

DIGEM 96 x 24 BK5

3-348-768-07
05.04

For connection to:

DC current / DC voltage

AC current / AC voltage

Temperature

Features

- max. display range for DC measurement depending on version ± 1999 or ± 19999
- Auxil. supply voltage electrically isolated from the measuring circuit
- 14 mm high LED digits
- brightness can be controlled by an external potentiometer

1 Ambient conditions

Operating temperature	0 ... 50 °C
Storage temperature	-20 ... 70 °C
Relative humidity	95 % (non condensing)
Weight	0.800 kg

2 Standards

Instruments	acc. IEC 1010-1
Emission standard	acc. to EN 50081 part 2
EMC generec	EN 50082 part 2
Classes of applications and indications of reliability for modules of communications technology and electrical engineering	DIN 40040

3 Installation

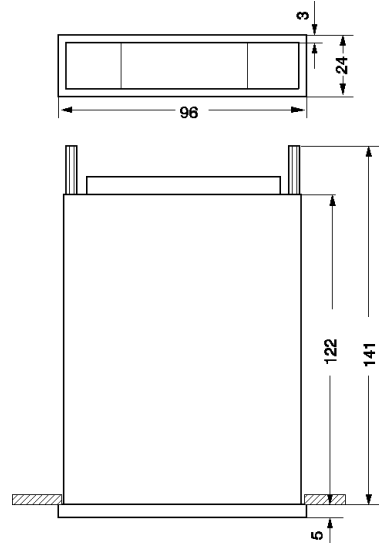
First insert meter in front panel cutout without the slider fasteners. Then locate slider fasteners in the bevel rivets on the sidewalls and clamp meter to front panel using the screw spindles.

These meters are suitable for panel mounting as well as in rack/mosaic arrangements after having inserted the fastener for the bevel rivets the complete unit can be pushed into the rack.

The max. permissible ambient temperature range on location is +50 °C.

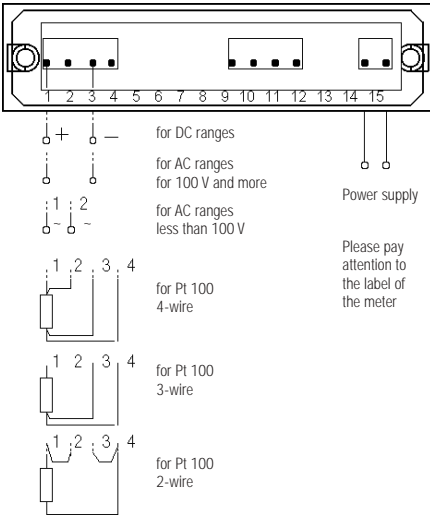
4 Dimension drawing

Front panel cutout : $92^{+0.8} \times 22.2^{+0.3}$



5 Pin assignment

Input and supply



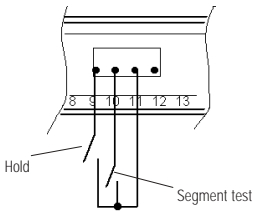
Hold and segment test



Caution!

Display hold and segment test (connections 9,10,11) are connected electrically with the signal input.

External circuit elements have to be insulated correspondingly to the signal input.



Linking pins 9 and 11 will hold the instantaneous input without influencing the measurement cycle.

Linking pins 10 and 11 causes all segments to come On with the exception of non-activated decimal points.

Dimming

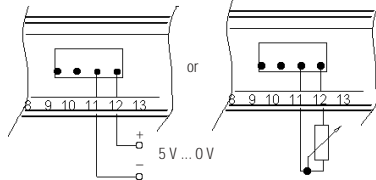


Caution!

The pins 12 and 11 are connected electrically with the signal input.

External circuit elements have to be insulated correspondingly to the signal input.

The meter has maximal brightness if the pin 12 is not connected.



Dimming with an external voltage between pin 12 (+) and pin 11 (-)

5 V = maximal brightness

0 V = minimal brightness

Dimming is also possible with a potentiometer 20 k Ω according to the drawing above. The maximal brightness is only possible by external voltage.

6 Specifications

Display

Type	7-segments LED
Numeral height	14 mm
Polarity	"-" is indicated automatically
Decimal points	internally adjustable
Overflow	3.5 digits: "1..." 4.5 digits: flashing display

Errors for the basic instrument

3.5 digit	$\pm (0.05 \% + 1 \text{ digit})$
4.5 digit	$\pm (0.02 \% + 1 \text{ digit})$
CMRR	120 dB for 50/60Hz

Max. voltage between input and supply:

max. 250 V eff

Additionally for input moduls**DC ranges:**

Add. error $\pm (0.05 \% + 1 \text{ digit})$
 Temp. coeff. $< 80 \text{ ppm/K}$

Voltage:

Input impedance $> 1 \text{ M}\Omega$
 Overflow 10 times (consider max. values of basic instrument)

Current:

Voltage drop max. 2 V
 Overflow 2 times , max. 300 mA

AC ranges

Add. error
 45 ... 65 Hz $\pm (0.2 \% + 3 \text{ digit})$
 30 Hz *) ...1 kHz $\pm (0.3 \% + 5 \text{ digit})$
 DC-parts for True RMS: $\pm 2 \%$
 Temp. coeff. $\pm (0.01 \% + 0.01 \text{ mV/K})$

Voltage:

Input impedance $> 1 \text{ M}\Omega$
 Overflow 10 times (consider max. values of basic instrument)

Current:

Voltage drop max. 2 V
 Overflow 2 times, max. 300mA
 for 1 A and 5 A:
 30 times for 1 sec.

Temperatur ranges

Current via sensor 2 mA
 Max. error $< 0.5 \text{ }^\circ\text{C}$
 Temp. coeff. $< 150 \text{ ppm/K}$
 Offset drift $< 0.1 \text{ digit/K}$

Auxil. supply voltage

230 V AC/DC, 115 V AC/DC, 24 V AC
 or 18 ... 36 V DC;
 Consider label of the meter
 Power consumption max. 4 VA

Electrical Safety

Overvoltage category II
 Degree of pollution 2
 Max. voltage to ground:
 Low voltage range 50 V
 all current ranges 50 V
 Aux. power supply 230 V 300 V

*) = for True RMS 20Hz

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