PD 621 6 Channel Digital I/O (Current Sink)

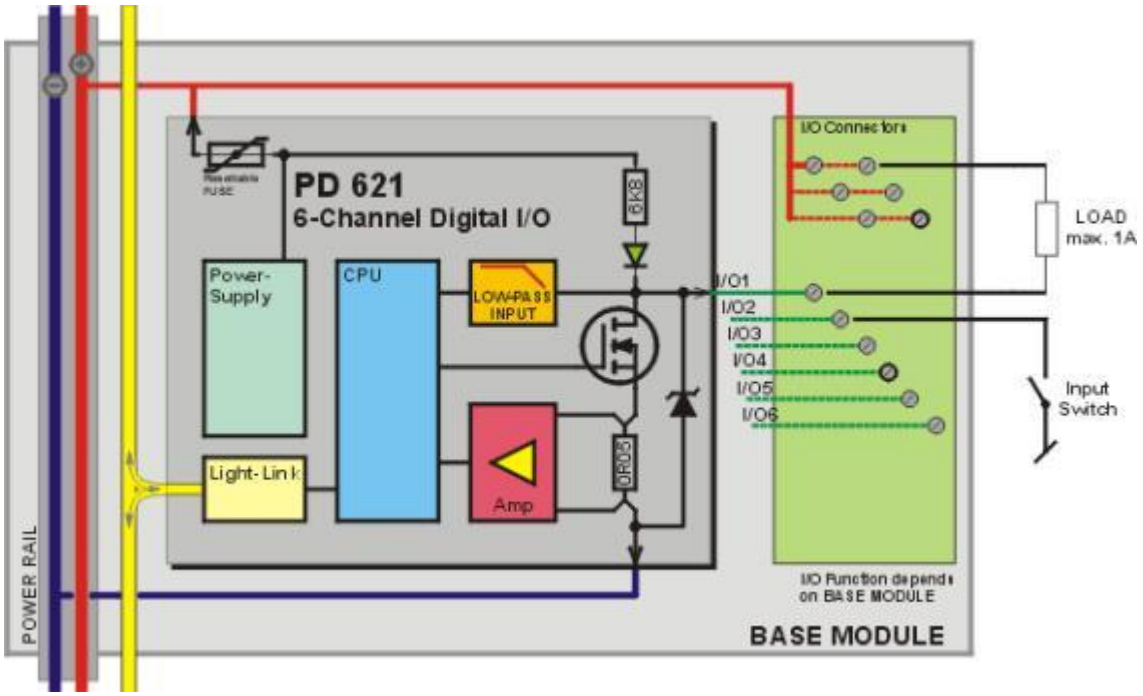
Specific Features

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.

- 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
- 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.

PD 621 Block Schematic

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



Channel Structure

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

Channel No.	Channel Name	Channel Description
0	Service	Device Ident.,Address and Config.
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

Electrical Specifications

Power supply

Power supply DC:	Nom.	24.0 V
	min.	18.0 V
	max.	32.0 V
Ripple:	max.	5%

Power consumption @ 24Vdc

All outputs/inputs = ON	max.	45 mA
All outputs/inputs = OFF	max.	30 mA
Current requirement at power up:	max.	60 mA

Digital Input

Input voltage at ON:	<	3 V
Input voltage at OFF:	>	9 V
Input hysteresis:	min.	0.3 V
Input current at ON:	max.	3.4 mA
Input frequency:	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 delaytime (current > 2 A)	max.	100 µsec
Oneshot and Dutycycle resolution		15.625 msec

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

Load current measurements

Accuracy:	Min.	2.5 %, +/-10 mA
Resolution:		2.4 mA
Repeatability:	Min.	1 %, +/- 10 mA
Current measurement update time:		

Temperature

Operating temperature	-25 °C - 70 °C
Storage temperature	-40 °C - 85 °C

Humidity

Relative humidity:	max. 95%

EMC

EN 61000-6-2, EN 61000-6-3

Vibration

Test method: IEC 60068-2-6

Frequency range:	2-100 Hz
Frequency / amplitude:	2-10 Hz : +/- 5.0 mm
	10-100 Hz: +/- 2g
Sweep rate:	max. 1 octave/min
Number of axes:	3 mutually perpendicular

Mechanical Details