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Economy Panelmeter EP 9648

Industry standard signals 0/4-20mA; 0-10V; PT100

EP9648-1 with LED Display 14.2mm

EP9648-3 with LED Display 20.3mm

Features

- Input programmable
- Display range voltage, current -1999 ... 2000 Digit
  RTD, Pt100 -100.0 ... 200.0, or -100 ... 400 °C
- LED Display
- Indicating range and decimal point
  free programmable
- Conversion rate programmable 8/s, 2/s, 0.5/s
- Self-acting display brightness (Option)
- Analog output 0 ... 10 V DC
- Front protection IP65

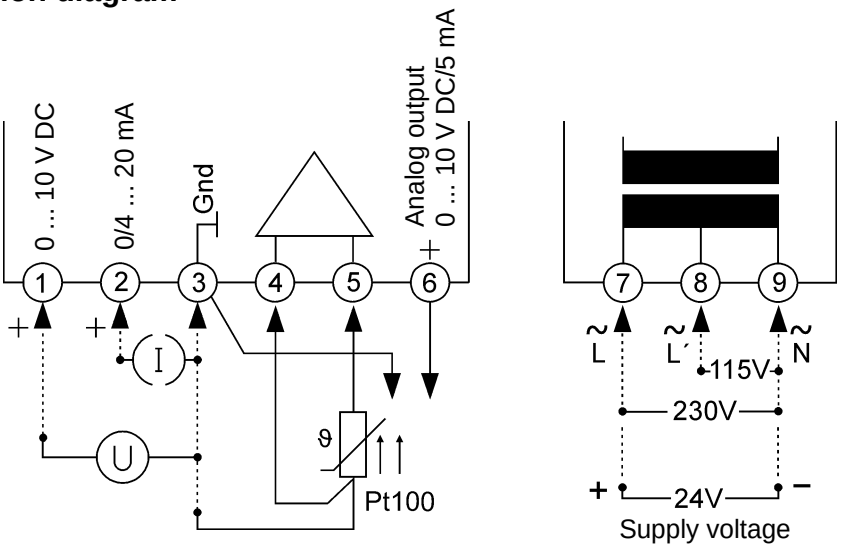
General

The Economy Panelmeter EP9648 is a technical advancement of the DP9648. With universal input conditions and easy programming the panelmeter becomes a powerful instrument for monitoring, measurement and control applications. As highlight the device offers a self-acting display brightness. A built-in photo sensor controls the ambient brightness and corrects the display brightness.

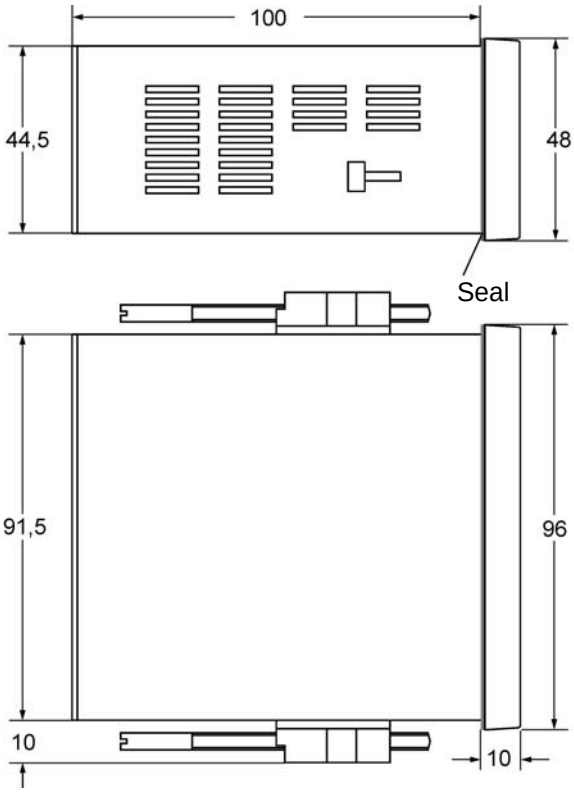
Technical Data

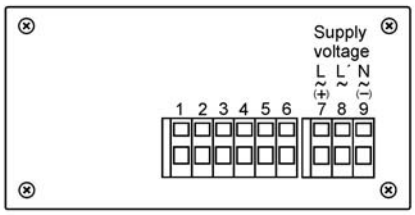
Power supply			
Supply voltage	: 230/115 V AC 50/60 Hz ±10 % or 24 V DC ±20 %		
Power consumption	: 3 VA		
Working temperature	: -10 ... +60 °C		
Rated voltage	: 250V ~ acc. VDE 0110 between input, output/supply voltage Degree of pollution 2, over-voltage categoric III		
Test voltage	: 4 kV=, between input, output/supply voltage		
CE - conformity	: EN55022, EN60555, IEC61000-4-3/4/5/11/13		
Input			
Current input	: 0/4 ... 20 mA	Ri 10 Ω	overload max. 3-times
Voltage input	: 0 ... 10 V	Ri 100 kΩ	overload max. 3-times
RTD (Pt100)	: -100...400℃	sensor current < 1mA (no self heating)	
Accuracy	: voltage/current RTD (Pt100)	±0.1 %, ±0.2 °C,	±1 Digit; ±1 Digit
Temperature coefficient			
Voltage/current	: 0.005 %/K		
RTD (Pt100)	: 0.01 °C/K		
Display	: LED red, 14.2 or 20.3 mm		
Indicating range	: -1999 ... 2000 Digit, leading zero suppression		
Decimal point	: programmable		
Overflow indication	: overflow " -1999 " or " 9999 " flashing with 2 Hz		
Display brightness (Option)	: step less from 2 ... 100 %, with photo sensor		
Analog output			
Voltage	: 0 ... 10 V DC max. 5 mA, linearized, short circuit proof		
Accuracy	: 0.1 %		
Temperature coefficient	: 0.005 %/K		
Case	: DIN 96x48 mm, material PA6-GF; UL94 V-0		
Dimensions	: Front 96x48 mm, mounting depth 100 mm		
Weight	: 300 g		
Connection	: clamp terminals, 2 mm² single wire, 1.5 mm² flexible wire, AWG14		
Protection	: front IP65, terminals IP20, finger safe acc. German BGV A3		

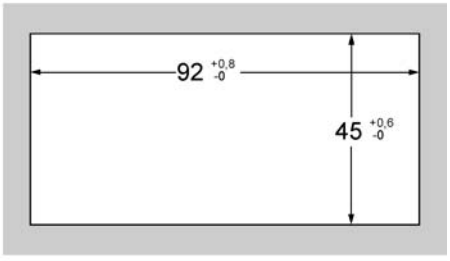
Connection diagram



Dimensions

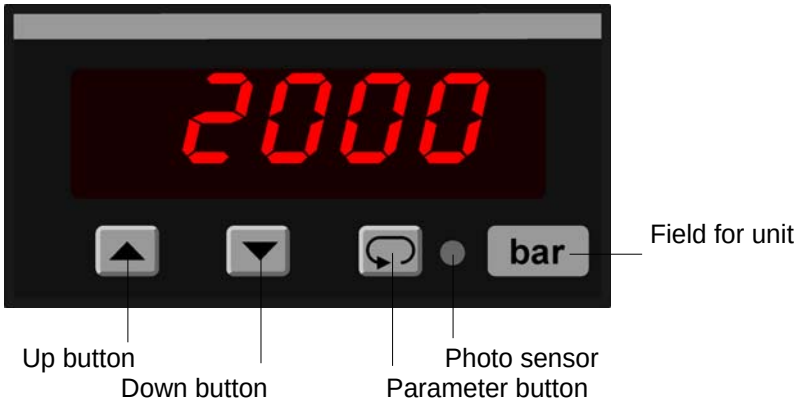






Panel cut-out
acc. to DIN 43700-96x48

Displays and controls



Description
After switching on the supply voltage, the device initializes itself. The display shows the message `init`.
After the initializing procedure the device is located in the **Working level.**
Activating the button for more than 2 seconds, the program is located in the **Configuration level**.

Selection within a parameter or entering data, use buttons and . To change the selected parameter press button again. Setting of the value or selection with button and . Entering data with button . After finishing the configuration or when longer than 2 minutes no button was pushed, the program jumps back to the working level. Leaving the configuration level is possible at any time by pushing the button for 2 seconds.

Error codes

Display flashes	input signal is more than 3% outside of the programmed measurement range
`Err`	please ship the panelmeter to factory for repair service.
`Loc`	Program lockout. See configuration page 4.

Start-up note:
Before the device can be used, it must be configurated for the intended use.

Please note: All parameters can be called if they are not blocked by other programmed parameters and if they are available. Factory settings are shown in the **display** graphic.

Parameter is only displayed if included (see order code)

Configuration

Button	Display	Description
Press 2 sec.	`rAtE`	Conversion rate Press button `8rt` 8 measurements per second `2rt` 2 measurements per second `0.5rt` 0.5 measurements per second Selection with button and . Entering with button .
	`inP.`	Input signal Press button `0-10`, `0-20`, `4-20`, `Pt` Selection with button and . Entering with button .

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Button	Display	Description
↓ ▼	dP	Decimal point position* Press button 0. .0 .00 .000 Selection with button ▲ and ▼ . Entering with button .
↓ ▼	St.	Start value for indicating range* Press button Setting possible from -1999 ... 2000 Digit with button ▲ and ▼. Entering with button .
↓ ▼	En.	End value for indicating range* Press button Setting possible from -1999 ... 2000 Digit with button ▲ and ▼. Entering with button .
↓ ▼	corr.	Indicating correction Press button Setting possible from - 9.9 ... 9.9 Digit with button ▲ and ▼. Entering with button .
↓ ▼	di	Self-acting display brightness (only with Option 07) Press button on , oFF Selection with button ▲ and ▼. Entering with button .
↓ ▼	codE	Code for factory settings.
↓ ▼	Loc	Parameter lockout Press button oFF : no lock on : Parameter locked Selection with button ▲ and ▼. Entering with button .
	2000	Back to the working level **Restrictions for Pt100*

Ordering code

	1.		2.		3.		4.		5.		6.
EP9648 -		-		-		-		-		-	

1. Display
- 1 LED red 14.2 mm
- 3 LED red 20.3 mm

2. Device type
- 15 Standard signal 0/4 ... 20 mA, 0 ... 10 V DC and Pt100

3. Supply voltage
- 0 115/230 V AC ±10 % 50-60Hz
- 5 24 V DC ± 20%

4. Options
- 00 without options
- 07 self-acting display brightness

5. Unit (appears on the unit field)

6. Additional text (appears on the face plate in the field for additional text max. 3 mm x 90 mm HxW)

10/03-00