

# PROCENTEC



## ComBricks

Monitoring, Networking and Control



## ComBricks

**ComBricks is the first PROFIBUS and PROFINET based automation system that unites network components and permanent monitoring with ProfiTrace. It offers the perfect solution for diagnosing and designing networks in an area where there is a shortage of qualified technical staff and a huge amount of pressure on system availability. ComBricks allows technicians to remotely monitor PROFIBUS installations from anywhere in the world and will alert them by email if any faults arise. Therefore, faults can efficiently and quickly be solved which reduces downtime and optimise the entire life cycle of the installation.**

The combination of network components and monitoring makes this product an ideal choice for organisations where asset management is paramount. It raises awareness amongst technical staff because the installation becomes very understandable and predictable. ComBricks is a unique modular platform able to carry repeater and fiber optic modules. It is the only product with an integrated oscilloscope for permanent PROFIBUS monitoring over Ethernet. Monitoring with ComBricks does not require additional and frustrating software installations on the PC. Over Ethernet, the condition of the installation can be remotely inspected with ProfiTrace OE in a web browser. Most web browser platforms, including mobile phones, are compatible with ComBricks.

### Compatible with Atlas

Atlas is the solution for monitoring and diagnosing Industrial Ethernet networks. The tool provides unique insight and knowledge of networks and an overview of the network health, with easy to use and understand displays. For more information about Atlas please see our website [www.procentec.com/atlas](http://www.procentec.com/atlas).

All ComBricks products are compatible with our Atlas solution.

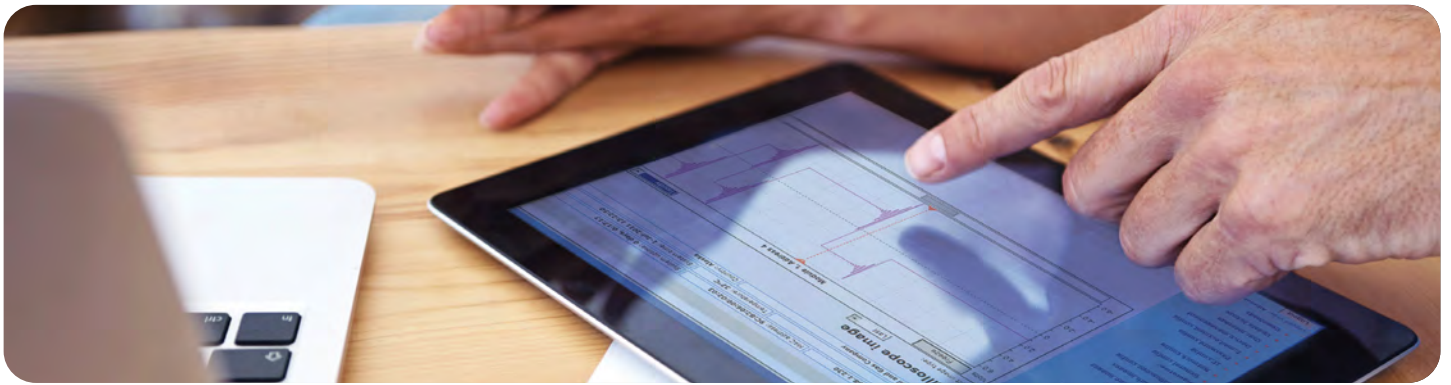


## Product features

- Drives 32 modules (10 repeater modules)
- Wide range of modules available
- Powerful web server
- ProfiTrace OE for monitoring and scoping 4 networks
- Hot swap and extendible
- DIN-rail mounting
- IP 20

## Applications and solutions

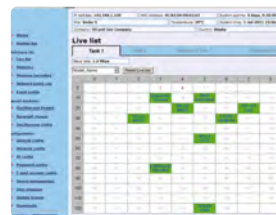
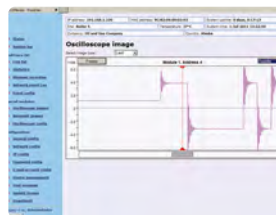
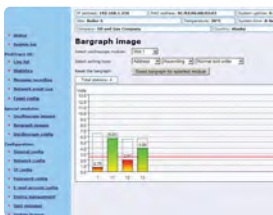
- Modular PROFIBUS repeater and fiber optic backbone
- Permanent PROFIBUS monitoring with ProfiTrace and oscilloscope
- Automated responder to bus problems with relay module and digital output module
- Asset management Ethernet gateway for ComMDTM
- Transparent PROFIBUS data hub (repeaters, fiber optic, PROFIBUS PA, RS 485-IS, DP slave)



## Monitoring

Permanent and simultaneous monitoring of four different PROFIBUS networks is one of the most powerful features of ComBricks. By using this powerful tool, global projects and a shortage of qualified technical staff members are no longer the cause of significant capacity problems. ComBricks allows technicians to remotely monitor PROFIBUS installations from anywhere in the world and will alert them by email if any faults arise. Hereby, technicians can efficiently maintain the PROFIBUS installation.

ComBricks is the first system that has integrated the busmonitor and oscilloscope in the network components. Deploying ComBricks repeaters for regular automation means an automatic availability of ProfiTrace OE. A web server with a ProfiTrace shell visualises information in an understandable format (ProfiTrace OE). The monitoring and logging is performed by the repeater modules which are inserted in the backplane. The user can detect a wide range of bus faults and analyse statistics through the web server, email alerts and the log. A brand new functionality within ComBricks is the device location detection. It gives a detailed overview of all segments and the connected devices.



## Product features

- Simultaneous monitoring of 4 PB networks
- Up to 10 SCOPE repeater modules
- Hot swap and extendible
- Web server with ProfiTrace and oscilloscope
- Logging and email
- Ethernet connection
- 24 V redundant power connector

## Applications

- Cross border installations
- Inaccessible installations
- Long commissioning and test cycles
- High availability networks
- Robot cells
- Traffic control installations
- Water treatment
- Off shore installations
- 24-7 service contracts

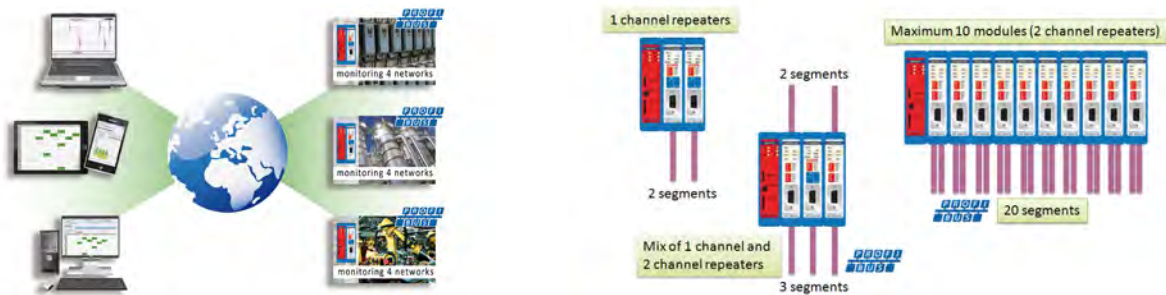


## Networking

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. Which ensures the highest uptime and the lowest operating cost.

ComBricks is based on a backplane into which 10 hot swap repeater modules with two 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 failsafe circuit which ensures that the remainder of the PROFIBUS network continues to operate correctly and that the availability of the installation remains optimal.

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 two cables.



## 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

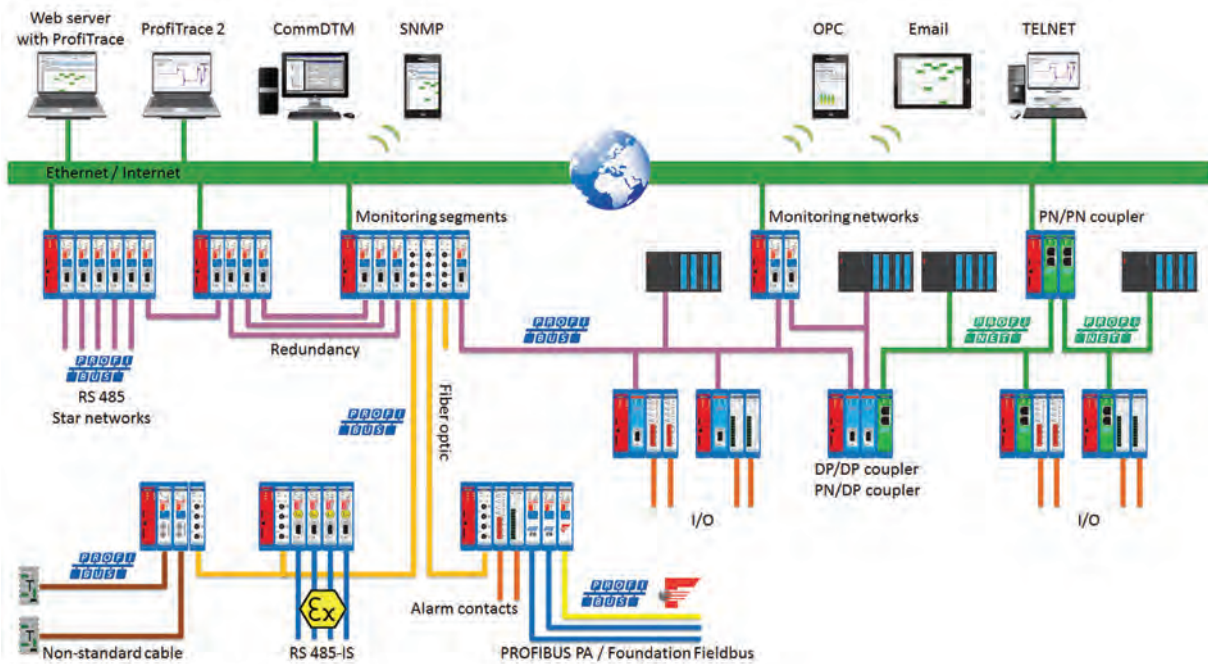
## Repeater features

- 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

## Applications

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



The only product with an integrated oscilloscope for permanent PROFIBUS monitoring over Ethernet.

## 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.



SCOPE  
Repeater  
101-201210



SALT  
Repeater  
101-201710



PA Module  
101-201610



RS485-IS  
Module  
101-201410



1 Channel  
Repeater  
101-201101



2 Channel  
Repeater  
101-201102



2 Channel  
Fiber Optic  
101-201510



PROFIBUS DP  
Slave  
101-220210



PROFINET IO  
Device  
101-220110



4 Channel  
Relay Module  
5 A - 230 VAC  
101-210210



8 Channel  
Digital Out  
0.5 A - 24 VDC  
101-210110



Fieldbus Diagnostics  
Module  
101-240610



Head Station  
Type 1C  
101-20011C



Head Station  
Type 1B  
101-20011B



Head Station  
Type 1A  
101-20011A



Power Module  
6 A - 24 VDC  
101-230010

## The PROFIBUS and PROFINET company

PROCENTEC is an independent company, concentrating all its products and services on PROFIBUS and PROFINET technology. Our main business is the development of automation products which are exported through our worldwide distributor network. The technology and solutions that we offer enable our customers to successfully participate in the world of industrial automation. We take pride in possessing in-depth knowledge of fieldbus requirements in factory and process automation and the expertise to create innovative solutions for these areas.

### Products

- Atlas
- ProfiTrace
- ProfiHub
- ComBricks
- VPSwitch
- VPGate

### Services

- Competence center
- Test laboratory and democenter
- Training and education
- Support and consultancy
- Network certification and audits

