PD661 SPI with RS-485 or 4-wire P-NET Interface
PD Series 600
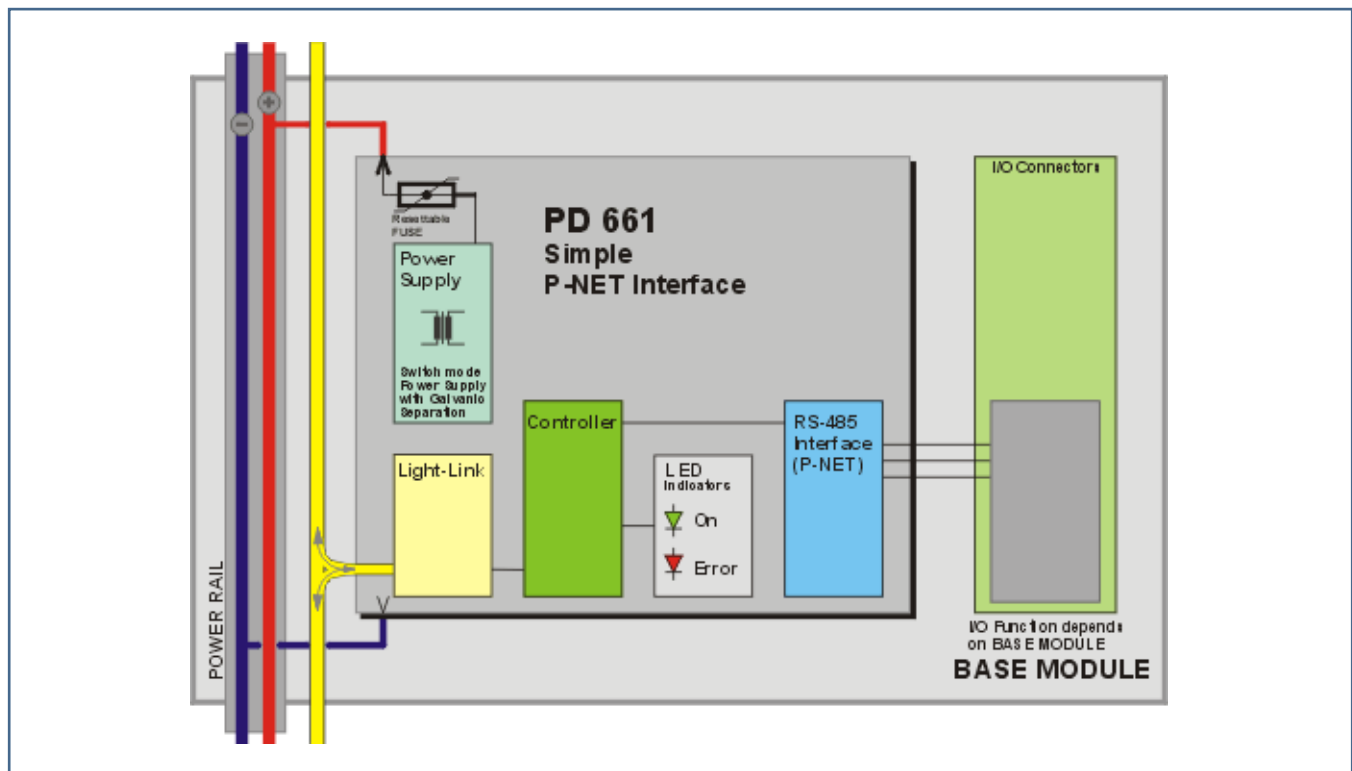

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Introduction

The PD 661 Simple P-NET Interface is one of a number of standard modules within the PD 600 series range. Its main purpose is to provide a transparent link between standard RS-485 P-NET and the optical Light-Link P-NET used between other 600 series modules. The module itself does not require any programming or configuration. This module is normally used either when no DPI is included within a cluster of I/O modules and a connection is required with RS-485 P-NET, or a DPI is included, but this has an interface with a standard other than RS-485. The PD 661 device performs a direct (repeater) link between an RS-485 network segment and Light-Link, meaning that any modules included in the cluster will be regarded as part of that RS-485 network. In other words, no gateway function is involved, as would be the case if the connection were made through a DPI. It is used with a BM 010 or BM 012 base module.

Block Schematic
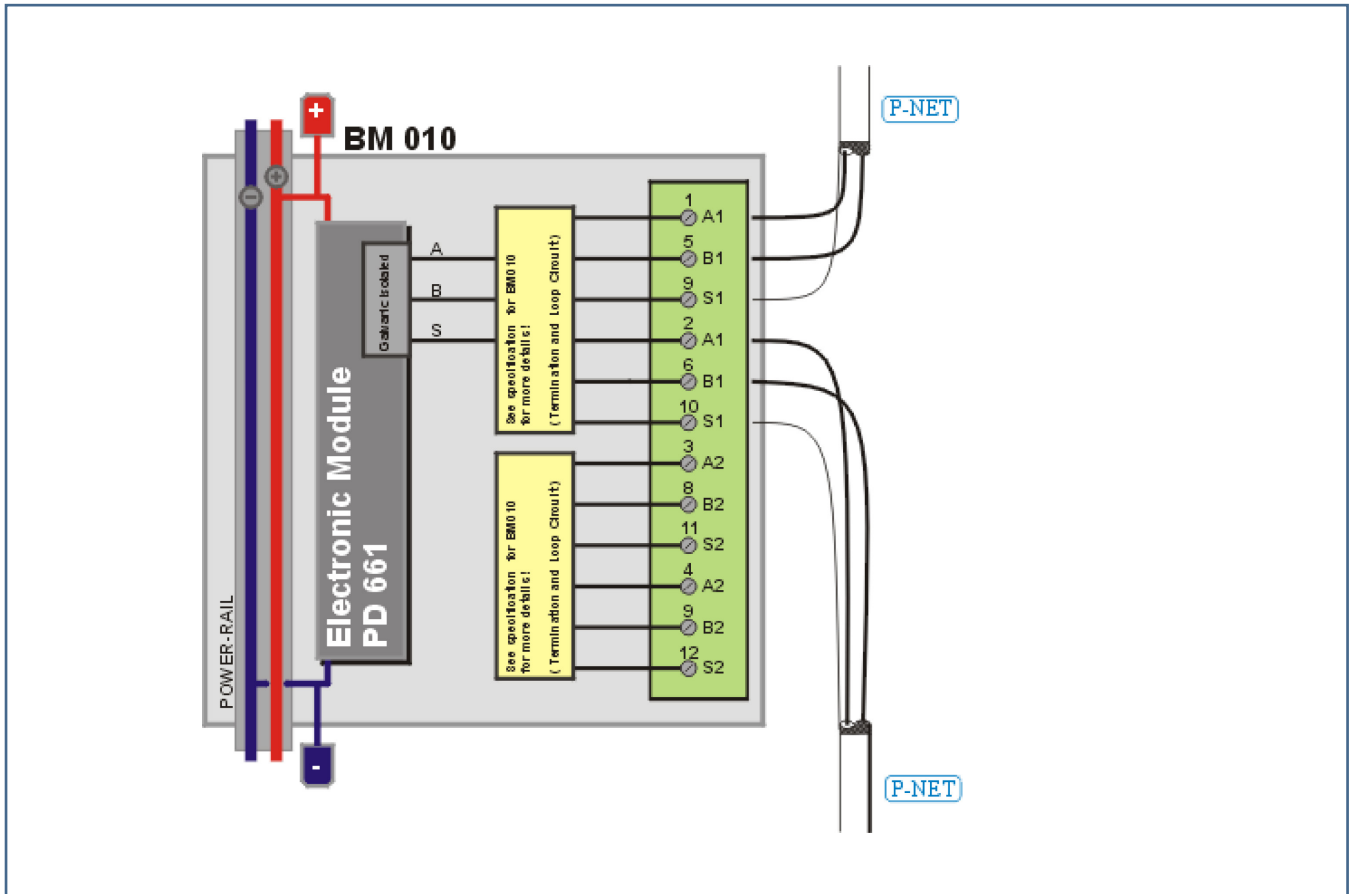
The diagram shows connection possibilities for a PD 661.

LED Indication

Serie 600 slave devices are equipped with 2 LEDs, a green (on) for indication Power supply, and a red (error) for indicating errors in the device.

The error LED is ON if an error occurs inside the device, which causes one of the error flags to be set to TRUE. This is for example watchdog error or error in EEPROM memory.
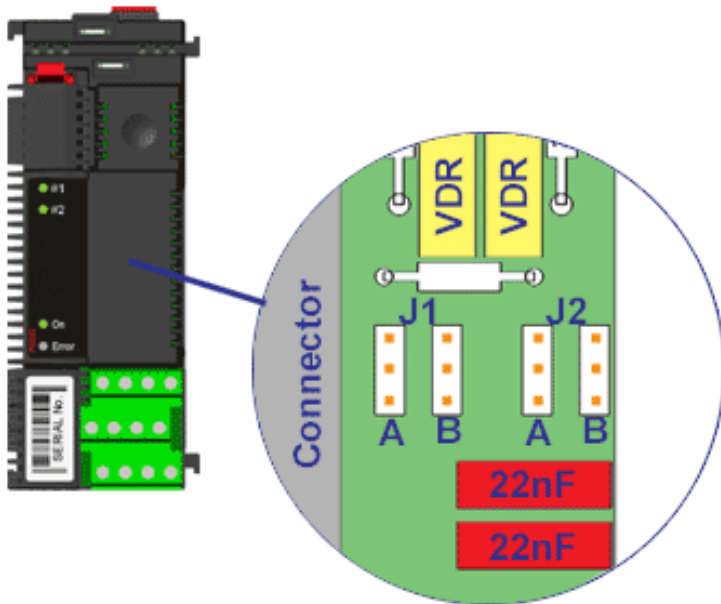
Wiring Diagram

The BM 010 base module is equipped with termination circuits for the two P-NET channels. It is recommended to enable the termination circuit when the device is installed at the terminal ends of a transmission cable. Enabling/disabling the termination circuit is done via jumper settings.
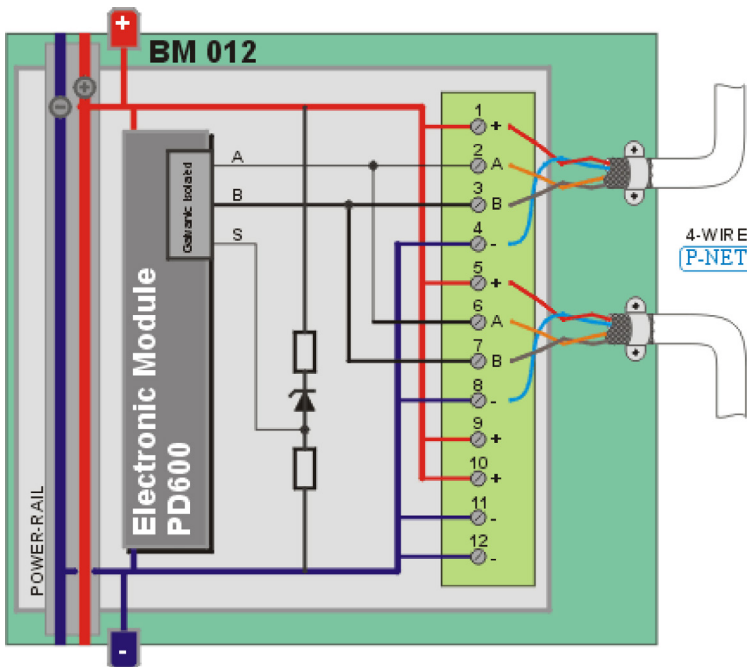
Jumper location

The jumpers used to enable /disable the termination circuits are found on the printed circuit board inside the BM 010, as seen on the picture.

J1: P-NET 1
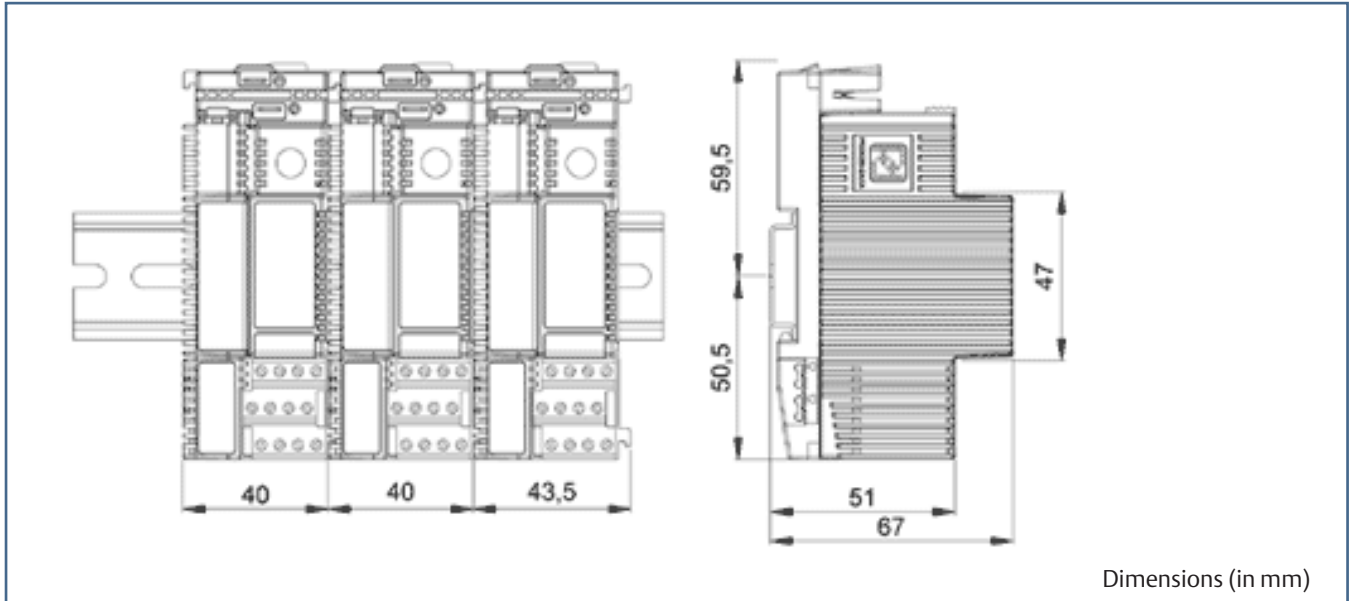
J2: P-NET 2 (NOT USED WITH

J1		J2		Description
A	B	A	B	P-NET 1 Termination disabled P-NET 2 Termination disabled (Factory settings)
A	B	A	B	P-NET 1 Termination disabled P-NET 2 Termination enabled
A	B	A	B	P-NET 1 Termination enabled P-NET 2 Termination enabled
A	B	A	B	P-NET 1 Termination enabled P-NET 2 Termination disabled

Please note that the 4-Wire P-NET screen has to be terminated /connected to the ground of the panel.

Technical Specifications

Dimensions (in mm)

Weight	140 grams approx.
Power supply	18 to 32 VDC
Ripple	maximum 5 %
Power consumption at 24VDC:	
Operation	maximum 30 mA
Current at power up	maximum 100 mA
Operation Temperature	- 25 °C to + 70 °C
Storage temperature	- 40 °C to + 85 °C

Maritime Approvals

Meets the requirements of all the major international marine classification societies.

For more information see PDS for the PD Series 600 Introduction.

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