

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

3-349-601-03
2/7.10

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



Applications

The CP 30, CP 330 and CP 1100 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.

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

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
Measuring Range ¹⁾	30 A	30 A / 300 A	100 A / 1000 A
Resolution	1 mA	50 mA / 100 mA	100 mA / 500 mA
Overload Capacity (60 s)	500 A	600 A	2000 A
Temperature Coefficient	±0.01 % 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
Overall Accuracy	±1 % rdg. ±2 mA	±1 % rdg. ±50/100 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)
Phase shift ²⁾	< 2°		
Load Impedance	> 100 kΩ and ≤ 100 pF		
Influence of Conductor Position	±1 % ²⁾		

¹⁾ DC or AC _{pk}
Operating voltage
Key

²⁾ under reference conditions
300 V AC_{RMS} or DC
rdg. = reading (measured value)

CP 30 / CP 330 / CP 1100

AC / DC Current Probe

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 alkaline 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 61326-2-2:2006
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Mechanical Design

Dimensions	CP 30 / CP 330: 194 mm x 74 mm x 25 mm CP 1100: 200 mm x 74 mm x 25 mm
Weight	320 g
Opening angle of current clamp brackets	CP 30 / CP 330: 25 mm Ø CP 1100: 32 mm Ø
Output terminals	1.5 m cable with two 4 mm safety plugs

Standard Equipment

- 1 AC / DC current probe
- 1 9 V alkaline 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

For additional information regarding accessories please refer to

- our Measuring Instruments and Testers catalogue or
- our website www.gossenmetrawatt.com