

PCAN-Repeater DR

CAN and CAN FD Repeater for the Decoupling Bus Segments

The PCAN-Repeater DR establishes a galvanic isolation of up to 5 kV within a High-speed CAN bus. Both CAN ports are decoupled from each other and from the power supply. All message traffic including error frames is forwarded 1:1 between both ports. The PCAN-Repeater DR behaves passively and is transparent from the perspective of the CAN bus. LEDs display the current bus status.

The PCAN-Repeater DR finds application in the realization of long stub lines or the galvanic isolation of two CAN bus segments. With its DIN rail casing and extended temperature range support, it is suitable for use in an industrial environment. The PCAN-Repeater DR can be used in CAN FD buses with data bit rates up to 4 Mbit/s and nominal bit rates up to 1 Mbit/s.

Please note: Due to the CAN protocol, the maximum length of a CAN bus depends on the bit rate. Therefore, a bus cannot be extended with the PCAN-Repeater DR. The physical total length of the CAN bus is reduced with each built-in PCAN-Repeater DR according to its signal delay.



Specifications

- ☐ Two High-speed CAN ports (ISO 11898-2)
- ☐ Bit rates from 5 kbit/s up to 1 Mbit/s
- ☐ Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- ☐ NXP PCA82C251 CAN transceiver
- ☐ Suitable for the use in CAN FD buses with data bit rates up to 4 Mbit/s and nominal bit rates up to 1 Mbit/s
- ☐ Connections for CAN and power supply via 4-pin screw terminal block (Phoenix)
- ☐ LEDs display CAN bus load and CAN errors (only for CAN 2.0 A/B)
- ☐ Each CAN port can be selectively terminated
- ☐ Galvanic isolation rated up to 5 kV according to IEC 60601-1, between both CAN ports and between CAN and power supply
- ☐ Plastic casing (width: 22.5 mm) for mounting on a DIN rail (DIN EN 60715 TH35)
- ☐ Voltage supply from 8 to 30 V
- ☐ Extended operating temperature range from -40 to +85 °C (-40 to +185 °F)

Ordering information

Designation	Part No.
PCAN-Repeater DR	IPEH-004038

Scope of supply

- ☐ PCAN-Repeater DR in DIN rail plastic casing
- ☐ 3 mating connectors for power supply and CAN connections
- ☐ Manual in PDF format

Accessories: PCAN-Adapter D-Sub for DR Products optionally available (details on page 114).