

CW-401 MK II

CURRENT CLAMP WITH CAN-INTERFACE



CW-401 MkII is a high-precision current clamp meter for contactless current measurement in the measuring ranges from ± 10 A to ± 1000 A. The high-quality and robust 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 Bus data rate 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 to ± 1000 A
- High accuracy 1 %
- Extended temperature range
- Temperature compensation, sensor position- and remanence correction
- Output of the measuring values via CAN-bus
- Robust case
- Small form factor, for application to hard-to-reach measuring points
- Factory calibration
- Intuitive configuration software

CURRENT MEASUREMENT

Measuring ranges	$\pm 10\text{ A}$, $\pm 30\text{ A}$, $\pm 50\text{ A}$, $\pm 150\text{ A}$, $\pm 350\text{ A}$, $\pm 500\text{ A}$, $\pm 750\text{ A}$ and $\pm 1000\text{ A}$
Resolution	1 mA
Accuracy	1 % relative to measuring range (up to $\pm 50\text{ A}$ additionally $\pm 50\text{ mA}$)
Output rate	max. 2 kHz, configurable
Measurement category	CAT I (measuring voltage up to 48 V) CAT III (in preparation)
DSP-filter	Cut-off frequency depending on output rate

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 cable available on request

POWER SUPPLY

Supply voltage	9 to 36 VDC
Current consumption	approx. 40 mA at 12 VDC

ENVIRONMENTAL CONDITIONS

Temperature range	up to 150 A: -40 °C to $+120\text{ °C}$ from 350 A: -40 °C to $+110\text{ °C}$
Protection class	IP 65

GENERAL INFORMATION

Housing	up to $\pm 150\text{ A}$: Robust aluminium case from $\pm 350\text{ A}$: Robust polyamid case
Dimension (LxWxH)	up to $\pm 50\text{ A}$: 59 mm x 32 mm x 17,5 mm $\pm 150\text{ A}$: 68 mm x 36 mm x 17,5 mm from $\pm 350\text{ A}$: 90 mm x 55 mm x 22 mm
Diameter Ø	up to $\pm 50\text{ A}$: 6 mm $\pm 150\text{ A}$: 11 mm from $\pm 350\text{ A}$: 18 mm
Weight	up to $\pm 50\text{ A}$: approx. 60 g; $\pm 150\text{ A}$: approx.: 80 g; from $\pm 350\text{ A}$: approx. 110 g
Factory calibration	Standard: -20 °C to $+110\text{ °C}$ Extended: -40 °C to $+120\text{ °C}$ DakkS calibration on request
Features	Offset calibration over CAN-bus Automatic remanence correction Integrated temperature measurement Intuitive software configuration CANWAY Plugin for IPEmotion

