Multiviu® Compact 7

7” TFT Color Display Unit

MultiViu Compact 4 is a flexible full digital display instrumentation, with a bright TFT module that stays readable even under direct sunlight.

MultiViu Compact 4 can easily be adapted to give you your individual product. The customization options start with a branded cover glass, individual telltales and menu buttons and reaches up to reaches up to a specific companion app for Apple® App Store and Google® Play Store for the Bluetooth version. It can be used for agriculture, construction, stationary engines and powersports.

Features

- Robust and versatile design.
- CAN-capability (SAE J1939).
- Video interface.
- Analog and digital inputs and outputs.
- Protection class IP 67 front & back.
- Ambient light sensor.
- Optimized sunlight readability by increased TFT brightness and contrast ratio
- Optical bonded TFT and lens for best readability
- Bluetooth for Smartphone Connectivity (Full Variant)
- Capacitive Touch Functionality (Full Variant)

	Basic	Full
µC	32bit ARM® Processor, Flash: 4 MByte SRAM: 512 kB	32bit ARM® Processor, Flash: 4 MByte SRAM: 512 kB
Internal Memory	Flash: 64 MByte, SRAM: 16 MByte	Flash: 64 MByte, SRAM: 16 MByte
Video input	1 x analog video (optional)	1 x analog video (optional)
Digital inputs	5x	5x
Analog inputs	3x Resistive, 3x Voltage, 2x Frequency	3x Resistive, 3x Voltage, 2x Frequency
Digital outputs	2	2
CAN	2 x High Speed	2 x High Speed
Power Supply	12V / 24V	12V / 24V
Orientation	Landscape / Portrait	Landscape / Portrait
Telltales	24x	12x
Bluetooth	-	Yes, low energy
Touch Function	-	Yes, capcitive
BroadR-Reach	-	Yes, optional

Note: The technical specification may change without advance notice.

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Mechanical Dimensions

Mounting: 4 x M6 fixation points. VESA Standard: 50 mm x 100 mm.

Weight: 1100 g.

Display

Type: TFT LCD with LED backlight.

Size: 7”, transmissive.

Resolution: 0 x 480 / 480 x 800 pixel, WQVGA, 15:9.

Colors: 16.7 M.

Brightness: Min. 800 cd/m2 / typ. 1000 cd/m².

Contrast ratio: typ. 1000:1.

Electronics

Processor plattform:

- CPU: 32 bit ARM® Processor.
- RAM: 512 kB.
- Flash: 4 MB.
- RTC: Yes (not buffered).

Power supply:

- 12 V oe 24 V (separate variants)
- Normal operating voltage range: 9-18V (12V System) / 18-32V DC (24V System).
- Protection: Short circuit protection.
- Overvoltage protection: 18V (12V System) / 36V DC (24V System).
- Inverse polarity protection: Up to -14V (12V System) / -28V DC (24V System).
- Current consumption:

Power mode	Current at 12 Vdc	Current at 24 Vdc
On	TBD mA	TBD mA
Stand By	<10 mA	<10 mA

CAN interfaces

- 2 x CAN interfaces
  - ISO 11898, CAN-specification 2.0 B active.
  - Default 250 Kbit/s or 500 Kbit/s.

Inputs:

4 x digital input (Entry), 16x digital input & 8 analog inputs (Basic, Basic BT):

- Digital:
  - 12x digital input (Configurable High/Low Active).
  - 3x Wake-Up digital input (High Active)
- Analog resistive: 0 – 1000 Ohm, 10 bit resolution.
- Analog voltage: 3 x 0 – 16 Volt (12V System) / 3 x 0 – 32 Volt (24V System) (10 bit resolution).
- Frequency: 2 x 5Hz to 5kHz.

Outputs:

Low power: 4 x digital output (50 mA).

High Power: 1 x digital output (800 mA).

Connections

Main connector (all variants): 34 pins Tyco Super Seal 2-1447232-3 (Mating: 4-1437290-0).

Video connector: Rosenberger 59S14M-40MT5-E.

BroadR-Reach connector: Rosenberger D4S14M-40MA5-A.

Software

Operating system: OSEK OS.

Application programming:

- Logic: KIBES-32 logi.CAD.
- Graphical: grADI.

Bluetooth:

Use cases according to GATT Protocol.

- Sensor data:
  - Maximum application throughput up to 250 Kbit/s.
  - Example: Send ODO to smartphone.
  - Forward information to a Cloud.
- Indication:
  - Incoming call number (incl. caller ID).
  - Incoming SMS.
  - Social network messages.
- Turn by turn navigation:
  - Indication of turn-by-turn navigation instructions coming from Google Maps navigation app.
- Media:
  - Media player control functions.
  - Media info.
- Accept or decline calls, no audio routing.

Testing & verification

CE compliance:

- ISO 7637-3:2007: Part 3.
- ISO 11452-4:2005: Part 4.

e-Certificate: EU Directive 72/245/EWG (Jan-2013).

Protection level: IP 67 (front and rear).

Electrical requirements: 12 and 24 V..

Mechanical requirements:

- Mechanical shock: Level 2.
- Random vibration: Class A.
- Sinusoidal vibration: Level 2.
- Free fall: Calss C.

Climate requirements:

- Operating temperature: -30 - +75°C.
- Storage temperature: -40 - +85°C.

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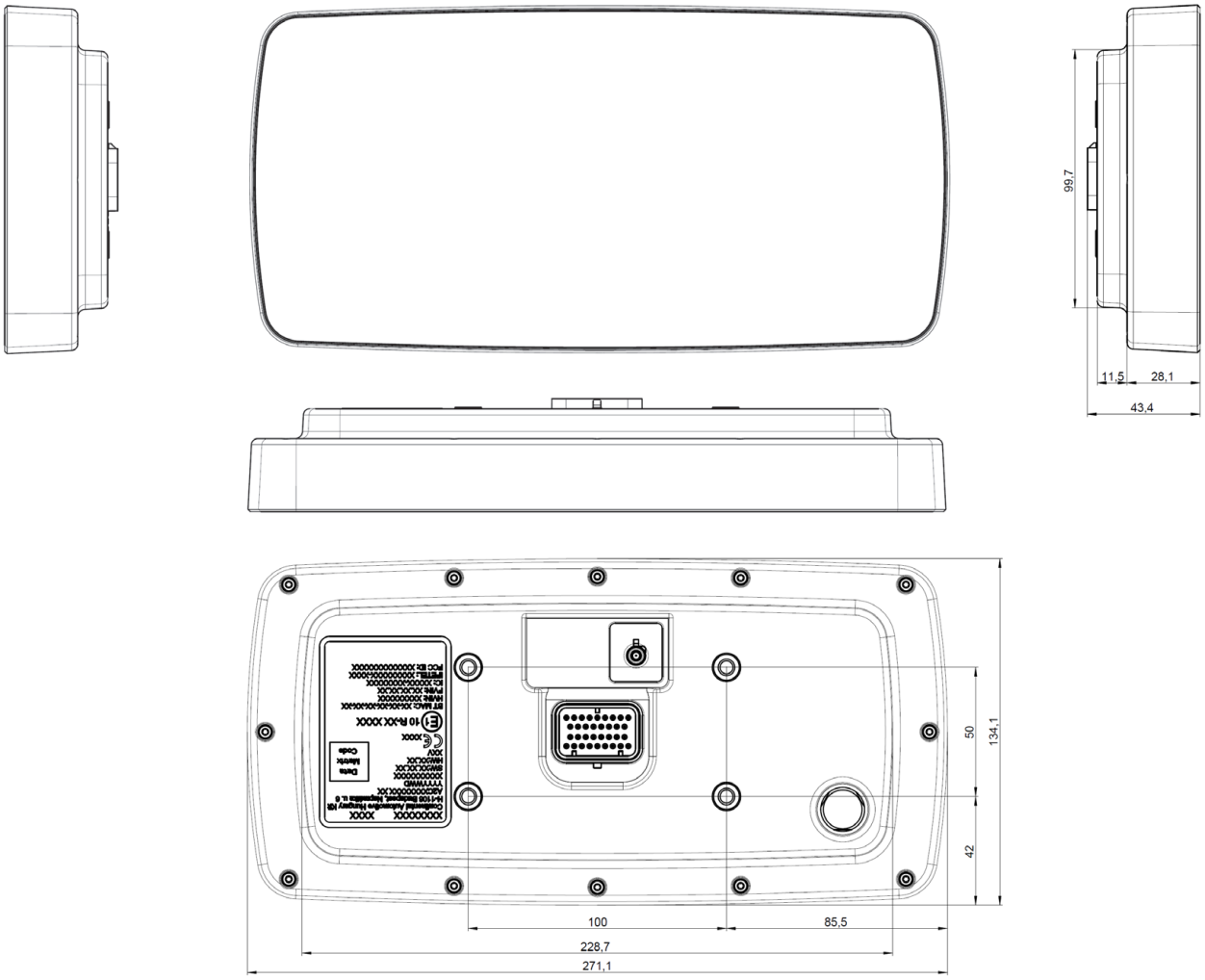
Product details



Ordering information

Model	Part-no.
MultiViu®Compact 7 Basic Landscape 12V	10025C7BL12V
MultiViu®Compact 7 Basic Landscape 24 V	10025C7BL24V
MultiViu®Compact 7 Basic Portrait 12V	10025C7BP12V
MultiViu®Compact 7 Basic Portrait 24 V	10025C7BP24V
MultiViu®Compact 7 Full Landscape 12V	10025C7FL12V
MultiViu®Compact 7 Full Landscape 24 V	10025C7FL24V
MultiViu®Compact 7 Full Portrait 12V	10025C7FP12V
MultiViu®Compact 7 Full Portrait 24 V	10025C7FP24V

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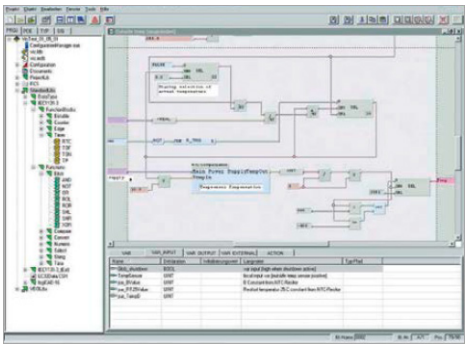
Software for GUI development

Create your tailored user interface using the KIBES®-32 and grADI development toolsthat allow the instrument clusters to be programmed and configured to perfectly fit any your requirements. Application programming can be done by the customer or by Hydratronics.

KIBES®-32

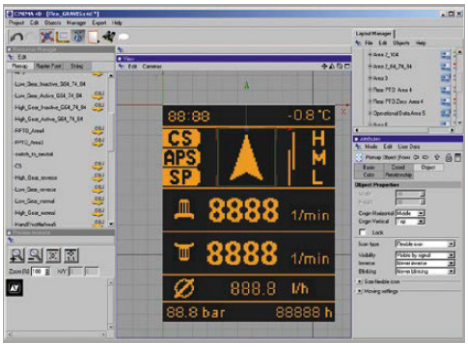
The KIBES®-32 software is used for creating the application program on a graphical level according to standard IEC 61131. It offers additional features like automatically generated documentation, an online and offline simulation, a comfortable configuration manager, download etc. A patch generator provides flexibility in module linking according to the vehicle functions. A quasi-multi-tasking operation supports the separation of time-critical and standard modules to run.



- Reduced development time and risk.
- Off-line simulation and online test.
- Integrated version and revision management.
- Easy to learn GUI for HMI implementation.
- Configuration manager.

grADI

The grADI software is a tool for professional mask design. It gives your the possibility to create your own graphical HMI and to react with high flexibility to market demands.



- Supports screen design of dot-matrix and colored TFT displays up to WVGA resolution.
- Fits seamlessly to the KIBES®-32 software tool chain.
- Graphic objects and text files are created by a common soft-ware tool like Adobe and can be easily imported into grADI.
- Multi-language support for international applications.
- Development tool based on CINEMA 4D.