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# SUCO 0500/0501 ELECTRONIC PRESSURE SWITCH

Factory set

0500252411010
NO, 0 - 250 Bar, G 1/4, NBR, Deutsch DT04-3P



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

### PRODUCT DESCRIPTION

The SUCO 0500 and 0501 are compact, high-performance electronic pressure switches built around a ceramic thick-film sensor in a robust stainless steel (AISI 303) housing with a Hex-24 form factor. Factory-programmed with user-selectable switching points and hysteresis (2%–98%), these units feature a PNP high-side transistor output, with supply voltage ranging from 9.6–32 V DC and a maximum output current of 0.5 A (≤ 0.2 A above 50 °C). Pressure ranges span 0–2 to 0–250 bar, with overpressure resilience up to twice the nominal pressure and burst ratings up to 4×, depending on the model. They deliver rapid response, excellent accuracy, high repeatability, and long-term stability, while maintaining IP67 protection and resistance to vibration/shock in challenging environments. Advanced options include a USB PPD05 programming device for custom tuning of set points, hysteresis, delay, and window functions, and various connector/thread combinations (M12, DIN-43650, DT04, Superseal, cable).
The SUCO 0500/0501 series excels in precise pressure monitoring and safety control across hydraulics, mobile machinery, industrial automation, and process systems. Their high overpressure tolerance and rugged stainless-steel build ensure reliability in high-risk environments, while rapid response makes them ideal for pump protection, pressure interlock, and system shutdown scenarios. Ceramic sensors are chemically resistant, enabling use with hydraulic fluids, gases, and corrosive media. Programming flexibility allows for field customisation without mechanical intervention, a key advantage for OEMs and service teams requiring accurate, repeatable switching behaviour and reduced downtime.

# TECHNICAL DATA

## GENERAL DATA

| | |
|---|---|
| **Adjustment range max** | 250 bar |
| **Adjustment range min** | 0 bar |
| **Electrical connection** | Deutsch DT04-3P |
| **Process connection** | G1/4 |
| **Function** | Normally open |
| **Output** | PNP |
| **Burst pressure** | 500 bar |
| **Pressure max** | 375 bar |

## TEMPERATURE & MATERIALS DATA

| | |
|---|---|
| **Temperature of media from** | -30 °C |
| **Temperature of media to** | 100 °C |
| **Temperature ambient from** | -30 °C |

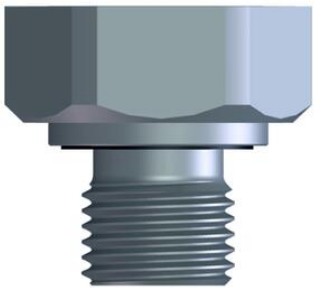
| | |
|---|---|
| **Temperature ambient to** | 100 °C |
| **Material of body** | Stainless steel 1.4305 |
| **Material of wetted parts** | NBR, Stainless steel 1.4305 |
| **Material membrane** | NBR |

## ADDITIONAL DATA

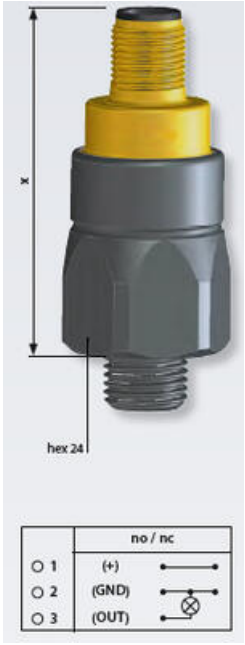
| | |
|---|---|
| **Supply voltage dc max** | 32 V DC |
| **Supply voltage dc min** | 9.6 V DC |
| **Pressure rise** | ≤ 1 bar/ms |
| **Switching time** | < 4 ms |
| **Switching point adjustment range** | 3...100 % of adjustment range(full scale) nominal pressure, set at factory |
| **Weight** | 80 g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

## SAFETY & APPROVALS

| | |
|---|---|
| **IP class** | IP67, IP6K9K |
| **Hysteresis** | 2...98% full scale, programmable at factory (maximum tolerance ±1.0% of adjustment range nominal pressure) |
| **Shock resistance** | 500m / s²; 11 ms half sine wave; DIN EN 60068-2-27 |
| **Vibration resistance** | 20g: 4..2000 Hz sine wave, DIN EN 60068-2-6 |
| **EMC** | EMC 2014/30/EU; EN 61000-6-2:2005; EN 61000-6-3:2007 |
| **Accuracy** | ±0.5 % of adjustment range (Full scale) at room temperature |
| **Long term stability** | ±0.1 % of adjustment range (full scale) per year |
| **Mechanical life expectancy** | 5,000,000 pulsations at rise rates to 1,000 bar/s nominal pressure |
| **Repeatability** | ±0.1 % of adjustment range (full scale) nominal pressure |





**DIN EN 175301-803-A**



| Pin | Assignment |
|---|---|
| 1 | Ub+ |
| 2 | Gnd |
| 3 | $U_{out}$ |
| PE | PE |

IP65

x = 60 mm without coupler outlet
x = 77 mm with coupler outlet

**Order number: 013**

**M 12 – DIN EN 61076-2-101 A**



| Pin | Assignment |
|---|---|
| 1 | Ub+ |
| 2 | nc |
| 3 | Gnd |
| 4 | $U_{out}$ |

IP67

x = 54 mm

**Order number: 002**

**ISO 15170-A1-4.1**



| Pin | Assignment |
|---|---|
| 1 | Ub+ |
| 2 | nc |
| 3 | Gnd |
| 4 | $U_{out}$ |

IP67, IP69K

x = 56 mm

**Order number: 004**

**AMP Superseal 1.5®**



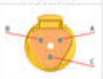
| Pin | Assignment |
|---|---|
| 1 | $U_{out}$ |
| 2 | Gnd |
| 3 | Ub+ |

IP67

x = 65 mm

**Order number: 007**

**Deutsch DT04-3P**



| Pin | Assignment |
|---|---|
| A | Ub+ |
| B | Gnd |
| C | $U_{out}$ |

IP67, IP69K

x = 65 mm

**Order number: 010**

**Cabel connection**



| Pin | Assignment |
|---|---|
| red | Ub+ |
| white | $U_{out}$ |
| black | Gnd |

IP67

x = 47 mm
(+ 25 mm bend relief)
Cable length – 2 m

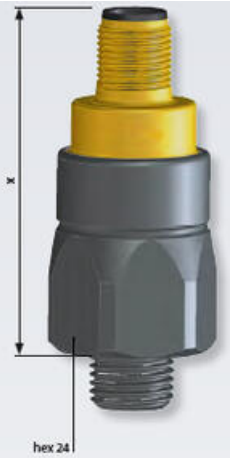
**Order number: 031**



**Thread code: 01**



**Thread code: 09**




| | no / nc |
|---|---|
| ○ 1 | (+) |
| ○ 2 | (GND) |
| ○ 3 | (OUT) |

**DIN EN 175301-803-A**



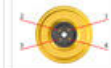
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|---|---|
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| 3 | $U_{out}$ |
| PE | PE |

IP65

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**M 12 – DIN EN 61076-2-101 A**



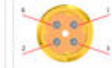
| Pin | Assignment |
|---|---|
| 1 | Ub+ |
| 2 | nc |
| 3 | Gnd |
| 4 | $U_{out}$ |

IP67

x = 54 mm

**Order number: 002**

**ISO 15170-A1-4.1**



| Pin | Assignment |
|---|---|
| 1 | Ub+ |
| 2 | nc |
| 3 | Gnd |
| 4 | $U_{out}$ |

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**Order number: 004**

**AMP Superseal 1.5®**



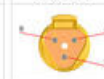
| Pin | Assignment |
|---|---|
| 1 | $U_{out}$ |
| 2 | Gnd |
| 3 | Ub+ |

IP67

x = 65 mm

**Order number: 007**

**Deutsch DT04-3P**



| Pin | Assignment |
|---|---|
| A | Ub+ |
| B | Gnd |
| C | $U_{out}$ |

IP67, IP69K

x = 65 mm

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**Cabel connection**



| Pin | Assignment |
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**Order number: 031**



**Thread code: 01**



**Thread code: 09**