

Ixxat CAN-CR110/FO

Item number: 1.01.0210.11220

The Ixxat CAN-CR110/FO repeater with two CAN/CAN FD interfaces, one of which is a Fiber Optic interface, 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.



CAN/CAN FD repeater with fiber optics

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/CAN FD 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.
- ✓ **Flexibility in CAN FD network design**
Helps to optimize CAN/CAN FD 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.



General

| | |
|------------------------------------------------|-----------------------------------|
| Net Width (mm) | 105 |
| Net Height (mm) | 120 |
| Net Depth (mm) | 22.5 |
| Net Weight (g) | 180 |
| Packed Width (mm) | 13 |
| Packed Height (mm) | 5 |
| Packed Depth (mm) | 17 |
| Packed Weight (g) | 261 |
| 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) | 70 |
| Current Consumption Max value at Vcc nom (mA) | 100 |
| Input Voltage (V) | +9 V to +36 V DC |
| Isolation | 1 kV DC for 1 sec. |
| Content of Delivery | CAN FD 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 | 1.01.0210.11220 |
| Country of Origin | Germany |
| HS Code | 8517620000 |
| Dual Usage | No |
| Export Control Classification Number (ECCN) | EAR99 |

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 screw terminal, 1 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 Baud Rate | Up to 1 Mbit/s |

CAN FD Features

| | |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| CAN FD Mode | ISO CAN FD, nonISO CAN FD |
| CAN FD Transceiver | MCP2562FD |
| CAN FD Baud Rate | Arbitration rate up to 1000 kBit/s, data rate up to 8000 kBit/s (verified by testing). User defined bit rates are possible. |

Certifications and Standards

| | |
|---------------------|----------|
| | Yes |
| Protection Class IP | IP20 |
| ETIM Classification | EC000698 |

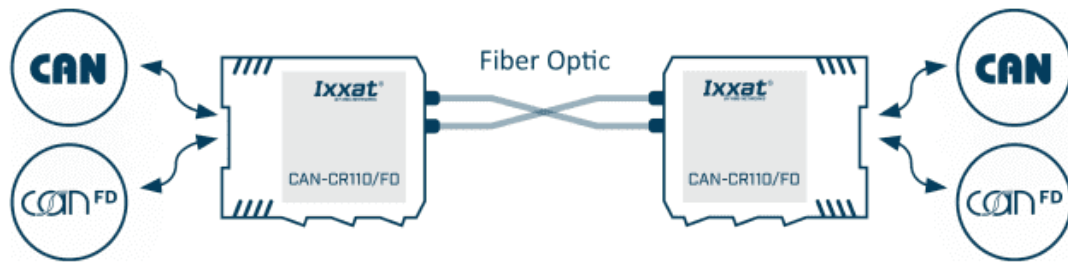


Certifications and Standards

| | |
|---------------|-------------------------------------|
| CE | Yes |
| FCC | Yes |
| WEEE Category | IT and telecommunications equipment |



Use Case



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