



PROFIBUS Coupler



PROFIBUS Repeater

Features

- Time flow refresh signal
- PROFIBUS coupler/PROFIBUS repeater also for hazardous areas of zone 1.
- Galvanically isolated bus segments for PROFIBUS-DP and PROFIBUS-IS.
- Availability of couplers for PROFIBUS-DP as well as for PROFIBUS-IS (intrinsically safe).

Description

The PROFIBUS couplers and PROFIBUS repeaters have been particularly dimensioned for the industrial requirements of hazardous areas of zone 1.

PROFIBUS couplers and PROFIBUS repeaters are used for the separation or generation of new segments, converting the RS485 typical line structure into an open and flexible tree structure. Downstream stations can be coupled to and decoupled from the superior bus system in a non-reactive and break/short-circuit tolerant manner, even during running bus operation.

The devices facilitate a duplication of the signal to realize a redundant connection to a master.

The devices are available as PROFIBUS-DP and as PROFIBUS-IS (intrinsically safe).

Module tasks:

- Separation of bus segments or generation of new segments
- Creation of complex networks in line, star and tree structures
- PROFIBUS-conforming regeneration of the bus signals in amplitude and time
- Increase of station number
- Segment cascading for range increase
- Provision of intrinsically safe bus segments for Ex i version in acc. with RS485 IS.

Technical data

Construction

Flameproof, clip-on enclosure for TH 35

Enclosure material

High-quality thermoplastics

Protection class

Module IP 66
Terminals IP 20
Terminals with cover IP 30

Terminals

2.5 mm², fine stranded

Labelling

written marking labels

Displays

LED green Operational readiness
LED green/yellow Bus activity

Ambient temperature

-20 °C to +60 °C

Storage temperature

-20 °C to +70 °C

Electrical data

Supply voltage

DC 20 V - 30 V

Nominal current input

max. 70 mA

Operational readiness indication

LED green

RS485 interface

PROFIBUS-DP, PROFIBUS-IS,
DIN EN 61158-2; DIN EN 61784-1

Connection resistance

Ex e	PROFIBUS-DP	Standard
Ex i	PROFIBUS-IS	Standard
Input	manual connectable	
Output	Set	

Data direction switching

automatic

Bus activity

dynamic

Transmission rate Ex e

Kbit/s-	4, 8/9, 6/19, 2/45, 45/93, 75/187, 5/250/375/500/750
Mbit/s-	1.0/1.5/2.0/3.0/6.0/12.0

Transmission rate Ex i

Kbit/s-	4, 8/9, 6/19, 2/45, 45/93, 75/187, 5/250/375/500/750
Mbit/s-	1.0/1.5

Transmission rate switchover

manual



Guidelines/norms/certifications

- Directive 2004/108/EC
- Directive 94/9/EC
- EN 60079-0: 2006
- EN 60079-1: 2004
- EN 60079-7: 2007 (only for Ex i)
- EN 60079-11: 2007
- EN 61000-6-2: 2005
- EN 61000-6-4: 2007

Weight

- Module width 30 mm: 180 g
- Module width 75 mm: 250 g

Dimensions (height x width x depth)

- 94 mm x 30 mm x 91 mm
- 94 mm x 75 mm x 91 mm

Explosion protection

Ex protection type Ex i

II 2G Ex de [ib] IIC

Certification

- PTB 97 ATEX 1068 U
- IBExU05ATEX1074
- Type 17-6583-3...

Ex protection type Ex e

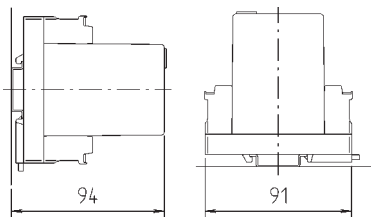
II 2G Ex de IIC

Certification

- PTB 97 ATEX 1068 U

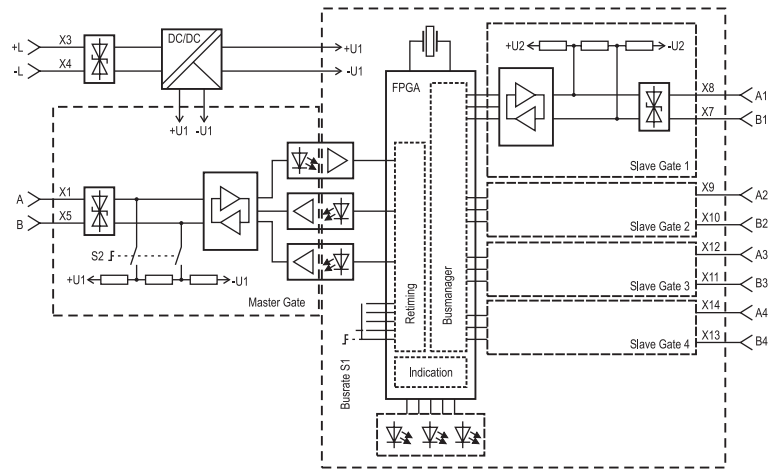
For further data, please refer to the Declaration of EC-Conformity.

Dimensions/Mounting positions



Modul width: 30 mm/75 mm

e. g. function plan for 4 channel, intrinsically safe circuits



PROFIBUS-DP Coupler - increased safe

Name	Options	Module width	Order no.
PROFIBUS-DP Coupler	Ex e, 1 output	30 mm	07-7311-93WP/K1N0
PROFIBUS-DP Coupler	Ex e, 2 outputs	30 mm	07-7311-93WP/K2N0
PROFIBUS-DP Coupler	Ex e, 4 outputs	75 mm	07-7311-97WP/K4N0

PROFIBUS-IS Coupler - intrinsically safe

Name	Options	Module width	Order no.
PROFIBUS-IS Coupler	Ex i, 1 output	75 mm	07-7311-97WP/K1E0
PROFIBUS-IS Coupler	Ex i, 2 outputs	75 mm	07-7311-97WP/K2E0
PROFIBUS-IS Coupler	Ex i, 4 outputs	75 mm	07-7311-97WP/K4E0

PROFIBUS-DP Repeater - increased safe

Name	Options	Module width	Order no.
PROFIBUS-DP Repeater	Ex e, 2 outputs	30 mm	07-7311-93WP/R2N0
PROFIBUS-DP Repeater	Ex e, 4 outputs	75 mm	07-7311-97WP/R4N0

Technical data subject to change without notice.