



PD 821 15 ch. Digital In

- Digital inputs for nominal 24 volt signals
- Programmable in COPP
- P-NET via Light-Link
- Line Check
- Advanced internal self testing
- LED for power On and Error indication
- Wide Power Supply range
- Wide Temperature range
- Low Power Consumption

APPLICATION

PD 821 is a device in the M100 series with digital I/O channels. The device offers 15 channels as interface for various types of process signals, alarms, level detectors etc.

The 15 channels consist of:
15 digital inputs, whereof one channel can operate as fast digital input.

Digital inputs can be configured to perform Line Check. The Line Check function can be used in relation to two-wire proximity switches. In case of error the hardware will report either 'Line open' or 'Line short circuit' respectively.

The device is programmable in COPP, which means that a part of, or complete automation application can be built and downloaded by the user. The program can make use of ready-made components to control and monitor any process or machine application, both locally in the device but also via the network interacting with other devices.

PD 821 can be used with the BM 104 base module.

The device can be fixed to the base module by means of a screw.

SPECIFICATIONS

Digital Inputs (referenced to -24 Vin)

Frequency..... Max. 1 kHz @ 50 % duty cycle
Input..... On: Vin < 4.5 V, Off: Vin > 6.5 V
Hysteresis..... Typ. 1V
Line check: (*)
Line open voltage >0.75 * Vin
Line short circuit voltage < 2 V
Input pull down resistance..... 6.8 kΩ
Input active pull up (configurable)..... 3 mA

Fast Mode Digital Input (referenced to -24 Vin) (*)

Frequency..... Max. 50 kHz @ 50 % duty cycle
Input voltage Off 2.5 V + Hys/2
Input voltage On 2.5 V – Hys/2
Hysteresis (Hys)..... Typ. 1.0 V

Power Specifications

Supply voltage nominal..... 24 VDC
Supply voltage..... 12-32 VDC
Typ. internal power consumption (@ 24 VDC)..... 0.5 W
Max. power consumption (@ 24 VDC)..... 3.5 W

Environmental Conditions

Operation temperature..... -25 °C to +70 °C
Storage temperature..... -40 °C to +85 °C
Relative humidity < 95 % RH (non-cond.)
Protection class..... IP40

(* Use shielded cable)

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BASE MODULE BM 104

PD 800 series DPIs and I/O devices are made up of two parts: The Terminal Base Module and the Electronics Device. The Terminal Base Modules are snap-locked directly on a DIN-Rail and interlocks with neighboring modules to ensure stability.

The Terminal Base Module has two terminals for all the channels for connection to the process signals, respecting the demand for only one wire in each terminal, ensuring a safe and straight forward design- and installation process.

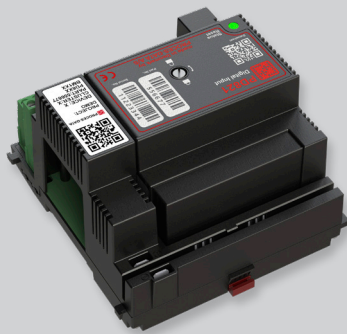
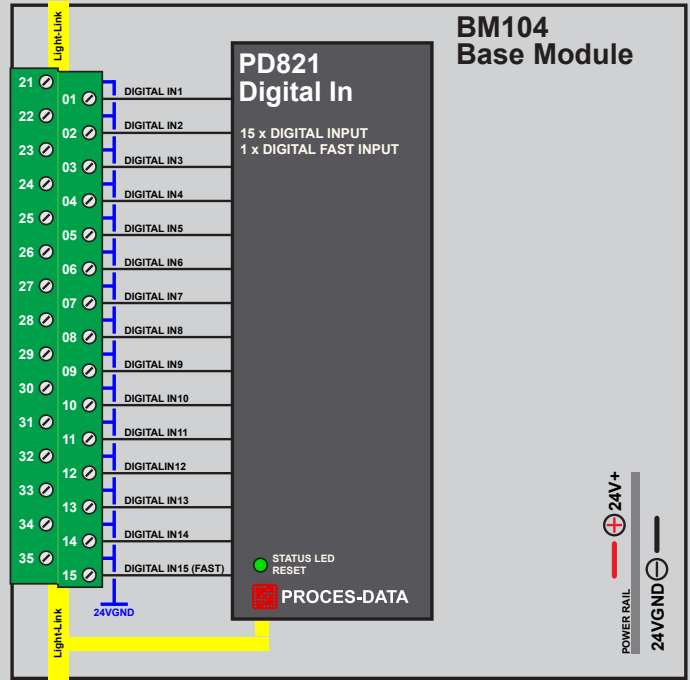
One of the two terminals is with the negative supply and the other is the input / output terminal. Having only one wire in each terminal will enable that the wiring to/from process signals can be done directly, without the need for any further intermediate terminals.

The Terminal Base provides also a power rail for connections to the power supply, as well as guides for the Light-Link interface.

Several I/O devices in the M100 series use a BM 104. The base module is available with either spring terminals or screw terminals.

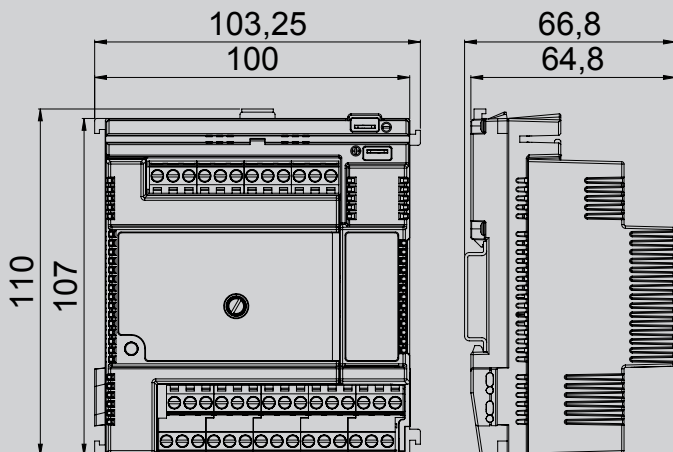
Power Specifications

Current supplied by power rail..... Max. 5 A
 Current at spade connectors Max. 10 A



Rear View

MECHANICAL (mm)



Mechanical Specifications

Dimensions (HxWxD).....66,8 x 103,3 x 110 mm
 Weight approx..... 270 g
 Vibration IEC 60068-2-6 : 2007