



CAN-LWL-Router CG FL

Special Features

- Optical fibre based router for connection of CAN subnets
- Overcomes the relationship of cable length to data rate for the complete system
- Fiber length up to 1km (CG-FL1000) or 4km (CG-FL4000)
- Different baud rates in subnets possible
- Switchable termination resistor

Description

The router CG FL, fitted in a compact housing with integrated connector, transmits data between CAN subnets via optical fibre.

It allows the realization of high CAN data rates on the copper based segments while high system extension and short latency times are achieved at the same time.

The underlying technology offers the possibility to run the subnets on both ends with 1000kbit/s, earning the benefits of short reaction times and high data throughput.

Safety related control with SafetyBUS p is supported by the model SBR FL (see picture). This model has automatic baud rate detection and baud rate switching capability compliant with the SafetyBUS p standard.

Technical Data

Layout and Connection

CG FL has a male and a female D-Sub-9 connector to attach both CAN and power supply. The optical fibre is connected by a pair of ST plugs. 62.5/125µm or 50/125µm multi mode glass fibers can be used.

Limiting Values

| Parameter | Minimal | Maximal | Unit |
|--------------------------------|---------|---------|------|
| Storage temperature | -20 | +80 | °C |
| Operating temperature | 0 | +60 | °C |
| Operating voltage (CG FL) | -100 | +30 | V |
| Operating voltage (SBR FL) | 0 | 7 | V |
| Voltage on CAN bus connections | -30 | +30 | V |

Any (also temporary) stress in excess of the limiting values may cause permanent damage on CG FL 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 | n.s. | 30 | n.s. | mA |
| Operating voltage (CG FL) | 10 | 24 | 30 | V |
| Operating voltage (SBR FL) | 4,6 | 5 | 6,5 | V |
| Optical damping (CG FL/1000, SBR FL/1000) | n.s. | n.s. | 7 | db |
| Optical damping (CG FL/4000, SBR FL/4000) | 2 | n.s. | 12 | db |
| Switchable termination resistor | n.s. | 125 | 200 | Ω |
| Admissible fibre length (CG FL/1000, SBR FL/1000) | n.s. | 1000 | n.s. | m |
| Admissible fibre length (CG FL/4000, SBR FL/4000) | n.s. | 4000 | n.s. | m |

All values, unless otherwise specified, refer to a supply voltage of 24V (CG FL) or 5V (SBR FL) and an environmental temperature of 20°C. Fibre length specifications are valid for fibre damping of 3dB/km without additional patch panels.

Scope of Delivery

- CAN-LWL-Router CG FL or SBR FL
- User Manual