

Analogue Portable Instrument

Portable Frequency Meter



The Hz meters use a frequency-to-DC current transducer which drives a high sensitivity moving coil type indicator. It features accurate frequency measurements without noticeable influence of line voltage fluctuation (50 to 300V) or waveform distortion.

- **Principle :** Frequency sensing transducer
- **Accuracy :** $\pm 0.5\%$ of full scale value on 45 to 65 Hz range
 $\pm 0.5\%$ of full scale value on 0 to 100Hz range
 $\pm 0.5\%$ of full scale value on 0 to 500Hz range
- **Scale Length :** Approx. 135mm (5-3/8")
- **Case Material :** Bakelite with glass window

Name	Frequency	Voltage	No.
Hz meter	45-65Hz	120/240V	1701
	0-100Hz	120/240V	1702
	0-500Hz	120/240V	1703

Portable Power Factor Meter



The PF meter is used for measurement in single-phase and balanced three-phase circuits. From a phase discriminating circuits, the output of the built-in transducer produces a DC proportional to the phase between voltage and current to operate the DC indicator.

- **Principle :** Phase angle sensing transducer
- **Rated Accuracy :** $\pm 3\%$ phase angle
- **Scale :**
Power Factor : Lead 0 – 0.3 – 1.0 – 0.3 – 0 Lag
Power Angle : Lead 90° – 0° – 90° Lag
- **Effective Power Factor Measuring Range :**
Lead 0.5 – 1.0 – 0.5 Lag
- **Scale Length :** Approx. 135mm (5-3/8")
- **Frequency Influence :** Within $\pm 1.5^\circ$ phase angle at 45 to 65Hz

Name	Current	Voltage	No.
PF (1 \emptyset , 3 \emptyset) meter	0.2/1A	120V	3801
	1/5A	(Usable in the range of 60-300V)	3802
	5/25A		3803

Portable Wattmeter



The wattmeter is electro-dynamometer type, this instrument is highly reliable, and designed for use in laboratories or factories for precision measurement of power at AC and commercial frequencies 45-65Hz.

- **Principle :** Electro-dynamometer type
- **Accuracy :** $\pm 0.5\%$ of full scale
- **Scale Length :** Approx. 135mm (5-3/8")
- **Scale Divisions :** 120
- **Frequency Ranges :** AC 25 to 1000Hz (COS \emptyset =1.0) (suitable for DC)
AC 25 to 500Hz (COS \emptyset =0.2)

Name	Range		Power Factor	No.
	Current	Voltage		
Single-Phase Wattmeter	0.2/1A	120/240V	1.0	2101
	1/5A	120/240V	1.0	2102
	2/10A	120/240V	1.0	2103
	5/25A	120/240V	1.0	2104
	1/5A	240/480V	1.0	2119

Special ranges are available upon request.