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# SUCO 0541 ELECTRONIC PRESSURE SWITCH

054125220B011
PNP output (High Side), NC / NC, 0-250 Bar, 7/16 – 20 UNF, Cable connection




- Outstanding Overpressure Capabilities
- Silicon-on-sapphire technology
- Functional in a wide range of temperatures
- All welded design

### PRODUCT DESCRIPTION

The SUCO 0541 is a compact, high-performance electronic pressure switch engineered with dual PNP (high side) outputs, both configured as normally closed. Encased in a durable hex-22 stainless-steel and titanium-wetted housing, it utilises Silicon-on-Sapphire (SoS) sensor technology to deliver precision and long-term stability, while offering high overpressure protection up to 4× the rated pressure. Available in pressure ranges spanning 0–10 bar to 0–600 bar, the 0541 switch supports switching currents up to 500 mA and responds rapidly under demanding conditions with pressure change rates reaching 5,000 bar/s. Factory-set switching points and hysteresis (0.2–99.8 % FS) ensure reliable performance, with a sealed welded design eliminating elastomer seals and meeting IP67 and industrial EMC standards.
The 0541 excels in harsh hydraulic and pneumatic environments, such as construction machinery, mobile hydraulic systems, off-road vehicles, and industrial automation, where compact size, durable construction, and reliable switching under dynamic pressures are essential. Its dual NC PNP outputs allow for redundant or staged switching logic in safety circuits or PLC-controlled systems, ideal for overpressure alarms, machine shutdowns, or interlock functions. The fast response time, high resistance to pressure peaks, and welded sensor design make it particularly suitable for vibration-heavy or wash-down settings. Furthermore, the availability of diverse process threads and electrical connectors ensures seamless integration into OEM systems requiring rugged, precise, and dependable pressure monitoring.

# TECHNICAL DATA

## GENERAL DATA

| | |
|---|---|
| **Adjustment range max** | 250 bar |
| **Adjustment range min** | 0 bar |
| **Electrical connection** | Embedded 2m cable |
| **Function** | 2 x N/C |
| **Output** | 2 x PNP |
| **Burst pressure** | 2000 bar |
| **Pressure max** | 1000 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 … 100 % of the nominal pressure range (Full Scale, FS), programmable at factory |
| **Weight** | 135 g |

## SAFETY & APPROVALS

| | |
|---|---|
| **IP class** | IP67 |
| **Hysteresis** | 0.2…99.8 % of the 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 the nominal pressure range (FS) 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 |

