

# **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	PWR	TxD	Term	ERR	Description
ON/OFF	green	green	green	yellow	
Х	•	Х	Х	х	Power is OK (+5V ±5%)
Х	<b>☆</b>	Х	Х	х	Power is out of +5V ±5%
Х	<b>\rightarrow</b>	Х	Х	₩	Short-circuit of bus wire possible
Х	Х	0	Х	х	No bus activity of participant
Х	Х	<b>‡</b>	Х	х	Bus activity of participant
Х	Х	•	Х	х	Bus activity, RTS (pin 4) of RS485 is not connected
OFF	Х	Х	0	х	Termination is switched off
OFF	Х	Х	☆	х	Internal terminating resistor faulty
ON	Х	Х	•	х	Termination is activated
Х	Х	Х	Х	0	No errors detected
OFF	Х	₩	0	•	Bus is not terminated
OFF	Х	0	0	•	Bus is open

on: • off: ○ blinking (5Hz): ☆ not relevant: x

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#### Switchable terminating resistors



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

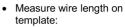
Hereby shutoff of the outgoing bus line is possible. Also for testing purposes the following PROFIBUS components connected via "OUT" can be switched off without removing the connector.

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)







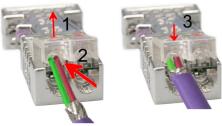


- Insert end of cable and push fixing slider as far as it goes
- Rotate stripping tool repeatedly around the cable
- Pull off stripper (in closed state)
- Remove cut-off wire/core insulations remainder





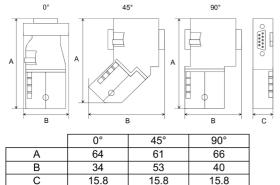
# Connecting the PROFIBUS cable



- 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:



Technical data	
Power supply	DC 4.75 5.25V
by end device	
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 /	4-40 UNC/
max. tightening torque	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.

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## **Menutree Website:**

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

## **OR-Code Website:**







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

# Wireless around the S7-PLC



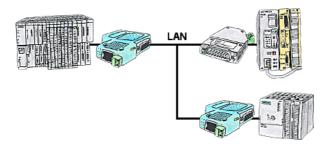
Move wirelessly around the S7-PLC and communicate for example ONLINE in the status

#### Wireless around the Eaton-PLC



Move wirelessly around the Eaton-PLC and communicate for example ONLINE in the status

# PLC coupling (data exchange between PLC-devices)



Your pumping stations report the water levels of the central control via telephone network. The central office itself can of course transmit commands/messages to the substations as well. Thereto no dedicated line is required, it's sufficient when the stations connect via network (DSL-router).