



## FlexMeasure-L

[www.star-cooperation.com](http://www.star-cooperation.com)

### BENEFITS

- Measurement of currents up to 2500A
- Voltage measurement up to 1000V
- Galvanic isolation
- Extremely compact design
- Protection class IP65
- Operating temperature range: -40°C ... +85°C
- Temperature-compensated current measurement via shunt resistor

### CURRENT AND VOLTAGE MEASUREMENT IN A HIGH-PRECISION, COMPACT UNIT

The inline measuring adapter was developed as an alternative to the FlexMeasure-S (E812). The measuring value output is digital via a CAN bus. The included DBC file allows for quick and simple integration into new and existing measuring systems. To ensure HV safety, the HV and LV circuits are galvanically isolated.

In addition to current and voltage measurement, the unit can provide the temperature and measured values such as output and energy quantity. Thanks to the robust, IP65-certified housing, the measuring module is ideal for use in harsh environments such as an engine compartment or a vehicle underbody. EMC cable glands of the type Blue-globe TRI© are used to ensure the HV cables are connected to the housing safely and in an EMC-compatible manner. Other cable configurations and current measurement ranges up to 2500A are possible. Delivery includes in-house calibration and HV acceptance depending on design.

### APPLICATION

- Precise current and voltage measurement in the electrical systems of test vehicles
- In test bench use
- Validation of charging stations

### VARIANTS

- 100A
- 300A
- 500A
- 1000A
- 2500A

### PROPERTIES

- Current measurement up to  $\pm 2500A$
- Voltage supply: 5.5VDC...40VDC
- Operating temperature up to +85°C (temperature compensated)
- Linearity to 0.01% MBE
- Total accuracy current measurement: 0.4% (nominal range)
- Total accuracy voltage measurement: 0.5% (nominal range)
- Bandwidth: 1kHz
- Custom delivery with assembled HV connection cable possible

## FlexMeasure-L

### TECHNICAL DATA FOR 1000 A VARIANT

| HV shunt, 1000A variant                     |                    |
|---|--------------------|
| Voltage supply                              | 5.5 VDC ... 40 VDC |
| Communication                               | High-speed CAN     |
| Maximum working voltage                     | 1000V RMS CAT1     |
| Measuring range                             | 1000 A / 1000 V    |
| Bandwidth                                   | 1kHz               |
| Operating temperature range                 | -40°C ... +85°C    |
| Exterior dimensions incl. screw connections | 250 x 96 x 58 mm   |
| Protection class                            | IP65               |

| Current measurement                       |                |
|---|----------------|
| Nominal measuring range                   | ± 1000 A       |
| Power loss (shunt only)                   | < 20 W         |
| Extended measuring range (temporary, 10s) | ± 2000 A       |
| Initial accuracy                          | ± 0.1 %        |
| Overall accuracy                          | ± 0.4 %        |
| Offset max.                               | 125 mA         |
| Linearity                                 | 0.01% of range |
| Noise                                     | 70 mA (RMS)    |
| Resolution                                | 47 mA          |

| Voltage measurement                              |                 |
|--|-----------------|
| Nominal measuring range                          | ± 1000 V        |
| Extended measuring range (temporary, non-linear) | ± 1200 V        |
| Initial accuracy                                 | ± 0,1 %         |
| Overall accuracy                                 | ± 0,5 %         |
| Offset max.                                      | 100 mV          |
| Linearity  | 0,01 % of range |
| Noise  | 60 mV (RMS)     |
| Resolution                                       | 30 mV           |