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ProfiHub A5

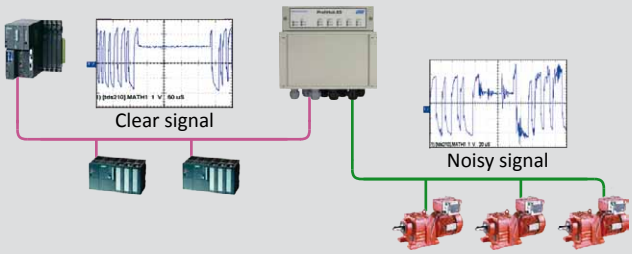
5 Channel DP Repeater

The well-known ProfiHub A5 is a robust network component for PROFIBUS DP installations. It allows long multi-device spur lines and backbone structures with star/tree segments in IP 65 applications. The ProfiHub A5 is essential to obtain better control during maintenance and upgrading of the network. The use of ProfiHub results in lower operational costs and the optimization of the entire production process.

The ProfiHub A5 is a perfect economic solution to create reliable star networks in RS 485 DP networks. It has the functionality of five galvanic isolated transparent repeaters. This allows network structures with extended spur lines that individually can handle a maximum of 31 devices and a length equal to the main bus. The ProfiHub A5 has the same functionality as the ProfiHub B5.

Application areas

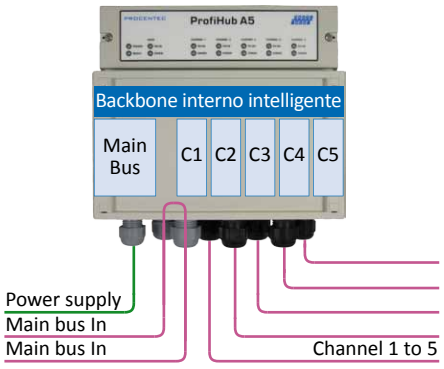
- Dynamic spur lines to actuators, flow meters and pH analyzers
- Star, tree and bus structured networks
- Removable drives and motors
- Outdoor applications with device and cable stress
- Roof mounted devices in tank farms
- Dirty and Humid environments
- Barrier for non-galvanic isolated equipment



Example of the barrier function of the ProfiHub. Noise and EMC disturbances will not affect the backbone or the other channels.

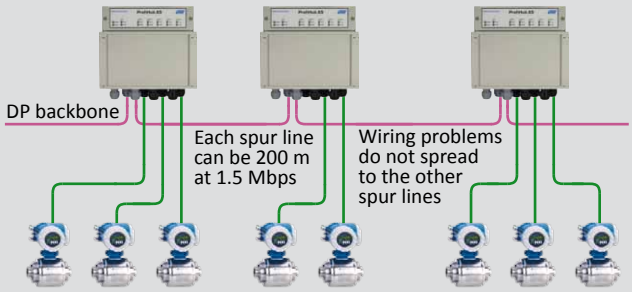
Your benefits

- Hot slave insertion/removal during operation
- Short circuit protection on each channel
- Compact and robust construction
- On-board DB9 female connector for maintenance activities
- Suitable for all DP cables
- Conveniently arranged networks
- Extendable installations
- Cost saving



Product features

- 5 Isolated repeater channels (6 segments)
- Transparent for all PROFIBUS DP protocols
- Suitable for PROFIsafe and MPI networks
- 31 devices per channel
- 9.6 Kbps - 12 Mbps
- Max. 1200 m segment length (depends on baudrate)
- Integrated termination facilities
- Configurable grounding system
- Glands or M12 connectors
- IP 65 classification



Example of dynamic spur lines to instruments. The devices can be added and removed during operation.

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T: +31 (0)174 671 800 | F: +31 (0)174 671 801
E: info@procentec.com | W: www.procentec.com

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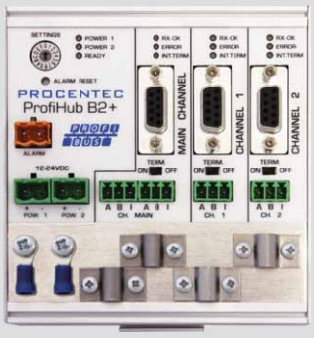
ProfiHub B2+R

3 Segment Redundant PROFIBUS DP Repeater

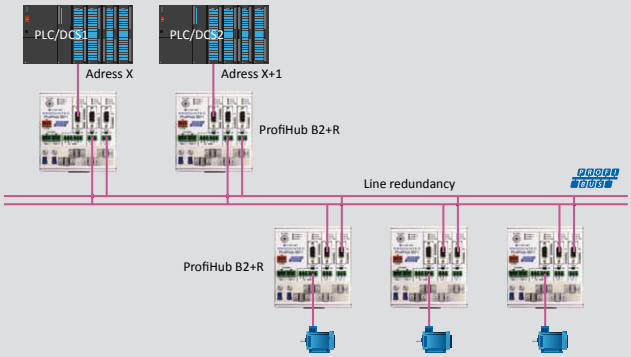
The ProfiHub B2+R is the perfect economic solution to create reliable spur lines in high speed PROFIBUS DP networks within IP 20 environments. This robust network component bridges all user's requirements, creates backbone structures and long multi-device star/tree segments. The ProfiHub B2+R is the ideal component to design flexible and object oriented networks. When redundancy is enabled, the ProfiHub B2+R transforms to a low cost and extremely reliable redundant repeater solution.



The ProfiHub B2+R is equipped with 2 galvanic isolated transparent repeaters (offering 3 segments). This allows network structures with extended spur lines that individually can handle up to 31 devices and a length equal to the main bus. To save costs on plugs and offer flexibility, it contains screw terminals as well as DB9 connectors. Termination for each segment is on-board and switchable. If bus redundancy is enabled, 2 segments will form a redundant pair that is completely compatible with the ABB RLM01. An alarm contact is linked to events based on the status of the power supply and the bus redundancy status. Because the ProfiHub B2+R creates isolated segments, the devices can be removed and added during operation. Also electrical bus problems and EMC disturbances in a spur do not spread to the other segments.

Application areas

- Large star/tree structured networks
- Removable drives and motors
- Pull/Plug motor control centers
- Roof mounted devices in tank farms
- Barrier for non-galvanic isolated equipment

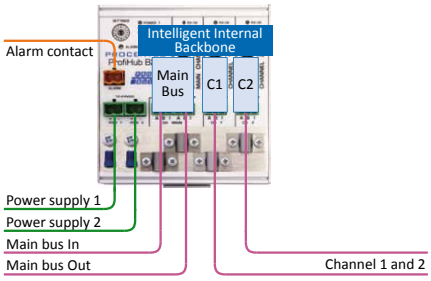


If bus redundancy is enabled, 2 segments will form a redundant pair.

Short circuit protection on each spur line is automatically provided.

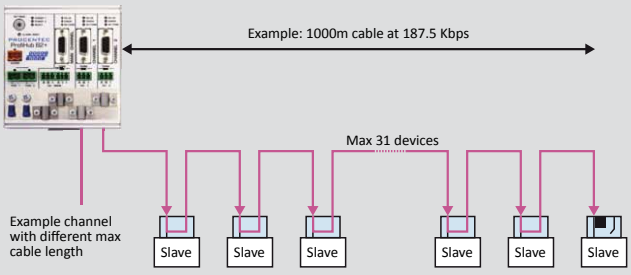
Your benefits

- Option to create a redundant path to Hubs or ComBricks
- Hot slave insertion and removal during operation
- Short circuit protection on each channel
- Compact and robust construction
- Status and error display (per channel)
- Suitable for all DP cables
- Easy extendable installations
- Cost Savings



Product features

- 2 Galvanic isolated outgoing channels
- Transparent for all PROFIBUS DP protocols
- DP - RS 485 specifications for each channel
- 31 Devices per channel
- Max. 1200m spur line length
- 9.6 Kbps to 12 Mbps
- Configurable grounding system
- Integrated termination facilities
- IP 20 classification
- Redundant power supply
- Cable redundancy for channel 1+2
- No limit in serial placement or cascading of ProfiHubs
- Alarm contact, with manual reset button



Cable lengths for PROFIBUS DP.

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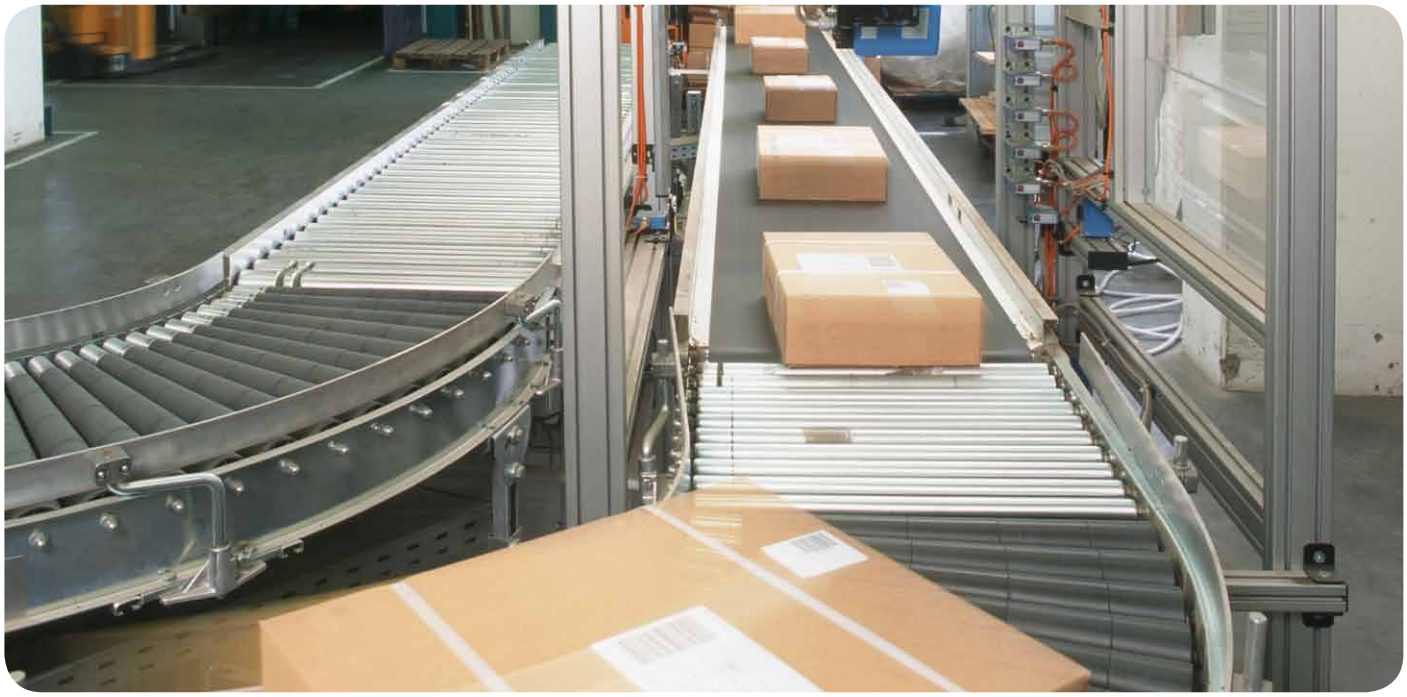


ProfiHub B2FO2+

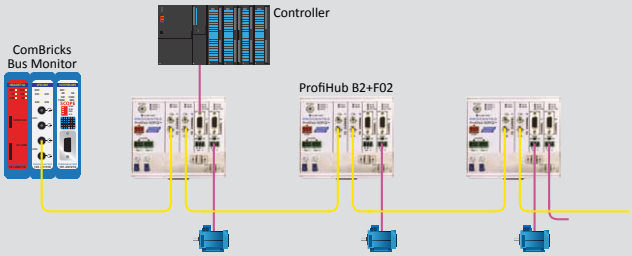
PROFIBUS Fiber Optic Coupler

The ProfiHub B2FO2+ is an economic solution to convert PROFIBUS fiber optic to RS 485 copper segments and vice versa. The ProfiHub B2FO2+ is designed to be a part of the communication backbone of your fiber optic PROFIBUS DP network. The increased functionality of spur lines, and isolated segments create a network component which reduces all of the costs associated with the most common network communication issues.

The ProfiHub B2FO2+ is designed with the unique functionality of two galvanic isolated transparent repeaters and an optical link module in one device. It supports multiple fiber optic topologies; point-to point, bus and star. The B2FO2+ allows network structures with two extended spur lines that individually can handle a maximum of 31 devices and a length equal to the main bus. Both copper segments have DP - RS 485 specifications. Because the B2FO2+ creates isolated segments, the devices can be removed and added during operation. Also electrical bus problems and EMC disturbances in a spur do not spread to the other segments. The intelligent logic and isolation circuits of the ProfiHubs do not change the bit width. This means the ProfiHubs do not have limitations in serial placement.

Application areas

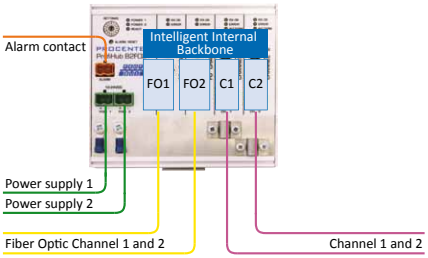
- Dynamic spur lines to actuators, flow meters and pH analyzers
- Removable drives and motors
- Pull/plug motor control centers
- Roof mounted devices in tank farms
- Barrier for non-galvanic isolated equipment
- Networks with requirement for high availability
- Large structured networks



Creating a fiber optic backbone increases network reliability and network overview. It is also possible to mix ProfiHubs with ComBricks.

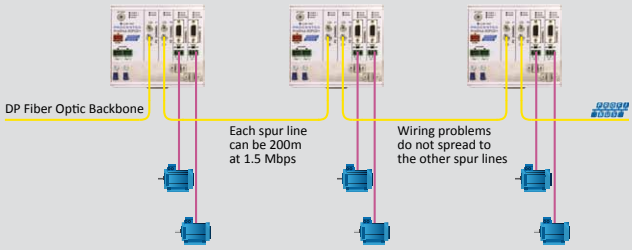
Your benefits

- Hot slave insertion and removal during operation
- Short circuit protection on each channel
- Option to create a redundant path to other supporting Hubs or ComBricks
- Compact and robust construction
- Status and error display
- Suitable for all PROFIBUS DP cables
- Conveniently arranged networks
- On-board DB9 female connector on each channel



Product features

- 2 Galvanic isolated outgoing channels
- Transparent for all PROFIBUS DP protocols
- DP - RS 485 specifications for each channel
- Cable redundancy (for channel 1 and 2)
- 9.6 Kbps to 12 Mbps
- 31 Devices per channel
- 1200m Spur line length (for copper channel 1 and 2)
- Redundant power supply
- Alarm contact
- IP 20 classification
- 2 Fiber optic channels
- 3000m Cable length (for FO channel 1 and 2)
- Point-to-point, star and bus topologies
- 4 ST/BFOC connectors



Long spur lines to instruments and the possibility to remove/insert them during operation. Short circuit protection on each spur line is automatically provided.

PROCENTEC BV | Klopperman 16 | 2292 JD Wateringen | The Netherlands
T: +31 (0)174 671 800 | F: +31 (0)174 671 801
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ProfiHub B4FO2+

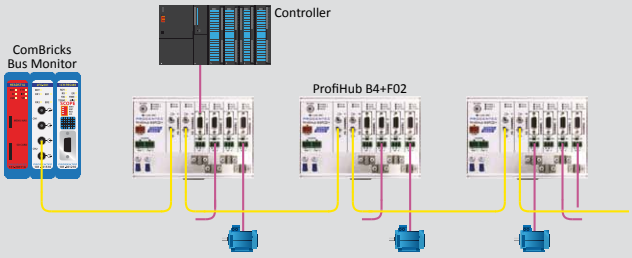
PROFIBUS Fiber Optic to Multi Segment Coupler

The ProfiHub B4FO2+ is the most cost effective solution for PROFIBUS fiber optic to multiple RS 485 segments and vice versa. It enables applications where long cable distances and an isolation between devices and segments is required. The massed junction of copper segments reduce expensive fiber optic couplers and create an object oriented overview for the end user.

The B4FO2+ is designed with the unique functionality of four galvanic isolated transparent repeaters and an optical link module in one device. It allows network structures with four extended spur lines that individually can handle up to a maximum of 31 devices and a length equal to the main bus. This robust network component is equipped with four copper segments with DP - RS 485 specifications. Because the ProfiHub B4FO2+ creates isolated segments, the devices can be removed and added during operation. Electrical bus problems and EMC disturbances in a spur do not spread to the other segments. The intelligent logic and isolation circuits of the ProfiHubs do not change the bit width. This means the ProfiHubs do not have limitations in serial placement.

Application areas

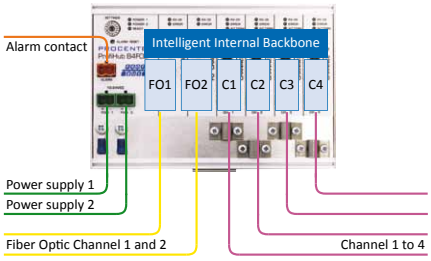
- Dynamic spur lines to actuators, flow meters and pH analyzers
- Removable drives and motors
- Pull/plug motor control centers (drawers)
- Roof mounted devices in tank farms
- Barrier for non-galvanic isolated equipment
- Networks with requirement for high availability
- Large star/tree structured networks



Creating a fiber optic backbone increases network reliability and network overview. It is also possible to mix ProfiHubs with ComBricks.

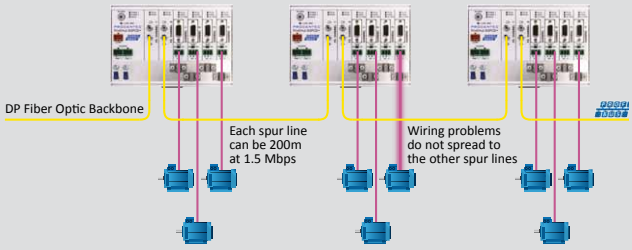
Your benefits

- Hot slave insertion and removal during operation
- Short circuit protection on each channel
- Option to create a redundant path to other supporting Hubs or ComBricks
- Compact and robust construction
- Status and error display (per channel)
- Suitable for all DP cables
- Conveniently arranged networks
- On-board DB9 female connector on each channel
- Cost savings



Product features

- 4 Galvanic isolated outgoing channels
- 2 Fiber optic channels
- Transparent for all PROFIBUS DP protocols
- DP - RS 485 specifications for each channel
- Cable redundancy (for copper channel 1 and 2)
- 9.6 Kbps to 12 Mbps
- 31 Devices per channel
- 1200m Spur line length (for copper channel 1 to 2)
- 3000m Cable length (for FO channel 1 and 2)
- Redundant power supply
- Alarm contact with manual reset button
- IP 20 classification
- Point-to-point, star and bus topologies
- 4 ST/BFOC connectors
- Compatible with most other vendors in 3rd party compatibility mode



Long spur lines to instruments and the possibility to remove/insert them during operation. Short circuit protection on each spur line is automatically provided.

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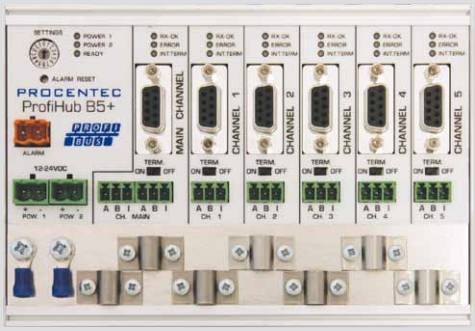
ProfiHub B5+R

5 Channel PROFIBUS Hub with redundancy option

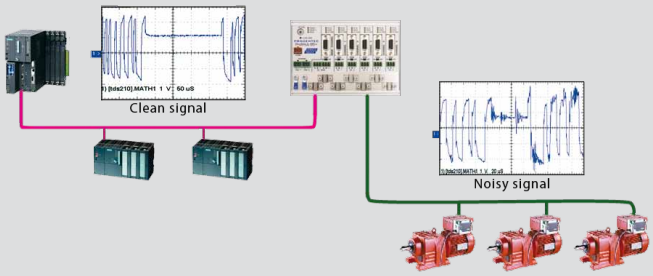
The ProfiHub B5+R is an easy and robust network component to design reliable, flexible and object oriented networks. It allows wide-ranging star/tree segments and long spur lines for PROFIBUS DP installations in IP 20 environments. The ProfiHub B5 is essential to obtain better control during maintenance and upgrading of the network. The use ProfiHub results in lower operational costs and the optimization of the entire production process.



The ProfiHub B5+R is a perfect economic solution to bridge user's requirements and creates reliable star networks in RS 485 networks. To save costs on plugs and offer flexibility, it contains screw terminals as well as DB9 connectors. The DB9 connectors are also perfect measurement points for ProfiTrace to quickly measure all segments. If bus redundancy is enabled, two segments will form a redundant pair. This creates an even more reliable network. An alarm contact is linked to events based on the status of the power supply and the bus redundancy if this is enabled.

Application areas

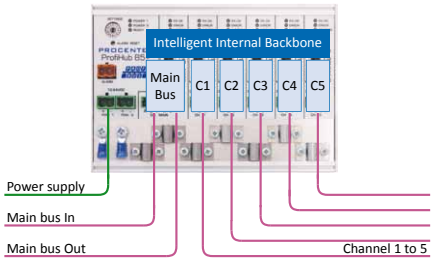
- Dynamic spur lines to devices
- Star, tree and bus structured networks
- Removable drives and motors
- Pull/Plug motor control centers
- EMC sensitive applications
- Barrier for non-galvanic isolated equipment



Example of the barrier function of the ProfiHub. Noise and EMC disturbances will not affect the backbone or the other channels.

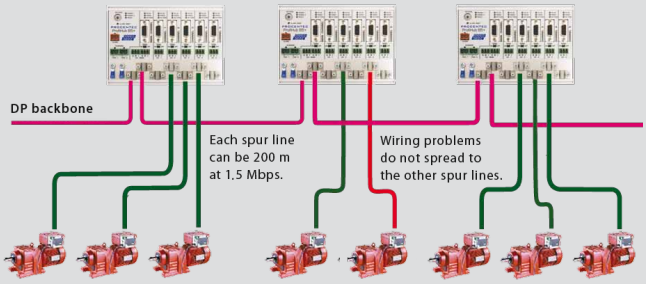
Your benefits

- Hot slave insertion/removal during operation
- Short circuit protection on each channel
- Compact and robust construction
- Screw terminals and DB9 connectors can be mixed
- Conveniently arranged networks
- Extendable installations
- Cost saving



Product features

- 5 Isolated channels
- Transparent for all PROFIBUS DP protocols in Hub
- Suitable for PROFIsafe and MPI in Hub
- 31 Devices per channel
- Max. 1200 m spur line length (depends on baudrate)
- 9.6 Kbps - 12 Mbps selectable per channel
- Screw terminals and DB9 connectors
- Configurable grounding system
- Integrated termination facilities
- IP 20 classification
- Redundant power supply
- Bus redundancy option in Hub mode



Example of dynamic spur lines to instruments. The devices can be added and removed during operation.

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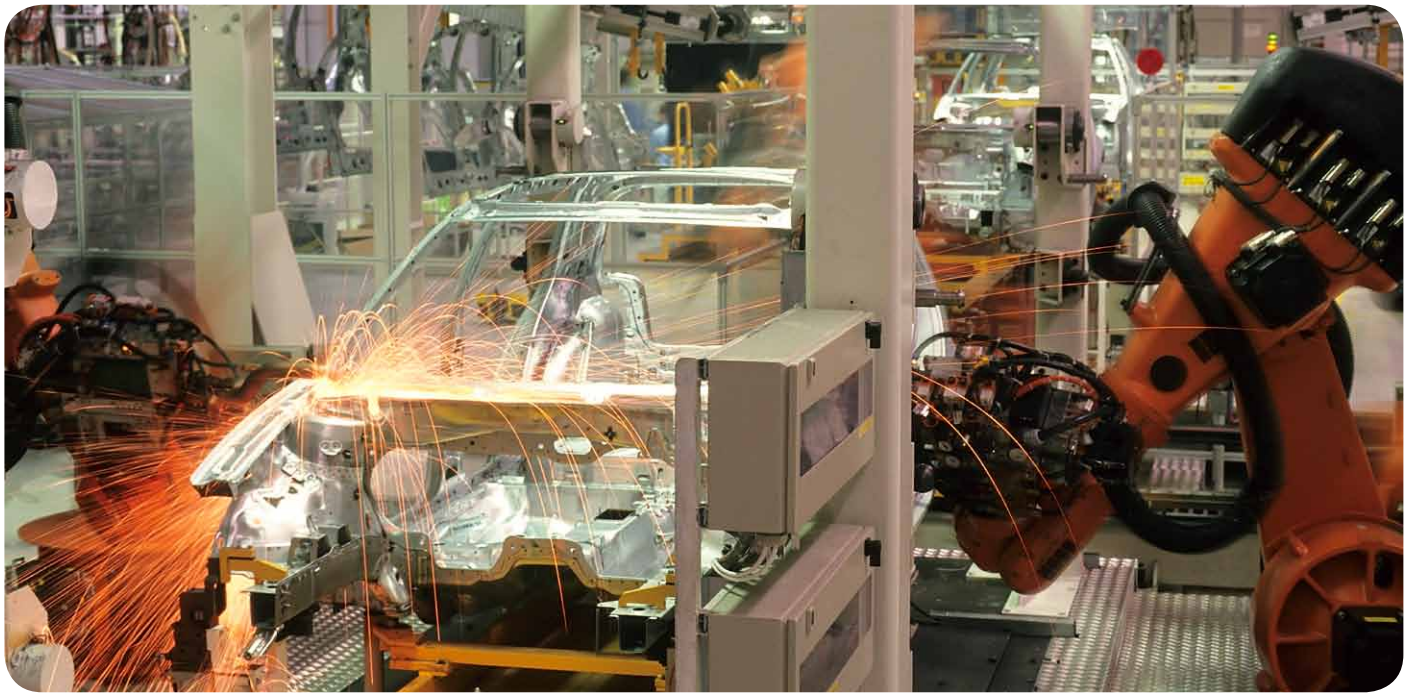
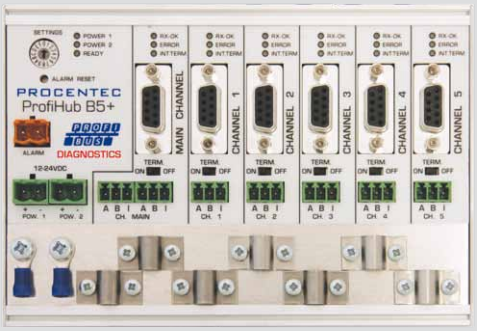


ProfiHub B5+RD

5 Channel PROFIBUS Hub with Integrated Diagnostics Device

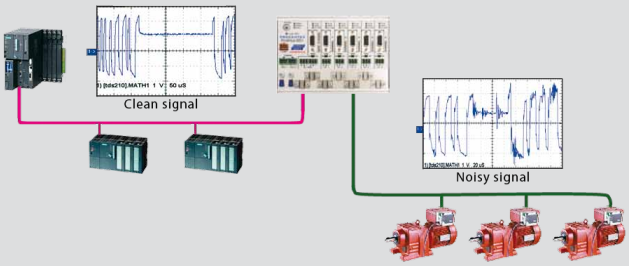
The ProfiHub B5+RD is an easy and robust network component to design reliable, flexible and object oriented networks. It is the first ProfiHub that comes with a built-in PROFIBUS DP slave to forward diagnostic data to a PLC. With this unique function the ProfiHub B5+RD is able to optimally monitor PROFIBUS DP installations. As a result, technical engineers can effectively detect PROFIBUS disruptions and find solutions more promptly. This is how maximum uptime for end users and the lowest possible costs for organisations are guaranteed



Engineers can access detailed diagnostic information about communication failures and current details of retries. Diagnostic information about redundancy of the PROFIBUS channels and supply status can be identified using this unique function. The ProfiHub B5+RD generates a live list of all PROFIBUS devices connected. When configuring an alarm contact, technical engineers are warned immediately in case of disruptions inside the PROFIBUS DP installations. As a result, a reliable PROFIBUS network is born

Application areas

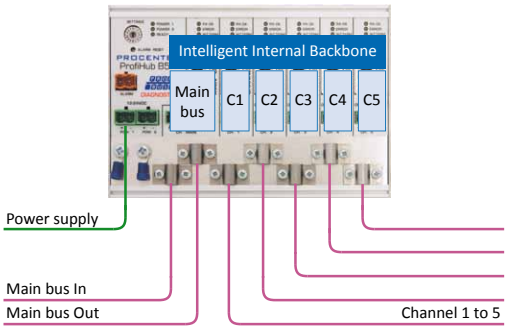
- Dynamic spur lines to devices
- Star, tree and bus structured networks
- Removable drivers and motors
- Pull/Plug motor control centers
- Roof mounted devices in tank farms
- Barrier for non galvanic isolated equipment
- Networks with requirement for high availability



Example of the barrier function of the ProfiHub. Noise and EMC disturbances will not affect the backbone or the other channels.

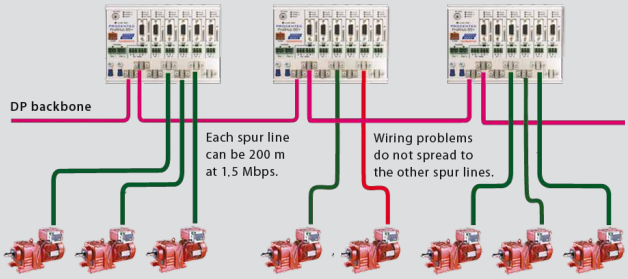
DP slave features

- Ident Number: 6970
- Software addressing (0 - 126)
- 32 Bytes diagnostic data
- Maximum 85 bytes input / Maximum 5 bytes output (90 bytes total)
- Multiple modules containing diagnostic information:
  - Live List
  - Statistics
  - Power status
  - Redundant status
  - Termination status



Product features

- 5 Galvanic isolated repeater channels
- Advanced diagnostic capabilities
- Transparent for all PROFIBUS DP protocols
- Suitable for PROFIsafe and MPI
- 31 Devices per channel
- Max. 1200 m spur line length (depends on baudrate)
- 9.6 Kbps – 12 Mbps
- Screw terminals and DB9 connectors
- Configurable grounding system
- No address required
- Integrated termination facilities
- IP 20 classification



Example of dynamic spur lines to instruments. The devices can be added and removed during operation.

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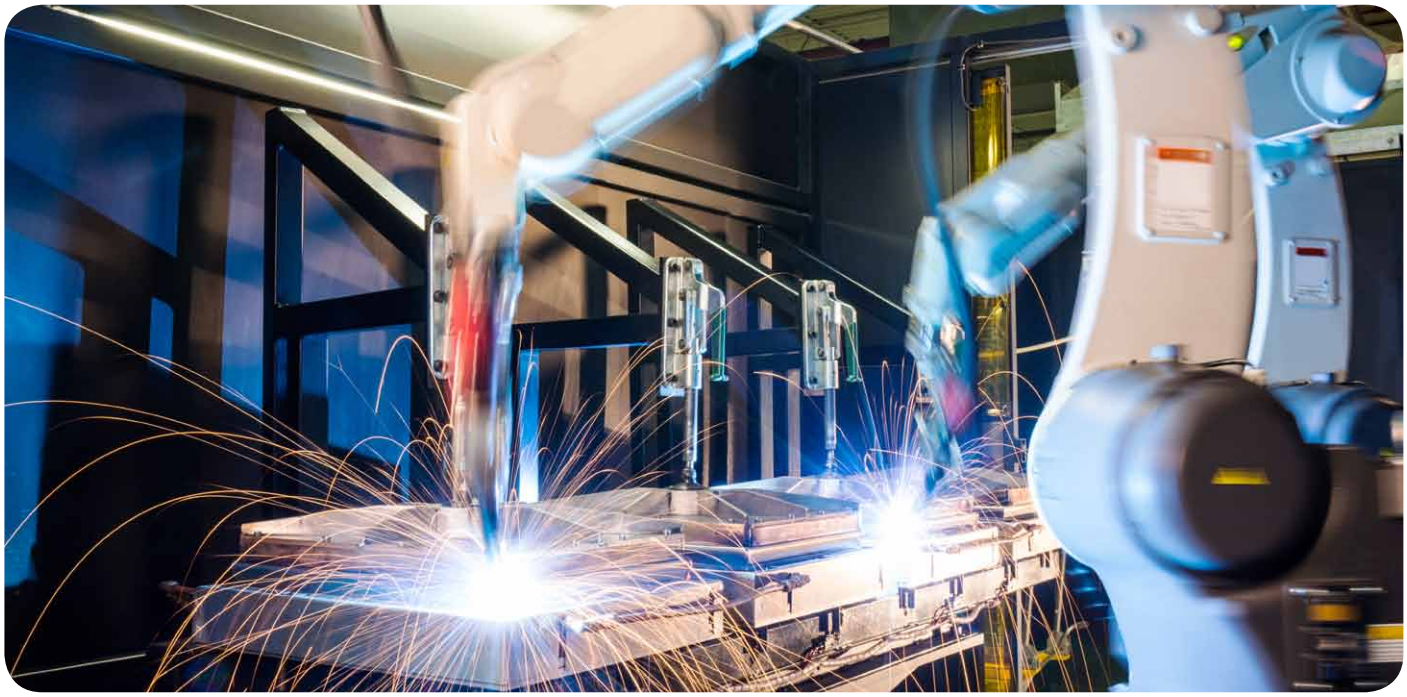
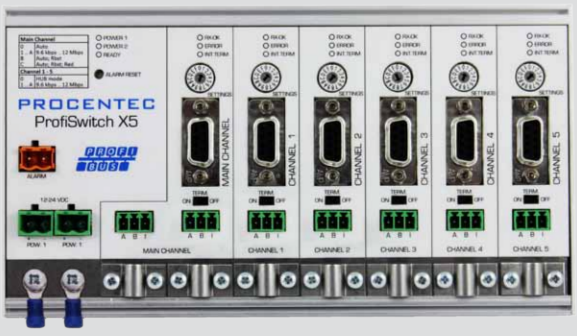


ProfiSwitch X5

PROFIBUS Reborn: 1 Controller, 1 Network, Multiple Baudrates

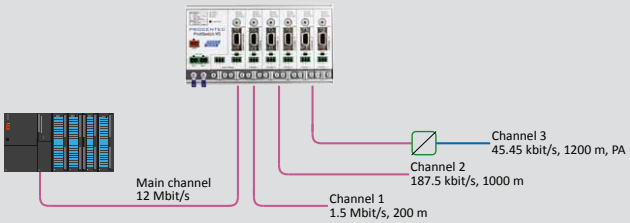
The ProfiSwitch X5 modernizes PROFIBUS network architecture for the next generation. The transparent repeater hub has the ability to create baudrate customization per channel. A simple rotary switch opens doors to a new landscape with reliable and money saving applications.



The X5 eliminates traditional PROFIBUS network baudrates constraints associated with spur lines, additional resistance, single master systems, poor cable segments and cable length limitations. Design limitations associated with legacy systems or new build systems are eliminated, creating the capability for unprecedented customizable network designs. One main PLC can now act as a workhorse with the ability to extend the network further, spur line hot swap, reduction of repeater installation, all without limiting speed performance. The advanced technology of the ProfiSwitch X5 converts the main channel to other transmission speeds and acts as a transparent proxy without disturbing the host system (comparable with PA links). With limitless applications, the ProfiSwitch X5 will become your go to device for creating networks without traditional limitations.

Application areas

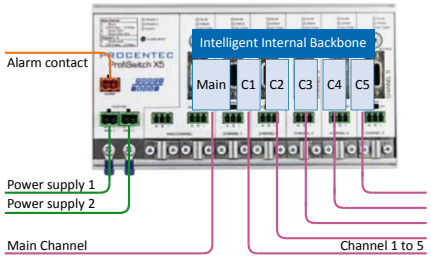
- Extend Network length, without repeaters
- Adding to Legacy Systems with Baudrate limitations
- Couple PA & wireless within 1 network
- Eliminate none traditional cabling limitations
- Bad Segment Isolation
- EMC interference reduction
- Reduce Resistance effects, i.e. lightning arrestors.
- Limited speed PROFIBUS devices, operating on high speed networks



Example: one network, multiple baudrates, different cable lenghts.

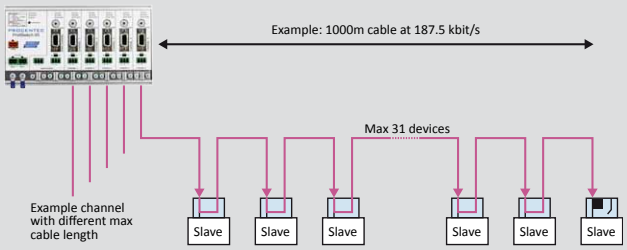
Your benefits

- Cable length limitation removed
- One master for different network types
- No more design limits
- Cost saving
- Coupler to any PB device
- Suitable for all DP cables
- Short circuit protection on each channel
- Insertion and removal of devices during operation
- Faster update times
- Less repeaters



Product features

- Various baudrate distribution
- Faster cycle time
- Legacy host systems
- 9.6 Kbps - 12 Mbps
- 5 Isolated repeater channels
- Transparent for all PROFIBUS DP - protocols
- 31 Devices per channel
- Integrated termination facilities
- Redundant power supply
- Switch contact for errors
- Configurable grounding system



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T: +31 (0)174 671 800 | F: +31 (0)174 671 801
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PROCENTEC

D1 Repeater

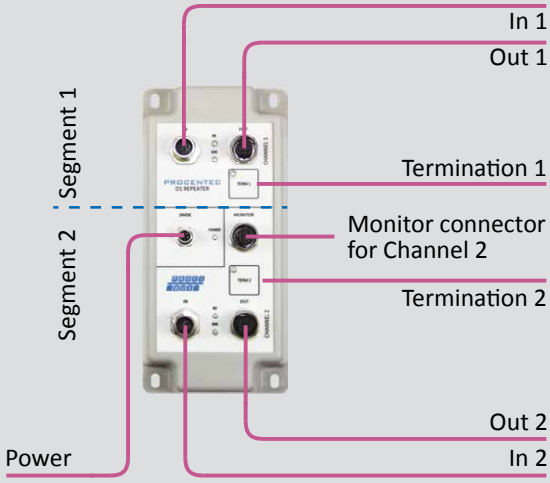
Transparent PROFIBUS DP Single Channel Repeater

The robust PROFIBUS D1 repeater is the ideal component for creating reliable PROFIBUS DP networks in demanding IP 66 environments. Especially where persistent dust and water are constantly present. It offers an economic alternative and tackles the technological limitations of existing repeaters. This first-class network component fulfils the electrical, mechanical and diagnostic requirements of the demanding modern industry.

With the PROFIBUS D1 repeater, technicians quickly and easily shape a PROFIBUS DP network. The robust M12 connectors of the PROFIBUS interface provide flexible wiring. A channel can be terminated or daisy-chained to a neighboring component. An extra M12 connector is featured on the outgoing channel (channel 2) for ProfiTrace or other maintenance/engineering tools. This results in increased uptime and optimization of the entire production process. The advanced 12 Mbps core of the PROFIBUS D1 repeater can be cascaded without limitations and has increased RS 485 strength. It does not have the short-circuit bug and the data is constantly monitored for glitches which are digitally filtered out. Every channel has on-board switchable termination and is able to drive 31 devices.

PROFIBUS features

- 1 Channel (2 segments)
- Transparent for all PROFIBUS DP protocols
- Suitable for PROFIsafe and MPI
- 9.6 kbps - 12 Mbps (auto detection)
- 31 bus-loads per channel
- 1200 m Cable length (depends on baudrate)
- No limit in cascading
- Termination switches
- No address required



Connectors features

- 2x M12 male-female per segment + 1 M12 for ProfiTrace
  - Pin 1: VPP
  - Pin 2: PB-A
  - Pin 3: DGND
  - Pin 4: PB-B
  - Thread: Shield
- M8 power supply
  - Pin 1: +24 VDC
  - Pin 2: +24 VDC
  - Pin 3: GND
  - Pin 4: GND
  - Thread: Shield
- Current consumption: 125 mA @ 24 VDC
- Operating voltage: 9 .. 31 VDC

PROCENTEC BV | Klopperman 16 | 2292 JD Wateringen | The Netherlands
T: +31 (0)174 671 800 | F: +31 (0)174 671 801
E: info@procentec.com | W: www.procentec.com