

ICO 52

Programmable digital multifuncton panel meter for electrical and temperature measurements

ICO 52 are 10,000 point programmable digital multifunction panel meters 72 x 24 mm for temperature, process voltage and process current measurements.

Description

ICO 52 are 10,000 point programmable digital panel meters 72 x 24 mm for temperature, process voltage and process current measurements. They can be used together with temperature sensors, either resistive probes Pt or thermocouples. 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: 72 mm x 24 mm
- IP65 protected
- Measurement, display and scaling of:
    - Temperature with Pt100, Pt1000 probes or thermocouples (7 types)
    - Process voltage and current (0-10 V, 4-20 mA)
    - Resistance
- 9 different power supplies available

Specifications

Process electrical measurement indicator

Type	Range (1)	Resolution	Accuracy (1 year) (23°C ±1°C)	Comments
DC voltage	50 mV 500 mV 5 V 50 V	10 µV 100 µV 1 mV 10 mV	0.1% + 10 µV 0.1% + 100 µV 0.1% + 1 mV 0.1% + 10 mV	Input impedance > 1000 MΩ > 1000 MΩ 1 MΩ 1 MΩ
DC current	4-20 mA or 0-50 mA	10 µA	0.2% + 10 µA	10 Ω shunt
AC current	1 A (2) 5 A (2)	1 mA 1 mA		Measuring current 200 µA

Temperature coefficient: ≤ 10% accuracy/°C
Automatic ranging

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

Temperature indicator

Type	Range (1)	Resolution	Accuracy over 1 year (23°C ±1°C) (2)
Pt100	-200 to +500°C -220 to +1200°C	0.1°C 1°C	0.1% RDG + 0.2°C 0.1% RDG + 2°C
Pt1000	-200 to +500°C	0.1°C	0.1% RDG + 0.2°C
Tc K	-100 to +1000°C +1000 to 1372°C	0.1°C 1°C	0.1% RDG + 0.4°C 0.1% RDG + 1°C
Tc T	-100 to +400°C	0.1°C	0.1% RDG + 0.4°C
Tc Platine	-100 to +1400°C	0.1°C	0.1% RDG + 0.4°C
Tc J	-120 to +999°C	0.1°C	0.1% RDG + 0.4°C
Tc L	-40 to +900°C	0.1°C	0.1% RDG + 0.4°C
Tc R	-50 to +120°C +120 to 1768°C	1°C 1°C	0.1% RDG + 2°C 0.1% RDG + 1°C
Tc S	-50 to +450°C +450 to 1768°C	1°C 1°C	0.1% RDG + 2°C 0.1% RDG + 1°C

Temperature coefficient: ≤ 10% accuracy/°C
Display in °C or °F.

(1) For a defined type of sensor, the commutation of range and the change of resolution can be automatic.
Measurement range extendable.

(2) Accuracy given without reference junction.
The typical error brought by the reference junction (AN8002) is 0.3°C.

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 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

Models and accessories

Instrument:

Ordering reference code: ICO52-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