

Technical Documents

PROFIBUS connector

Connect & Detect

V1.2, state: 07/12

General Information

The bus connector connects PROFIBUS user knots or complete PROFIBUS net components to the PROFIBUS line.

Each connector has switchable terminating resistors. Dependent of the type of connector, a PD/diagnosis socket as well as a controller with 4 LED indicators are additionally integrated.

Each connector is identified by a label with its hardware-release and included firmware-version:

H/FFF: H:hardware-release FFF: firmware-version ➔ 5/107: release 5, firmware V1.07

Features

- Cable diagnosis functions via LEDs
- Switchable terminating resistors
- Integrated controller for transfer rates up to 12Mbit/s
- Metal casing with lose-protected “single-screw-mounting”
- Fast connection via insulation cutting clamps

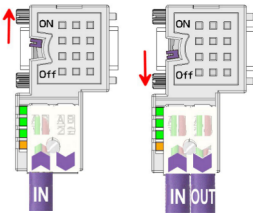


Diagnosis via LEDs

Switch ON/OFF	PWR green	TxD green	Term green	ERR yellow	Description
x	●	x	x	x	Power is OK (+5V ±5%)
x	☀	x	x	x	Power is out of +5V ±5%
x	☀	x	x	☀	Short-circuit of bus wire possible
x	x	○	x	x	No bus activity of participant
x	x	☀	x	x	Bus activity of participant
x	x	●	x	x	Bus activity, RTS (pin 4) of RS485 is not connected
OFF	x	x	○	x	Termination is switched off
OFF	x	x	☀	x	Internal terminating resistor faulty
ON	x	x	●	x	Termination is activated
x	x	x	x	○	No errors detected
OFF	x	☀	○	●	Bus is not terminated
OFF	x	○	○	●	Bus is open

on: ● off: ○ blinking (5Hz): ☀ not relevant: x

Switchable terminating resistors

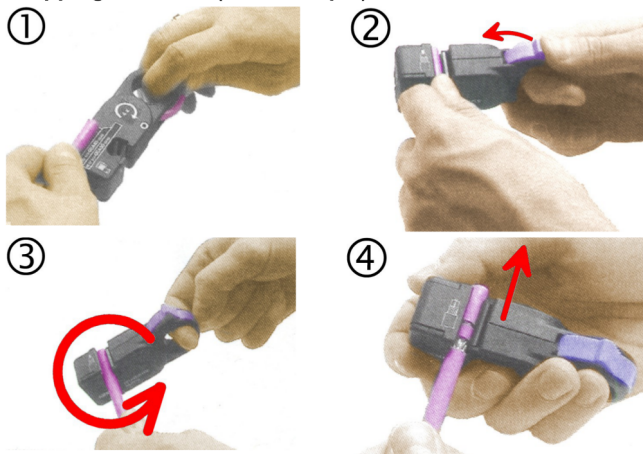


The switchable terminating resistors are activated by a slide switch, easily accessible from both sides right and rear.

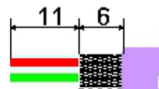
Hereby shutoff of the outgoing bus line is possible. Also for testing purposes the following PROFIBUS components connected via "OUT" can be switched off without removing the connector.

Please make sure to terminate the last participants on the bus at both ends and to connect them to the bus cable via "IN".

Stripping the cable (tool example)

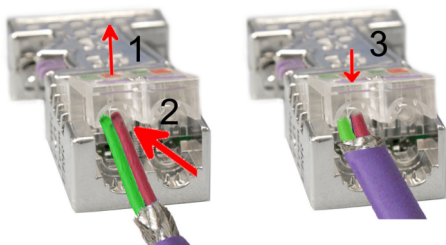


- Measure wire length on template:



- Insert end of cable and push fixing slider as far as it goes
- Rotate stripping tool repeatedly around the cable
- Pull off stripper (in closed state)
- Remove cut-off wire/core insulations remainder

Connecting the PROFIBUS cable



- Loosen the screw
- Lift contact-cover
- Insert both wires into the ducts provided (watch for the correct line color as below!)
- Please take care that you do not cause a short circuit between screen and data lines!
- Close the contact cover
- Tighten screw

Please note: the green line must be connected to A, the red line to B!

Measures in mm:

	0°	45°	90°
A	64	61	66
B	34	53	40
C	15.8	15.8	15.8

Technical data	
Power supply by end device	DC 4.75 ... 5.25V
Current	10 ... 30mA
PROFIBUS	SubD-male-9pole
Plugging cycles jack	min. 200
Cable diameter	8 mm
Casing	Zinc-Diecast
Degree of protection	IP20
Temperature range	-20°C ... +75°C
Fixing screws / max. tightening torque	4-40 UNC/ 0.4Nm
Stripping Lengths	
Outside cover/shielding	17mm / 6mm
Connecting technique	Insulation cutting clamps
Bus cable	Type A (EN50170)

Note!

Starting with release 5 also highly flexible bus cable may be used:

Lapp cable order no.: 2170222, 2170822, 2170322.

Under the web-address <https://www.process-informatik.de> are product specific documentations or software-driver/-tools available to download.
If you have questions or suggestions about the product, please don't hesitate to contact us.

Process-Informatik Entwicklungsgesellschaft mbH

Im Gewerbegebiet 1

DE-73116 Wäschenbeuren

+49 (0) 7172-92666-0

info@process-informatik.de

<https://www.process-informatik.de>

Copyright by PI - 2024

Menutree Website:

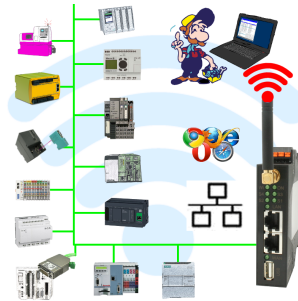
- + Products / docu / downloads
- + Accessories
 - + Connector plug / equipment
 - + Profibus-Plug-DiagConn PB

QR-Code Website:



Please make sure to update your drivers before using our products.

Move around the machine wirelessly

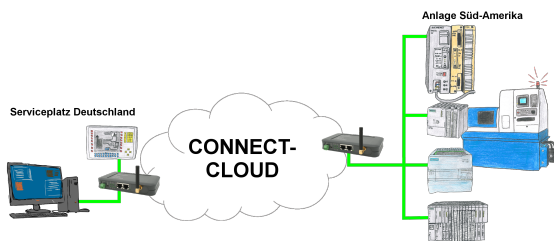


Controlling/monitoring all around the machine with a PC => nobody has such a long cable with them

Move around the machine without fear that the cable will be too short or someone will run over it and damage it. Always ONLINE and intervene at the appropriate moment or trigger a circuit-breaker/button and observe the reaction of the machine, always ONLINE via WIFI on the machine.

LAN-WIFI-conversion solves all problems and possible dangers

Worldwide remote-access thanks to our own cloud



Worldwide remote-maintenance without additional costs thanks to our own cloud

Your devices connect to your own cloud, no matter where they are in the world. Only your devices are in your own private cloud, no one else has access to the cloud. In addition, you can provide each device with its own connection-password, so that the individual systems are protected despite the private cloud.

No registration on any portals, no hidden additional costs, your devices in your own cloud are always accessible.

This is how remote maintenance/remote access is fun.