

CAN Newsletter Online

I/O MODULE

Speeding up communication with CANopen FD

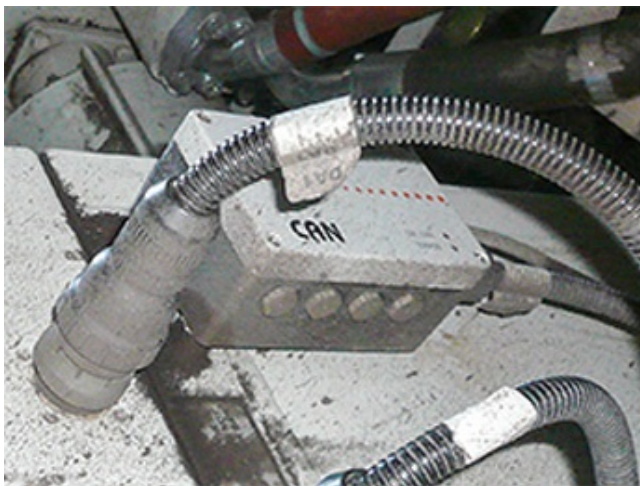
Microcontrol enhanced the μ CAN-Box I/O modules. The eight-channel digital I/O module supports dynamic CANopen FD PDO (process data object) mapping.



μ CAN-Box I/O modules offer CAN FD connectivity (Source: Microcontrol)

The I/O modules link the digital and analog I/O signals to the CAN (FD) network. Connection of analog I/Os, sensor inputs (Pt100 to Pt1000, thermocouples, strain gauges), digital I/Os, PWM outputs, as well as counter and frequency measurements are possible. Supported higher-layer protocols include CANopen, J1939, and diverse customer-specific variants.

In the eight-channel digital I/O module, the change from Classical CANopen mapping to CANopen FD mapping is done via a DIP switch. This allows to have an up to ten times faster PDO communication between the network participants. Device's node-ID and the bit-rate are set via a slide-switch or via the CAN (FD) network. The four-channel analog output module also offers dynamic PDO mapping. The scaling of the analog values was enhanced. The included CANopen Bootloader facilitates initial start-up of the devices. The CAN (FD) communication state is shown via two integrated LEDs.



The modules can be installed directly at the signal source e.g. on a dump truck (Source: Microcontrol)

The electronic system of the I/O module is packed in an IP66-rated aluminum casing protecting it from dust and water. Operating temperature can range from -40 °C to +85 °C. The modules can be installed directly at the signal source, installation of an additional switching cabinet is not necessary. Typical applications include construction machinery, cranes, off-road and heavy-duty vehicles, tractors, combine harvesters as well as wind and solar power plants.

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