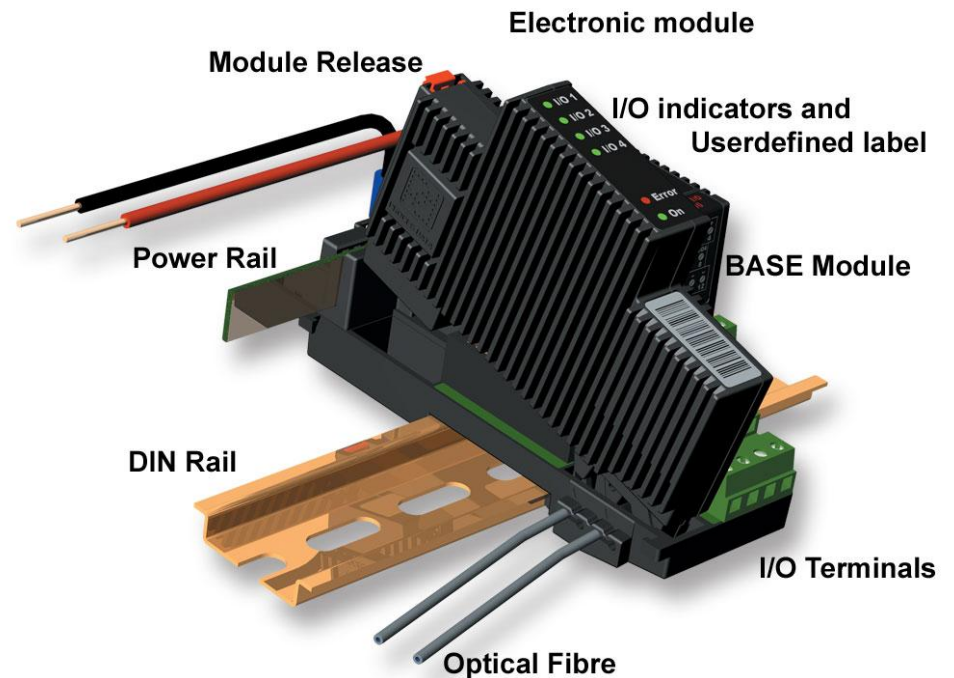




# PD 600-Series

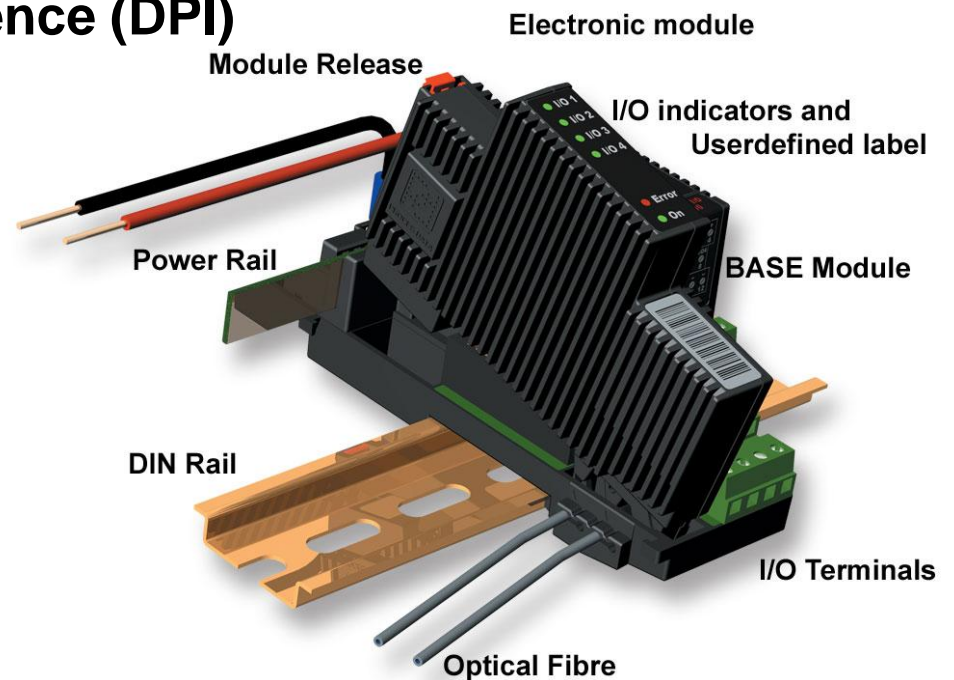
- **Module Type Overview**
- **Construction**
- **Characteristics**
- **Installation principles**
- **Details**





# PD 600-Series

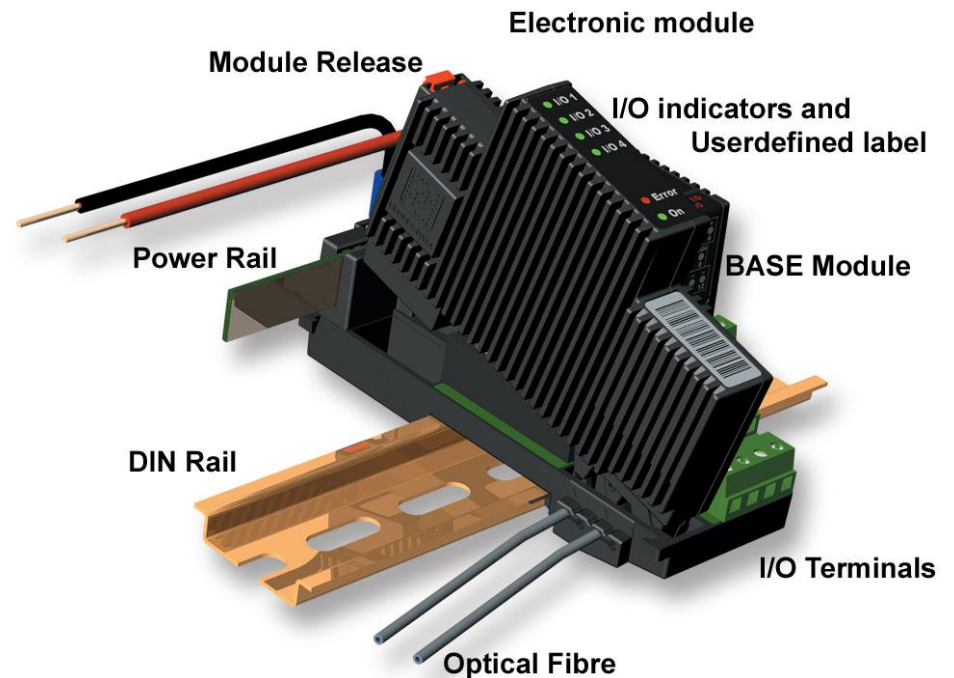
- **Module Types:**
  - **Distributed Process Intelligence (DPI)**
  - **Communication**
  - **Digital I/O**
  - **Analogue I/O**
  - **Operator interface**





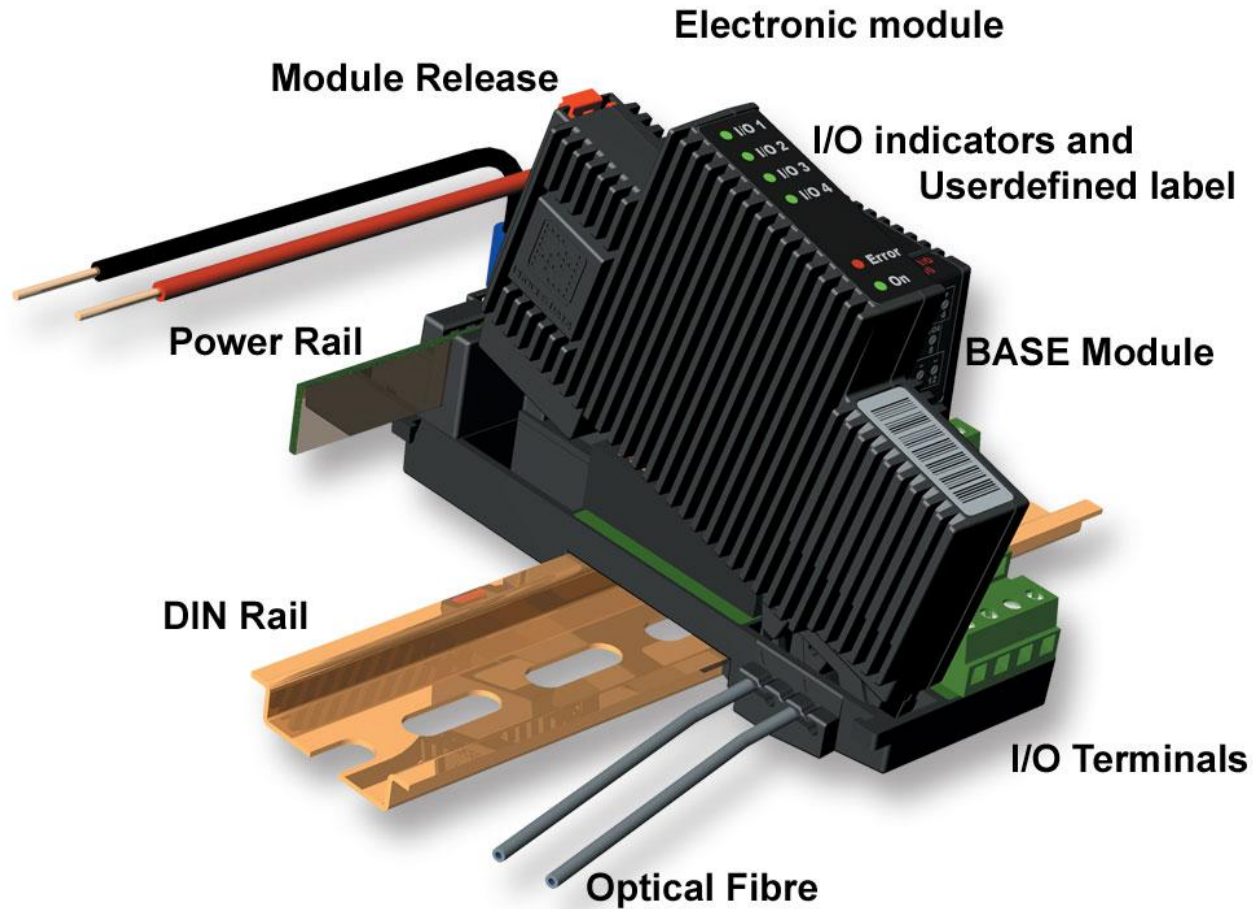
# PD 600-Series

- **Construction**
  - **Electronic module**
  - **Base module with terminals for I/O connections**
  - **Power supply is distributed easily via the power rail**





# Construction





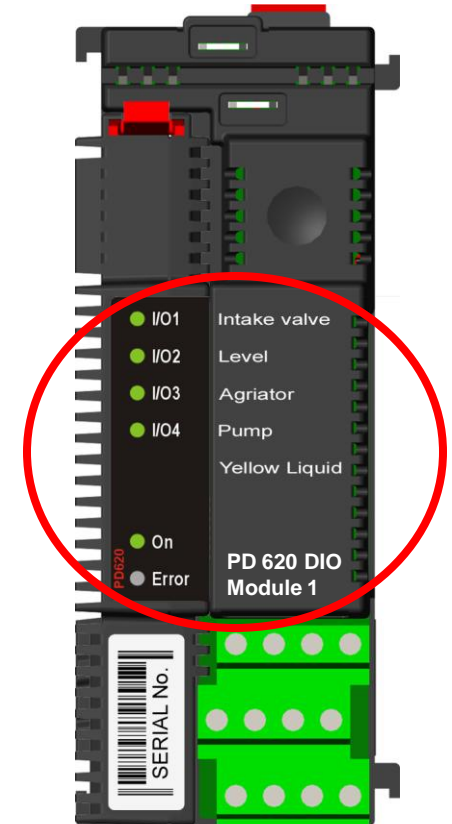
# Characteristics

- **Mounted on a DIN rail.**
- **P-NET communication via optical fibre (Light-Link).**
- **PD 600-Series modules can be assembled in a standard mains fuse / contact breaker box.**
- **Communication takes place via optical fibres in the base module.**
- **Electronic modules are replaceable without using any tools.**
- **Hot Swap - electronic module can be replaced during operation without disconnecting the P-NET communication.**
- **Contact coding protects the electronic modules from damage caused by placement in incorrect base module types.**



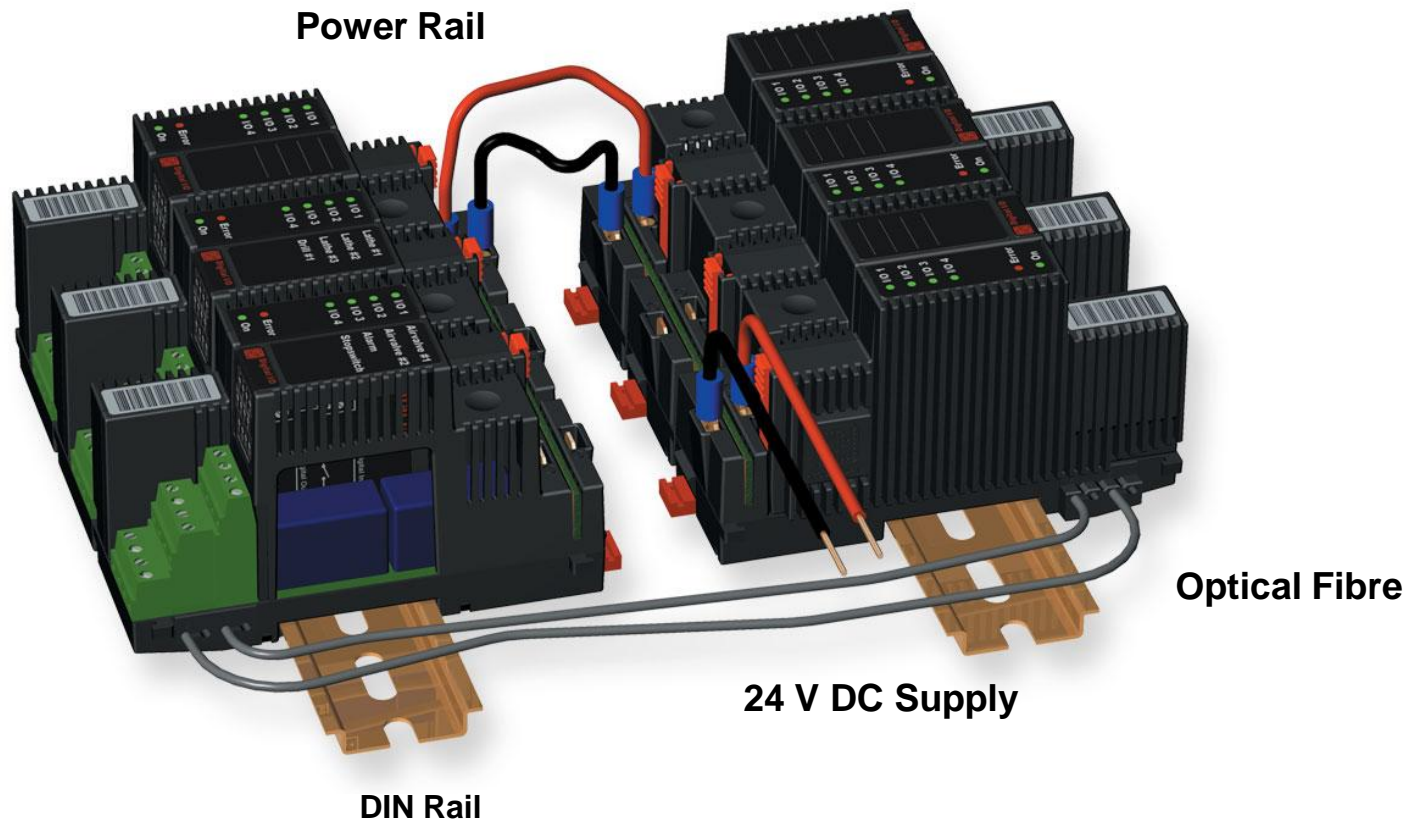
# Installation

- One wire per terminal means direct connection of external cables.
- No requirement for intermediate terminals between cable and module.
- Customer defined labels for naming of I/O channels and module identification.





# Installation





# Master modules

- Programmable units (DPI)
  - PD 600 with P-NET RS485 Interface
  - PD 601 with P-NET RS232 Interface
  - PD 602 with Ethernet LAN Interface 10 Mb/s







# Slave modules

- **Digital I/O**
  - PD 620 Digital I/O module, 4 channels
  - PD 621 Digital I/O module, 6 channels
  - PD 622 Digital Input module, 6 channels
  - PD 626 Stepper Motor Controller
- **Analogue I/O**
  - PD 640 Analogue I/O module (0/4-20 mA)
  - PD 641 Analogue Input module (Pt100 / Pt1000)
  - PD 642 Analogue Input module (0-100 mV, thermocouple)
- **Operator interface**
  - PD 681 Graphical display and keyboard



# Communication

- **P-NET communication**
- **PD 661 Simple P-NET Interface**  
– RS485 P-NET
- **PD 662 Redundancy Interface**  
– 2 x RS485 P-NET





# PD 60x DPI

- Two P-NET communication ports
  - Light-Link interface (fibre optics).
  - RS232, RS485 or Ethernet LAN interface.
- Programmable in Process-Pascal.
- Built-in replaceable lithium battery for Real Time Clock and user data backup.
- LED state indicators.
- Three different memory sizes (S, M, L).





# PD 60x DPI

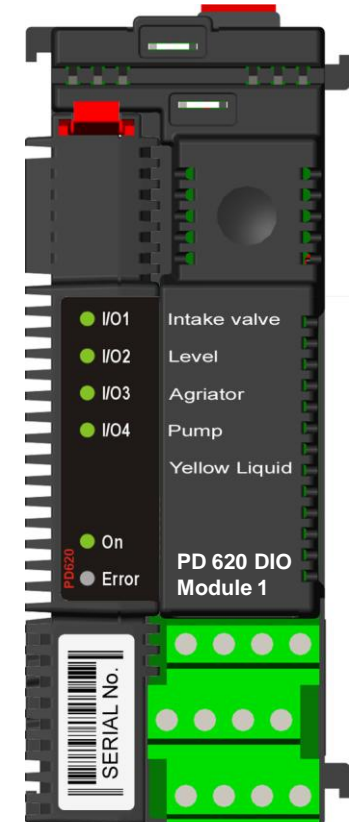
	PD 600	PD 601	PD 602
<b>P-NET RS485</b>	X		
<b>P-NET RS232</b>		X	
<b>Ethernet LAN</b>			X
<b>P-NET Light-Link (Optical Fibre)</b>	X	X	X

	RAM	Program FLASH	Data FLASH
<b>PD 60X S</b>	64 kbytes	32 kbytes	128 kbytes
<b>PD 60X M</b>	240 kbytes	512 kbytes	1 Mbytes
<b>PD 60X L</b>	480 kbytes	1 Mbytes	2 Mbytes



# PD 62x Digital I/O

- P-NET Light-Link Interface
- Input or input/output function
- LED for each channel (status)
- Special functions:
  - Pulse counting to 200 Hz.
  - Operating time
  - Duty-cycle output
  - One-shot output
  - Load current measurement
  - Overload protection
  - Toggle output mode
  - Input hold
  - Follow mode
  - Input voltage measurement





# PD 62x Digital I/O

<b>Features:</b>	<b>PD 620</b>	<b>PD 621</b>	<b>PD 622</b>
Number of I/O channels	4	6	6
Input function	X	X	X
Output function	X	X	
Voltage measurement on inputs	X		
Current measurement on outputs	X	X	
Overload protection	X	X	
Pulse counting	X	X	X
Operation time	X	X	X
Duty-cycle output	X	X	
One-shot output	X	X	
Input hold mode	X		X



# PD 64x Analogue I/O

- P-NET Light-Link interface
- Current, mV, thermocouple and temperature input
- Current output
- I/O channels can be individually configured
- Alarm levels for each channel

Features:	PD 640	PD 641	PD 642
I/O channels	4	3	4
0/4 – 20 mA inputs	Max. 4		
0/4 – 20 mA outputs	Max. 2		
Pt100 / Pt1000 inputs		3	
0 – 100 mV inputs			4
Thermocouples R-S-B-J-T-E-K-N			4



# PD 661 SPI

- **Transparent connection between standard P-NET RS485 and optical P-NET Light-Link.**
- **Acts as a direct repeater between the two net types without requiring a gateway (no programming).**
- **Used with BM 010 for standard P-NET RS485 .**
- **Makes a connection to the 4-WIRE P-NET possible by using a BM 012.**





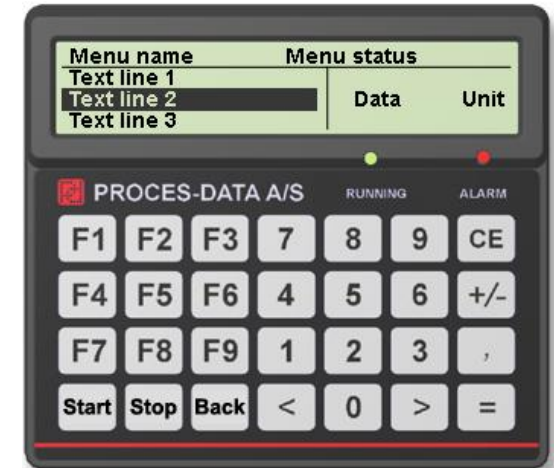
# PD 662 Redundancy

- The module guarantees error-free communication in case one of the two networks becomes disconnected or is short-circuited.
- PD 662 has two galvanically isolated P-NET RS485 interfaces and one P-NET Light-Link interface.
- Transparent connection between the Light-Link and the two RS485 ports.
- The module scans the two P-NET RS485 communication lines to make sure they are operating correctly.
- Error LED for each of the communication lines #1 and #2.
- Simple configuration:
  - Selection of primary port (port 1 or port 2 or auto).
  - Number of error packets (out of 16 packets) before the port is closed down.



# PD 681 Operator Interface

- 4-WIRE P-NET interface
- P-NET Light-Link interface (fibre)
- Graphical LCD display 33 x 200 pixels
- Keyboard with 28 user-defined keys
- Two integrated LED indicators
- Acoustic alarm
- Digital I/O channel
- IP65 @ panel mounting





# General specification

- Nominal supply 24 V DC (Min. 18 V, max. 32 V)
- Operational temperature range  $-25$  to  $+70$  °C
- Relative humidity: Max. 95%
- EMC: EN 61000-6-2, EN 61000-6-3

