



*Pivot-type Fixed Meter 110mm Angle*  
[JIS C 1102-2007, RoHS Compatible Products]

# Wide Angle Meter



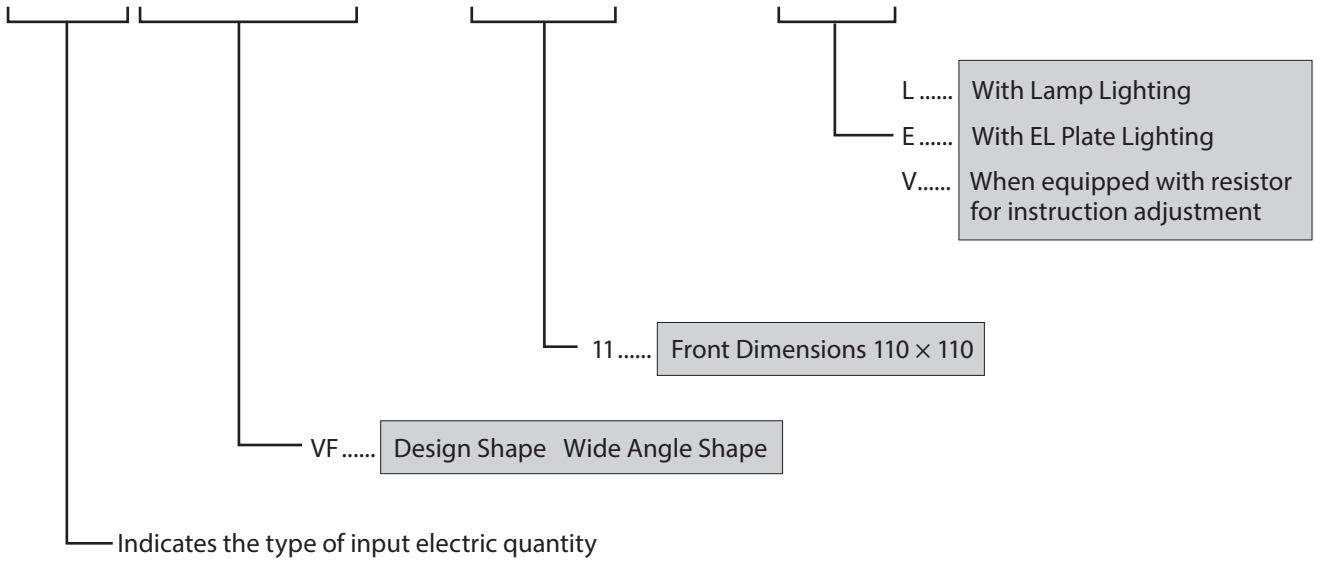
**VF-11M** Series

**東洋計器株式会社**

CAT. NO. VF-11M-03

# About Model Names

# DVF-11M□



- D..... Direct current or voltage
- Se..... Alternating current or voltage (R.M.S.-Response type)
- S..... Alternating current or voltage (Mean value rectifier type)
- A..... Alternating current or voltage (Moving-iron type)
- E..... 1P or 3P power
- R..... 1P or 3P varmeter power
- U..... 1P or 3P balanced power rate
- Uu..... 3P unbalanced power rate
- F..... Frequency
- C..... Tachometer

# VF-11M SERIES

## Details of Changes from Previous Product (□VF-11 Series)

1. Mounting screws at the four corners of the meter changed from M6 to M5 size.
2. Meter terminal screws changed as follows.  
 Ammeter, voltmeter, frequency meter  
 M6 screws → M4 screws  
 Wattmeter, Varmeter, Power Factor Meter  
 1P, 3P3W: M4 screws → M4 screws  
 3P4W : M3 screws → M4 screws
3. Scale characteristics of the electronic device type (M.R.S.-Response type) AC ammeter have been improved from non-linear wiring to linear wiring.

## Features

1. A long scale meter for indicating wide angles.
2. A stepped scale plate is used to remove any level difference between the scale and tip of the needle, resulting in accurate readings.
3. Meter that has a bright scale due to the wide cover lighting surface.
4. It is not affected by steel panels.
5. Can be manufactured with EL board (Electro-Luminescence Board) lighting.
6. Terminal cover is now equipped as standard.
7. It is now compatible with multi-setting set pointer models.

## VF-1 1M Series List

Applicable Standards: JIS C 1102-1, 2, 3, 4, 5, 9

Part Name		□VF-11M			Notes Page
		Model Name	Operating Principles	Accuracy Class	
Direct Current	Ammeter	DVF-11M	Permanent magnet Moving-coil type	1.5	5
	Voltmeter				6
	Reception Meter				5/6
Alternating Current	Ammeter	SVF-11M	Rectifier type	2.5	7
	Voltmeter				8
	Ammeter	SeVF-11M	Electronic device type	1.5	9
	Voltmeter				10
	Ammeter	AVF-11M	Moving-iron type	1.5	11
	Voltmeter				12
	Reception Meter	SVF-11M	Rectifier type	2.5	7/8
	1P Wattmeter	EVF-11M	Electronic device type	1.5	13
	3P Wattmeter				
	3P4W Wattmeter				
	1P Varmeter	RVF-11M	Electronic device type	1.5	13
	3P Varmeter				
	3P4W Varmeter				
	1P Power Factor Meter	UVF-11M	Electronic device type	5.0	14
	3P Balanced Power Rate Meter				
	3P Unbalanced Power Factor Meter				
3P4W Power Factor Meter	UuVF-11M				
Frequency Meters	FVF-11M	Electronic device type	0.5	18	

## Production Standards

☆Can be manufactured to 80×80 (mm) or 120×120 (mm) sizes. Please contact us for more details.

Model Name	□VF-11M
Front Dimensions (Horizontal × Vertical) (mm)	110×110
JIS Symbol (JISC1103)	KW3a
Scale Length (mm)	170
Blur Angle	237°
Accuracy/Class	Refer to □VF-11 M Series List Table (Upper Table)
Mounting Posture	Vertical (Other than vertical: Specification required, e.g. /30°)
Recommended No. of Scale Divisions	Division 35 to division 75
Pointer Shape	VF Standard Pointer (See Next page)
Cover Material	Methacrylic Resin
Cover Frame Color	●Black (Munsell symbol: N-1.5) ●Blue/green color according to specifications (Munsell symbol: 7.5BG 4/1.5)
Base Material	Body: ABS resin Terminals: PBT resin
Scale Plate	Aluminum plate with white coating (Scale lines and numbers are black)

Note) See p.26 for details on the recommended scale divisions.

**Insulation Test** Between all circuits in a batch and outer casing ...More than 10 MΩ (500V mega tester)  
 Between current circuit and voltage circuit ...More than 5M (at 500V mega)

**Voltage Test** Between all measurement circuits in a batch and outer casing, and between current circuit and voltage circuit ...  
 maximum usable circuit voltage up to 600V. AC3320V for 5 seconds: CAT III 600V displayed at the bottom right of the scale plate.  
 If the maximum usable circuit voltage of 600V is exceeded, (2E+1000) V (E: Maximum usable circuit voltage [V])

# VF

# AC Ammeter (Electronic Device Type, R.M.S.-Response)

## SERIES

Model Name SeVF-11M

### Specifications

Measurement Range Value	SeVF-11M		Note
	VA Consumption	Accessories	
100 mA	0.5VA	None	Direct Measurement
300 mA			
500 mA			
1 A			
3 A			
5 A			
7.5 A	Use combined CT and 5A (1A) meter		
10 kA			
Weight	Approx. 0.55kg		

### Remarks

#### Waveform Distortion

Electronic device type meters **indicate the root-mean-square value** without being influenced by waveform distortion. (However, the waveform distortion must be less than the **"third harmonic wave 20% of the fundamental wave"** prescribed in JIS C1102-1 to 2, 9.)

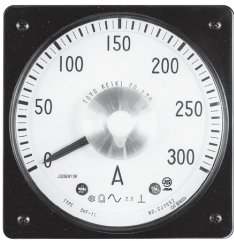
#### Using CT

1. Use **combined CT and 5A (1A) meter** if 5A is exceeded.
2. When circuit voltage of 600V is exceeded at 5A or below, use **combined CT and 5A (1A) meter** for insulation.

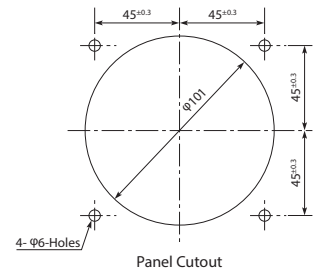
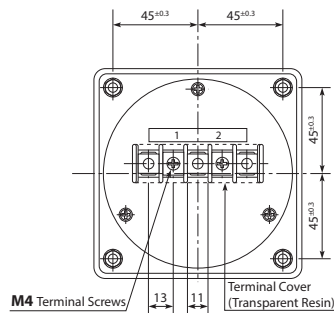
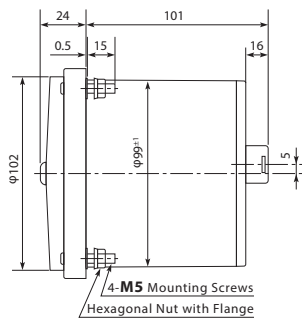
#### Extended Scale Meter

Meters attached with double, triple or 5-times extended scale to use for measuring the current flow of electric motor-class of starting current

### Outside Dimensions

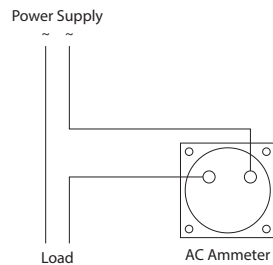


SeVF-11M



### Connection Diagram

#### For Direct Measurement



#### When Combined With a CT

