Pressure Gauge Accessories

Inductive Pressure Switch Window Assembly

Type 830.1E switch

Accessories, Electric

Application
Pressure gauge accessory used to signal a high or low alarm function. Example: To signal a "low contents" alarm on a compressed gas cylinder.

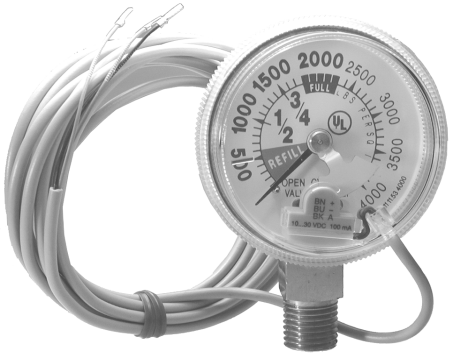
Sizes
Fits 2" Type 111.11, Type 131.15 &
Type 230.25 Pressure Gauges

Accuracy
Determined by accuracy of pressure gauge

Ranges
Field adjustable. Suitable for use with all standard pressure ranges and units of measure.

Operating Temperature
Ambient: -13°F to 158°F (-25°C to 70°C)
Media: max. 212°F (+100°C)





Type 830.1E Pressure Switch Assembly
Attached to Type 111.11 2" Pressure Gauge

Standard Features

Window
Twist-lock polycarbonate

Pointer
Requires flag-pointer P/N 2140349

Operating voltage
DC 10...30 V with 10% residual ripple

Switching current
< 100 mA and < 100 µA residual

Voltage drop when I_{max}
<0.7 V

Function of switching element
The switching electronics are integrated into the slot sensor. The contact is open if the flag is outside of the slot. The contact closes when the flag moves into the slot sensor sending a signal to a PLC or other controller

Switching frequency
1000 Hz

Switching hysteresis
0.004 to 0.008 inches
0.10 to 0.20 mm

Switching indication
LED contact indication

Output signal
NPN-transistor amplified signal

Other ambient conditions
Same as those of the pressure gauge on which the switch is used

Cable length
39 inches (1 meter) standard

Approvals
CE marked

Description	Part Number	
Inductive Pressure Switch factory installed	NPN	1325545
to 2" pressure gauge (gauge sold separately)	PNP	4361151
Inductive Pressure Switch Kit. Includes switch	NPN	1192523
window, flag pointer, and instruction sheet.	PNP	2252759
Inductive Pressure Switch window only	2126362	
Flag-pointer for use with Pressure Switch WIndow	2140349	
Instruction sheet (this data sheet)	4005953	

Installation Instructions:

1. Remove standard twist-lock window from pressure gauge by turning counterclockwise.

2. Remove standard pointer from pressure gauge using a pointer puller tool (contact factory for more information on this special tool available from WIKA).

3. Calibrate the gauge by pressurizing gauge to a known value. WIKA suggests pressurizing to one of the printed numbers on the dial around the 12 o'clock position. Press the special flag-pointer (P/N 2140349) onto pointer hub tightly with the tip of the flag-pointer on the tick mark of the current pressure. For instance, on a 100 PSI gauge, WIKA suggests pressurizing to 50 PSI which is one of the printed numbers on the dial and is near 12 o'clock. In this case, the flag-pointer should be put on to the hub so that the tip is right at 50 PSI.

4. Attach the window assembly loosely onto the case with about a 1/4 turn. Make sure the yellow inductive sensor and the flag on the flag-pointer are separated.

5. Turn the center portion of the window so that the inductive sensor moves towards the flag of the flag-pointer. Make sure that the flag runs through the middle of the inductive sensor. If there is any blockage, bend the flag by hand to a position that allows it to travel through the inductive sensor without touching the sensor.

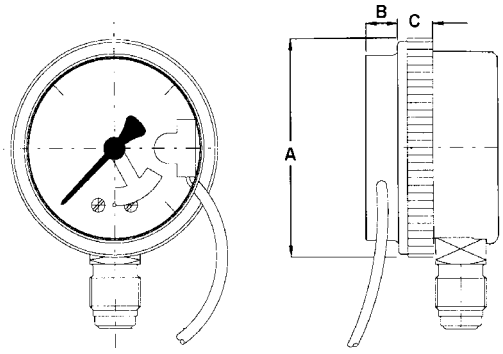
6. Turn the center portion of the window so that the green setpoint line on the window corresponds to the pressure at which the alarm should activate.

7. Pressing the center portion of the window down to hold it in place, fully tighten the window (about another 1/2 turn).

8. It is possibe that the flag-pointer could be bent during shipping and handling causing the alarm to activate at the wrong pressure. The activation setpoint can be "tweaked" be either changing the position of the flag or changing the position of the inductive sensor.

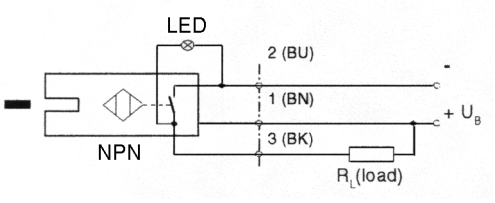
9. For further technical assistance, contact WIKA Customer Service at 1-888-WIKA-USA.

Dimensions



Type 830.1E Pressure Switch Assembly
Attached to 2" Pressure Gauge

TYPE/SIZE	WEIGHT	KEY	A	B	C
Type 830.1E Pressure Switch Assembly (attached to 2" pressure gauge)	0.05 lbs. (Switch Only)	mm	57.8	7.5	10
		in	2.28	0.30	0.39



Output 3 (BK) makes connection to minus 2 (BU). The load (R_L) between 3 (BK) and 1 (BN) has to be large enough so that the max. switch-current 100 MA will not be exceeded. Do not make a direct connection between 1 (BN) and 3 (BK)!

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Ordering Information:
State computer part number (if available) / model number / size / range / connection size and location / options required.

Specifications given in this price list represent the state of engineering at the time of printing. Modifications may take place and the specified materials may change without prior notice

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