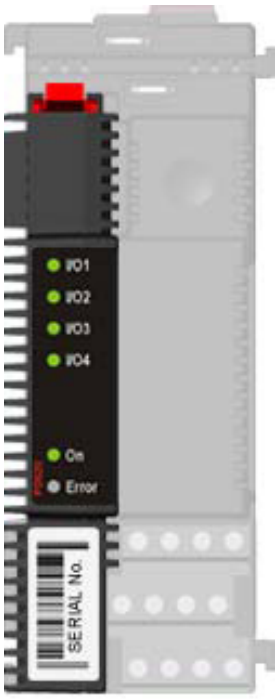
Product Data Sheet
February 2015
SD 8707-2E03

PD 620 DPI 4-Channel Digital IO

PD Series 600



The PD 620 is a module included in the Series 600 modules and features:

- Individually configurable digital I/Os for nominal 24 volts signals and 1 Amp (2 Amp) loads
- Built in input and output functions
- Autonomous counting to 200 Hz
- Load current measurement
- Input voltage measurement and scaling
- Overload/Underload protection and alarming
- Advanced internal self testing
- Wide power supply range
- 2 LEDs for power on and error indication
- 1 LED for each digital channel

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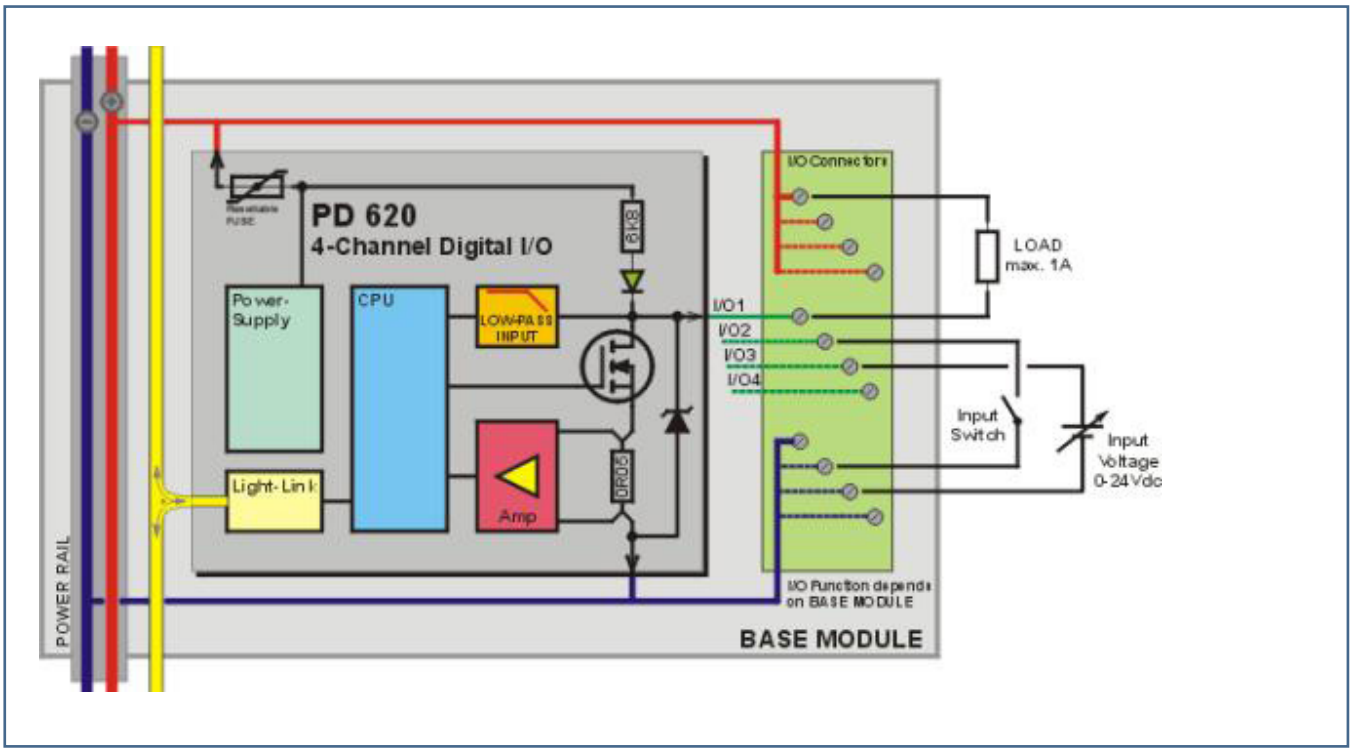
Introduction

The PD 620 has four independent digital channels capable of being configured for input or output. Each channel is also capable of measuring a scaled voltage input, and can therefore be used as an analogue input device. It can be used with the BM 014 (or BM 001) for direct I/O terminals or the BM 008 base module, where four output channels can be used with the four built in relays.

Block Schematic

The diagram shows the I/O circuits and connection possibilities for a PD 620.



LED Indicators

Series 600 devices (including slave devices) are equipped with 2 LEDs, a green (On) for indication Power supply, and a red (Error) for indicating errors in the device. Furthermore, there is also one LED for each digital channel.

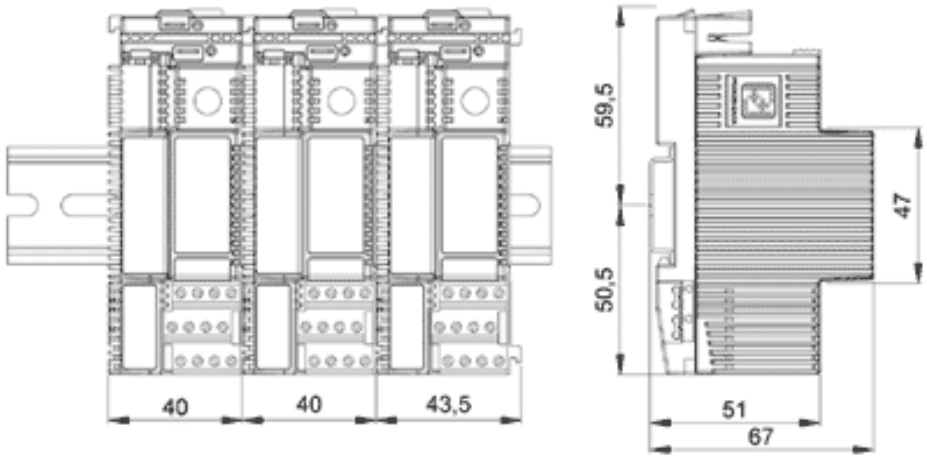
The Error LED is ON if an error occurs inside the device, which causes one of the error flags to be set to TRUE. This is for example watchdog error or error in EEPROM memory.

Channel Structure

The PD 620 consists of 5 channels as shown in then table.

Channel		
No.	**Name**	**Description**
0	Service	Device identification, adress and configuration
1	Digital IO 1	General purpose Digital Input or Output
2	Digital IO 2	General purpose Digital Input or Output
3	Digital IO 3	General purpose Digital Input or Output
4	Digital IO 4	General purpose Digital Input or Output

Technical Data

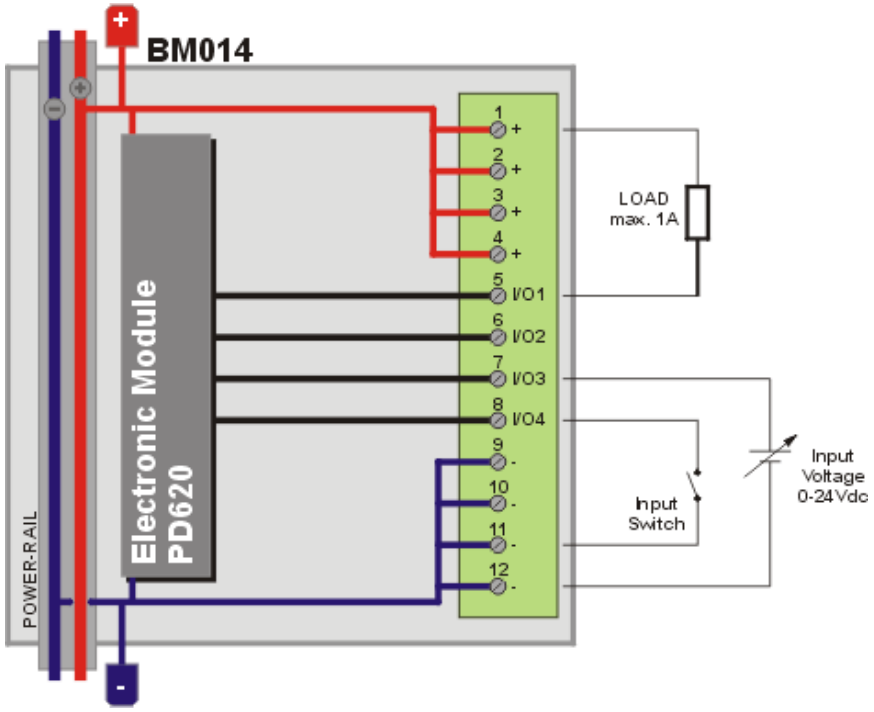


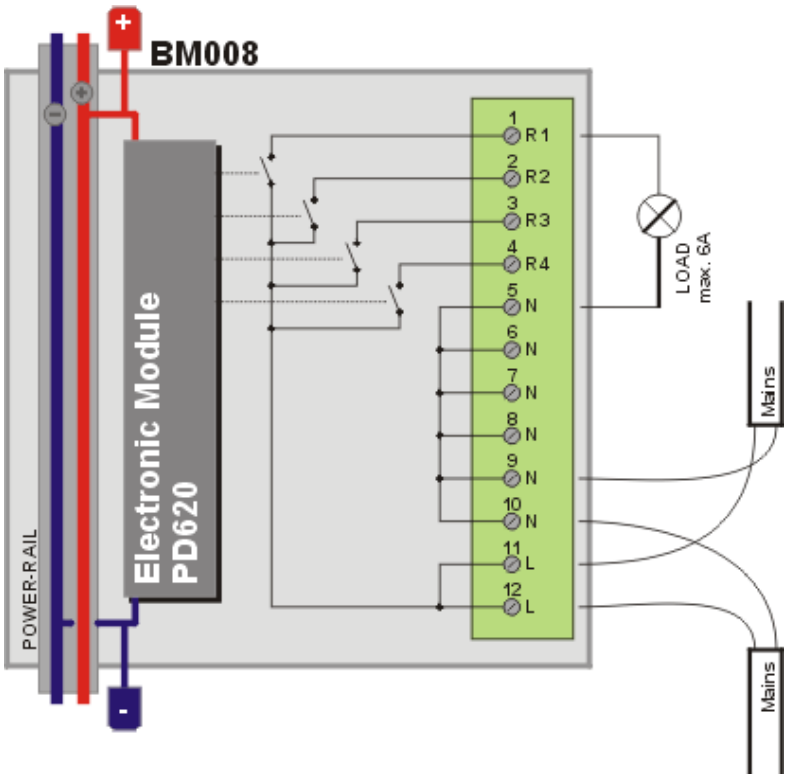
Technical Specifications

Weight	140 grams approx.
Power supply	18 to 32 VDC
Ripple	max. 5%
Power consumption @ 24VDC	
All outputs / inputs at ON	max. 45 mA
All outputs / inputs at OFF	max. 30 mA
Digital Input	
Input voltage at ON (Sink only)	< 3V
Input voltage at OFF	> 9V
Input hysteresis	min. 0.3 V
Input current at ON	max. 3.4 mA
Short circuit cutoff delay time (Current > 2A)	max. 200 Hz
Digital Output	
Start current (Duration max 2 sec.)	max. 2 A *)
Load current at ON (Sink only)	max. 1 A
Leak current at OFF	max. 500 µA
Short circuit cutoff delay time(Current > 2A)	max. 100 µsec
Oneshot and dutycycle resolution:	15.625 msec
Load current measurements	
Accuracy	min. 2.5 %, +/- 10 mA
Resolution:	2.4 mA
Repeatability	min. 1 %, +/- 10 mA
Analog Input	
Input voltage	0-11 V
Resolution:	15 mV
Voltage measurement update time	15.625 msec
Operation temperature	–25 °C to + 70 °C
Storage temperature:	–40 °C to + 85 °C
Interface	Light-Link

*) Enabled by setting MaxCurrent = 2A, and MinMaxCurPreset = 2 seconds.
By default, MaxCurrent = 1.0 and MinMaxCurTimer = 0.0.

Wiring Diagrams





Available Base Modules:
BM 001 - 014(*

*) Recommended

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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