

## electrical measurements 10 000 points ICO 61



ICO 61 are digital panel meters of which the function of measurement, range, thresholds and of the specific scalings are configurable. The configured parameters are protected from the inopportune modifications.

- Format 96 x 24 mm
- Function, ranges, programmable thresholds and scale.
- 2 thresholds with exit relay

### functions

**Measure** .....  
The ICO 61 allow measurements of A.C./D.C voltage 400 V (true effective value with or without component continuous health) and measurements of A.C./D.C current up to 5 A and measurements of frequencies up to 5 000 Hz. They comprise:

- a power supply for standard sensor Namur,
- the blocking of measurement,
- the memorizing of the maximum and the minimum of a series of measurements.

**Automatic change of range** .....  
In the same measuring unit.

**Scaling**.....  
Whatever the function, the user can program a scaling which is clean for him. The value to be displayed is entered using the keyboard, while the value of corresponding measurement can either be introduced in the same way or measured by the instrument.

**Thresholds**.....  
Programming of two thresholds and their hysteresis.  
Capacity breaking of the associated relay 250 V - 1 A or 60 VA to 50 Hz, 150 V - 1 A or 30 W in continuous.  
Operation is in agreement with the safety requirements, alarm being characterized by the not fed repercussion of the relay correspondent (coil).

Function	Range (1)	Resolution	Accuracy (2)	Input resistance
D.C voltage	500 mV	100 µV	0,1 % + 0,1 mV	> 1000 M
	5 V	1 mV	0,1 % + 1 mV	1 M
	50 V	10 mV	0,1 % + 10 mV	1 M
	400 V	100 mV	0,1 % + 0,1 V	1 M
A.C voltage (true eff)	500 mV	100 µV	0,7 % + 1 mV	1 M
	5 V	1 mV	0,5 % + 6 mV	1 M
	50 V	10 mV	0,5 % + 60 mV	1 M
	400 V	100 mV	0,5 % + 0,6 V	1 M
D.C current (3)	4-20 mA ou 0-50 mA	10 µA	0,2 % + 10µA	shunt incorporé
	1 A	1 mA		shunt 100 mV : AN 8003
	5 A	1 mA		shunt 100 mV : AN 8004
A.C current (true eff. ) (3)	1 A	1 mA		shunt 100 mV : AN 8003
	5 A	1 mA		shunt 100 mV : AN 8004
Frequency(4)	5 à 500 Hz	0,1 Hz	0,1 % + 0,1 Hz	10 M
	5 à 5 000 Hz	1 Hz		

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

(2) ± (% reading+ a number of units)on 1 year

Continuous : de - 40 à 100 % range

Into A.C : of 4 to 100 % range from 25 to 500 Hz without continuous component (possible measurements up to 10 Khz on certain ranges with less accuracy)

(3) Measure of current with shunts

(4) Two levels for entry voltage : 50 mV- à 50 V- et 5 V- à 250 V-.

# DIGITAL PANEL METERS

In the course of measurement, each threshold can be visualized.  
Circuits RC of protection are envisaged out of accessory for the protection of relay contact if those are connected

to inductive circuits.

Protection of the programming.....  
The instruments have two levels of protection by software.

- Protection of the unit of the programming by access code.
- Protection of the threshold values by programming of the function safety.

## 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/°C.  
Acceptable maximum voltage on the ranges voltage : 600 V~.

Frequency .....  
Acceptable maximum voltage :  
- 70 V peak on low entry level (50 mV à 50 V),  
- 570 V peak on entry high level (5 V à 250 V).

Acceptable max. continuous components:  
- 50 V- peak on low entry level (50 mV à 50 V),  
- 400 V- peak on entry high level (5 V à 250 V).  
Voltage of common mode maximum acceptable on the entries : 250 V~.

Common mode .....  
Acceptable maximum voltage: 250 V ~.  
Rejection of common mode 110 dB to 50 Hz on the continuous gauge 500 mV.  
Rejection of series mode 60 dB to 50 Hz on the continuous gauge 500 mV.

Climatic Environment .....  
Nominal field : 0 to 50°C, of 20 to 80% HR without condensation.

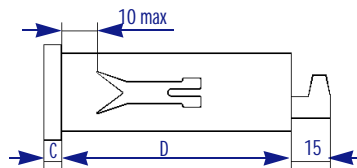
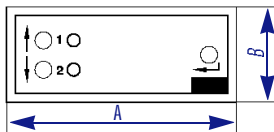
Isolated power supply .....  
230 V~ (± 10 %) 50 to 60 Hz.  
Others power supply :  
5 V~ ± 10 %, 9 to 18 V-  
18 to 36 V-  
36 to 72 V-  
24 V~ ± 10 %, 48 V~ ± 10 %, 115 V~ ± 10 %.

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
96 x 24	96	24	5	103	92.0 <sup>+0.8</sup> x 22.2 <sup>+0.3</sup>

## accessories

External shunts .....  
Modules screwed on the connector  
AN 8003 : 1 A, 100 mV, precision 0,2 %;  
AN 8004 : 5 A, 100 mV, precision 0,5 %;  
Dimensions : 25 x 27,5 x 14,8 mm.

Transformers of current .....  
Classe 0,5.  
AN 5844 : 2/1 A,  
AN 5845 : 20/1 A,  
AN 5846 : 200/1 A.

Sensors of standard proximity «NAMUR»  
(see corresponding documentation).

Protective circuit.....  
Circuit RC of protection of the contacts alarm for cut on inductive circuits (250 V~ max.) : ER42062.

## instructions to order

Power supply	References to defer above	Indicator IC061
5 V~ .....	2	□
9 à 18 V~ .....	3	□
18 à 36 V~ .....	4	□
36 à 72 V~ .....	5	□
24 V~ .....	6	□
115 V~ .....	7	□
230 V~ .....	8	□
48 V~ .....	9	□
Display		
Red .....	R	□
Green .....	V	□
Yellow .....	J	□

Accessories and option	
Shunt 1	AN 8003
Shunt 5 A	AN 8004
Transformer of current 2/1 A	AN 5844
Transformer of current 20/1	AN 5845
Transformer of current 200/1A	AN 5846
Sensors of proximity IEA 2001to IIA 2015	
Circuit RC	ER42062



AN 8004

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The characteristics above can be modified without prior notice