Electronic contact model 830 E

Description, Application
Direct switching of small loads, which are usually required for a PLC, can be realised by this inductive contact with integrated amplifier, which is factory-installed into the measuring instrument.

The usual advantages of inductive contacts, such as fail-safe contact operation, no wear due to proximity contact operation as well as virtually no effect on the measuring system, thus ensuring the accuracy of the indication, also apply here.

An additional control unit is not required.

The electronic contact with PNP output can be specified in either a 2- or 3-wire design.
The operating voltage is DC 10 ... 30 V. The maximum switching current is 100 mA.

The model 830 E electronic contact is **not intrinsically safe** and therefore not suitable for applications where explosion protection is required.

See page 15 for further technical data.

The contact function index is the same as that for the model 831 inductive contact with the following differences:
Index 1 (following the inductive contact model no.) means the **contact makes** when the set point is reached in a clockwise direction (flag **enters control head**)

Index 2 (following the inductive contact model no.) means the **contact breaks** when the set point is reached in a clockwise direction (flag **leaves control head**)

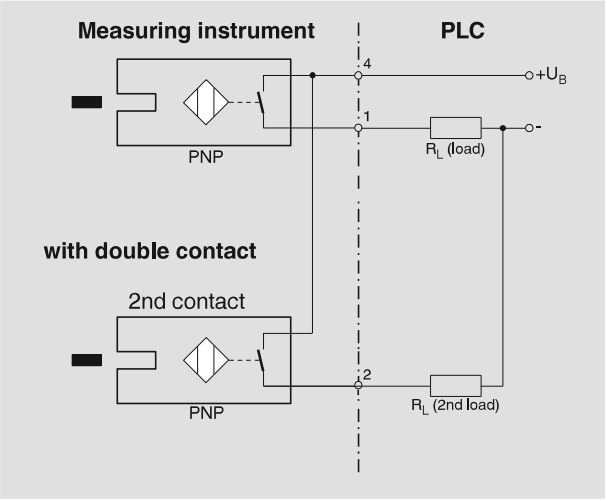
Note: This operation is directly opposite to that of model 831!

Wiring details
The control and switching electronics are in the sensor, the electrical connection is via a terminal box.

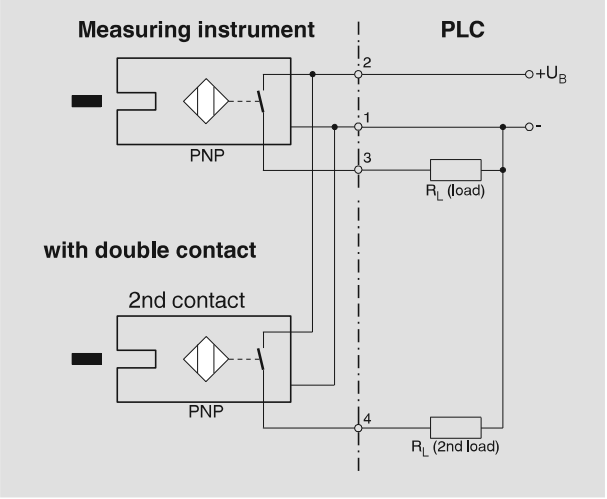
- To connect to a PLC or for the direct switching of small loads
- PNP transistor
  With PNP switching apparatus, the switched output is connected to PLUS. The load RL between the switched output and the MINUS should be specified so that the maximum switching current (100 mA) is not exceeded.

- Flag leaves slot sensor:
  contact breaks (output not active)
- Flag enters slot sensor:
  contact makes (output active)

2-wire system (standard)



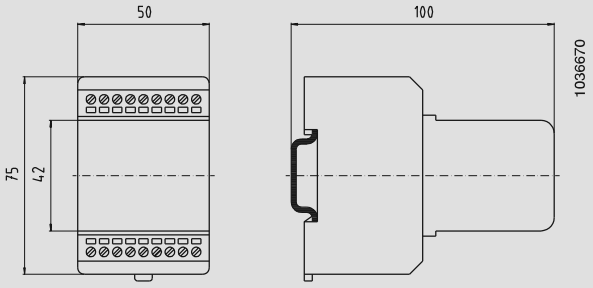
3-wire system



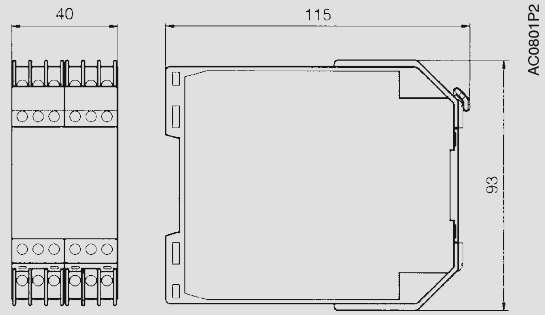
Specifications	Electronic contact model 830 E
Range of operating voltage	DC 10 ... 30 V
Residual ripple	max. 10 %
No-load current	≤ 10 mA
Switching current	≤ 100 mA
Leakage current	≤ 100 µA
Function of switching element	normally open (make contact)
Type of output	PNP transistor
Voltage drop (with $I_{max.}$)	≤ 0.7 V
Protection against pole reversal	conditional UB (the output 3 or 4 switch must never be set directly to minus)
Anti-inductive protection	1 kV, 0.1 ms, 1 kΩ
Oscillator frequency	approx. 1000 kHz
EMC	acc. EN 60947-5-2
Ambient conditions and temperature	depends on measuring instrument
Installation	installed directly in the measuring instrument at the factory, maximum 2 inductive contacts

Dimensions of control units for inductive contacts

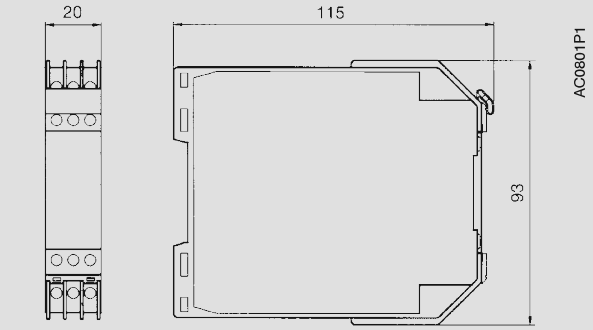
Form C



Form E



Form D



Form F

