

0161 / 0162

Diaphragm /piston pressure switches, 250V

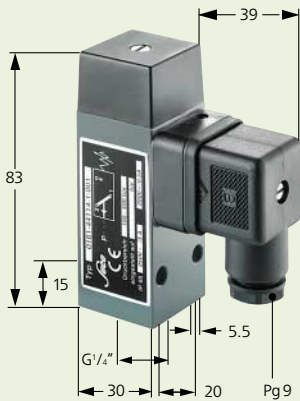


Aluminium body
 With changeover switch and silver contacts
 Max. voltage 250 V
 Overpressure safe to 200 / 600 bar¹⁾
 With connector plug similar to DIN 43650

- See page 7 for electrical properties

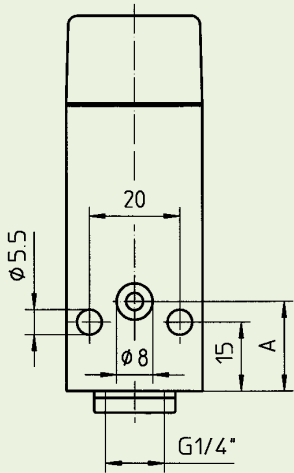
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With internal thread

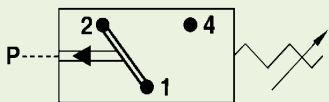


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Manifold mounting



- Also available with switching point preset in our works.



- For further technical data see page 34

Diaphragm pressure switches

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0162²⁾

| Adjustment range in bar | Tolerance in bar (RT) | Dim. „A“ in mm | p _{max.} in bar | Internal thread G 1/4" | Manifold mounting |
|-------------------------|-----------------------|----------------|--------------------------|------------------------|-------------------|
| 0.5 - 1 | ± 0.2 | 15 | 200 ¹⁾ | 0161 436 14 001 | 0162 436 14 001 |
| 0.5 - 5 | ± 0.2 - 0.5 | | | 0161 437 14 001 | 0162 437 14 001 |
| 1 - 10 | ± 0.5 | | | 0161 438 14 001 | 0162 438 14 001 |
| 10 - 50 | ± 3.0 | | | 0161 439 14 001 | 0162 439 14 001 |
| 50-100 | ± 3.0 - 5.0 | | | 0161 440 14 001 | 0162 440 14 001 |

Piston pressure switches

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| Adjustment range in bar | Tolerance in bar (RT) | Dim. „A“ in mm | p _{max.} in bar | Internal thread G 1/4" | Manifold mounting |
|-------------------------|-----------------------|----------------|--------------------------|------------------------|-------------------|
| 100 - 400 | ± 5.0 - 9.0 | 19.5 | 600 ¹⁾ | 0161 441 14 001 | 0162 441 14 001 |

Order Number:

0161 XXX XX X XXX

0162 XXX XX X XXX

Add figure for diaphragm/seal material

| | | | |
|-------------|---|-----|-----|
| NBR | Hydraulic / machine oil, turpentine, heating oil, air etc. | = 1 | = 1 |
| EPDM | Hydrogen, acetylene, ozone, brake fluid etc. | = 2 | = 2 |
| FKM | Hydraulic fluids (HFA, HFB, HFC, HFD), petrol/gasoline etc. | = 3 | = 3 |

See page 34 for temperature ranges of diaphragm materials

²⁾ 0162 Diaphragm pressure switches: scope of supply includes O-ring NBR 5 x 1.5 mm

Warning!

When using with oxygen, the relevant accident-prevention regulations must be observed. In addition, we recommend that a maximum operating pressure of 10 bar is not exceeded.

Piston-type pressure switches are only to a limited extent suitable for use with gases and oxygen. See explanation on page 5.

¹⁾ Static pressure, dynamic pressures should be 30 to 50% lower. These values refer to the hydraulic or pneumatic part of the pressure switch.

Degree of protection IP65

The type approval does not apply without restriction to all environmental conditions. It is the responsibility of the user to check whether the connection complies with regulations other than those stated, and whether it can be used for special applications which could not be foreseen by us in advance.

Pressure Switches

30 A/F

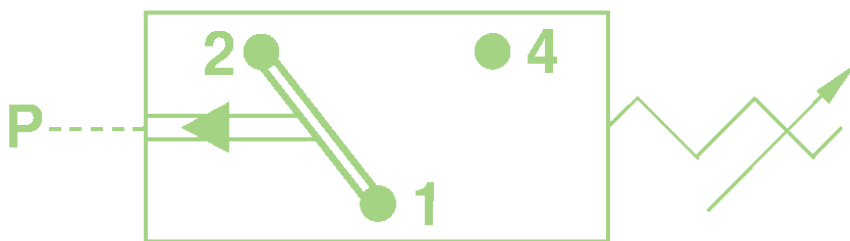
Changeover contacts



TECHNICAL DATA

| | |
|-----------------------------|---|
| Degree of protection: | IP 65 valve connector fitted |
| Switching frequency: | 200 / min. |
| Temperature stability: | NBR -30° ... +100°C EPDM -30° ... +120°C FKM -5° ... +120°C |
| Mechanical life expectancy: | 10 ⁶ cycles (at pressures up to 50 bar) |
| Vibration resistance: | 10 g / 5-200 Hz sine-wave |
| Shock resistance: | 294 m/s ² ; 14 ms half-sine-wave |
| Body material: | AlMgSi1 F28 |
| Switching performance: | see page 7 |

- Panel or manifold mounting for clear, maintenance-friendly installation
- Easily adjustable by user¹⁾
- Many types have adjustable hysteresis²⁾
- High-quality micro-switch for reliable switching
- High overpressure safety
- Connection plug for simple installation on site



¹⁾ Except models 0158, 0188

²⁾ Except models 0158, 0159, 0188

CE Marking

Directives of the European Council

**Machinery Directive,
EMC Directive
Low Voltage Directive
ATEX Directive**

Equipment that falls under these directives must have a declaration of conformity and carry the CE marking.

SUCO pressure switches are electrical equipment and therefore fall under the Low Voltage Directive 73/23/EC.

A EC Declaration of Conformity has been prepared for all products that fall under these directives and is kept on our premises. The catalogue pages for the relevant switches carry the CE marking.



Electrical Data

| Rated operating voltage U_e | Rated operating current I_e | Utilisation category | Model ranges: |
|--|---|-----------------------------|----------------------|
| 250 volt AC 50 / 60 Hz | 4 amp (2 amp)* | AC 12 | |
| 250 volt AC 50 / 60 Hz | 1 amp | AC 14 | 0140 |
| 24 volt DC | 4 / 4 amp (2 / 1 amp)* | DC 12 / DC 13 | 0141 |
| 50 volt DC | 2 / 1 amp (1 / 0.5 amp)* | DC 12 / DC 13 | 0180 |
| 75 volt DC | 1 / 0.5 amp (0.5 / 0.25 amp)* | DC 12 / DC 13 | 0181 |
| 125 volt DC | 0.3 / 0.2 amp (0.2 / 0.1 amp)* | DC 12 / DC 13 | 0184 |
| 250 volt DC | 0.25 / 0.2 amp (0.15 / 0.1 amp)* | DC 12 / DC 13 | 0185 |
| Rated insulation voltage U_i : | 300 Volt | | 0186 |
| Rated surge capacity U_{imp} : | 2.5 kV (4 kV)* | | 0187 |
| Rated thermal current I_{the} : | 5 amp | | |
| Switching overvoltage: | < 2.5 kV | | |
| Rated frequency: | DC und 50 / 60 Hz | | |
| Rated current of short-circuit protection: | Up to 5 amp (up to 3.5 amp)* | | |
| Conditional short-circuit current: | < 350 amp | | |
| IP degree of protection to EN60529:1991+A1:1999: | IP 65 | With plug | |
| Tightening torque of terminal screws: | < 0.35 Nm | | |
| Conductor cross-section: | 0.5 – 1.5 mm ² | | |
| Rated operating voltage U_e | Rated operating current I_e | Utilisation category | Model ranges: |
| 250 volt AC 50 / 60 Hz | 5 amp | AC 12 | |
| 250 volt AC 50 / 60 Hz | 1 amp | AC 14 | |
| 30 volt DC | 3.5 / 3.5 amp | DC 12 / DC 13 | |
| 50 volt DC | 2 / 1 amp | DC 12 / DC 13 | 0150 |
| 75 volt DC | 1 / 0.5 amp | DC 12 / DC 13 | |
| 125 volt DC | 0.3 / 0.2 amp | DC 12 / DC 13 | |
| 250 volt DC | 0.35 / 0.2 amp | DC 12 / DC 13 | 0161 |
| Rated insulation voltage U_i : | 300 volt | | 0162 |
| Rated surge capacity U_{imp} : | 2.5 kV | | |
| Rated thermal current I_{the} : | 6 amp | | |
| Switching overvoltage: | < 2.5 kV | | |
| Rated frequency: | DC und 50 / 60 Hz | | |
| Rated current of short-circuit protection: | Up to 6,3 amp | | 0175 |
| Conditional short-circuit current: | < 350 amp | | |
| IP degree of protection to EN60529:1991+A1:1999: | IP 65 | With plug | |
| Tightening torque of terminal screws: | < 0.35 Nm | | |
| Conductor cross-section: | 0.5 – 1.5 mm ² | | |
| Rated operating voltage U_e | Rated operating current I_e | Utilisation category | Model ranges: |
| 250 volt AC 50 / 60 Hz | 2.5 amp | AC 12 | |
| 250 volt AC 50 / 60 Hz | 1 amp | AC 14 | |
| 30 volt DC | 2 / 2 amp | DC 12 / DC 13 | |
| 50 volt DC | 1 / 0.5 amp | DC 12 / DC 13 | |
| 75 volt DC | 0.75 / 0.4 amp | DC 12 / DC 13 | 0158 |
| 125 volt DC | 0.3 / 0.2 amp | DC 12 / DC 13 | |
| 250 Volt DC | 0.3 / 0.2 amp | DC 12 / DC 13 | |
| Rated insulation voltage U_i : | 300 Volt | | 0159 |
| Rated surge capacity U_{imp} : | 2.5 kV | | |
| Rated thermal current I_{the} : | 6 amp | | |
| Switching overvoltage: | < 2.5 kV | | |
| Rated frequency: | DC and 50 / 60 Hz | | |
| Rated current of short-circuit protection: | Up to 2.5 amp | | 0188 |
| Conditional short-circuit current: | < 350 amp | | |
| IP degree of protection to EN60529:1991+A1:1999: | IP 65 | With plug | |
| Tightening torque of terminal screws: | < 0.5 Nm | | |
| Conductor cross-section: | 0.5 – 1.5 mm ² | | |

* Figures in brackets apply to Types 0140 und 0141