

Digital Indicator for Panel Mounting Model DI15

WIKA Data Sheet AC 80.01

Applications

- Plant construction
- Machine tools
- Test benches
- General industrial applications

Special Features

- Multi-function input for resistance thermometers, thermocouples and standard signals
- Switching point, hysteresis and type of output (NPN, PNP, Push-Pull) free selectable
- Interface EASYBUS
- High measuring rate with standard signals



Digital Indicator Model DI15

Description

The large number of connectable input signals and the compact design allows the use of the digital indicator DI15 for the most diverse applications.

The concept of this universal digital indicator enables easy adaptation to the respective measuring tasks on the site without further tools. The selection of the input signal is carried out by connection to the suitable connecting terminals and the selection in the menu. The scaling of the indication range and the switching outputs can be done by keys at the front. A logically structured menu guides the operator through all the necessary program steps by means of plain symbols in the LED-display field.

Two freely programmable transistor switching outputs with independently adjustable hysteresis are supplied as standard in the digital indicator. The digital evaluation ensures that the alarm contacts are switched accurately to the point. The response time can be set from 0 ... 99 minutes.

A serial interface EASYBUS for measuring data transfer is provided as standard.

Installation time is reduced to a minimum through stainless steel spring clips. The instrument can be fitted to front panels with thicknesses up to 10 mm without problems. Because of its compact design the use even in applications where space is critical is possible.

Specifications
Model DI15

Display	
- Design	7-segment-LED, 4-digit, red
- Height of digits	10 mm
- Indication range	-1999 ... 9999
Input	
- Number and type	1 multi-function input for resistance thermometers, thermocouples and standard signals
- Input configuration	Selectable via terminal connections and menu-driven programming
- Resistance thermometers	Pt100 3-wire, Pt1000 2-wire max. admissible resistance per wire: 20 Ω
- Thermocouples	Type K, S, N, J, T
- Voltage signals	0 ... 50 mV, 0 ... 1 V, 0 ... 2 V input resistance ≥ 10 kΩ 0 ... 10 V input resistance ≥ 300 kΩ
- Current signals	0 ... 20 mA, 4 ... 20 mA input resistance ~125 Ω
- Measuring rate	Approx. 4/s at temperature sensors, approx. 100/s at standard signals
Outputs	2 switching outputs, not galvanically isolated
- Type of output	Adjustable: Low-Side (NPN, „GND-switching“) High-Side (PNP, „+Uv-switching“) Push-Pull (change-over between GND and power supply +Uv)
- Connection data	Low-Side: 28 V, 1 A High-Side: Uv, 200 mA
- Output functions	2-step, 3-step, 2-step with alarm, common or separated Min-/Max-alarm
- Switching points	Freely selectable
Operation	Via 3 keys (accessible after removing the windows) or by interface
Interface	EASYBUS, galvanically isolated
Power supply	DC 9 ... 28 V
Current consumption	Max. 30 mA (without switching output and interface)
Electrical connection	Removable screw terminals 2-pin for interface, 9-pin for all remaining connections Wire cross section from 0.14 mm ² to 1.5 mm ²
Ambient conditions	
- Ambient temperature	-20 ... +50 °C
- Storage temperature	-30 ... +70 °C
- Humidity	0 ... 80 % relative humidity (non-condensing)
Case	
- Material	Glass-fibre reinforced Noryl, windows polycarbonate
- Ingress protection	Front: IP 54; IP 65 at use of the provided O-ring seals
- Dimensions	48 mm x 24 mm x 65 mm
- Panel cutout	45 mm x 21.7 mm
- Mass	Approx. 50 g
- Mounting	Stainless steel spring clip for a wall thickness from 1 to 10 mm

Input signal	Measuring span		Measuring error in [%] of the span
Current signals			
0 ... 20 mA	-1999 ... 9999 ¹⁾		± 0.2 % ± 1 digit
4 ... 20 mA	-1999 ... 9999 ¹⁾		± 0.2 % ± 1 digit
Voltage signals			
0 ... 50 mV	-1999 ... 9999 ¹⁾		± 0.3 % ± 1 digit
0 ... 1 V	-1999 ... 9999 ¹⁾		± 0.2 % ± 1 digit
0 ... 2 V	-1999 ... 9999 ¹⁾		± 0.2 % ± 1 digit
0 ... 10 V	-1999 ... 9999 ¹⁾		± 0.2 % ± 1 digit
Thermocouples			
Type K, NiCr-Ni	-270 ... +1350 °C	-454 ... +2562 °F	± 0.3 % ± 1 digit
Type J, Fe-CuNi	-170 ... +950 °C	-274 ... +1742 °F	± 0.3 % ± 1 digit
Type S, Pt10Rh-Pt	-50 ... +1750 °C	-58 ... +3182 °F	± 0.5 % ± 1 digit
Type T, Cu-CuNi	-270 ... +400 °C	-454 ... +752 °F	± 0.3 % ± 1 digit
Type N, NiCrSi-NiSi	-270 ... +1300 °C	-454 ... +2372 °F	± 0.3 % ± 1 digit
Resistance thermometers			
Pt100 (3-wire)	-50.0 ... +200.0 °C	-58.0 ... +392.0 °F	± 0.5 % ± 1 digit
	-200 ... +850 °C	-328 ... +1562 °F	± 0.5 % ± 1 digit
Pt1000 (2-wire)	-200 ... +850 °C	-328 ... +1562 °F	± 0.5 % ± 1 digit

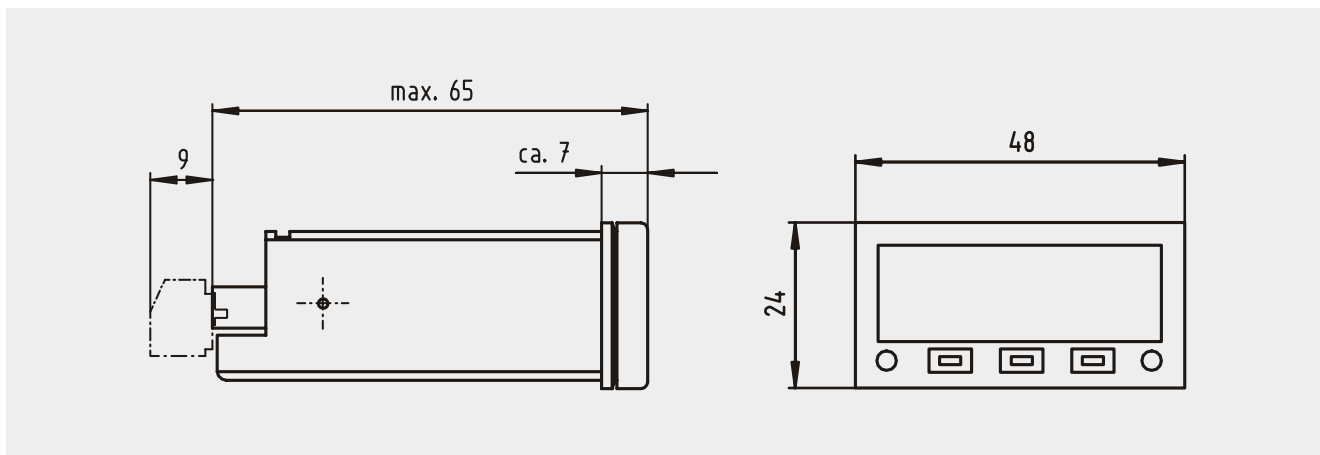
1) Decimal point adjustable

Terminal configuration

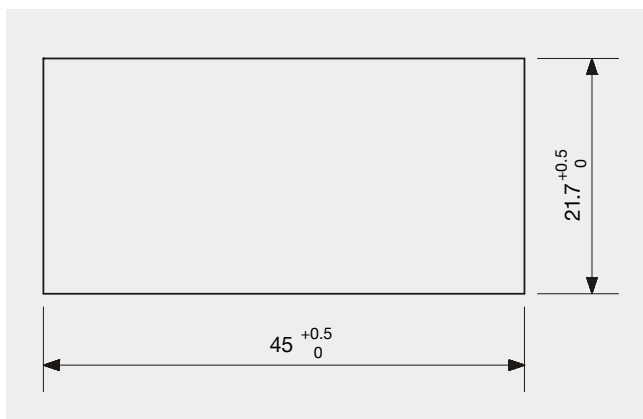
Terminal	Housing inscription	Meaning
1	Output 1	Switching output 1
2	Output 2	Switching output 2
3	GND	Switching output GND
4	Supply +Uv	Supply voltage +Uv
5	GND, Supply -Uv	Supply voltage GND
6	10 V	Input: 0 ... 10 V
7	GND Pt100(0)	Input: GND, Pt100 (B), Pt1000
8	mV, TC, Pt100	Input: 0 ... 50 mV, thermocouple (+), Pt100 (A)
9	1 V, mA, Freq., Pt100(0)	Input: 0 ... 1 V, 0 ... 2 V, 0(4) ... 20 mA, frequency, Pt100 (B), Pt1000
10	EASYBUS	EASYBUS interface
11	EASYBUS	EASYBUS interface

Note: The terminals 3, 5 and 7 are internally connected.

Dimensions in mm



Panel cutout in mm



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

