
# CAN Repeater CRep DS102

## Special Features

- Short propagation delay
- Small and robust construction, completely enclosed into epoxy resin
- Screw mounting or installation in cable channel

## Description

The compact CAN repeater CRep DS102 transmits and amplifies CAN signals in a protocol transparent way. Both CAN connections behave like one single physical CAN node. CRep DS102 allows the design of flexible wiring topologies. Star and tree structures as well as stub lines can be realized. By selection of the most favorable network topology for the application needs the installation costs can be lowered.

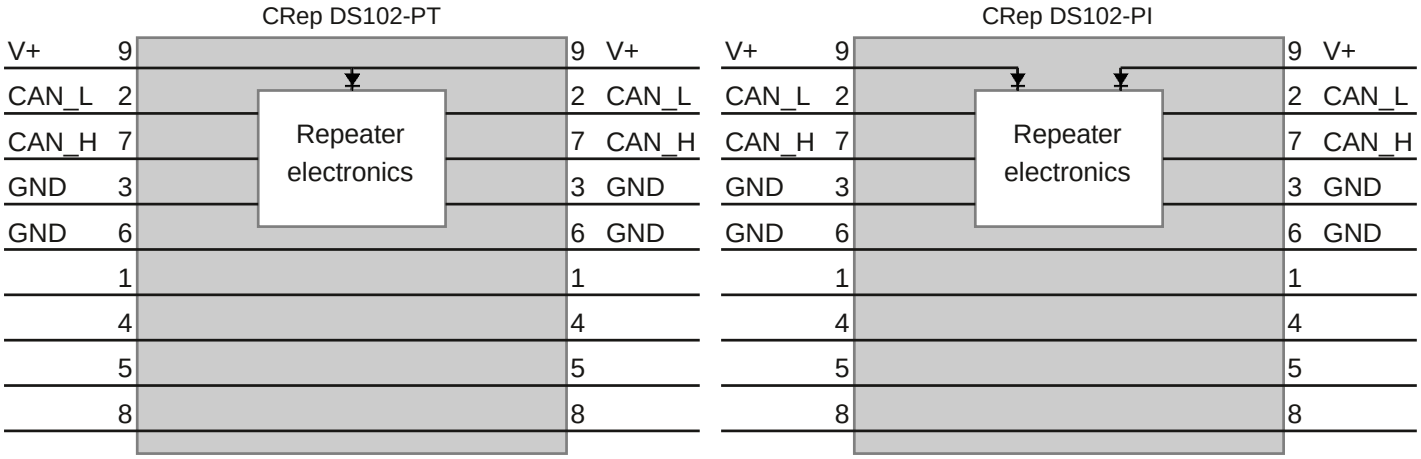
The maximum data rate can be increased by use of CRep DS102 and a suitable network structure. An increase of the number of nodes in a CAN network is possible through separation into sub networks, each of them connected by CRep DS102. Each sub network can manage a maximum number of CAN nodes only restricted by the transceiver driver capabilities. With transmission over long distances CRep DS102 allows signal recovering.

# Technical Data

## Layout and Connection

CRep DS102 devices include two CAN segments fed to a male and a female plug of type D-Sub9.

The following table shows the internal connections:




## Limiting Values

| Parameter | Minimum | Maximum | Unit |
|---|---|---|---|
| Storage temperature | -20 | +80 | °C |
| Operating temperature | 0 | +60 | °C |
| Supply voltage | -100 | +16 | V |
| Voltage on the bus connections | -30 | +30 | V |
| Current over ground (Pins 3, 6) | -2 | +2 | A |
| Current over signal lines (Pins 1, 4, 5, 8) | -500 | +500 | mA |
| Admissible power consumption (at 60 °C) | - | 1000 | mW |

Any (also temporary) stress in excess of the limiting values may cause permanent damage on CRep DS102 and other connected devices. Exposure to limiting conditions for extended periods may affect the reliability and shorten the life cycle of the device.

## Nominal Values

| Parameter | Minimal | Typical | Maximal | Unit |
|---|---|---|---|---|
| Current consumption (running idle) | - | 68 | - | mA |
| Current consumption (250 kBits/s, 100 % Buslast) | - | 98 | - | mA |
| Supply voltage | +7 | - | +14 | V |
| Propagation delay | - | 100 | 175 | ns |

All values, unless otherwise specified, refer to a supply voltage of 12 V and an environmental temperature of 20°C.

# Scope of Delivery

- CAN repeater CRep DS102
- User manual