

KLARI-ELAST




Features

- Measuring unit for testing batteries using following functions:
 - Charge, discharge and cycle (charge/discharge)
- The measured values current, voltage and charge-/discharge-balance can be transmitted via CAN-interface and /or stored on an integrated SD card.
- **Charging:** The charging process is executed by an external charging unit.
 - Configuration:
 - charging current: min./max.valuet
 - charging voltage: min./max. value
 - Ah-charging: selectable
 - Charging time: selectable
- **Discharging:** The discharging process of the battery is performed by the integrated ELAST-unit.
 - Configuration:
 - Discharging mode: static (constant current) or PWM-load (pulse width modulation)
 - External: on/off
 - U-load: selectable (when threshold is exceeded discharging stopps)
 - Static (I - constant current between 10mA...50A)
 - I-constant: discharging current, selectable
 - discharging time: selectable
 - Ah-discharging: selectable

} 2 parameters are selected,
3rd parameter is calculated
 - PWM load (I - pulse, pulse width modulation)
 - I-load 1 : discharge current, selectable
 - I-load 2: discharge current, selectable
 - time-on: time period of I-load 1, selectable
 - time-period: duration of one period, selectable
 - time: duration of complete measurement, selectable

} time-period - time-on(I-load 1)
= time-on(I-load 2)
- Following values are supervised during discharging process:
 - I_batt min./max. if overstepped or undercutted, switch-off
 - U_batt min. if undercutted, switch-off
 - U_batt max. has to accord with the utilized battery
 - U-load if limit value is crossed discharging stopps
- The discharging process will be finished if:
 - U_batt min value is reached,
 - U-load value is reached,
 - Ah-value is reached,
 - I_Batt min value is reached
 - discharging time is reached.
- **Cycle:** passing charging-/discharging-cycles:
 - Configuration:
 - n-charging: selectable
 - n-discharging: selectable



KLARI-ELAST

- Version**
- plastic- aluminium-housing, 465/390/245 mm (l/w/h)
 - protection class IP54,
 - temperature range -20...+50°C
 - supply 230 V AC, current consumption approx. 2 A

A detailed technical description is contained in our user manual

- Delivery**
- Measuring unit
 - battery connection cable with 2 DINSE pole plugs
 - 2 DINSE pole plugs with copper sticks, Ø 6mm (connecting external charging unit)
 - PC software for configuration via CAN or USB-2.0 interface
 - CAN database and documentation on CD ROM
 - USB 2.0 connection cable
 - **Using KlariViewer-software logged data can be displayed and processed further.**

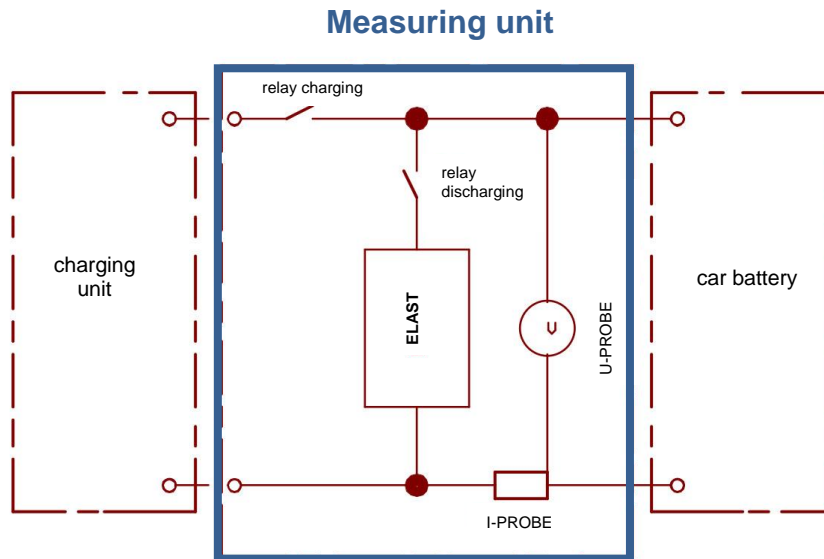
- Accessories**
- battery connection cable with 2 DINSE pole plugs
 - 2 DINSE pole plugs with copper sticks, Ø 6mm

TECHNICAL DATA

Input	<ul style="list-style-type: none"> • 2 internal measuring channels with 2 ASICs <ul style="list-style-type: none"> - 1 x current-PROBE (1mΩ) - 1 x voltage-PROBE (80 V) 																																							
Resolution	<ul style="list-style-type: none"> • 5 measuring ranges with selectable autorange-function for PROBE-connections • ± 15 bit/measuring range <table border="1" style="margin-left: 40px;"> <thead> <tr> <th rowspan="2">Gain</th> <th colspan="2">I-PROBE</th> <th colspan="2">U-PROBE</th> </tr> <tr> <th colspan="2">1 mΩ</th> <th colspan="2">80 V</th> </tr> <tr> <th></th> <th>Range [A]</th> <th>Resolution [mA/Bit]</th> <th>Range [V DC]</th> <th>Resolution [mV/Bit]</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>+/- 7,5</td> <td>0,25</td> <td>0...+/- 5</td> <td>0,170</td> </tr> <tr> <td>50</td> <td>+/- 15</td> <td>0,5</td> <td>0...+/- 10</td> <td>0,340</td> </tr> <tr> <td>24</td> <td>+/- 30</td> <td>1</td> <td>0...+/- 20</td> <td>0,680</td> </tr> <tr> <td>6</td> <td>+/- 120</td> <td>4</td> <td>0...+/- 80</td> <td>2,720</td> </tr> <tr> <td>1</td> <td>- 300/+ 720</td> <td>24</td> <td></td> <td></td> </tr> </tbody> </table>	Gain	I-PROBE		U-PROBE		1 mΩ		80 V			Range [A]	Resolution [mA/Bit]	Range [V DC]	Resolution [mV/Bit]	100	+/- 7,5	0,25	0...+/- 5	0,170	50	+/- 15	0,5	0...+/- 10	0,340	24	+/- 30	1	0...+/- 20	0,680	6	+/- 120	4	0...+/- 80	2,720	1	- 300/+ 720	24		
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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 mode: max. 8.000 frames/s 																																							
Features	<ul style="list-style-type: none"> • selectable data output channel (CAN2.0B and/or USB-2.0 interface) • data output configurable via CAN (Baudrate, Identifier etc.) • internal CAN-termination, detachable via software 																																							
Output	<ul style="list-style-type: none"> • 1 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 • SD-card max. 4 ms/value) 																																							
Timestamp	<ul style="list-style-type: none"> • 30 µs resolution (included in CAN-frame) 																																							
Housing - Protection - Weight - Dimension	<ul style="list-style-type: none"> • plastic- aluminium-housing • IP54 • 15 kg • 465/390/245 mm (l/w/h) 																																							
Supply	<ul style="list-style-type: none"> • 230 V, 50 Hz 																																							
Current consumption	<ul style="list-style-type: none"> • approx. 2 A 																																							
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 kbit/s...1 Mbit/s • measurement type, measuring speed, channels 																																							
Modes	<ul style="list-style-type: none"> • autorange function for all channels across all measuring ranges (ToolBox) • selectable sample speed for the channels (ToolBox) 																																							
Temperature range	<ul style="list-style-type: none"> • - 20+ 50°C 																																							
Isolation	<ul style="list-style-type: none"> • 80 V 																																							

Stand März 2016. Alle erwähnten Marken- oder Warenzeichen sind Eigentum ihrer jeweiligen Besitzer. Irrtum und Technische Änderungen vorbehalten.V1

Block diagram



Graphic

using KlariViewer-software:

