

KLARI-MOD_{sc}



KLARI-MOD_{sc}



KLARI-MOD_{sc} 1000V

DESCRIPTION

The single-channel measuring module **KLARI-MOD_{sc}** is used either for dynamic current measurements or for voltage measurements.

The module is ideal for all automotive applications in laboratory or in a vehicle and its autorange mode allows highly accurate current or voltage measurements in very broad measuring ranges at sampling rates up to 8000 measurements/sec.

Variant **KLARI-MOD_{sc}1000V** is electrically isolated to 1.000 V to enable measurements on high voltage systems, e.g. Hybrid power train systems.

KLARI-MOD_{sc} can be configured via the RS232 interface, the measured values are output either via the CAN or RS232 interface. Data transmission via the CAN allows several measuring modules to be time-synchronised with each other.

Furthermore, there is a selection of different options for reducing the volume of measured data.

New features:

- **Individual application for the measurement task by various external measurement shunts ("Probes") with plug & play functionality.**
- **Various Probes for low, medium and high current applications as well as for voltage applications available.**

VARIANTS

KLARI-MOD_{sc}

- 80 V galvanically isolation
- „Plug&Play“ current and voltage probes connectable
- Housing IP65

KLARI-MOD_{sc} 1000V

- 1000 V galvanically isolation
- „Plug&Play“ current and voltage probes for high voltage applications connectable

POWER SUPPLY

The supply voltage of the modules ranges between 8.5 and 42 V DC.

SPECIFICATIONS

Inputs	<ul style="list-style-type: none"> • 1 channel (I or U, depending on the Probe) • Current ranges: Depends on the Probe, see table • Voltage: ± 80 V or ± 1000 V (only KLARI-MOD SC 1000V)
Resolution	<ul style="list-style-type: none"> • 16 bit/measuring range • 5 measuring ranges
Sampling rates	<ul style="list-style-type: none"> • Can be adjusted between 125 μs and 8.192 sec./measurement
Additional functions	<ul style="list-style-type: none"> • Data output (CAN or RS232) is configurable • Integrated CAN termination, can be deactivated • Probe identification automatically • Probe calibration data are used for processing measured values
Outputs (interfaces)	<ul style="list-style-type: none"> • Isolated high-speed CAN configurable up to 1 Mbit/sec. • RS232 with 115 kBaud
Time base	<ul style="list-style-type: none"> • ~ 30 μs resolution
Housing (LxWxH)	<ul style="list-style-type: none"> • Plastic housing: <li style="padding-left: 20px;">electrically isolation 80 V DC: 115x80x40 mm <li style="padding-left: 20px;"> 1.000 V DC: 145x68x38 mm
Power supply	<ul style="list-style-type: none"> • 8.5 to 42 V DC
Power consumption	<ul style="list-style-type: none"> • Typically approx. 140 mA at 12 V DC
Configuration	<ul style="list-style-type: none"> • Via RS232, using supplied PC software KoWin
Operating modes	<ul style="list-style-type: none"> • Single-channel mode with: <ul style="list-style-type: none"> ○ Autorange over all measuring ranges ○ Reduction of data rate by means of Differential or Limit measurement mode with adjustable Δ or limit value • Time synchronisation via master/slave selection possible
Ambient temperature	<ul style="list-style-type: none"> • Electronics: -40 to +85°C • Measuring shunt: -40 to +130°C
Insulation voltage	<ul style="list-style-type: none"> • Depends on variant: <ul style="list-style-type: none"> ○ 80 V DC for KLARI-MOD SC ○ 1.000 V DC for KLARI-MOD SC 1000V
Degree of protection	<ul style="list-style-type: none"> • IP65 (only for KLARI-MOD SC)

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EXAMPLES FOR CURRENT MEASURING RANGES KLARI-MOD_{SC} with I-Probe

Measuring range and resolution can be adapted to the measuring task by various probes

Range/ Gain	120 A Probe (1 mΩ)		600 A Probe (200 μΩ)		4800 A Probe (25 μΩ)	
	Measuring range	Resolution	Measuring range	Resolution	Measuring range	Resolution
1	+720 A -300 A	24 mA	+3600 A -1500 A	120 mA	+28800 A -12000 A	960 mA
6	+/-120 A	4 mA	+/-600 A	20 mA	+/-4800 A	160 mA
24	+/-30 A	1 mA	+/-150 A	5 mA	+/-1200 A	40 mA
50	+/-15 A	500 μA	+/-75 A	2.5 mA	+/-600 A	20 mA
100	+/-7.5 A	250 μA	+/-37.5 A	1.25 mA	+/-300 A	10 mA

EXAMPLES FOR VOLTAGE MEASURING RANGES KLARI-MOD_{SC 1000V} with U-Probe

Range	U probe	
	Measuring range	Resolution
1	+3600 V -1500 V	120 mV
6	+/-600 V	20 mV
24	+/-150 V	5 mV
50	+/-75 V	2.5 mV
100	+/-37.5 V	1.25 mV

Note: Observe the maximum electrical isolation between the measuring circuit and data output.

ITEMS SUPPLIED AS STANDARD

- KLARI-MOD_{SC} measurement module, part no. IMMSC-ZU003-0000
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KLARI-MOD_{SC 1000V} measurement module, part no. IMMSC-ZU003-0002
Probe has to be ordered separately !
- PC software for configuration via the RS232 interface
- CAN data base and documentation on CD ROM

ACCESSORIES

Cable harness (IP65)

The cable harness is used to connect the measurement module to a laptop / PC.

The following signals are fed out separately:

- CAN, Sub-D, 9-contact, female
- RS232, Sub-D, 9-contact, female
- Power supply of module

IMKAB-01104-0000 - 1 m

IMKAB-04104-0000 - 4 m

IMKAB-10104-0000 - 10 m



Battery-connection cable set

- 1x cable (35 mm², 35 cm) with universal brass pole
- 1x cable (35 mm², 35 cm) with negative pole terminal
- 1x positive pole terminal (extra)

IMBAS-00001-0000



Probes for current or voltage measurement

please refer to separate catalogue or data sheets.



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