

electrical measurements of process temperature measurements 10 000 points ICO 52



The function of measurement and range, as well as put on a specific scale are programmable.

The parameters thus configured are protected against all inopportune modifications.

- Format 72 x 24 mm
- Function, ranges and scale programmable
- Configurable on site

functions

Measure

The ICO 52 allows measurements of voltage, current and resistance of process as well as the temperature measurements using platinum resistor probes or thermocouples.

Automatic change of range..... In voltage and resistance.

Hold the measurement

It is carried out by a simple short-circuit on the back connector block.

Scaling

The value 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 the errors corrections on temperature ranges.

Temperature measurements.....

Sensor	Range (1)	Resolution	Accuracy(2)
Probe Pt 100	- 200 à + 500°C - 220 à + 1 200°C	0,1°C 1 °C	0,1 % + 0,2°C 0,1 % + 2 °C
Probe Pt 1000	- 200 à + 500°C	0,1°C	0,1 % + 0,2°C
Thermocouple K	- 100 à + 1 000°C + 1 000 à + 1 372°C	0,1°C 1 °C	0,1 % + 0,4°C 0,1 % + 1 °C
T	- 100 à + 400°C	0,1°C	0,1 % + 0,4°C
Platinel	- 100 à + 1 400°C	0,1°C	0,1 % + 0,4°C
J	- 120 à + 999°C	0,1°C	0,1 % + 0,4°C
L	- 40 à + 900°C	0,1°C	0,1 % + 0,4°C
R	- 50 à + 120°C + 120 à + 1 768°C	1 °C 1 °C	0,1 % + 2 °C 0,1 % + 1 °C
S	- 50 à + 450°C + 450 à + 1 768°C	1 °C 1 °C	0,1 % + 2 °C 0,1 % + 1 °C

(1) For a type of determined sensor, the commutation of range and the change of resolution can be automatic.
Possibility of going beyond of range.

Display in °C or °F.

(2) In ± (% reading + nb de °C) on 1 year without junction of reference.

The typical error brought by the junction of reference AN8002 is of 0,3 °C.

DIGITAL PANEL METERS

electrical measurements of process.....

Function	Range(3)	Resolution	Accuracy (4)	Remarks
D.C.voltage	50 mV 500 mV 5 V 50 V	10 μ V 100 μ V 1 mV 10 mV	0,1 % + 10 μ V 0,1 % + 100 μ V 0,1 % + 1 mV 0,1 % + 10 mV	Input resistance > 1 000 M > 1 000 M 1 M 1 M
D.C current	4-20 mA ou 0-50 mA	10 μ A	0,2 % + 10 μ A	Shunt AN 8005 10
Resistance	250 2 500	100 m 1	0,1 % + 0,1 0,1 % + 1	Current of measurement 200 μ A

(3) Extended from measurement : - 40 à + 110 % range

(4) In \pm (% reading + a number of units) on 1 year

general characteristics

Display.....

From - 1999 to 9999 with indication,
LED red,yellow or green of 14 mm.

Speed of measurement : 2,5 mesures/s.

Temperature coefficient 10 % accuracy/ $^{\circ}$ C.

Climatic environnement

Nominal field : $23 \pm 1^{\circ}$ C, 20 to

75 % HR without condensation.

Nominal field : 0 à 50° C, 20 to 80 %

HR without condensation.

Limiting field : - 10 to + 50° C.

Acceptable maximum voltage on the ranges :....

600 V~ on the ranges 5 V and 50 V ;
250 V~ on the ranges 50 mV, 500 mV
and thermocouples;
20 V~ on the entries of measurement of resistance.

Common mode.....

Rejection 110 dB to 50 Hz on the range
50 mV.

Acceptable maximum voltage : 250 V~.

Rejection of series mode.....

60 dB to 50 Hz on the range 50 mV.

Isolated power supply

230 V~ (\pm 10 %) 50 to 60 Hz.

Others power supply :

5 V- \pm 10 %,
9 to 18 V-
18 to 36 V-
36 to 72 V-
24 V- \pm 10 %,
48 V- \pm 10 %,
115 V- \pm 10 %.

Presentation.....

Case ABS.

Sealing IP 40.

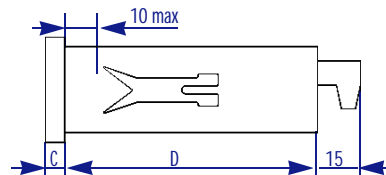
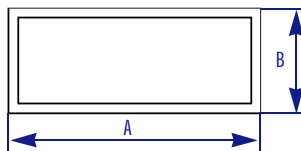
Weight: approximately 300 G.

Connection.....

Removable screwing connectors supplied
with instrument.

dimensions

Dimensions in mm



Case	A	B	C	D	Cut out panel
72 x 24	72	24	5	103	$68,0^{+0,8}_{-0} \times 22,2^{+0,3}_{-0}$

accessories

External shunt

Shunt 10 , 500 mV, precision 0,1 % ;
Skewer module on the connector
of entry for measurements in 4-20 mA or
0-50 mA (current max. : 100 mA).
Dimensions : 25 x 27,5 x 14,8 mm.

Compensation of junction of reference.....

Module screwed on the transportable
back connector block remotely.

Typical error : $0,3^{\circ}$ C.

Error max. : $0,5^{\circ}$ C.

Dimensions : 25 x 27,5 x 14,8 mm.

Mechanical flange of adaptation

Adaptation to a drilling of panel of
higher dimensions of a few millimetres

External dimensions : 80 x 32 mm.

instructions to order

Indicator	IC052	
References to defer above		
Power supply		
5 V~	2	
9 to 18 V~	3	
18 to 36 V~	4	
36 to 72 V~	5	
24 V~	6	
115 V~	7	
230 V~	8	
48 V~	9	
Display		
Red	R	
Green	V	
Yellow	J	
Case		
Plastic	P	
Metal tight	M	

Options et accessories

External shunt AN 8005

Module junction of reference AN 8002

Flange of adaptation AMD001

Indicator 12 ways See note BCM012



AOIP

BP 182

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The above mentioned characteristics are subject to change without prior notice

SOFIMAE laboratory on our premises of Ris-Orangis
*Ranges available on www.cofrac.fr