

# 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

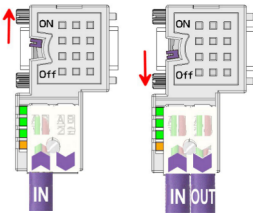


Diagnosis via LEDs

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

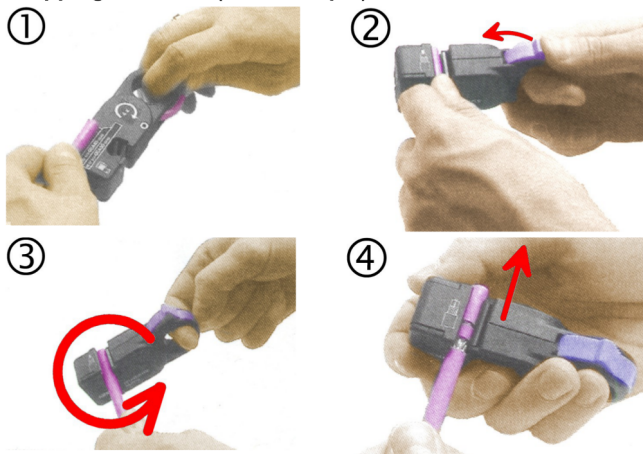


The switchable terminating resistors are activated by a slide switch, easily accessible from both sides right and rear.

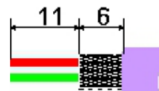
Hereby shutoff of the outgoing bus line is possible. Also for testing purposes the following PROFIBUS components connected via "OUT" can be switched off without removing the connector.

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)

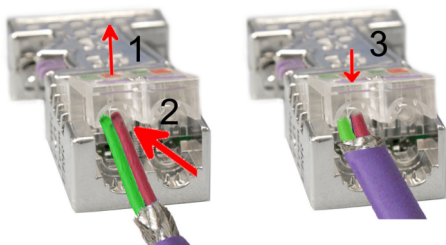


- Measure wire length on template:



- 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.

**Menutree Website:**

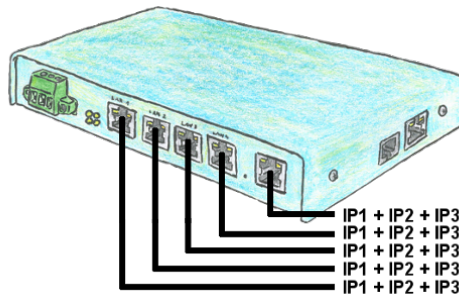
- + Products / docu / downloads
- + Accessories
  - + Connector plug / equipment
  - + Profibus-Plug-DiagConn PB

**QR-Code Website:**



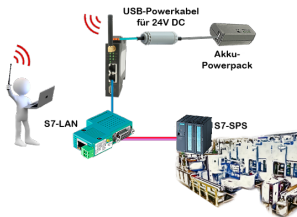
Please make sure to update your drivers before using our products.

Universal network-administration



You need to remote maintenance multiple networks simultaneously and your existing switch / router does not have that many ports? No problem, with the TELE-Router you are able to assign up to 3 IP addresses to each LAN / WAN port, so you can communicate with the various segments and networks.

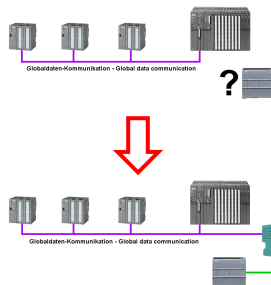
## Independent operation through power-pack-supply



You want for e.g. moving around your system/control and need a 24V-DC-supply for your access-point ALF-UA?

With USB-power-cable and a USB-power-bank/-accu, the problem can be solved immediately with little effort.

## Global data communication (MPI) also with network-PLC



Running global-data-communication between MPI-PLCs (S7-300/400), is one of these PLCs replaced with a newer PLC with network-interface (S7-1200/1500), this PLC was not able to access this data.

Simply configure the global-data of the “old” PLC via the web-server in the S7-LAN-module. Enter the new PLC as a TCP/IP-connection-partner and the module writes/reads the data via PUT/GET from this network-PLC and passes it on as before.