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

c UL us LISTED IND.CONT.EQ. 2P01 Class 2, Ta: 0°C... +60°C

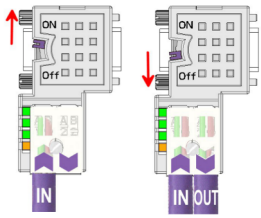
RoHS

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

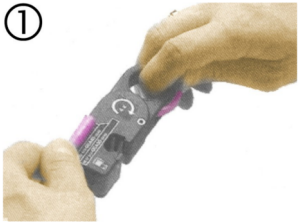


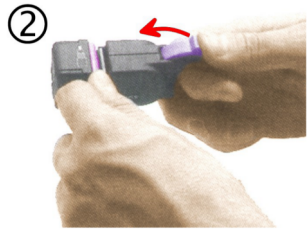
The switchable terminating resistors are activated by a slide switch, easily accessible from both sides right and rear.

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.

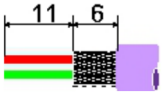
Please make sure to terminate the last participants on the bus at both ends and to connect them to the bus cable via "IN".

Stripping the cable (tool example)

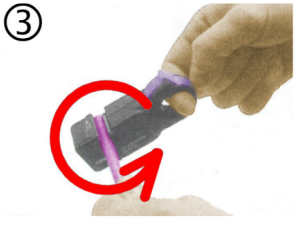


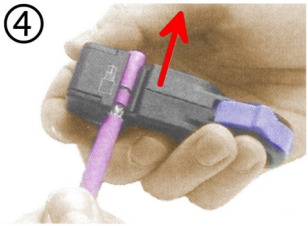


- Measure wire length on template:



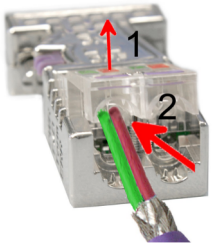
- Insert end of cable and push fixing slider as far as it goes

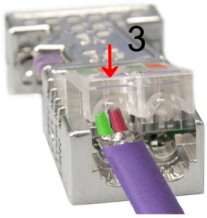




- Rotate stripping tool repeatedly around the cable
- Pull off stripper (in closed state)
- Remove cut-off wire/core insulations remainder

Connecting the PROFIBUS cable

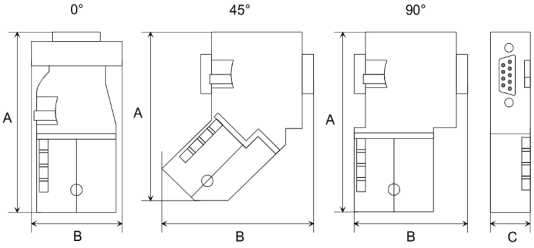




- Loosen the screw
- Lift contact-cover
- Insert both wires into the ducts provided (watch for the correct line color as below!)
- Please take care that you do not cause a short circuit between screen and data lines!
- Close the contact cover
- Tighten screw

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.

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Menutree Website:

+ Products / docu / downloads
  + Profibus-Plug-DiagConn PB 90°

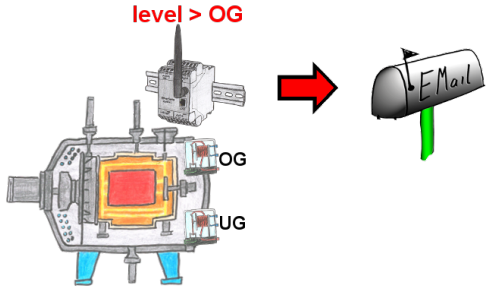
QR-Code Website:

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

Easiest configuration by included webserver

To configure ALF you dont need additional driver or special cables, you connect your PC via LAN or WLAN with ALF and over the integrated webserver you can configure the needed function.

E-Mail notification



Do you monitor processes and upon reaching a predetermined upper/lower limit, you need a message? Then activate in the device the limit-value-monitoring and you get this message. Furthermore, the device also sends its state and you are always up to date.