

PD 601x DPI with RS232 Interface

Specific Features

A PD 601 DPI is used to provide local programmable intelligence for the local cluster connected via Light-Link P-NET, and to provide an interface with MODEMs, PCs or other serial equipment, such as printers, bar code readers etc. It uses the **BM 003** or **BM 011** base module.

Communication interfaces

The PD 601 has 2 standard P-NET Communication Channels.

In the PD 601 DPI, Channel 1 is a P-NET RS232 communication channel, primarily for communicating with MODEMs or PCs, but also with other serial devices such as bar code readers and printers.

Channel 2 is a P-NET Light-Link communication channel intended for communicating with other locally mounted P-NET devices using the optical Light-Link interface.

See **General Distributed Process Intelligence information** for a general description of the DPI family.



Programming

The PD 601 is programmed in Process-Pascal, which is an extension of standard Pascal, allowing easy declaration and utilisation of P-NET variables and objects. Programs are developed and compiled on a standard PC, then downloaded directly via a P-NET interface. Program code can be downloaded to FLASH memory.

The PD 601 DPI devices have the channels shown in the following table.

Channel No.	Channel name	Channel description
0	Service	Service channel
1	RS232Port	Comm. channel, RS232, P-NET mode or Data mode
2	LightPort	Comm. channel, Light-Link, P-NET mode or Data mode
3	LicenceCh	Channel for holding application licences (available in DPIs with operating system version 1.15 or higher)
5	OpSysCh	Program channel for operating system
6	PPPProgCh	Program channel for Process-Pascal

Memory

The PD 601 DPI is available with 4 different memory versions: Small, Medium, Medium+ and Large. The amount and type of memory for each version is shown in the table.

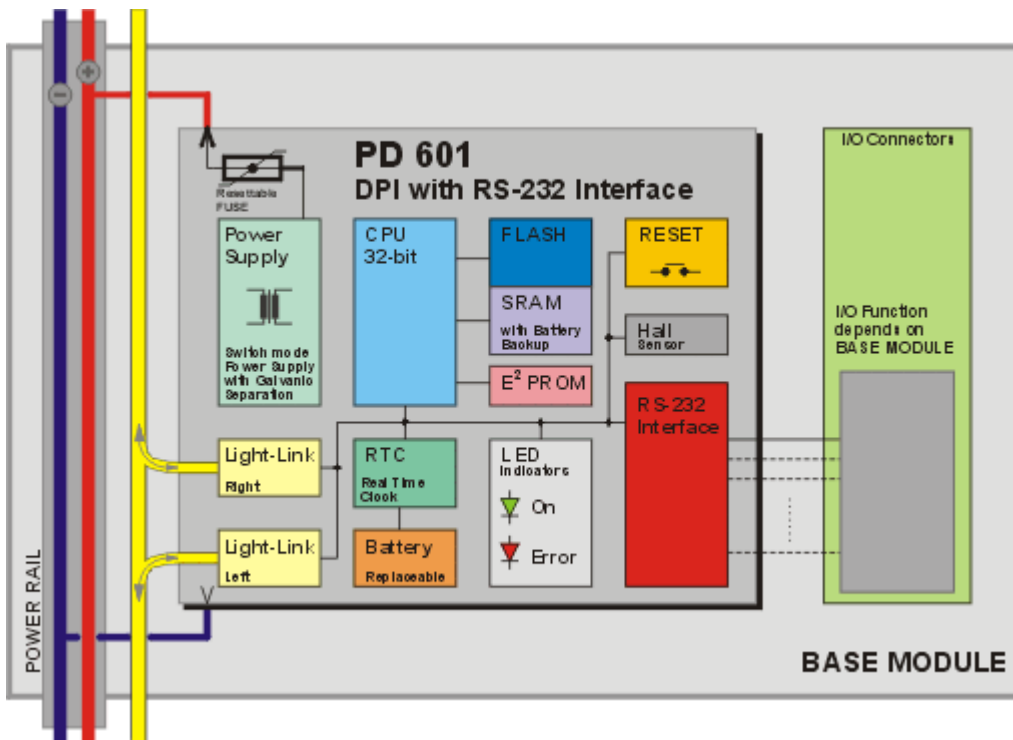
Type	RAM ^{*)}	Program FLASH	Data FLASH
PD 601 S	64 Kbytes	64 Kbytes	128 Kbytes
PD 601 M	480 Kbytes	512 Kbytes	1024 Kbytes
PD 601 M+	992 Kbytes	512 Kbytes	1024 Kbytes
PD 601 L	480 Kbytes	1024 Kbytes	2048 Kbytes

^{*)} 2 Kbytes of RAM reserved for system variables.

Memory details, Backup battery, LED indicators and real time Clock

PD 601 Block Schematic

The following figure provides a block diagram showing the internal structure of a PD 601 DPI.



VIGO Licence

When the FLASH operating system is running in the PD 601, it can give licence to run VIGO version 5.3 or higher on a PC connected directly to the PD 601 via the RS232 interface.

Electrical Specification

DPIs

Power Supply

Power Supply DC: nom. 24.0 V

min. 15.0 V

max. 32.0 V

Ripple: max. 5%

Power consumption @ 24Vdc

Operating: max. 50 mA

Current at power up: max. 100 mA

Interface Light-Link, plus RS-485, RS-232, or Ethernet.

Memory

	Small	Medium	Large
Program FLASH	64 Kbytes	512 Kbytes	1024 Kbytes
Data FLASH	128 Kbytes	1024 Kbytes	2048 Kbytes
RAM	64 Kbytes	Up to 992 Kbytes *)	Up to 480 Kbytes *)

*) Please refer to individual data sheets.

Battery Backup (RAM and RTC)

Replaceable battery (Panasonic) BR1632

Replace battery every 5 years. If the operating ambient temperature is over 50°C, replace battery more frequently.

Backup time @ 25°C typ. 1 year

Real Time Clock

Accuracy: Deviation is approx. 3 minutes per month over the full temperature range.

Deviation is approx. 1 minute per month at 25 °C

Ambient Temperature

Operating temperature: -25 °C - 70 °C

Storage temperature: -40 °C - 85 °C

Humidity

Relative humidity: max. 95%

Approvals

EMC EN61000-6-2, EN61000-6-3

Vibration 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

Mounting requirements

The PD 60x DPIs must be mounted in a metal enclosure/panel.

Mechanical details

