

# Digital optical transmission system DOtech Type C (CAN-HS)

## Technical specification



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## Principle of transmission

The digital optical transmission system DOtech Type C (CAN-HS) consists of two identical transceiver circuits interconnected by two optical fibres. The supply is provided by the internal, rechargeable battery.

### **Only charge the internal battery with the original delivered charger!**

The system serves for the bidirectional, non-reactive and potential free optical transmission of digital CAN signals (according to ISO 11898) in harsh electromagnetic environments and for bus simulations during emission tests.

## Technical data

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### System

|                                  |   |
|----------------------------------|---|
| - Transceivers:                  | Two identical transceivers, interchangeable<br>Transmitter and receiver are usable on different voltage levels  |
| - Transmission capability:       | Up to 1 MBd according ISO 11898   |
| - Guaranteed susceptibility:     | @ $\hat{E} \leq 400 \text{ V/m}$ @ $f_{\text{Susceptibility}} \geq 1 \text{ MHz}$<br>@ $\hat{I} \leq 400 \text{ mA}$ @ $f_{\text{Susceptibility}} \geq 1 \text{ MHz}$ |
| - Bus impedances HS-CAN:         | Selectable by switch: 60 Ohm, 120 Ohm or open   |
| - Input transceiver capacitance: | $C_{\text{in, typ}} = 100 \text{ pF}$   |
| - Housing:                       | Aluminium, connected to ground  |
| - Housing dimensions:            | 80 x 80 x 45 mm   |
| - Electrical connectors:         | CAN-H female connector (4 mm), green<br>CAN-L female connector (4 mm), yellow   |
| - Charging connectors:           | + female connector (2 mm), red<br>- female connector (2 mm), black  |
| - Optical connectors:            | RX receiver input<br>TX transmitter output  |
| - Ambient temperature:           | 0°C – 70°C  |

- Storage temperature: -20°C – 85°C
- „On“-indication:
  - 3 LED's: fully charged
  - 2 LED's:
  - 1 LED: only some minutes operation time left or “off”
- Transmission LED's Shows data traffic at RX/TX
- Applicable to:
  - Immunity tests according to ISO 11452-x,
  - ESD according to DIN EN-61000-4-2, ISO 10605
  - Emission tests according CISPR 25, 22

### **Fiber optics**

- Style: Duplex multimode 62,5/ 125 µm
- Connectors (RX and TX): FSMA
- Maximum length of optic fibre: may not exceed 20 m!