



Anybus ComBricks 1 Channel PROFIBUS RS485-IS Repeater

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The Anybus ComBricks is the first PROFIBUS based automation system that unites repeaters and permanent monitoring in a web browser. With an evolving industry using more mixed architecture networks, users are able to integrate ComBricks into their PROFINET network via Osiris, allowing to monitor everything from one single cross-platform.

The RS 485-IS barrier is the only available product for remotely monitoring IS segments over Ethernet from the safe zone. Because of the permanent mounting of the barrier, the user does not have to touch the installation anymore. This avoids hot permits and other paper work.

As an alternative it can also be used as a busmonitor on existing IS segments created by 3rd party barriers. The IS barrier can be mixed on the backplane with other ComBricks modules like, the PROFIBUS PA, Fiber Optic and regular RS 485 modules.

The Barrier is intended to be installed outside the hazardous area or in an enclosure with a suitable type of protection. A special IS DB9 PROFIBUS plug is required that contains a terminator defined in the RS 485-IS PROFIBUS Installation Guideline.

Distinctive features

- Intrinsically safe RS 485
- Integrated quality-oscilloscope
- Diagnostic LEDs
- Max busspeed 1.5 Mbps
- 31 devices per channel
- RS 485 IS DB9 connection
- Redundancy feature included
- With RS 485 IS connector

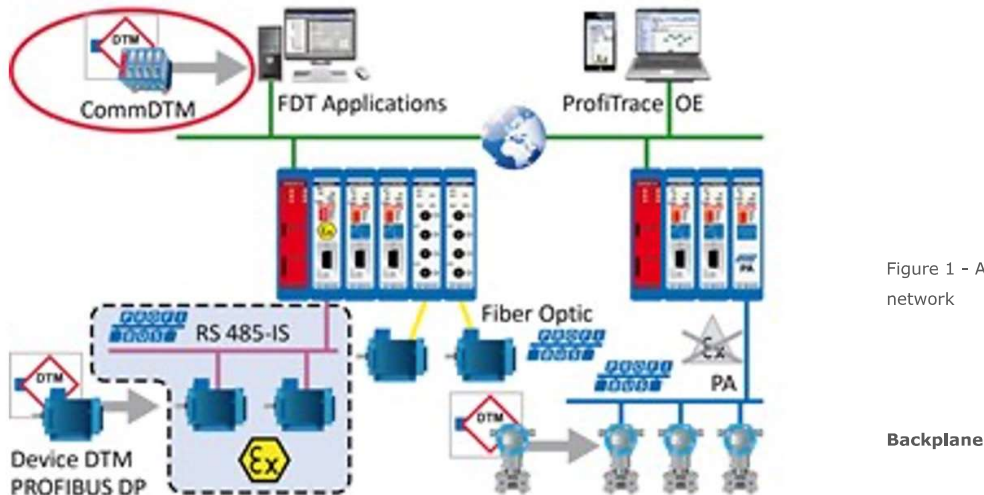


Figure 1 - Application of RS485-IS Repeaters in a network

PROFIBUS networks	4 (set by dipswitches or web server)
Modules	10 (positioned in the first 10 slots)
Power supply	Provided through the backplane
Current consumption	± 450 mA (750 mA max, At this current consumption the module is switched OFF from backplane. Occurs when module is faulty, e.g. internal short circuit.
Compatible backplane units	101-200011, 101-200012, 101-200023, 101-200024, 101-200027

Protocol Specifications

Supported Protocols	DP-V0, DP- V1, DP-V2, FDL, MPI, FMS, PROFIsafe, PROFIdrive and any other FDL based protocol
Address	NO bus address required
Transmission speed	9.6 kbps .. 1.5 Mbps (including 45.45 kbps)
Transmission speed detection	Auto detect (< 10 s detection and 50 s baudrate switchover time)
Data delay time (normal mode)	2.0 Tbit
Data delay time (redundant mode)	12.0 Tbit
Delay time jitter	Max. ¼ Tbit

Oscilloscope specifications

Frequency	192 MS/s
Resolution	27 mV
Differential range	-3.49 .. 3.49 V

PROFIBUS cable specifications

Cable lengths	1200 m at 9.6 kbps .. 93.75 kbps 1000 m at 187.5 kbps 400 m at 500 kbps 200 m at 1.5 Mbps
Number of devices	Maximum 31 devices per channel (busloads)
Required termination	DB9-IS connector with internal 200Ω only
Redundancy	Yes, maximum 10 cables activated by switch

Dipswitches

NW0	NW1	PROFIBUS Network
LEFT	LEFT	1
RIGHT	LEFT	2
LEFT	RIGHT	3
RIGHT	RIGHT	4
RED		Redundancy
LEFT		OFF
RIGHT		ON
H/S		Settings
LEFT		Hardware
RIGHT		Software

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ATEX (electrical)

U_o	4.2 V	
I_o	149 mA	
U_i	≥ 4.2	
L_i	≈ 0 μH V	
C_i	Negligibly small	
Output characteristic	Linear	

ATEX (compliance):

II (2) G [Ex ia Gb] IIC EN-IEC60079-0: 2009 / EN-IEC60079-11: 2012 / EN-IEC60079-25: 2010 PROFIBUS International IS Installation Guidelines Certification number: DEKRA 12ATEX0192	
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LEDs

RDY	Module is ready for operation (ON)	
RX	Receiving telegrams (blinking)	
HWE	Internal repeater error (contact HMS Technical Support)	
ER	Signal amplitude of the telegrams too low (< 1.64 V)	
TERM	Idle voltage too low (<0.35 V .. >0.75 V) Alarm values can be changed through the web server.	

Others

Head Station firmware	At least version 1.272	
Operating temperature	0 .. 60 °C	
Weight	150 g	

File

Version

Size

Read online

Ordering Information

Order Codes	101-201410C
Included Components	Anybus Combrick, backplane socket and RS 485 IS connector.
Warranty	1 year

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