



PD 644 Analogue Input - HART

- Analogue input/output for 4-20 mA signals
- HART communication interface
- Programmable in COPP
- P-NET via Light-Link
- Overload/Underload protection and Alarming
- Advanced internal self testing
- LED for power On and Error indication
- Wide Power Supply range
- Wide Temperature range
- Low Power Consumption

APPLICATION

PD 644 is a device in the M36 series with analogue channels.

The device offers 6 channels as interface for various types of transmitters with signal output in the range 4-20 mA.

Four channels support HART communication for up to 5 HART transmitters on each current loop.

Two of the channels can be configured for analogue output signals in the range 4-20 mA.

Four channels support HART communication for up to 5 HART transmitters on each current loop.

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 644 is used with the BM 005 base module.

All channels are protected against overload and short circuit to both negative and positive supply voltage and notification can be enabled on any disconnection or process failure.

SPECIFICATIONS

Analogue Current Input

Signal range (source) 0 - 22 mA
 Calibration error: @ Tamb. 20 °C Max. +/- 0.1 % of full scale
 Temperature coefficient Tc Max. +/- 125 ppm / °C
 Resolution 0,06 % of full scale
 Voltage drop across input at 20 mA Nom. 0.8 V (40 Ω)
 Current limiter (Protection) Typ. 5m A

Analogue Current Output

Signal range (source) 0 - 22 mA
 Calibration error @ Tamb. 20 Max. +/- 0.1 % of full scale
 Temperature coefficient Tc Max. +/- 150 ppm / °C
 Resolution: 0.06 % of full scale

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) 1.5 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

*Up to 70 °C @ 50 % load on all I/O's

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BASE MODULE BM 005

PD 600 series DPis and I/O devices are made up of two parts: The Terminal Base Module and the Electronics Device.

The Terminal Base Module is snap-locked directly on a DIN-Rail and interlocks with neighbouring 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 enables that the wiring to/from process signals can be done directly, without the need for any further intermediate terminals.

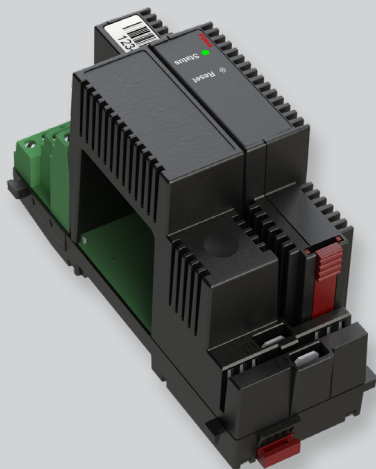
The Terminal Base provides also a power rail for connections to the power supply, as well as guides for the Light-Link interface.

Several I/O devices in the M36 series uses a BM 005 that provides terminals for all I/O connections and power supply, as well as guides for the Light-Link interface.

The base module is available with screw terminals.

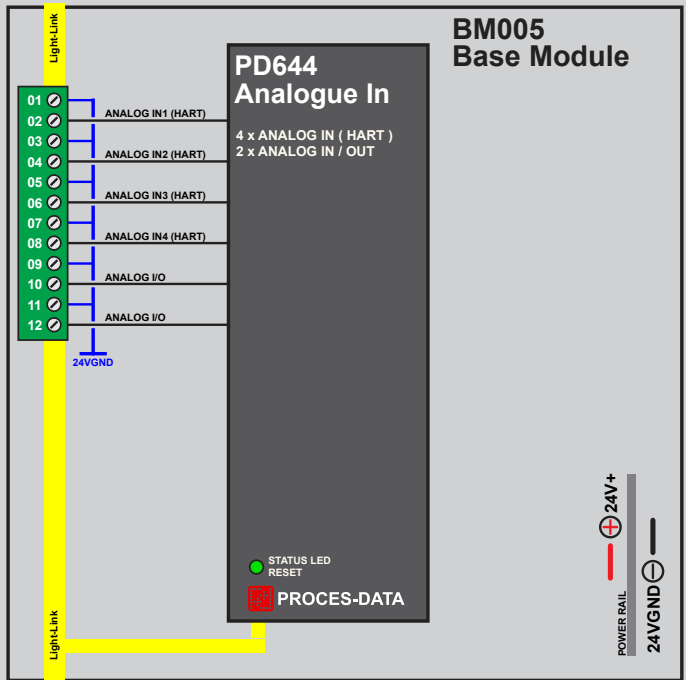
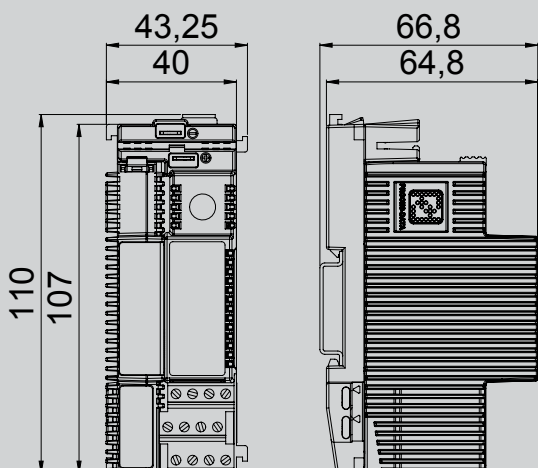
Power Specifications

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 43.3 x 110 mm
 Weight approx..... 125 g
 Vibration IEC 60068-2-6 : 2007



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