

SUCO 0500/0501 ELECTRONIC PRESSURE SWITCH

Factory set

0501200413002
NC, 0 - 2 Bar, G 1/4, FKM, M12x1

- Single switch point
- Small & compact
- Ceramic sensor
- Stainless steel housing



PRODUCT DESCRIPTION

The SUCO 0500 and 0501 are compact, high-performance electronic pressure switches built around a ceramic thick-film sensor in a robust stainless steel (AISI 303) housing with a Hex-24 form factor. Factory-programmed with user-selectable switching points and hysteresis (2%–98%), these units feature a PNP high-side transistor output, with supply voltage ranging from 9.6–32 V DC and a maximum output current of 0.5 A (≤ 0.2 A above 50 °C). Pressure ranges span 0–2 to 0–250 bar, with overpressure resilience up to twice the nominal pressure and burst ratings up to 4×, depending on the model. They deliver rapid response, excellent accuracy, high repeatability, and long-term stability, while maintaining IP67 protection and resistance to vibration/shock in challenging environments. Advanced options include a USB PPD05 programming device for custom tuning of set points, hysteresis, delay, and window functions, and various connector/thread combinations (M12, DIN-43650, DT04, Superseal, cable).

The SUCO 0500/0501 series excels in precise pressure monitoring and safety control across hydraulics, mobile machinery, industrial automation, and process systems. Their high overpressure tolerance and rugged stainless-steel build ensure reliability in high-risk environments, while rapid response makes them ideal for pump protection, pressure interlock, and system shutdown scenarios. Ceramic sensors are chemically resistant, enabling use with hydraulic fluids, gases, and corrosive media. Programming flexibility allows for field customisation without mechanical intervention, a key advantage for OEMs and service teams requiring accurate, repeatable switching behaviour and reduced downtime.

TECHNICAL DATA

GENERAL DATA

Adjustment range max	2 bar
Adjustment range min	0 bar
Electrical connection	M12x1
Process connection	G1/4
Function	Normally Closed
Output	PNP
Burst pressure	8 bar
Pressure max	4 bar

TEMPERATURE & MATERIALS DATA

Temperature of media from	-20 °C
Temperature of media to	125 °C
Temperature ambient from	-30 °C

Temperature ambient to	100 °C
Material of body	Stainless steel 1.4305
Material of wetted parts	FKM, Stainless steel 1.4305
Material membrane	FKM

ADDITIONAL DATA

Supply voltage dc max	32 V DC
Supply voltage dc min	9.6 V DC
Pressure rise	≤ 1 bar/ms
Switching time	< 4 ms
Switching point adjustment range	3...100 % of adjustment range(full scale) nominal pressure, set at factory
Weight	80 g

SAFETY & APPROVALS

IP class	IP67
Hysteresis	2...98% full scale, programmable at factory (maximum tolerance ±1.0% of adjustment range nominal pressure)
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	5,000,000 pulsations at rise rates to 1,000 bar/s nominal pressure
Repeatability	±0.1 % of adjustment range (full scale) nominal pressure



DIN EN 175301-803 A	M 12 - DIN EN 61076-2-101 A	ISO 15719 A1-4.1																														
																																
<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Urs</td> </tr> <tr> <td>2</td> <td>Gnd</td> </tr> <tr> <td>3</td> <td>Urs</td> </tr> <tr> <td>PE</td> <td>PE</td> </tr> </tbody> </table>	Pin	Assignment	1	Urs	2	Gnd	3	Urs	PE	PE	<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Urs</td> </tr> <tr> <td>2</td> <td>PE</td> </tr> <tr> <td>3</td> <td>Gnd</td> </tr> <tr> <td>4</td> <td>Urs</td> </tr> </tbody> </table>	Pin	Assignment	1	Urs	2	PE	3	Gnd	4	Urs	<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Urs</td> </tr> <tr> <td>2</td> <td>PE</td> </tr> <tr> <td>3</td> <td>Gnd</td> </tr> <tr> <td>4</td> <td>Urs</td> </tr> </tbody> </table>	Pin	Assignment	1	Urs	2	PE	3	Gnd	4	Urs
Pin	Assignment																															
1	Urs																															
2	Gnd																															
3	Urs																															
PE	PE																															
Pin	Assignment																															
1	Urs																															
2	PE																															
3	Gnd																															
4	Urs																															
Pin	Assignment																															
1	Urs																															
2	PE																															
3	Gnd																															
4	Urs																															
IP65 L = 60 mm without cable add. L = 17 mm with cable add. Order number: 013	IP67 L = 52 mm Order number: 002	IP67, IP69K L = 50 mm Order number: 004																														
AMP Supersad 1.5*	Deutch DT04-3P	Cable connection																														
																																
<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Urs</td> </tr> <tr> <td>2</td> <td>Gnd</td> </tr> <tr> <td>3</td> <td>Urs</td> </tr> </tbody> </table>	Pin	Assignment	1	Urs	2	Gnd	3	Urs	<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Urs</td> </tr> <tr> <td>B</td> <td>Gnd</td> </tr> <tr> <td>C</td> <td>Urs</td> </tr> </tbody> </table>	Pin	Assignment	A	Urs	B	Gnd	C	Urs	<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>red</td> <td>Urs</td> </tr> <tr> <td>white</td> <td>Urs</td> </tr> <tr> <td>black</td> <td>Gnd</td> </tr> </tbody> </table>	Pin	Assignment	red	Urs	white	Urs	black	Gnd						
Pin	Assignment																															
1	Urs																															
2	Gnd																															
3	Urs																															
Pin	Assignment																															
A	Urs																															
B	Gnd																															
C	Urs																															
Pin	Assignment																															
red	Urs																															
white	Urs																															
black	Gnd																															
IP67 L = 60 mm Order number: 007	IP67, IP69K L = 60 mm Order number: 010	IP67 L = 47 mm (+ 25 mm band add.) Cable length: - 2 m Order number: 011																														
																																
Thread code: 01	Thread code: 02																															



DIN EN 175301-803 A	M 12 - DIN EN 61076-2-101 A	ISO 15719 A1-4.1																														
																																
<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Urs</td> </tr> <tr> <td>2</td> <td>Gnd</td> </tr> <tr> <td>3</td> <td>Urs</td> </tr> <tr> <td>PE</td> <td>PE</td> </tr> </tbody> </table>	Pin	Assignment	1	Urs	2	Gnd	3	Urs	PE	PE	<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Urs</td> </tr> <tr> <td>2</td> <td>PE</td> </tr> <tr> <td>3</td> <td>Gnd</td> </tr> <tr> <td>4</td> <td>Urs</td> </tr> </tbody> </table>	Pin	Assignment	1	Urs	2	PE	3	Gnd	4	Urs	<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Urs</td> </tr> <tr> <td>2</td> <td>PE</td> </tr> <tr> <td>3</td> <td>Gnd</td> </tr> <tr> <td>4</td> <td>Urs</td> </tr> </tbody> </table>	Pin	Assignment	1	Urs	2	PE	3	Gnd	4	Urs
Pin	Assignment																															
1	Urs																															
2	Gnd																															
3	Urs																															
PE	PE																															
Pin	Assignment																															
1	Urs																															
2	PE																															
3	Gnd																															
4	Urs																															
Pin	Assignment																															
1	Urs																															
2	PE																															
3	Gnd																															
4	Urs																															
IP65 L = 60 mm without cable add. L = 17 mm with cable add. Order number: 013	IP67 L = 52 mm Order number: 002	IP67, IP69K L = 50 mm Order number: 004																														
AMP Supersad 1.5*	Deutch DT04-3P	Cabell connection																														
																																
<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Urs</td> </tr> <tr> <td>2</td> <td>Gnd</td> </tr> <tr> <td>3</td> <td>Urs</td> </tr> </tbody> </table>	Pin	Assignment	1	Urs	2	Gnd	3	Urs	<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Urs</td> </tr> <tr> <td>B</td> <td>Gnd</td> </tr> <tr> <td>C</td> <td>Urs</td> </tr> </tbody> </table>	Pin	Assignment	A	Urs	B	Gnd	C	Urs	<table border="1"> <thead> <tr> <th>Pin</th> <th>Assignment</th> </tr> </thead> <tbody> <tr> <td>red</td> <td>Urs</td> </tr> <tr> <td>white</td> <td>Urs</td> </tr> <tr> <td>black</td> <td>Gnd</td> </tr> </tbody> </table>	Pin	Assignment	red	Urs	white	Urs	black	Gnd						
Pin	Assignment																															
1	Urs																															
2	Gnd																															
3	Urs																															
Pin	Assignment																															
A	Urs																															
B	Gnd																															
C	Urs																															
Pin	Assignment																															
red	Urs																															
white	Urs																															
black	Gnd																															
IP67 L = 60 mm Order number: 007	IP67, IP69K L = 60 mm Order number: 010	IP67 L = 47 mm (+ 25 mm band relief) Cable length: - 2 m Order number: 011																														
																																
Thread code 01	Thread code 02																															