



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

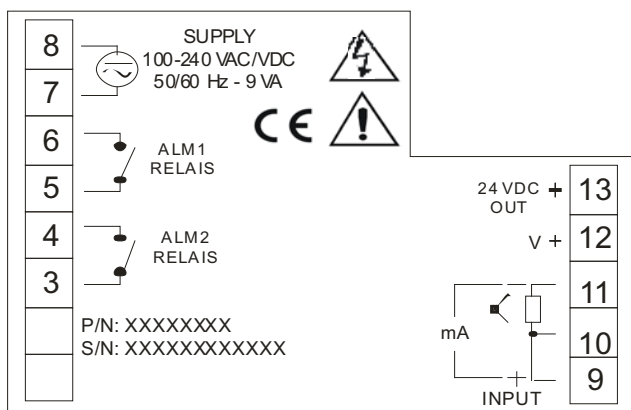
Operating temperature: 0 °C to +50 °C; relative humidity:
80 % rF at 30 °C, for temperature above 30 °C, reduction by
3 % rF per °C.

Programming software

The programming software can be received free of charge
on our website www.labom.com.

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