



Advanced multi-purpose display solutions

The future of instrumentation for all markets



All solutions at a glance.

Continental provides a wide range of display solutions suitable for various requirements and easy customization. Logic and human machine interface of all our solutions are individually programmable. The main characteristics and scope of use for each of our display products are listed below.

MultiViu®Professional12

is the most innovative stand-alone instrumentation display product. It provides high-quality presentation of pictures, 2D/2.5D-graphics and videos with high flexibility through a fully programmable 12.3" wideview colored TFT display. Thanks to its customizable modular concept with a separate telltale module and touch buttons it can easily be adapted to the dashboard geometry. The MultiViu®Professional12 is programmable via KIBES®-32 and CGI Studio. It is compatible with Continental's Driver's Workplace systems.

MultiViu®Compact

is a cost-optimized off-the-shelf display solution with a large variety of inputs. Its modern tablet-like housing and three different variants make it a future-proof solution either as a primary cluster or as a secondary instrumentation. Its high-brightness display and 10 dual backlight telltales make it easy to read even in adverse lighting conditions.

MultiViu®Media

combines a powerful, intelligent display unit and an optional audio subsystem to offer vehicle interfacing, multimedia and smartphone connectivity as well as broadcast and entertainment in one stop. MultiViu®Media can be used as primary or secondary instrumentation.

MultiViu®High

is a fully programmable terminal that allows farmers and construction workers to monitor and closely control all the functions of their vehicle as well as the working machines in tow. The 12.1-inch touchscreen also displays additional information such as geographical or camera data and allows the operation of air conditioning and available media.

MultiViu®Flex4 /7

is a user-friendly stand-alone display controller. It is available in two TFT display sizes: 4.3" and 7" and with different control possibilities: with buttons or touch or both. It is offering different inputs / outputs and interfaces depending on customers' needs. MultiViu®Flex4 /7 is a very sturdy allrounder and can be combined with various products.

	Stand-alone operable	Integrated	Display	Dimensions (w x h x d)	Software tool
MultiViu®Professional12	•	•	12.3" wide-view color TFT-LCD	414 x 220 x 66 mm	KIBES®-32 + CGI Studio
MultiViu®Compact	•		480 x 272 pixel transmissive display	170 x 100 x 45 mm	KIBES®-32 + grADI
MultiViu®Media		•	800 x 480 pixel resistive 7" touchscreen	185 x 122 x 50 mm	Linux / Qt
MultiViu®High	•		1280 x 800 pixel capacitive 12.1" touchscreen LCD	220 x 310 x 48 mm	WindowsCE + C++
MultiViu®Flex4 /7	•		4.3 or 7" wide-view color TFT-LCD	267 x 136 x 76.2 mm	AppBuilder

MultiViu®Professional12.

With the MultiViu®Professional12 we offer the most innovative off-the-shelf instrument cluster. It is fully programmable to different needs and requirements and supports the trend towards a larger and more colorful display with its 12.3" full-color TFT display. The MultiViu®Professional12 provides maximum freedom in HMI screen design and easy implementation of video and camera pictures. Additionally the MultiViu®Professional12 can be quickly integrated into the existing vehicle

architecture. Its warning and status telltale module, fulfilling ASIL-A requirements, is highly reliable. MultiViu®Professional12 is programmed by a perfectly matched software tool chain using KIBES®-32 PLC and the automotive high-end graphic implementation software CGI Studio. Furthermore, it provides a modular structure with a main display module that can be integrated into different front frames to seamlessly fit the vehicle cabin design.



MultiViu®Professional12



Advantages at a glance

- Innovative stand-alone display product available for all customers
- Super wide-view, high-contrast, true-color 12.3" TFT display
- Model based design system: software for application programming and software for graphical HMI programming
- Wide variety of interfaces to integrate it easily into the vehicle architecture
- Modular product concept with customizable telltale module and front frame
- Can be integrated into Driver's Workplace+
- LINUX and OSEK based 2 microcontroller offering higher performance

Specifications and features

Dimensions	414 x 220 x 66 mm
Operating voltage	9 V ... 16 V or 18 V ... 32 V
Operating temperature	-40°C ... +70°C
Protection degree	IP 54 (front), IP 30 (rear and laterally)
Wake up	via digital inputs or CAN buses
EOL programming and diagnosis	via UDS on IP and UDS on CAN
Analog input (resistive/voltage)	5 x voltage input, 2x resistive input (thereof 1x for fuel sender)
Digital input	3x low-active, 3x high-active, 6x quasi-analog input, diagnosable, level programmable
Frequency input	1x PWM for illumination control
Output	1x sensor supply: 5 V
Audio	Internal loudspeaker plus 1 interface for an external loudspeaker
Video	3x analog video input
Interfaces	3x high-speed CAN; EasyLink for gauge (CVSG) connection; LIN with 12 V signal level; high speed interface for data download
Connectors	Rosenberg connector, BNC connector

Description

- Display: super wide-view, high brightness contrast, true color 12.3" TFT display, normally black with resolution: 1440 x 540 pixel
- Telltales: optional telltale module with 11 telltales on top of the display, dual color LEDs
- HMI-control: optional button module with up to 4 capacitive buttons integrated into the front frame e.g. for trip reset and illumination setting below the display
- LIN for sensors and switch connectors

MultiViu®Compact.

Our cost-efficient MultiViu®Compact is an off-the-shelf display solution uniting state-of-the-art technology and a large variety of inputs. Combined with its modern tablet-like housing and available in three individual product variants, it offers a future-proof solution including functionalities such as CAN, video and Bluetooth®.

The modular architecture offers easy customization of backlight, logo, telltales and color stripes. It can be used either as primary cluster or as secondary instrumentation.



MultiViu®Compact



Advantages at a glance

- Future-proof functionalities
- Black panel design
- Easy customization of HMI, telltales, symbols, button symbols and logo
- No additional research, development and tooling efforts except for HMI

Available in spring 2017

Preliminary specifications and features	MultiViu® Compact 4 Entry	MultiViu® Compact 4 Basic	MultiViu® Compact 4 Basic BT
Dimensions	170 x 100 x 45 mm	170 x 100 x 45 mm	170 x 100 x 45 mm
Operating voltage	12 V or 24 V	12 V or 24 V	12 V or 24 V
Operating temperature			
Protection degree	IP 67 front / back	IP 67 front / back	IP 67 front / back
Wake up			
I/O board		9x analog inputs (Vol / Res) 12x digital inputs (Hi / Low)	
Input	4x digital, 1x video	4x digital, 1x video	4x digital, 1x video
Output	2x digital	2x digital	2x digital
Telltales	10x	10x	10x
Audio	-	-	-
Video	1x analog video	1x analog video	1x analog video
Interfaces	2x highspeed CAN	2x highspeed CAN	2x highspeed CAN
Connector	26-Pin Tyco	26-Pin Tyco	26-Pin Tyco

Description

- Display: 4,3" 16:9, 480 x 272 pixel, brightness 1,000 cd / m² (typ.), contrast 1,000:1 (typ.) transmissive
- Software: KIBES®-32 (LogiCAD) and grADI
- HMI control: 4 menu keys
- Telltales: 10 dual backlight telltales
- Modern, smartphone-like design

MultiViu®Media.

MultiViu®Media is a versatile technology platform which complements vehicle command and control functionality via CAN with multimedia and connectivity features as smartphone connectivity, WIFI and Bluetooth®.

Complementary entertainment features include a 4 x 25 W power-amplifier, digital sound processing, AM / FM worldwide RDS-receiver with weatherband, DAB or SDARS and additional auxiliary inputs.



MultiViu®Media

Advantages at a glance



- Intelligent touchscreen
- Open platform solution
- CAN connectivity
- Camera inputs
- AM/FM RDS EON-tuner, weatherband
- DAB or SDARS
- 4 x 25 Watt stereo amplifier
- Seamless smartphone integration with Bluetooth® telephony, Bluetooth® audio streaming and remote control
- Smartphone apps Mirroring

Powered by Cinema



Preliminary specifications and features

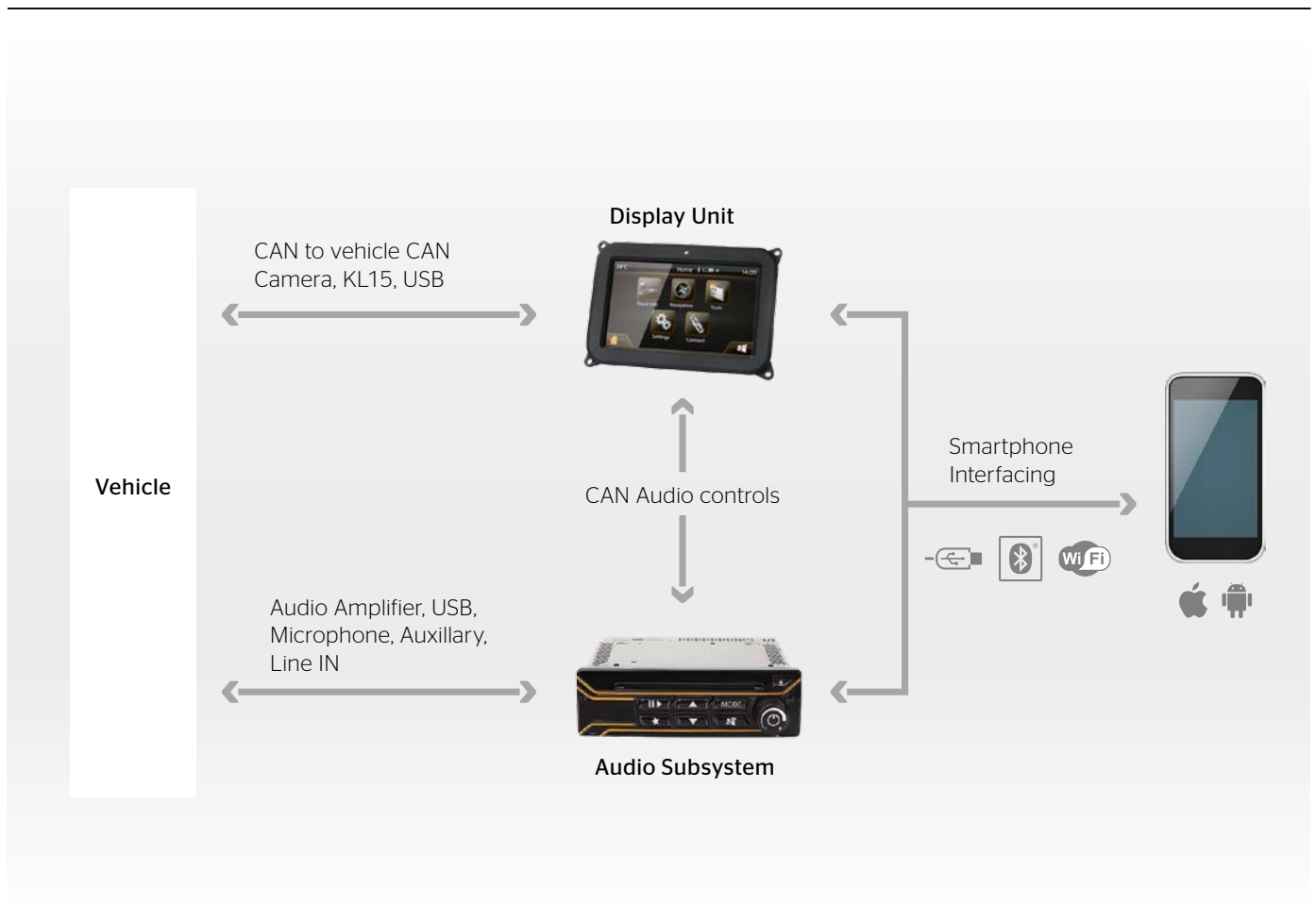
Dimensions	185 x 122 x 50 mm
Operating voltage	12 V
Operating temperature	-20 ... +70°C (depending on mounting condition)
Protection degree	IP 40 (front), IP 20 (rear)
Analog input	-
Digital input	-
Frequency input	-
Output	4 x 25 W stereo amplifier
Wake up	KL15 / CAN
Operating system	Linux / Qt
Interfaces	CAN, WIFI, Auxiliary, USB, Microphone, Bluetooth® classic and low energy
Video	4 x analog cameras
Audio	AM / FM worldwide RDS radio, weatherband, DAB or SDARS weatherband, DAB or SDARS CD / MP3, WMA, AAC, Bluetooth® telephony and audio streaming
Connector	FAKRA / ISO

Description

- Intelligent display unit with 7" 800 x 480 pixel touchscreen offering rich HMI for customizable vehicle and media control
- Audio subsystem for broadcast services including worldwide AM / FM RDS EON tuner, weatherband, DAB or SDARS, 4 x 25 W stereo amplifier and CD-player

An advanced HMI enables flexible and customizable vehicle, connectivity and multimedia control via the integrated 7" touchscreen (resistive or capacitive) or remote control via Continental's connected smartphone apps.

MultiViu®Media is an open platform solution designed for easy third-party software integration, fast and efficient application updates, customized development and fits to a high variety of Commercial, Agricultural and Construction vehicles.



MultiViu®High.

The MultiViu®High is one of the most powerful display controller platforms from Continental combining high computing power with a free-programmable graphic design. It is developed for special-purpose vehicles, offering optimal conditions for efficient and error-free work: Street information can be shown as well as interfaces for manual or automated use of the vehicle and attached working machines, for example via ISOBUS.

For a better vision, MultiViu®High offers several camera connections and it can handle and display the streams in parallel preview mode or on full screen. The multi-purpose terminal is an automotive platform product and can be adjusted to customer requirements. Supported by the unique operating concept and the plausible menu structure, the driver can easily handle the MultiViu®High according to his preferences, either with the capacitive touch panel or by a CAN joystick.



MultiViu High



Advantages at a glance

- File system protected against repeated power supply failures
- Easy integration into the vehicle architecture
- Hardware design compliant with functional safety, performance level C
- Multiple input channels for analog and digital cameras
- Stand-alone unit with many interfaces to the vehicle's network
- Wireless connectivity via Bluetooth®, WLAN or GSM possible

Preliminary specifications and features

Dimensions	220 x 310 x 48 mm
Operating voltage	12 V / 24 V
Operating temperature	-40°C ... +70°C
Protection degree	IP 67 (front), IP 54 (rear)
Wake up	TRM.15 / CAN
Analog input	2 x FAKRA
Digital input	SD Card, USB and Ethernet
Frequency input	-
Output	-
Audio	integrated loudspeaker (0.5 W)
Video	analog cameras PAL / NTSC (Coax 75 Ohm) 2 cortices for analog videos , digital video input via Ethernet
Interfaces	2 x high-speed CAN
Connectors	2 x FAKRA, 1 x MQS18
CPU	iMX6 family
RAM	up to 4 Gigabyte
Flash	2x NAND flash interfaces possible

Description

- Display: 12,1", aspect ratio 16:10, resolution: 1280 x 800 pixel
- Operating system: Windows Embedded Compact 2013
- HMI-control: Projective capacitive multi-touch and CAN joystick
- Menu structure customizable
- Screen content freely programmable

MultiViu®Flex4 and 7.

The MultiViu®Flex4 and 7 are flexible solutions for displaying vehicle information to the driver. They are stand-alone display controllers as secondary instrumentation for the (vehicle) operator. The HMI control is realized by either touch surface or integrated push-buttons and a rotating actuator.

They are easily reprogrammable via USB interface with the MultiViu®Flex AppBuilder programming tool. They are suitable to fulfill multiple purposes due to several possible HMIs and are available in two size variants: 4.3" and 7" display.

Variant	MultiViu®Flex4				MultiViu®Flex7			
	Basic	Full T	Basic K	Full TK	Basic	Full T	Basic K	Full TK
Resistive touch screen		•		•		•		•
Keys and rotary			•	•			•	•
CAN	2	2	2	2	2	2	2	2
RS232	1	1	1	1	1	1	1	1
Analog / digital input	4	4	4	4	4	4	4	4
Digital output	3	3	3	3	3	3	3	3
Ethernet		1		1		1		1
Video input		1		1	1	3	1	3
USB full speed 2.0	1 on rear connector			2 on front and rear connector	1 on rear connector			2 on front and rear connector
Internal buzzer	•	•	•	•	•	•	•	•
Light sensor		•		•	•	•	•	•

MultiViu®Flex4 and 7



Advantages at a glance

- Secondary display
- High resolution true color TFT display available in two sizes
- Offering different inputs / outputs and interfaces depending on customer requirements
- Easy HMI screen design via AppBuilder software tool



MultiViu®Flex7



MultiViu®Flex4

Specifications and features

Dimensions	MultiViu®Flex4 MultiViu®Flex4 MultiViu®Flex7 MultiViu®Flex7	Basic and Full T Basic K and Full TK Basic and Full T Basic K and Full TK	142 x 98 x 43 mm 198 x 98 x 43 mm 223 x 140 x 64 mm 267 x 140 x 64 mm
Operating voltage	12 V or 24 V		
Operating temperature	-40°C ... +75°C		
Protection degree	IP 65 and IP 67 (all sides)		
Connectors	AMP connector		

Description

- Illumination: control via light sensor, CAN or manually by menu settings
- Display resolution:
MultiViu®Flex4: 4.3" 480 x 272 pixel
MultiViu®Flex7: 7" 800 x 480 pixel
- HMI control: via buttons or resistive touch

Software solutions.

The Continental software solutions allow the instrument clusters to be programmed and configured so as to perfectly fit any customer requirements. Application programming can be done by customers, Continental or certified third parties. Continental offers individual trainings for the software tool chain - the training catalog can be ordered separately. The continuous software tool chain for application and HMI programming software tool are fulfilling standards and using reliable existing software solutions. We offer regular software updates via our online platform KIBES® Center.

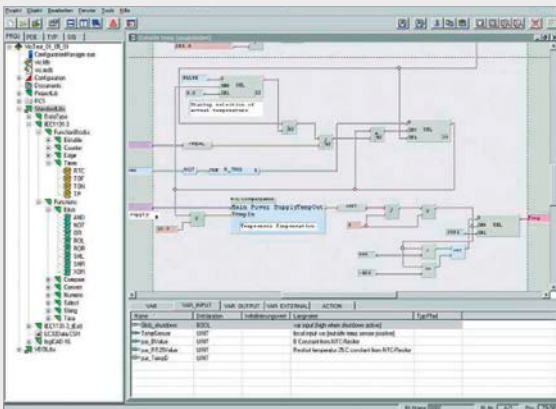
CGI Studio



CGI Studio is a professional software tool to create a premium HMI with high definition graphics. It is compatible to the MultiViu®Professional12 and is adapted to the KIBES®-32 software which controls the instrument cluster functionality. With CGI Studio you will receive brilliant looking HMIs displayed with the MultiViu®Professional12.

- Highly intuitive software tool with a fast learning Curve
- Drag and drop scene editor
- Time and curve editor for keyframe animations
- Multiple rendering modes
- Advanced graphic tools (e.g. shader editor, render time analysis)
- Benefits from Continental widgets set
- Multi-language support (Texteffect Widget, UTF16)
- Intuitive GUI for HMI implementation

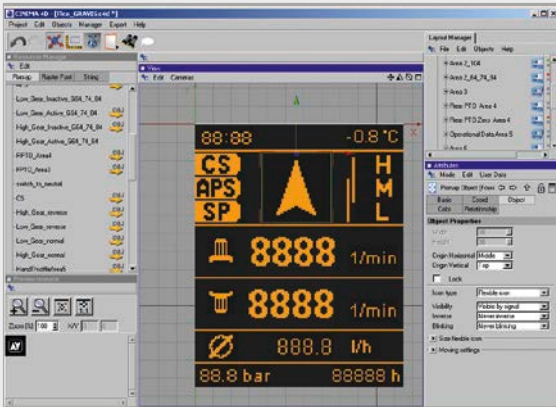
KIBES®-32



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 is available for many commercial vehicle clusters and display products by Continental. It gives customers the possibility to create their 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 software tool like Adobe and can be easily imported into grADI
- Multi-language support for international applications
- Development tool based on CINEMA 4D

AppBuilder



AppBuilder is a configuration tool to program both Human Machine Interface and functional behavior of the MultiViu®Flex4 or 7 display controllers. Deep personalization is possible by using any kind of graphics and pictures. Trouble shooting features for diagnostics are also embedded into AppBuilder.

- Easy adaption of graphic elements by picking and dropping
- No complex software programming knowledge necessary
- Converter function to carry over an existing program to a different version of MultiViu®Flex
- Advanced simulation tool to check function behavior virtually

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