

PD 641 3-Channel Analog Input

PD Series 600 (Pt100 or Pt1000)



The PD 641 is an analogue I/O module included in the Series 600 modules and features:

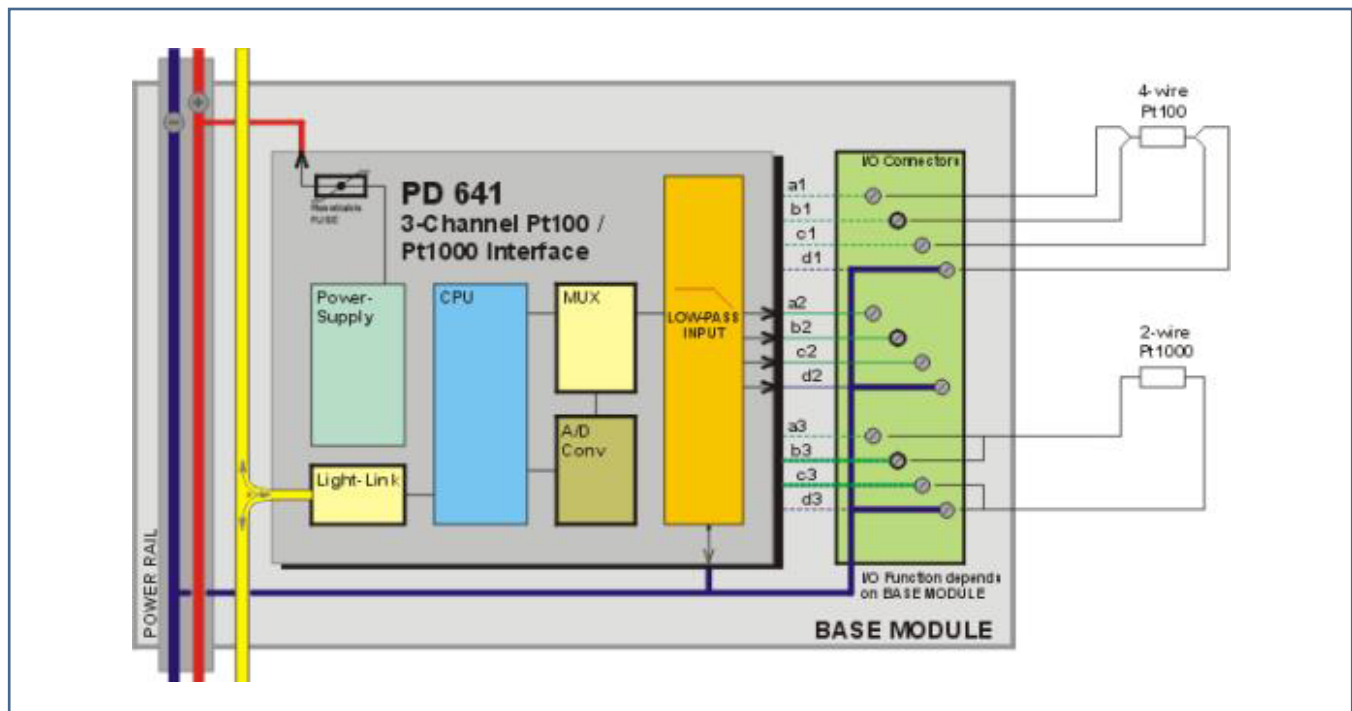
- Advanced internal self testing
- Wide power supply range
- Wide temperature range
- 2 LEDs for power on and error indication

Introduction

The PD 641 is an analogue I/O module with three temperature input channels, each of which can be configured for either Pt100 or Pt1000 sensor types.

Block Schematic

The diagram shows the I/O circuits and connection possibilities for a PD 641.



LED Indication

Series 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.

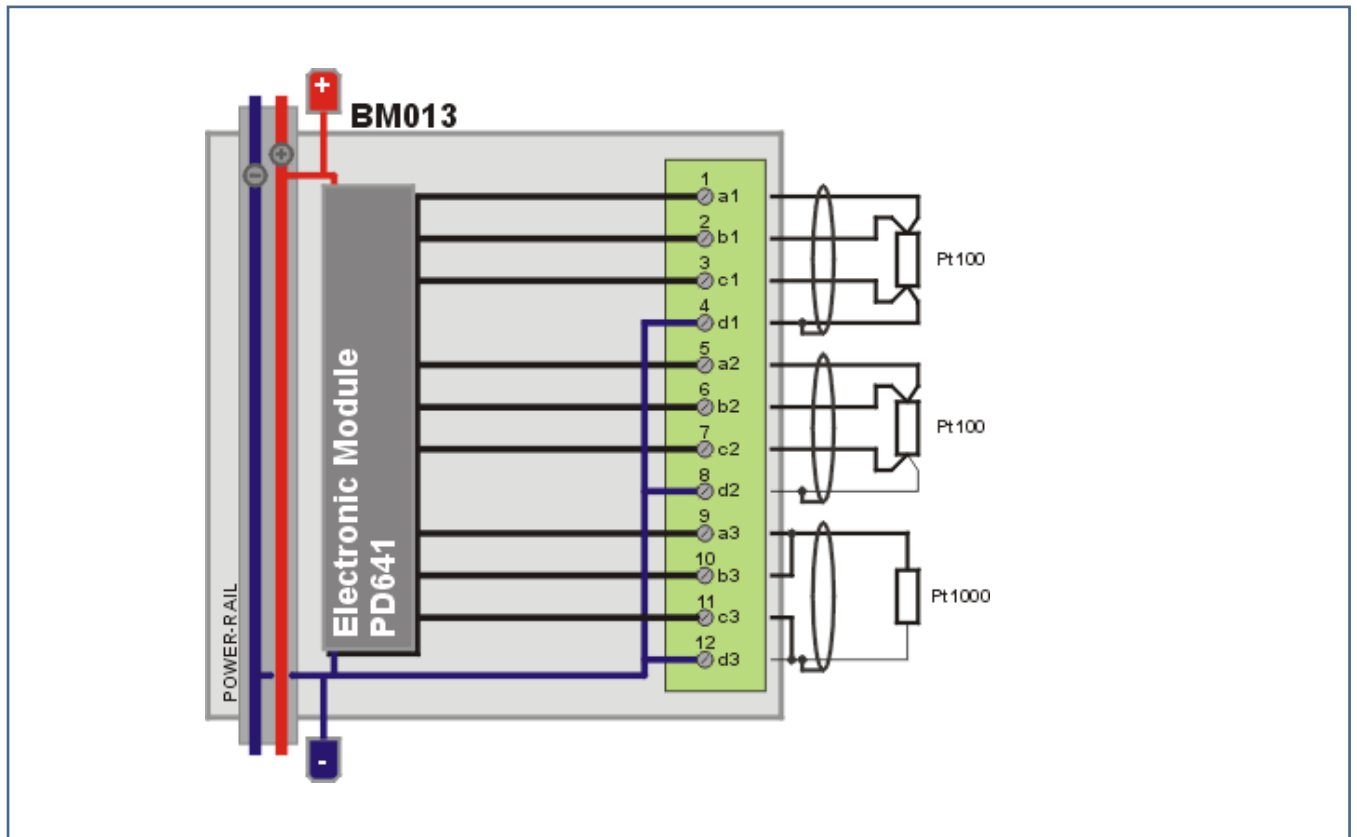
The Error LED is ON if an error occurs inside the device, which causes one of the error flags to be set to TRUE. This is for example watchdog error or error in EEPROM memory.

Channel Structure

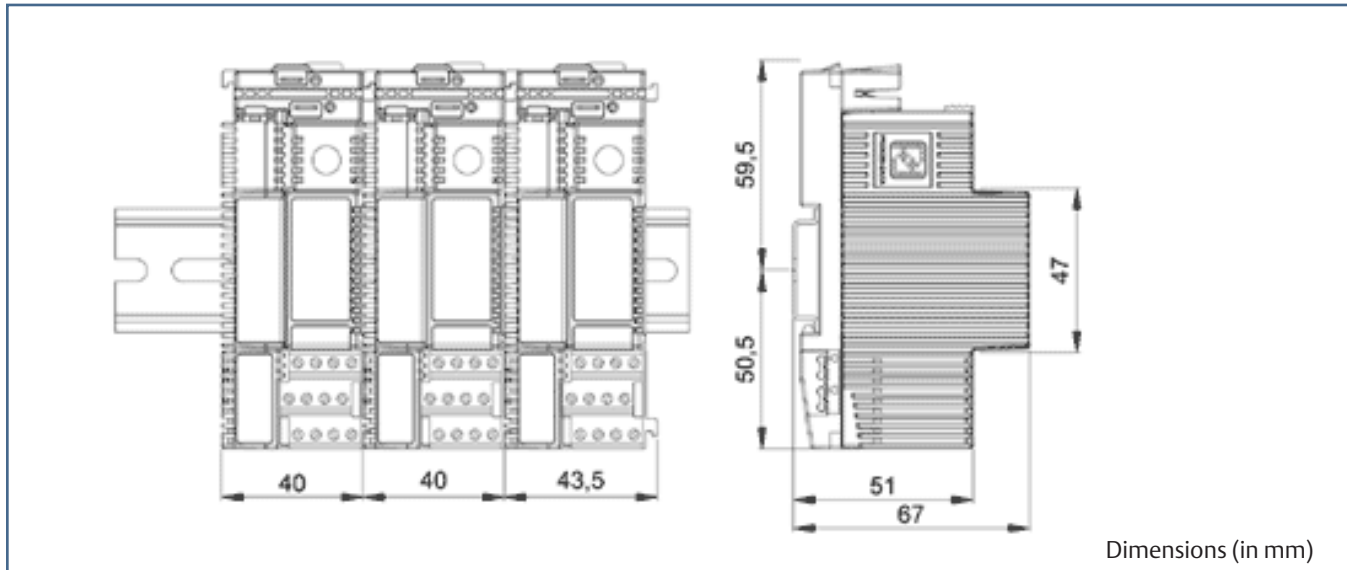
The PD 641 consists of 4 channels as shown in then table.

Channel		
No.	Name	Description
0	Service	Device identification, address and configuration
1	Analog IN 1	General purpose Analog Input
2	Analog IN 2	General purpose Analog Input
3	Analog IN 3	General purpose Analog Input

Wiring Diagram



Technical Specifications



Weight:		140 grams approx.
Power supply:		18 to 32 VDC
Ripple:		max. 5%
Power consumption @ 24VDC:		
Operation		max. 25 mA
Current at power up.		max. 60 mA
Analogue Input (Ch. 1-3):		
Signal type		Pt100 or Pt1000
Connection		4-wire / 2-wire
Updatetime		fixed 2.4 seconds
Input temperature range		Sensor -50 °C to + 200 °C
Ambient temp. coefficient Tc		Maximum ±15 ppm / °C
Ambient temp. influence (DeltaT)		$T_c \times (T_{ambient} - 20) \times (T_{sensor} + 273)$
Pt100 Data (excluding sesnsor):		
Measurement error (20 °C)*		Maximum ± 0.1 °C
Resolution		Typ. 0.05 °C
Measuring current		Maximum 0.05 mA
Filter for analogue input signal:		
Type		4th order low pass
Time constant		Configurable 3.0 s – 50.0 s
Gain error		Maximum ± 0.1 %
Operation temperature:		-25 °C to + 70 °C
Storage temperature:		-40 °C to + 85 °C
Interface:		Light-Link

*) Ambient temperature

Maritime Approvals

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

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

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