

CW-401 MKII

CURRENT CLAMP WITH CAN-INTERFACE



CW-401 MkII is a high-precision current clamp meter for contactless current measurement in the measuring ranges ± 10 A, ± 30 A, ± 50 A and ± 150 A. The high-quality and robust aluminium case - with very small dimensions - makes it ideal suited for measurements in rugged environments and hard-to-reach places, e.g. in the engine compartment.

Even at high ambient temperatures, up to $+120$ °C, the CW-401 has an outstanding accuracy due to an intelligent temperature compensation. This is achieved by digital signal processing of its integrated logic. Current measurements are transmitted comfortably via CAN-bus. Though this bus system, measurements can be sent over long distances without any signal degradation due to EMI or noise.

In combination with the CW-101 CAN-USB-interface device, the current clamp can be simply configured by the intuitive configuration software. Parameters as output rate, CAN-ID, bitrate and value averaging are configured easily. Moreover, several clamps can be configured simultaneously and a common DBC-File can be exported - e.g. for using in measuring chain.

FEATURES

- **Measuring ranges**
 ± 10 A, ± 30 A, ± 50 A and ± 150 A
- **High accuracy 1 % additionally**
 ± 50 mA
- **Temperature range**
 -40 °C to $+120$ °C
- **Temperature compensation, sensor position- and remanence correction**
- **Output of the measuring values via CAN-bus 2.0**
- **Robust aluminum case**
- **Small form factor, for application to hard-to-reach measuring points**
- **Factory calibration (DAkkS on request)**
- **Intuitive configuration software**

CURRENT MEASUREMENT

Measuring ranges	±10 A, ±30 A, ±50 A and ±150 A
Resolution	1 mA
Accuracy	1 % additionally ± 50 mA (relative to measuring range)
Output rate	Max. 2 kHz, configurable
Measurement category	CAT I (measuring voltage up to 48 V)
Value averaging	Configurable

CAN-INTERFACE

Quantity	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
Connectors	4 pin LEMO, connection cables available on request

POWER SUPPLY

Supply voltage	9 VDC to 30 VDC
Current consumption	40 mA at 12 VDC

ENVIRONMENTAL CONDITIONS

Temperature range	-40 °C to +120 °C
Protection class	IP65

GENERAL INFORMATION

Housing	Robust aluminum case
Dimensions (LxWxH)	up to 50 A: 59 mm x 32 mm x 17,5 mm 150 A: 68 mm x 36 mm x 17,5 mm
Diameter	up to 50 A: 6,1 mm 150 A: 11 mm
Weight	up to 50 A: approx. 60 g; 150 A: approx. 80 g
Factory calibration	Standard: -20 °C to +110 °C Extended: -40 °C to +120 °C DAkkS-Calibration on request
Features	Offset-calibration over CAN-bus Automatic remanence correction Integrated temperature measurement Output of measured values via CAN-bus 2.0 Intuitive configuration software IPEmotion PlugIn



OTHER CW-400 SERIES DEVICES

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