Electronic Pressure Switches

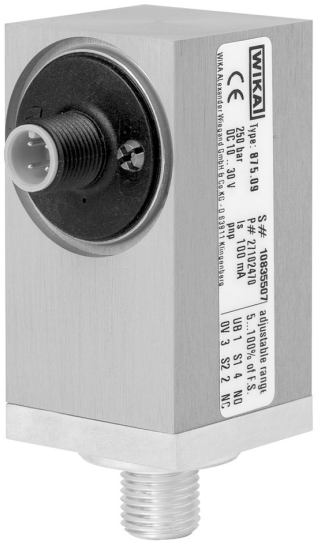
on Hall Effect Principle

TRONIC LINE

with Capsule • Model 875.09.2278
with Bourdon Tube • Model 875.09.2279

- **Pressure ranges from 0 ... 100 mbar to 0 ... 600 bar**
- **1 or 2 switching outputs**
- **NO or NC switching function**
- **Switching points adjustable on site**
- **Integrated LED to display the switching status**
- **Various pressure connections**
- **Ingress protection IP 65 to IP 67**

Model 875.09.2278
(for pressure ranges up to 25 bar)



Model 875.09.2279
(for pressure ranges from 60 bar)

General features

The electronic pressure switches on hall effect principle are applicable in all fields that require the reliability of semiconductor relays. This switching principle without mechanical contact ensures a long working life.

By means of an elastic measuring element and by applying the hall effect a switching output is generated at a given pressure value. The switching output is available with NO or NC contact function. The switching points can be set on site via the adjustment screws. A LED is integrated in the plastic cover next to the adjustment screw displaying the actual switching status.

Pressure ranges from 0 ... 0.1 bar up to 0 ... 600 bar graded in accordance with EN and an up to 5-fold overload protection (depending on the pressure range) offer a wide range of possible applications.
The variety of pressure connections allows to use the electronic pressure switch for many different applications.
Special connections for refrigeration applications are available.

The electrical connection is made through a locking plug, 4-pin (M 12x1) or flying lead.

Main applications

- Machinery and plant construction
- Hydraulics
- Pneumatic
- Vehicle construction
- Refrigeration systems

Supplementary data sheet:

- Differential pressure switch DELTA-switch **Model 851.02.100**
  (see data sheet PM 07.17)
- Electronic pressure switches **Model PS-20 and PS-21**
  (see data sheet PE 81.28)

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Specifications		Model 875.09.2278	Model 875.09.2279
Measuring system		capsule	bourdon tube
Pressure ranges	bar	0,1 0,16 0,25 0,4 0,6 1 1,6 2,5 4 6 10 16 25	60 100 160 250 400 600
Overpressure safety	bar	0,5 0,8 1,25 2 3 5 8 12,5 20 30 40 32 50	120 200 320 500 800 1200
Operations		$1 \cdot 10^6$	$1 \cdot 10^6$
Pressure connection 1)		G ¼ B male	G ¼ B male
		{G ⅛ B, ¼ NPT, M 10 x 1 or M 12 x 1.5 male}	{G ½ B male or G ¼ female}
Materials			
• measuring element		Ni- and Cu-alloy	stainless steel 1.4571
• pressure connection		Cu-alloy	Cu-alloy
• case		Cu-alloy	aluminium, anodized
• top		plastic	plastic
Switching function 2)		1 NO or 1 NC contact {2 NO, 2 NC, 1 NO + 1 NC contact}	
		p-switching or n- switching	
Adjustability		via turning screw on site	
• switching point	% of span	5 ... 100 % (pressure range 0 ... 16 bar resp. 0 ... 25 bar: 10 ... 100%)	
Repeatability	% of span	< 1 %	
Switching hysteresis	% of span	≤ 5 % (pressure range 0 ... 16 bar resp. 0 ... 25 bar: ≤ 10%)	
Power supply U_B	DC V	$10 < U_B \leq 30$ influence of the power supply ($\Delta U_B = 10$ V) < 0.3 % of span	
Contact rating	mA	max. 100 (max. 30 VDC)	
Compensated temperature range	°C	0 ... +80	
Temperature effect	% / 10 K	0.4	
Permissible temperature of			
• medium	°C	-20 ... +80 {-40 ... +110}	
• ambient	°C	-20 ... +80	
• storage	°C	-30 ... +80	
CE- Conformity		interference emission and immunity per EN 61 326	
Electrical connection		locking plug, 4-pin M 12 x1	
		{flying lead with 2.0 m cable}	
Ingress protection per EN 60 529 / IEC 529		IP 65 (IP 67 with cable)	
Wiring protection		protected against polarity crossing and overvoltage	
Weight	kg	approx. 0.09	approx. 0.27
Dimensions		see drawings	
Items in curved brackets { } are optional extras for additional price			

1) G ¼ B without spigot
2) At increasing pressure

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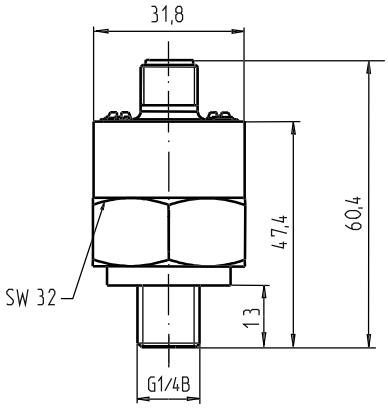
Dimensions in mm

Model 875.09.2278

locking plug, 4-pin
M 12 x 1



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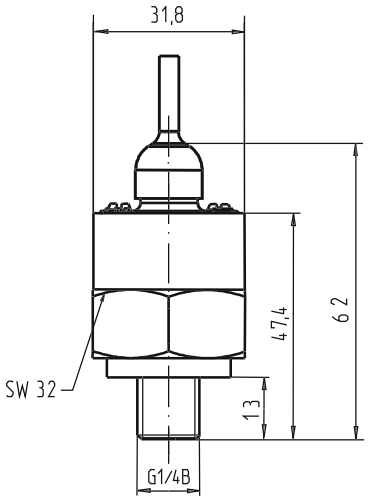
flying lead



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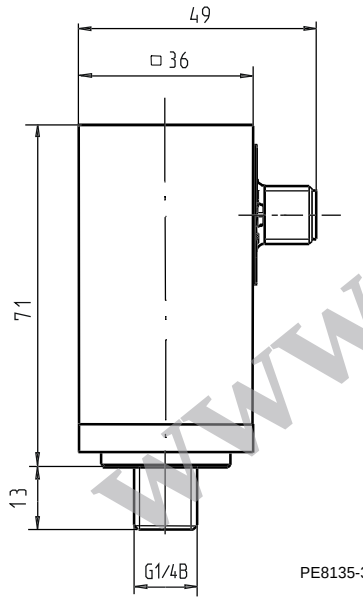
Model 875.09.2279

locking plug, 4-pin
M 12 x 1



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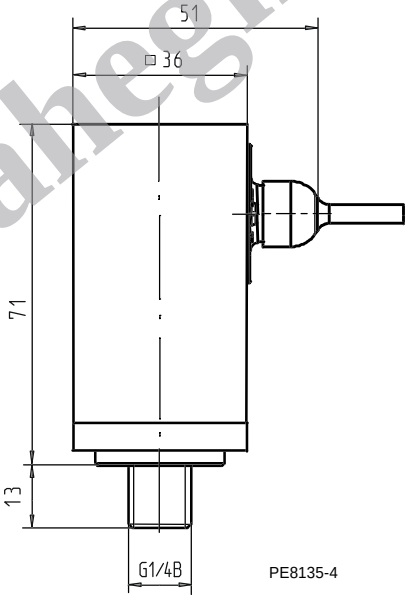
flying lead



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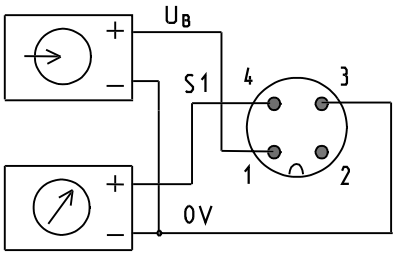
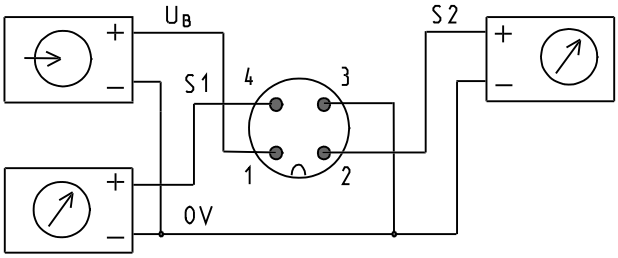
Wiring details

locking plug, 4-pin
M 12 x 1

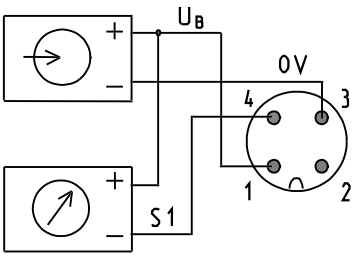
1 contact
p-switching



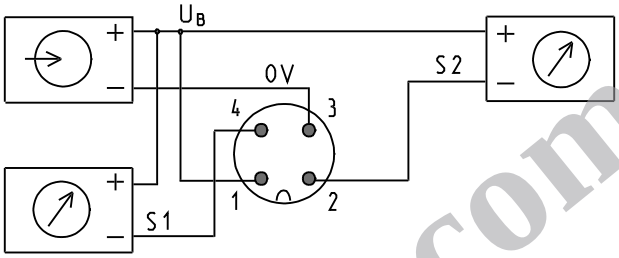
2 contacts
p-switching



n-switching

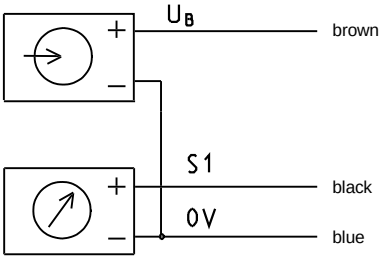


n-switching

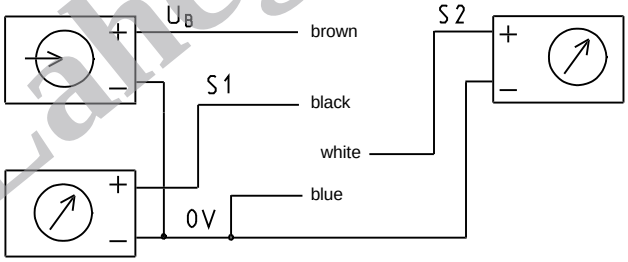


flying lead

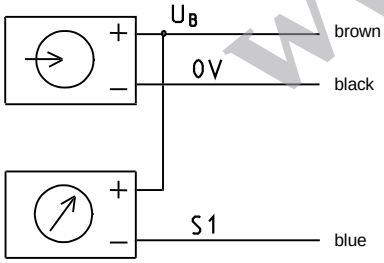
1 contact
p-switching



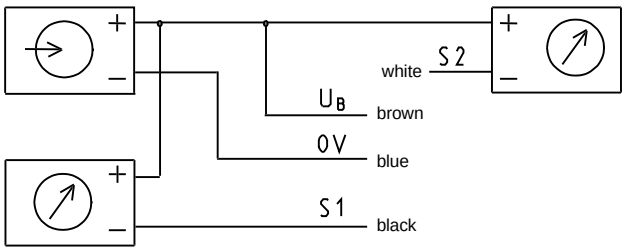
2 contacts
p-switching



n-switching



n-switching



Ordering information

State:
Model / Pressure range / Pressure connection / Contact and switching function / Electrical connection

Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.
Modifications may take place and materials specified may be replaced by others without prior notice.

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