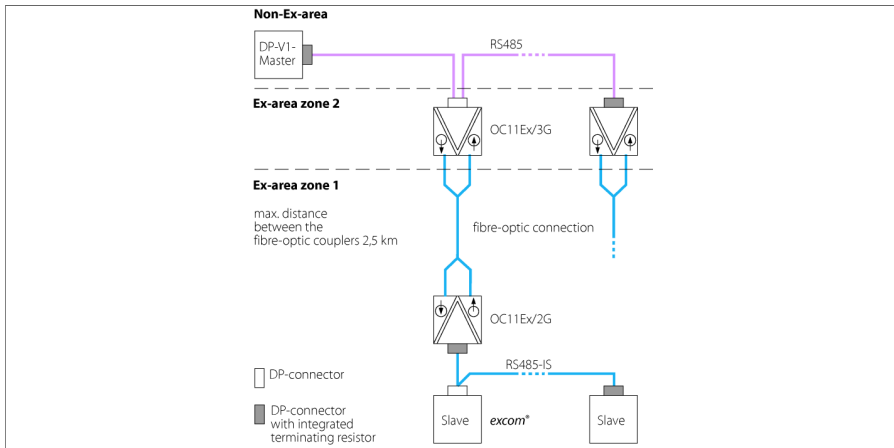


excom I/O System

PROFIBUS-DP – Fiber-Optic Coupler for Zone 2

OC11EX/3G.2



The optocoupler OC11Ex/3G.2 converts the PROFIBUS-DP signals into optical signals. The bus signals can therefore be transmitted from the safe area to the Ex area over long distances without potential or interference. When using fiber-optic cables, the maximum baud range is 2500 m for OM1 (62.5/125- μ m) cables and 1500 m for OM2 (50/125- μ m) cables.

The optocoupler can be installed in the non-Ex area or in zone 2. The OC11Ex/3G.2 receives the PROFIBUS-DP signals at its standard interface RS485 and transmits them via the intrinsically safe optical interface to the optocoupler OC11Ex/2G.2 in zone 1.

The optocoupler OC11Ex/3G.2 is equipped with

- RS485 interface – standard PROFIBUS-DP interface with RS485 level acc. to EIA 485 (the control cable for direction control is not connected)
- intrinsically safe optical interface with ST connectors for emitter and receiver

Up to 31 bus nodes can be connected to the fiber-optic coupler. Baud rates of 9.6 kbps up to 1.5 Mbps are possible or will be automatically detected.

For diagnostic purposes there are four status LEDs that indicate power ON, fiber-optic segment, RS485 interface and baud rate. The device features an M8 communication interface. Two OC11Ex devices can be coupled together via the M8 interface. Wire-break and short-circuit are not transmitted from one segment to the next one. All segments can thus be operated trouble-free and independently of one another.

In order not to limit the number of nodes and cable length of a PROFIBUS-DP segment, amplitude and phase are reproduced in the coupler. The user can choose between capacitive and direct earthing.

- Device for data transmission between electrical and optical fieldbus circuits
- Power supply of max. 31 nodes
- OM1 (62.5/125) for transmitting data over distances up to 2500 m
- OM2 (50/125) for transmitting data over distances up to 1500 m
- Mounting in zone 2 allowed
- Note: Idle level corresponds to active light!

Dimensions

Type	OC11EX/3G.2
ID	6890428
Nominal voltage	24 VDC
Operating voltage U_o	18...32 VDC
Current consumption	100 mA
Galvanic isolation	Complete galvanic isolation acc. to EN 60079-11
Number of channels	1

Transmission rate	9.6 kbps up to 1.5 Mbps
Type of optical fiber	Multimode fiber 62.5/125 μ m

Ex approval acc. to conformity certificate	IECEX PTB 16.0002X
Ex approval acc. to conformity certificate	PTB 05 ATEX 2052 X
Device designation	Ex II 3(2) G Ex nAc [op is Gb] IIC T4

Displays/Operating elements	
Operational readiness	1 \times green
State/ Fault	2 \times yellow/red
Baud rate detection	1 \times yellow

Housing material	Anodized aluminium
Front plate	FR4, gray
Connection mode	snap-fit on DIN rail (DIN 60715) or wall mounting
Protection class	IP20
Ambient temperature	-20...+70 °C
Relative humidity	\leq 93 % at 40 °C acc. to IEC 60068-2-78
Vibration test	Acc. to IEC 60068-2-6
Shock test	Acc. to IEC 60068-2-27
EMC	Acc. to EN 61326-1 Acc. to Namur NE21
MTTF	442 years acc. to SN 29500 (Ed. 99) 40 °C
Dimensions	72 x 105.5 x 31 mm

Approvals	ATEX cFMus cFM IECEX CCC INMETRO KOSHA EAC Ex DNV GL BV LR KR KCC CE
-----------	---

