

DIGITAL I/O DEVICE

Support for CANopen FD and CANopen

Peak-System Technik and Emsa (Embedded Systems Academy) have jointly developed I/O devices with eight digital inputs and eight outputs.



The PCAN-MicroMod FD DR-1 device supports CANopen FD and classic CANopen communication (Source: Peak-System Technik)

The I/O device comes in a DIN-rail mountable housing with screw terminal strips. The eight digital inputs and eight digital outputs are galvanically isolated from the power supply. The isolation voltage is specified as 100 V. The digital inputs comply with the IEC 61131-2 and have a Type 3 characteristic. The digital outputs on high-side switch basis can be loaded up to 500 mA each. Mechanisms such as thermal protection, short-circuit detection, and open-load detection increase the reliability of the outputs.

The CAN FD interface enables classic CANopen (CiA 301) and CANopen FD (CiA 1301) communication. The CANopen FD protocol implementation is under certification by CAN in Automation (CiA). All CANopen FD devices must pass the conformance test by the non-profit association. For the Classic CANopen interface this is not a requirement.

The user can select the node-ID and the bit-timing by means of rotary switches. It is possible to run either the CANopen FD or alternatively the Classic CANopen protocol stack. CANopen FD uses instead the SDO (service data object) protocol the USDO (universal SDO) protocol. The purpose of both protocols is to access the object dictionary of a CANopen (FD) device.

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