

0161 / 0162

Diaphragm / piston pressure switches up to 250 V

- Aluminium housing
- Snap action with silver contacts
- Overpressure safety up to 2,900 / 8,700 psi (200 / 600 bar)¹⁾
- Socket device similar to DIN EN 175301 (DIN 43650)
- Differential adjustable at factory

P _{max.} in psi (bar)	Adjustment range in psi (bar)	Tolerance in psi (bar) at room temperature	Dimension A in mm	Order number:
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With female 1/4 BSPP thread

0161 Diaphragm pressure switches

2,900 psi ¹⁾ (200 bar) ¹⁾	7.25 - 14.5 psi (0.5 - 1 bar)	± 2.90 psi (± 0.2 bar)		0161 - 436 14 - X - 001
	7.25 - 72.5 psi (0.5 - 5 bar)	± 2.90 - 72.5 psi (± 0.2 - 0.5 bar)		0161 - 437 14 - X - 001
	14.5 - 145 psi (1 - 10 bar)	± 7.25 psi (± 0.5 bar)		0161 - 438 14 - X - 001
	145 - 725 psi (10 - 50 bar)	± 43.5 psi (± 3.0 bar)		0161 - 439 14 - X - 001
	725 - 1,450 psi (50 - 100 bar)	± 43.5 - 72.5 psi (± 3.0 - 5.0 bar)		0161 - 440 14 - X - 001

0161 Piston pressure switches

8,700 psi ¹⁾ (600 bar) ¹⁾	1,450 - 5,800 psi (100 - 400 bar)	± 72.5 - 130.5 psi (± 5.0 - 9.0 bar)		0161 - 441 14 - X - 001
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Block style (with O-ring NBR 5 x 1.5 mm)

0162 Diaphragm pressure switches

2,900 psi ¹⁾ (200 bar) ¹⁾	7.25 - 14.5 psi (0.5 - 1 bar)	± 2.90 psi (± 0.2 bar)	15	0162 - 436 14 - X - 001
	7.25 - 72.5 psi (0.5 - 5 bar)	± 2.90 - 72.5 psi (± 0.2 - 0.5 bar)		0162 - 437 14 - X - 001
	14.5 - 145 psi (1 - 10 bar)	± 7.25 psi (± 0.5 bar)		0162 - 438 14 - X - 001
	145 - 725 psi (10 - 50 bar)	± 43.5 psi (± 3.0 bar)		0162 - 439 14 - X - 001
	725 - 1,450 psi (50 - 100 bar)	± 43.5 - 72.5 psi (± 3.0 - 5.0 bar)		0162 - 440 14 - X - 001

0162 Piston pressure switches

8,700 psi ¹⁾ (600 bar) ¹⁾	1,450 - 5,800 psi (100 - 400 bar)	± 72.5 - 130.5 psi (± 5.0 - 9.0 bar)	19.5	0162 - 441 14 - X - 001
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Seal material – Application areas

NBR (BunaN)	Hydraulic/machine oil, heating oil, air, nitrogen, etc.	1
EPDM	Brake fluid, hydrogen, oxygen, acetylene, etc.	2
FKM (Viton®)	Hydraulic fluids (HFA, HFB, HFD), petrol/gasoline, etc.	3

Refer to page 75 for the temperature range and application thresholds of sealing materials

Your order number: 016X - XXX 14 - X - XXX

1 Adjusting the set point

To adjust the set point, undo the locknut and adjust the set screw using a screwdriver.
Clockwise screwing increases the switching pressure. After adjusting, tighten the locknut again.

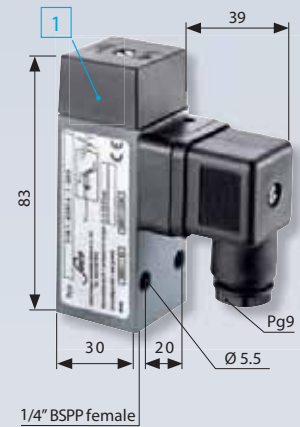
¹⁾ Static value. Dynamic value is 30-50 % lower. Values pertain to the hydraulic/pneumatic part of the pressure switch.

M.7

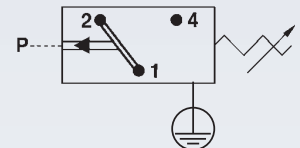
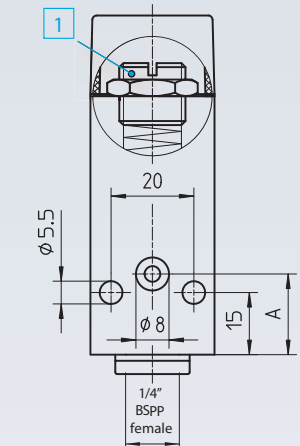
30 A/F

Suco

0161 with female thread



0162 Block style



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Pressure switches 30 A/F

Technical data

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30 A/F

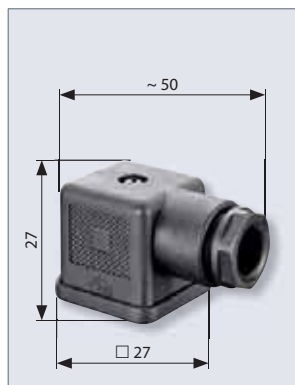


Temperature resistance of sealing materials:	NBR (BunaN)	-40 °F ... +212 °F (-40 °C ... +100 °C)
	EPDM	-22 °F ... +248 °F (-30 °C ... +120 °C)
	FKM (Viton®) (in diaphragm pressure switch)	+23 °F ... +248 °F (-5 °C ... +120 °C)
	FKM (Viton®) (in piston pressure switch)	+5 °F ... +248 °F (-15 °C ... +120 °C)
Switching frequency:	200 / min.	
Mechanical life expectancy:	1,000,000 cycles (for diaphragm pressure switches, life expectancy value only applies for switching pressures up to 725 psi / 50 bar)	
Pressure rise rate:	≤ 14.5 psi/ms (≤ 1 bar/ms)	
Differential:	Typ 0159:	approx. 10 ... 30 % (not adjustable)
	Typ 0161, 0162, 0175:	approx. 10 ... 30 % (factory adjustable)
Vibration resistance:	10 g; 5 ... 200 Hz sine wave; DIN EN 60068-2-6	
Shock resistance:	294 m/s ² ; 14 ms half sine wave; DIN EN 60068-2-27	
Housing material:	Aluminium	
Protection class:	IP65 with Socket device fitted	
Weight:	Typ 0159, 0161, 0162:	approx. 8.5 oz (240 g)
	Typ 0175:	approx. 11 oz (310 g)

Electrical values	0159	0161 / 0162 / 0175
Rated working voltage U_e	Rated working current I_e	
250 VAC 50 / 60 Hz, AC 12	2.5 A	5 A
250 VAC 50 / 60 Hz, AC 14	1 A	1 A
24 VDC, DC 12 / DC 13	2 / 2 A	3.5 / 3.5 A
50 VDC, DC 12 / DC 13	1 / 0.5 A	2 / 1 A
75 VDC, DC 12 / DC 13	0.75 / 0.4 A	1 / 0.5 A
125 VDC, DC 12 / DC 13	0.3 / 0.2 A	0.3 / 0.2 A
250 VDC, DC 12 / DC 13	0.3 / 0.2 A	0.25 / 0.2 A
Rated insulation voltage U_i :	300 V	
Rated impulse withstand voltage U_{imp} :	2.5 kV	
Conventional thermal current I_{the} :	6 A	
Switching overvoltage:	< 2.5 kV	
Rated frequency:	DC and 50 / 60 Hz	
Nominal current of short-circuit mechanism:	to 2.5 A	to 6.3 A
Conditional short-circuit current:	< 350 A	
Tightening torque of terminal screws:	< 0.35 Nm	
Connector cross-section:	0.5 – 1.5 mm ²	

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Socket device

to DIN EN 175301-803-A
(DIN 43650)

PG9 screw fitting
(tightening range 6 – 9 mm)
terminals for wire cross-sections:
0.34 ... 1.5 mm²
(AWG 22 ... AWG 16),
tightening torque
for terminal screw 0.4 Nm

**With socket device
fitted: IP65**

Suitable for voltages
up to 250 V

suitable for series

**0150 / 0161 / 0162 / 0175
0184 / 0185 / 0194 / 0195**

Order number:
1-1-84-652-009



Socket device

With indicator lamp to DIN EN
175301-803-A
(DIN 43650)

PG9 screw fitting
(tightening range 6 – 9 mm)
terminals for wire cross-sections:
0.34 ... 1.5 mm²
(AWG 22 ... AWG 16),
tightening torque
for terminal screw 0.4 Nm

**With socket device
fitted: IP65**

Suitable for voltage
24 or 250 V

suitable for series

**0150 / 0161 / 0162 / 0175
0184 / 0185 / 0194 / 0195**

Order number:
for 24 VDC: **1-1-84-652-011**
for 250 VAC: **1-1-84-652-010**



Socket device

M 12x1
DIN EN 61071-2-101 D
Straight
4-pin

Terminals for wire cross-section
0.75 mm² (AWG 18),
tightening torque for terminal
screw 0.4 Nm

**With socket device
fitted: IP65**

Suitable for voltages
up to 48 V

suitable for series

**0122 / 0123 / 0124 / 0125
0134 / 0135 / 0424 / 0425**

and for all transmitters and
electronic pressure switches
with an M12 connector

Order number:
1-6-00-652-016



Socket device

M 12x1
DIN EN 61071-2-101 D
Angled
4-pin

Terminals for wire cross-section
0.75 mm² (AWG 18),
tightening torque for terminal
screw 0.4 Nm

**With socket device
fitted: IP65**

Suitable for voltages
up to 48 V

suitable for series

**0122 / 0123 / 0124 / 0125
0134 / 0135 / 0424 / 0425**

and for all transmitters and
electronic pressure switches
with an M12 connector

Order number:
1-6-00-652-017



Pressure switches 30 A/F

Snap action with silver contacts



- Attachment options for wall fitting and block style enable clearly structured, accessible, easy-maintenance installation
- Switching pressure can be adjusted easily by user
- High overpressure safety
- Socket devices enable simple installation on the machine