

## POWER FACTOR METER

### Application:

The panel meter is suitable for measuring the single phase power factor.

#### Important features:

- Full digital operation (Icom System).
- LED display range:  $\pm 9999$ , unit marking by LED.
- Preset delivery or connecting to external device can be set (monlcom option).
- The scale is linear in  $\cos \varphi$ .
- Plug in terminal blocks with screw.
- EMC compliance.



Illustration only.

#### Technical specifications:

##### Input: (at external power supply)

- Nominal input voltage range (CF < 1.2): ..... from 0...5 V to 0...600 V AC
- Current consumption: ..... max. 0.14 mA (at nominal voltage)
- Nominal input current range (CF < 2): ..... from 0...0.025 A to 0...5 A AC
- Drop out voltage: ..... 25 mV (at nominal current)
- Input measuring range: ..... up to 120 % of the nominal value
- Input power factor range ( $\cos \varphi$ ): ..... -0.5...+0.5 (C:  $-60^\circ$  ... L:  $+60^\circ$ )
- Input frequency range: ..... 45...65 Hz
- Input insulation voltage: ..... Cat. III. 1 kV (Test: 4300 V<sub>eff</sub> 1 min)

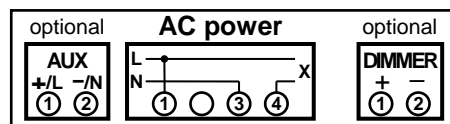
##### Display:

- Display colours: red (basic version), orange, yellow, green, blue, white LED
- Height of digits: ..... 14 mm
- Brightness control: ..... via dimming input on rear (optional)
- Dimmer input signal: ..... 5V PWM, approx. 1 kHz
- Dimmer input isolation: ..... Cat. III. 1 kV (Test: 4300 V<sub>eff</sub> 1 min)
- Display update: ..... 2 /s
- Accuracy: .....  $\pm 0.5$  % FS,  $\pm 1$  digit (20 %..120 % input range)

##### Other:

- Standards applied: ..... IEC/EN 61010-1, IEC/EN 61326
- Auxiliary supply consumption: ..... max. 2 W
- Wire cross-section of terminals: ..... max. 2.5 mm<sup>2</sup>
- Working temperature: ..... -10...+25...+60 °C
- Temperature coefficient: ..... max. 200 ppm/°C
- Warm-up time: ..... 15 min
- Storage temperature: ..... -40...+80 °C
- Humidity: ..... max. 85 %
- Vibration (acceleration): ..... max. 2 g
- Dimension (HxWxD): ..... 48 mm x 96 mm x 74 mm
- Case protection: ..... from the front IP 40, from behind IP 20
- Case material: ..... PC-GF
- Weight: ..... approx. 0.3 kg

#### Connection diagram:

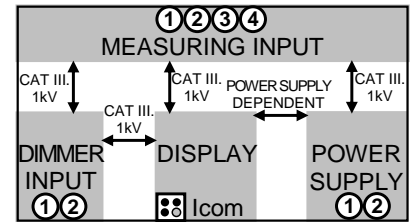


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### Auxiliary Supply variations:

<b>5 V, 12 V, 24 V, 48 V DC <math>\pm 50\%</math>, converter</b>	(Voltage / Insulation)	/ 1 kV
<b>55...264 V, 47...440 Hz, and 72...370 V DC, converter</b>		/ 3 kV
<b>9...28 V DC</b>		/ not isolated from display
At 55...264V AC input voltage range, self powered version is also available.		

### Isolation scheme:



### Ordering examples: (Input; Display: range, unit, colour; Auxiliary Supply)

**CD40-96p-PF** \_ Input: 230 V, 5 A \_ Display: -0.400...+0.400 cos  $\varphi$ , red \_ Aux: 55..264 V AC converter  
**CD40-96p-PF** \_ Input: 400 V, 50/5 A \_ Display: -0.500...+0.500  $\varphi$ , green, dimmable, \_ Aux: 24 V DC converter

On request for extra charge special ranges (Input, Display, Auxiliary Supply) are possible.

### Outline and cut-out dimensions:

