

PD 642 4-Channel Analog Input (mV)

PD Series 600



The PD 642 is an analogue input module included in the Series 600 modules and features:

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

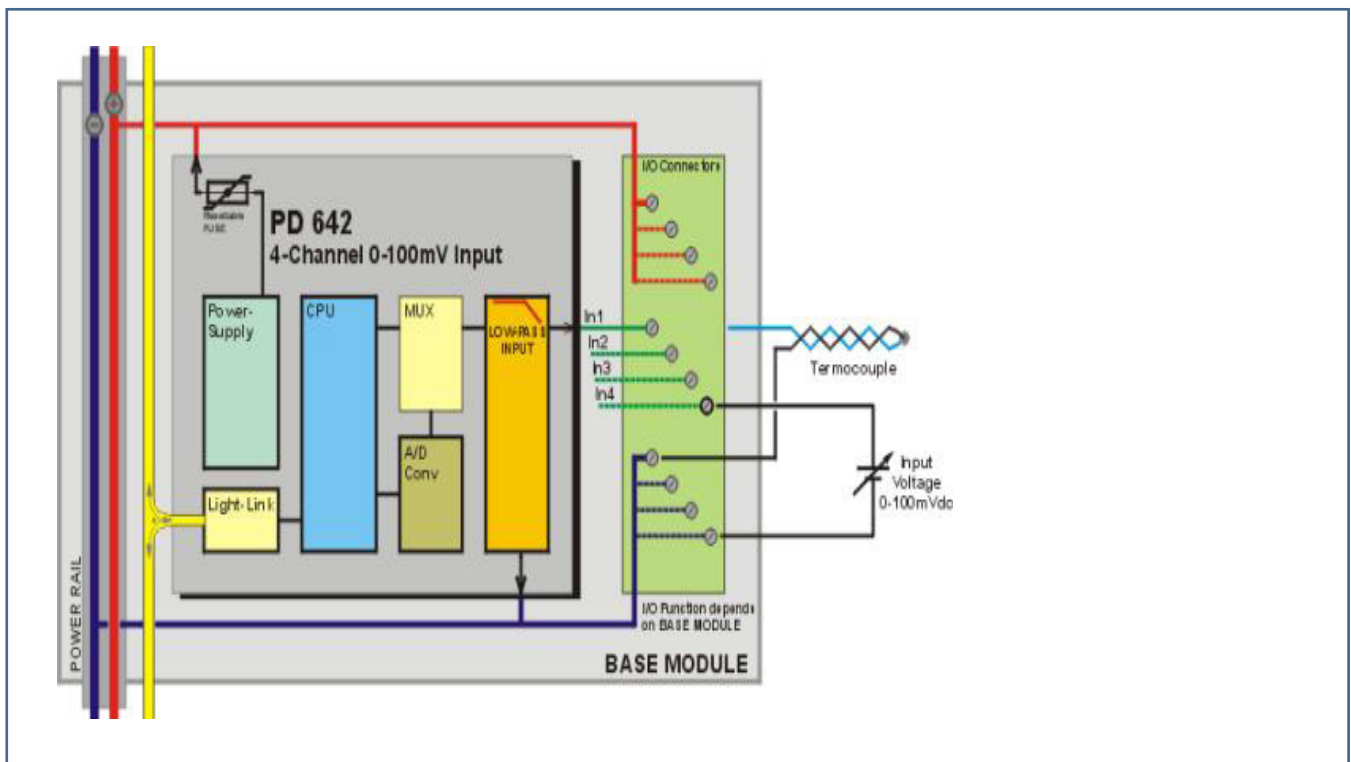
Introduction

The PD 642 is an analogue input module with four voltage input (0-100 mV) channels. The four input channels can be configured individually for either 0-100 mV or thermocouple temperature

sensor input. The PD 642 provides linearization for the following types of thermocouple transducers: Type R, S, B, J, T, E, K and N.

Block Schematic

The diagram shows the I/O circuits and connection possibilities for a PD 642.



LED Indicators

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.

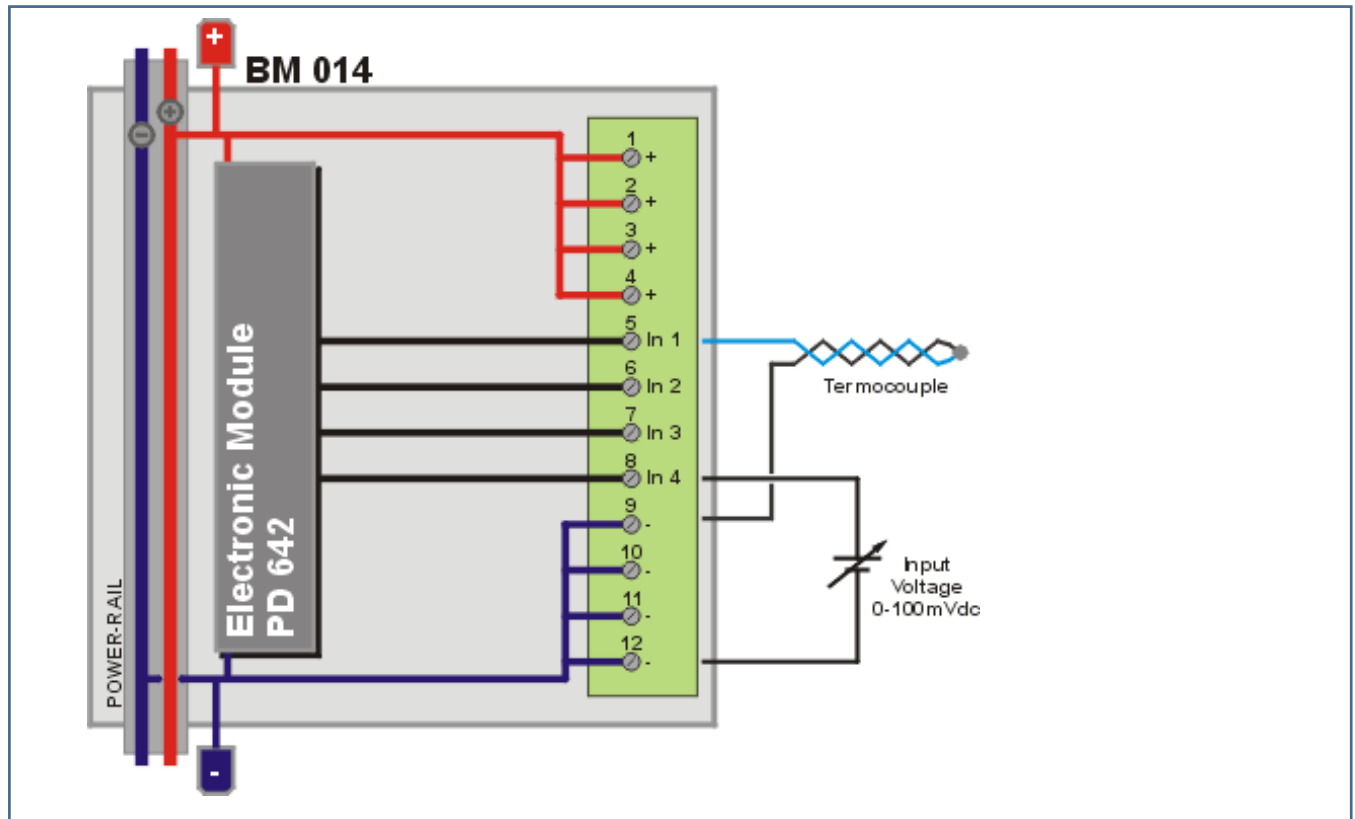
The error LED is ON if an error occurs inside the device, which causes one of the error flags to be set to TRUE. This is for example watchdog error or error in EEPROM memory.

Channel Structure

The PD 642 consists of 5 channels as shown in the 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
4	Analog IN 4	General purpose Analog Input

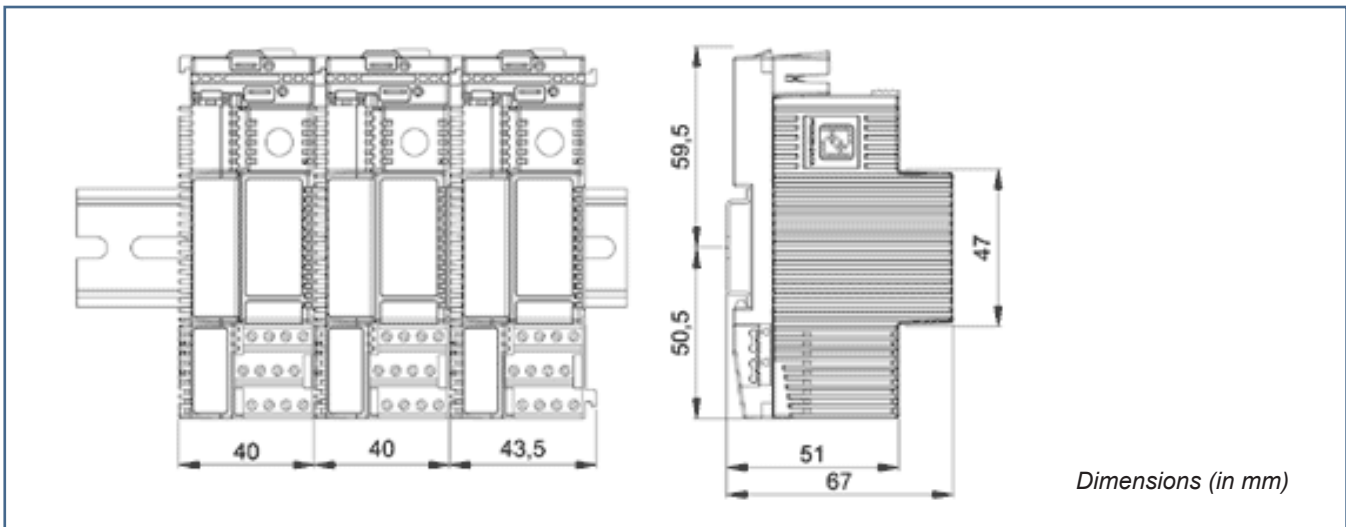
Wiring diagram



Available Base Modules: BM001 - 014 *

*) Recommended

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. 1-4)	
Signal type	Voltage (0-100mV)
Input impedance	> 5 M Ohm
Calibration error (20 °C) *	max. ± 0.1 % of fullscale
Measurements error (0-50 °C) * (-25-70 °C) *	max. ± 0.25 % of act. voltage ± 20 µV max. ± 0.5 % of act. voltage ± 20 µV
Resolution	Typ. 20 µV
Updatetime	fixed 0.8 Second
Voltage to temperature conversion for termo couples	Supported IEC 584-1 termo couple types: R, S, B, J, T, E, K, N
Filter for analogue input signal	
Type	4th order low pass
Time constant	configurable 3.0 s – 50.0 s
Gain error	max. +/- 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 Series 600 Introduction.

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