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GOSSEN METRAWATT

CP 30 / CP 330 / CP 1100 / CP 1800
AC / DC Current Probe

3-349-601-03
6/12.16

- AC and DC current measurement
  CP 30: max. 30 A
  CP 330: max. 450 A
  CP 1100: max. 1400 A
  CP 1800: max. 1800 A
- Resolution:
  CP 30: 1 mA
  CP 330: 50 mA
  CP 1100: 100 mA
  CP 1800: 100 mA
- Opening angle of current clamp brackets:
  CP 30: 25 mm ∅
  CP 330: 25 mm ∅
  CP 1100: 32 mm ∅
  CP 1800: 32 mm ∅
- High accuracy
- Automatic zero balancing
- Auto Power Off
- Using advanced Hall effect technology



Applications

The CP 30, CP 330, CP 1100 and CP 1800 AC / DC current probes have been designed for reliable and accurate, contactless measurement of AC, DC and complex waveform currents.

Their special characteristics make these current probes high-performance instruments for the measurement of inverters, switched-mode power supply units, industrial control systems and other applications which require current measurement or waveform analysis.

Features

Auto Power OFF

The device is switched off automatically after approx. 10 minutes if none of its keys have been activated during this time. Automatic shutdown can be deactivated.

Characteristic Values

	CP 30	CP 330	CP 1100	CP 1800
Measuring Range [1]	30 A	30 A / 300 A	100 A / 1000 A	125 A / 1250 A
Resolution	1 mA	50 mA / 100 mA	100 mA / 500 mA	100 mA / 500 mA
Overload Capacity (60 s)	500 A	600 A	2000 A	2000 A
Temperature Coefficient	±0.01 % rdg./°C	±0.1 % rdg./°C	±0.1 % rdg./°C	±0.1 % rdg./°C
Transformation Ratio	100 mV/A	10 mV/A 1 mV/A	10 mV/A 1 mV/A	10 mV/A 1 mV/A
Overall Accuracy	±1 % rdg. ±2 mA	±1 % rdg. ±50/100 mA	±1 % rdg. ±100/500 mA	±1 % rdg. ±100/500 mA
Frequency Range	DC up to 20 kHz (–1 dB)	DC up to 20 kHz (–3 dB)	DC up to 20 kHz (–1 dB)	DC up to 20 kHz (–1 dB)
Phase shift [2]	<2°			
Load Impendance	>100 kΩ and ≤100 pF			
Influence of Conductor Position	±1 % [2]			

[1] CP 30: DC or AC_{pk}; CP 330/CP 1100/CP 1800: DC or AC_{RMS}
[2] under reference conditions

Operating voltage 300 V AC_{RMS} or DC
Key rdg. = reading (measured value)

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Reference Conditions

Ambient temperature	+22 °C ... +24 °C
Conductor position	Conductor located vertically in relation to sensor level and at the geometrical center
Frequency of measuring quantity	45 Hz ... 65 Hz

Ambient Conditions

Operating temperature range	0 °C … +50 °C
Relative humidity	max. 80 %, up to 31 °C decreasing linearly to 40 % relative humidity at 50 °C (no condensation allowed)
Storage temperature range with batteries removed	–20 °C … + 85 °C
Elevation	to 2000 m
Deployment	indoors; outdoors except within specified ambient conditions

Power Supply

Batteries	9 V alcaline battery; PP3, MN 1604 or IEC 6LR61
Service life	30 hrs. (typical)
Automatic shutdown	to save batteries, the current probe is switched off automatically after approx. 10 minutes

Electrical Safety

Measuring category	300 V CAT III
Pollution degree	2

Electromagnetic Compatibility (EMC)

Interference emission/ Interference immunity	EN 61326-2-2:2013

Mechanical Design

Dimensions	CP 30 / CP 330: 194 mm x 74 mm x 25 mm CP 1100 / CP 1800: 200 mm x 74 mm x 25 mm
Weight	320 g
Opening angle of current clamp brackets	CP 30 / CP 330: 25 mm ∅ CP 1100 / CP 1800: 32 mm ∅
Output terminals	1.5 m cable with two 4 mm safety plugs CP 30/CP 1100: shielded two-way adapter CP 330/CP 1800: 2 separate angled plugs

Applicable Regulations and Standards

IEC 61010-1/EN 61010-1/ VDE 0411-1	Safety requirements for electrical equipment for measurement, control and laboratory use – General requirements
EN 61010-2-032/ VDE 0411-2-032	Special requirements for current clamps
EN 60529 VDE 0470, part 1	Test instruments and test procedures Degrees of protection provided by enclosures (IP code)
DIN EN 61326-1 VDE 0843-20-1	Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements

Standard Equipment

1 AC / DC current probe
1 9 V alcaline battery
1 Operating instructions

Order Information

Description	Type	Article number
AC / DC current probe	CP 30	Z201B
AC / DC current probe	CP 330	Z202B
AC / DC current probe	CP 1100	Z203B
AC / DC current probe	CP 1800	Z204A

For additional information regarding accessories please refer to
- our Measuring Instruments and Testers catalogue or
- our website www.gossenmetrawatt.com

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