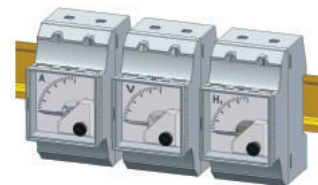


ANALOGUE MEASURING INSTRUMENTS

EQ - Moving iron instruments



- For AC current frequency range 15 - 400 Hz
- For AC voltages frequency range 15 - 100 Hz
- Class 1.5



Description

The moving-iron panel meters are mainly used for the measurement of AC currents for frequency range of 15...400Hz and voltages in the frequency range of 15...100Hz. They indicate the rms value of the wave, even with high harmonics, with a minor influence on the accuracy. Our instruments are normally calibrated for sinusoidal AC.

For current above 100A or high voltages, the instruments must be connected through measuring transformers.

Moving iron instruments can be connected in any order without observation of polarity (ki) on the current transformer.

Electrical Data

Overload capacity according to DIN 43780

Continuously	1,2 times rated value
Short duration	10 x I_N 5 s in ammeters
	2 x U_N 5 s in voltmeters

The setting time is approximately 1 minute.

Consumption

Ammeters up to 15 A	0,5 VA
Ammeters more than 15 A	0,8 VA
Voltmeter between	1 - 4,5 VA

Moving iron instruments

Moving-iron movement with silicone oil damping. Pivot suspension with spring loaded jewel bearings for vibration and shock resistance.

Scales

90° scale, compressed at the beginning. Coarse-fine division. For ammeters with overload scaling, it covers between 10% (for 1,2 I_N) and 35% (for 5 I_N) of the total scale length.

Mounting in DIN rail (EQ35n)

For measuring current and voltage in panel boards with 35 mm DIN rail according to DIN 50 022.

Dimensions: 85 x 45 x 65 mm / Weight: 0.1 Kg

The instruments of this line are adapted by their dimensions to common installations devices. The installation width of the instruments of 45 mm corresponds approx. for 3 units. They can easily be mounted on DIN rail bars by snap on mounting.

The terminals are protected against accidental contact.

The moving iron meter is jewelled with silicon oil damping.

Consumption

Amperímetro	max. 0,5 VA
Voltímetro	max. 2,5 VA

Consumption of EQ35p

Ammeter between	max. 0,5 VA
Ammeter 5 A	max. 0,5 VA
Voltmeter between	max. 2,5 VA
Voltmeter 100 V	max. 2,5 VA
Voltmeter 110 V	max. 2,5 VA

Table for norm scales of voltmeters for connection to voltage transformer

* Voltmeter for connection to voltage transformer:	sec. 100 V or 110 V	
	Prim. Rated Voltage	Scale
The final scale value is 1.2 times the rated voltage, for example:	500 V	0... 600 V
	600 V	0... 720 V
	1 kV	0... 1,2 kV
	3 kV	0... 3,6 kV
	5 kV	0... 6 kV
	6 kV	0... 7,2 kV
	10 kV	0... 12 kV
	10 kV	0... 18 kV
	15 kV	0... 18 kV
	20 kV	0... 24 kV
	25 kV	0... 30 kV
	30 kV	0... 36 kV
for connection to transformer sec. 110 V the measuring range is 0...132 V	33 kV	0... 40 kV
	60 kV	0... 72 kV
	100 kV	0... 120 kV
	100 kV	0... 120 kV
Please indicate primary voltage, scale and secondary voltage when ordering..		

ANALOGUE MEASURING INSTRUMENTS

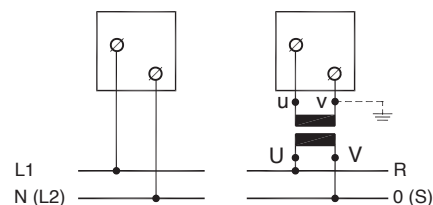
Standard measuring ranges

AC Voltages		AC Current
6 V	(except EQ35n)	100 mA
10 V	(except EQ35n)	150 mA
15 V	(except EQ35n)	250 mA
25 V	(except EQ35n)	400 mA
40 V	(except EQ35n)	600 mA
60 V	(except EQ35n)	1 A
100 V		1.5 A
120 V		2.5 A
132 V	(except EQ35n)	4 A
150 V		5 A
250 V		6 A
300 V		10 A
400 V	(except EQ35n)	15 A
500 V		20 A (except EQ35n)
600 V	(except EQ35n)	25 A (except EQ35n)
750 V	(except EQ48n/EQ35n)	30 A (except EQ35n)
		40 A (except EQ35n)
		50 A (except EQ35n)
		60 A (except EQ35n)
		100 A (except EQ48n/EQ35n)
For connection to voltage transformer		For connection to current transformer
.../100 V secondary		.../1 A secondary
.../110 V secondary		.../5 A secondary

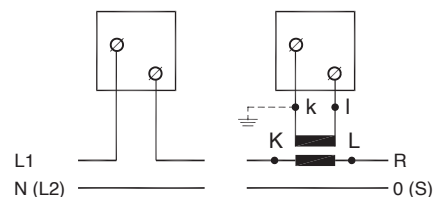
Other measuring ranges on request.

Connection diagrams

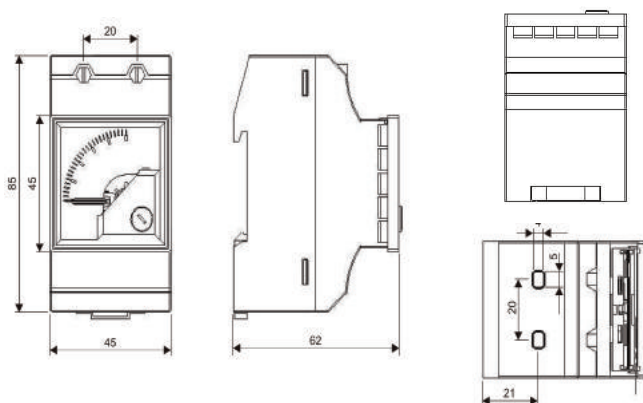
Voltmeter:



Ammeter:



Dimensions EQ35n:



Dimensions in mm / Weight in gramme

Type		a	c	d	e	g	h	Ø	Weight
EQ 48n	> 30 A	48	64	72	45 ^{+0,6}	28	5	M6	155
	others	48	54	62,5	45 ^{+0,6}	28	5	M4	145
EQ 72n	> 60 A	72	68	76	67 ^{+0,5}	8*	5	M8	230
	30< I < 60 A	72	64	76	67 ^{+0,5}	8*	5	M6	210
	others	72	60	76	67 ^{+0,5}	8*	5	M4	190
EQ 96n	> 60 A	96	68	76	92 ^{+0,8}	8*	5	M6	300
	25 < I < 60 A	96	64	76	92 ^{+0,8}	8*	5	M8	280
	others	96	60	76	92 ^{+0,8}	8*	5	M4	250
EQ 144n	> 60 A	144	67	75	138 ⁺¹	41	8	M6	450
	30< I < 60 A	144	62	69,5	138 ⁺¹	41	8	M8	430
	others	144	54	62	138 ⁺¹	41	8	M4	400

*26 mm with screw clamps

Fixing clamps included without extra charge

Dimensions:

