



## 48DwA, 72DwA, 96DwA, 144DwA 48DwV, 72DwV, 96DwV, 144DwV

For measuring AC current or voltage

### Technical data:

**Movement:** moving-coil, with pivot spring type bearing

**Instrument case:** non-flammable plastic according to UL 94-V1 or metal on request.

**Scale length:** 40 mm (48Dw...), 62 mm (72Dw...), 102 mm (96Dw...), 152 mm (144Dw...)

**Permanent overloading:** 1.2 -fold current res. voltage

**Class of accuracy:** 1.5 for sinusoidal AC, (calibration is true r.m.s.)

**Frequency range:** - 15 ... 50 ... 5000 Hz for all voltmeters and ammeters at range of 1 mA to 600 mA,  
- 50 ... 60 Hz for ammeters at range of 1 A to 5 A

**Weight:** 0.2 kg (48Dw...), 0.25 kg (72Dw...), 0.4 kg (96Dw...), 0.8 kg (144Dw...)

**Fixing elements:** plastic clips or two spring type fastening clips for metal case instruments.

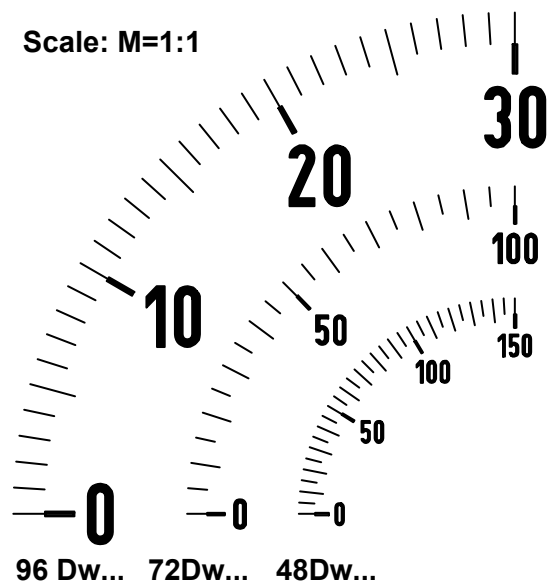


AMMETERS		Plastic case				Metal case		
Frame dimensions		48x48 mm	72x72 mm	96x96 mm	144x144 mm	72x72 mm	96x96 mm	144x144 mm
Measuring range	Cat. No.	48 DwA	72 DwA	96 DwA	144 DwA	72 DwA	96 DwA	144 DwA
		2076-12-...	2077-12-...	2078-12-...	2670-12-...	2079-12-...	2080-12-...	2499-12-...
		Voltage drop or consumption						
1 mA 500 mA 600 mA	001 014 015	max. 1.2 V ↓	max. 1.2 V ↓	max. 1.2 V ↓	max. 1.2 V ↓	max. 1.2 V ↓	max. 1.2 V ↓	max. 1.2 V ↓
1 A 1.5 A 2.5 A 4 A 5 A	016 017 018 019 020	max.0.3VA ↓	max. 0.3 VA ↓	max. 0.3 VA ↓	max. 0.3 VA ↓	max. 0.3 VA ↓	max. 0.3 VA ↓	max. 0.3 VA ↓
* ... / 1 A * ... / 5 A ** ... / 1 A ** ... / 5 A	C01 C02 C03 C04							

\* with current transformer

\*\* with current transformer and 100%  $I_n$  overload scale

**Note:** on request types different from tables are accepted.





# MOVING COIL INSTRUMENTS WITH RECTIFIER FOR AC

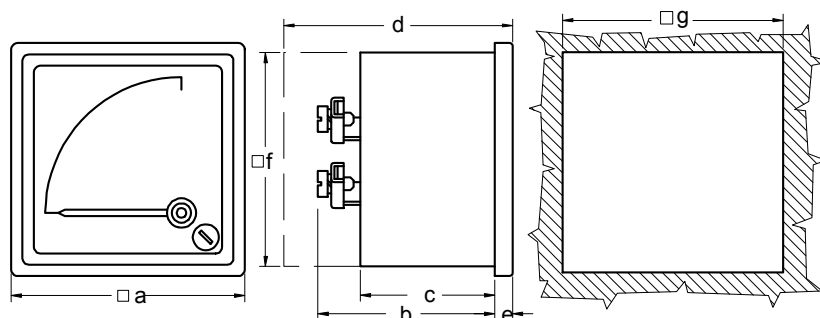


VOLTMETERS		Plastic case				Metal case		
Frame dimensions		48x48 mm	72x72 mm	96x96 mm	144x144 mm	72x72 mm	96x96 mm	144x144 mm
Measuring range	Cat. No.	48 DwV	72 DwV	96 DwV	144 DwV	72 DwV	96 DwV	144 DwV
		2076-12-	2077-12-	2078-12-	2670-12-	2079-12-	2080-12-	2499-12-
		Internal resistance						
6 V	101	1000 Ω/V  ↓	1000 Ω/V  ↓	1000 Ω/V  ↓	1000 Ω/V  ↓	1000 Ω/V  ↓	1000 Ω/V  ↓	1000 Ω/V  ↓
10 V	102							
15 V	103							
25 V	104							
40 V	105							
60 V	106							
100 V	107							
150 V	108							
250 V	109							
300 V	113							
400 V	110							
500 V	111							
600 V	112							
* ... / 100 V	C05							
* ... / 110 V	C06							

\* for connection to voltage transformer

**Note:** on request types different from tables are accepted.

## Outline drawing



Type\Dim. [mm]	a	b1	b2	c1	c2	*d	e	f	g
48 DwA 48DwV	48	52.5	----	41.5	----	62.5	5.5	44	45 <sup>+0.6</sup>
72 DwA 72DwV	72	52.5	62	41.5	51	c+25	5.5	66	68 <sup>+0.7</sup>
96DwA 96DwV	96	52.5	62	41.5	51	c+25	5.5	90	92 <sup>+0.8</sup>
144DwA 144DwV	144		59		47		7	137	138 <sup>+1</sup>

b1, c1 refers to plastic case instrument

b2, c2 refers to metal case instrument

\* case with terminal cover

## Order specification:

- Moving coil ammeter with rectifier for AC
- Frame size: 72x72 mm
- Case: plastic
- Range: 1 A
- Scale: 100A

## Ordering data:

- Moving coil ammeter with rectifier for AC
- Type: **72DwA**
- Cat. No.: **2077-12-C01**
- Scale: **0...100A**