



SUCO 0530 ELECTRONIC PRESSURE SWITCH

053010141B002
PNP output (High Side), NO, 0-10 Bar, G 1/4 – DIN EN
ISO 1179-2, 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

| | |
|-----------------------|----------------------|
| Electrical connection | M12x1 |
| Output | PNP |
| Function | Normally open (SPST) |
| Adjustment range min | 0 bar |

| | |
|-----------------------------|---------|
| Pressure max | 40 bar |
| Burst pressure | 80 bar |
| Adjustment range max | 10 bar |
| Process connection | 1/4 BSP |

TEMPERATURE & MATERIALS DATA

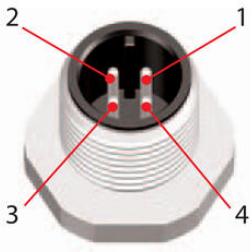
| | |
|----------------------------------|----------------------------------|
| Temperature ambient to | 100 °C |
| Material of wetted parts | Stainless steel 1.4305, Titanium |
| Temperature of media from | -40 °C |
| Temperature ambient from | -40 °C |
| Temperature of media to | 125 °C |
| Material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

ADDITIONAL DATA

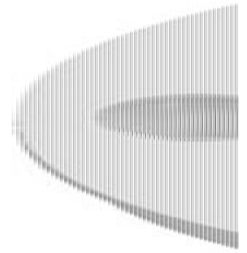
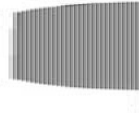
| | |
|---|--|
| Switching point adjustment range | 2 ... 100 % of the nominal pressure range Full Scale (FS), programmable at factory |
| Weight | 80 g |
| Switching time | < 2 ms |
| Supply voltage dc max | 32 V DC |
| Supply voltage dc min | 9,6 V DC |
| Pressure rise | ≤ 5,000 bar/s |

SAFETY & APPROVALS

| | |
|-----------------------------------|---|
| IP class | IP67 |
| Vibration resistance | 20g: 4..2000 Hz sine wave, DIN EN 60068-2-6 |
| Hysteresis | 2..99.8% of nominal pressure range (full scale), programmable at factory |
| Repeatability | ±0.1 % full scale |
| Accuracy | ±0.5 % of adjustment range (Full scale) at room temperature |
| EMC | EMC 2014/30/EU, EN 61000-6-2:2005, EN 61000-6-3:2007 |
| Mechanical life expectancy | 10,000,000 switching cycles at rise rates to 5,000 bar/s nominal pressure |
| Long term stability | ±0.1 % of adjustment range (full scale) per year |
| Shock resistance | 500m / s ² ; 11 ms half sine wave; DIN EN 60068-2-27 |
| Pressure range max | 10 bar |
| Pressure range min | 0 bar |
| Display | No |



| | |
|-------|-----|
| Pin 1 | Uv+ |
| Pin 2 | nc |
| Pin 3 | Gnd |
| Pin 4 | Out |



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----|-----|---|-----|---|-----|---|-----|---|---|-----|---|-----|---|-----|---|-----|---|-------|-----|-------|-----|---|---|---|---|--|---|-----|---|-----|---|-----|---|-----|
| <p>DIN EN 175301-803-A</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>1</td><td>Uv+</td></tr> <tr><td>2</td><td>Gnd</td></tr> <tr><td>3</td><td>Gnd</td></tr> <tr><td>4</td><td>Out</td></tr> </table> <p>IP67</p> <p>• 60.7 mm • 20 mm</p> <p>Order number: 001</p> | 1 | Uv+ | 2 | Gnd | 3 | Gnd | 4 | Out | <p>M 12 - DIN EN 61076-2-101 A</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>1</td><td>Uv+</td></tr> <tr><td>2</td><td>nc</td></tr> <tr><td>3</td><td>Gnd</td></tr> <tr><td>4</td><td>Out</td></tr> </table> <p>IP67</p> <p>• 54 mm • 22 mm</p> <p>Order number: 002</p> | 1 | Uv+ | 2 | nc | 3 | Gnd | 4 | Out | <p>ISO 15170-A1-E1</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>1</td><td>Uv+</td></tr> <tr><td>2</td><td>nc</td></tr> <tr><td>3</td><td>Gnd</td></tr> <tr><td>4</td><td>Out</td></tr> </table> <p>IP67</p> <p>• 65 mm • 27 mm</p> <p>Order number: 004</p> | 1 | Uv+ | 2 | nc | 3 | Gnd | 4 | Out | <p>AMP Superseal</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>1</td><td>Uv+</td></tr> <tr><td>2</td><td>Gnd</td></tr> <tr><td>3</td><td>Uv+</td></tr> <tr><td>4</td><td>Out</td></tr> </table> <p>IP67</p> <p>• 71 mm • 28 mm</p> <p>Order number: 007</p> | 1 | Uv+ | 2 | Gnd | 3 | Uv+ | 4 | Out |
| 1 | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | nc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | nc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>DEUTSCH DT04-4P</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>1</td><td>Gnd</td></tr> <tr><td>2</td><td>Uv+</td></tr> <tr><td>3</td><td>nc</td></tr> <tr><td>4</td><td>Out</td></tr> </table> <p>IP67</p> <p>• 38 mm • 22 mm</p> <p>Order number: 008</p> | 1 | Gnd | 2 | Uv+ | 3 | nc | 4 | Out | <p>DEUTSCH DT04-3P</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>A</td><td>Uv+</td></tr> <tr><td>B</td><td>Gnd</td></tr> <tr><td>C</td><td>Out</td></tr> </table> <p>IP67</p> <p>• 38 mm • 22 mm</p> <p>Order number: 010</p> | A | Uv+ | B | Gnd | C | Out | <p>Cable connection</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>red</td><td>Uv+</td></tr> <tr><td>white</td><td>Out</td></tr> <tr><td>black</td><td>Gnd</td></tr> </table> <p>IP67</p> <p>• 48 mm • 22 mm</p> <p>Order number: 011</p> | red | Uv+ | white | Out | black | Gnd | <p>Thread code: 41</p> <p>• 38 mm • 22 mm</p> <p>Order number: 008</p> | <p>Thread code: 03</p> <p>• 38 mm • 22 mm</p> <p>Order number: 010</p> | <p>Thread code: 04</p> <p>• 38 mm • 22 mm</p> <p>Order number: 011</p> | <p>Thread code: 09</p> <p>• 38 mm • 22 mm</p> <p>Order number: 011</p> | | | | | | | | | |
| 1 | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | nc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| red | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| white | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| black | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----|-----|---|-----|---|-----|---|-----|---|---|-----|---|-----|---|-----|---|-----|---|-------|-----|-------|-----|---|---|---|---|--|---|-----|---|-----|---|-----|---|-----|
| <p>DIN EN 175301-803-A</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>1</td><td>Uv+</td></tr> <tr><td>2</td><td>Gnd</td></tr> <tr><td>3</td><td>Gnd</td></tr> <tr><td>4</td><td>Out</td></tr> </table> <p>IP67</p> <p>• 60.7 mm • 20 mm</p> <p>Order number: 001</p> | 1 | Uv+ | 2 | Gnd | 3 | Gnd | 4 | Out | <p>M 12 - DIN EN 61076-2-101 A</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>1</td><td>Uv+</td></tr> <tr><td>2</td><td>nc</td></tr> <tr><td>3</td><td>Gnd</td></tr> <tr><td>4</td><td>Out</td></tr> </table> <p>IP67</p> <p>• 54 mm • 22 mm</p> <p>Order number: 002</p> | 1 | Uv+ | 2 | nc | 3 | Gnd | 4 | Out | <p>ISO 15170-A1-E1</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>1</td><td>Uv+</td></tr> <tr><td>2</td><td>nc</td></tr> <tr><td>3</td><td>Gnd</td></tr> <tr><td>4</td><td>Out</td></tr> </table> <p>IP67</p> <p>• 65 mm • 27 mm</p> <p>Order number: 004</p> | 1 | Uv+ | 2 | nc | 3 | Gnd | 4 | Out | <p>AMP Superseal</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>1</td><td>Uv+</td></tr> <tr><td>2</td><td>Gnd</td></tr> <tr><td>3</td><td>Uv+</td></tr> <tr><td>4</td><td>Out</td></tr> </table> <p>IP67</p> <p>• 71 mm • 28 mm</p> <p>Order number: 007</p> | 1 | Uv+ | 2 | Gnd | 3 | Uv+ | 4 | Out |
| 1 | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | nc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | nc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>DEUTSCH DT04-4P</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>1</td><td>Gnd</td></tr> <tr><td>2</td><td>Uv+</td></tr> <tr><td>3</td><td>nc</td></tr> <tr><td>4</td><td>Out</td></tr> </table> <p>IP67</p> <p>• 38 mm • 22 mm</p> <p>Order number: 008</p> | 1 | Gnd | 2 | Uv+ | 3 | nc | 4 | Out | <p>DEUTSCH DT04-3P</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>A</td><td>Uv+</td></tr> <tr><td>B</td><td>Gnd</td></tr> <tr><td>C</td><td>Out</td></tr> </table> <p>IP67</p> <p>• 38 mm • 22 mm</p> <p>Order number: 010</p> | A | Uv+ | B | Gnd | C | Out | <p>Cable connection</p> <p>Pin Assignment:</p> <table border="1"> <tr><td>red</td><td>Uv+</td></tr> <tr><td>white</td><td>Out</td></tr> <tr><td>black</td><td>Gnd</td></tr> </table> <p>IP67</p> <p>• 48 mm • 22 mm</p> <p>Order number: 011</p> | red | Uv+ | white | Out | black | Gnd | <p>Thread code: 41</p> <p>• 38 mm • 22 mm</p> <p>Order number: 008</p> | <p>Thread code: 03</p> <p>• 38 mm • 22 mm</p> <p>Order number: 010</p> | <p>Thread code: 04</p> <p>• 38 mm • 22 mm</p> <p>Order number: 011</p> | <p>Thread code: 09</p> <p>• 38 mm • 22 mm</p> <p>Order number: 011</p> | | | | | | | | | |
| 1 | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | nc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| red | Uv+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| white | Out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| black | Gnd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

