

KLARI-CORD2



DESCRIPTION

KLARI-CORD2 is the follow-up model of the approved KLARI-CORD modules, which are used for testing and recording power consumption and battery charge data in vehicles. The module is not only able to measure DC currents ranging from several milliamperes to several kiloamperes, it can at the same time measure voltages and temperatures precisely via an external sensor. All acquired measured values are stored on the integrated SD CARD and instantaneous values can also be output via the RS232 interface.

KLARI-CORD2 has been optimised for long-duration measurements: The module's power consumption is below 5 mA (12 V supply voltage, 1 measuring cycle/sec.).

New features:

- **Measured values can also be output online via CAN interface.**
- **USB interface for measurement configuration as well as for readout of measured values. SD card remains in the module.**
- **Individual application for the measurement task by various external measurement shunts with plug & play functionality.**
- **KLARI-CORD2 is suitable for automotive applications involving ambient temperatures ranging from -40 to +85°C.**
- **The shunts are suitable for ambient temperatures from -40 to +130°C.**

A PC software tool supplied with the module can be used to store the required measuring configuration of the KLARI-CORD2 on the integrated SD CARD and to read out the acquired measured values from the SD CARD. The measured values can then be displayed and exported in various standard data formats. The optional **KLARI-VIEWER** software provides more possibilities for visualisation – for details please ask for a software demonstration.

The module's principal area of application is the measurement of battery charge data in vehicles in the field. It can, however, also be used to perform a wide variety of other general measurement tasks.

VARIANTS

KLARI-CORD2 modules are supplied in an IP65 metal housing (LxWxH) 85x110x35 mm. On the rear of the unit a USB mini plug is integrated. CAN, RS232 and power supply are fed out via a 15-contact Sub-D plug on the rear of the unit, CAN supply and external status LEDs can be plugged via a 5-contact DIN socket. The connections for voltages and temperature are fed out via the 5-contact DIN socket (180°, IP65) on the front of the unit. A 6-contact connector is used for connecting the measurement shunt to the module

POWER SUPPLY

6,5...50 V DC, self-contained power supply available as an option.

Technische Änderungen vorbehalten. Alle Angaben ohne Gewähr.





SPECIFICATIONS

Technische Änderungen vorbehalten. Alle Angaben ohne Gewähr.

Inputs / features	<ul style="list-style-type: none">• Max. 3 channels• Current ranges: applicable with external shunts, see table• 2x voltage: DC +/-20 V or +/-60 Vor• 1x voltage: DC +/-20 V or +/-60 V and 1x temperature (PT1000)
Resolution	<ul style="list-style-type: none">• 16 bit/measuring range• 5 internal measuring ranges, current channel with automatic adaption
Sampling rates / data volume	<ul style="list-style-type: none">• 1 sample/sec.; data volume approx. 4 MB/day• 10 samples/sec.; data volume approx. 40 MB/day• 100 samples/sec.; data volume approx. 250 MB/day
Additional functions	<ul style="list-style-type: none">• Charge, discharge and total balance at 1 and 10 samples/sec. configurable
Outputs / data output	<ul style="list-style-type: none">• Storage of data on integrated SD CARD• Online data output via CAN (if separate CAN supply is connected)• Output of instantaneous values (block transmission) via RS232 configurable
Time base	<ul style="list-style-type: none">• 32,768 Hz resonator• ~30 μs resolution
Housing (LxWxH)	<ul style="list-style-type: none">• Metal housing, 85x110x35 mm
Power supply	<ul style="list-style-type: none">• external, 6.5 to 50 V DC
Power consumption	<ul style="list-style-type: none">• 1 measuring cycle/sec., approx. 5 mA• 10 measuring cycles/sec., approx. 10 mA• 100 measuring cycles/sec., approx. 30 mA
Configuration and data readout	<ul style="list-style-type: none">• via USB interface
Operating modes	<ul style="list-style-type: none">• Multi-channel mode (max. 3 channels) with:<ul style="list-style-type: none">- Autorange for current measurement- Averaging of measured values for each individual channel- Differential transmission of data if changed• Charge balance mode (charge, discharge and total balance)
Temperature range	<ul style="list-style-type: none">• -40 to +85 °C
Insulation voltage	<ul style="list-style-type: none">• 100 V DC
Degree of protection	<ul style="list-style-type: none">• IP65



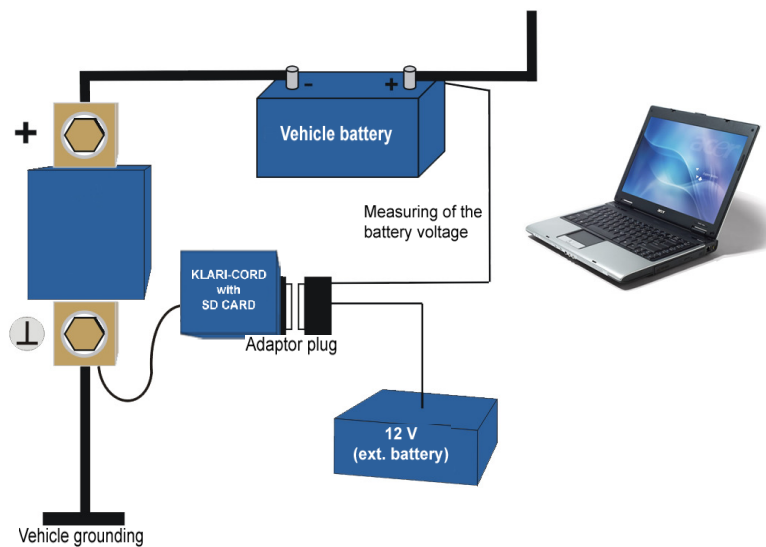
EXAMPLES FOR CURRENT MEASURING RANGES KLARI-CORD2

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

Range/ Gain	1 mΩ shunt		200 μΩ shunt		25 μΩ shunt	
	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

APPLICATION

Technische Änderungen vorbehalten. Alle Angaben ohne Gewähr.



The power supply and the serial interface of the module are not electrically isolated from the measuring circuit. Take care when connecting the module to the + battery pole.

Avoid short circuits along the cables.

ITEMS SUPPLIED AS STANDARD

- KLARI-CORD2 measurement module, part number IMCRD-Z1 101-0000 (current probe has to be ordered separately)
- integrated SD memory card 256MB (standard version)
- measuring signal cable (part number IMMSK-00001-0000, 2x voltage, 1x temperature)
- PC software for configuration, data readout, visualisation, export of measured values and setting the clock
- CAN data base and documentation on CD ROM.



ACCESSORIES KLARI-CORD2

Cable harness (IP65)

The cable harness is used to connect the KLARI-MOD-MC to a laptop / PC.

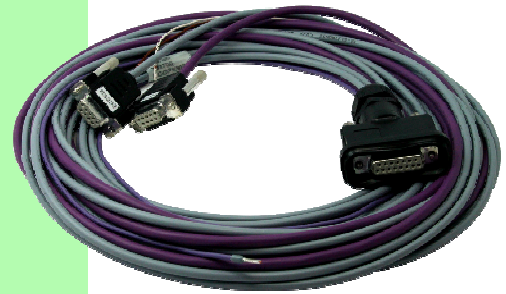
The following signals are fed out separately:

- 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



Measuring signal cables

The measuring signal cables are used for connecting measuring signals to the KLARI-MOD-MC and are connected to the front of the module using the 5-contact DIN plug (180°, IP65).

Cable length: PT1000 sensor, 2 m

Voltage connection, approx. 2 m

IMMSK-00001-0000 - 2x voltage, 1x temperature



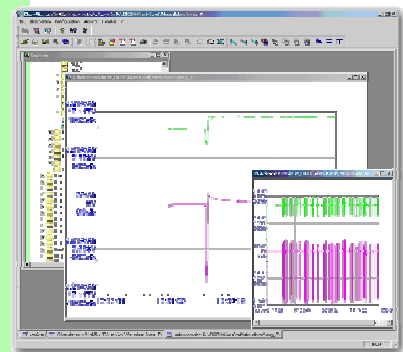
Software: Klari-Viewer

Easy-to-use software for

- KLARI-CORD2 configuration
- readout and display of measured values
- export of measured values in various standard data formats.

The optional KLARI-VIEWER software provides more possibilities for visualisation – for details please ask for a software demonstration.

SWKLV-00001-0000



Technische Änderungen vorbehalten. Alle Angaben ohne Gewähr.



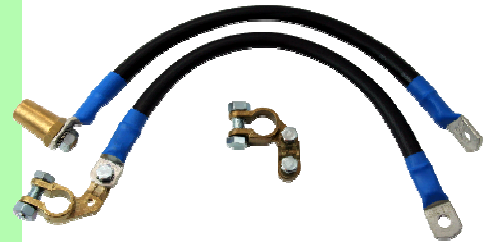
ACCESSORIES KLARI-CORD2

Technische Änderungen vorbehalten. Alle Angaben ohne Gewähr.

Battery-connection cable set

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

IMBAS-00001-0000



Lithium-ion battery 14.4 V/2 Ah

The lithium-ion battery is used to supply power to the KLARI-CORD2 measuring module.

By using the lithium-ion battery, long-duration recordings of more than 20 days are possible, depending on the data rate. Cable length: 30 cm

IMBAT-40012-0000



Bench-type charger

The bench-type charger is specially designed for lithium-ion batteries and can be ordered in combination with the external lithium-ion battery.

IMCHG-14813-0000



Probes for current measurement

please refer to separate catalogue or data sheets.

