

# PD 621 6-Channel Digital IO

## PD Series 600



### The PD 621 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
- Wide temperature range
- 2 LEDs for power on and error indication
- 1 LED for each digital channel

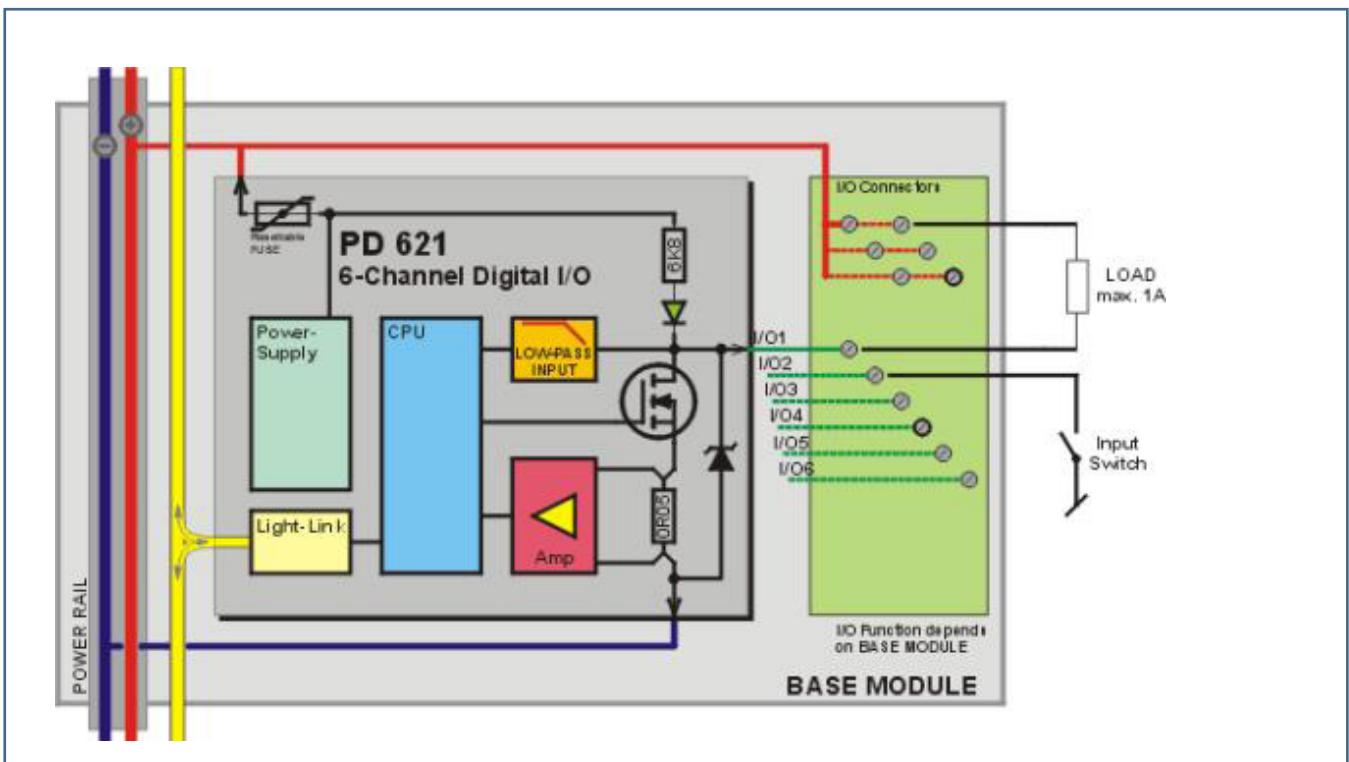
## Introduction

The PD 621 has six general-purpose digital channels, which are normally all configured for either input or output. When configured as an input device, the BM 005 Base Module is used. When configured as an output device, BM 006 is used.

Alternatively, by configuring channels 1-4 as inputs and channels 5 and 6 as outputs, the latter can use the two built in relays in BM 004). All of these combinations provide easy-to-use DIN-rail mounting.

## Block Schematic

The diagram shows the I/O circuits and connection possibilities for a PD 621.



## LED Indicators

Serie 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.

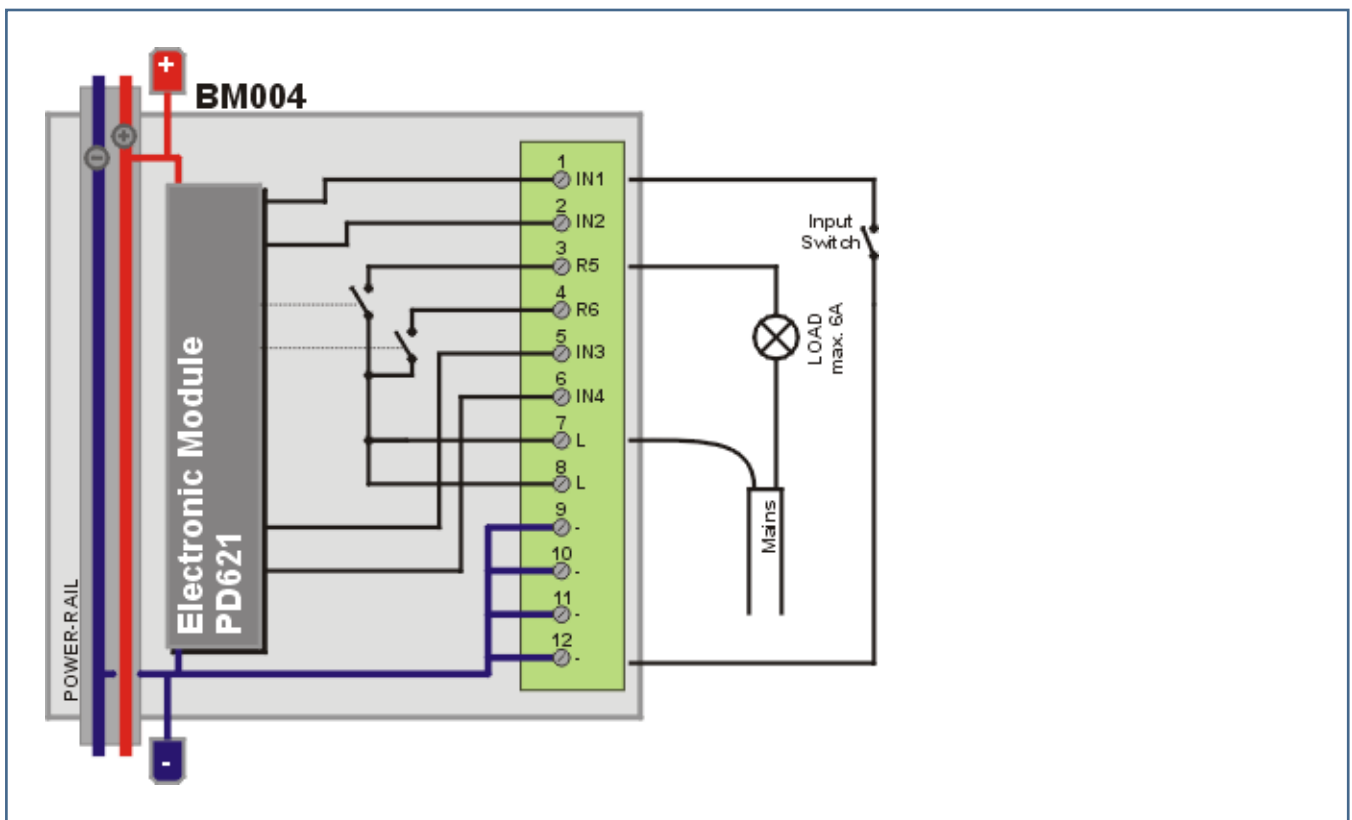
The Error LED is ON if an error occurs inside the device, which causes one of the error flags to be set to TRUE. This is for example watchdog error or error in EEPROM memory.

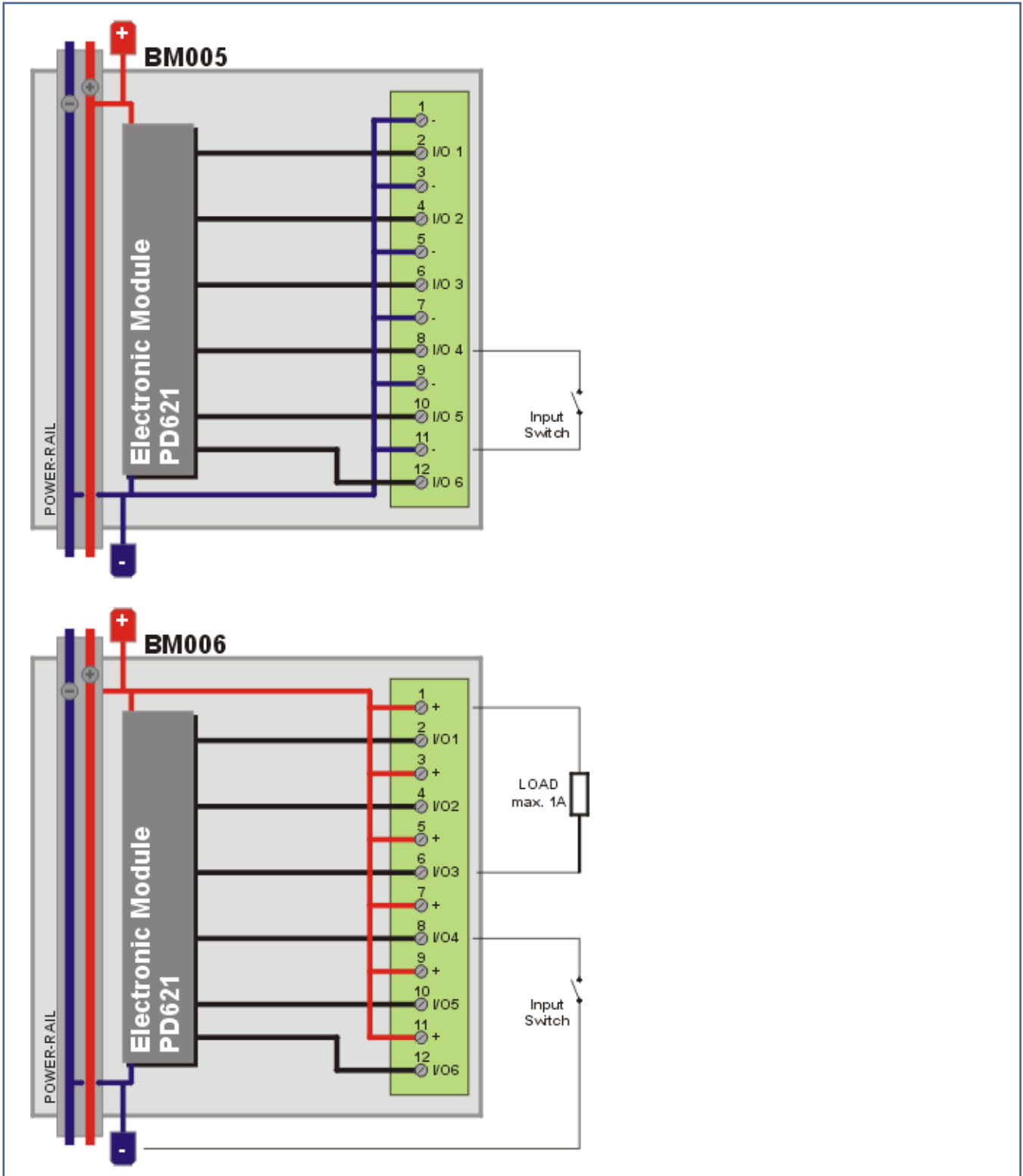
## Channel Structure

The PD 621 consists of 7 channels as shown in the table.

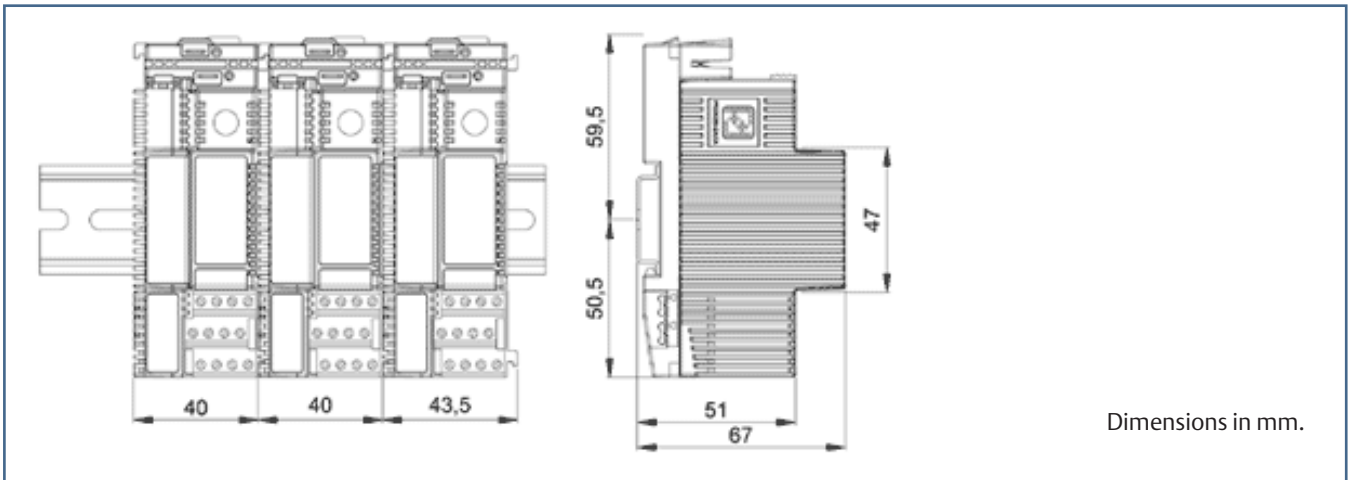
Channel		
No.	Name	Description
0	Service	Device identification, address and configuration
1	Digital IO 1	General purpose Digital Input or Output
2	Digital IO 2	General purpose Digital Input or Output
3	Digital IO 3	General purpose Digital Input or Output
4	Digital IO 4	General purpose Digital Input or Output
5	Digital IO 5	General purpose Digital Input or Output
6	Digital IO 6	General purpose Digital Input or Output

## Wiring Diagrams





# Technical Specifications



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

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

## Maritime Approvals

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

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

### **Emerson Process Management**

Damcos A/S  
Aaderupvej 41  
DK-4700 Naestved  
T +45 5578 7200  
F +45 5578 7272

[www.EmersonProcess.com/mtm](http://www.EmersonProcess.com/mtm)

### **Emerson Process Management**

Rosemount Tank Radar AB  
Box 13045  
SE-40251 Sweden  
T +46 31 337 00 00  
F +46 31 25 30 22

[www.EmersonProcess.com/mtm](http://www.EmersonProcess.com/mtm)

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