

#### **OEM Automatic Ltd**

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# SUCO 0530 ELECTRONIC PRESSURE SWITCH

053060203B011 PNP output (High Side), NO, 0-600 Bar, G 1/4 – DIN 3852-A, Cable connection

- One switching output
- · Stainless steel & titanium wetted parts
- · Silicon-on-sapphire technology
- · Factory set



#### PRODUCT DESCRIPTION

The Suco high performance series of electronic pressure switches offers outstanding overpressure protection (up to 4x), long service life even under high pressure change rates whilst giving very low temperature error and excellent long-term stability. Using Silicon-on-sapphire technology for high reliability, EMC compatibility and accuracy there are five standard pressure ranges starting at 0-10 bar all the way up to 0-600 bar and a hysteresis of 0.2%-99.8%. Output option of PNP or NPN and the choice of normally open or normally closed with one switching output factory set (unadjustable by the user). The wetted parts are made of stainless steel and titanium in an all welded design ensuring excellent media compatibility with seven standard electrical connection options including Deutsch, DIN and M12 combined with eight standard thread type options.

Customer specific solutions are also available on request.

Application examples

- Automotive
- Braking systems
- Medical
- Mobile hydraulics
- Off highway
- Off-shore
- Rail

## **TECHNICAL DATA**

## **GENERAL DATA**

| Adjustment range max  | 600 bar           |
|-----------------------|-------------------|
| Adjustment range min  | 0 bar             |
| Electrical connection | Embedded 2m cable |
| Process connection    | G1/4              |

| Function       | Normally open (SPST) |
|----------------|----------------------|
| Output         | PNP                  |
| Burst pressure | 2000 bar             |
| Pressure max   | 1650 bar             |

## **TEMPERATURE & MATERIALS DATA**

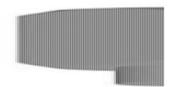
| Temperature of media from | -40 °C                           |
|---------------------------|----------------------------------|
| Temperature of media to   | 125 °C                           |
| Temperature ambient from  | -40 °C                           |
| Temperature ambient to    | 100 °C                           |
| Material of body          | Stainless steel 1.4305           |
| Material of wetted parts  | Stainless steel 1.4305, Titanium |

# **ADDITIONAL DATA**

| Supply voltage dc max            | 32 V DC   |
|----------------------------------|---|
| Supply voltage dc min            | 9.6 V DC  |
| Pressure rise                    | ≤ 5,000 bar/s   |
| Switching time                   | < 2 ms  |
| Switching point adjustment range | $2\dots 100\ \%$ of the nominal pressure range Full Scale (FS), programmable at factory |
| Weight                           | 135 g   |

## **SAFETY & APPROVALS**

| Hysteresis  299.8% of nominal pressure range (full scale), programmable at factory  Shock resistance  500m / s²; 11 ms half sine wave; DIN EN 60068-2-27  Vibration resistance  20g: 42000 Hz sine wave, DIN EN 60068-2-6  EMC  EMC 2014/30/EU, EN 61000-6-2:2005, EN 61000-6-3:2007  Accuracy  ±0.5 % of adjustment range (Full scale) at room temperature  Long term stability  ±0.1 % of adjustment range (full scale) per year  Mechanical life expectancy  10,000,000 switching cycles at rise rates to 5,000 bar/s nominal pressure  Repeatability  ±0.1 % full scale | IP class                   | IP67  |
|---|----------------------------|---|
| Vibration resistance       20g: 42000 Hz sine wave, DIN EN 60068-2-6         EMC       EMC 2014/30/EU, EN 61000-6-2:2005, EN 61000-6-3:2007         Accuracy       ±0.5 % of adjustment range (Full scale) at room temperature         Long term stability       ±0.1 % of adjustment range (full scale) per year         Mechanical life expectancy       10,000,000 switching cycles at rise rates to 5,000 bar/s nominal pressure  | Hysteresis                 | 299.8% of nominal pressure range (full scale), programmable at factory    |
| EMC EMC 2014/30/EU, EN 61000-6-2:2005, EN 61000-6-3:2007  Accuracy ±0.5 % of adjustment range (Full scale) at room temperature  Long term stability ±0.1 % of adjustment range (full scale) per year  Mechanical life expectancy 10,000,000 switching cycles at rise rates to 5,000 bar/s nominal pressure  | Shock resistance           | 500m / s²; 11 ms half sine wave; DIN EN 60068-2-27                        |
| Accuracy ±0.5 % of adjustment range (Full scale) at room temperature  Long term stability ±0.1 % of adjustment range (full scale) per year  Mechanical life expectancy 10,000,000 switching cycles at rise rates to 5,000 bar/s nominal pressure  | Vibration resistance       | 20g: 42000 Hz sine wave, DIN EN 60068-2-6                                 |
| Long term stability ±0.1 % of adjustment range (full scale) per year  Mechanical life expectancy 10,000,000 switching cycles at rise rates to 5,000 bar/s nominal pressure  | EMC                        | EMC 2014/30/EU, EN 61000-6-2:2005, EN 61000-6-3:2007                      |
| Mechanical life expectancy  10,000,000 switching cycles at rise rates to 5,000 bar/s nominal pressure   | Accuracy                   | ±0.5 % of adjustment range (Full scale) at room temperature               |
|   | Long term stability        | ±0.1 % of adjustment range (full scale) per year                          |
| Repeatability ±0.1 % full scale   | Mechanical life expectancy | 10,000,000 switching cycles at rise rates to 5,000 bar/s nominal pressure |
|   | Repeatability              | ±0.1 % full scale   |









Connection diagrams



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Technical modifications and



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