



## SUCO 0531 ELECTRONIC PRESSURE SWITCH

053110203B011  
PNP output (High Side), NC, 0-100 Bar, G 1/4 – DIN  
3852-A, Cable connection

- One Switching Output
- Stainless Steel & Titanium Wetted Parts
- Silicon-On-Sapphire Technology
- Factory Set



### PRODUCT DESCRIPTION

### TECHNICAL DATA

#### GENERAL DATA

|                       |                        |
|-----------------------|------------------------|
| Adjustment range max  | 100 bar                |
| Adjustment range min  | 0 bar                  |
| Electrical connection | Embedded 2m cable      |
| Process connection    | G1/4                   |
| Function              | Normally Closed (SPST) |
| Output                | PNP                    |
| Burst pressure        | 800 bar                |
| Pressure max          | 400 bar                |

#### TEMPERATURE & MATERIALS DATA

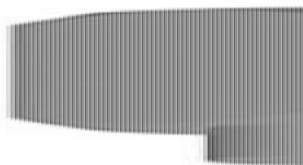
|                           |                                  |
|---------------------------|----------------------------------|
| Temperature of media from | -40 °C                           |
| Temperature of media to   | 125 °C                           |
| Temperature ambient from  | -40 °C                           |
| 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                           | 135 g                                                                              |

SAFETY & APPROVALS

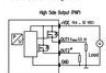
|                            |                                                                           |
|----------------------------|---------------------------------------------------------------------------|
| IP class                   | IP67                                                                      |
| Hysteresis                 | 2..99.8% of nominal pressure range (full scale), programmable at factory  |
| 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 | 10,000,000 switching cycles at rise rates to 5,000 bar/s nominal pressure |
| Repeatability              | ±0.1 % full scale                                                         |



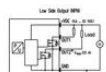


h=22

Connection diagrams



Do not connect directly to each connector  
Vcc I+ I- RL



Do not connect directly to each connector  
Vcc V+ V- RL

Technical modifications and errors excepted.

| <b>DN EN 175301-803-A</b><br><table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Vcc</td></tr><tr><td>2</td><td>Out</td></tr><tr><td>3</td><td>Gnd</td></tr><tr><td>4</td><td>Out</td></tr></table> <p>IP67</p> <p>• 60 / 70 mm<sup>2</sup><br/>• Ø 10 mm</p> <p>Order number: 000</p> | Pin                    | Assignment             | 1                      | Vcc | 2 | Out | 3 | Gnd | 4 | Out | <b>M 12 - DN EN 61076-3-001 A</b><br><table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Vcc</td></tr><tr><td>2</td><td>In</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<br/>• Ø 11 mm</p> <p>Order number: 002</p> | Pin | Assignment | 1 | Vcc | 2 | In  | 3 | Gnd | 4                                                                                                                                                                                                                                                                                 | Out   | <b>ISO 15175-A1-4-1</b><br><table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Vcc</td></tr><tr><td>2</td><td>In</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<br/>• Ø 11 mm</p> <p>Order number: 004</p> | Pin | Assignment | 1     | Vcc | 2     | In  | 3 | Gnd | 4 | Out | <b>AMP Superseal</b><br><table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Out</td></tr><tr><td>2</td><td>Gnd</td></tr><tr><td>3</td><td>Vcc</td></tr><tr><td>4</td><td>Out</td></tr></table> <p>IP67</p> <p>• 71 mm<br/>• Ø 16 mm</p> <p>Order number: 007</p> | Pin | Assignment | 1 | Out | 2 | Gnd | 3 | Vcc | 4 | Out |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------|------------------------|-----|---|-----|---|-----|---|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|---|-----|---|-----|---|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|-------|-----|-------|-----|---|-----|---|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|---|-----|---|-----|---|-----|---|-----|
| Pin                                                                                                                                                                                                                                                                                                 | Assignment             |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| 1                                                                                                                                                                                                                                                                                                   | Vcc                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| 2                                                                                                                                                                                                                                                                                                   | Out                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| 3                                                                                                                                                                                                                                                                                                   | Gnd                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| 4                                                                                                                                                                                                                                                                                                   | Out                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| Pin                                                                                                                                                                                                                                                                                                 | Assignment             |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| 1                                                                                                                                                                                                                                                                                                   | Vcc                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
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| 3                                                                                                                                                                                                                                                                                                   | Gnd                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| 4                                                                                                                                                                                                                                                                                                   | Out                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
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| 1                                                                                                                                                                                                                                                                                                   | Vcc                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
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| 3                                                                                                                                                                                                                                                                                                   | Gnd                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| 4                                                                                                                                                                                                                                                                                                   | Out                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
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| 1                                                                                                                                                                                                                                                                                                   | Out                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| 2                                                                                                                                                                                                                                                                                                   | Gnd                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| 3                                                                                                                                                                                                                                                                                                   | Vcc                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| 4                                                                                                                                                                                                                                                                                                   | Out                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| <b>Cable connection</b>                                                                                                                                                                                                                                                                             |                        |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| <b>DEUTSCH DT04-4P</b><br><table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>1</td><td>Gnd</td></tr><tr><td>2</td><td>Vcc</td></tr><tr><td>3</td><td>V+</td></tr><tr><td>4</td><td>Out</td></tr></table> <p>IP67</p> <p>• 38 mm<br/>• Ø 11 mm</p> <p>Order number: 008</p>                      | Pin                    | Assignment             | 1                      | Gnd | 2 | Vcc | 3 | V+  | 4 | Out | <b>DEUTSCH DT04-3P</b><br><table><tr><th>Pin</th><th>Assignment</th></tr><tr><td>A</td><td>Vcc</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<br/>• Ø 11 mm</p> <p>Order number: 009</p>                                          | Pin | Assignment | A | Vcc | B | Gnd | C | Out | <table><tr><th>Cable</th><th>Assignment</th></tr><tr><td>red</td><td>Vcc</td></tr><tr><td>white</td><td>Out</td></tr><tr><td>black</td><td>Gnd</td></tr></table> <p>IP67</p> <p>• 64 mm<br/>16-20 mm band width<br/>Cable length = 2 m<br/>• Ø 11 mm</p> <p>Order number: 011</p> | Cable | Assignment                                                                                                                                                                                                                                                                      | red | Vcc        | white | Out | black | Gnd |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| Pin                                                                                                                                                                                                                                                                                                 | Assignment             |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| 1                                                                                                                                                                                                                                                                                                   | Gnd                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
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| 3                                                                                                                                                                                                                                                                                                   | V+                     |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| 4                                                                                                                                                                                                                                                                                                   | Out                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| Pin                                                                                                                                                                                                                                                                                                 | Assignment             |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| A                                                                                                                                                                                                                                                                                                   | Vcc                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| B                                                                                                                                                                                                                                                                                                   | Gnd                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| C                                                                                                                                                                                                                                                                                                   | Out                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| Cable                                                                                                                                                                                                                                                                                               | Assignment             |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| red                                                                                                                                                                                                                                                                                                 | Vcc                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| white                                                                                                                                                                                                                                                                                               | Out                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| black                                                                                                                                                                                                                                                                                               | Gnd                    |                        |                        |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| <p>Thread code: 01</p>                                                                                                                                                                                                                                                                              | <p>Thread code: 02</p> | <p>Thread code: 03</p> | <p>Thread code: 04</p> |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |
| <p>Thread code: 05</p>                                                                                                                                                                                                                                                                              | <p>Thread code: 06</p> | <p>Thread code: 07</p> | <p>Thread code: 08</p> |     |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                           |     |            |   |     |   |     |   |     |                                                                                                                                                                                                                                                                                   |       |                                                                                                                                                                                                                                                                                 |     |            |       |     |       |     |   |     |   |     |                                                                                                                                                                                                                                                                               |     |            |   |     |   |     |   |     |   |     |