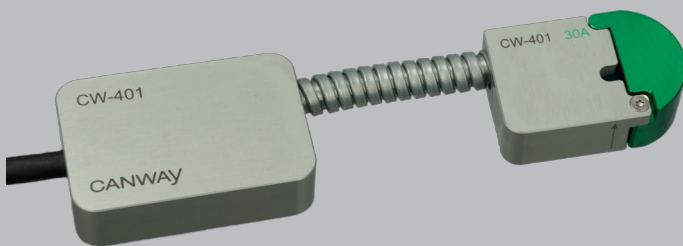


# CW-401

ROBUST CLAMP METER WITH CAN-INTERFACE FOR CURRENTS UP TO 30 A



The CW-401 is a current clamp meter for amperages up to  $\pm 30$  A. The device consists of a base unit and a separate sensor head, interconnected through a flexible hose. The housing has very small dimensions and is still very robust, which makes the CW-401 ideal for measurements in rugged environments and hard-to-reach places.

Even at high ambient temperatures up to  $+120$  °C, the CW-401 has outstanding accuracy due to an intelligent compensation algorithm and its digital signal processing with a microprocessor.

Current measurements are transmitted as digital values over a CAN bus. Through this bus system typically used in automotive applications, measurements can be sent over long lines without any degradation due to EMI or noise.

In combination with the CW-140, the CW-401 can be used as mobile current measurement device. Measurement values and other informations can be displayed on the touchdisplay of the CW-140.

## FEATURES

- Measuring ranges:  $\pm 10$  A or  $\pm 30$  A
- Accuracy 1 % at higher currents or  $\pm 50$  mA
- Output of measuring rates over CAN-bus
- Extensive microprocessor-based calibration
- Temperature range  $-20$  °C to  $+110$  °C ( $-40$  °C to  $+120$  °C optional)
- Rugged aluminum case
- Small form factor, swiveling sensor head, suitable for hard-to-reach places
- Factory calibration

## CURRENT MEASUREMENT

Measurement range	Version for $\pm 10$ A and $\pm 30$ A
Sampling rate	1 kHz
Resolution	1 mA
Accuracy	0 A - 5 A: $\pm 50$ mA 5 A - 30 A: $\pm 1\%$ of reading
Signal Frequency	max. 250 Hz

## CAN-INTERFACE

Number of Busses	1
Type	ISO 11898-2 (high-speed) CAN protocol versions 2.0 A and 2.0 B
Bitrate	High-speed up to 1 Mbit/s
Termination	-
Output rate	max. 500 Hz, Software-configurable
Connectors	9-pol. D-Sub, further possible on request

## POWER SUPPLY

Supply Voltage	9 VDC - 30 VDC
Current consumption	40 mA at 12 VDC

## ENVIRONMENTAL CONDITIONS

Temperature range	-20 °C to +110 °C
Temperature range extended (optional)	-40 °C to +120 °C
Protection class	IP65

## GENERAL

Housing	Robust aluminum case
Dimensions sensor head (LxWxH)	40 mm x 26 mm x 13 mm
Dimensions base unit (LxWxH)	48 mm x 32 mm x 13 mm
Dimensions connecting hose	$\varnothing$ 8 mm x 55 mm, min. bending radius 20 mm
Weight	80 g
Calibration	Factory calibration, DAkkS calibration on request
Features	Offset-calibration over CAN-Bus Automatic remanence correction Integrated temperature measurement Output of measuring rates over CAN-Bus

## FURTHER DEVICES CW-400 SERIES

CW-421 Shunt up to 30 A	CW-425 Quiescent current measurement
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