

# CW-425

## QUIESCENT AND OPERATION CURRENT MEASUREMENT



The CW-425 offers a simple possibility to obtain highly precise measurement of quiescent and operating current of devices (e.g. electronic control unit). It offers a total measurement range up to  $\pm 150$  A. Switch-over of measurement ranges is automatically performed within  $1 \mu\text{s}$  (quiescent current to load current) during ongoing operations.

The measured values are transmitted via CAN interface. Device settings such as baud rate and output transfer rate can easily be configured via simple CAN messages. Delivered with a bus description file (DBC file), it is possible after import in common automotive software tools, to display the measured values. The galvanic isolation voltage of up to 1000 VDC between the measuring circuit and the control circuit offers sufficient protection for other devices in the control circuit.

The module has a robust desktop housing and a holder is available for integration on a top-hat rail. The CW-425 is destined for automated measurement of quiescent and operating currents of electronic control units, for example in automotive industry. At the same time the CW-425 is an ideal supplement for our CW-300 series designed for test bench applications.

### FEATURES

- Single device to measure quiescent and operation current
- Measurement range up to  $\pm 150$  A
- Deviation up to 0,04 %  $\pm 2$  digit
- Dynamic, seamless changeover of measurement ranges
- Control via CAN-Bus
- Robust desktop housing and a holder for Top-hat rail holder available

## CURRENT MEASUREMENT CHANNEL

Quantity	1
Measuring range load current	±150 A
Measuring range quiescent current	±100 mA
Deviation 0 µA to 100 mA	0,05 % from measured value + 0,006 % from full scale
Deviation 100 mA to 150 A	0,15 % from measured value + 0,02 % from measured value
Series resistance and voltage drop	1 Ω to 100 mA, 700 µΩ from 100 mA
Resolution	1 µA
Connector	Stud bold M8

## CURRENT CARRYING CAPACITY

Up to 25 °C	Max. continuous current: 100 A, max. peak current: 150 A for 60 s
From 25 °C up to 45 °C	Max. continuous current: 75 A, max. peak current: 150 A for 30 s
From 45 °C up to 60 °C	Max. continuous current: 50 A, max. peak current: 150 A for 10 s

## SWITCHING TIME

Quiescent current to load current	1 µs, with positive current flow
Quiescent current to load current	30 ms, with negative current flow
Load current to quiescent current	30 ms

## CAN-INTERFACE

Quantity	1
Type	CAN protocol version 2.0 A, ISO 11898-2 (high-speed)
Data rate	500 kBit/s
Termination	120 Ω, activation via Jumper
ID	16, CAN-ID configurable via switch
Output rate	Up to 500 Hz
Connector	Lemo EPG.1B.304 (for CAN-Bus and Power Supply)

## POWER SUPPLY

Supply voltage	9 VDC to 30 VDC
Current consumption	100 mA at 12 VDC
Galvanic isolation	1000 VDC (between measuring circuit and control)

## ENVIRONMENTAL CONDITIONS

Temperature range operation	0 °C to +60 °C
Temperature range storage	-20 °C to +70 °C

## GENERAL INFORMATION

Housing	Robust desktop housing, 45 mm DIN-Top-hat rail holder optional
Dimension (LxWxH)	126 mm x 110 mm x 35 mm
Weight	180 g
Calibration	Factory calibration DAkkS calibration on request

\*Data preliminary