



ICO 51

Programmable digital panel meter for
electrical measurements

ICO 51 is a programmable 10,000-point digital panel meter 72 x 24 mm for electrical measurements.

Description

ICO 51 is a programmable digital panel meter 72 x 24 mm for electrical measurements in 10,000 points. It allows DC and AC voltage to be measured up to 400 V (true effective value with or without component continuous health) and DC and AC current to be measured up to 5 A using a small shunt screwed on the back connector.

- Panel meter size: 72 mm x 24 mm
- IP65 protected
- Measurement, display and scaling of:
 - DC and AC voltage up to 400 V
 - DC current up to 2,000 A with an external shunt
 - AC current up to 200 A + Current transformer, with secondary current of 1 A or 5 A
 - Frequency up to 5,000 Hz
- 9 different power supplies available

Specifications

Electrical measurement indicator

Type	Range	Resolution	Accuracy (1 year) (23°C ±1°C)	Input impedance
DC voltage	500 mV 5 V 50 V 400 V	100 µV 1 mV 10 mV 100 mV	0.1% + 100 µV 0.1% + 1 mV 0.1% + 10 mV 0.1% + 0.1 V	> 100 MΩ 1.1 MΩ 1 MΩ 1 MΩ
AC voltage	500 mV 5 V 50 V 400 V	100 µV 1 mV 10 mV 100 mV	0.7% + 1 mV 0.5% + 6 mV 0.5% + 60 mV 0.5% + 0.6 V	1 MΩ 1 MΩ 1 MΩ 1 MΩ
DC current	4-20 mA or 0-50 mA 1 A (2) 5 A (2)	10 µA 1 mA 1 mA	0.2% + 10 µA	shunt 10 Ω included external shunt 100 mV external shunt 100 mV
AC current	1 A (2) 5 A (2)	1 mA 1 mA		external shunt 100 mV external shunt 100 mV

Temperature coefficient: ≤ 10% accuracy/°C

Continuous mode: -40 to 100 % range.

Alternate mode: 4 to 100 % range from 25 to 500 Hz without D.C component (possible measurements up to 10 kHz on some ranges with less precision).

(1) Extended measurement range: -40 to +110% range.

(2) With external shunts

Common rejection mode: ³ 110 dB at 50 Hz on 500 mV DC range

Acceptable maximum voltage on voltage range: 600 V.

Acceptable maximum voltage: 250 V~ in common mode.

Automatic ranging

Further features

Measurement hold	Short-circuit on the rear panel
Scaling	The value is to be entered using keyboard, while the value of measurement corresponding can be introduced of the same way, is measured by the instrument. This possibility is very interesting for error corrections on temperature ranges.
Sampling rate	2.5 samples / s

General specifications

Size	99 x 36 x 120 mm
Weight	300 g
Display	From -1999 to 9999 with 14 mm red, yellow or green indication LED
Supply	230 V at $\pm 10\%$ (50/60 Hz) Other power supplies available in option

Environmental specifications

Reference range	23°C $\pm 1^\circ\text{C}$ (20 to 75 % w/o condensing)
Operating reference range	0 to 50°C (RH: 20 to 75 % w/o condensing)
Limit operating range	-10°C to +50°C (RH: 10 to 80 % w/o condensing)
Indice de protection	IP40 in ABS case IP65 in watertight metallic case

Models and accessories

Instrument:

Ordering reference code: ICO51-Isolated power supply-Display-Enclosure

Isolated power supply:

48 V~	9
230 V~	8
115 V~	7
24 V~	6
36 to 72 V-	5
18 to 36 V-	4
9 to 18 V-	3
5 V-	2

Display:

Red	R
Green	V

Enclosure:

Plastic	P
Metal	M

Accessories:

AN8002	Cold Junction Compensation Module
AN8003	Shunt 1 A - 100 mV
AN8004	Shunt 5 A - 100 mV
AN8005	Shunt 4-20 mA (50 ohms)
AN5844	Current transformer 2/1 A
AN5845	Current transformer 20/1 A
AN5846	Current transformer 200/1 A
ER42062-001	RC protection circuit
AMD002-000:	Current transformer 20/5A



AMD003-000: Current transformer 200/5 A