

Digital Panelmeter DP 4824

Voltage - current - resistance or RTD, Pt100

Features

- Multi-purpose device Pt100, 0/4 ... 20 mA, 0 ... 10 V DC and 0 ... 100 Ω (switch selectable)
- Adjustable display range -99 ... +999
- Display LED red or green, 7.6 or 10 mm
- Decimal point switch selectable
- 20-turn trimmer for adjustment display range
- Conversion rate 4/s or 0.3/s selectable
- Supply voltage 10.8 ... 30 V DC, without isolation
- Front protection IP54 (optional IP65)
- Plug-in screw terminals



General information

Digital Panelmeter DP4824 are designed for measurement applications in process technology and automation. The small cases are suitable for installation in control units and panel boards. The universal input conception allows indication of all physical dimensions, which can be converted to industry standard signal of 0...20 mA, 4...20 mA or 0...10 V DC.

Temperature measurement by RTD (Pt100)-sensors and 0...100 Ω potentiometers are possible as well.

Short information

Configuration	device can be configured by DIP-switch to Pt100, 0...100 Ω, 0...20 mA, 4...20 mA, 0...10 V DC input
Pt100	2-wire sensor indication linearized. Line resistance of 0.5 Ω is calibrated.
Conversion rate	selectable from 4 to 0.3 per second

Technical data

Power supply

Supply voltage	: 10.8 ... 30 V DC, max. 5 % ripple
Current consumption	: < 50 mA
Operating temperature	: -10 ... +60 °C (14 ... 140 °F)
CE-conformity	: EN55022, IEC61000-4-2/4/11

Input Data (standard device)

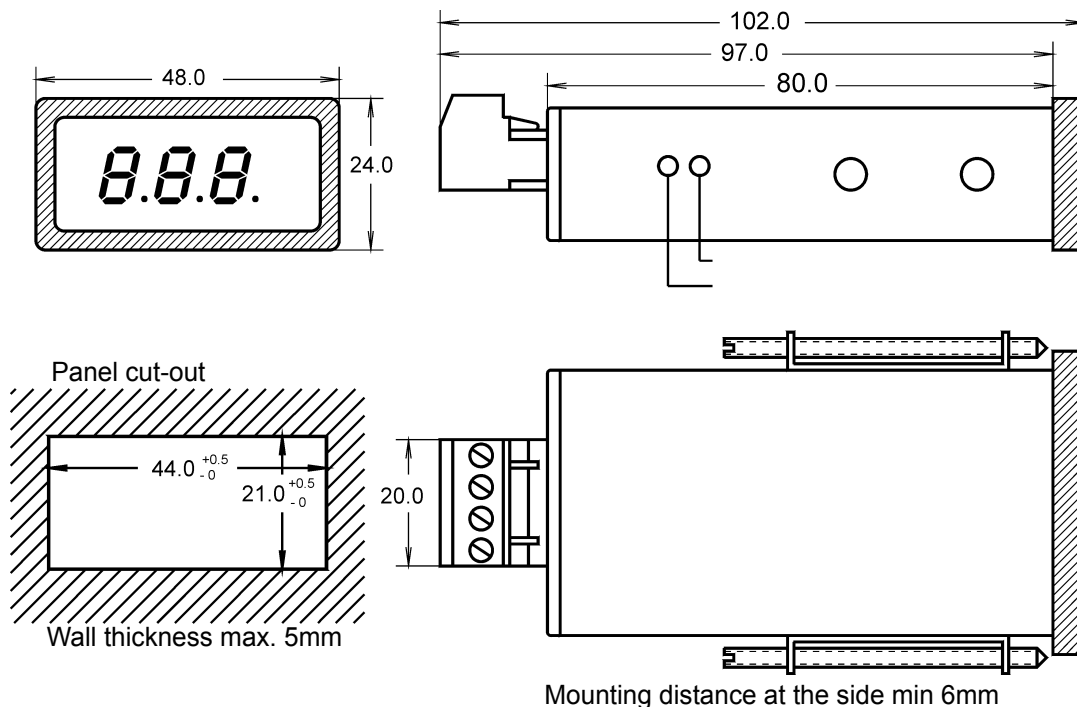
Voltage input	: $R_i > 8 \text{ M}\Omega$
Overload voltage	: max. 30 V DC
Current input	: $R_i < 100 \Omega$
Overload current	: max. 60 mA
Pt100 measuring current	: approx. 3 mA
Pt100 indication range	: -99...400 °C (-146 ... 752 °F) -99...700 °C (-146 ... 1292 °F) (accuracy 0.5 %)
Resistance current	: approx. 3 mA
Resistance indication range	: 0...100 Ω

Accuracy (standard device)	: < 0.1 % +/- 1 digit
Temperature coefficient	: < 50 ppm/K for voltage and current < 250 ppm/K for Pt100 and resistance

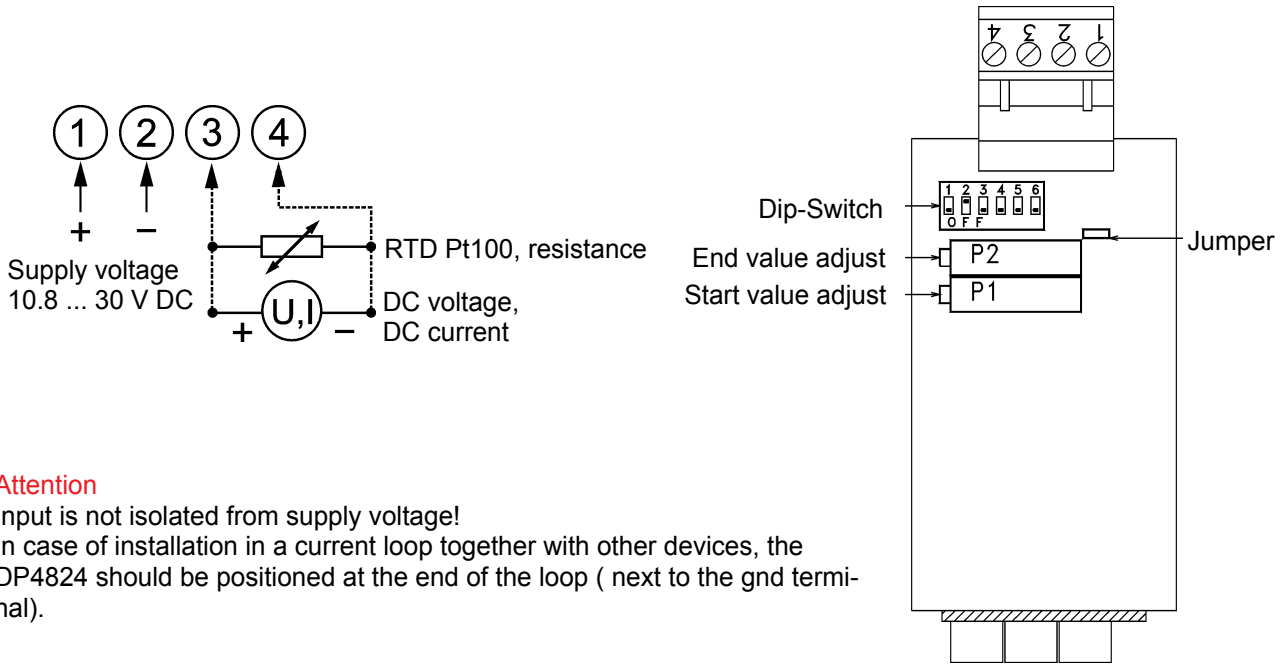
Display	: 3-digit LED red or green, 7.6 or 10 mm
Range	: -99...999 digit
Conversion rate	: switch selectable from 4/s to 0.3/s
Decimal point selection	: switch selectable
Overflow indicator	: "--" for neg. overflow, EEE for pos. overflow

Case	: slide-in unit according to DIN 43700 of Noryl GFN 2 SE 1
Weight	: 0.8 kg
Connection	: plug-in terminal, IP20 acc. to German BGV A3, max 1,5 mm ²
Protection front	: IP54 (IP65 optional)

Dimensions



Connection diagram



Attention

Input is not isolated from supply voltage!

In case of installation in a current loop together with other devices, the DP4824 should be positioned at the end of the loop (next to the gnd terminal).

Configuration

After removing the back panel, the PCB board can be moved backward. Input configuration can be done by DIP- switch and jumper

Input

S1	S2	S3	Jumper	Input	Display range	
OFF	ON	OFF	yes	Pt100	-99 ... 400°C	← factory setting
ON	ON	OFF	yes	0 ... 100 Ω	0 ... 100 Digit	
ON	OFF	OFF	no	0 ... 10VDC	adjustable	
ON	ON	ON	no	0 ... 20mA	adjustable	
OFF	ON	ON	no	4 ... 20mA	adjustable	

Decimals

S4	S5	Decimal point	
OFF	OFF	no	← factory setting
OFF	ON	1 decimal	
ON	OFF	2 decimals	

Conversion rate

S6	rate	
OFF	4 per second	← factory setting
ON	0.3 per second	

Adjustment (not valid for Pt100)

After configuration of the input conditions, the indication range has to be adjusted as follows:

1. input signal to minimum ⇒ adjust initial value with P1
2. input signal to maximum ⇒ adjust final value with P2

Ordering code

DP4824 - 1. - 2. - 3. - 4.

With unit, please state in cleartext

1. Display

1	3-digit	LED red	7.6 mm
2	3-digit	LED green	7.6 mm
3	3-digit	LED red	10 mm
4	3-digit	LED green	10 mm

2. Input

1	Industry standard signal
2	Custom input (on request)

3. Protection

1	IP54
2	IP65

4. Unit (appears on the face plate)