

Loop powered panelmeter SP 9648

4 ... 20 mA LED Display

Features

- Display LED 14.2 mm red
- Free adjustable indicating range
-1999 ... +1999 digit
- 20-turn trimpots for display adjustment
- Decimal point switch selectable
- Conversion rate 3/s or 0.5/s
- Plug-in screw terminals
- Protection IP65 available (optional)



Panel case DIN 96x48 mm



Field case

General information

Loop powered panelmeter SP9648 can be used for indicating and measurement applications in process technology and automation. The small case is suitable for installation in control units and panel boards. The input allows indication of any physical dimension, which are stated in a signal of 4 ... 20 mA.

Short information

Display characteristic Devices are available for increasing or decreasing display

Increasing characteristic (S) : Display value increases with input signal (standard)

Decreasing characteristic (F) : Display value decreases with input signal

Conversion rate Switch selectable from 3 to 0.5 per second

Technical data

Input

Current input	: 4 ... 20 mA
Overload range	: -100 ... 150 mA
Voltage drop	: 2.5 ... 3.1 V (depends on chosen display brightness)
Accuracy	: < 0.1 % +/- 1 digit
Temperature coefficient	: < 50 ppm/K
Operating temperature	: -10 ... +60 °C
CE -conformity	: EN55022, IEC61000-4-2/4

Display

Display range	: -1999 ... 1999
Measuring span	: adjustable 0 ... 4000 digits
Start value	: adjustable -100 ... +25 % of the span
Brightness	: adjustable from \approx 40 ... 100 %
Conversion rate	: switch selectable from 3/s 0.5/s
Character height	: 14.2 mm
Overflow indicator	: "- / " for neg. and " / " for pos. overflow
Color	: red

Case

: slide-in unit acc. to DIN 43700 of Noryl GFN 2 SE 1,
DIN 96x48mm or field case, material Polycarbonate RAL 7035

Gewicht

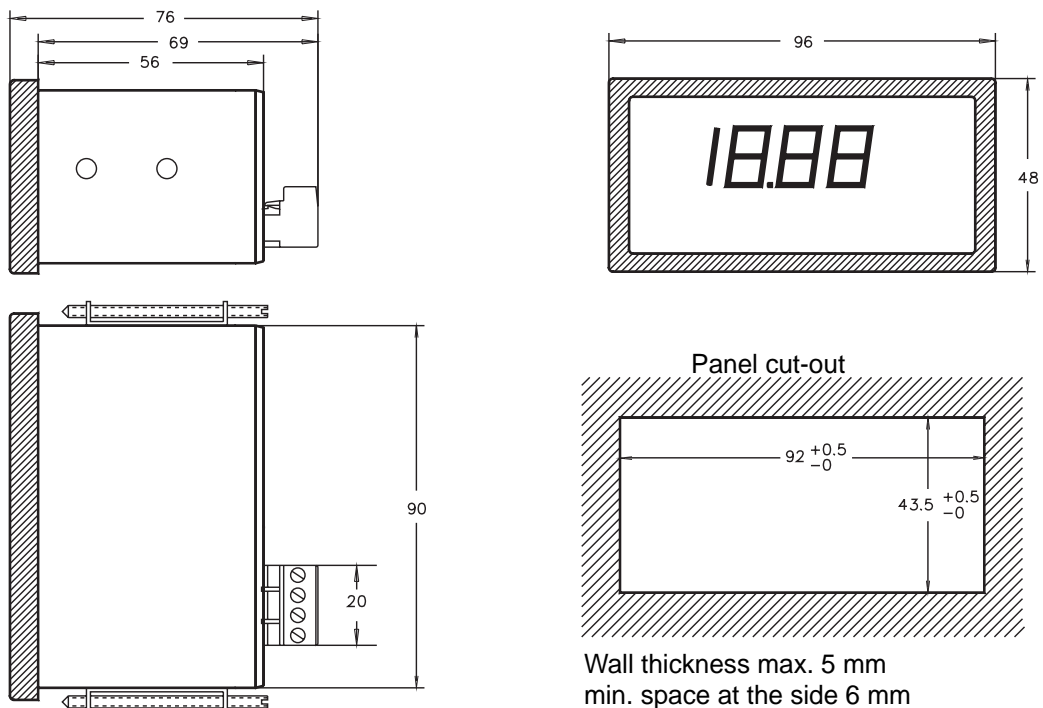
- Standard case DIN96x48 : approx. 170 g

- Field case : approx. 366 g

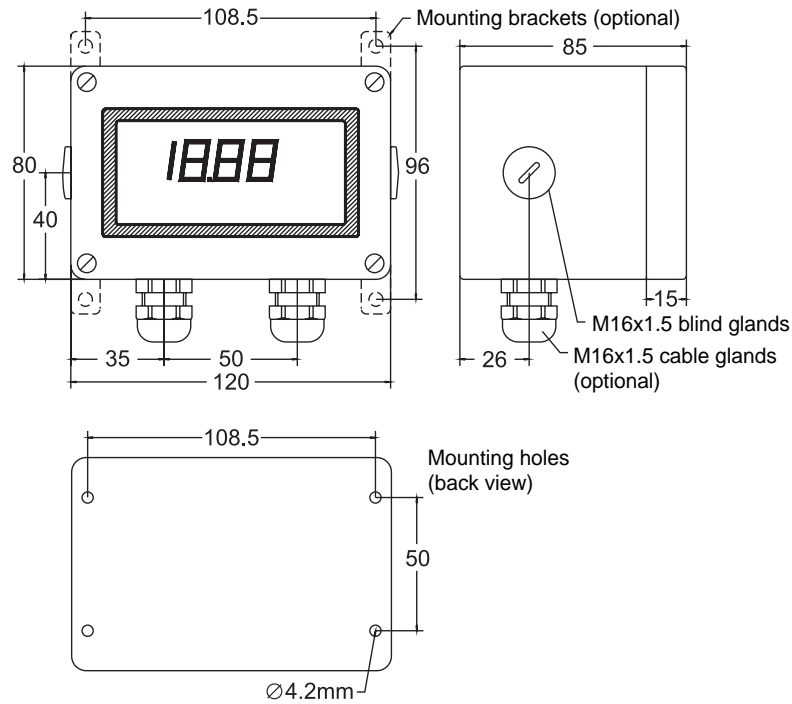
Connection : plug-in screw terminals , max.1.5 mm², AWG 16

Protection : front IP54 (IP65 optional), terminals IP20,
finger safe acc. German BGV A3

Dimensions Panel case DIN 96x48 mm

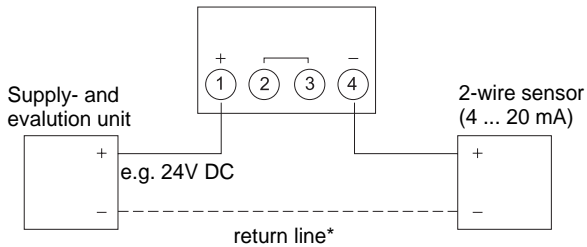


Dimensions Field case

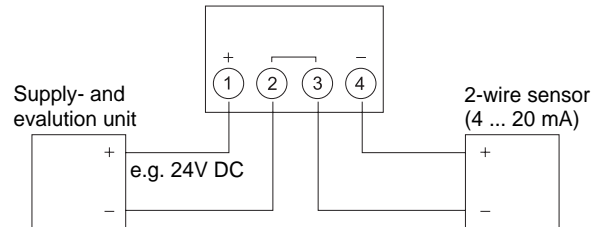


Connection diagram

Single wire connection

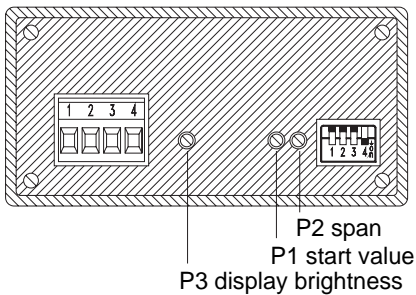


Cable connection



*the device can be installed in the return line as well

Back view



DIP-switch
 S1 on: 1888
 S2 on: 1888
 S3 on: 1888
 S4 on: conv. rate 3/s
 off: conv. rate 0.5/s

Factory setting

Adjustment

Display start value = 0:

1. Decimal point position see Switches S1-S3
2. Input current 4 mA, adjust display 000 with P1 (factory setting)
3. Input current 20 mA, adjust span with P2

Display start value $\neq 0$:

1. See before
2. See before
3. Input current 12 mA, adjust display to $\frac{1}{2}$ of the span with P2.

Example:

indication range -100 ... +200 \Rightarrow span = 300 digit

$\frac{1}{2}$ span = 150 digit

4. Input current 4 mA, adjust display to initial value with P1.
5. Check start- and end value

Ordering code:

SP9648 - 1. - 2. - 3. - 4.

With unit, please state in clear text!

1. Device type

- 1 Panel case DIN 48x24
- 2 Field case 82x80x85 mm (WxHxD)

2. Display characteristic

- S Increasing (Standard)
- F Decreasing

3. Protection

- 1 IP54 (Standard)
- 2 IP 65

4. Unit (appears on the front plate) max. 4 characters

Accessories for field case

Ordering code

- 10031201 Mounting brackets
- 204209160050 M16x1.5 cable glands grey, Polyamide, clamp range 2-6 mm
- 204219160051 M16x1.5 cable glands grey, Polyamide, clamp range 5-10 mm



Note:

The SP9648 is also available for the intrinsically safe areas.