



## SUCO 0530 ELECTRONIC PRESSURE SWITCH

053025230B008

PNP output (High Side), NO, 0-250 Bar, M10x1 zyl. DIN 3852-A, Deutsch DT04-4P

- 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	250 bar
Adjustment range min	0 bar
Electrical connection	Deutsch DT04-4P
Process connection	M10x1

<b>Function</b>	Normally open (SPST)
<b>Output</b>	PNP
<b>Burst pressure</b>	2000 bar
<b>Pressure max</b>	1000 bar

## TEMPERATURE & MATERIALS DATA

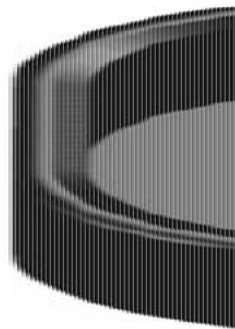
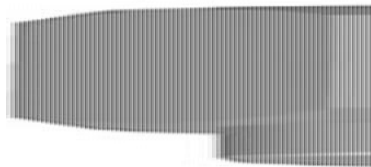
<b>Temperature of media from</b>	-40 °C
<b>Temperature of media to</b>	125 °C
<b>Temperature ambient from</b>	-40 °C
<b>Temperature ambient to</b>	100 °C
<b>Material of body</b>	Stainless steel 1.4305
<b>Material of wetted parts</b>	Stainless steel 1.4305, Titanium

## ADDITIONAL DATA

<b>Supply voltage dc max</b>	32 V DC
<b>Supply voltage dc min</b>	9.6 V DC
<b>Pressure rise</b>	≤ 5,000 bar/s
<b>Switching time</b>	< 2 ms
<b>Switching point adjustment range</b>	2 ... 100 % of the nominal pressure range Full Scale (FS), programmable at factory
<b>Weight</b>	80 g

## SAFETY & APPROVALS

<b>IP class</b>	IP67, IP6K9K
<b>Hysteresis</b>	2..99.8% of nominal pressure range (full scale), programmable at factory
<b>Shock resistance</b>	500m / s <sup>2</sup> ; 11 ms half sine wave; DIN EN 60068-2-27
<b>Vibration resistance</b>	20g: 4..2000 Hz sine wave, DIN EN 60068-2-6
<b>EMC</b>	EMC 2014/30/EU, EN 61000-6-2:2005, EN 61000-6-3:2007
<b>Accuracy</b>	±0.5 % of adjustment range (Full scale) at room temperature
<b>Long term stability</b>	±0.1 % of adjustment range (full scale) per year
<b>Mechanical life expectancy</b>	10,000,000 switching cycles at rise rates to 5,000 bar/s nominal pressure
<b>Repeatability</b>	±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> <p>IP67 • 60 / 76 mm • 10 / 10 mm Order number: 001</p>	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> <p>IP67 • 54 mm • 10 / 10 mm Order number: 002</p>	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> <p>IP67, IP68 • 65 mm • 10 / 10 mm Order number: 004</p>	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> <p>IP67 • 73 mm • 10 / 10 mm Order number: 007</p>	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+																																										
* Yellow cable length = 20 mm, with cable length = 1.50 m																																											
DEUTSCH DT04-4P	DEUTSCH DT04-3P	Cable connection																																									
																																											
<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> <p>IP67 • 38 mm • 10 / 10 mm Order number: 008</p>	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></table> <p>IP67 • 38 mm • 10 / 10 mm Order number: 010</p>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	<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> <p>IP67 • 64 mm (20 mm band width) Cable length = 2 m • 10 / 10 mm Order number: 011</p>		Cable	Assignment	Red	Ch+	White	Ch-	Black	Gnd														
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
4	Ch+																																										
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
Cable	Assignment																																										
Red	Ch+																																										
White	Ch-																																										
Black	Gnd																																										
																																											
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 221

Connection diagrams

Up to 100 VDC



For protection according to each connector

100 VDC for 100 V



For protection according to each connector

100 VDC for 100 V

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> <p>IP67  <math>\Phi = 60 / 76 \text{ mm}^*</math>  <math>\Phi = 10 / 10 \text{ mm}</math>  Order number: 001</p>	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> <p>IP67  <math>\Phi = 54 \text{ mm}</math>  <math>\Phi = 10 / 10 \text{ mm}</math>  Order number: 002</p>	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> <p>IP67  <math>\Phi = 65 \text{ mm}</math>  <math>\Phi = 10 / 10 \text{ mm}</math>  Order number: 004</p>	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> <p>IP67  <math>\Phi = 73 \text{ mm}</math>  <math>\Phi = 10 / 10 \text{ mm}</math>  Order number: 007</p>	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+																																										
<b>DEUTSCH DT04-4P</b>  <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> <p>IP67  <math>\Phi = 38 \text{ mm}</math>  <math>\Phi = 10 / 10 \text{ mm}</math>  Order number: 008</p>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	4	Ch+	<b>DEUTSCH DT04-3P</b>  <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> </table> <p>IP67  <math>\Phi = 38 \text{ mm}</math>  <math>\Phi = 10 / 10 \text{ mm}</math>  Order number: 010</p>	Pin	Assignment	1	Ch+	2	Ch-	3	Gnd	<b>Cable connection</b>  <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> <p>IP67  <math>\Phi = 64 \text{ mm}</math>  (20 mm band width)  Cable length: 2 m  <math>\Phi = 10 / 10 \text{ mm}</math>  Order number: 011</p>	Cable	Assignment	Red	Ch+	White	Ch-	Black	Gnd															
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
4	Ch+																																										
Pin	Assignment																																										
1	Ch+																																										
2	Ch-																																										
3	Gnd																																										
Cable	Assignment																																										
Red	Ch+																																										
White	Ch-																																										
Black	Gnd																																										
 <p>Thread code 41</p>	 <p>Thread code 03</p>	 <p>Thread code 04</p>	 <p>Thread code 09</p>																																								
 <p>Thread code 00</p>	 <p>Thread code 02</p>	 <p>Thread code 21</p>	 <p>Thread code 42</p>																																								



See 221

Connection diagrams

Up to 100 VDC



For protection according to each connector

100 VDC for 100 V



For protection according to each connector

100 VDC for 100 V

Technical modifications and errors excepted.