

# PROCENTEC

The PROFIBUS and PROFINET Company

COMbricks - Modular repeaters with ProfiTrace



# COMbricks

## 2. Networking



Monitoring - **Networking** - Control

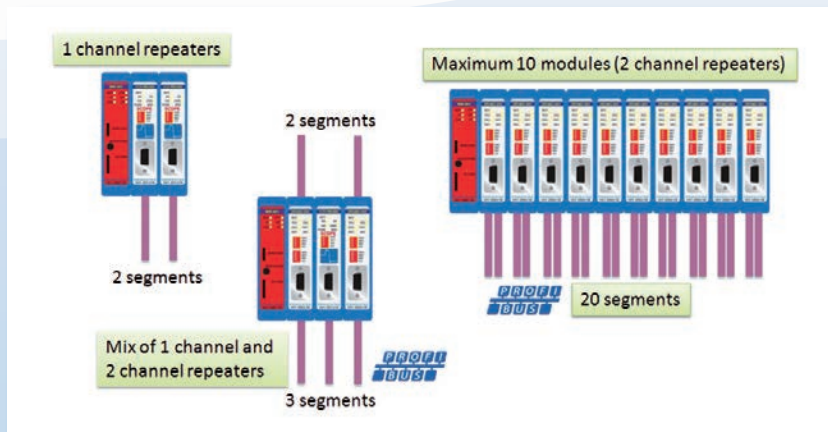
**COMbricks™ - The first PROFIBUS and PROFINET-based automation system that unites network components, permanent monitoring with ProfiTrace and remote I/O.**

COMbricks allows you to remotely monitor your PROFIBUS installations from anywhere in the world and will alert you if any faults arise or are likely to arise. It's a modular platform able to carry repeater and fiber optic modules. Over Ethernet the condition of the network can be inspected in a web browser.

## Modular repeaters

The current trend with PROFIBUS projects is to use segmentation with repeaters, fibre optic and ProfiHubs to bridge the common faults of the end-user concerning his cabling difficulties. COMbricks adds another important element; the creation of modular and random repeater hubs that can be maintained remotely with a permanent internal ProfiTrace.

- The connection of the bus cable allows for a high degree of flexibility as the repeater modules contain both a 9-pin and screw connector.
- It is possible to dynamically exchange equipment during operation. COMbricks is ideal for flow meters, pH analysers, actuators, drives and especially motor control centres that make use of drawer systems.



■ COMbricks is based on a backplane into which 10 hot swap repeater modules with 2 channels each can be inserted (20 galvanic isolated transparent segments). Every channel can handle 31 devices and maximum 1200 m cable length (depends on the baudrate).

■ Each channel has a fail safe circuit which ensures that the remainder of the PROFIBUS network continues to operate correctly and that the availability of the installation remains optimal.

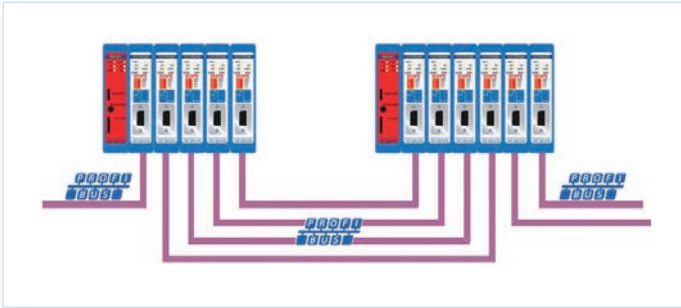
## Typical applications

- Repeaters with permanent ProfiTrace
- Star, tree and bus structured networks
- Redundancy for high availability
- Spur line solutions
- Removable drives and motors
- Motor control centers (drawers)
- EMC vulnerable applications
- Isolator for sensitive devices



## Redundancy

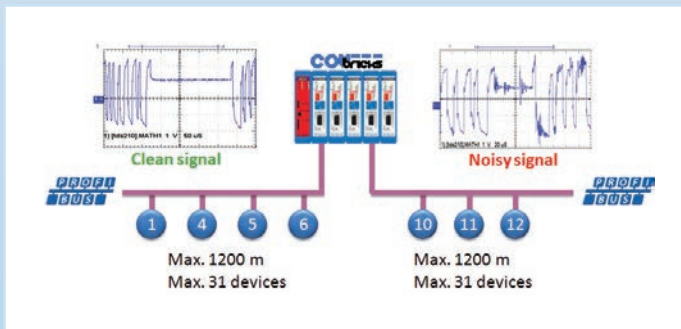
The bus redundancy technology of the repeater modules is very advanced. A redundant system with 10 parallel network cables can be built. This architecture provides extremely high availability. Most suppliers only allow 2 cables.



## Permanent ProfiTrace

Simultaneous monitoring of 4 PROFIBUS networks is a perfect innovation of COMbricks. The user can simply connect surrounding PROFIBUS networks and every network can be set at a unique baudrate.

Using DIP switches or the web server, repeater modules can be assigned to a network group, which ensures isolated communication from the repeaters that are assigned to different networks.



## Barrier and recovery

The galvanic isolation separates any bus interference from the other segments. COMbricks restores glitches in the bits. This ensures that the content of the telegrams remains recognisable for the remainder of the network. COMbricks is therefore also a perfect infrastructure component to act as an electrical barrier in unstable networks.

## Repeater features

- Enhanced RS 485 signal
- 31 devices per segment
- 1200 m cable length (baudrate dependent)
- Transparent to PROFIBUS DP protocols
- 9.6 Kbps - 12 Mbps (automatic detection)
- No address required
- No cascading limit
- Integrated terminators
- Diagnostic LEDs for bus status
- Screw terminals and DB9 connector

## Product features

- Wide range of modules available
- 32 modules (10 high-speed modules)
- ProfiTrace OE for monitoring 4 networks
- Hot swap and extendible
- DIN-rail mounting



## Built for the future

COMbricks allows you to remotely monitor your PROFIBUS installations from anywhere in the world and will alert you if any faults arise or are likely to arise. It is a brand new method of diagnosing and designing networks in an era where there is a shortage of (qualified) technical staff and a huge amount of pressure on system availability.

The combination of network components and monitoring makes this product an ideal choice for organisations where asset management is paramount. It also raises awareness amongst technical staff because the installation becomes understandable and predictable.

Monitoring does NOT require additional and frustrating software installations on the PC. As it is accessible through a web browser, most platforms - including mobile phones - are compatible with COMbricks.

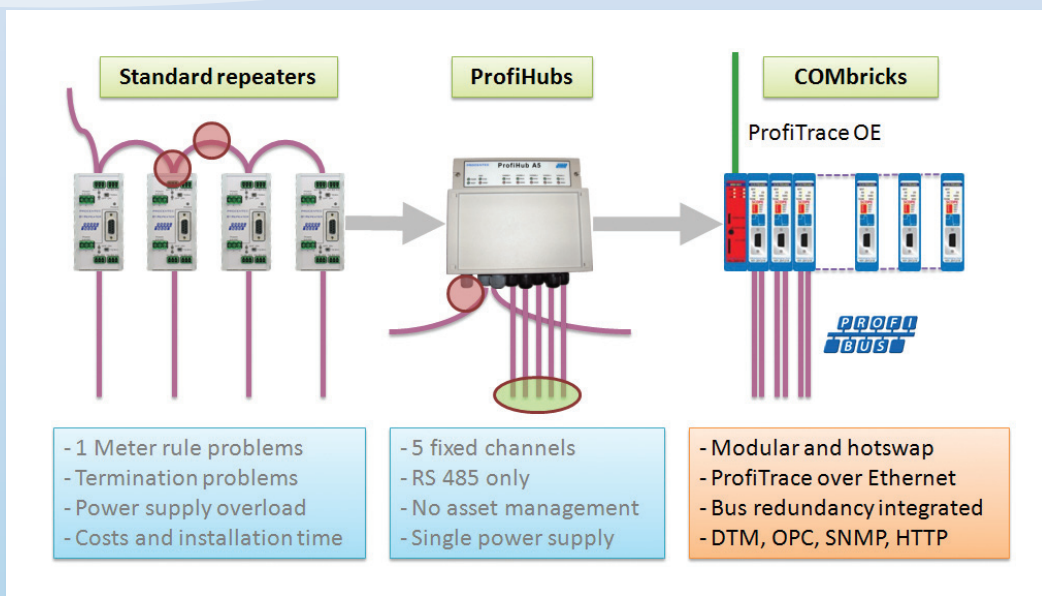
## And much more.....

The bus redundancy technology of the repeater modules is very advanced. A redundant system can be built using 10 parallel cables. Most suppliers only allow 2 cables.

Apart from the repeater modules there is also a Fibre Optic module available. Currently under development and available in the near future are the RS 485-IS, PROFIBUS and PROFINET module.

COMbricks can also handle PROFIBUS and PROFINET slave modules that control output modules or read sensors from input modules. The I/O and slave modules can be mixed with the repeater modules on the backplane.

The CommDTM offers FDT based asset management tools a powerful Ethernet pass through to access PROFIBUS devices which are connected behind the repeater and Fiber Optic modules.



Monitoring, Networking and Control

**COMbricks**

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