



KIBES® - Always stay in control

Devices and software for future-oriented
multiplex architectures

ALL-IN
SYSTEM
Off-the-shelf



KIBES® Key to integrated onboard electronic system.

Increasing requirements for efficiency, comfort and functionality affect the development of modern vehicles. The KIBES® hardware and software package from Continental can meet the challenge to fulfill them and combines the advantages of an off-the-shelf system with the flexibility of a customer-specific solution.

The KIBES® system will help to optimize the OEM application – by reducing wirings, connectors, relays, and fuses the vehicle will become more reliable. The costs for wiring up the vehicle, as well as the expenses for documentation service and maintenance, will significantly drop.

With our KIBES® product portfolio, we provide an efficient development tool chain that offers a scalable and flexible network system at a reasonable price, making buses, trucks and special vehicles more powerful, efficient and reliable. Thanks to the KIBES® software tools, the integration and testing of application software is easy to handle and it supports flexible business models.

 **YouTube** KIBES® Software Platform and Tool Chain



Advantages and base systems

The flexible network system of KIBES® allows an easy addition or removal of several components and it also simplifies the maintenance and troubleshooting of the vehicle. Vehicles can be operated more safely and reliably due to built-in diagnostic features like short-circuit protection, open-load and over-temperature detection.

The minimized amount of wirings, connectors, relays and fuses allow for the vehicle weight and installation time to be significantly reduced, as well as the documentation service and maintenance costs.

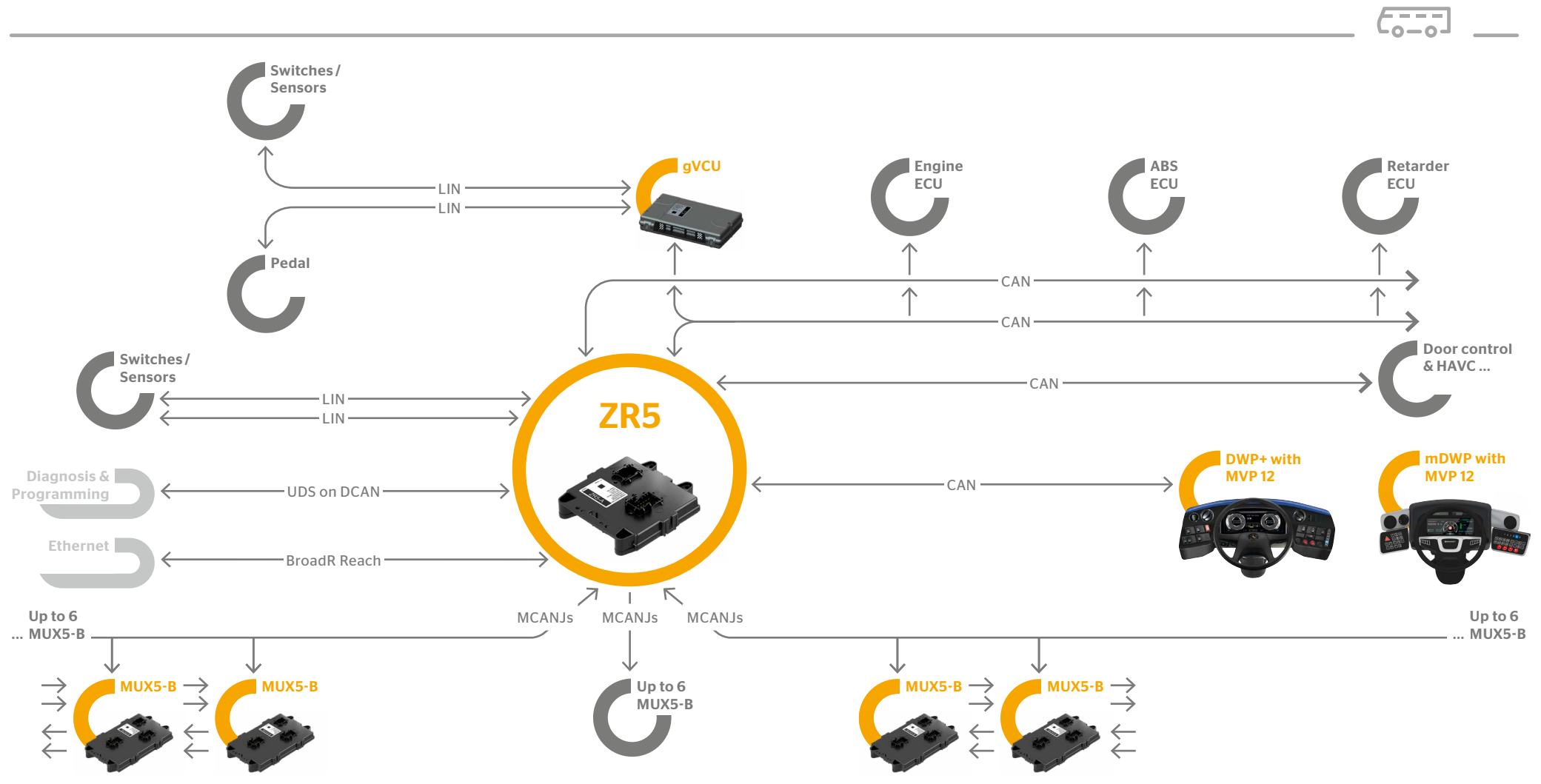
At the same time, the vehicle reliability can be improved through high quality components that are carefully tested and validated not only on a component basis, but also on system level.

With some devices safety relevant functions compliant to ISO 26262 can be supported up to ASIL B. The customer enjoys high flexibility and will be able to program also these functions on his own by using the KIBES® tool chain and considering the KIBES®-5 safety manual.



Buses Typical architecture.

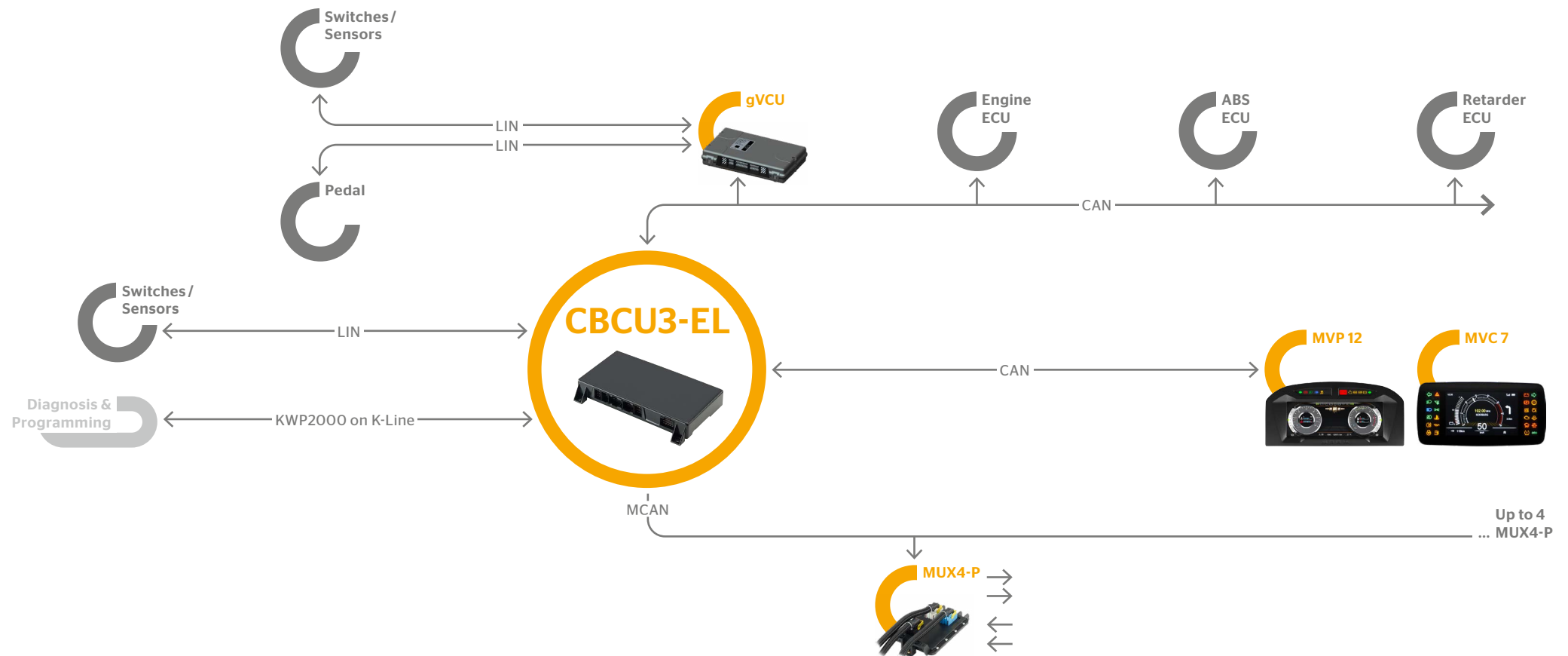
Bus requirements are more and more dependent upon enlarged functionality, efficiency, reliability and comfort. Relying on our KIBES® multi-plex system means using a cost-optimized and scalable platform solution in your vehicle - ideally designed for all sorts of vehicle volumes.



Trucks, small buses and others.

Typical architecture.

This solution offers significant design flexibility in order to realize specific requirements for trucks, small buses as well as construction and agricultural vehicles. Starting with the body controller CBCU3 as basic component additional multiplex nodes, a vehicle controller and an instrument cluster can be easily added to achieve a scalable and future-proven system.



Body Controller At a glance.





Our state-of-the-art body control products are designed to prepare commercial vehicles for future-oriented network architectures.

The system with central computer ZR5-A provides a solution to almost every possible requirement. Up to 18 MUX5-B can be connected to ZR5-A for various signals. It offers a complex network connectivity with several generic CANs which can be programmed customer-specific. It is also possible to connect

different instrument clusters and driver's workplace solutions with a ZR5-A. Systems with a control unit of the CBCU3 family provide powerful solutions that are optimized to meet any customer requirement. Up to four MUX4-P can be connected to CBCU3-E via multiplex CAN. Beyond that, control units of the

CBCU3 family offer a customer-specific programmable CAN network that provides a direct connection to several possible instrument cluster solutions.

Body Controller

Base systems	Node combination
 <p>ZR5-A central computer</p>	 <p>MUX5-B</p>
 <p>CBCU3 family - central computer / body controller</p>	 <p>MUX4-Pn</p>

Control units overview

	ZR5-A	CBCU3	CBCU3-E	CBCU3-EL
Installation	cabin	cabin	cabin	cabin
Operation mode	master	master	master	master
Max nbrs of MUXx nodes MUX5-B on MCAN	up to 18	-	-	-
Max nbrs of MUXx nodes MUX4-Pn on MCAN	-	-	up to 4	up to 4
Possible configuration with cluster	yes	yes	yes	yes
with driver's workplace	yes	-	-	-
LIN interface	2	-	-	1 (12V / 24V)
CAN interface	8	2	3	3
MCU interface	-	1	1	1
Water protection	-	cover optional	cover optional	cover optional



Nodes overview

	MUX5-B	MUX4-Pn
Installation	cabin	outside cabin
Operation mode	client	client
Possible mix with nodes on MCAN	MUX5-B	MUX4-Pn
Corresponding central computer	ZR5-A	CBCU3-E family
CAN interface	MCAN JS	MCAN J
Input		
digital	20	8
analog	10 (also usable as digital inputs)	8 (also usable as digital inputs)
Output		
high side (PWM)	24 (8)	22
low side	8	-
Water protection	-	yes
Half bridges for motor control	4	2 (out of 22)

ZR5-A Central computer.

The central controller ZR5-A is an intelligent and powerful gateway controller used together with a variable number of multiplex nodes (max. 18) in high-end multiplex systems.



Advantages at a glance

- › Generic central computer for general purpose
- › Complex gateway functionality
- › Central gateway for EOL programming & diagnosis
- › Up to 18 nodes
- › Application programming via KIBES® LC3 Tool logi.CAD 3 (IEC 61131-3)
- › Supports ISO 26262 up to ASIL B



It is compatible with the node MUX5-B and can be connected to up to three powerful multiplex CANs. It also provides an efficient CAN structure to connect various instrument clusters: MultiViu®Professional 12, MultiViu®Compact 7 and

MultiViu®Compact 4 are possible choices as well as the driver's workplaces DWP+ and mDWP. To achieve a maximum of flexibility, all the CAN communication is based on generic objects and supports flexible data rate (FD). ZR5-A also provides

a central gateway for EOL programming and diagnosis and is controlled by the model based application programming tool KIBES®-5. The device is designed according to ISO 26262 and supports application level up to ASIL B.

Technical specifications

Dimensions	162x165x30 mm	Input, digital (level programmable)	8 (there of 4 wake up capable)
Nominal voltage	12 V and 24 V	Output low side, 0.1 A	9 (alternative as inputs)
Operating temperature	-40 °C ... +85 °C	2 LIN	12 V
Protection class	IP 40	Ethernet (BroadR-Reach)	prepared
CAN interface	8	Wake up	digital inputs, CAN, LIN
protocol SAE J1939; generic CAN objects	4	Diagnostic protocol	UDS on D CAN
Multiplex CAN to MUX5-B	3	Diagnostic services	onboard: DMI, ... offboard: UDS on D CAN, ASAM
Diagnosis CAN	1	Frequency inputs	speed, RPM

MUX5-B Multiplex node.

The MUX5-B is a generic multiplex node to decentralize and optimize the system. It provides one CAN interface connected to ZR5-A central computer and a large number of inputs and outputs.



Advantages at a glance

- › Generic multiplex node for general purpose
- › Multiple input & output capabilities
- › Built in diagnostic & protection capabilities
- › Supports ISO 26262 up to ASIL B



It is designed for cabin installation and provides built-in diagnostic and protection capabilities as well as multiple input and output capabilities: 24 high side switch outputs, 8 low

side switch outputs, 20 digital inputs and 10 analog inputs. This device is designed according to ISO 26262 and supports applications level up to ASIL B.

Technical specifications

Dimensions	258x155x30 mm	Output high side	2
Nominal voltage	12 V and 24 V	8.8 A	4
Operating temperature	-40 °C ... +85 °C	5.0 A	6
Protection class	IP 40	3.0 A	8
Input digital, 8 mA (parametric)	20	1.0 A	4
Input analog (parametric)	12	0.3 A	
		Output low side, 1.0 A	8 (4 PWM)
		Output half bridge 3.0 A	4
		Wake up	CAN
		Sensor supply 20 mA	2

CBCU3 Central body control unit.

CBCU3 satisfies the growing demand for reliable and powerful onboard control units by centralizing the intelligence and input/output management of the cabin and body to one device.



Advantages at a glance

- › Management of digital and analog input signals
- › Electronically-controlled power outputs with full diagnostic features
- › Enhanced network functionality using platform multiplexing nodes
- › Application programming via KIBES® LC32



CBCU3 implies not only high reliability and robustness but also a high potential for reduction of wiring harness, connectors, relays and fuses. It can be connected to up to four nodes via powerful multiplex CAN connection. CBCU3 can be connected to instrument clusters like MultiViu®Professional 12, MultiViu®

Compact 7 or MultiViu®Compact 4 via instrument CAN. The CBCU3 family provides a complete system solution for bus, truck and special vehicle applications, off-the-shelf in three different variants: CBCU3, CBCU3-E and CBCU3-EL are body controllers to cover all possible functional requirements for

heavy duty trucks as well as small buses. CBCU3-E / EL can be extended by up to four MUX4-Pn nodes and CBCU3-EL provides additional a 12/24 V LIN interface for low-cost communication between the actuators and sensors in the vehicle. Furthermore a water protected case is available for all variants.

Technical specifications

Dimensions	276 x 185 x 43 mm	Human machine interface	MCU	Output high side		Wake up	5 digital inputs, (e.g. term 15, hazard switch), 5 free configurable inputs
Nominal voltage	24 V (12 V optional for CBCU3-EL)	Input digital	34 16	7.5 A 5.6 A 3.6 A 2.7 A 1.8 A 1.0 A 0.2 A	1 3 3 6 10 5 4 (1 PWM)	EOL programming	KWP2000 on K-line, powertrain CAN
Operating temperature	-40 °C ... +85 °C	Input analog (parametric)	6	Output low side, 1.0 A	2 (PWM)	Sensor supply	1x 5 V / 20 mA; 2x 8 V / 10 mA
Protection class	IP 30 (IP 54 with add. cover)	Input frequency speed RPM	1 1	Output power supply		Diagnostic services	onboard: DMI offboard: KWP2000 on K-line, ASAM, powertrain CAN
LIN interface	only CBCU3-EL (1x 12 / 24 V)	Input MCU interface	1	8 V / 10 mA 5 V / 20 mA	2 1		
2 CAN	ISO 11898, 250 kBaud, protocol SAE J1939, generic CAN objects						
Multiplex CAN	ISO 11898, 250 kBaud; protocol MCANj for MUX4-P (max. 4 nodes)						

MUX4-Pn Multiplex node.

The MUX4-Pn is a generic multiplex node for general purposes. It is suitable for installation outside the cabin, for instance on the frame of the vehicle.



Advantages at a glance

- › Generic multiplex node for general purpose
- › Multiple input & output capabilities
- › Built in diagnostic & protection capabilities



The MUX4-Pn provides a large number of inputs and outputs. It is water protected with a high protection level (Protection class IP 67).

It has built-in diagnostic and protection capabilities and is suitable for the connection with one of the CBCU-3E / CBCU-EL via multiplex CAN.

Technical specifications

Nominal voltage	12 V and 24 V	Output high side	2
Protection class	IP 67 / IP 6K9K	8.0 A	6
Input digital, 8 mA	8	6.0 A (PWM)	3
Input analog (parametric)	8 (also usable as digital inputs)	5.0 A	5
Input frequency	3	3.3 A	6
		1.1 A (PWM)	
		Wake up	2 digital inputs
		Sensor supply	5 V / 40 mA
		Diagnostic services	built-in diagnostic & protection capabilities

gVCU NG Vehicle Control Unit.

The generic Vehicle Control Unit enables to manage quickly all drive train configurations without high development efforts.

A modern vehicle architecture with a VCU (Vehicle Control Unit) as powertrain master controller provides easy to test units and features clearly defined system interfaces and limits – simplifying development and production processes.

Typical VCU functions are engine speed management, engine brake control, cruise and downhill speed control, power take off, vehicle speed limiter, fan clutch control, outside air temperature measurement, gearbox control, immobilizer and gateway functionality.

The Continental gVCU NG system consists of a universal platform hardware with all necessary I/O features implemented, a base software incl. low level driver and diagnostics of the hardware as well as the proven software development tool MBDS based on MatLab®/Simulink®.



gVCU NG Vehicle Control Unit.

The gVCU NG is free of any application program and can be used for any application defined by the customer.



Advantages at a glance

- › Generic vehicle control unit, also usable for many other purposes
- › Supports application functions up to ASIL B acc. ISO26262
- › KIBES® MBDS toolchain for safe and reliable application function programming
- › Available for 24 V and 12 V environment



Primarily designed as a vehicle control unit the interfaces of the gVCU NG are dedicated for different accelerator pedal types. The unit provides several CAN and LIN interfaces,

digital I/Os and analog inputs as well as frequency I/Os with different characteristics. The gVCU NG is available in two hardware variants: one for 24 V and one for 12 V environment.

Technical specifications

Dimensions	218 x 135.6 x 40 mm	Internal flash	4 MByte
Nominal voltage	12 V and 24 V	Internal SRAM / external EEPROM	512 kByte / 128 kByte
Operating temperature	-40 °C ... +80 °C	Input, digital	21 (there of 7 wake up and 11 ASIL B capable)
Protection class	IP 40 (with connected plugs)	Input analog	18
Pedal interface	1 PWM, 1 Analog, 1 Remote	Input frequency	4
CAN interface	6	Output high side	13
LIN interface	2 (one for usage with 24 V and one for 12 V LIN slave components)	1 A	4
		2 A	3
		Output low side	3

Instrument Clusters At a glance.

Continental provides a wide range of display solutions suitable for various requirements and easy customization. Logic and human machine interfaces of all our solutions are individually programmable.



MultiViu®Professional 12

The MultiViu®Professional 12 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®Professional 12 is programmable via KIBES® LC3 and KIBES® CGI Studio. It is compatible with Continental's Driver's Workplace systems.

MultiViu®Compact 7

The MultiViu®Compact 7 is a flexible full digital display instrumentation, which comes at an affordable price. Thanks to its bright TFT module it stays readable even under direct sunlight. Its tablet like design, with 7" TFT and optional touch function, can easily be adapted to give the customer an individual product.

MultiViu®Compact 4

The MultiViu®Compact 4 is a cost-optimized off-the-shelf display solution with a large variety of inputs. Its modern tablet-like housing makes it a future-proof solution either as a primary cluster or as a secondary instrumentation. Its high-brightness display and 10 backlight telltales make it easy to read even in adverse lighting conditions.

Specifications and features

Cluster	Display	Dimensions (w x h x d)	Software tool
MultiViu®Professional 12	12.3" / 1,440 x 540 pixel	414 x 220 x 90 mm	KIBES® LC3 + CGI Studio
MultiViu®Compact 7	7.0" / 800 x 480 pixel	271 x 134 x 43 mm	KIBES® LC3 + grADI
MultiViu®Compact 4	4.3" / 480 x 272 pixel	170 x 100 x 45 mm	KIBES® LC32 + grADI

MultiViu® Professional 12.



Advantages at a glance

- › Innovative stand-alone display available for all customers
- › Super wide-view TFT display
- › Model based design system: software for application programming and for graphical HMI programming
- › Wide variety of interfaces
- › Customizable telltale module
- › Different front frame designs
- › Can be integrated into Driver's Workplace mDWP and DWP+
- › LINUX and OSEK based 2 microcontroller offering higher performance

With the MultiViu® Professional 12 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® Professional 12

provides maximum freedom in HMI screen design and easy implementation of video and camera pictures. Additionally the MultiViu® Professional 12 can be quickly integrated into the existing vehicle architecture. Its warning and status telltale module, fulfilling ASIL-A requirements, is highly reliable.



MultiViu® Professional 12 is programmed by a perfectly matched software tool chain using KIBES® LC3 PLC and the automotive high-end graphic implementation software KIBES® 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.

Specifications and features

Dimensions	414 x 220 x 90 mm	Digital input	up to 60
Nominal voltage	12V or 24V	Frequency input	1 PWM for illumination control
Operating temperature	-30 °C ... +70 °C	Output	1 sensor supply: 5V
Protection class	IP 54 (front), IP 20 (rear)	Audio	1 internal loudspeaker, 1 interface for external loudspeaker
Wake up	via digital inputs or CAN buses	Video	3 analog video inputs
EOL programming and diagnosis	via UDS on IP and UDS on CAN	Interfaces	3 CAN, 1 LIN, 1 EasyLink, 1 Ethernet for DoIP
Analog input (resistive / voltage)	5 voltage inputs, 2 resistive inputs		

Description

- Display: super wide-view, high brightness contrast, true color 12.3" TFT display, normally black with resolution: 1,440 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 7.



Advantages at a glance

- › Stand-alone display available for all customers
- › Easy customization of telltales and symbols
- › Model based design system: software for application programming and for graphical HMI programming
- › No additional research, development and tooling efforts except for HMI



The MultiViu® Compact 7 is an universal off-the-shelf display solution based on TFT display controllers. With 24 status-indicators large amounts of driver information can be displayed. Its tough and scratch-resistant mineral glass surface

and the optical bonding of the display make it the perfect solution for the use in dirt-prone environments and readable also in strong sunlight. The modular architecture offers easy and economic customization of logo, telltales and color

stripes. It can be used either as primary cluster or as second device (e. g. for menu navigation). Optionally the display is available with a capacitive touch panel.

Specifications and features

Dimensions	271 x 134 x 43 mm	Telltales	24
Operating voltage	12 V or 24 V	Audio	-
Operating temperature	-30 °C ... +70 °C	Video	1 analog video
Protection class	IP 65 front / IP 64 back	Interfaces	2 highspeed CAN
Wake up	3 digital inputs / CAN	Connectors	34 pin Tyco Super Seal
Input	15 digital, 6 analog, 2 frequency, 1 video		
Output	5 digital outputs		

Description

- Display: 7,0", 15:9, 800 x 480 pixel, brightness 800 cd / m² min., contrast 1,000:1 (typ.) transmissive
- Software: KIBES® LC3 and KIBES® grADI
- Optional touch display available
- Modern, smartphone-like design

MultiViu® Compact 4.



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



The cost-efficient MultiViu® Compact 4 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, it offers a future-proof solution including functionalities

such as CAN and video. 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.

Specifications and features

Variants	Entry	Basic
Dimensions	170 x 100 x 45 mm	170 x 100 x 45 mm
Operating voltage	12V or 24V	12V or 24V
Operating temperature	-30°C ... +75°C	-30°C ... +75°C
Protection class	IP 67 front / back	IP 67 front / back
Wake up	via digital inputs or CAN buses	via digital inputs or CAN buses
I/O board		8 analog inputs (Vol/Res), 2 frequency inputs, 12 digital inputs (Hi/Low)
Input	4 digital, 1 video	4 digital, 1 video
Output	2 digital	2 digital
Telltales	10	10
Audio	-	-
Video	1 analog video	1 analog video
Interfaces	2 highspeed CAN	2 highspeed CAN

Description

- Display: 4,3" 16:9, 480 x 272 pixel, brightness 800 cd / m² min., contrast 700:1 min. transmissive
- Software: KIBES® LC32 and KIBES® grADI
- HMI control: 4 menu keys
- Telltales: 10 backlight telltales
- Modern, smartphone-like design

Driver's workplaces At a glance.

Continental offers driver's workplace solutions for different purposes: city and intercity buses as well as special vehicle applications.

Driver's workplace – DWP+

The workplace for functionality and flexibility offers an innovative design with contemporary features. Equipped with the instrument cluster solution MultiViu®Professional 12 it provides various possibilities of customer-specific adaption. The color pad of the DWP+ is also customizable to match with vehicle design. Moreover, an accessory holder and a power outlet for miscellaneous applications (mobile phones, navigation, etc.) are available as optional features.



with MultiViu®Professional 12

Modular concept – mDWP

The new modular concept of a driver's workplace for city buses and coaches sets a new standard in flexibility, individuality, design and technology. It can easily be adapted to different cases, in compliance with all ergonomic requirements, safety and usability according to VDV and EBSF standards. The individual modular elements fit perfectly with the interior design



used in the latest generation of buses, resulting in attractive, flexible and very practical driver's workplaces. The separation of the individual elements provides flexible and individual design possibilities. The modular driver's workplace was recognized by IF Design Award and German Design Award for its stylish design.



The driver's workplace can be extended from its base version by two further customized panels. The integrated instrument cluster solution MultiViu®Professional 12 is fully programmable, easy to handle and displays all relevant information according to the bus operating mode. The switch panels with PowerOn or memory function (CAN-based) are fully

programmable and customizable, as well as integrated RGB-LEDs to support individual switch state lightening and ambient light, for example. You can even create your own panel or use a 3rd party module for integration into the modular concept. On demand, functions like the display of camera information can be implemented.

KIBES® system and application development.

A fast delivery time to market is one of the benefits of the KIBES® system approach. With the integrated KIBES® software tool chain for application and human machine interface programming no expert knowledge is needed. The tool chain allows an easy and fast design of software functionality for ECUs and Instrument Clusters.

Functional Programming Tools

All functional programming tools offer an integrated model based development environment for a seamless and holistic design approach. They realize an integrated process flow from specification, implementation and test up to automated code generation, build process and download of the generated software binary file to the target product. Especially the new generation tools KIBES® LC3 and KIBES® MBDS support the

development process by model rule checking, document generation and automated testing at model and source code level. In order to support development of ASIL rated functionality they are ISO-26262 compliant up to an ASIL level B. Finally, interfaces to the graphical programming tools KIBES® grADI and KIBES® CGI-Studio are provided for an easy and seamless integration of HMI designs in the overall development process.

KIBES® LC3

The innovative and powerful development tool for the next generation KIBES® product family is a significant step forward in programming PLC according to IEC 61131-3. It offers an improved graphic representation and helpful features for bringing better visibility into complex structures. It also gives the user an improved overview over large projects by customizable positioning of different views and windows. It furthermore provides.

- Context sensitive extended assistance
- Syntax highlighting in structured text
- Step by step debugging features to save time in analyzing complex application programs
- Predefined templates to save programming time and reduce syntax problems

On the whole, an impressive improvement for beginners and professionals already using KIBES® LC32.



Functional Programming Tools

KIBES® LC32

This development tool is used for the classical KIBES® LC32 product family and is compliant to the IEC 61131-3 PLC standard. It is the predecessor to the new logi.CAD 3 programming tool and provides all essential features necessary for design, test and integrate a model design onto our KIBES® LC32 products.

KIBES® MBDS

The KIBES® **M**odel **B**ased **D**evelopment **S**ystem (MBDS) is a software development environment based on MATLAB® Simulink by The MathWorks. It provides all the benefits of the state-of-the-art modelling tool Simulink but turns the versatile and complex MATLAB and Simulink software into an easy-to-use automotive embedded software development tool for our KIBES products. The comprehensive and powerful simulation capabilities are very useful in upfront analyzing models for improving the overall quality of your designs. Especially in the field of control design and complex algorithms the visualization capabilities are most welcome and finally, with Stateflow even the design of flow charts and state machines is well supported.



Graphical Programming Tools

KIBES® grADI

The KIBES® grADI software is a tool for professional mask design. It gives customers the possibility to create their own graphic human machine interface and to easily adapt to market demands.

- Supports screen design of dot-matrix and colored TFT displays up to WVGA resolution
- Fits seamlessly to the KIBES® LC32 and KIBES® LC3 software tool chain
- Graphic objects and text files are created by a common software tool like Adobe and can be easily imported into grADI
- Basic animations possible
- Multi-language support for international applications
- Development tool based on CINEMA 4D
- Intuitive GUI for human machine interface implementation



KIBES® CGI Studio

KIBES® CGI Studio is a professional software tool to create a premium human machine interface with high definition graphics. It is compatible to the MultiViu®Professional 12 and is adapted to the KIBES® LC3 software, which controls the cluster's functionality. With KIBES® CGI Studio you will receive brilliant looking human machine interfaces displayed with the MultiViu®Professional 12.

- Drag and drop scene editor
- Reusable graphic elements
- Time and curve editor for key frame 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 human machine interface implementation



Service tools

KIBES® cvFlash

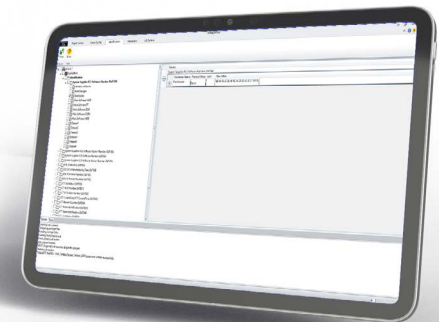
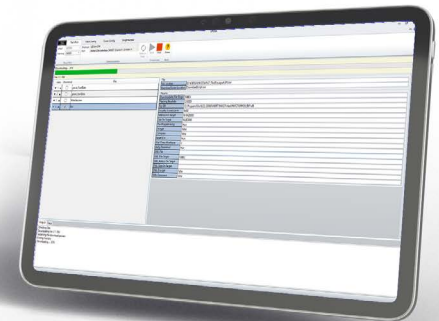
KIBES® cvFlash is an easy to use tool for programming one or more electronic control units as standalone unit. With cvFlash software and updates can be transferred to the ECU. Easy integration into other tool chains

- Many configuration possibilities
- Specific programming protocol behaviors can be introduced
- ECU programming over UDSonCAN
- Possibility to implement plug-ins to support other protocols and drivers e.g. UDSonIP
- Easy and affordable solution for updates or flashing progress in your workshops

KIBES® cvDiagnostics

KIBES® cvDiagnostics is an ODX based application for diagnostic analysis and parametrization of electronic control units. Configured sets of identification data, parameters and I/Os can be read, parameters configured and I/Os written. Easy integration into other tool chains

- Many configuration possibilities
- Diagnostic analysis over UDSonCAN
- Possibility to implement plug-ins to support other protocols and drivers e. g. UDSonIP
- Easy and cheap solution for diagnostic and parametrization services



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