



Systems for mobile machines

Real-time clock with CAN interface



Diagnostic and service units



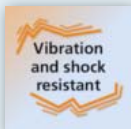
Automotive relay housing keeps size down

CAN to communicate with the controller

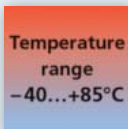
Integrated alarm output

Predefined CODESYS function blocks for easy integration

Robust design for mobile applications



Vibration and shock resistant



Temperature range
-40...+85°C



Real-time measurement for mobile machines

The exact system time is an important function for many mobile applications. While in large and complex machines this task is often fulfilled by the central display, up to now, there was no affordable solution for mobile applications when it came to small and compact machines.

In its compact automotive relay housing, the CANrhc real-time clock can offer this functionality. Its parameters can be set via the CAN bus while it provides the current time and date. Via an integrated alarm output, it is possible to execute functions such as starting the machine controller.

For the CANrhc, a software library of the CODESYS software is available that is compatible with IEC61131-3. This makes it particularly easy to quickly implement the application software.



Functions and advantages

The compact real-time clock is an ideal add-on both for control systems in small and compact machines and complex process controllers of big machines.

- **Mechanical design**

The compact housing of the electronics is equipped with an ISO 7588 blade arrangement providing all necessary connections.

These are easy to handle and available all over the world. The CANrtc can also be used in areas that are exposed to splashing water due to an increased protection rating if installed in connection with the BasicRelay CR0421 and the corresponding module cover.

- **Powerful electronics**

The electronics are optimally adapted to the application. The integrated buffer battery reliably bridges any supply voltage interruptions. At a freely adjustable point of time, the alarm output activates a connected consumer or the system electronics.

- **Programmable to IEC 61131-3**

The CODESYS software enables a clear and easy creation of the application software for the user. For the CANrtc real-time clock, a library with the necessary functions for parameter setting and communication is available.

The parameters can be set and read via the user program. The RTC data is also available to other bus participants via the open CANinterface.

Products

Description	Order no.
CAN real-time clock – CANrtc	CR3020
BasicRelay locations for 6 automotive relays and 10 automotive fuses (6.3 mm), 2 supply rails and 6 power distributors, freely wirable	CR0421
Contact set for BasicRelay CR0421, wirable, utilising all connections to a BasicController relay	EC0457
Cover for BasicController CR04xx and BasicRelay CR042x, incl. cable seal	EC0401
CAN programming interface CANfox	EC2112
Adapter set CAN/RS232 for CANfox	EC2113
CODESYS programming software, German	CP9006
CODESYS programming software, English	CP9008

Technical data

CAN real-time clock – CANrtc	
Housing	Plastic
Device connection	6.3 mm flat-pin connector with a blade arrangement to ISO 7588 (can be used for example with BasicRelay CR0421 or automotive relay holder)
Protection rating, in connection with BasicRelay CR0421 and cover EC0401	IP 20 IP 54
Operating voltage [V DC]	8...32
Current consumption [mA]	6 (at 24 V DC)
Temperature range	
Operation [°C]	-40...85
Storage [°C]	-40...85
CAN interface	125 kbit/s / 250 kbit/s / 500 kbit/s (Default: 250 kBit/s), CAN Layer 2
Output	Semiconductor output, Positive switching (high side) Short-circuit and Overload protection
Switching voltage / switching current	U _B – max. 1.5 V DC / ≤ 2 A
Indication	1 x status LED (green)
Programming	CODESYS (IEC 61131-3) or CAN Layer 2 commands
RTC format	Day / month / year / hour / minute / second / day of the week
RTC accuracy	± 2 s/day (at 25°C)
RTC battery life	≤ 15 years (cannot be replaced)
Standards and tests	For further information, please refer to the data sheet: www.ifm.com