



ICO 61

Programmable digital panel meter for electrical signals



ICO 61 is a 10,000 programmable digital panel meter 96 x 24 mm for electrical signals.

# Description

ICO 61 is a 10,000 programmable digital panel meter  $96 \times 24$  mm for electrical measurements. It is possible to change the configuration of measurement type, range, limits and scaling. The configuration of these parameters is protected against any inopportune modifications.

- Panel meter size: 96 mm x 24 mm
- IP40 protected
- Programmation through 3 front keys
- Measurement hold function
- Registration of maximum and minimum value of a measurement burst
- 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
- 2 programmable limits with relays output
- 9 different power supplies available



# **Specifications**

### Electrical measurement indicator

Туре	Range	Resolution	Accuracy (1 year) (23°C ±1°C)	Input impedance
DC voltage	500 mV	100 μV	0.1% + 100 μV	$> 100 \text{ M}\Omega$
	5 V	1 mV	0.1% + 1 mV	1.1 M $\Omega$
	50 V	10 mV	0.1% + 10 mV	1 M $\Omega$
	400 V	100 mV	0.1% + 0.1 V	1 M $\Omega$
AC voltage	500 mV	100 μV	0.7% + 1 mV	1 MΩ
	5 V	1 mV	0.5% + 6 mV	1 MΩ
	50 V	10 mV	0.5% + 60 mV	1 MΩ
	400 V	100 mV	0.5% + 0.6 V	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 μΑ	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
Frequency (3)	5 to 500 Hz	0.1 Hz	0.1% + 0.1 Hz	10 MΩ
	5 to 5000 Hz	1 Hz	0.1% + 1 Hz	10 MΩ

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

(3) Two levels of input voltage: 50 mV $\sim$  to 50 V $\sim$  and 5 V $\sim$  to 250 V $\sim$ 

#### Frequency:

- 70 V peak on low entry level (50 mV to 50 V)
- 570 V peak on entry high level (5 V to 250 V)

### Further features

Ranging	Automatic
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 is 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 ±10% (50/60 Hz) Other power supplies available in option

## Environmental specifications

Reference range	23°C ±1°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	

### Safety

Protections	<ul><li>Protection of unit programming by access code.</li><li>Protection of the threshold values by safety function programming</li></ul>
	Tanada Programma



## Models and accessories

### Instrument:

Ordering reference code: ICO51-Power supply-Display-Enclosure

#### **Power supply:**

#### Display:

Red R Green V

### 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