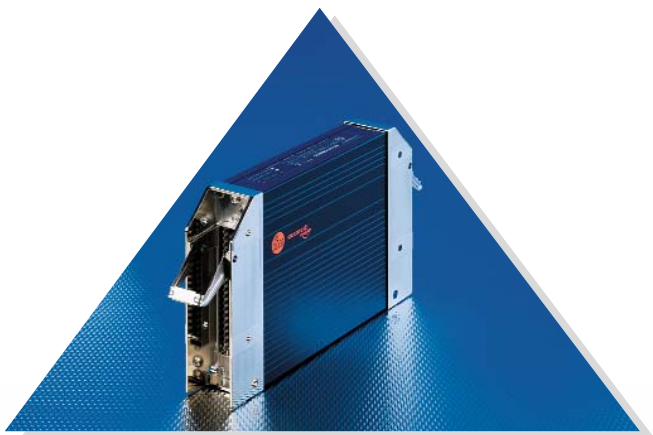




32-bit ExtendedController for mobile vehicles.



ecomat[®]
mobile

**32 multifunctional inputs,
32 multifunctional
+ 16 digital outputs.**

- ▲ Analogue and digital I/Os with diagnostic function for mobile applications.
- ▲ Usable for complex control functions in mobile vehicles.
- ▲ 4 CAN interfaces with CANopen and SAE J1939 protocol.
- ▲ Freely programmable with CoDeSys 2.3 to IEC 61131-3.
- ▲ e1 type approval of the German Federal Office for Motor Traffic.



32-bit ExtendedController for mobile vehicles

The mobile controller meets the requirements of modern electronics, able to simultaneously perform proportional functions with a large number of inputs and outputs. The ExtendedController was developed particularly for use in off-highway and mobile vehicles on the basis of the current standards and long-term experience.

Besides the multifunctional inputs and outputs each control module is equipped with 4 CAN interfaces. They support all important bus protocols, different baud rates and also the transparent and preprocessed data exchange. Programming to IEC 61131-3 ensures that all control functions can be easily integrated in the application program.



fluid sensors
and diagnostic
systems

position
sensors
and object
recognition

bus,
identification
and control systems



Functions and advantages

• Mechanical structure

Besides a reverse-polarity protected central plug for mobile applications the control electronics integrated in a compact metal housing provides all the necessary connections for the inputs and outputs, communication and programming. The RGB status LED displays the most important system messages.

• The electronics

The core of the controller designed according to the applicable standards for electronics for mobile applications is a modern 32-bit processor. Monitoring and protection functions enable safe operation even under extreme operating conditions.

• Configuration of the inputs and outputs

By means of the application software the inputs and outputs can be configured to adapt to the respective application.

Each input can be configured as a digital, frequency or analogue input with diagnostic function. In addition the inputs support the evaluation of positive and negative digital input signals. The analogue inputs enable both current and voltage measurement.

In addition to the freely configurable digital or PWM outputs with diagnostic capability, with and without current control, digital outputs with diagnostic capability are also available.

• Parameter setting to IEC 61131-3 with CoDeSys

Programming with the standardised IEC 61131-3 languages enables the user to create clear and easy application software. In addition, libraries are available for special functions of the controller.

• CAN interfaces with CANopen protocol

The ExtendedController is equipped with four CAN interfaces to ISO 11898. The data is exchanged with all connected bus participants via these interfaces. The CANopen protocol enables quick and flexible connection to the bus. For communication with the diesel engine and the power train all interfaces can be reconfigured to the J1939 protocol.

Applications:

- Complex construction machines
- Agricultural machines
- Municipal vehicles

Products

Description	Order no.
ExtendedController 32 Bit	CR0232
Connector, 55 poles (wirable)	EC2013
Connection cable, plug 55 poles, 1.2 m	EC2086
Programming cable with USB adapter, 2 m	EC2096
Programming software CoDeSys, German version	CP9006
Programming software CoDeSys, English version	CP9008

Technical data

ExtendedController CR0232	
Housing	closed metal housing with flange fastening
Device connection	AMP connector 55 poles latched, protected against reverse polarity
Protection	IP 67
Operating voltage [V DC]	10...32
Current consumption [mA]	≤ 320
Temperature range [°C]	-40...85
Display	RGB LED
Controller	Infineon TriCore 1796
Number of inputs (can be configured)	
digital (positive / negative sensor signals)	32
analogue (0...10 / 32 V, 0...20 mA, ratiometric)	
Frequency (≤ 30 kHz)	
Number of outputs (can be configured)	
digital, positive / negative switching	32
PWM output (8 x 4 A, 8 x 2 A)	
current-controlled (8 x 4 A, 2 A)	
Outputs digital (2 A)	16
Voltage output 5/10 V DC, 400 mA	1
Interface	4 x CAN 1 x RS 232 1 x virt. COM port (USB)
Supported CAN protocols	CANopen (CiA DS 301 V4.01 and DSP 306) SAE J 1939
Program memory [MB]	1.25
Data memory RAM [kB]	256
Data memory FRAM (non-volatile) [kB]	48
Data memory non-volatile [kB]	4
Data memory Auto save [kB]	4
Programming software	CoDeSys V2.3
Standards and tests (extract)	CE, e1 (RL 2006/28/EC), BN 411 002