

## MKT-View II

### The multifunctional mobile visualisation unit for CAN-networks



### Features

- Sunlightreadable 4,3" Colour display (256 colours) with touch
- Function-keys with backlighted by RGB-LEDs
- Voice in-/output
- Automatic brightness control of the display
- Wide range power-supply 6,5 ... 36 V<sub>DC</sub> and standby mode
- Mini-UPS for the defined saving of data
- Interfaces 2 x CAN / 1 x RS232 / 1x Ethernet
- Real-time clock
- SD-card slot for 2 GB SD-cards
- Connector for GPS-receiver module
- Visualisation and logging off CAN-bus-signals / visualisation of CAN raw data
- Sending of CANdB data
- Script language

## 1. Pin assignment terminal unit 792xx

### X1 Lemo-female connector 14-pin (ECG.1B.314.CLV)

PIN 1: CAN1_HIGH	PIN 8: RS232_TxD
PIN 2: CAN1_LOW	PIN 9: RS232_RxD
PIN 3: CAN2_GND	PIN 10: DIGITAL_IN1
PIN 4: CAN2_HIGH	PIN 11: DIGITAL_IN2
PIN 5: CAN2_LOW	PIN 12: ANALOG_IN 1
PIN 6: VBAT	PIN 13: ANALOG_IN 2
PIN 7: GND	PIN 14: ANALOG_GND

Enclosure: shield

### X2 DSUB- female connector 9-pin for GPS-receiver

PIN 1: not connected
PIN 2: RxD
PIN 3: TxD
PIN 4: not connected
PIN 5: GND
PIN 6: not connected
PIN 7: not connected
PIN 8: VON (Power supply)
PIN 9: VBAT (continous supply for standby-operation)

Enclosure: shield

### X3 Jack plug 3,5 mm for an external microphone

This connector type is for mono-microphone with 3,5 mm stereo jack plug. Automatical switching between external and internal micro.

## 2. Mechanical data

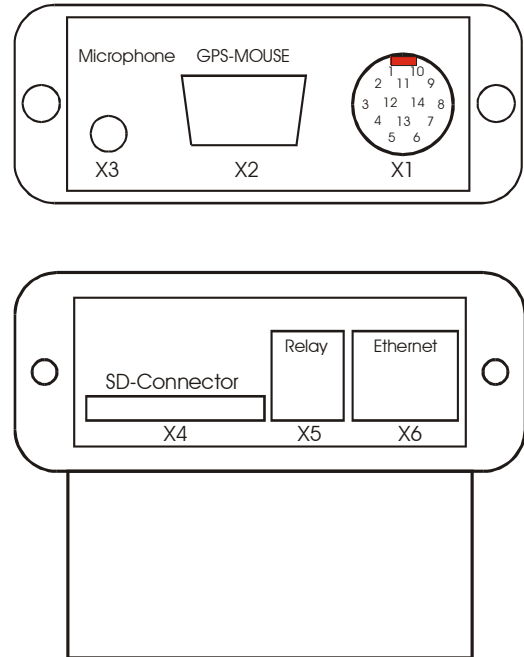
### 2.1 Enclosure

2.1.1 Material	Aluminium
2.1.2 Size	(170 x 85 x 35) mm
2.1.3 Weight	350 g
2.1.4 Protection class	IP20
2.1.5 Colour	black

## 3. Display / keyboard

### 3.1 Display

3.1.1 Resolution	480 x 270 pixel / 4,3"-TFT-colour with touch
3.1.2 Contrast	temperature compensated
3.1.3 Brightness	automatically controlled
3.1.4 Temperature	-20°C ... +65°C



**Figure 1: Connectors of 79xxx**

### *Wiring recommendations:*

To ensure an EMC-compatible operation, shield has to be connected to chassis ground

Serial interface-signals RxD and TxD are described from the MKT-View II

**Data sheet MKT-View II, Order- No. 792xx**

**3.2 Membrane keys**

3.2.1 Keys	3 keys with snap domes, material of front membrane polyester
3.2.2 Backlight	3 x RGB-LEDs; single controlled
3.2.3 Encoder	16 detends per turn, integrated push button
3.2.4 Life time keys /encoder	1.000.000 switching cycles

**4. Electronic**

**4.1 Power supply**

4.1.1 Input supply $V_{BAT}$ :	$6,5 V_{DC} \leq V_{BAT} \leq 36 V_{DC}$
4.1.2 Current consumption:	typ. 200 mA at $V_{BAT} = 12V_{DC}$
4.1.3 Standby current:	< 3,0 mA

**4.2 Microcontroller / memory**

5.2.1 $\mu P$	ARM-series / LPC2468 / 72 MHz
5.2.2 FLASH-EEPROM	4,0 Mbyte
5.2.3 RAM	16 Mword SDRAM
5.2.4 EEPROM	16 Kbyte

**4.3 Interfaces**

5.4.1 CAN-interface	2x galvanic isolated - Standard: High speed CAN transceiver up to 1 Mbit/s - 120 $\Omega$ -termination resistor, to be electronically hooked on (not possible in standby operation)
5.4.2 RS232-interface	1x
5.4.3 Ethernet	1x
5.4.3 SD-CARD	1x - 2GB FAT16
5.4.4 Interface for GPS-module	1x

**Notice:**

To open the right hinged flap it has to be pushed up then pulled forward

**4.4 In-/outputs**

5.5.1 Digital inputs	2x Input resistance $R_e$ : $10 k\Omega \leq R_e \leq 14 k\Omega$ Input voltage range ‚low‘: $0 \dots 3 V_{DC}$ Input voltage range ‚high‘: $6,5 \dots 36 V_{DC}$
5.5.2 Digital outputs	1x relay; potential free contact Contact load /output current $I_a$ : $\leq 1 A$
5.5.3 Analog inputs	2x Voltage input: $0 \dots 15 V_{DC}$ Input resistance $R_e$ : $\geq 200 k\Omega$ Resolution: 10 Bit

**4.5 Audio**

5.6.1 Audio input	Voice recording can be selected via internal or external microphone with adjustable amplifier
5.6.2 Audio output	Integrated speaker for voice- and signal output

**4.6 Real time clock**

5.6.1 Format	Display of time and date; with automatic leap year compensation
5.6.2 Resolution	1 second

#### 4.7 Power on/off characteristics

##### 4.7.1 Power on:

$V_{BAT} \geq 6,5 V_{DC}$  -> switching on only possible with key F1 or the digital Input 1 (according to the configuration in the ,system menu')

$V_{BAT} \geq 8,5 V_{DC}$  -> automatic switching on through the power supply

##### Power off:

$V_{BAT} < 6,5 V_{DC}$

With completely charged Ultracaps, the colour of the power-flag icon down right on the display is ,green' and a power supply failure up to 500 ms will be bypassed by an internal ,USV'. If  $V_{BAT}$  then is still below  $6,5 V_{DC}$  the MKT-View II goes into power off.

##### Note:

For all specified voltages the voltage drop as a result of cable losses is not included. According to the used cable and current consumption (Ultracaps charged or not) this voltage drop typically will be between 0,2 ... 0,6  $V_{DC}$ . Information about the resistance of the used cable can be taken from the appropriated data sheet.

### 5. Cleaning hints

- The terminal has to be cleaned with normal cleaning supplies such as standard glass cleaner. Do **not use** any abrasive cleaning supplies.
- The touchscreen has to be cleaned carefully with a microfiber cloth only.
- Do not use the touchscreen with sharp-edged material, otherwise irreparable damages could be the result. The touchscreen should be used with the *Touch Stylus* which is also available as an accessory (order number 60208).
- Take Care that no liquid gets into the notch of the speaker and microphone.

Document-No.	Revision	Description	Date	Name
85512	A	Document generated	04.12.08	Lücke
	B	Kap. 5: Cleaning hints	07.07.09	Lücke
	C	Power on/off characteristics	26.01.10	Lücke
	D	Kap. 1: Wiring recommendations	02.05.11	Lücke
	E	Features added	01.09.11	Lücke