## OPTIrep

### Function

DThe PROFIBUS fiber optic converters of the **OPTIrep** series are used for connecting PROFIBUS segments via fiber optic cables with a distance up to 30 km. The system can be used for line structures as well as for redundant ring structures.

The integrated diagnosis of the fiber optic cables signals the quality of the connection similar to a traffic light via LED. If the "traffic light" is green, everything is fine. If the yellow LED lights, the power budget is still tolerable, but already below a defined limit value. This warning stage and other faulty states are also signalled by potential-free contact.

### Technical data

| | |
|---|---|
| • Baud rate: | 9,6 kbps to 12 Mbps |
| • PROFIBUS Connection: | 1 x SUB-D 9-pin |
| | 1 x 6-pin connection terminal |
| • FO Connection: | 1-2 SC or ST |
| • Fiber type: | Singlemode 9/125 µm |
| | Multimode 62,5(50)/125 µm |
| FO range: | Singlemode 30km (0,3dB/km) |
| | Multimode 5km (1dB/km) |
| Wavelength: | Multimode 1300 nm |
| | Singlemode 1310 nm |
| Voltage supply: | 12 - 30 VDC |
| Power supply: | 300 mA |
| power loss: | 5W |
| Protective system: | IP20 |
| Operating temperature: | -40 °C bis +70 °C |
| Storage temperature: | -40 °C bis +85 °C |
| Dimensions (H x W x D): | 120 x 60 x 113 mm |
| Weight: | 570g |
| Installation: | 35 mm DIN top-hat rail |

### Function of the DIP-Switch

| | |
|---|---|
| • SW1 to SW3 : | PROFIBUS termination between "A" and "B" |
| • SW4: | enable optical ring |
| • SW5: | Fiber Port CH3 disable |
| • SW6: | Fiber Port CH2 disable |

### Function of the Status-LEDs

| | | |
|---|---|---|
| 🟢 | PWR: | Power Supply at VDC1 or VDC2 |
| 🔴 | FAIL: | Failure group signal and failure relay opened |
| 🔴 | STA: | No data rate detected yet or bus-error |
| 🟢 | RX: | Data being received |
| 🔴 | FAIL: | Received optical signal failed |
| 🟡 | LMT: | System reserve reached |
| 🟢 | LNK/ACT: | Transmitting or receiving data |



**OPTIrep F2**

### Fehlerrelais

| | | |
|---|---|---|
| • K1: | No failure |
| • K2: | Input signal voltage |
| • K3: | Optical connection is disconnected or no power supply |
| • K4: | not connected |

### Explanation of the description

Example: *OPTIrep F1 MM-ST*

• Number of FO connections:
  F1 = 1 connection
  F2 = 2 connections

• Fiber type:
  SM = Single Mode
  MM = Multimode

• Fiber-connector:
  SC = SC-Connector
  ST = ST-Connector

| Ordering details | Art. No. |
|---|---|
| **OPTIrep F1 MM-ST** | **110031000** |
| **OPTIrep F2 MM-ST** | **110031001** |
| **OPTIrep F1 SM-ST** | **110031002** |
| **OPTIrep F2 SM-ST** | **110031003** |
| **OPTIrep F1 MM-SC** | **110031010** |
| **OPTIrep F2 MM-SC** | **110031011** |
| **OPTIrep F1 SM-SC** | **110031012** |
| **OPTIrep F2 SM-SC** | **110031013** |

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