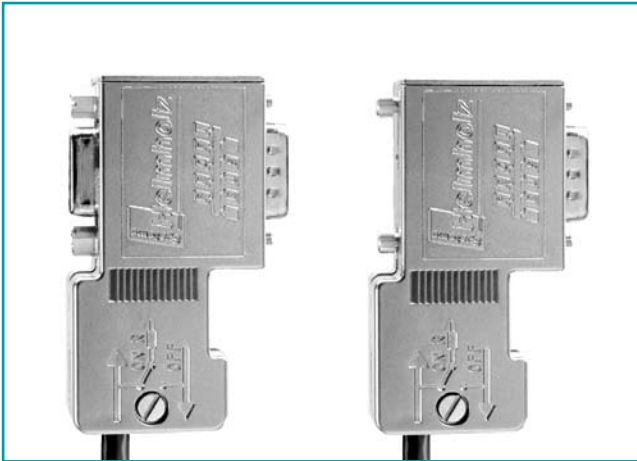# PROFIBUS

Bus Connectors
Repeater
Active Dropcable
Terminal Block
DP/DP Coupler

PROFIBUS Connector, 90°

Bus connector for PROFIBUS with (l.) and without (r.) prog. device connector

Features
- Metalized housing
- No loosable parts
- Integrated terminating resistor
- 90° cable outlet
- Small housing
- Screw terminals

With their compact design, the bus connectors of Systeme Helmholz GmbH are ideal for connecting PROFIBUS stations.
A slide switch sets whether the connector will be used as a node or end of segment. The switch can also be operated when the connector is plugged. The switch setting is clearly visible.
The connector must be used as a node ("OFF") when the incoming bus and the outgoing bus are to be interconnected. This deactivates the terminating resistors.
The connector must be set as a segment end ("ON") on the first and last (extreme) stations of the segment. In that case the terminating resistors are connected on the incoming bus, the outgoing bus is disconnected.

Technical Data	
Programming device connector Order No. 700-972-0BB12 Order No. 700-972-0BA12	**Yes** **No**
Dimensions (D x W x H mm)	64 x 40 x 17
Weight	Approx. 40 g
Outgoing cable	Vertical outgoing cable suitable for FastConnect[1] stripping tool
Terminating resistor	Resistor combination integrated and connectable with slide switch
Transmission rate max.	12 Mbps
Interfaces PROFIBUS station	SUB-D connector, 9-way
Max. outside diameter	8.0 mm
PROFIBUS cable	60/75 °C copper wire up to 1.0 mm²
Connection type	4 terminals
Voltage consumption	4.75 … 5.25 V DC (must come from connected equip.)
Current consumption max.	12.5 mA
Environmental pollution degree	2
Ambient temperature Transport and storage temperature Relative humidity max.	0 °C … +60 °C -25 °C … +80 °C 75 % at +25 °C
Degree of protection	IP 20

Ordering Data	
	Order No.
PROFIBUS Connector, 90° without prog. device connector with prog. device connector 90°	**700-972-0BA12** **700-972-0BB12**
Stripping tool for PROFIBUS	**700-972-6AA00**

The PROFIBUS connectors are also available in boxes containing 10 or 50 pieces.
1) FastConnect is a registered trademark of Siemens AG.

PROFIBUS Connector, 35°

Bus connector for PROFIBUS, with 35° cable outlet

The 35° bus connector for PROFIBUS is a further component in our range of connectors providing you with low-cost alternatives for your automation.
The bus connectors are used to connect a PROFIBUS station to the PROFIBUS cable. The connector is quickly mounted and features integrated terminating resistors.
The Systeme Helmholz GmbH offers the bus connector with an 35° cable outlet and for transmission rates up to 12 Mbps.

Features
- Metalized housing
- No loosable parts
- Integrated switchable terminating resistor
- 35° cable outlet
- Small housing
- Screw terminals

Technical Data	
Programming device connector Order No. 700-972-0BB41 Order No. 700-972-0BA41	**Yes** **No**
Dimensions (D x W x H mm)	54 x 40 x 17
Weight	Approx. 40 g
Outgoing cable	35° outgoing cable
Terminating resistor	Resistor combination integrated and connectable with slide switch
Transmission rate max.	12 Mbps
Interfaces PROFIBUS station	SUB-D connector, 9-way
Max. outside diameter	8.0 mm
PROFIBUS cable	60/75 °C copper wire up to 1.0 mm^2
Connection type	4 terminals
Voltage consumption	4.75 ... 5.25 V DC (must come from connected equip.)
Current consumption max.	12.5 mA
Environmental pollution degree	2
Ambient temperature Transport and storage temperature Relative humidity max.	0 °C ... +60 °C -25 °C ... +80 °C 75 % at +25 °C
Degree of protection	IP 20

Ordering Data	
	Order No.
PROFIBUS Connector, 35° without prog. device connector with prog. device connector	**700-972-0BA41** **700-972-0BB41**

The PROFIBUS connectors are also available in boxes containing 10 or 50 pieces.

PROFIBUS Connector, axial

Bus connector for PROFIBUS, with axial cable outlet

Features
• Metalized housing
• Integrated switchable terminating resistor
• No loosable parts
• Axial cable outlet
• Screw terminals

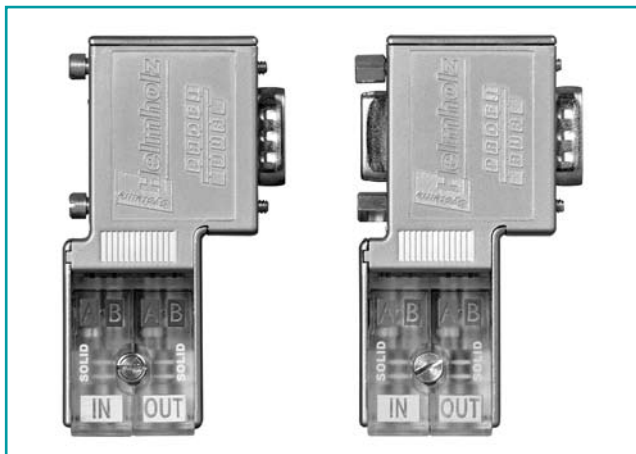The axial bus connector for PROFIBUS is a further component in our range of connectors providing you with low-cost alternatives for your automation.
The bus connector is used to connect PROFIBUS stations to the PROFIBUS cable. The connector is quickly mounted. In addition, the terminating resistors are already integrated.
The Systeme Helmholz GmbH offers the bus connector with an axial cable outlet and for transmission rates up to 12 Mbps.

Technical Data	
Dimensions (D x W x H mm)	68 x 39.5 x 17
Weight	Approx. 40 g
Outgoing cable, axial	Axial outgoing cable, suitable for FastConnect[1] stripping tool
Terminating resistor	Resistor combination integrated and connectable with slide switch
Transmission rate max.	12 Mbps
Interfaces PROFIBUS station	SUB-D connector, 9-way
Max. outside diameter	8.0 mm
PROFIBUS cable	60/75 °C copper wire up to 1.0 mm²
Connection type	4 terminals
Voltage consumption	4.75 ... 5.25 V DC (must come from connected equip.)
Current consumption max.	12.5 mA
Environmental pollution degree	2
Ambient temperature Transport and storage temperature Relative humidity max.	0 °C ... +60 °C -25 °C ... +80 °C 75 % at +25 °C
Degree of protection	IP 20

Ordering Data	
	Order No.
PROFIBUS Connector, axial axial cable outlet	**700-972-0CA12**

The PROFIBUS connectors are also available in boxes containing 10 or 50 pieces
1) FastConnect is a registered trademark of Siemens AG.

PROFIBUS Connector, 90° *EasyConnect*®

Bus connector for PROFIBUS, *EasyConnect*®

The *EasyConnect*® connector features quick-connect technology, which makes stripping the bus wires superfluous.
The bus connector is used to connect PROFIBUS stations to the PROFIBUS cable. The connector is quickly mounted. The housing is metal-coated for improved electromagnetic compatibility. In addition, the terminating resistors are already integrated.
The Systeme Helmholz GmbH offers the *EasyConnect*® connector with a perpendicular cable outlet. Once the cable has been installed it is easy to check (visual inspection) that the PROFIBUS cable has been correctly connected.
The *EasyConnect*® connector also works in the extended ambient temperature range of -25 °C to +70 °C with immediate effect.

Features
- Metalized housing
- No loosable parts
- *EasyConnect*® technology
- Visual connection control
- Integrated terminating resistor
- 90° cable outlet
- Small housing

Ordering Data	
	Order No.
PROFIBUS Connector,90° **EasyConnect®** **for solid cables** without prog. device connector with prog. device connector	**700-972-0BA50** **700-972-0BB50**
PROFIBUS Connector, 90° **EasyConnect®** **for flexible cables** without progr. device connector 90° with progr. device connector 90°	**700-972-0FA50** **700-972-0FB50**
Stripping tool for PROFIBUS	**700-972-6AA00**

EasyConnect® is a registered trademark of Systeme Helmholz GmbH.
1) FastConnect is a registered trademark of Siemens AG.

Technical Data	
Programming device connector Order No. 700-972-0BB50/-0FB50 Order No. 700-972-0BA50/-0FA50	**Yes** **No**
Dimensions (D x W x H mm)	72 x 40 x 17
Weight	Approx. 40 g
Outgoing cable	Vertical outgoing cable suitable for FastConnect[1] stripping tool
Terminating resistor	Resistor combination integrated and connectable with slide switch
Transmission rate max.	12 Mbps
Interfaces PROFIBUS station	SUB-D connector, 9-way
Max. outside diameter	8.0 mm
PROFIBUS cable	FC standard cable solid or flexible; 0.64 mm Ø 60/75 °C copper wire
Connection type	*EasyConnect*®
Voltage consumption	4.75 ... 5.25 V DC (must come from connected equip.)
Current consumption max.	12.5 mA
Environmental pollution degree	2
Ambient temperature Transport and storage temperature Relative humidity max.	0 °C ... +60 °C -25 °C ... +80 °C 75 % at +25 °C
Degree of protection	IP 20

PROFIBUS Connector, angled EasyConnect®

Illustration similar

Bus connector for PROFIBUS, angled **EasyConnect®**

Features

- Metalized housing
- No loosable parts
- **EasyConnect®** technology
- Visual connection control
- Integrated terminating resistor
- Angled cable outlet
- Small housing

The new angled **EasyConnect®** bus connector for PROFIBUS of Systeme Helmholz GmbH features quick-connect technology, which makes stripping the bus wires superfluous.
The bus connector is used to connect PROFIBUS stations to the PROFIBUS cable. The connector is quickly mounted.
The housing is metal-coated for improved electromagnetic compatibility. In addition, the terminating resistors are already integrated. Once the cable has been installed it is easy to check (visual inspection) that the PROFIBUS cable has been correctly connected.

Ordering Data

	Order No.
PROFIBUS Connector, angled EasyConnect® for solid cables	
without prog. device connector	**700-972-0BA51**
with prog. device connector	**700-972-0BB51**
PROFIBUS Connector, angled EasyConnect® for flexible cables	
without prog. device connector	**700-972-0FA51**
with prog. device connector	**700-972-0FB51**

Technical Data

Programming device connector Order No. 700-972-0BB51/-0FB51 Order No. 700-972-0BA51/-0FA51	**Yes** **No**
Dimensions (D x W x H mm)	95 x 70 x 17
Weight	Approx. 50 g
Outgoing cable	Angled outgoing cable
Terminating resistor	Resistor combination integrated and connectable with slide switch
Transmission rate max.	12 Mbps
Interfaces PROFIBUS station	SUB-D connector, 9-way
Max. outside diameter	8.0 mm
PROFIBUS cable	FC standard cable solid or flexible; 0.64 mm Ø 60/75 °C copper wire
Connection type	**EasyConnect®**
Voltage consumption	4.75 ... 5.25 V DC (must come from connected equip.)
Current consumption max.	12.5 mA
Environmental pollution degree	2
Ambient temperature Transport and storage temperature Relative humidity max.	0 °C ... +60 °C -25 °C ... +80 °C 75 % at +25 °C
Degree of protection	IP 20

PROFIBUS Connector, axial *EasyConnect®*

Bus connector for PROFIBUS, axial *EasyConnect®*

The *EasyConnect®* connector axial features quick-connect techno-logy, which makes stripping the bus wires superfluous.
The bus connector is used to connect PROFIBUS stations to the PROFIBUS cable. The connector is quickly mounted, and has a metallized housing and integrated terminating resistors.
Once the cable has been installed it is easy to check (visual in-spection) that the PROFIBUS cable has been correctly connected.
The *EasyConnect®* connector also works in the extended ambient temperature range of -25 °C to +70 °C with immediate effect.

Features

- Metalized housing
- No loosable parts
- Integrated terminating-resistor
- Visual connection control
- *EasyConnect®* technology
- Axial cable outlet

Technical Data	
Dimensions (D x W x H mm)	70 x 35 x 17
Weight	Approx. 50 g
Outgoing cable	Vertical outgoing cable suitable for FastConnect[1] stripping tool
Terminating resistor	Resistor combination integrated and connectable with slide switch
Transmission rate max.	12 Mbps
Interfaces PROFIBUS station	SUB-D connector, 9-way
Max. outside diameter	8.0 mm
PROFIBUS cable	FC standard cable solid or flexible; 0.64 mm Ø 60/75 °C copper wire
Connection type	*EasyConnect®*
Voltage consumption	4.75 ... 5.25 V DC (must come from connected equip.)
Current consumption max.	12.5 mA
Environmental pollution degree	2
Ambient temperature Transport and storage temperature Relative humidity max.	0 °C ... +60 °C -25° C ... +80 °C 75 % at +25 °C
Degree of protection	IP 20

Ordering Data	
	Order No.
PROFIBUS Connector, axial **EasyConnect®** for solid cables for flexible cables	700-972-0CA50 700-972-0CF50

1) FastConnect is a registered trademark of Siemens AG.

PROFIBUS Connector, 90° with diagnostic LEDs, EasyConnect®

Bus connector for PROFIBUS, 90° EasyConnect® with diagnostic LEDs

The EasyConnect® diagnostic PROFIBUS connector allows you to build a PROFIBUS network in which the user can always check the state of the bus system at a glance.

The three built-in LEDs in the easily distinguishable colors blue, green, and orange indicate the most important states of the PROFIBUS network at each station.

The state of the terminating resistor (**orange**), whether bus activity is in progress (**green**), and whether the station addressed is participating in bus traffic (**blue**) are all indicated.

This means errors, such as bus interruptions, missing or incorrectly connected terminating resistors, and malfunctioning or failed bus stations can be detected immediately.

The PROFIBUS diagnostic connector with tried-and-tested and reliable screw terminals can be supplied with or without a programmer (PG) jack.

The new EasyConnect® connectors feature quick-connect technology, which makes stripping the bus wires superfluous. The bus connector is used to connect a PROFIBUS station to the PROFIBUS cable.

Features

- 3 LEDs status displays
- Integrated terminating resistors
- No loosable parts
- Small housing
- Visual connection control
- EasyConnect® technology

Ordering Data

	Order No.
PROFIBUS Connector, 90° **with diagnostic LEDs EasyConnect®** **for solid cables** without prog. device connector with prog. device connector	**700-972-7BA50** **700-972-7BB50**
PROFIBUS Connector, 90° **with diagnostic LEDs EasyConnect®** **for flexible cables** without prog. device connector with prog. device connector	**700-972-7FA50** **700-972-7FB50**
Stripping tool for PROFIBUS	**700-972-6AA00**

1) FastConnect is a registered trademark of Siemens AG.

Technical Data

Technical Data	
Programming device connector Order No. 700-972-7BB50/-7FB50 Order No. 700-972-7BA50/-7FA50	**Yes** **No**
Dimensions (D x W x H mm)	64 x 40 x 17
Weight	Approx. 40 g
Outgoing cable	Vertical outgoing cable suitable for Fast-Connect[1] stripping tool
Terminating resistor	Resistor combination integrated and connectable with slide switch
Transmission rate max.	12 Mbps
Interfaces PROFIBUS station	SUB-D connector, 9-way
Max. outside diameter	8.0 mm
PROFIBUS cable	FC standard cable solid, 0.64 mm Ø 60/75 °C copper wire
Connection type	EasyConnect®
Voltage consumption	4.75 ... 5.25 V DC (must come from connected equip.)
Current consumption max.	35 mA
Environmental pollution degree	2
Ambient temperature Transport and storage temperature Relative humidity max.	0 °C ... +60 °C -25 °C ... +80 °C 75 % at +25 °C
Degree of protection	IP 20

PROFIBUS Connector, 90° with diagnostic LEDs

Bus connector for PROFIBUS, 90° with diagnostic LEDs

The PROFIBUS diagnostic connector can be used to connect a PROFIBUS network in which the user can check the status of the bus system at any time at a glance.

The three built-in LEDs with the easily distinguished colors blue, green and orange indicate the most important states of the PROFIBUS network at each station. The state of the terminating resistor (**orange**), whether bus activity is in progress (**green**) and whether the station addressed is participating in bus traffic (**blue**) are all indicated.

This means errors, such as bus interruptions, missing or incorrectly connected terminating resistors and malfunctioning or failed bus stations can be detected immediately.

The PROFIBUS diagnostic connector with screw terminals can be supplied with or without a programming (PG) device connector.

Features

- 3 status LEDs indicate "bus operation", "station transmitting", "terminating resistor inserted"
- Screw terminals
- Integrated switchable terminating resistors
- No loosable parts
- Small housing

Technical Data	
Programming device connector Order No. 700-972-7BB12 Order No. 700-972-7BA12	**Yes** **No**
Dimensions (D x W x H mm)	64 x 40 x 17
Weight	Approx. 40 g
Outgoing cable	Vertical outgoing cable suitable for Fast-Connect[1] stripping tool
Terminating resistor	Resistor combination integrated and connectable with slide switch
Transmission rate max.	12 Mbps
Interfaces PROFIBUS station	SUB-D connector, 9-way
Max. outside diameter	8.0 mm
PROFIBUS cable	60/75 °C copper wire up to 1.0 mm^2
Connection type	4 terminals
Voltage consumption	4.75 ... 5.25 V DC (must come from connected equip.)
Current consumption max.	35 mA
Environmental pollution degree	2
Ambient temperature Transport and storage temperature Relative humidity max.	0 °C ... +60 °C -25 °C ... +80 °C 75 % at +25 °C
Degree of protection	IP 20

Ordering Data	
	Order No.
PROFIBUS Connector, 90° with diagnostic LEDs without prog. device connector 90° with prog. device connector 90°	 **700-972-7BA12** **700-972-7BB12**
Stripping tool for PROFIBUS	**700-972-6AA00**

1) FastConnect is a registered trademark of Siemens AG.

PROFIBUS Connector with ATEX accreditation

Bus connector for PROFIBUS with (l.) and without (r.) prog. device connector

The bus connectors are used to connect a PROFIBUS station to the PROFIBUS cable. The connector is quickly mounted and has integrated, connectable terminating resistors.
The Systeme Helmholz GmbH offers the bus connector for usage in explosion hazardous areas of zone 2 (explosive gas atmosphere appears seldom and for very short time).
The bus connector is plugged directly onto the PROFIBUS interface (SUB-D connector, 9-way) of the PROFIBUS stations. The PROFIBUS cables are connected using 4-way screw terminals. Using a slide switch you can set whether the connector is to be used as a node or segment end. The switch can also be operated when the connector is installed. The setting can be clearly seen.

Features
- Metalized housing
- No loosable parts
- Integrated switchable terminating resistor
- 90° cable outlet
- ATEX accreditation (II 3 G Ex nA II T4)
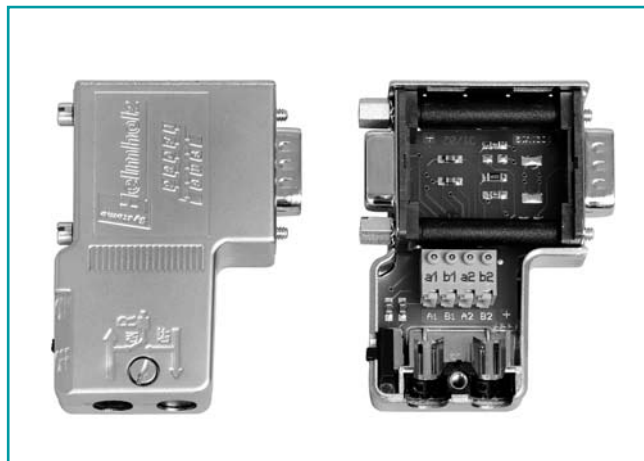- Screw terminals

Ordering Data

	Order No.
PROFIBUS Connector with ATEX accreditation without prog. device connector, Ex-Zone 2	**700-973-0BA12**
with prog. device connector, Ex-Zone 2	**700-973-0BB12**
Stripping tool for PROFIBUS	**700-972-6AA00**

1) FastConnect is a registered trademark of Siemens AG.

Technical Data

Technical Data	
Programming device connector Order No. 700-973-0BB12 Order No. 700-973-0BA12	**Yes** **No**
Dimensions (D x W x H mm)	64 x 40 x 17
Weight	Approx. 40 g
Outgoing cable	Vertical outgoing cable suitable for FastConnect[1] stripping tool
Terminating resistor	Resistor combination integrated and connectable with slide switch
Transmission rate max.	12 Mbps
Interfaces PROFIBUS station	SUB-D connector, 9-way
Max. outside diameter	8.0 mm
PROFIBUS cable	60/75 °C copper wire up to 1.0 mm²
Connection type	4 terminals
Voltage consumption	4.75 ... 5.25 V DC (must come from connected equip.)
Current consumption max.	12.5 mA
Environmental pollution degree	2
Ambient temperature Transport and storage temperature Relative humidity max.	0 °C ... +60 °C -25 °C ... +80 °C 75 % at +25 °C
Degree of protection	IP 20

PROFIBUS Connector with spring type terminals

Bus connector for PROFIBUS with spring type terminals

Features
- Metalized housing
- No loosable parts
- Integrated switchable terminating resistor
- 90° cable outlet
- Spring type terminal

The bus connector is used to connect PROFIBUS stations to a PROFIBUS cable. The connector is quickly mounted and has integrated, connectable terminating resistors.

The spring type terminal is suiteable for solid conductors up to a cross section of 0.5 mm². The stripped conductors contacts automatically when inserted, for breaking the connection the orange lever must be pressed.

The bus connector is plugged directly onto the PROFIBUS interface (SUB-D connector, 9-way) of the PROFIBUS stations. The PROFIBUS cables are connected using 4-way spring type terminals.

Using a slide switch, you can set whether the connector is to be used as a node or segment end. The switch can also be operated when the connector is installed. The setting can be clearly seen.

Technical Data	
Programming device connector Order No. 700-982-0BB22 Order No. 700-982-0BA22	**Yes** **No**
Dimensions (D x W x H mm)	65 x 48 x 16
Weight	Approx. 40 g
Outgoing cable	Vertical outgoing cable suitable for FastConnect[1] stripping tool
Terminating resistor	Resistor combination integrated and connectable with slide switch
Transmission rate max.	12 Mbps
Interfaces PROFIBUS station	SUB-D connector, 9-way
Max. outside diameter	8.0 mm
PROFIBUS cable	60/75 °C copper wire up to 0.5 mm²
Connection type	4 spring type terminals
Voltage supply	DC 4.75 ... 5.25 V (must come from connected equip.)
Current consumption max.	12.5 mA
Environmental pollution degree	2
Ambient temperature Transport and storage temperature Relative humidity max.	0 °C ... +60 °C -25 °C ... +80 °C 75 % at +25 °C
Degree of protection	IP 20

Ordering Data	
	Order No.
PROFIBUS Connector with spring type terminals without prog. device connector with prog. device connector	700-982-0BA22 700-982-0BB22
Stripping tool for PROFIBUS	700-972-6AA00

1) FastConnect is a registered trademark of Siemens AG.

PROFIBUS Connector, 90° M12

Illustration similar

Bus connector for PROFIBUS, with M12 connection

The new M12 bus connector for PROFIBUS of Systeme Helmholz GmbH is used to connect PROFIBUS stations to a PROFIBUS cable with an M12 connection. The use of prefabricated system cables eliminates connection faults. Assembly effort is reduced to a minimum.
The connector has two M12 connections and integrated terminating resistors. The housing is metal-coated for improved electromagnetic compatibility.
Systeme Helmholz GmbH offers the M12 bus connector with a 90° cable duct for transmission rates up to 12 Mbps.

Features
- Metalized housing
- No loosable parts
- Integrated switchable terminating resistor
- 90° cable outlet
- M12 connections

Technical Data	
Programming device connector Order No. 700-974-0BB12 Order No. 700-974-0BA12	**Yes** **No**
Dimensions (D x W x H mm)	70 x 40 x 17
Weight	Approx. 60 g
Outgoing cable	Vertical outgoing cable
Terminating resistor	Resistor combination integrated and connectable with slide switch
Transmission rate max.	12 Mbps
Interfaces PROFIBUS station	SUB-D connector, 9-way
Connection type	M12
Voltage consumption	4.75 ... 5.25 V DC (must come from connected equip.)
Current consumption max.	12.5 mA
Environmental pollution degree	2
Ambient temperature Transport and storage temperature Relative humidity max.	0 °C ... +60 °C -25 °C ... +80 °C 75 % at +25 °C
Degree of protection	IP 20

Ordering Data	
	Order No.
PROFIBUS Connector, 90° M12 without prog. device connector with prog. device connector	 **700-974-0BA12** **700-974-0BB12**

FLEXtra® twinRepeater, PROFIBUS Repeater

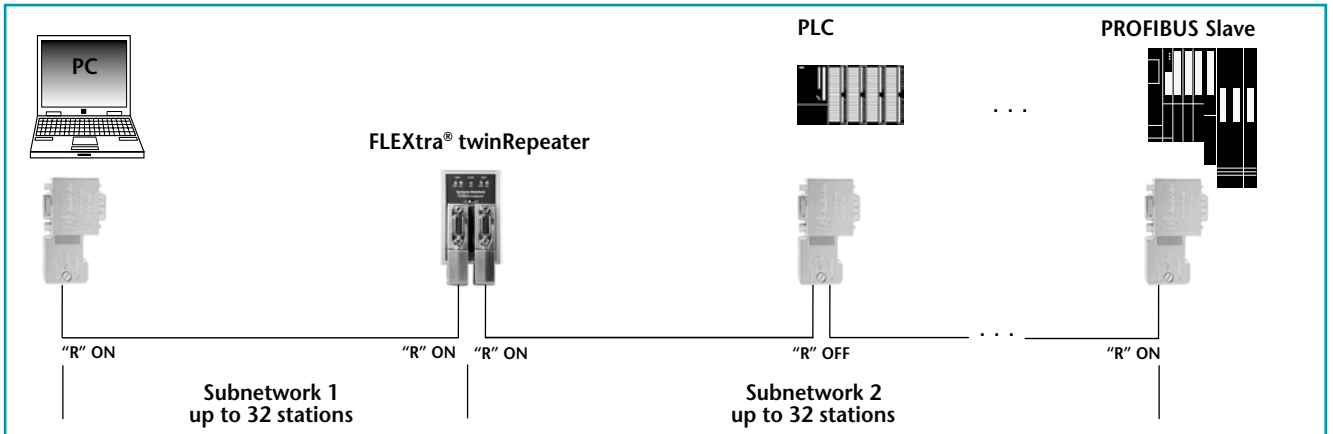FLEXtra® twinRepeater

Features

- Can be used as bus extension or as a spur line
- Increases the number of stations on the bus
- System expansion
- Can also be used in MPI networks
- Status LEDs per segment
- Repeater function can be deactivated
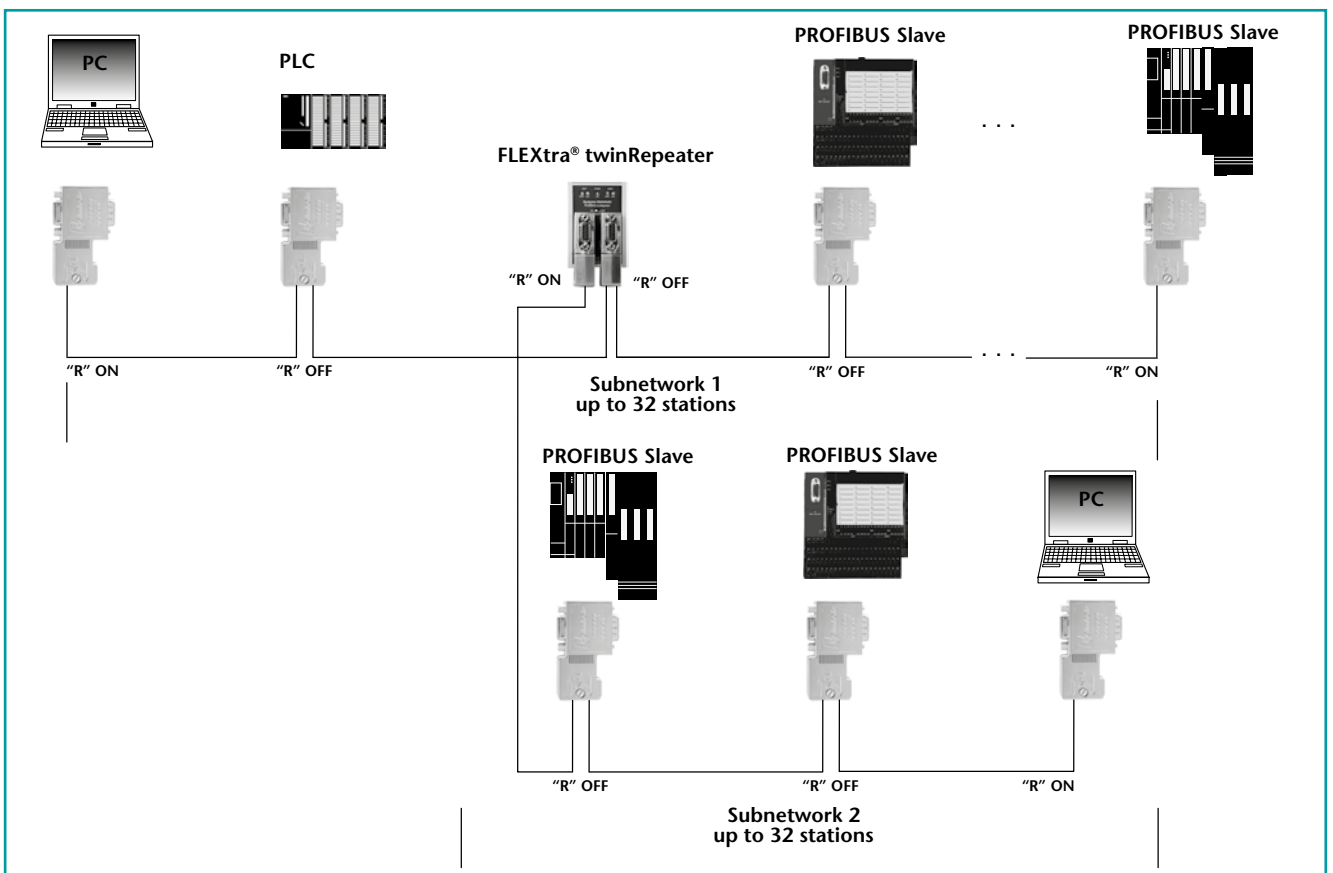- Electrical isolation

FLEXtra twinRepeater

Despite its compact size, the new FLEXtra® twinRepeater from Systeme Helmholz GmbH is a fully functioning PROFIBUS repeater. It is designed for mounting on a DIN rail.

The FLEXtra® twinRepeater regenerates the electrical signal arriving on the bus line and retransmits it (bit reshaping and retransmission). The level, edge steepness, and mark-to-space ratio of the signals are reproduced exactly. It supports transmission rates from 9.6 kbps to 12 Mbps and automatically detects them.

The twinRepeater offers an excellent method of extending the bus (up to 1 km with 2 FLEXtra® twinRepeaters), increasing the number of stations, and expanding the system. Moreover, it can be used in MPI networks. In particular, the FLEXtra® twinRepeater can be used to implement spur lines as independent segments. The status LEDs integrated for each segment provide a clear overview of the current bus status. What is more, the FLEXtra® twinRepeater electrically isolates the two PROFIBUS segments from each other.

The twinRepeater also has a switch for deactivating the repeater function. This separates the segments, which nevertheless each remain able to function. PROFIBUS connectors are required for connection to the PROFIBUS cable (also available as a set).

Ordering Data	
	Order No.
FLEXtra® twinRepeater (incl. instruction)	700-972-2AA02
FLEXtra® twinRepeater Set FLEXtra® twinRepeater, 2 PROFIBUS Connectors screw terminals 90° with PG (incl. instruction)	700-972-2XA02

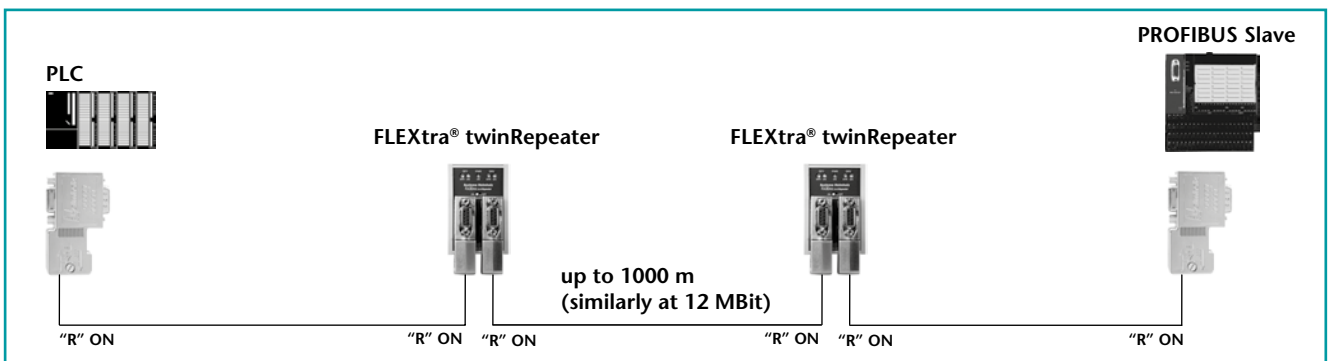| Technical Data	
Dimensions (D x W x H mm)	35 x 44 x 72
Weight	Approx. 110 g
Power supply	18 ... 30 VDC
Output voltage	5 V
Potential separation	500 V
Current consumption max.	60 mA
Segment connection	Via PROFIBUS Connector
PROFIBUS interface Transmission rate max.	12 Mbps autodetection
Protocol	PROFIBUS-DP to EN 61 158-2
Ambient temperature Transport and storage temperature	0 °C ... +60 °C -25 °C ... +75 °C
Degree of protection	IP 20

FLEXtra® twinRepeater, PROFIBUS Repeater

PC

PLC

PROFIBUS Slave

FLEXtra® twinRepeater

"R" ON — "R" ON "R" ON — "R" OFF — "R" ON

Subnetwork 1
up to 32 stations

Subnetwork 2
up to 32 stations

Application example FLEXtra® twinRepeater with more than 32 stations

PC

PLC

PROFIBUS Slave

PROFIBUS Slave

FLEXtra® twinRepeater

"R" ON "R" OFF

"R" ON — "R" OFF — "R" OFF — "R" ON

Subnetwork 1
up to 32 stations

PROFIBUS Slave

PROFIBUS Slave

PC

"R" OFF — "R" OFF — "R" ON

Subnetwork 2
up to 32 stations

Application example FLEXtra® twinRepeater with spur lines

PROFIBUS Slave

PLC

FLEXtra® twinRepeater

FLEXtra® twinRepeater

up to 1000 m
(similarly at 12 MBit)

"R" ON — "R" ON "R" ON — "R" ON "R" ON — "R" ON

Application example FLEXtra® twinRepeater with long distances

FLEXtra® multiRepeater 4-way/6-way, PROFIBUS Repeater

FLEXtra® multiRepeater 4-way, 6-way

Features
- Building star networks
- Plant expansion up to 6 segments with a single device
- Increased number of stations on the bus
- Deployable for bus extension or as a spur line
- Can also be used in MPI networks
- Status LEDs for each segment
- Repeating function can be deactivated for each segment or completely
- Electrical isolation of all segments
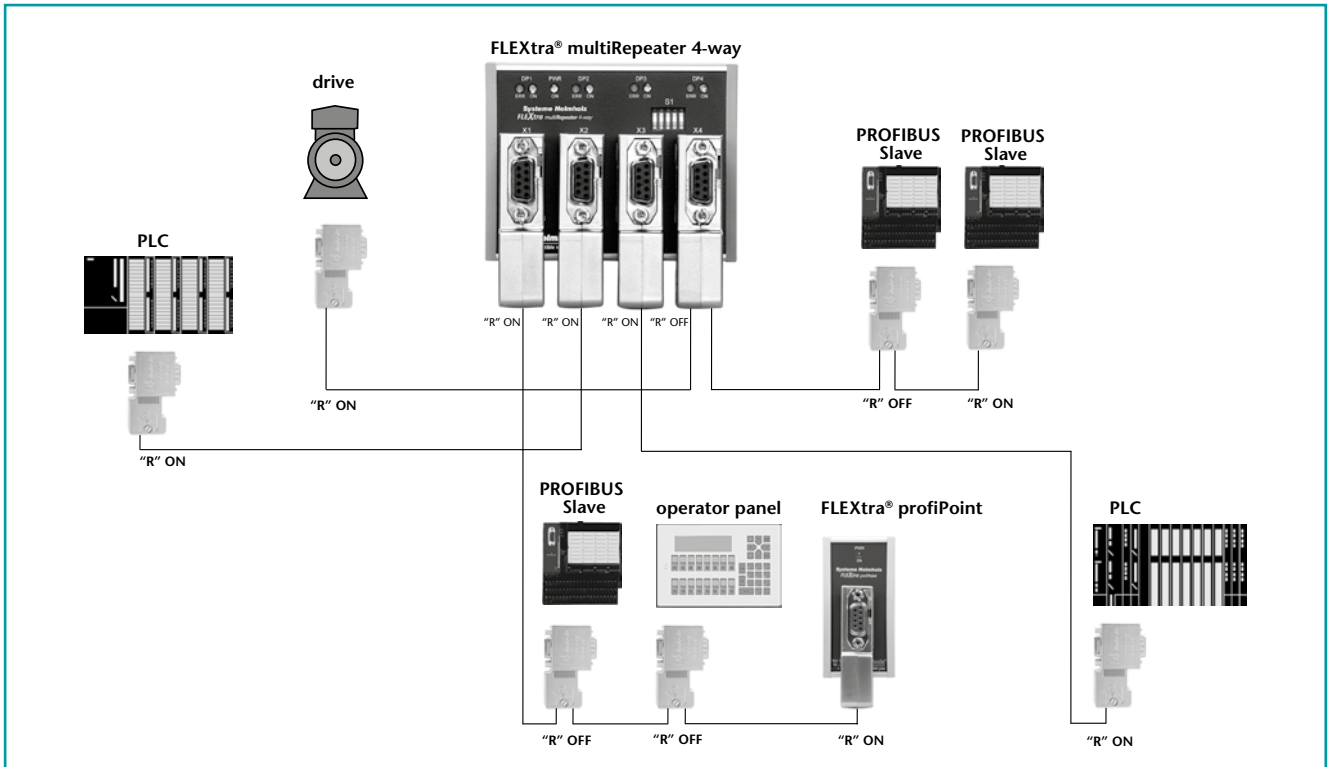
FLEXtra multiRepeater

The new FLEXtra® multiRepeater from Systeme Helmholz GmbH is a multiple PROFIBUS Repeater. It is designed to be mounted on a DIN rail. The FLEXtra® multiRepeater regenerates the electrical signal arriving on a bus cable and retransmits it (bit reshaping and retransmission).
The level, edge steepness and mark-to-space ratio of the signals are reproduced exactly. It supports transmission rates of 9.6 kbps to 12 Mbps and detects the rate automatically.
The multiRepeater can be used to extend the bus, to increase the number of stations on the bus, and to expand the plant. Use in MPI networks is also possible. As a special application, the FLEXtra® multiRepeater enables a star network with autonomous segments. The status LEDs integrated for each segment provide a fast overview of the bus status.
Moreover, the FLEXtra® multiRepeater ensures electrical isolation between the PROFIBUS segments. The multiRepeater also has a DIP switch for disconnecting individual segments and a switch for disconnecting all segments. The segments are disconnected but each segment remains separately functional. PROFIBUS connectors are required for connection to the PROFIBUS cable.

Technical Data

	4-way	6-way
Dimensions (D x W x H mm)	35 x 94 x 72	35 x 137 x 72
Weight	Approx. 180 g	Approx. 275 g
Power supply	18 ... 30 VDC	18 ... 30 VDC
Output voltage	5 V, 150 mA per Segment	5 V, 150 mA per Segment
Potential separation	500 V	500 V
Current consuption max.	280 mA	400 mA
Segment connection	Via PROFIBUS Connector	Via PROFIBUS Connector
PROFIBUS interface Transmission rate max.	12 Mbps autodetection	12 Mbps autodetection
Protocol	PROFIBUS-DP to EN 61 158-2	PROFIBUS-DP to EN 61 158-2
Surrounding air temp. Transport and storage temperature	0 °C ... +60 °C -25 °C ... +75 °C	0 °C ... +60 °C -25 °C ... +75 °C
Degree of protection	IP 20	IP 20

Ordering Data

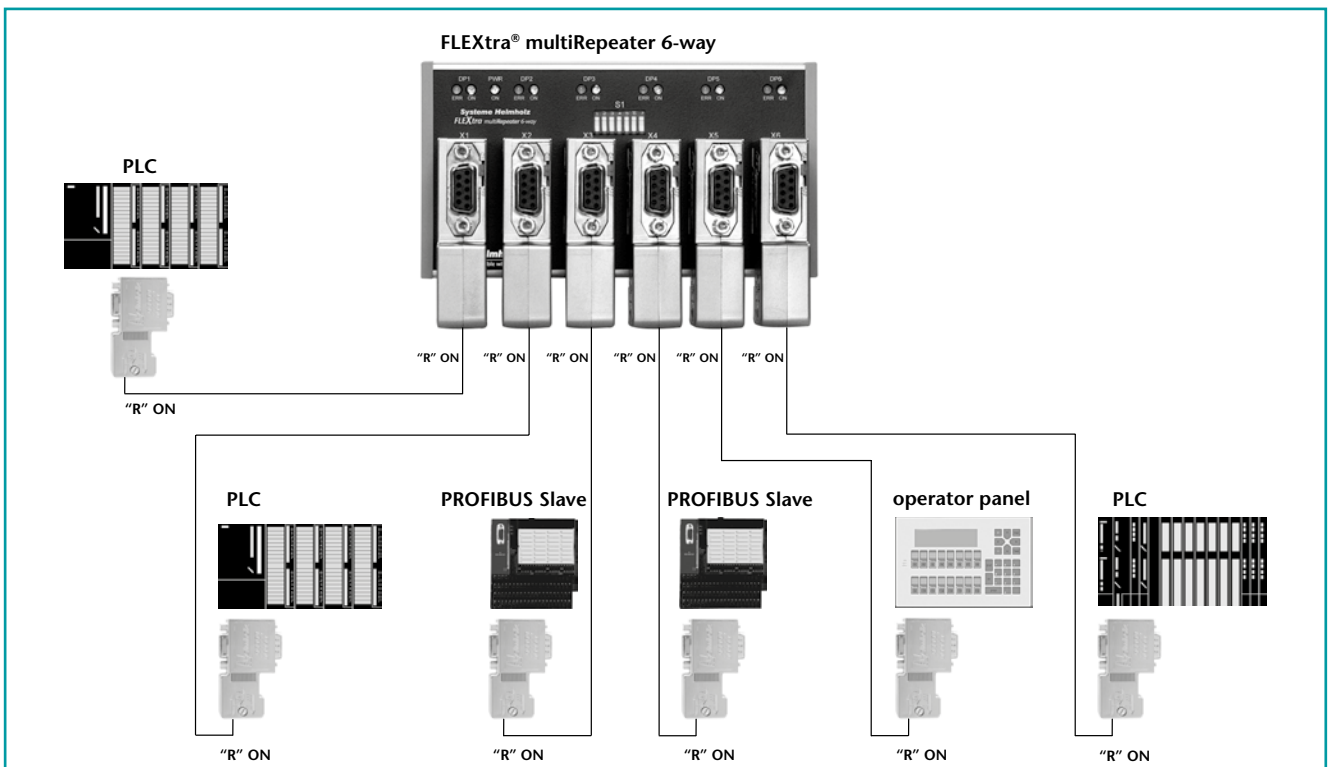|	Order No.
FLEXtra® multiRepeater 4-way (incl. instruction)	700-972-4AA02
FLEXtra® multiRepeater 6-way (incl. instruction)	700-972-6AA02

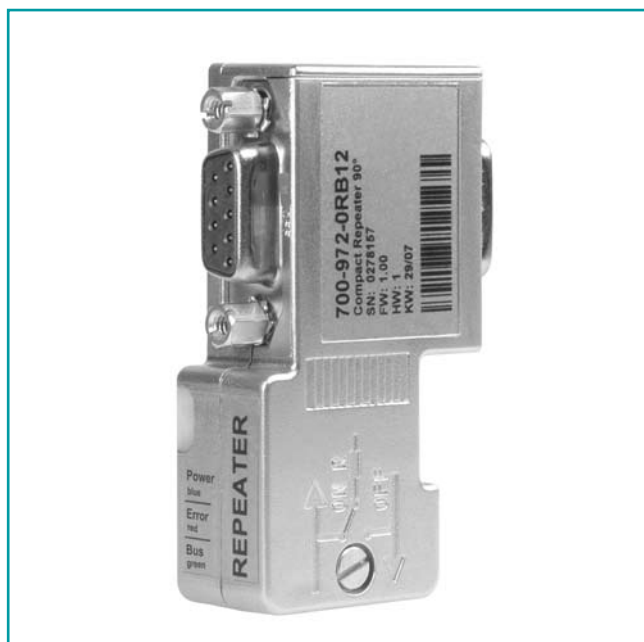## FLEXtra® multiRepeater 4-way/6-way, PROFIBUS Repeater

Application example FLEXtra® multiRepeater 4-way

Application example FLEXtra® multiRepeater 6-way

PROFIBUS Compact Repeater
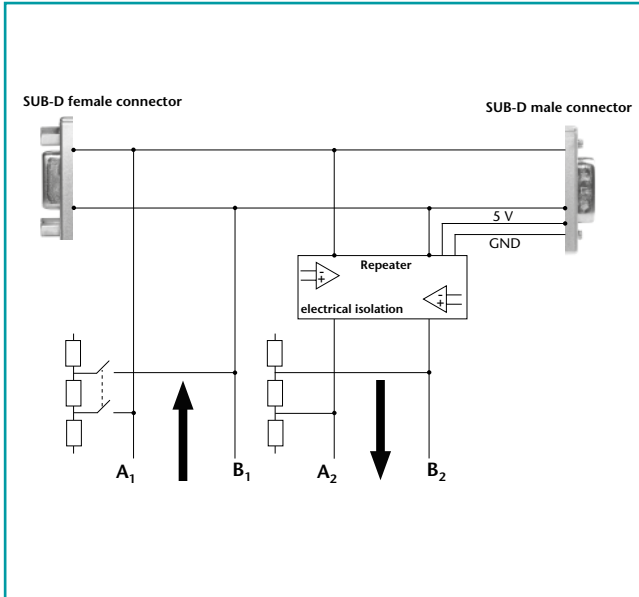
PROFIBUS Compact Repeater

Features

- A real alternative to conventional PROFIBUS repeaters
- No additional space needed in the cabinet
- Very flexible in its use
- Can be used as a bus extension or spur line
- Increases the number of stations on the bus
- System expansion
- Can also be used in MPI networks
- Status LEDs
- 24 V supply is not necessary
- 5 V power supply direct from the PROFIBUS, with that it's usable on every PROFIBUS device
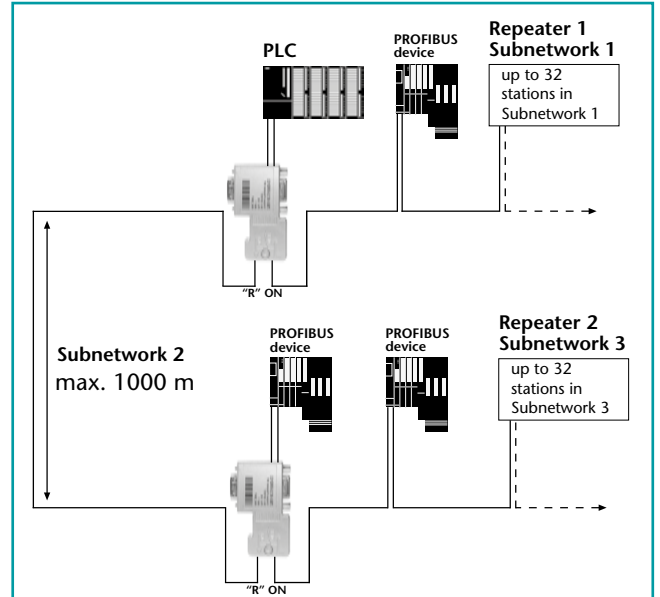- Electrical isolation

The new PROFIBUS Compact Repeater from Systeme Helmholz GmbH is a fully functional PROFIBUS repeater. It is applicable very flexible thanks to it's very small style.

The repeater covers transmission rates from 9.6 Kbps to 12 Mbps. The transmitted signals are regenerated by the repeater and resent (Bit-Reshaping and Retransmission), so trouble in the line are mostly avoided.

In term of price as well as in term of technical reasons the PROFIBUS Compact Repeater is a real option for multitude applications instead of using standard repeaters.

It can be used for bus extensions (up to 1 km with 2 PROFIBUS Compact Repeaters), increasement of the stations as well as for plant extensions.

The operation in MPI networks is also possible.

As a special application option the PROFIBUS Compact Repeater offers you the possibility the usage of drop cables as standalone segments. Therefore it can be plugged directly on the PG port of a built in PROFIBUS connector.

Due to the compact shape no additional room is needed in the cabinet, as the PROFIBUS Compact Repeater can be used instead of PROFIBUS Connector, or simply plugged onto a node in the PROFIBUS Network.

Furthermore no separate power supply is needed, as the PROFIBUS Compact Repeater is using the 5 V power supply, every PROFIBUS device possesses for the terminating resistor. The PROFIBUS Compact Repeater generates an isolation between both PROFIBUS segments. The integrated status LEDs provide a fast overview on the current Bus status.

Transmission Rate	max. segment length
9.6 kbps	1000 m
19.2 kbps	1000 m
45.45 kbps	1000 m
93.75 kbps	1000 m
187.5 kbps	1000 m
500 kbps	400 m
1.5 Mbps	200 m
3 Mbps	100 m
6 Mbps	100 m
12 Mbps	100 m

Technical Data	
Dimensions (D x W x H mm)	64 x 40 x 17
Weight	Approx. 40 g
Power supply Voltage	+ 5 V DC
Current consumption typ.	100 mA
Connection	SUB-D, 9-way
PROFIBUS interface Transmission rate max.	9.6 kbps to 12 Mbps autodetection
Protocol	PROFIBUS-DP per EN 50 170
Connection	SUB-D, 9-way
Max. outside diameter	8.0 mm
PROFIBUS cable	60/70 °C copper wire up to 1.0 mm^2
Connection type	4 terminals
Environmental pollution degree	2
Ambient temperature Transport and storage temperature	0 °C ... +60 °C -25 °C ... +75 °C
Degree of protection	IP 20

Ordering Data	
	Order No.
PROFIBUS Compact Repeater (incl. instruction)	700-972-0RB12
Stripping tool for PROFIBUS	700-972-6AA00

PROFIBUS Compact Repeater

SUB-D female connector

SUB-D male connector

5 V

GND

Repeater

electrical isolation

A_1　B_1　A_2　B_2

Internal Design

PLC

PROFIBUS device

Repeater 1
Subnetwork 1

up to 32 stations in Subnetwork 1

"R" ON

Subnetwork 2
max. 1000 m

PROFIBUS device

PROFIBUS device

Repeater 2
Subnetwork 3

up to 32 stations in Subnetwork 3

"R" ON

Application example with long distances

PC　　**PLC**　　**PROFIBUS device**　　**PROFIBUS device**　　**PROFIBUS device**

. . .

Compact Repeater

"R" ON　　"R" OFF　　"R" OFF　　"R" OFF　　"R" OFF　　. . .　　"R" ON

Subnetwork 1
up to 32 stations

PROFIBUS device　　**PROFIBUS device**　　**PC**

"R" OFF　　"R" OFF　　"R" ON

Subnetwork 2
up to 32 stations
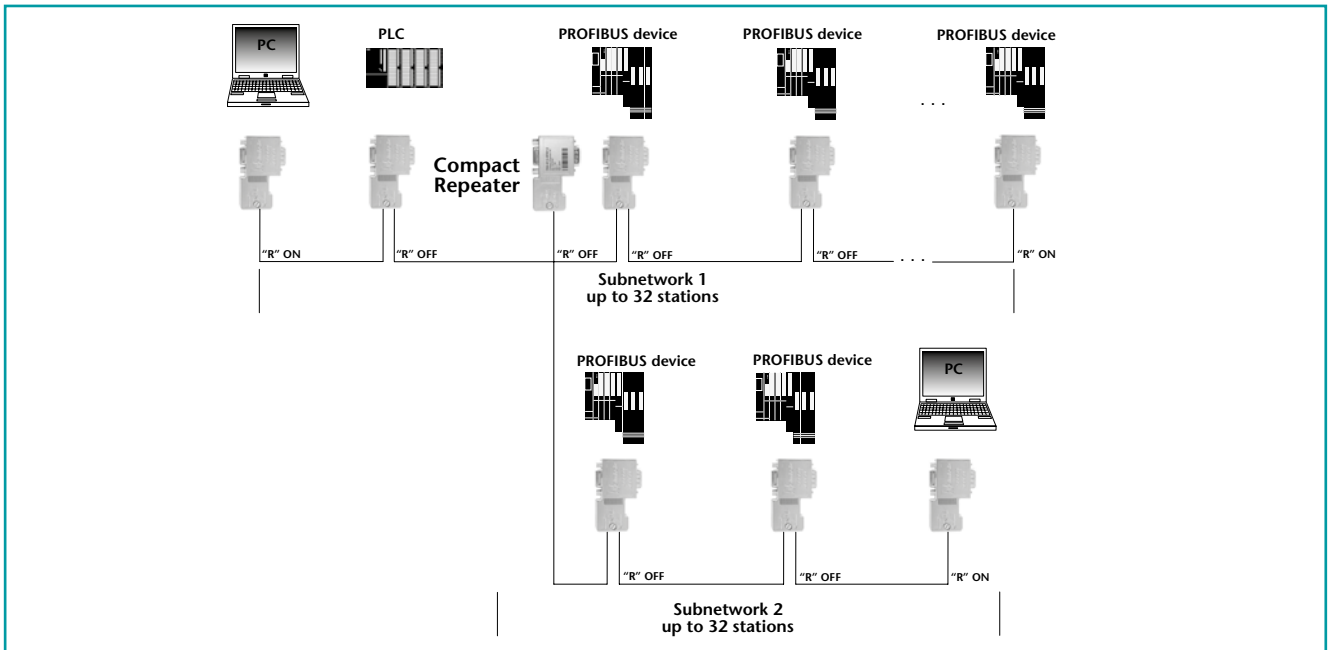
Application example with spur lines

PC　　　　**PLC**　　**PROFIBUS device**　　**PROFIBUS device**

. . .

Compact Repeater

"R" ON　　　　"R" ON　　"R" OFF　　. . .　　"R" ON

Subnetwork 1
up to 32 stations

Subnetwork 2
up to 32 stations
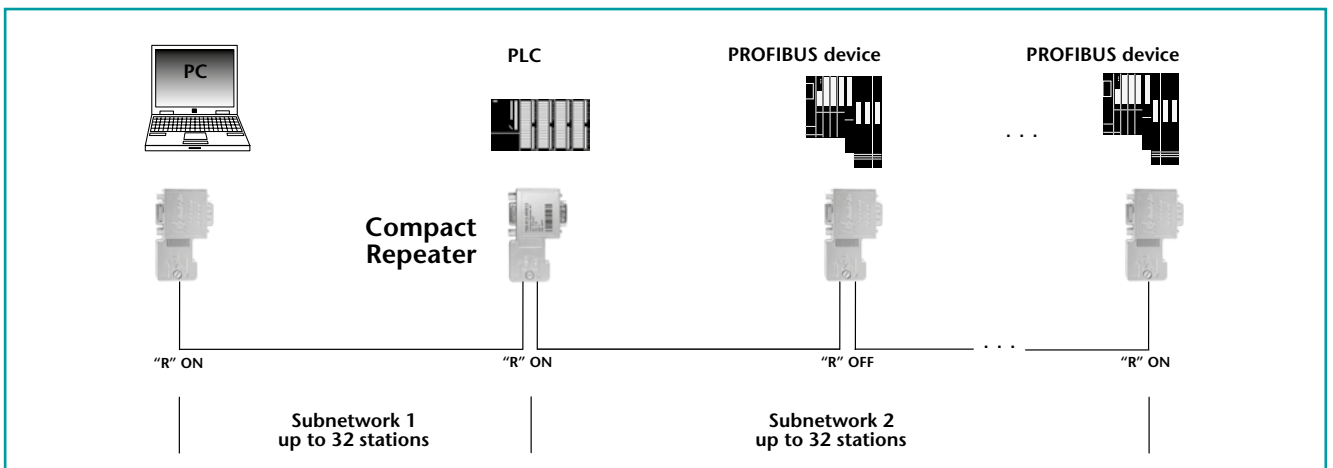
Application example with more than 32 stations

viBlu, PROFIBUS Radio System

The accessories depicted here are
not included in the scope of supply!

viBlu, PROFIBUS radio system

The PROFIBUS radio system viBlu is a virtual cable that permits the linking of distributed I/Os or intelligent devices (e.g. rotating tables, conveyor systems, etc.) by means of radio.
Data transmission is performed via Bluetooth in the license-exempt 2.4 GHz band and supports the PROFIBUS baud rates of 9.6 kbps to 1.5 Mbps.
Depending on the local circumstances, transmission distances of up to 100 m are possible.
Use of the PROFIBUS radio module is possible in single-master, and in multi-master systems and permits full PROFIBUS expansion. At present, only PROFIBUS-DP-slaves are supported behind a viBlu slave.
The PROFIBUS radio module is powered with 24 V DC from an external power supply.
A 9-way SubD socket is used for the PROFIBUS connection. Moreover, an USB port is integrated to be used for parameterization of the radio link.
5 LEDs on the device provide information about the operating status on the PROFIBUS and on the radio side.
Antennas with a larger gain can optionally be connected to the radio module through an RP-SMA socket on the device to optimize the range.
Outside Europe, use of antennas with a gain of more than 10 dBi is permitted, enabling radio-relay systems with a range, for example, of up to a few kilometers.

Accessory-Note
For antennas, see page 60.

Features viBlu 200
- Settable transmission power
- Up to 3 radio slaves on one radio master
- Bluetooth in the license-exempt 2.4 GHz band
- Up to 1.5 Mbps PROFIBUS-DP
- Simple configuration via USB interface
- No configuration necessary in STEP[1] 7
- Extensive diagnostics of the radio interface
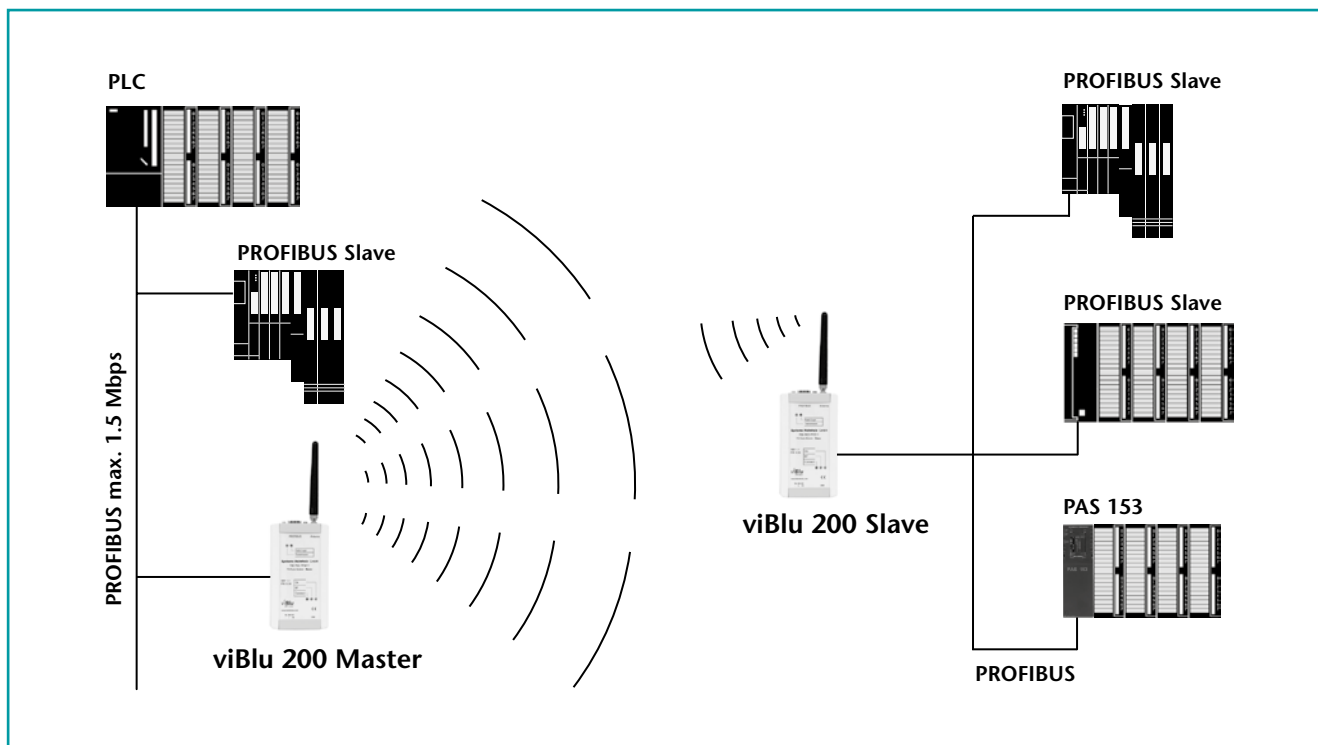- Ranges extending to over 100 m

Features viBlu 100
As for viBlu 200 but with following reservations:
- Only 1 DP-slave
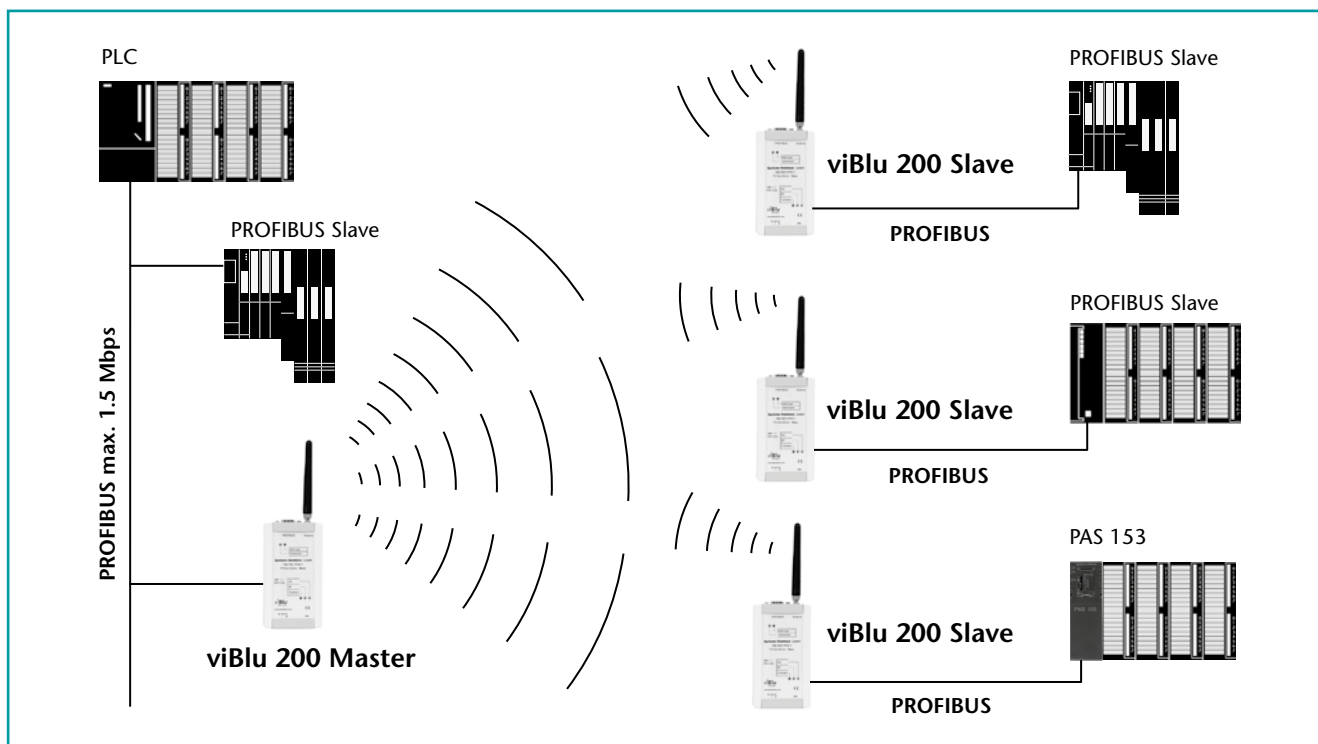- Only up to 187.5 kbps PROFIBUS-DP

viBlu

Ordering Data	
	Order No.
viBlu 100 Master* connection up to 1 Slave; 187.5 kbps	700-761-PFM11
viBlu 100 Slave*	700-761-PFS11
viBlu 200 Master* connection up to 3 Slaves; 1.5 Mbps	700-762-PFM11
viBlu 200 Slave*	700-762-PFS11
*(incl. manual, CD with software)	

1) STEP is a registered trademark of Siemens AG.

Technical Data		
	viBlu 100	**viBlu 200**
Dimensions (D x W x H mm)	130 x 68 x 30	130 x 68 x 30
Weight	Approx. 170 g	Approx. 170 g
Power supply Voltage	DC 24 V (18 … 30 V)	DC 24 V (18 … 30 V)
Current consumption	Typ. 100 mA	Typ. 100 mA
PROFIBUS Type	RS485, isolated	RS485, isolated
Number of DP/slaves	1 slave	3 slaves
Transmission rate	9.6 kbps … 187.5 kbps, autodetection	9.6 kbps … 1.5 Mbps, autodetection
Connection	SUB-D, 9-way	SUB-D, 9-way
Radio interface Protocol	Bluetooth	Bluetooth
Range	Up to more than 100 m	Up to more than 100 m
Baud rate	Up to 700 kbps	Up to 700 kbps
Antenna connection	RP-SMA socket	RP-SMA socket
Ambient temperature	0 °C … 60 °C	0 °C … 60 °C
Indicators	5 LEDs	5 LEDs
Degree of protection	IP 20	IP 20

viBlu, PROFIBUS Radio System

PLC

PROFIBUS Slave

PROFIBUS max. 1.5 Mbps

PROFIBUS Slave

viBlu 200 Master

viBlu 200 Slave

PROFIBUS Slave

PAS 153

PROFIBUS

Application example viBlu 200 with a radio slave and up to 3 PROFIBUS-DP stations

PLC

PROFIBUS max. 1.5 Mbps

PROFIBUS Slave

viBlu 200 Master

viBlu 200 Slave

PROFIBUS Slave

PROFIBUS

viBlu 200 Slave

PROFIBUS Slave

PROFIBUS

viBlu 200 Slave

PAS 153

PROFIBUS

Application example viBlu 200 with 3 radio slaves

PAS 153 viBlu, distributed PROFIBUS Radio Interface

PAS 153 viBlu, distributed PROFIBUS radio interface

The PAS 153 viBlu distributed PROFIBUS radio interface from Systeme Helmholz GmbH is for linking digital and analog input and output modules to the PROFIBUS-DP by radio. Data transmission is performed via Bluetooth in the license-exempt 2.4 GHz band and supports the PROFIBUS baud rates of 9.6 kbps to 1.5 Mbps. Depending on the local circumstances, transmission distances of up to 100 m are possible.

Up to 16 modules can be connected to the PAS 153. The PAS 153 viBlu is integrated into the Hardware Configurator of the programming system by a GSD file. The PAS 153 Interface performs all communication between the modular I/O device and the higher-level master unit on the PROFIBUS-DP. The inputs and outputs are assigned to the master in the configuration. Diagnostic information from the modules can be read out via the PAS 153 Interface in the usual way.

The PAS 153 viBlu radio interface supports all input/output modules from Systeme Helmholz GmbH and numerous modules of the same type from other manufacturers.

The scope of modules supported can be extended at any time by a firmware update via the USB.

Antennas with a larger gain can optionally be connected to the radio module through an RP-SMA socket on the device to optimize the range. Outside Europe, use of antennas with a gain of more than 10 dBi is permitted, enabling radio-relay systems with a range, for example, up to several kilometers.

Moreover, a USB port is integrated to be used for parameterization of the radio link.

6 LEDs on the device provide information about the operating status on the PROFIBUS and on the radio side.

Accessory-Note
For antennas, see page 60.

Features PAS 153 viBlu 200
- Up to 16 modules can be plugged in
- Module diagnostics supported
- Can be used on standard Mounting rail
- Any combination of modules is possible (analog/digital)
- GSD file is supplied
- Settable transmission power
- Up to 3 slaves in the radio network
- Bluetooth in the license-exempt 2.4 GHz band
- Up to 1.5 Mbps PROFIBUS-DP
- Simple configuration of the radio parameters through USB
- Extensive diagnostics of the radio interface
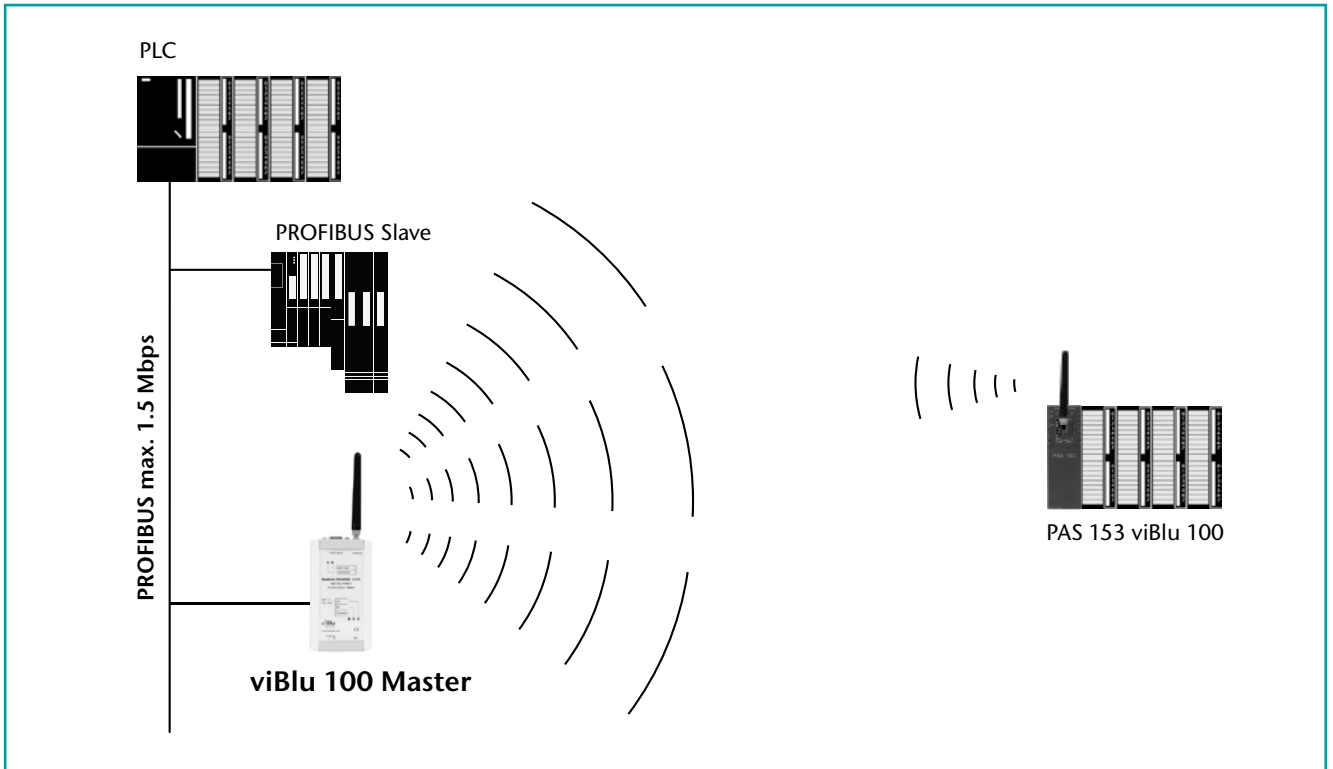- Ranges extending to over 100 m

Features PAS 153 viBlu 100
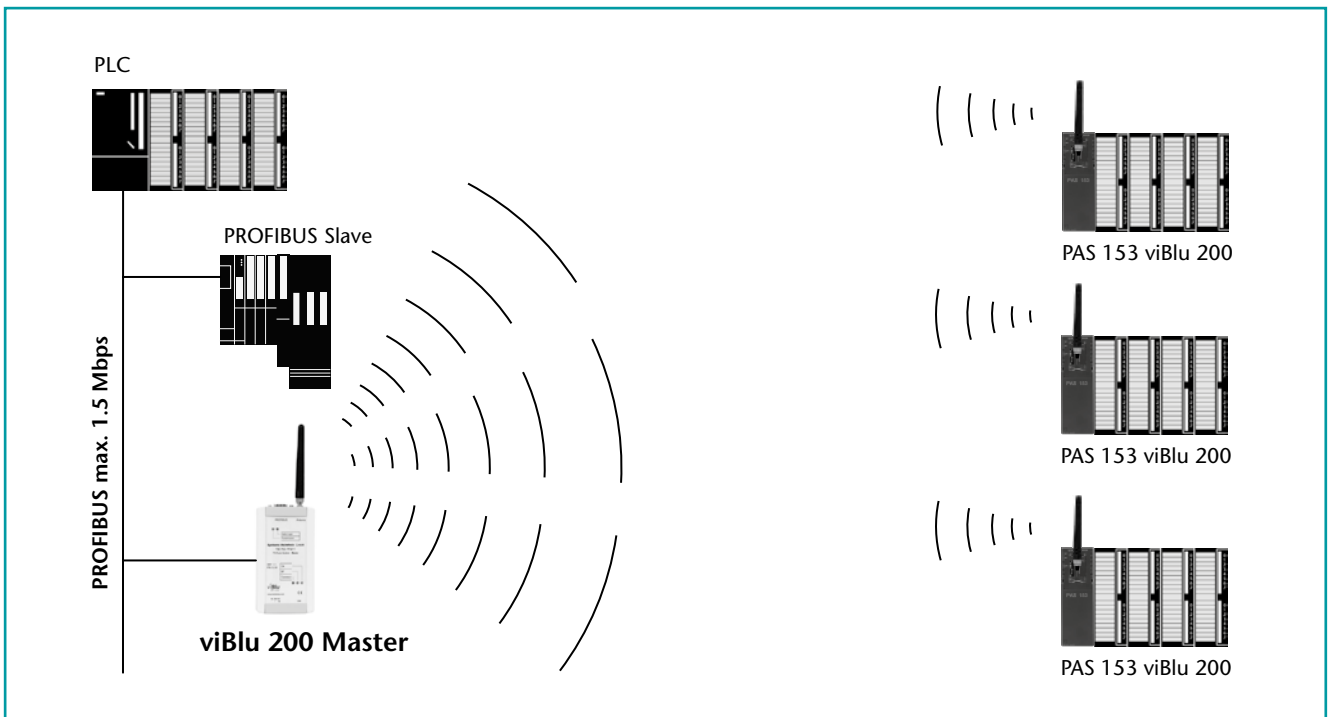As for the PAS 153 viBlu 200, but with the following restrictions:
- Only 1 DP slave in the radio network
- Only up to 187.5 kbps PROFIBUS-DP

Technical Data		
	PAS 153 viBlu 100	**PAS 153 viBlu 200**
Dimensions in mm (D x W x H)	116 x 40 x 125	116 x 40 x 125
Weight	Approx. 270 g	Approx. 270 g
Power supply Voltage	24 V DC (18 ... 30 V)	24 V DC (18 ... 30 V)
Current consumption	Typ. 700 mA	Typ. 700 mA
Output voltage	5 V	5 V
Output current at 5 V DC max.	1.5 A (for backplane bus)	1.5 A (for backplane bus)
Number of modules max.	16, including 8 analog	16, including 8 analog
Addressing range	128 bytes for inputs 128 bytes for outputs	128 bytes for inputs 128 bytes for outputs
PROFIBUS	PROFIBUS-DP per EN 50 170	PROFIBUS-DP per EN 50 170
Transmission rate	9.6 kbps to 187.5 kbps, detected automatically	9.6 kbps to 1.5 Mbps, detected automatically
Connection type	SUB D socket, 9-way	SUB D socket, 9-way
Radio interface Protocol	Bluetooth	Bluetooth
Number of slaves on the radio network	1 slave	3 slaves
Range	Up to more than 100 m	Up to more than 100 m
Baud rate	Up to 700 kbps	Up to 700 kbps
Antenna connection	RP-SMA socket	RP-SMA socket
Ambient temperature Transport and storage temperature	0 °C ... +60 °C -25 °C ... +60 °C	0 °C ... +60 °C -25 °C ... +60 °C
Displays	6 LEDs	6 LEDs
Degree of protection	IP 20	IP 20

Ordering Data	
	Order No.
PAS 153 viBlu 100 (incl. manual, CD with software)	700-763-PFS11
PAS 153 viBlu 200 (incl. manual, CD with software)	700-764-PFS11

PAS 153 viBlu, distributed PROFIBUS Radio Interface

PLC

PROFIBUS Slave

PROFIBUS max. 1.5 Mbps

PAS 153 viBlu 100

viBlu 100 Master

Application example PAS 153 viBlu 100 with 1 Slave

PLC

PROFIBUS Slave

PROFIBUS max. 1.5 Mbps

PAS 153 viBlu 200

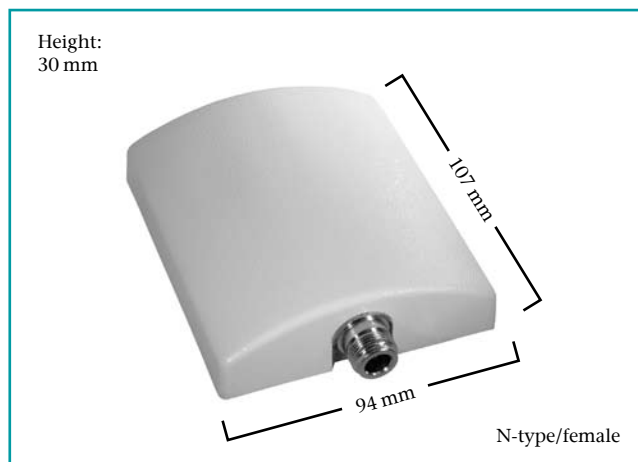PAS 153 viBlu 200

viBlu 200 Master

PAS 153 viBlu 200

Application example PAS 153 viBlu 200 with 3 Slaves

Antennas for NETLink® WLAN and viBlu

5 dBi magnetic base antenna

Panel 8 dBi antenna

Ø max.13 mm

Cable 1.5 m

192 mm

Height: 30 mm

107 mm

94 mm

N-type/female
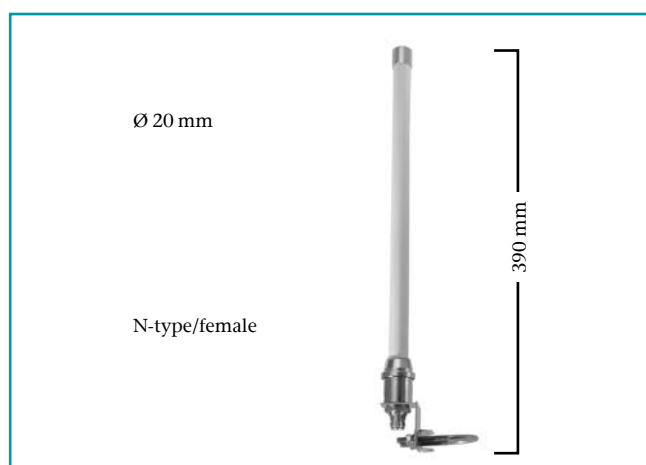
Omni 8 dBi antenna, including wallclamp

Panel 18 dBi antenna

Ø 20 mm

390 mm

N-type/female

Height: 50 mm

263 mm

263 mm

N-type/female
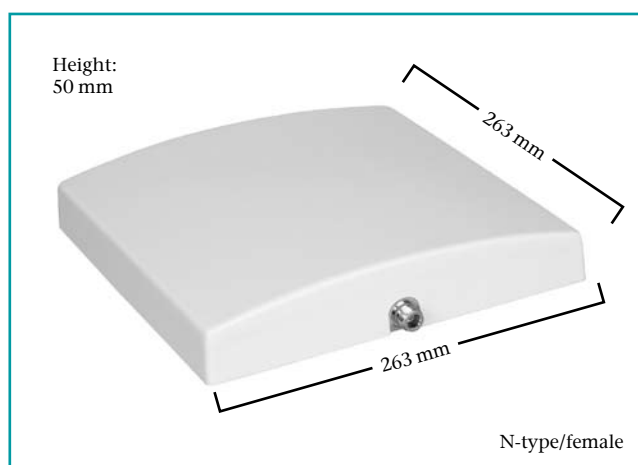
To optimize the reception power of the NETLink® WLAN and the PROFIBUS radio system viBlu, Systeme Helmholz GmbH can provide a selection of different antennas. Depending on the design, connecting cables can be procured to match. When planning a radio link, it is important always to note that, both in a mobile and in a stationary installations, the range is to some degree influenced by obstacles and the surrounding structures. Due to the max. transmission power of 100 mW in the 2.4 GHz band, radio links of 10 to 30 meters can be implemented in buildings. Outdoors, 100 to 300 meters can be considered realistic for an unobstructed radio link. With a directed panel antenna, more than 300 meters are possible in optimum conditions.

Magnetic base antenna 5 dBi
For mounting on smooth magnetic surfaces. The permanently mounted 1.5 meter long connecting cable further increases the radius of action. The magnetic base can be unscrewed. In this way, the dipole can also be directly operated on the WLAN module and is especially suitable for unobstructed mid-distance links. The omnidirectional antenna can also be correctly aligned with the integrated knee-joint.

Omnidirectional antenna 8 dBi
This omniantenna protected by the stable GFK conduit is supplied with mounting brackets to be able to mount it on masts or walls – preferably outdoors. To obtain the best omnidirectional emission properties, there should be no metallic surfaces or obstructions near to the emitting antenna. A cable, available as an accessory, is required for a type N connection.

Panel antenna 8 dBi (wall mounting) and panel antenna 18 dBi (mast mounting)
Ideal for use in directional transmission and reception indoors and outdoors. The range and WLAN performance are considerably improved by this design. The appropriate fixtures are supplied. A cable, available as an accessory, is required for a type N connection.

Ordering Data	
	Order No.
2.4 GHz 5 dBi magnetic base antenna, with 1.5 m antenna cable	700-889-ANT01
2.4 GHz Omni 8 dBi antenna (antenna cable required)	700-889-ANT02
2.4 GHz Panel 8 dBi antenna (antenna cable required)	700-889-ANT03
2.4 GHz Panel 18 dBi antenna (antenna cable required)	700-889-ANT04
2.4 GHz antenna cable, 3 m; 1.7 dB; Ø 5 mm	700-889-ANK01
2.4 GHz antenna cable, 5 m; 2.8 dB; Ø 5 mm	700-889-ANK02
2.4 GHz antenna cable, 6 m; 1.4 dB; Ø 10.3 mm	700-889-ANK03
2.4 GHz antenna cable, 10 m; 2.3 dB; Ø 10.3 mm	700-889-ANK04

PAS 153, distributed PROFIBUS Interface

PAS 153

The PAS 153 distributed PROFIBUS Interface from Systeme Helm-holz GmbH is for linking digital and analog input and output modules to the PROFIBUS-DP. The module can be mounted on a sectional rail.

Up to 16 modules can be connected to the PAS 153. The PAS 153 is integrated into the hardware configurer of the programming system by a GSD file. The PAS 153 Interface performs all communication between the modular I/O device and the higher-level master unit on the PROFIBUS-DP. The inputs and outputs are assigned to the master in the configuration. Diagnostic information from the modules can be read out via the PAS 153 Interface in the usual way.

The PAS 153 Interface supports all input/output modules from Systeme Helmholz GmbH and numerous modules of the same type from other manufacturers.

The scope of modules supported can be extended at any time by a firmware update via the USB.

Features

- DIP switch for setting the PROFIBUS address
- Up to 16 modules can be plugged in
- Module diagnostics supported
- Can be used on standard sectional rail
- Any combination of modules is possible (analog/digital)
- PROFIBUS-DP up to 12 Mbps
- GSD file is supplied
- Firmware update for expanding functions possible via USB

Up to 16 modules can be plugged in

Ordering Data	
	Order No.
PAS 153, distributed PROFIBUS Inter-face (incl. CD with GSD file)	700-153-1AA03
Manual PAS 153, German/English	900-153-1AA03

| Technical Data	
Dimensions (D x W x H mm)	116 x 40 x 125
Weight	Approx. 250 g
Power supply Voltage	DC 24 V
Current consumption max.	625 mA
Output voltage	DC 5 V
Output current at DC 5 V max.	1.5 A (to backplane)
PROFIBUS Interface Transmission rate max.	12 Mbps, autodetection
Protocol	PROFIBUS-DP to EN 50 170
Addressrange	128 Bytes for inputs 128 Bytes for outputs
Module count max.	16.8 of these analog
Connection	Male, SUB-D, 9-way
Ambient temperature Transport and storage temperature	0 °C ... +60 °C -25 °C ... +60 °C

DP/DP Coupler

DP/DP Coupler

The DP/DP coupler interlinks two PROFIBUS-DP networks and permits data transmission between the masters and the two DP networks. The maximum size of the transmitted data is 244 Bytes of input data and 244 Bytes of output data. The DP/DP coupler is configured in the S7 software or by means of a GSD file.

Features

- Up to 244 Bytes of input data and 244 Bytes of output data can be exchanged between two PROFIBUS networks
- Dual-redundant power supply
- Electrical isolation between the PROFIBUS networks
- PROFIBUS addresses can be set by DIL switch or software
- PROFIBUS-DP up to 12 Mbps

Technical Data	
Dimensions (D x W x H mm)	116 x 40 x 125
Weight	Approx. 250 g
Power Supply Nominal power supply Current consumption	24 V DC (20.4 V ... 28.8 V) Approx. 150 mA at DC 24 V
Electric isolation of the 24 V power supply To PROFIBUS-DP	Yes
Mutually	Yes
PROFIBUS interface Transmission rate	9.6 ... 12 Mbps
Protocol	PROFIBUS-DP
Telegram length I/O data	Max. 244 Bytes inputs/ 244 Bytes outputs
Ambient temperature	0 °C ... 60 °C
Degree of protection	IP 20
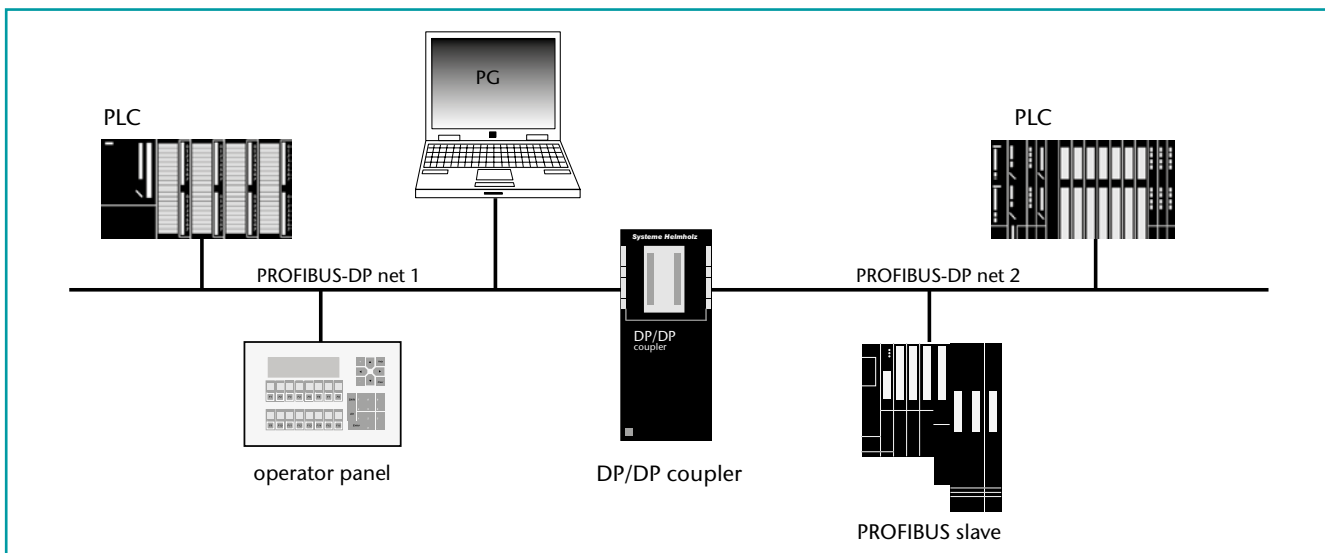
Application example DP/DP Coupler

Ordering Data	
	Order No.
DP/DP Coupler (incl. manual)	700-158-0AD01
Mounting rail adapter for DIN rail (optional)	700-390-6BA01
Mounting rail 40 mm	700-390-1XA04

FLEXtra® profiPoint, active Termination and Measuring Point
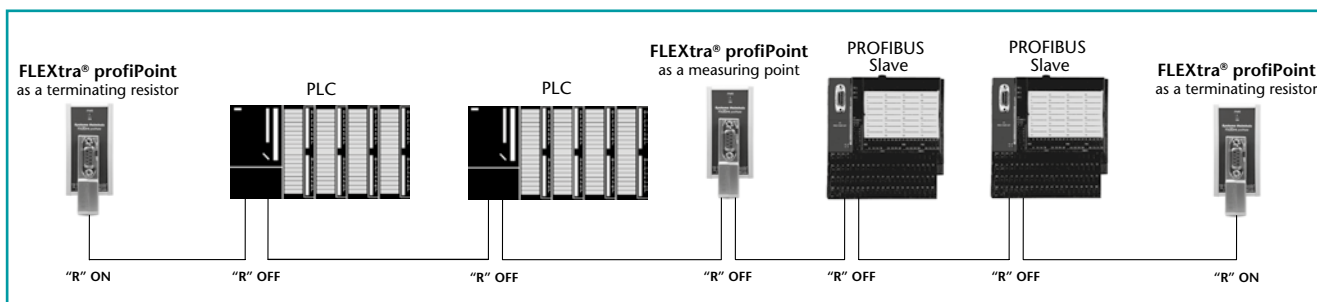

FLEXtra® profiPoint

Features

- Power supply independent of bus stations
- Bus termination independent of terminal device due to autonomous power supply
- Can be used as an active measuring point
- Supply to active PROFIBUS components (Compact Repeater, NETLink®, PROFIBUS diagnostic connector)

FLEXtra profiPoint

The new FLEXtra® profiPoint from Systeme Helmholz GmbH is primarily used for supplying power to the terminating resistor and is designed for mounting on a DIN rail. It can be used in combination with a PROFIBUS connector as an active measuring point or as an active termination. The electric power is supplied independently of the bus stations via a connection socket.
If used as an active terminating resistor, bus system stations can be coupled and decoupled randomly without faults occurring. The correct function of the FLEXtra® profiPoint can be read from an integrated LED. A PROFIBUS connector is required for connection to the PROFIBUS cable (also available as a set).

Application example FLEXtra® profiPoint

Ordering Data

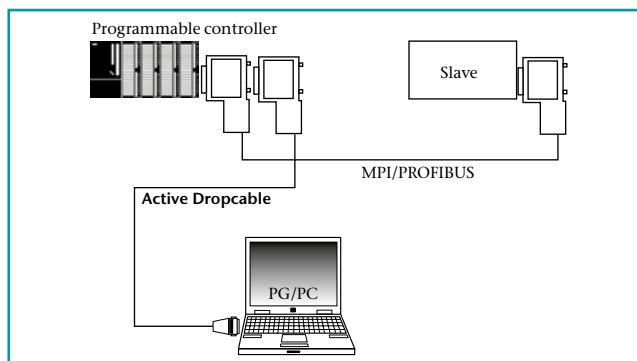|	Order No.
FLEXtra® profiPoint (incl. instruction)	700-972-1AA02
FLEXtra® profiPoint Set FLEXtra® profiPoint, PROFIBUS connector screw terminals 90° diagnostic LEDs with PG (incl. instruction)	700-972-1XA02

Technical Data

Technical Data	
Dimensions (D x W x H mm)	35 x 32 x 72
Weight	Approx. 85 g
Power supply	18 ... 30 VDC
Output voltage	24 VDC/5 VDC
Potential separation	500 V
Current consumption max.	400 mA
Segment connection	Via PROFIBUS connector
Ambient temperature Transport and storage temperature	0 °C ... +60 °C -25 °C ... +75 °C
Degree of protection	IP 20

Active PROFIBUS Dropcable

Dropcable PROFIBUS for PG

Application example Active Dropcable

The active PROFIBUS dropcable from the Systeme Helmholz GmbH is used for a failure-free connection of a programming device to an existing PROFIBUS net.
The active cable doesn't represent a spur line because of it's integrated electronics.

Ordering Data	
	Order No.
Dropcable PROFIBUS for PG with 90° PROFIBUS connector, 3 m (incl. instruction)	700-901-4BD00
Dropcable PROFIBUS for PG with 35° PROFIBUS connector, 3 m (incl. instruction)	700-901-4BD10

Technical Data	
Dimensions (length)	3 m
Weight	Approx. 260 g
Power supply	DC 5 V
Current consumption max.	100 mA at 5V
PROFIBUS interface Transmission max.	12 Mbps
Connection	SUB-D, 9-way
Ambient temperature Transport and storage temperature	0 °C ... +60 °C -25 °C ... +75 °C
Degree of protection	IP 20