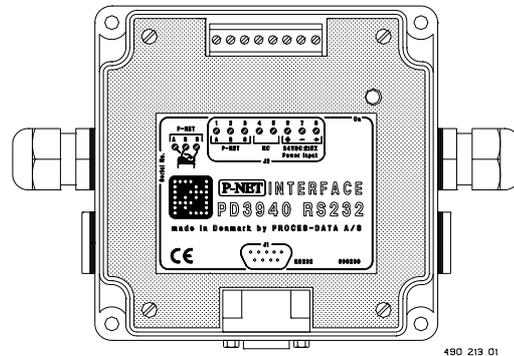


PD 3940 P-NET to RS232 INTERFACE

FEATURES

- P-NET Fieldbus Communication, European standard EN 50170, Vol. 1.
- RS232 port (9 pin male).
- Integrates RS232 devices with P-NET
- Fully configurable via P-NET.
- Baud rates from 300 to 76,800.
- Standard RS232 handshake signals.
- Galvanically isolated com. ports.
- Full duplex communication.
- Dynamic buffer size.
- IP53 mounting box.
- Panel mount facilities.
- EMC approved (89/336/EEC).



APPLICATION

The PD 3940 is a communication module, providing an interface from the P-NET fieldbus to RS232 devices, such as printers, card-readers, barcode readers and other equipment not having built-in fieldbus facilities for P-NET. This enables such devices to be integrated into a P-NET fieldbus system. It can be used in conjunction with the varied collection of distributed P-NET input/output and control modules, which provide digital, analog, flow and weighing facilities.

Application examples:

- Printer interface, for printout of tickets, alarms and reports.
- Card-reader interface, for entrance control.
- Bar-code reader interface, for production control to track the flow of materials.

SYSTEM DESCRIPTION

The PD 3940 P-NET to RS232 communication module provides an interface between the P-NET fieldbus and any RS232 device. It is connected to P-NET in the same way as any other node, and has a built in RS232 9-pin male connector. The PD 3940 is mounted in an IP53 polycarbonate mounting box. Four PG11 cable glands are provided, for connection of the P-NET fieldbus and power supply cables.

The PD 3940 is a P-NET slave, which has 2 channels, the Service channel (channel 0) and the Communication channel (channel 1).

The service channel, which is mandatory in all P-NET modules, holds among other things, general information about the module, such as ID, serial no., P-NET node no. and error status of the complete module. The Communication channel holds all data applicable to the RS232 port set up (baud rate, parity, handshake etc), input/output databuffers and error status of the channel. Errors reported include configuration errors, communication errors and module errors.

It is possible to set a Simulation enable bit, for test purposes. If Simulation is selected, direct access to the input buffer is allowed, and data from the RS232 port will be ignored.

The Reservation facility allows a master to reserve the module for a certain period of time. In a multi-master network, this feature can prevent other masters from accidentally writing data in the output buffer while, e.g. writing a report.

If the Dynamic buffer enable bit is selected, a read access to the input buffer will return the actual number of bytes, which have been received at the time of the read operation. This feature may, for example, be useful when the packages of data received on the RS232 port are not of a fixed length.

Data that are to be sent (e.g. to a printer) on RS232 must be stored in the Output buffer in the communication channel. Data received (e.g. from a barcode reader) are stored in the Input buffer, from where it can be read via P-NET.

SPECIFICATIONS (all specifications apply under the stated EMI conditions):

Power supply:

Voltage: 24V DC +/- 15 %

Consumption: 1.2 W

Ambient Temperature:

Operation: -25 to +70 °C

Storage: -40 to +85 °C

Sealing: IP53

Enclosure: Polycarbonate mounting box

Weight: 0.500 kg

RS232 Communication Interface:

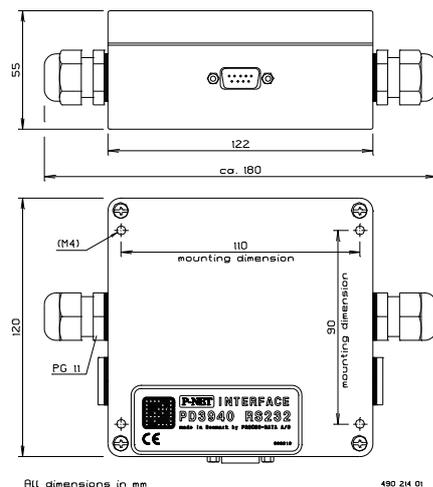
Baudrates: 300 to 76,800

Parity: None, even, odd, mark, space

Output buffer: *Buffer[10] of STRING[255]*

Input buffer: *Buffer[10] of STRING[255]*

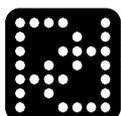
Scale Drawing (in mm)



PD 3940 is approved in compliance with the **EMC-directive no 89/336/EEC**. Test limits are determined by the generic standards **EN 50081-1** for emission and **EN 50082-2** for immunity. PD 3940 is approved in compliance with the **IEC 68-2-6 Test Fc** standard for vibration.

Produced by:

Distributed by:



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