

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

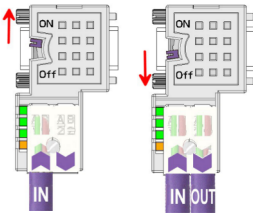


Diagnosis via LEDs

| 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

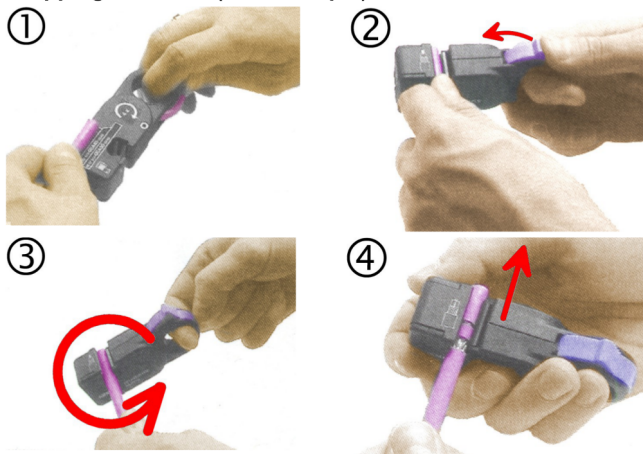


The switchable terminating resistors are activated by a slide switch, easily accessible from both sides right and rear.

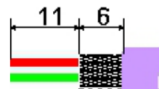
Hereby shutoff of the outgoing bus line is possible. Also for testing purposes the following PROFIBUS components connected via "OUT" can be switched off without removing the connector.

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)

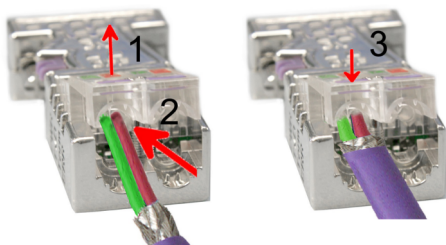


- Measure wire length on template:



- 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

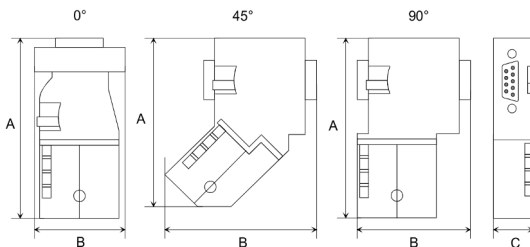
Connecting the PROFIBUS cable



- 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.

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Menutree Website:

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- + Profibus-Plug-DiagConn PB 0°

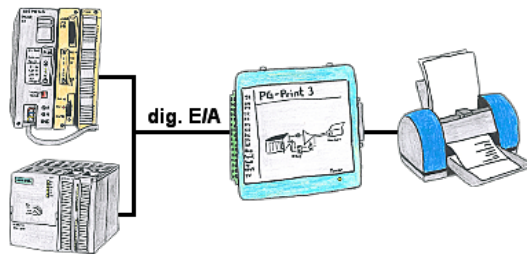


QR-Code Website:



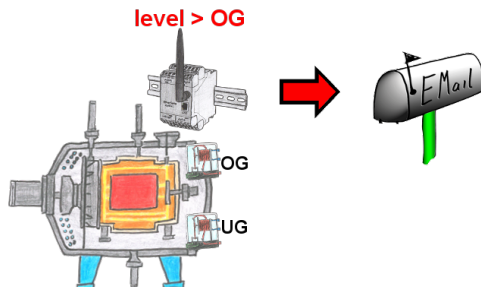
Please make sure to update your drivers before using our products.

Direct printing from the PLC via dig. I/O



You need production data, circulation lists of your PLC's, but don't want to use a CP or don't get a serial printer anymore? No problem, you need 8 digital outputs and 3 digital inputs of the PLC, and if you connect the PG-Print at it you can generate these lists with a EPSON- or HP-compatible parallel printer.

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.