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SUCO 0540 ELECTRONIC PRESSURE SWITCH

054025109B002
PNP output (High Side), NO / NO, 0-25 Bar, NPT 1/4, M12 - DIN EN 61076-2-101-A

- Up to four times in overpressure protection
- Durable and long lasting even in high pressure environments
- Functional in a wide range of temperatures
- Ideal for mobile hydraulic applications

PRODUCT DESCRIPTION

The SUCO 0540 is a compact, rugged electronic pressure switch based on Silicon-on-Sapphire (SoS) technology, offering exceptional accuracy, reliability, and long-term stability. It features a stainless steel AISI 303 and titanium wetted construction, ensuring compatibility with a wide range of hydraulic and pneumatic media and high overpressure protection. The switch supports dual PNP (high side) transistor outputs in a normally open (NO/NO) configuration, capable of handling currents up to 500 mA, with built-in short-circuit, overvoltage, and reverse polarity protection. With nominal pressure ranges from low vacuum up to 1,650 bar, factory-set switching point and hysteresis (adjustable from 0.2 to 99.8 % FS), temperature compensation, and long-term stability, it's designed for demanding applications. Voltage supply is wide (9.6–32 VDC), with low idle power (< 15 mA), and a choice of electrical connectors (AMP Superseal, Deutsch, DIN, M12, cable) and process thread types ensures flexible installation options.
The 0540 is ideal for harsh mobile-hydraulic environments, construction machinery, off-road vehicles, agricultural systems, where ruggedness and reliable switching under dynamic pressure conditions matter most. It also fits industrial pneumatic and hydraulic systems requiring precise pressure monitoring and control with electrical interfaces. Its overpressure resilience and durable welded stainless housing make it suitable for OEM safety interlock systems, high-pressure test rigs, and medical-gas installations rated to IP67/IP6K9K, standing up to wash-down, shock, and vibration. Furthermore, the dual-switch outputs enable simple integration into PLC logic or relay circuits for event-driven control (e.g. pressure alerts, automated shutdowns), especially in embedded system designs where compact size and factory-set reliability are priorities.

TECHNICAL DATA

GENERAL DATA

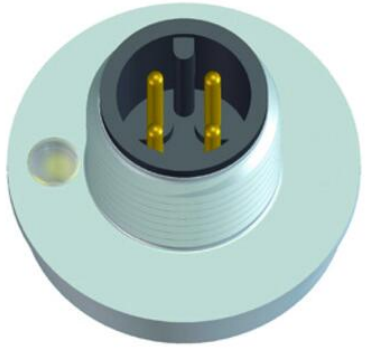
Adjustment range max	25 bar
Adjustment range min	0 bar
Electrical connection	M12x1
Process connection	1/4 NPT
Function	2 x N/O
Output	2 x PNP
Burst pressure	200 bar
Pressure max	100 bar

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	80 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