



48DAe, 72DAe, 96DAe, 144DAe, 48DVe, 72DVe, 96DVe 144 DVe

For measuring DC current respective voltage.
Types 48D..., 72D..., 96D..., and 144D... are with interchangeable scale

Technical data:

Movement: Magnet core, moving-coil movement with pivot spring-type bearing

Instrument case: non-flammable Glass filled polycarbonate according UL94-V-0.

Scale length: 38 mm (48D...), 61 mm (72D...), 97 mm (96D...), 146 mm (144D...)

Permanent overloading: 1.2 -fold current res. voltage

Class of accuracy: 1.5

Pollution degree 2

Installation Categories: Size 72,96, and 144 600V CAT III.
(over voltage category) Size 48 300V CAT III.

Weight: 0.1 kg (48D...), 0.16 kg (72D...),
0.2 kg (96D...) 0.4 kg (144D...)

Fixing elements: Two M3 screws

Accessorie:

Terminal protection: Full sized polycarbonate back cover



AMMETERS		Plastic case			
Frame dimensions		48x48 mm	72x72 mm	96x96 mm	144x144 mm
Measuring range	Cat. No.	Type 48 DAe	Type 72 DAe	Type 96 DAe	Type 144 DAe
		58-2014-12-...	58-1639-12-...	58-1638-12-...	58-2557-12-...
		Approx voltage drop	Approx voltage drop	Approx voltage drop	Approx voltage drop
min. (50 μ A)	002	424 mV	424 mV	424 mV	424 mV
100 μ A	001	400 mV	400 mV	400 mV	400 mV
1 mA	011	37 mV	37 mV	37 mV	37 mV
20 mA	024	60 mV	60 mV	60 mV	60 mV
1 A	041	60 mV	60 mV	60 mV	60 mV
1.5 A	043	60 mV	60 mV	60 mV	60 mV
2.5 A	045	60 mV	60 mV	60 mV	60 mV
4 A	047	60 mV	60 mV	60 mV	60 mV
5 A	048	60 mV	60 mV	60 mV	60 mV
6 A	049	72 mV	72 mV	72 mV	72 mV
10 A	051	60 mV	60 mV	60 mV	60 mV
15 A	053	60 mV	60 mV	60 mV	60 mV
25 A	055	60 mV	60 mV	60 mV	60 mV
40 A	057	60 mV	60 mV	60 mV	60 mV
50 A	058	60 mV	60 mV	60 mV	60 mV
60 A	059	72 mV	72 mV	72 mV	72 mV
max.100 A	061	60 mV	60 mV	60 mV	60 mV
4...20 mA	501	60 mV	60 mV	60 mV	60 mV
...A/ 50mV	C01	1 k Ω /V	1 k Ω /V	1 k Ω /V	1 k Ω /V
...A/ 60mV	C02	↓	↓	↓	↓
*...A/ 100mV	C03	↓	↓	↓	↓
*...A/ 150mV	C04	↓	↓	↓	↓

* For connection to separate shunt. The calibration of the instruments 0.035 Ω wire (=2x1 m \varnothing 1 mm) resistance is taken into consideration.
The tolerance of the internal resistance is generally $\pm 20\%$

Note: on request types different from tables are accepted.



VOLTMETERS		Plastic case			
Frame dimensions		48x48 mm	72x72 mm	96x96 mm	144x144 mm
Measuring range	Cat. No.	Type 48 DVe	Type 72 DVe	Type 96 DVe	Type 144 DVe
		58-2014-12-...	58-1639-12-...	58-1638-12-...	58-2557-12-...
		Int. resist.	Int. resist.	Int. resist.	Int. resist.
min (1) V	101	1 kΩ/V	1 kΩ/V	1 kΩ/V	1 kΩ/V
10 V	111	↓	↓	↓	↓
15 V	113				
25 V	115				
30 V	116				
40 V	117				
50 V	118				
60 V	119				
100 V	121				
max.(600)V	129				

Note: on request types different from tables are accepted.

Type\Dim. (mm)	a	b	c*	d	e	f**	g
48DVe 48DAe	48	43,5	53	44.5	5.5	64	45 ^{+0.6}
72DVe 72DAe	72	66	53	67.5	5.5	64	68 ^{+0.7}
96DVe 96DAe	96	90	53	91.5	5.5	64	92 ^{+0.8}
144DVe 144DAe	144	136	53	137.5	5.5	64	138 ⁺¹

* c = 68mm, for I= 6 to 60 A

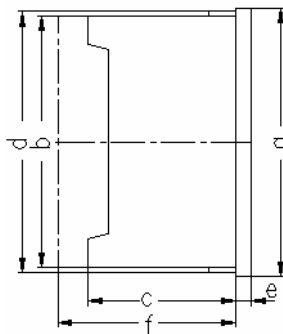
* c = 78mm, for I> 60 A

**f = 70mm, for I= 6 to 60 A

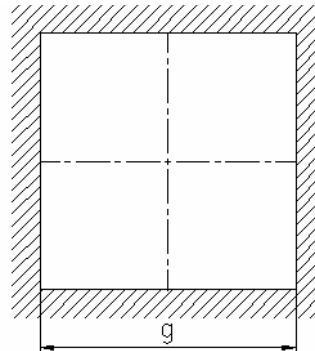
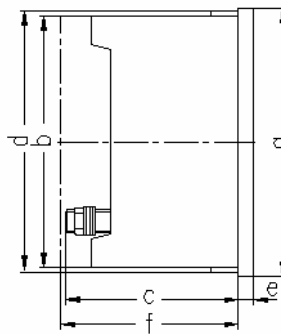
**f = 75mm, for 48x48 I>6 A

Outline drawing

For Voltmeters & Ammeters
< 6A



For Ammeters
6-100 A



Order specification:

-Moving coil ammeter
-Frame size: 72x72 mm
-Range: 1 mA
-Scale: 0...100%

Ordering data:

-Moving coil ammeter
-Type: 72DAe
-Cat. No.: 58-1639-12-011-
Scale: 0...100%