

## 5. IF24

### 5.1 Order data


Model number	Short description	Figure
4PP045.IF24-1	PP45 interface module, 1 Profibus DP slave interface (electrically isolated and network capable), 1 RS232/RS422/RS485 interface (RS422/RS485: electrically isolated and network-capable)	
Optional accessories		
0G0001.00-090	Cable PC <-> PLC/PW, RS232, online cable	
0G1000.00-090	Bus connector, RS485, for Profibus networks, remote I/O	

Table 47: 4PP045.IF24-1 - Order data

### 5.2 Technical data

Product ID	4PP045.IF24-1
Short description	
Communication module	1x RS232/RS422/RS485, 1x Profibus DP slave
Interfaces	
Interface IF1	
Type	RS232
Design	9-pin DSUB connector (shared with IF2)
Maximum transfer rate	115.2 kBit/s
Interface IF2	
Type	RS485/RS422
Design	9-pin DSUB connector (shared with IF1)
Maximum transfer rate	115.2 kBit/s
Interface IF3	
Fieldbus	Profibus DP slave
Type	RS485
Design	9-pin DSUB socket
Maximum transfer rate	12 MBit/s
General information	
Status indicators	Data transfer per interface
Diagnostics	
Data transfer	Yes, with status LEDs
Electrical isolation	
PLC - IF1	No
PLC - IF2	Yes
PLC - IF3	Yes
Certification	CE, C-UL-US, GOST-R

Table 48: 4PP045.IF24-1 - technical data

<b>Product ID</b>	<b>4PP045.IF24-1</b>
<b>Operational conditions</b>	
Operating temperature	0°C to +50°C
Relative humidity	10 to 90%, non-condensing
Protection type	IP20
<b>Storage and transport conditions</b>	
Temperature	-25°C to +70°C
Relative humidity	10 to 90%, non-condensing
<b>Mechanical characteristics</b>	
Slot	PP45 insert

Table 48: 4PP045.IF24-1 - technical data (cont.)

### 5.3 Additional technical data

<b>Product ID</b>	<b>4PP045.IF24-1</b>
<b>IF1 interface, RS232</b>	
Controller	UART type 16C550 compatible
FIFO	16 bytes in send and receive direction
Input filter / protective circuit	Yes
Maximum distance	15 m / 19200 bit/s
Handshake lines	RTS, CTS
Network-capable	No
Data formats Data bits Parity Stop bits	5 to 8 Yes / No / Even / Odd 1 / 2
<b>Interface IF2, RS485/RS422</b>	
Controller	UART type 16C550 compatible
FIFO	16 bytes in send and receive direction
Maximum distance	500 m
Network-capable	Yes
Terminating resistors	Integrated in the module, switchable
<b>IF3 interface, profibus DP slave</b>	
Controller	ASIC SPC3
RAM	1.5 KB
Maximum distance	1000 m
Maximum transfer rate Bus length <100 m Bus length <200 m Bus length <400 m Bus length <1000 m	12 MBit/s 1.5 MBit/s 500 kBit/s 187.5 kBit/s

Table 49: 4PP045.IF24-1 - Additional technical data

## PP45 interface modules • IF24

Product ID	4PP045.IF24-1
Network-capable	Yes
Terminating resistors	Integrated in the module
<b>General information</b>	
B&R ID code	\$250C

Table 49: 4PP045.IF24-1 - Additional technical data (cont.)

### 5.4 Status LEDs

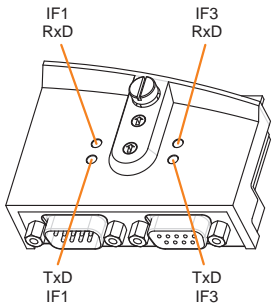
Figure	LED	Color	Status	Description
	RxD	Orange	On	The module is receiving data via the interface
	TxD	Orange	On	The module is sending data via the interface
	IF1 ...RS232 interface IF3 ...Profibus DP slave interface			

Table 50: 4PP045.IF24-1 - Status LEDs

### 5.5 Profibus DP slave node number

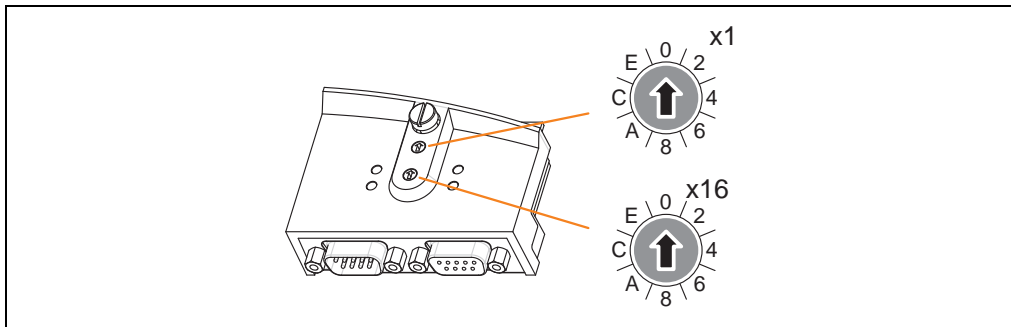


Figure 18: 4PP045.IF24-1 - Profibus DP slave node number switch

The node number for the Profibus DP slave interface is set with the two hex switches.

### 5.6 RS232 (IF1) or RS485/RS422 (IF2) interface

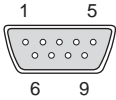
Interface	Pin assignments			
	Pin	RS232	RS485/RS422	
<p>RS232 or RS485/RS422 interface</p>  <p>9-pin DSUB connector</p>	1		TxD	Transmit signal
	2	RxD		Receive signal
	3	TxD		Transmit signal
	4		RxD	Receive signal
	5	GND		Ground
	6		RxD\	Receive signal inverted
	7	RTS		Request To Send
	8	CTS		Clear To Send
	9		TxD\	Transmit signal inverted

Table 51: 4PP045.IF24-1 - RS232 (IF1) or RS485/RS422 (IF2) interface

### Information:

Interfaces IF1 and IF2 can be used simultaneously when wired appropriately.

### 5.7 Profibus DP slave interface (IF3)

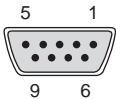
Interface	Pin assignments		
	Pin	Profibus	
<p>Profibus DP slave interface</p>  <p>9-pin DSUB socket</p>	1	NC	
	2	NC	
	3	DATA	Data
	4	CTRL	Transmit enable
	5	GND	Profibus GND (electrically isolated)
	6	+5 V / 50 mA	Supply (electrically isolated)
	7	NC	
	8	DATA\	Data inverted
	9	CTRL\	Transmit enable inverted

Table 52: 4PP045.IF24-1 - Profibus DP slave interface

## 5.8 Terminating resistors

There are two switches on the back of the interface module which can be used to switch on a terminating resistor for IF2 (RS485) and for IF3 (CAN bus).

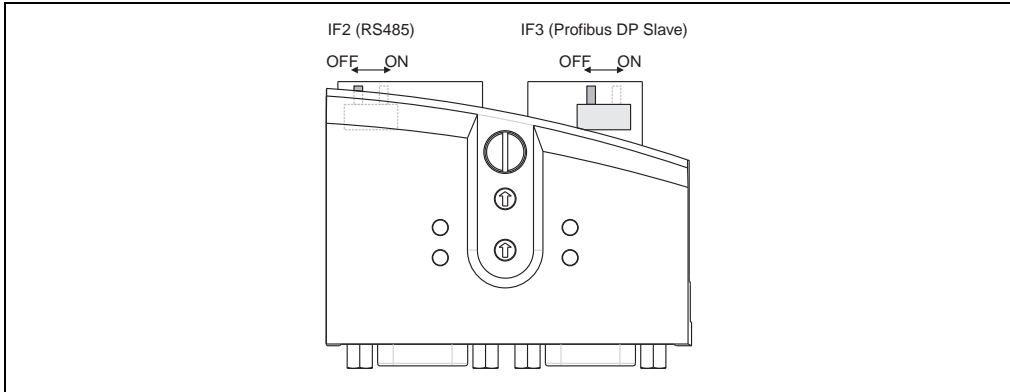


Figure 19: 4PP045.IF24-1 - Terminating resistors for IF2 and IF3

Interface	Switch position	Description
IF2 (RS485)	ON	Terminating resistor activated (150 Ω)
	OFF	Terminating resistor deactivated
IF3 (Profibus DP slave)	ON	Terminating resistor activated (150 Ω)
	OFF	Terminating resistor deactivated

Table 53: 4PP045.IF24-1 - Terminating resistors for IF2 and IF3