



OPTopus PROFIBUS Optical Link

BFOC, 650 nm, POF/PCF

- PROFIBUS transmission rates (9.6 kbps to 12 Mbps) are automatically detected
- Compact design, not larger than a Helmholz PROFIBUS connector
- Display of traffic/bus errors separately for the FO and PROFIBUS segment
- Switchable terminating resistor with optical display
- Complete electrical isolation
- Insensitive to EMC influences
- No 24 V voltage supply required
- Suitable for POF** and PCF*-FO
- Cable length POF** 65 m
- Cable length PCF* 250 m
- POF**-FO connectors included
- With BFOC*** interface

Due to the optical signal transmission, it offers complete electrical isolation between the PROFIBUS participants and PROFIBUS subnets. Another advantage of OPTopus is the insensitivity to EMC influences. Due to the compact design, no additional space is needed in the control cabinet, as it can be used instead of a PROFIBUS connector and is simply plugged into a participant on the PROFIBUS network. No separate power supply is required, as the OPTopus uses the 5 V power supply, which every PROFIBUS device makes available for the terminating resistor. The transmission signals are converted into optical signals by the OPTopus and are transmitted on the fiber-optic link; in addition, they are also regenerated with slope, level, and duty cycle. The OPTopus is available with 3 different optical interfaces and is therefore perfectly compatible with existing transmission systems. It is suitable for POF** and PCF*-FO. For the short range up to 65 m, an optical transmission link can be established very quickly and without much effort using the POF**. For this purpose, the matching connector is included with the OPTopus. All that is needed is a standard POF**-FO. For longer distances up to 250 m, PCF* FO can be used. The optical interface of the OPTopus sends in the visible range (650 nm red light), which allows an initial check of the optical transmission link without expensive instruments. The OPTopus also offers the advantages of a normal repeater, such as: Bus extension, increasing the number of participants and expanding the system. Use in MPI networks is also possible. As a special application option, the OPTopus allows the setup of stubs as separate segments. For this it can be plugged directly into the PG connection of an existing PROFIBUS connector. For diagnostic purposes, the OPTopus has one Traffic and one Error LED for the PROFIBUS interface, along with one of each for the optical interface. In this way you are always informed about the bus state, and targeted troubleshooting is ensured. There is also a Power LED that provides information about the operating state and the status of the terminating resistor.

Technical specifications

General information	
Order number	700-992-1AA01
Article name	OPTopus, PROFIBUS Optical Link, BFOC, 650 nm, POF/PCF
Scope of delivery	OPTopus, instructions, POF connectors
Dimensions (DxWxH)	64 x 40 x 17 mm

Weight	Approx. 40 g
PROFIBUS interface	
Number	1
Protocol	PROFIBUS-DP
Transmission rate	Max. 9.6 ... 12 Mbps, autom. detection
Connection	SUB-D connector, 9-pin
Optical interface	
Wavelength	650 nm
Numerical aperture of the transmitting diode	0.50
Integrable optical power receiver sensitivity POF ¹ 980/1000 µm	-7.5 dBm/-20 dBm
Integrable optical power receiver sensitivity PCF ¹ 200/230 µm	-18 dBm/-22 dBm
Overdrive limit of the receiver	-3 dBm
Bridgeable distance POF ¹ 980/1000 µm (160 dB/km)	0 ... 65 m
Bridgeable distance PCF ¹ 200/230 µm (10 dB/km)	0 ... 250 m
Status indicator	3 LEDs, 4-color
Voltage supply	+ 5 V DC
Current draw	typ. 100 mA with DC 5 V
Ambient conditions	
Ambient temperature	0 °C ... +60 °C
Transport and storage temperature	-25 °C ... +75 °C
Pollution degree	2
Protection rating	IP20
Certifications	CE
CE	
RoHS	Yes
REACH	Yes