

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

3-349-601-03  
5/9.13

- 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 Ø
  - CP 330: 25 mm Ø
  - CP 1100: 32 mm Ø
  - CP 1800: 32 mm Ø
- 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 <sup>1)</sup>	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 <sup>2)</sup>	<2°			
Load Impedance	>100 kΩ and ≤100 pF			
Influence of Conductor Position	±1 % <sup>2)</sup>			

<sup>1)</sup> CP 30: DC or AC<sub>pk</sub>; CP 330/CP 1100/CP 1800: DC or AC<sub>RMS</sub>

<sup>2)</sup> under reference conditions

Operating voltage 300 V AC<sub>RMS</sub> or DC  
Key rdg. = reading (measured value)

# CP 30 / CP 330 / CP 1100 / CP 1800

## 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

### 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 Ø CP 1100 / CP 1800: 32 mm Ø
Output terminals	1.5 m cable with two 4 mm safety 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 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
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](http://www.gossenmetrawatt.com)