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SUCO 0544 ELECTRONIC PRESSURE SWITCH

054410209B002
NPN output (Low Side), NO / NO, 0-100 Bar, NPT 1/4, M12 - DIN

- Multiple Pressure options available
- High overpressure protection
- Adjustable pressure

PRODUCT DESCRIPTION

The SUCO 0544 is a compact, high-performance electronic pressure switch employing Silicon-on-Sapphire (SoS) sensor technology, housed in rugged stainless steel (AISI 303) body and wetted parts for enhanced durability and media compatibility. It features dual NPN (low-side) outputs wired as normally open (NO/NO), each capable of switching currents up to 500 mA, ideal for reliable signal integration. The factory-configured models cover a wide range of setpoints with high overpressure protection of up to 4× nominal pressure. Sensor stability under high ramp rates and protection against electrical faults (e.g., reverse polarity, short circuit) ensure consistent operation in demanding hydraulic and pneumatic systems. Multiple connector and port options (G¼, NPT, M10, UNF, and electrical interfaces such as M12, Deutsch, cable lead, or bayonet) offer installation flexibility.
Engineered for industrial automation and mobile hydraulics, the SUCO 0544 excels in tasks demanding high precision and reliable switching. Typical applications include pressure control in hydraulic power units, mobile machinery, compressors, and pneumatic systems. The dual NPN outputs can be wired for alarm or control logic, such as sending one signal to a PLC and another to an indicator or safety circuit, synchronising operation and fault detection. Thanks to its stainless-steel housing, high overpressure resilience, and SoS sensor accuracy, this switch delivers stable performance in harsh conditions, vibration, fluid contamination, and temperature extremes, while safeguarding critical systems and enhancing machinery uptime and operator safety.

TECHNICAL DATA

GENERAL DATA

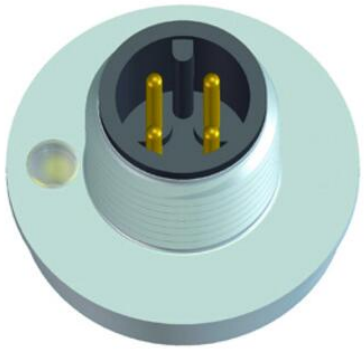
Adjustment range max	100 bar
Adjustment range min	0 bar
Electrical connection	M12x1
Process connection	1/4 NPT
Function	2 x N/O
Output	2 x NPN
Burst pressure	800 bar
Pressure max	400 bar

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