

PIONEERING
NEW MOBILITY



MOBILE AUTOMATION

b-plus mobile control GmbH

Rev 3.0



+ Your system partner for mobile automation

With a passion for mobile automation technologies and decades of experience, b-plus develops and distributes innovative solutions for control systems, displays, operating elements, and software for mobile machinery.

As an engineering and technology partner, we support our customers from the initial idea through to series production – hands-on, flexible, and in close collaboration.



Typical application areas

- + Agricultural machinery
- + Construction machinery
- + Municipal vehicles
- + Special-purpose vehicles

The b-plus team supports manufacturers of mobile machinery in developing modern control and operating concepts.

Our portfolio includes:

- + Engineering & software development
- + Control systems and embedded systems
- + Displays and operating concepts
- + CAN bus and ISOBUS solutions
- + Components for off-highway applications

Technology expertise

- + CAN bus technologies (CANopen®, J1939 engine monitor / truck communication, ISOBUS)
- + Ethernet/WLAN, BroadR-Reach®
- + Programming in C, C++, Qt, CODESYS®
- + Functional safety (ISO13849, ISO25119)



+ Strong partnerships



+ Long-standing memberships



+ Solutions that keep machines moving

STRAMAT: Self-propelled road marking machine RMCD

- + Millimeter-accurate line-gap-machine for road marking
- + Detection of environmental conditions such as ground temperature and air temperature
- + Calculating the speed for the desired wet layer thickness
- + Creation of a work report and transmission of the data via telematics system



ZECK: Rail-road elevated working platform A-POD

- + Programming of a safety control for rail-road elevated working platform with hydrostatic drive
- + 360° endless rotation, jib and basket each rotatable +/- 90°
- + Safety-related detection of tower position, inclination and basket load
- + Functional safety according to ISO13849
- + Connected radio remote control with CANopen® safety protocol

+ Control solutions / controllers for mobile applications



b-CANCubeNano

Small controller with RS232

- + 2 digital inputs and outputs
- + CAN bus interface
- + Serial interface RS232
- + Freely programmable in C
- + Operating temperature -40 ... +80°C, IP54 (optional: IP65)



Trailer-CAN Gateway ISO11992

CAN bus converter 5V-24V

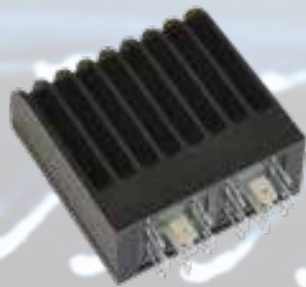
- + Connection of 24V trailer CAN to 5V truck CAN bus systems
- + 1x Trailer CAN ISO11992
- + 1x CAN (high-speed) ISO11898-2
- + Operating temperature -40 ... +80°C, IP67



b-CANCubeMicro

Compact controller for mobile machines

- + 2 CAN interfaces
- + 4 parameterizable inputs
- + 1 digital output
- + Freely programmable in C
- + Operating temperature -40 ... +80°C, IP67



b-CANCubeMini

Compact controller for mobile machines

- + CAN bus I/O controller
- + 2 CAN bus interfaces
- + 5 parameterizable inputs
- + 6 parameterizable outputs
- + CANopen®- / J1939 slave or freely programmable in C
- + Operating temperature -40 ... +80°C, IP54



b-CANCubeMini Sealed

Compact controller for mobile machines

- + CAN bus I/O controller
- + 3 CAN bus interfaces
- + 2 serial interfaces RS232
- + 1 RS485 interface
- + 6 parameterizable inputs
- + 6 parameterizable outputs
- + Freely programmable in C
- + Operating temperature -40 ... +80°C, IP67/IP69k



b-CANCubeMini Sealed Extended

Compact controller for mobile machines

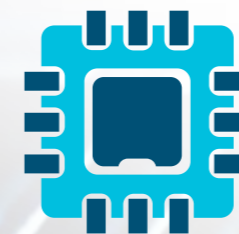
- + CAN bus I/O controller
- + 2 CAN bus interfaces
- + 6 parameterizable inputs
- + 6 digital inputs
- + 6 parameterizable outputs
- + Freely programmable in C
- + Operating temperature -40 ... +80°C, IP67/IP69k



b-CANCubeMini Sealed Plus

Compact controller for mobile machines

- + CAN bus I/O controller
- + 3 CAN bus interfaces
- + 2 serial interfaces RS232
- + 1 RS485 interface
- + 8 parameterizable inputs
- + 8 parameterizable outputs
- + 4 digital outputs
- + Freely programmable in C
- + Operating temperature -40 ... +80°C, IP67/IP69k



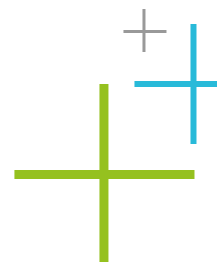
Customized development of controllers

We would be happy to develop a control solution entirely according to your requirements. Please contact us!



IoT Platform - Senquip

- + Flashing of mobile controllers
- + Visualization of machine data in the cloud platform
- + Online device management
- + WiFi, Bluetooth, GPS, 4G-LTE, Starlink®
- + CAN, RS232, RS485, Modbus, IOs



Controllers from other leading manufacturers

Whether our own small controllers or powerful solutions from our partners – thanks to our many years of experience as system integrator and our expertise in bus communication (ISOBUS, J1939, CANopen, CAN) as well as programming (C, C++, CODESYS), we find the suitable control unit for every project.



+ Control and display devices to use in and on the truck body



TruckMonitorMini

Monitor for the J1939 body builder CAN bus / FMS of trucks

- + Coolant temperature, fuel level
- + Oil pressure, oil temperature
- + Engine speed, engine hours
- + Weight of the truck and the trailer



TruckMonitorCabin

Additional instrument cluster for displaying CAN bus / FMS data

- + Vehicle speed
- + Engine speed
- + Parking brake
- + Flasher left / right
- + Main beam
- + Various display variants available from 3.5" to 7"



TruckControlSwitch

Remote engine control for the J1939 body builder CAN bus of trucks

- + Motor start/stop
- + Engine speed control
- + Power take-off activation

Supported manufacturers:

- + Mercedes-Benz/Daimler
- + MAN
- + Scania
- + Volvo
- + DAF
- + Renault
- + Iveco
- + FMS-Standard
- + etc.

+ Off-highway solutions for industrial engines



EngineMonitorPlus

Configurable monitor for industrial engines with CAN J1939 interface

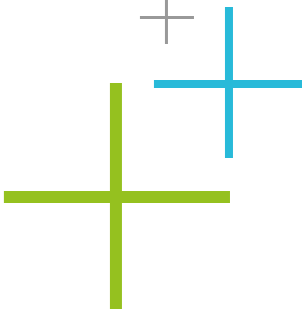
- + Visualization of various CAN bus signals, up to 4 values at the same time
- + Error codes (DM1), service messages
- + Engine speed control, start/stop, DPF regeneration
- + Multilingual
- + Various display variants available from 3.5" to 7"

Supported industrial engines (with SAE J1939):

- + Caterpillar
- + Cummins
- + Daimler
- + Deutz
- + Perkins
- + Scania
- + Volvo Penta
- + FPT/Iveco
- + Hatz Diesel
- + John Deere
- + MAN
- + etc.



+ ISOBUS solutions



b-ISOBUS IO Gateway

Compact ISOBUS I/O gateway

- + Display and operate the inputs and outputs of the implement on the terminal
- + Configuration directly via the virtual terminal
- + 5 free parameterizable inputs
- + 6 parameterizable outputs
- + Supports VT client and AUX-N functionality
- + Up to 24 outputs possible with slave modules



OPUS B2m+ 7" ISOBUS VT

ISOBUS Virtual Terminal

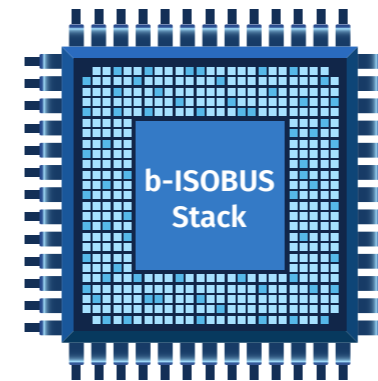
- + ISOBUS functionality according to ISO 11783
- + Universal Terminal, AUX-N, Fileserver
- + 7" high resolution display
- + 2m connection cable with ISOBUS InCab connector
- + RAM mount ball 1" for flexible installation
- + Separate on/off switch



b-ISOBUS CAN Gateway

Compact ISOBUS CAN gateway

- + Connection of existing implement controls to an ISOBUS network
- + Supports VT client and AUX-N functionality
- + Optional task controller functionality available
- + Optionally with 11 fully parameterizable inputs/outputs



b-ISOBUS-Stack

Platform- and hardware independent ISOBUS stack

- + Standardized, hardware independent communication between tractor and implement
- + Easy integration on every hardware
- + Automatic scaling of the masks for every display size
- + Compatible with ISOBUS object pools
- + ISO25119 compliant (Software Requirements Level 1)
- + Add-on: Fileserver Client (ISO11783-13)



b-ISOBUS AUX-N Gateway and b-ISOBUS Keypad

ISOBUS gateway for non-ISOBUS compatible CAN operating elements

- + Gateway for converting CAN signals like J1939/CANopen to ISOBUS
- + Digital / Analog Joysticks
- + Keypad modules with 6/8/12/15 keys
- + ISOBUS InCab connection available



b-ISOBUS Spy

ISOBUS message analysis tool

- + See all nodes in an ISOBUS network
- + Interpret data according to ISO11783
- + Recording traces of the ISOBUS network
- + Set filters to see only the data you need
- + Works with PEAK™ and CANfox™ CAN hardware



b-ISOBUS-Cable and b-ISOBUS InCab Cable

ISOBUS cables

- + ISOBUS cable with open end
- + Power wires in 6mm², 10mm² or 16mm²
- + ISOBUS InCab connection cable with open end
- + Molded InCab connector



b-ISOBUS TIM

Tractor Implement Management

- + Integration of TIM Client in the implement control system
- + AEF 023 ISOBUS Automation Principles and AEF 040 ISOBUS Security Principles
- + Supports AUX valves, PTO, hitch, linkage, guidance, vehicle speed functions
- + Combination with other ISOBUS functions (Virtual Terminal, Task Controller, AUX-N)
- + AEF-compliant implementation and testing – validated through Plugfest experience
- + Prototyping to series release

+ Operation and control



b-Drive Cab Control G2

HMI with SAE J1939 or CANopen® interface

- + Analog Joystick with push button
- + Dimmable backlight
- + Each button with 3 status LEDs
- + Individual customized symbols
- + Operating temperature -40 ... +85°C, IP67



b-Drive Cab Control

HMI with SAE J1939 or CANopen® interface

- + Joystick or encoder version
- + Dimmable backlight
- + Individual customized symbols
- + Operating temperature -40 ... +85°C, IP67



SwitchModulesSealed

IP68 modular switch modules with SAE J1939 interface

- + Push buttons or switch keys freely selectable
- + Individual customized symbols
- + Lighting of the symbols and 4-color status indicator bar
- + Operating temperature -40 ... +85°C, IP68



KeypadModules Touch

Touch-button module combination

- + 6 buttons
- + Freely configurable background icons
- + Simple PC configurator
- + Configurable CAN bus interface
- + Operating temperature -25 ... +70°C, IP67
- + 12/24-key variants available, IP53



KeypadModules

IP68 switch modules with SAE J1939 interface

- + 6/8/12/15 keys
- + 4-color LEDs for demonstration of states
- + Dimmable backlight
- + Individual customized symbols
- + Operating temperature -40 ... +85°C, IP68



eao - Rugged CAN Keypads

Keypads for E1 applications with Functional Safety

- + Individual 4-segment and RGB halo ring illumination
- + Designed for Functional Safety: ISO 26262 and ISO 13849
- + Intelligent HMIs with CAN bus integration
- + Interchangeable ISO 7000 symbols or customized symbols
- + Operating temperature -40 ... +85°C, IP67

Customized lasering
of control elements:



Displays for mobile machines

As a system integrator, we offer a wide range of displays from leading manufacturers such as ifm electronic, CrossControl, TTControl/HYDAC, Topcon, and Deep Sea Electronics. We are happy to integrate these into customized solutions and develop tailor-made software in CODESYS and Qt.

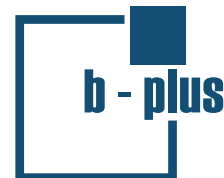


CROSSCONTROL

TOPCON



TTControl
HYDAC INTERNATIONAL



PIONEERING
NEW MOBILITY

Partner landscape

GERMANY

Agricultural system integrators

- + EMDS
www.emds.eu
- + geo-konzept
www.geo-konzept.de

Distributors

- + GRANIT
www.granit-parts.com
- + KRAMP
www.kramp.com
- + PRILLINGER
www.prillinger.at

ES

SGL Group
System integrator Spain
www.sgingenieria.es

Scandinavia

THORSEN-TEKNIK

Thorsen-Teknik
System integrator Scandinavia
www.thorsen-teknik.dk

PL

ARETE
System integrator Poland
www.e-arete.pl

AU

CAN Automation
System integrator Australia
www.canautomation.com.au

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