

KLARI-ONE 1000V

ATI ACCURATE
TECHNOLOGIES



with: I-PROBE, U-PROBE, I/U-PROBE, , Thermocouple type K -PROBE

also with analogue output

Features

- one channel measuring module for current, voltage or combination current/voltage (Combi-PROBE I/U) and temperature measurement
- galvanic isolation of 1000 V DC between measuring channel and data output
- **PROBE variants:**
 - current measurement HV-I-PROBE
 - voltage measurement HV-U-PROBE
 - Combi-PROBE for current- and voltage measurement HV-I/U-PROBE
 - thermocouple type-K HV-T-PROBE
- **Configuration of measurement channels:**
 - DC- and AC-measurement, internal sample rate up to 16 kHz
 - AC measurement provides the opportunity of calculating RMS-value for one period automatically and transmitting it as a single value via CAN-interface
 - additionally the frequency of the period can be issued
 - following values can be calculated internal and transmitted via CAN-interface:
 - U_eff
 - I_eff

Version

- potted housing: 78/64/46 (l/w/h), standard-version
78/78/46 (l/w/h), analogue-version
- protection class IP65,
- temperature range -40...+85 °C
- supply 6..50 V DC

A detailed technical description is contained in our user manual.

Delivery

- measurement module (please order PROBES separately),
- PC Software for configuration via CAN or USB-2.0 interface
- CAN database and documentation on CD ROM

Accessories

- cable harness IP65 without RS-232
- USB 2.0 connection cable

TECHNICAL DATA

Input	<ul style="list-style-type: none"> 1 measuring channel with one ASIC single channel measurement of current, voltage, current/voltage or temperature (I-, U-, I/U- or thermocouple type K PROBE) 																		
Resolution	<ul style="list-style-type: none"> 5 measurement ranges with selectable autorange function ± 15 bit/range <table border="1"> <thead> <tr> <th>Gain</th> <th>Range</th> <th>Resolution</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>+/- 7,5 mV</td> <td>0,250 µV/bit</td> </tr> <tr> <td>50</td> <td>+/- 15 mV</td> <td>0,500 µV/bit</td> </tr> <tr> <td>24</td> <td>+/- 30 mV</td> <td>1 µV/bit</td> </tr> <tr> <td>6</td> <td>+/- 120 mV</td> <td>4 µV/bit</td> </tr> <tr> <td>1</td> <td>+ 720 / - 300 mV</td> <td>24 µV/bit</td> </tr> </tbody> </table>	Gain	Range	Resolution	100	+/- 7,5 mV	0,250 µV/bit	50	+/- 15 mV	0,500 µV/bit	24	+/- 30 mV	1 µV/bit	6	+/- 120 mV	4 µV/bit	1	+ 720 / - 300 mV	24 µV/bit
Gain	Range	Resolution																	
100	+/- 7,5 mV	0,250 µV/bit																	
50	+/- 15 mV	0,500 µV/bit																	
24	+/- 30 mV	1 µV/bit																	
6	+/- 120 mV	4 µV/bit																	
1	+ 720 / - 300 mV	24 µV/bit																	
Accuracy	<ul style="list-style-type: none"> ± 1% of measuring value ± 3 bit of range valid for temperature range of - 40 .. + 85°C 																		
Sample rate	<ul style="list-style-type: none"> single channel operation: max. 16000 samples/s (analogue output) using AC-measurement: Sample rate adjustable in static or dynamic mode 																		
Features	<ul style="list-style-type: none"> selectable data output channel (CAN2.0B and/or USB-2.0 interface) data output via CAN or USB configurable (Baudrate, Identifier etc.) internal CAN-termination selectable automatic PROBE-identification with calibration value processing 																		
Output	<ul style="list-style-type: none"> 2 x CAN 2.0 A/B, (High-Speed CAN, ISO 11898) from 125 kbit/s up to max. 1 Mbit/s USB-2.0 interface 																		
Timestamp	<ul style="list-style-type: none"> 30 µs resolution (is included in CAN frame) 																		
Housing	<ul style="list-style-type: none"> potted housing IP65 ca. 200 g 78/64/46 (L/W/H), standard-version, 78/78/46 (L/W/H), analogue-version 																		
Supply	<ul style="list-style-type: none"> 6,0...50 V DC 																		
Current consumption	<ul style="list-style-type: none"> ca. 250 mA at 12 V DC 																		
Configuration	<ul style="list-style-type: none"> via PC using CAN or USB-2.0 interface. Configurations could be created, archived and loaded into the module. speed CAN: 125 kB...1 MB measurement type, measuring speed, channels 																		
Modes	<ul style="list-style-type: none"> autorange function for all channels across all measuring ranges selectable sample speed for each channel rms-value calculation for AC signals 																		
Temperature range	<ul style="list-style-type: none"> - 40...+ 85°C for the measurement module - 40...+ 130°C for the shunt 																		
Isolation	<ul style="list-style-type: none"> 1000 V DC permanent isolation input <> output 																		

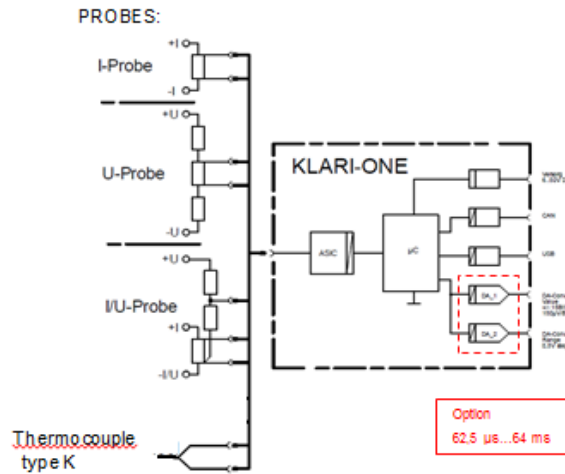
Status October 2014. All mentioned trademarks or brands are property of the corresponding owner. Subject to error and technical changes.V5

KLARI-ONE 1000V

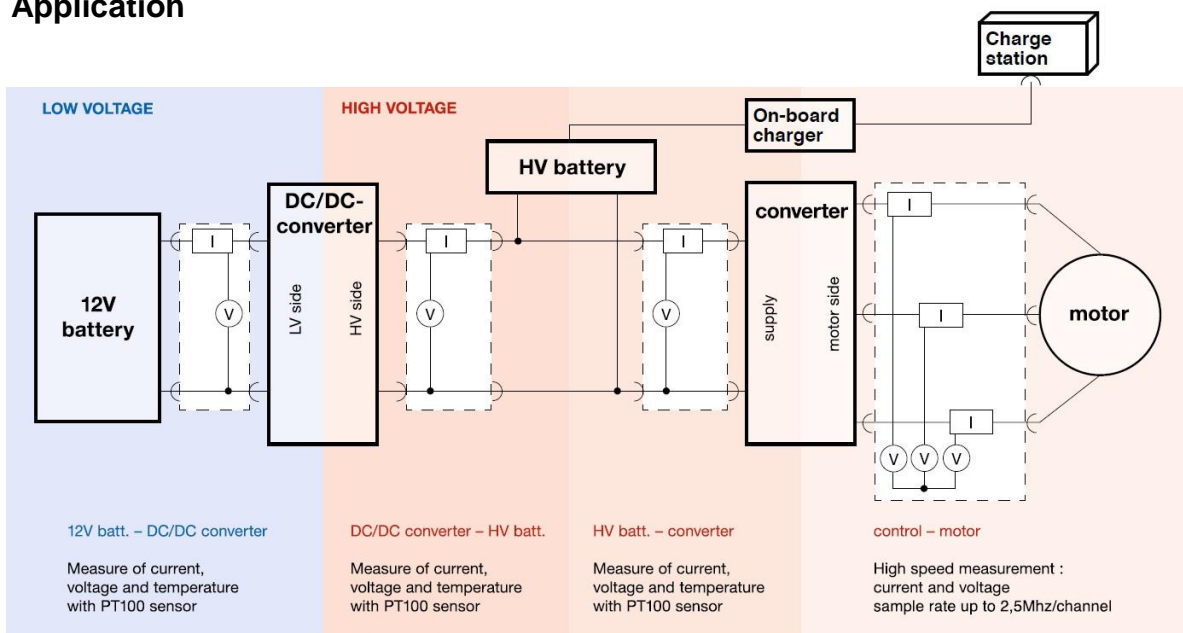
Measurement ranges and resolutions for I- and U-PROBES (examples)

Gain	I-PROBE				U-PROBE			
	1 mΩ		200μΩ		200 V		1000 V	
	Range [A]	Res. [mA/bit]	Range [A]	Res. [mA/bit]	Range [V DC]	Res. [mV/bit]	Range [V DC]	Res. [mV/bit]
100	+/- 7,5	0,25	+/- 37,5	1,25	0...+/- 5	0,170	0...+/- 37,5	1,25
50	+/- 15	0,5	+/- 75	2,5	0...+/- 10	0,340	0...+/- 75	2,5
24	+/- 30	1	+/- 150	5	0...+/- 20	0,680	0...+/- 150	5
6	+/- 120	4	+/- 600	20	0...+/- 80	2,720	0...+/- 600	20
1	- 300/+ 720	24	- 1500/+3600	120	0...+/- 200	16,320	0...+/- 1000	120

Principle



Application



Status October 2014. All mentioned trademarks or brands are property of the corresponding owner. Subject to error and technical changes.V5