

## SUCO 0510/0511 NPT1/4 ELECTRONIC PRESSURE SWITCH

Adjustable by user

0510252091002

NO, 0 - 250 Bar, NPT 1/4, NBR, M12x1

- Single Switch Point
- Small & Compact
- Ceramic Sensor
- Stainless Steel Housing



### PRODUCT DESCRIPTION

The SUCO 0510/0511 series combines a compact stainless-steel (AISI 303) hex-24 housing with a high-performance ceramic thick-film sensor, offering exceptionally reliable, switchable pressure monitoring. Users can adjust the switching point and hysteresis on-site, covering ranges from just 0–2 bar up to 0–600 bar, with dual output configurations (NO or NC, PNP 500 mA capability), and visual LED status indication for easy diagnostics. They're designed to withstand overpressure of up to 2× rated pressure and meet IP67 protection when paired with sealed connectors. Installation versatility is further enhanced by an array of electrical (AMP Superseal, Deutsch, DIN, M12, cable) and process (1/4-inch NPT, BSP, UNF, metric) connection options.

This series is ideal for OEM and industrial systems that require compact, field-adjustable pressure monitoring. It excels in hydraulic and pneumatic applications—such as construction equipment, material handling, and mobile machinery—where ruggedness and precision under harsh conditions are essential. The ceramic sensor resists corrosion and is unaffected by contact wear, making it suitable for systems with vibration, fluid contamination, or wash-down environments. With its PNP switching logic and adjustable hysteresis, it integrates smoothly into PLCs or relay-based controls for safety interlocks, pressure alarms, or automated shutdowns. Its robust overpressure tolerance and durable housing also make it a solid choice for mobile hydraulics and fluid processing where long-term reliability is critical.

## TECHNICAL DATA

### GENERAL DATA

|                       |               |
|-----------------------|---------------|
| Adjustment range max  | 250 bar       |
| Adjustment range min  | 0 bar         |
| Electrical connection | M12x1         |
| Process connection    | 1/4 NPT       |
| 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 |

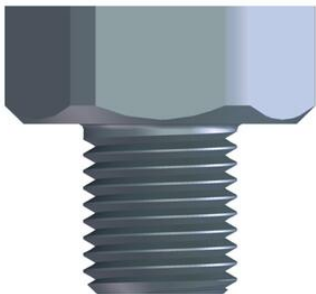
|                          |                             |
|--------------------------|-----------------------------|
| Temperature ambient to   | 100 °C                      |
| Material of body         | Stainless steel 1.4305      |
| Material of wetted parts | NBR, Stainless steel 1.4305 |
| Material 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), set at factory |
| Weight                           | 80 g                                                      |

### SAFETY & APPROVALS

|                            |                                                                                                            |
|----------------------------|------------------------------------------------------------------------------------------------------------|
| IP class                   | IP67                                                                                                       |
| 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 bar/ms nominal pressure                                            |
| Repeatability              | ±0.1 % of adjustment range (full scale)                                                                    |



| Pin | Assignment       |
|-----|------------------|
| 1   | U <sub>ref</sub> |
| 2   | Gnd              |
| 3   | M <sub>bus</sub> |
| PE  | PE               |

IP67

■ = 65 mm without cable exit  
■ = 77 mm with cable exit

Order number: 001

| Pin | Assignment       |
|-----|------------------|
| 1   | U <sub>ref</sub> |
| 2   | PE               |
| 3   | Gnd              |
| 4   | M <sub>bus</sub> |

IP67

■ = 54 mm

Order number: 002

| Pin | Assignment       |
|-----|------------------|
| 1   | U <sub>ref</sub> |
| 2   | PE               |
| 3   | Gnd              |
| 4   | M <sub>bus</sub> |

IP67, PHEM

■ = 56 mm

Order number: 004

| Pin | Assignment       |
|-----|------------------|
| 1   | M <sub>bus</sub> |
| 2   | Gnd              |
| 3   | U <sub>ref</sub> |

IP67

■ = 65 mm

Order number: 003

| Pin | Assignment       |
|-----|------------------|
| A   | U <sub>ref</sub> |
| B   | Gnd              |
| C   | M <sub>bus</sub> |

IP67, PHEM

■ = 65 mm

Order number: 018

Thread code: 41

Thread code: 09



| Pin | Assignment       |
|-----|------------------|
| 1   | U <sub>ref</sub> |
| 2   | Gnd              |
| 3   | M <sub>bus</sub> |
| PE  | PE               |

IP67

■ = 65 mm without cable exit  
■ = 77 mm with cable exit

Order number: 013

| Pin | Assignment       |
|-----|------------------|
| 1   | U <sub>ref</sub> |
| 2   | PE               |
| 3   | Gnd              |
| 4   | M <sub>bus</sub> |

IP67

■ = 54 mm

Order number: 002

| Pin | Assignment       |
|-----|------------------|
| 1   | U <sub>ref</sub> |
| 2   | PE               |
| 3   | Gnd              |
| 4   | M <sub>bus</sub> |

IP67, PHEM

■ = 56 mm

Order number: 004

| Pin | Assignment       |
|-----|------------------|
| 1   | M <sub>bus</sub> |
| 2   | Gnd              |
| 3   | U <sub>ref</sub> |

IP67

■ = 65 mm

Order number: 003

| Pin | Assignment       |
|-----|------------------|
| A   | U <sub>ref</sub> |
| B   | Gnd              |
| C   | M <sub>bus</sub> |

IP67, PHEM

■ = 65 mm

Order number: 018

Thread code: 41

Thread code: 09