PD 620 4 Channel Digital I/O

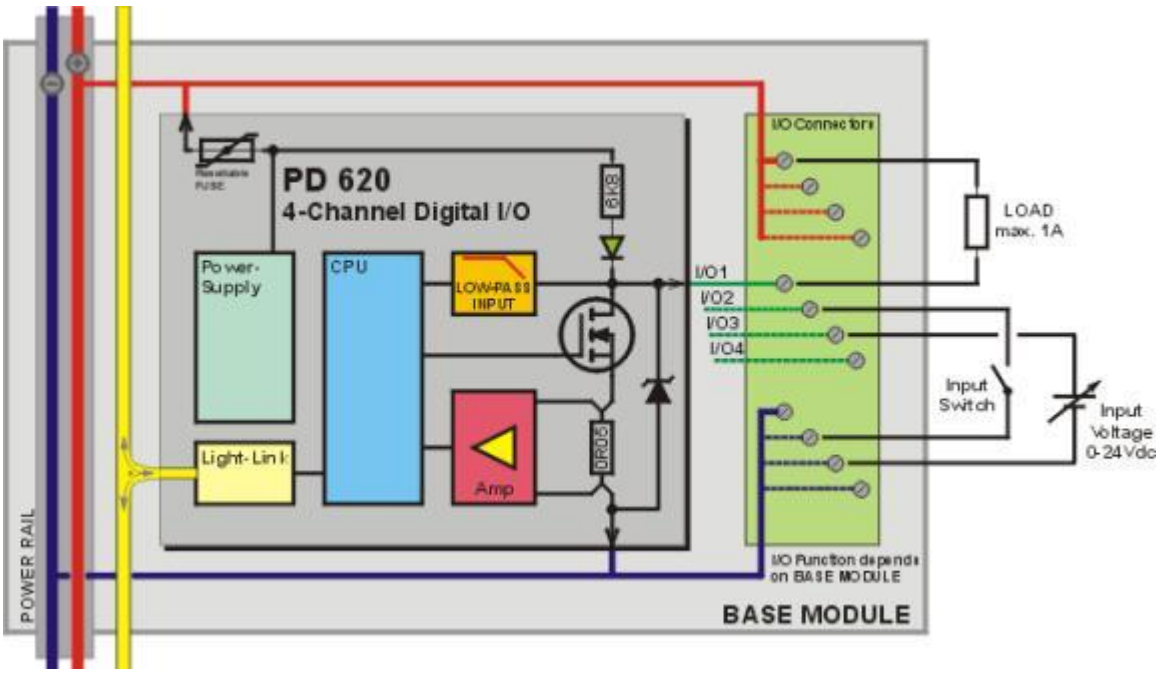
Specific Features

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 for direct I/O terminals or the BM 008 base module, where four output channels can be used with the four built in relays.

- 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.

PD 620 Block Schematic

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



Channel Structure

The PD 620 consists of 5 channels as shown in then 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

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:		

Analog Input

Input voltage:	0 - 15 V
Resolution:	15 mV
Voltage measurement update time:	15.625 msec

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