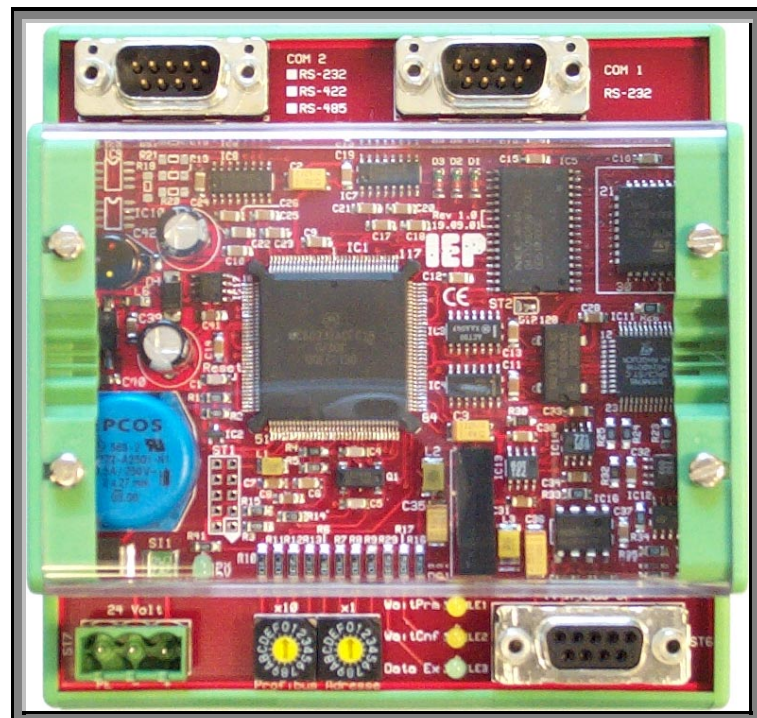


## PK-DP

### Protocol coupler for Profibus DP



The **PK-DP** protocol converter provides simple integration of devices with serial ports in Profibus DP networks:

- Profibus DP Slave up to 12 Mbaud
- 1 serial port RS-232 5-wire
- 1 serial port either RS-232 5-wire or RS-485/422 (order option)
- Supply 24 V<sub>DC</sub>
- Housing for the DIN rail assembly
- Variable length of I/O range (2...80 data words)
- The default ASCII driver is configured by a GSE file, customizing of drivers is possible
- Device is configured by the DP master, no special configuration tools necessary

**PK-DP**

### Capabilities

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## DP Slave



The **PK-DP** protocol coupler works as Profibus-DP-slave. Using an appropriate ASIC, all baud rates required by the standard EN 50170 are supported. The employment in a Profibus-network is hassle-free. The variable length of the I/O-area helps supporting different Profibus-DP-masters.

The Profibus-address of the **PK-DP** can be set by 2 rotary hex switches.

A PLC can communicate with conventional serial devices through the **PK-DP**. Data are sent to and received from the serial device, data integrity and correct timing are assured by the Profibus protocol.

## Serial ports

2 asynchronous serial ports are available, thus 2 devices can be connected to the **PK-DP** simultaneously. When customizing of the serial driver software is needed, one of the ports can be used as programming console.

The first serial port has a fixed 5-wire RS-232 interface. This port is usable with Baud rates up to 76800 Baud.

The physical interface of the second port is determined by assembly as one out of RS-232 / RS-422 / RS-485. This port allows Baud rates up to 76800 Baud.

## Power supply

The **PK-DP** uses a supply voltage of nominal 24 V<sub>DC</sub>, voltages of 10-36 V are acceptable. The device is protected against power supply polarity reversal; an EMV protection circuit assures trouble-free operation in an industrial environment.

## Installation and Connections

The **PK-DP** protocol coupler comes in a 108 x 112 x 50 mm housing for snap-on mounting on DIN-rails.

The serial ports are connected with two 9p-SubD plugs. The Profibus connector is a standard 9p-SubD socket. Power supply is made by a 3 pin plug/screw terminal.

## Programming

In usual applications, no programming is necessary on the **PK-DP**. An ASCII-driver, configurable by the Profibus master, and a GSE-file for automatic configuration are in the standard scope of supply.

For special requirements, customizing of the driver software is possible. A development kit for driver writing, containing a driver example in ANSI-C source and programming tools, is available. The serial communication protocol of the **PK-DP** can be changed freely, though the Profibus-communication has to follow the Profibus standard.

The **PK-DP** is using the realtime operating system RTOS-UH. Driver can be programmed in PEARL, ANSI-C or IEC 61131-3.