

NORMEUROPE RANGE

Round barrel analog panel meters for high-level operating constraints.



GENERAL SPECIFICATIONS

Accuracy class: 1.5 (+/- 1.5% of full scale)

Mounting: on front panel by means of studs or ring fastener

• **Maximum panel thickness:** 8 mm

Materials:

Barrel: self-extinguishing ABS

Front panel: self-extinguishing polycarbonate

Additional casing: Bakelite base, ABS cover

Operating position: calibration for vertical position ($\pm 10^\circ$)

Overloads:

Voltmeter and frequency meter

• 1.2 U_n permanent

• 2 U_n for 5 s

Ammeter

• 1.3 I_n permanent

• 10 I_n for 5 s

REFERENCE STANDARDS

Reference standard: IEC 60051-1, IEC 60051-2, IEC 60051-9

EMC: IEC 61326-1, IEC 61326-2-1, EN 61000-4

Safety rules: IEC 61010-1, IEC 61010-2-030

• Category III

Resistance to vibrations: IEC60051 – IEC 60068-2-6

• 10 to 55 Hz, +/- 15 mm

Resistance to mechanical shocks: IEC 60068-2-27

• 15 g

Degree of protection: IEC 60529

USER SECTORS



Industry



Energy generation



Energy transmission & distribution



Nuclear



Compliant with the latest applicable standards



Large choice of functions, formats, ratings, IPs and options



Attractive design and easy to read



• **Customer references:** EDF, on-board naval applications, energy generation and distribution

• **Designed for demanding applications:** nuclear, military, naval

• **Long product life span**

• **See table "Mounting mode – Ingress Protection (IP)"**
Degree of protection provided by the enclosure: IEC60529

• IK08 on the cover

Climatic withstand: IEC 60051-1, IEC 60051-9

• Calibration temperature: 23°C +/- 2°C

• Rated operating temperature: 23°C +/- 10°C

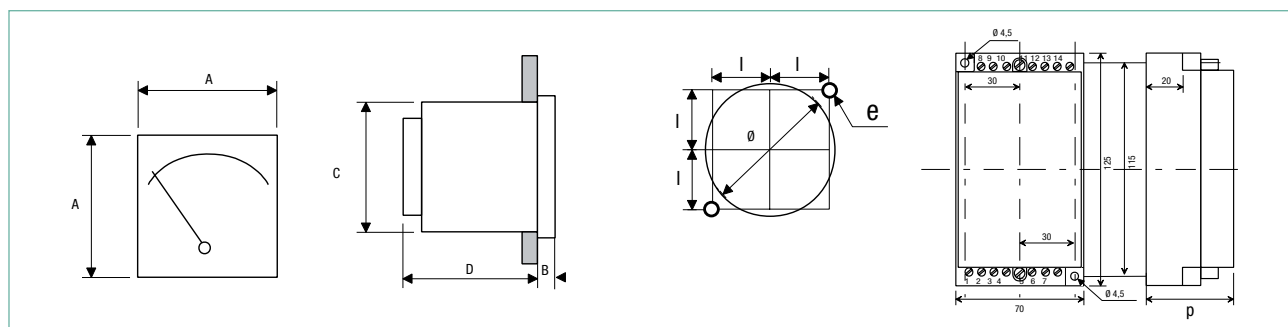
• Operating temperature limits: -25°C to + 60 °C

• Storage temperature: -25°C to + 70°C

• Relative humidity: 25% to 95%

• Atmospheric pressure: up to 2,000 m – 795 hPa

DIMENSIONS AND PANEL DRILLING SPECIFICATIONS



A x A Format	Panel meter			Additional unit	
	48 x 48	72 x 72	96 x 96	A	B
B (mm)	8	13	14		
C (mm)	diam. 44	diam. 55	diam. 80		
D 90° DEFLECTION or blades (mm)	46	29 if 20 A max. 39 if 25 A et plus			
D 250° DEFLECTION (mm)	58	71	71		
Ø (mm)	45	58	88		
I (mm)	20.25	26.5	34		
e (mm)	Ø3.5	Ø4.5	Ø4.5	P=48	P=122
Weight (kg)	0.20	0.25	0.30	0.30	0.70
Terminal	M4 and Faston up to 20 A. M6 for higher values			cage for 4 mm ² wire	

MECHANICAL SPECIFICATIONS

Deflection			90°			240°		
Format			48 x 48	72 x 72	96 x 96	48 x 48	72 x 72	96 x 96
Mounting and front-panel tightness outside standard ⁽¹⁾								
Panel meter standard: IP 40 front panel Casing: IP 20			2 studs M2,5	2 studs M4	2 studs M4	2 studs M2,5	2 studs M4	2 studs M4
360° panel meters: always 4 studs								
Option	Ring fastener	IP 40 front panel	drill 48 mm	drill 58 mm	drill 88 mm	drill 48 mm	drill 58 mm	drill 88 mm
Option	Reinforced mounting + gasket	IP 52 front panel	4 studs M2,5	4 studs M4	4 studs M4	4 studs M2,5	4 studs M4	4 studs M4
Option	Watertight (Reset, front panel)	+ IP54 seal front panel		4 studs M4	4 studs M4	4 studs M2,5	4 studs M4	4 studs M4
Option	Watertight (Reset, front/rear panels)	+ IP55 product panels		4 studs M4	4 studs M4	4 studs M2,5	4 studs M4	4 studs M4
Production of non-standard dials (after feasibility approval)								
Dial markings on request			■	■	■	■	■	■
Color markings			■	■	■	■	■	■
Color zones			■	■	■	■	■	■
Black background, white markings			■	■	■	■	■	■
Double scale				■	■	■	■	■

(1) IPXY, where X is the level of protection against penetration by solid bodies and Y is the level of protection against penetration by liquid

ACCESSORIES

Deflection			90°			240°		
Format			48 x 48	72 x 72	96 x 96	48 x 48	72 x 72	96 x 96
Front-panel sealed gasket			2465 001	2314 375	2314 376	2465 001	2314 375	2314 376
Fitting clip (without seal)			2328 558	2302 348	2307 086	2328 558	2302 348	2307 086
Standard or previous dial			■	■	■	■	■	■
Customized dial (on request)			■	■	■	■	■	■
Flask of antistatic liquid								9030 00676
Insulation sleeve for terminals								ACCQ 1001