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# SUCO 0533 ELECTRONIC PRESSURE SWITCH

053310220B011
NPN output (Low Side), NC, 0-100 Bar, 7/16 – 20 UNF, Cable connection




- One Switching Output
- Stainless Steel & Titanium Wetted Parts
- Silicon-On-Sapphire Technology
- Factory Set

### PRODUCT DESCRIPTION

The SUCO 0533 electronic pressure switch is a high-performance, factory-configured device built with a robust stainless steel (AISI 303) and titanium, all-welded housing. It utilises advanced Silicon-on-Sapphire (SoS) sensor technology for exceptional accuracy (± 0.5 % FS, resolution 0.1 % FS) and long-term stability (± 0.1 % FS/year), and is designed to withstand overpressure up to 4× its rated range. Available ranges span from 0–10 bar to a massive 0–1,650 bar, with a single NPN (low-side) normally-closed transistor output capable of handling up to 0.5 A and featuring built-in protections for short circuit, reverse polarity, and overvoltage. It supports multiple pressure port threads (G¼, NPT⅛/NPT¼, UNF, M10, M14) and electrical connectors (DIN EN 175301-803-A, M12, AMP Superseal, Deutsch, 2 m cable), and it offers a fast response time (< 4 ms) and wide compensated temperature range for stable operation across –40 °C to 125 °C.
The 0533 excels in harsh mobile-hydraulic, industrial, and pneumatic environments, such as construction machinery, off-road vehicles, or process systems, where rugged build and reliable switching under dynamic pressures are essential. Its compact design and robust sensor technology make it suitable for safety interlock circuits, pressure alarms, and automated shutdown controls in PLC or relay-based systems. The device's narrow switching hysteresis and optional window function enable precise range monitoring, while the heavy-duty housing and integrated protections ensure dependable performance in conditions involving vibration, wash-down, and electrical noise, making it an ideal choice for long-term OEM applications needing precise, rugged pressure monitoring.

# TECHNICAL DATA

## GENERAL DATA

| | |
|---|---|
| **Adjustment range max** | 100 bar |
| **Adjustment range min** | 0 bar |
| **Electrical connection** | Embedded 2m cable |
| **Function** | Normally Closed |
| **Output** | NPN |
| **Burst pressure** | 800 bar |
| **Pressure max** | 400 bar |

## TEMPERATURE & MATERIALS DATA

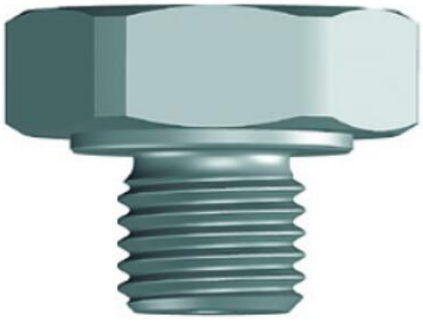
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|---|---|
| **Temperature of media from** | -40 °C |
| **Temperature of media to** | 125 °C |
| **Temperature ambient from** | -40 °C |
| **Temperature ambient to** | 100 °C |
| **Material of body** | Stainless steel 1.4305 |
| **Material of wetted 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 … 100 % of the nominal pressure range Full Scale (FS), programmable at factory |
| **Weight** | 135 g |

## SAFETY & APPROVALS

| | |
|---|---|
| **IP class** | IP67 |
| **Hysteresis** | 2..99.8% 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: 4..2000 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 |



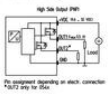


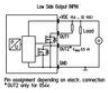






Connection diagrams




Technical modifications and errors excepted.

