



### Features

- Universal panel indicator in 96 x 48 mm DIN format
- Extremely short mounting depth of 32 mm
- Universal input for process signals, thermocouples, Pt 100
- 16 mm high LED display
- 2 alarm outputs
- High degree of protection IP65 from the front
- Programming via buttons or software

### Application

The universal panel indicator is a quite versatile process indicator with totalizing function. With a wide list of input types – thermocouples, thermoresistance, voltage and current the PH5100 is capable of indicating the majority of variables and sensors encountered in industrial processes. It contains two alarms (six functions), sensor offset, configuration of parameters protected by password, USB communication, indication in degree Celsius (°C) or Fahrenheit (°F), among others.

### Technical data

#### Constructional design / case

Design:	Plastic case Polycarbonat (PC) L94-V2. Back panel ABS + PC UI94 V-0
Dimensions:	B 96 mm x H 48 mm x T 32 mm, panel cut out per DIN: 93,0 x 45,5 mm
Mounting:	With plastic clamps
Degree of protection:	IP65 from the front (with rubber sealing), back side IP20
Connection:	Plug-in terminal blocks, 5 mm pitch

°C°F	ON, depending on temperature range
TX, RX, USB	ON, during communication via USB
A1, A2	ON, when alarm is active
TOT	ON, when displaying totaliser value
HIGH	ON, when digits 6...10 of totaliser are displayed
LOW	ON, when digits 1...5 of totaliser are displayed

#### Indication

Type:	5 digit LED display, red
Height of digits:	16 mm
Display range input signal	-1.999...30.000
Standard:	0...10000 bei 0...10 V
Display range totaliser	0...9.999.999.999 (alternating display)
Standard:	Totaliser function deactivated
Indicators:	Ten red indicators for alarm status, communication, totaliser function, MIN- and MAX-value

Buttons: 4 buttons for programming and setup of set points

## Input ranges

Set up of input signal via buttons

Thermocouples:	Type J, K, T, N, R, S, B, E; internal comparison
Temperature sensor:	Pt100 in 3-wire connection (alpha = 0,00385)
Linear inputs:	0 V to 5/10 V, 0/4 mA to 20 mA, 0 mV to 50 mV
Standard:	linear input 0...10 V

Sensor type	Measuring range
TC type J	-110 °C to 950 ° (-166 °F to 1742 °F)
TC type K	-150 °C to 1370 ° (-238 °F to 2498 °F)
TC type T	-160 °C to 400 ° (-256 °F to 752 °F)
TC type N	-270 °C to 1300 ° (-454 °F to 2372 °F)
TC type R	-50 °C to 1760 ° (-58 °F to 3200 °F)
TC type S	-50 °C to 1760 ° (-58 °F to 3200 °F)
TC type B	400 °C to 1800 ° (752 °F to 3272 °F)
TC type E	-90 °C to 730 ° (-130 °F to 1346 °F)
Pt 100	-200 °C to 850 ° (-328 °F to 1562 °F)

## Accuracy

Thermocouples type J, K, T, E:	0,25 % of span +/-1 °C
Thermocouples type N, R, S, B:	0,25 % of span +/-3 °C
Pt100:	0,2 % of span
Linear analog input:	0,2 % of span

## Resolution:

Internal resolution with 65.535 steps (16 Bit),  
display resolution 32.000 steps.

## Measuring rate

55 Hz with programmable digital filter  
Standard: filter effect 25 %

## Input impedance

Thermocouples, Pt100  
0 to 50 mV: >10 MOhm;  
0 to 5/10 V: >500 kOhm;  
0/4 to 20 mA: 100 Ohm

## Sensor supply

24 VDC, +/-15 % at 50 mA

## Relay output

2 x relay SPST, 1,5 A at 240 VAC / 30 VDC

## Serial communication

Mini-USB (virtual COM port)

## Supply

100 to 240 VAC +/-10 %, 50/60Hz, 6 VA

## Ambient conditions

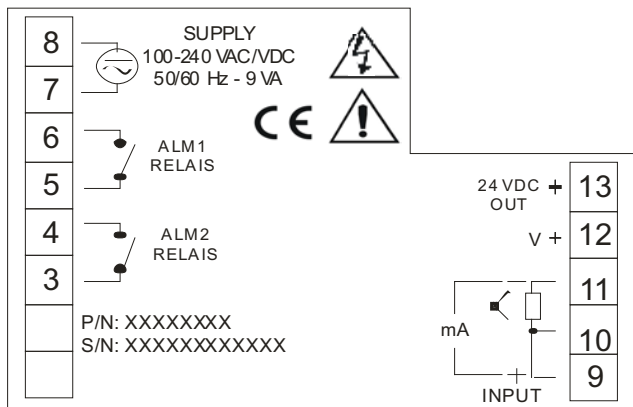
Operating temperature: 0 °C to +50 °C; relative humidity:  
80 % rF at 30 °C, for temperature above 30 °C, reduction by  
3 % rF per °C.

## Programming software

The programming software can be received free of charge  
via [www.labom.com/Download](http://www.labom.com/Download).

The required USB programming cable is shown in the order  
code.

## Connection diagram



## Order details

### Universal panel indicator

#### Type series PH5100

Order details PH5100	
PH5100	Universal panel indicator
A1	Supply 100...240 VAC $\pm$ 10 %, 50/60 Hz
F11	without configuration
F12	configuration according to customer's specifications
Accessories	
Art.-Nr. 141353	USB programming cable

Example: PH5100 – A1 – F11