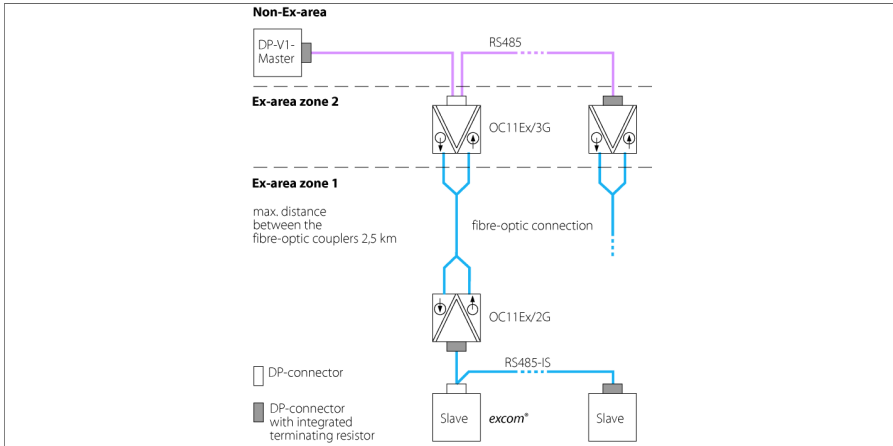


# excom I/O System

## PROFIBUS-DP fiber-optic coupler for zone 1

### OC11EX/2G.2



The optocoupler OC11Ex/2G.2 converts the PROFIBUS-DP signals on copper cables 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- $\mu$ m) cables and 1500 m for OM2 (50/125- $\mu$ m) cables.

The OC11Ex/3G.2 in zone 2 transmits the signals via the optical interface to the OC11Ex/2G.2 in zone 1 which converts them. The signals are then output intrinsically safe at the RS485-IS interface.

The RS485-IS interface is entirely realized according to the PNO PROFIBUS guideline. The optocoupler OC11Ex/2G.2 is equipped with

- intrinsically safe RS485-IS PROFIBUS interface (acc. to the RS485-IS draft worked out by the PNO work group)
- intrinsically safe optical interface with ST connectors for emitter and receiver

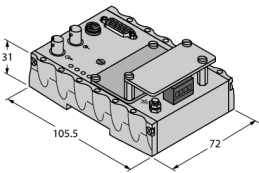
Up to 31 bus nodes can be connected to the fiber-optic coupler. Baud rates of 9.6 kbps up to 1.5 Mbps are possible, or will be automatically detected.

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 OC11Ex/2G.2 shield is always capacitively coupled to the equipotential bonding.

- 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 1 possible
- Note: Idle level corresponds to active light!

Dimensions



Type	OC11EX/2G.2
ID	6890427
Nominal voltage	24 VDC
Operating voltage	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 µm

Ex approval acc. to conformity certificate	IECEX PTB 15.0042X
Ex approval acc. to conformity certificate	PTB 05 ATEX 2051 X
Device designation	II 2 G Ex eb mb [ib op is Gb] IIC T4

Displays/Operating elements	
Operational readiness	1 × green
State/ Fault	2 × yellow/red
Baud rate detection	1 × 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	≤ 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	234 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