



SUCO 0533 ELECTRONIC PRESSURE SWITCH

053310141B013
 NPN output (Low Side), NC, 0-10 Bar, G 1/4 – DIN EN
 ISO 1179-2, DIN EN 175301-803-A

- 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 ($\pm 0.5\%$ FS, resolution 0.1% FS) and long-term stability ($\pm 0.1\%$ FS/year), and is designed to withstand overpressure up to $4\times$ 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 (G $\frac{1}{4}$, NPT $\frac{1}{2}$ /NPT $\frac{1}{4}$, 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	10 bar
Adjustment range min	0 bar
Electrical connection	DIN EN 175301-803-A
Process connection	G1/4
Function	Normally Closed
Output	NPN
Burst pressure	80 bar
Pressure max	40 bar

TEMPERATURE & MATERIALS DATA

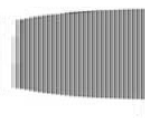
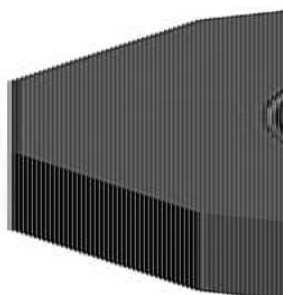
Temperature of media from	-40 °C
Temperature of media to	125 °C
Temperature ambient from	-40 °C
Temperature ambient to	100 °C
Material of body	Stainless steel 1.4305
Material of wetted parts	Stainless steel 1.4305, Titanium

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	110 g

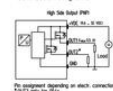
SAFETY & APPROVALS

IP class	IP65
Hysteresis	2..99.8% of nominal pressure range (full scale), programmable at factory
Shock resistance	500m / s ² ; 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

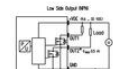


hex 22

Connection diagrams



No impedance depending on each connection
100Ω only for I±



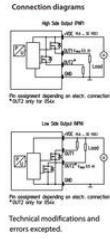
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Technical modifications and errors excepted.

DIN EN 175301-803-A		M 12 - DIN EN 61076-2-101 A		ISO 15170-A1-4.1		AMP Superseal	
Pin	Assignment	Pin	Assignment	Pin	Assignment	Pin	Assignment
1	0Vn	1	0Vn	1	0Vn	1	0Vn
2	Out	2	0Vn	2	0Vn	2	Out
3	Gnd	3	Gnd	3	Gnd	3	Gnd
4	Out	4	Out	4	Out	4	Out
IP67		IP67		IP67		IP67	
• 4 - Ø 17.5 mm		• 4 - Ø 17.5 mm		• 4 - Ø 17.5 mm		• 4 - Ø 17.5 mm	
• Ø 10 mm		• Ø 10 mm		• Ø 10 mm		• Ø 10 mm	
Order number: 001		Order number: 002		Order number: 003		Order number: 007	

DEUTSCH DT04-4P		DEUTSCH DT04-3P		Cable connection	
Pin	Assignment	Pin	Assignment	Cable	Assignment
1	Gnd	A	0Vn	red	0Vn
2	Out	B	GND	white	Out
3	PC	C	Char	black	Gnd
4	Out				
IP67		IP67		IP67	
• 78 mm		• 78 mm		• 64 mm	
• Ø 23 mm		• Ø 23 mm		to 20 mm band width	
Order number: 104		Order number: 103		cable length = 2 m	
				• Ø 2.2 mm	
				Order number: 111	

Thread code	Thread code	Thread code	Thread code
41	43	44	49
50	55	61	62



DIN EN 175301-803-A		M 12 - DIN EN 61076-2-101 A		ISO 15170-A1-4.1		AMP Superseal	
Pin	Assignment	Pin	Assignment	Pin	Assignment	Pin	Assignment
1	0Vn	1	0Vn	1	0Vn	1	0Vn
2	Out	2	0Vn	2	0Vn	2	Out
3	Gnd	3	Gnd	3	Gnd	3	Gnd
4	Out	4	Out	4	Out	4	Out
IP67		IP67		IP67		IP67	
• 4 - Ø 17.5 mm		• 4 - Ø 17.5 mm		• 4 - Ø 17.5 mm		• 4 - Ø 17.5 mm	
• Ø 10 mm		• Ø 10 mm		• Ø 10 mm		• Ø 10 mm	
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