

### LWL Ring-coupler

#### Features

- Bridging of great distances
- Noise-immune signal transmission
- Galvanic isolation

#### Configuration

According to topology, it is possible to connect several items of equipment in a ring. A master (item of equipment) needs to be included in the ring. All the other items of equipment should be configured as slaves. The master needs to be connected to the higher level (e. g. control unit).

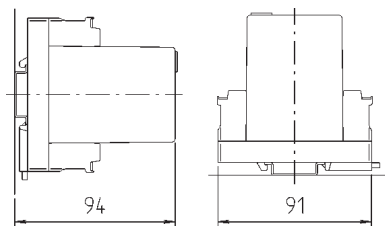
#### Description

The RS485/PROFIBUS LWL Ring-coupler reroutes the PROFIBUS from copper conductors to optical waveguides. The LWL Ring-coupler is a passive bus participant.

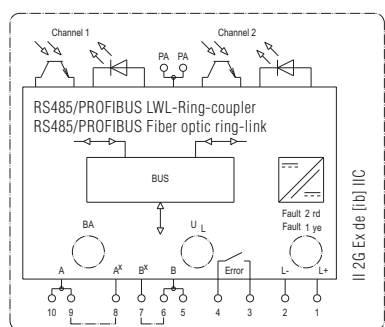
In plants, the LWL Ring-coupler allows the bridging of great distance with PROFIBUS without noise interference.

The electronics for the signal conversion are accommodated in the flameproof MODEX enclosure. Transmitter and receiver for the LWL-coupler are intrinsically safe headed. The intrinsically safe control transmitter and receiver of the electronic system guarantee that the transmitter rate does not go beyond maximum value limits.

#### Dimensions



#### Wiring diagram/terminal assignment



#### Explosion protection

##### Ex protection type

Ex II 2G Ex de [ib] IIC

##### Optical waveguide

##### Transmitter

Ex II 2G Ex ib op is IIC T4

##### Receiver

Ex II 2G Ex ib IIC T4

##### Certification

PTB 97 ATEX 1068 U  
TÜV 99 ATEX 1404 X  
Typ 17-1923-1111/....

Further safety data see EC type examination certificate.

**Technical data****Construction**

Clip-on enclosure to TH 35

**Enclosure material**

High-quality thermoplastic

**Protection class**

minimum IP 20

**Terminals**2.5 mm<sup>2</sup>, fine stranded**Labelling**

front panel label for markings

**Display**

LEDs on front panel

**Storage temperature**

-40 °C to +70 °C

**Ambient temperature**

-25 °C to +60 °C

+70 °C: Result warming up measurement  
otherwise +60 °C**Weight**

600 g

**Electrical data****Supply voltage**

DC 20 V to DC 30 V

**Power consumption dissipation** $P_V = 1.50 \text{ W}$ **Galvanic isolation**

Bus//power supply//optical waveguide

**Bus input/output**

2-wire remote bus with screw terminals

**LWL input/output**FSMA LWL plug-in connectors or  
ST LWL plug-in connectors**Wavelength**

850 nm/glass

**Displays**operation LED green  
active bus LED yellow**Distance**

1400 m; 50.0 µm fibre/glass

2600 m; 62.5 µm fibre/glass

**Guidelines/norms/certifications**

Directive 2004/108/EC

Directive 94/9/EC

EN 60079-0: 2006

EN 60079-1: 2004

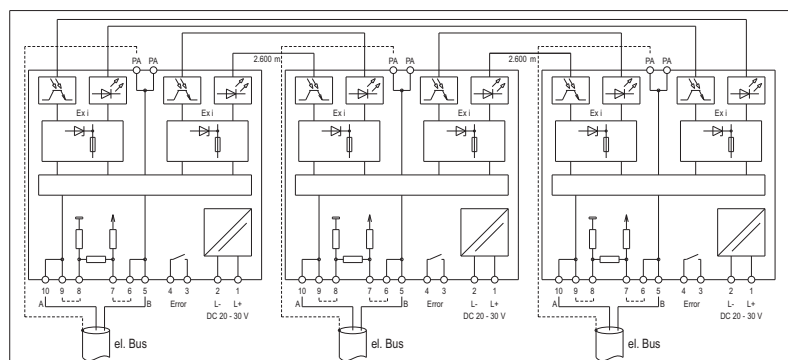
EN 60079-7: 2007

EN 60079-11 2007

EN 60079-28: 2007

EN 61000-6-1: 2002

EN 61000-6-3: 2005

**Examples of LWL Ring-coupler****Order no. LWL-Ring-coupler**

07-7311-97WP/5400

Master/Slave\*

FSMA

07-7311-97WP/5410

Master/Slave\*

ST

\*is configure through an electrical bridge at the terminal Master/MA

Technical data subject to change without notice.