

## MULTI-4 ETH



ETHERNET measuring module for measuring quiescent, operating and peak currents as well as voltage and temperature with KLARI-PROBES

### Features

- 4 universal inputs - 8 channel
- 8 kHz sampling rate per channel
- galvanical isolation between all inputs
- online Ah calculation (optional)
- Dynamic sample rate
- Autor Range Function
- Galvanic isolation of all inputs
- Automatic Probe identification (similar to TEDS)
- 100 Mbit/s Ethernet Interface (100 BASE-TX)
- Automatic A2L generation
- XCP-on-Ethernet (XCP-on-TCP/IP or XCP-on-UDP/IP)

### Options configurable via software

- Basic:  
simplest application
- Dynamic Sampling Rate:  
Module supports measurement speed switching for quiescent current measurement
- Charge balance:  
Current measurements can be integrated to Ah and output on CAN

### Version

- Aluminum housing 62 x 120 x 40 mm (l/w/h)
- Stackable housing optional (CLICK Version)
- Protection class IP65
- Temperature range -40°C to +85°C
- Supply 7 V to 60 V DC



### Applications

- Power measurement of power electronics in the vehicle or on test benches
- Measurement of quiescent and operating currents
- Temperature measurements

### Scope of delivery

- Measuring module MULTI-4 ETH
- Factory calibration certificate (DAkkS optional)
- A2L and Documentation

### Accessories

- Wiring harness with supply for CAN
- KLARI-PROBES

### Suitable sensors

#### Current measurement

FUSE-Probe (Micro/ Mini/ ATO/ MAXI/ MCASE/ JCASE)  
 HI-Probe (BF1/ BF2/ BF3)  
 LI-Probe

#### Voltage measurement

U-Probe (80V)

#### Power measurement (optional)

HP-Probe  
 LP Probe

#### Temperature

T-Probe (PT100/PT1000)

For detailed technical information please refer to the data sheet „KLARI-PROBES“

### Technical data

<b>Inputs</b>	4 Measurement inputs (8 channel)
<b>Capabilities</b>	Klaric Probes with automatic recognition and acceptance of calibration values Current, voltage, temperature an optional power
<b>Resolution</b>	16 bit ADC with 5 measuring ranges
<b>Sample Rate</b>	0,25 Hz bis 8 kHz configurable per channel
<b>Measurement Ranges</b>	±9 mV, ±27 mV, ±42 mV, ±210 mV, +1050 / -240 mV 0,3 µV, 0,9 µV, 1,4 µV, 7 µV, 35 µV Resolution
<b>Accuracy</b>	± 0,1 % reading ± 3 Bit of the actual measurement range at 23°C ± 5°C ± 1 % reading ± 3 Bit of the actual measurement range -40°C bis +80°C Measurement Modules + Klari-Probes
<b>Ethernet</b>	100 MBit/s (100 BASE-TX)
<b>Configuration via</b>	Ethernet
<b>Voltage Supply Range</b>	7 V to 60 V
<b>Power Consumption</b>	typ. 1,5 W
<b>Temperature Range</b>	-40°C to 85°C
<b>Calibration</b>	12 months