



SUCO 0530 ELECTRONIC PRESSURE SWITCH

053010120B002
PNP output (High Side), NO, 0-10 Bar, 7/16 – 20 UNF,
M12 - DIN EN 61076-2-101-A

- One switching output
- Stainless steel & titanium wetted parts
- Silicon-on-sapphire technology
- Factory set



PRODUCT DESCRIPTION

The Suco high performance series of electronic pressure switches offers outstanding overpressure protection (up to 4x), long service life even under high pressure change rates whilst giving very low temperature error and excellent long-term stability. Using Silicon-on-sapphire technology for high reliability, EMC compatibility and accuracy there are five standard pressure ranges starting at 0-10 bar all the way up to 0-600 bar and a hysteresis of 0.2%-99.8%. Output option of PNP or NPN and the choice of normally open or normally closed with one switching output factory set (unadjustable by the user). The wetted parts are made of stainless steel and titanium in an all welded design ensuring excellent media compatibility with seven standard electrical connection options including Deutsch, DIN and M12 combined with eight standard thread type options.

Customer specific solutions are also available on request.

Application examples

- Automotive
- Braking systems
- Medical
- Mobile hydraulics
- Off highway
- Off-shore
- Rail

TECHNICAL DATA

GENERAL DATA

Adjustment range max	10 bar
Adjustment range min	0 bar
Electrical connection	M12x1
Function	Normally open (SPST)

Output	PNP
Burst pressure	80 bar
Pressure max	40 bar

TEMPERATURE & MATERIALS DATA

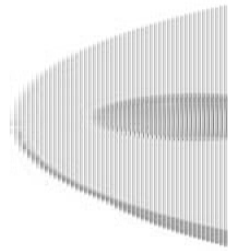
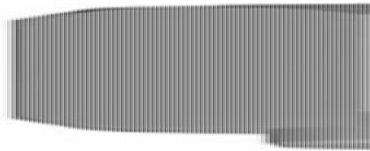
Temperature of media from	-40 °C
Temperature of media to	125 °C
Temperature ambient from	-40 °C
Temperature ambient to	100 °C
Material of body	Stainless steel 1.4305
Material of wetted parts	Stainless steel 1.4305, Titanium

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	80 g

SAFETY & APPROVALS

IP class	IP67
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



DIN EN 175301-803-A	M 12 - DIN EN 61076-2-101 A	ISO 15176-A1-4.1	AMP Superseal																																								
<table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Ch+</td></tr><tr><td>2</td><td>Ch-</td></tr><tr><td>3</td><td>Gnd</td></tr><tr><td>4</td><td>Ch+</td></tr></table>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	4	Ch+	<table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Ch+</td></tr><tr><td>2</td><td>Ch-</td></tr><tr><td>3</td><td>Gnd</td></tr><tr><td>4</td><td>Ch+</td></tr></table>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	4	Ch+	<table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Ch+</td></tr><tr><td>2</td><td>Ch-</td></tr><tr><td>3</td><td>Gnd</td></tr><tr><td>4</td><td>Ch+</td></tr></table>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	4	Ch+	<table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Ch+</td></tr><tr><td>2</td><td>Ch-</td></tr><tr><td>3</td><td>Gnd</td></tr><tr><td>4</td><td>Ch+</td></tr></table>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	4	Ch+
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
4	Ch+																																										
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
4	Ch+																																										
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
4	Ch+																																										
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
4	Ch+																																										
IP67 L = 60 / 70 mm Ø = 12 mm Order number: 001	IP67 L = 54 mm Ø = 12 mm Order number: 002	IP67 L = 65 mm Ø = 12 mm Order number: 004	IP67 L = 75 mm Ø = 12 mm Order number: 007																																								
*without cable socket = 000, with cable socket = 10 mm																																											
DEUTSCH DT04-4P																																											
<table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Gnd</td></tr><tr><td>2</td><td>Ch+</td></tr><tr><td>3</td><td>Ch-</td></tr><tr><td>4</td><td>Ch+</td></tr></table>	Pin	Assignment	1	Gnd	2	Ch+	3	Ch-	4	Ch+	<table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Ch+</td></tr><tr><td>2</td><td>Ch-</td></tr><tr><td>3</td><td>Gnd</td></tr><tr><td>4</td><td>Ch+</td></tr></table>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	4	Ch+	<table><tr><th>Cable</th><th>Assignment</th></tr><tr><td>red</td><td>Ch+</td></tr><tr><td>white</td><td>Ch-</td></tr><tr><td>black</td><td>Gnd</td></tr></table>		Cable	Assignment	red	Ch+	white	Ch-	black	Gnd												
Pin	Assignment																																										
1	Gnd																																										
2	Ch+																																										
3	Ch-																																										
4	Ch+																																										
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
4	Ch+																																										
Cable	Assignment																																										
red	Ch+																																										
white	Ch-																																										
black	Gnd																																										
IP67 L = 38 mm Ø = 12 mm Order number: 004	IP67 L = 38 mm Ø = 12 mm Order number: 005	IP67 L = 65 mm (ø 25 mm band adapt) cable length = 2 m Ø = 12 mm Order number: 011																																									
Thread code 41	Thread code 03	Thread code 04	Thread code 09																																								
Thread code 00	Thread code 02	Thread code 21	Thread code 42																																								



See 22

Connection diagrams

Up to 100 VDC



For permanent operating on each connector

100 VDC



For permanent operating on each connector

100 VDC



For permanent operating on each connector

100 VDC

Technical modifications and errors excepted.

DIN EN 175301-803-A	M 12 - DIN EN 61076-2-101 A	ISO 15176-A1-4.1	AMP Superseal																																								
<table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Ch+</td></tr><tr><td>2</td><td>Ch-</td></tr><tr><td>3</td><td>Gnd</td></tr><tr><td>4</td><td>Ch+</td></tr></table>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	4	Ch+	<table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Ch+</td></tr><tr><td>2</td><td>Ch-</td></tr><tr><td>3</td><td>Gnd</td></tr><tr><td>4</td><td>Ch+</td></tr></table>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	4	Ch+	<table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Ch+</td></tr><tr><td>2</td><td>Ch-</td></tr><tr><td>3</td><td>Gnd</td></tr><tr><td>4</td><td>Ch+</td></tr></table>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	4	Ch+	<table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Ch+</td></tr><tr><td>2</td><td>Ch-</td></tr><tr><td>3</td><td>Gnd</td></tr><tr><td>4</td><td>Ch+</td></tr></table>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	4	Ch+
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
4	Ch+																																										
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
4	Ch+																																										
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
4	Ch+																																										
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
4	Ch+																																										
IP67 L = 60 / 70 mm Ø = 12 mm Order number: 001	IP67 L = 54 mm Ø = 12 mm Order number: 002	IP67 L = 65 mm Ø = 12 mm Order number: 003	IP67 L = 75 mm Ø = 12 mm Order number: 007																																								
*without cable socket = 000, with cable socket = 10 mm																																											
<table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Gnd</td></tr><tr><td>2</td><td>Ch+</td></tr><tr><td>3</td><td>Ch-</td></tr><tr><td>4</td><td>Ch+</td></tr></table>	Pin	Assignment	1	Gnd	2	Ch+	3	Ch-	4	Ch+	<table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Ch+</td></tr><tr><td>2</td><td>Ch-</td></tr><tr><td>3</td><td>Gnd</td></tr><tr><td>4</td><td>Ch+</td></tr></table>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	4	Ch+	<table><tr><th>Cable</th><th>Assignment</th></tr><tr><td>red</td><td>Ch+</td></tr><tr><td>white</td><td>Ch-</td></tr><tr><td>black</td><td>Gnd</td></tr></table>		Cable	Assignment	red	Ch+	white	Ch-	black	Gnd												
Pin	Assignment																																										
1	Gnd																																										
2	Ch+																																										
3	Ch-																																										
4	Ch+																																										
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
4	Ch+																																										
Cable	Assignment																																										
red	Ch+																																										
white	Ch-																																										
black	Gnd																																										
IP67 L = 38 mm Ø = 12 mm Order number: 004	IP67 L = 38 mm Ø = 12 mm Order number: 005	IP67 L = 65 mm (ø 25 mm band adapt) cable length = 2 m Ø = 12 mm Order number: 011																																									
Thread code 41	Thread code 03	Thread code 04	Thread code 09																																								
Thread code 00	Thread code 02	Thread code 21	Thread code 42																																								



See 22

Connection diagrams

Up to 100 VDC



For permanent operating on each connector

100 VDC



For permanent operating on each connector

100 VDC



For permanent operating on each connector

100 VDC

Technical modifications and errors excepted.