Digital panelmeter DP4824

Voltage - current - resistance - Pt100

all in one

Features

- Multi-purpose device Pt100,
  0 ... 20mA, 4 ... 20mA,0 ... 10V DC
  and 0 ... 100Ω
  (switch selectable)
- Display LED red or green, 7.6 or 10mm
- Adjustable display range -99 ... +999
- Decimal point switch selectable
- Conversion rate 4/s or 0.3/s selectable
- 20-turn trimmer for adjustment display range
- 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...20mA, 4...20mA or 0...10V DC. Temperature measurement by RTD (Pt100)-sensors and 0...100Ω potis are possible as well.

Short information

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

Technical data

Power supply

Supply voltage	: 10...30V DC, max. 5% ripple
Current consumption	: < 50mA
Working temperature	: -10...+60°C
CE -conformity	: EN55022; IEC1000-4-2/4/11

Input Data (standard device)

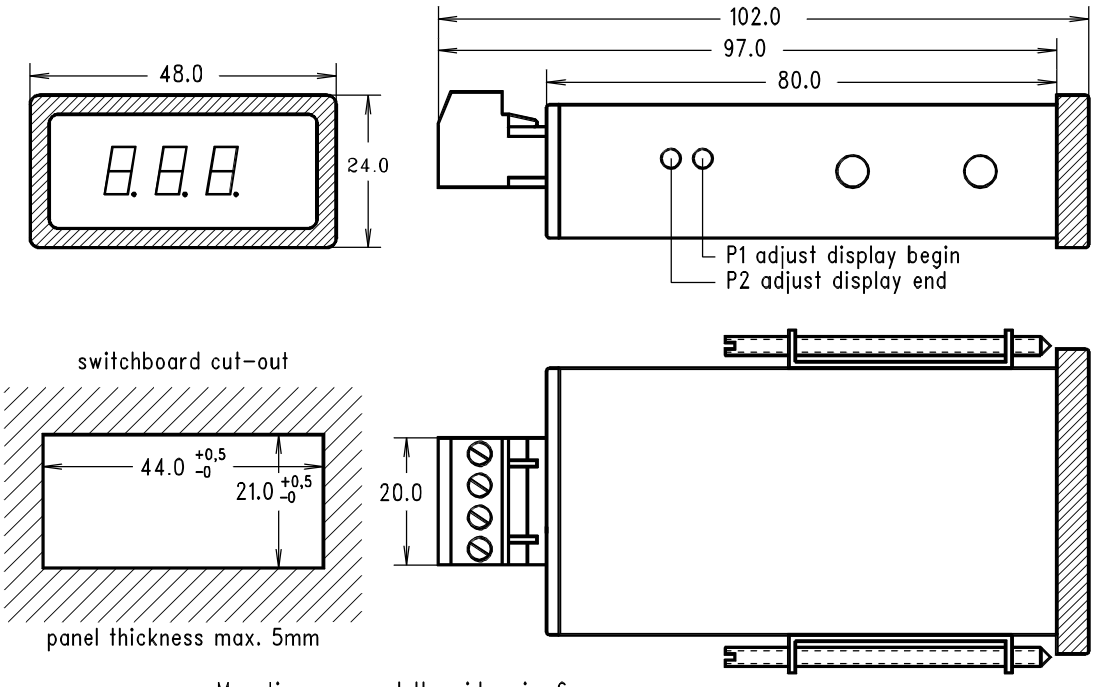
Voltage input	: Ri > 8MΩ
Overload voltage	: max. 30V DC
Current input	: Ri < 100Ω
Overload current	: max. 60mA
Pt100 measuring current	: approx. 3mA
Pt100 indication range	: -99...400°C -99...700°C (accuracy 0.5%)
Resistance current	: approx. 3mA
Resistance indication range	: 0...100Ω

Accuracy (standard device)

Indication error	: < 0.1% +/- 1 digit
Temperature coefficient	: < 50ppm/K for voltage and current < 250ppm/K for Pt100 and resistance

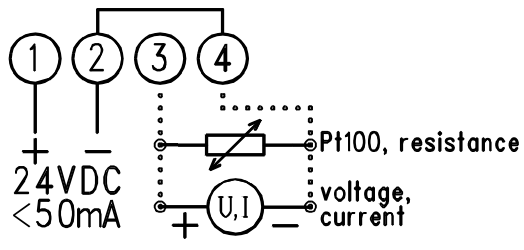
Display	: 3-digit LED red or green, 7.6 or 10mm
Range	: -99...999
Conversion rate	: switch selectable from 4/s to 0.3/s
Decimal point selection	: switch selectable
Overflow indicator	: "- - -" for neg. overflow, EEE for pos. overflow
Case	: slide-in unit according to DIN 43700 of Noryl GFN 2 SE 1
Weight	: approx. 80 g
Connection	: plug-in screw terminals, max. 1.5mm², wire
Protection	: Front IP54 (IP65 optional), terminals IP20 finger safe acc. to German VBG4

Dimensions

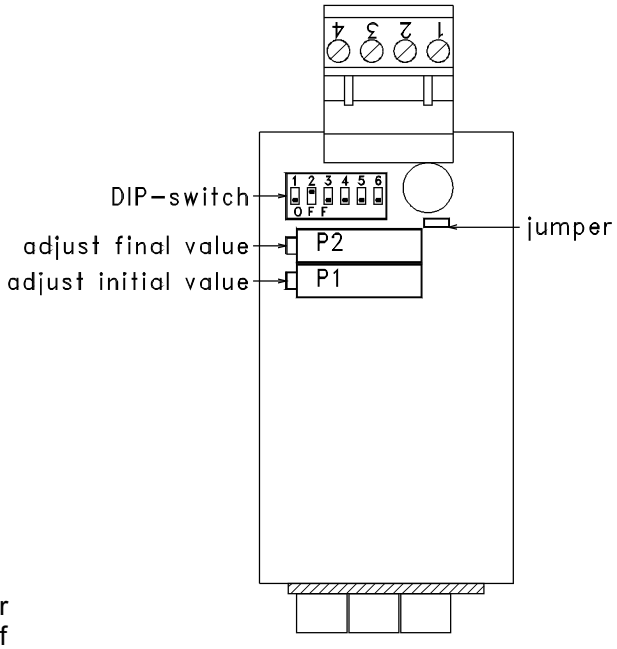


Mounting space at the side min. 6mm.

Connection diagram



Circuit board



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 (near the minus clamp).

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
ON	ON	OFF	yes	0...100Ω	0...100 digit
ON	OFF	OFF	no	0...10V DC	adjustable
ON	ON	ON	no	0...20mA	adjustable
OFF	ON	ON	no	4...20mA	adjustable

Decimal point

S4	S5	
OFF	OFF	no decimal point
OFF	ON	888.
ON	OFF	8.88

Conversion rate

S6	rate
OFF	4 per second
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

Order code

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

1.

Display
1: LED 7.6mm red
2: LED 7.6mm green
3: LED 10mm red
4: LED 10mm green

2.

Input
1: Standard
2: Special device input

3.

Protection
1: Front IP54
2: Front IP65

4.

Unit (dimension on the face plate)
e.g. °C, °F, hPa, mV, Kg, µs/cm