL LOW PRESSURE SWITCH

This range of switches employs a non-reinforced elastomer sensing element for settings between 8 and 250 mBar. Reliable and proven design concepts from our established range of switches have also been incorporated. This provides a very competitively priced, lightweight and durable sensor.

FEATURES

- 316 stainless steel or PPS engineering polymer switchcase to IP67 standards.
- Internal adjustment scale.
- Settings from 8 to 250 Bar.
- Single or dual microswitch option.
- Wetted parts NACE MR-01-75 compliant.
- SIL 2 - IEC 61508 proven reliability
- ATEX Flameproof version
  CE II2G Exd IIC
  T6 Tamb -50 to +71°C
  T5 Tamb -50 to +86°C
  T4 Tamb -50 to +96°C
- ATEX Intrinsically safe version
  CE II1G Exia IIC
  T6 Tamb -50 to +78°C
  T5 Tamb -50 to +93°C
  T4 Tamb -50 to +128°C

<table>
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<th>ADJUSTMENT RANGE (mBAR)</th>
<th>ADJUSTMENT RANGE &quot;WG&quot;</th>
<th>MAX WORKING PRESSURE (BAR)</th>
<th>DEADBAND (mBAR)</th>
<th>SPRING CODE</th>
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</table>
Wetted parts: 316 St. steel
Diaphragm: Nitrile or Viton

Process connection: 1/4" BSP.P or NPT female

Process temperature limitations:
Nitrile: -25 to +95°C
Viton: -10 to +150°C
ARGUS ATEX Exd, Exia & INDUSTRIAL SWITCHES

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 certified for CAT 1 CE Ex II1G Exia IIC T6,T5 & T4 and CAT 2 CE Ex IIG Exd IIC T6,T5 & T4.

These switches are manufactured from either PPS (engineering polymer) or high quality investment cast 316 stainless steel both offer a robust construction and protection to IP67 for use within heavily polluted industrial and marine environments. These instruments can be adjusted with the power on and the switch in operation. 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 the small Tommy bar supplied. 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.

TECHNICAL SPECIFICATION

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

Environmental Protection: Switches have been tested and certified by an external test house to IP67 in accordance with BS EN 60529 : 1992.

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).

Temperature Limitations: Pressure, Vacuum and Differential Pressure.

Ambient: See Exd, Exia or industrial specification on the opposite page.

Process: Diaphragm actuated unless otherwise stated -30 to +110°C (Nitrile) or -20 to +150°C (Viton). Piston actuated -30 to +120°C (Nitrile) or -20 to +150°C (Viton) or -50 to +150°C (PTFE) -30 to +125°C (EPDM).

Storage: -60 to +86°C (For temperature, level and flow switches please refer to specific pages).

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

Microswitch rating: 5 Amps @ 250 VAC resistive, 2 Amps @ 250 VAC inductive.
5 Amps @ 30VDC resistive, 3 Amps @ 30 VDC inductive.
INDUSTRIAL AND EXIA DIN PLUG AND SOCKET OR M20 X 1.5 ISO FEMALE

Ambient temp: -40 to +86°C (+125°C special – refer to sales office).

Electrical Connection: DIN 43650 plug and socket suitable for unarmoured cable up to 1.5mm2. Cable OD between 6 and 9mm (PG11) or M20 x 1.5 ISO female.

EXD & EXIA FLYING LEAD CONNECTION

Ambient temp: -50 to +86°C (128°C on Exia – refer to sales office).

Electrical Connection:
Exd – 1 metre of 3 or 6 core 0.75mm² silicone insulated flying lead via stainless steel ½” NPT or M20 x 1.5 ISO male threaded conduit gland (part no code R & S) or 1 metre of 6.0mm dia 3 core x 0.75mm² silicone insulated cable (part no code A). Longer lead lengths can be specified and a range of Exe certified junction boxes can be supplied fitted and wired direct to the switch. The standard Exe box has an ambient temperature range of –40 to +55°C. Higher temperature can be catered for.

Exia - 1 metre of 6.0mm dia 3 core x 0.75mm² silicone insulated cable via stainless steel ½” NPT or M20 x 1.5 ISO male threaded conduit gland (part no code R & S) or supplied with no thread (part no code A).

CERTIFICATION: ALL SWITCHES ARE CE CERTIFIED IN ACCORDANCE WITH EU DIRECTIVES

Exd Flameproof: ATEX 2014/34/EU coded CE Ex I1G Exd IIC T6 Ta -50 to +71°C, T5 Ta +86°C, T4 Ta +96°C. (Switches to be installed in accordance with EN60079-14). Special conditions for save use. The permanently attached cable associated with the apparatus shall be terminated in accordance with EN60079-14. Appropriate overload protection must be provided during installation. (to be ignored if junction box is fitted).

Exia Intrinsically Safe (without resistors) ATEX 2014/34/EU coded CE Ex I1G Exia IIC T6 Ta –50°C to +78°C, T5 Ta +93°C, T4 Ta +128°C.

Special conditions for save use. (Category 1, Zone 0) Aluminium may only be used when the ignition hazard assessment shows that there is no risk of ignition from incendive, impact or abrasion sparks.

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

Accuracy: +/-1% at 20°C.

ABOUT PYROPRESS

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, fluid, flow and level conditions.

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QUALITY

To support the design of state of the art products the company has invested heavily in the latest CNC technology.
We are able to produce our own components to a high degree of accuracy assuring a reliable and consistent quality product.