

## Ixxat CAN-CR210/FO

Item number: 1.01.0068.45010

The Ixxat CAN-CR210/FO repeater with two CAN interfaces, one of which is a Fiber Optic interface (FSMA plug), enables the conversion of CAN signals from copper wire to fiber optics. It enhances connectivity in high-electromagnetic interference zones and provides the flexibility to optimize network structures. With integrated CAN backbone interface.



*CAN repeater with fiber optics (F-SMA) and backbone bus*

### Features and benefits

- ✓ **Robust industrial use**  
Designed for industrial environments, meeting high demands for robustness, temperature ranges, and safety.
- ✓ **Fast and transparent operation**  
Minimal impact on real-time behavior, equivalent to a short line length (ca. 60 m/300 ns delay). Enabling transparent transmission, compatible with all higher layer protocols.
- ✓ **Enhanced network reliability**  
Higher system reliability by electrically isolating CAN segments and power up to 1 kV. This enhances the protection of the device against damage to electronics caused by voltage peaks.
- ✓ **Robust fiber optic interface**  
Fiber optic ensures uninterrupted data transmission in high-electromagnetic disturbance zones, enabling enhanced connectivity for critical applications and high performance.
- ✓ **Integrated bus termination resistors**  
Integrated bus termination resistors (120 Ohm, switchable via DIP switch) prevent reflections on the line ends and ensure optimum communication.
- ✓ **Flexibility in CAN network design**  
Helps to optimize CAN network structures by enabling extended layouts (stub lines, star and tree topologies).
- ✓ **Cost savings due to simple wiring**  
Optimized topologies enable simpler wiring, resulting in less cables and cost savings at installation and maintenance.
- ✓ **Network monitoring and fault recovery**  
In case of disturbances, the repeater automatically disconnects the affected segment and restores it after the fault is resolved.
- ✓ **Backbone bus for simplified network expansion**  
To achieve tree or star topologies, multiple repeaters can be easily connected in series through the integrated backbone bus.



## General

|                                                |                                   |
|------------------------------------------------|-----------------------------------|
| Net Width (mm)                                 | 100                               |
| Net Height (mm)                                | 120                               |
| Net Depth (mm)                                 | 22.5                              |
| Net Weight (g)                                 | 122                               |
| Packed Width (mm)                              | 14                                |
| Packed Height (mm)                             | 4                                 |
| Packed Depth (mm)                              | 18                                |
| Packed Weight (g)                              | 203                               |
| Operating Temperature °C Min                   | -20                               |
| Operating Temperature °C Max                   | 70                                |
| Storage Temperature °C Min                     | -40                               |
| Storage Temperature °C Max                     | 85                                |
| Relative Humidity                              | 10 to 95 %, non-condensing        |
| Current Consumption Type Value at Vcc Nom (mA) | 62                                |
| Current Consumption Max value at Vcc nom (mA)  | 100                               |
| Input Voltage (V)                              | +9 V to +32 V DC                  |
| Isolation                                      | 1 kV DC for 1 sec.                |
| Content of Delivery                            | CAN repeater, user manual         |
| Mounting                                       | DIN rail mount (bracket included) |



## General

|                    |                                             |
|--------------------|---------------------------------------------|
| Housing Materials  | Polyamide housing for top hat rail mounting |
| Packaging Material | Cardboard                                   |
| Warranty (years)   | 1                                           |

## Identification and Status

|                   |                 |
|-------------------|-----------------|
| Product ID        | 1.01.0068.45010 |
| Country of Origin | Germany         |
| HS Code           | 8517620000      |
| Dual Usage        | No              |

## Physical Features

|                                |                                                                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fiber Optic Line Specification | Multi mode fiber optic cables (only glass); Recommended: 50/125 µm, 62.5/125 µm, also compatible with: 100/140 µm, 200 µm (consider max. line length) |
| Connectors / Input / Output    | 1 x D-Sub 9 connector, 1 x backbone bus, 2 x F-SMA connector, 1 x power connector                                                                     |
| Contains Battery               | No                                                                                                                                                    |

## CAN Features

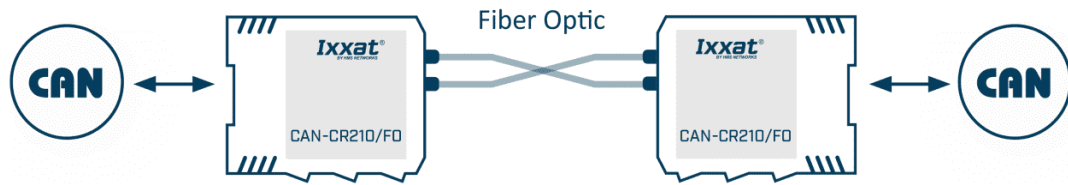
|                 |                                             |
|-----------------|---------------------------------------------|
| CAN Mode        | CAN high-speed (ISO 11898-2) with CAN choke |
| CAN Transceiver | TI SN65HVD251                               |
| CAN Baud Rate   | Up to 1 Mbit/s                              |

## Certifications and Standards

|                        |                                     |
|------------------------|-------------------------------------|
| Protection Class IP    | IP30                                |
| Product Certifications | CE, FCC                             |
| WEEE Category          | IT and telecommunications equipment |



## Use Case



Fiber optic CAN repeaters enable the bridging of interference-intensive routes using optical lines. They enable complete galvanic decoupling of segments and offer high protection against overvoltage.