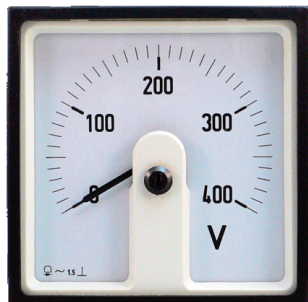


ANALOGUE MEASURING INSTRUMENTS

PR / PAR - Moving coil instruments with rectifier



- For direct measurement of the alternating current and voltage or
- For connection at the current and voltage transformer
- Class 1.5

PR with 90° scale

PAR with 240° round scale

Description

The moving-coil rectifier panel meter are suitable for measuring sinusoidal AC currents and voltages. The frequency range for voltmeters and milliammeters up to 600 mA is 25 to 10.000 Hz.

For current higher than 1 A - 5 A, the frequency can not exceed 50 or 60 Hz. (On request: 400 Hz).

It is possible to measure higher currents and voltages connecting the instruments through suitable measuring transformers.

Internal resistance, consumption approx.				
Measuring range	PAR 48n	PAR 72n	PAR 96n	PAR 144n
6 - 60 V	1 mA			
100 - 600 V	1.12 mA			
200 - 600 μ A	0.01 - 1.64 m VA			
1 - 250 mA	1.6 mVA - 0.76 VA			
400 mA - 5 A	0.38 VA			

Electrical data

Overload capacity according to DIN 43780

Continuously 1,2 times rated value

Short duration 10 x I_N 5 s ammeters

2 x U_N 5 s voltmeters

The setting time is approximately 1 minute.

Consumption

Voltmeter: aprox. 1 mA

Ammeter: up to 800 mA:

1 up to 1.5 V voltage drop

from 800 mA: aprox. 0.25 VA

Moving coil instruments with rectifier

Self-shielding moving-coil rectifier system, with core magnet movement and hairsprings for the creation of the restoring torque. Pivot suspension with spring loaded jewel bearings for vibration and shock resistance.

Scales

90° scale (PR..)/ 240° scale (PAR...n), practically linear. Slightly compressed at the beginning for voltmeters under 40V. The graduations at the beginning of the scale are electrically suppressed in rated value voltmeters. o-fino.

ANALOGUE MEASURING INSTRUMENTS

Standard Measuring Ranges

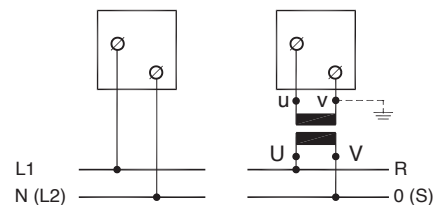
AC Voltage	AC Current PR..n	PAR..n
6 V	1 mA	1 mA
10 V	1,5 mA	1,5 mA
15 V	2,5 mA	2,5 mA
25 V	4 mA	4 mA
40 V	6 mA	6 mA
60 V	10 mA	10 mA
132 V	15 mA	15 mA
150 V	25 mA	25 mA
250 V	40 mA	40 mA
300 V	60 mA	60 mA
400 V	100 mA	100 mA
500 V	150 mA	150 mA
600 V	250 mA	250 mA
	400 mA	400 mA
	600 mA	600 mA
	1 A *	1 A *
	1,5 A *	1,5 A *
	2,5 A *	2,5 A *
	4 A *	4 A *
	6 A *	6 A *
	10 A *	10 A *
For connection to voltage transformer .../100 V secondary .../110 V secondary	For connection to current transformer .../1 A secondary .../5 A secondary	

* At PR48n/PAR48n with external transformers

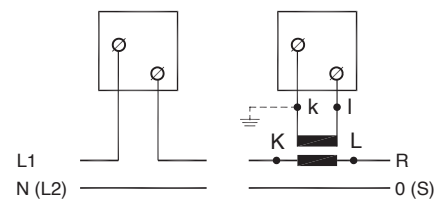
Other measuring ranges on request.

Connection diagrams

Voltmeter:



Ammeter:



Dimensions in mm / Weight in gramme

Typ	a	c	d	e	g	h	Weight
PR 48n	48	55	62	45 ^{+0,6}	28	5	280
PR 72n	72	55	74	68 ^{+0,7}	8 ¹	5	290
PR 96n	96	55	74	92 ^{+0,8}	8 ¹	5	375
PR 144n	144	53	74	138 ⁺¹	40	5	690
PAR 48n	48	53	64	45 ^{+0,6}	26	5	235
PAR 72n	72	53	64	68 ^{+0,7}	40	5	560
PAR 96n	96	53	64	92 ^{+0,8}	40	5	515
PAR 144n	144	53	64	138 ⁺¹	40	5	740

*26 mm with screw clamps

