

# IL PB BK DP/V1-PAC - Bus coupler



2862246

<https://www.phoenixcontact.com/us/products/2862246>

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Inline, Bus coupler, PROFIBUS DP, D-SUB-9 female connector, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connector and labeling field

## Product description

The bus coupler is intended for use within a PROFIBUS network and represents the link to the Inline I/O system. Up to 63 Inline devices can be connected to the bus coupler. The bus coupler supports a maximum of 16 PCP devices. A corresponding GSD file is available for integrating the Inline station into the programming system. This file can be downloaded via the product at [www.phoenixcontact.com/products](http://www.phoenixcontact.com/products). **The bus coupler does not support PROFIsafe modules. Use the IL PB BK DI8 DO4/EF-PAC bus coupler for this. This bus coupler does not support intrinsically safe Inline terminals or the corresponding power terminal and disconnect terminal block, i.e., all IB IL EX ... items. Use the IL PB BK DI8 DO4/EF-PAC bus coupler for this.**

## Your advantages

- INTERBUS connection via 9-pos. D-SUB socket
- PROFIBUS data transmission speed of 9.6 kbps to 12 Mbps
- Electrical isolation between PROFIBUS interface and logic
- DIP switch to set the PROFIBUS address
- Supported PROFIBUS addresses from 0 to 126
- DP/V1 for class 1 and class 2 masters

## Commercial data

Item number	2862246
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI112
GTIN	4017918907471
Weight per piece (including packing)	266 g
Weight per piece (excluding packing)	240 g
Customs tariff number	85389091
Country of origin	DE

# IL PB BK DP/V1-PAC - Bus coupler

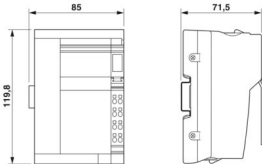


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## Technical data

### Dimensions

Dimensional drawing		
Width		85 mm
Height		119.8 mm
Depth		71.5 mm

### Notes

#### Note on application

Note on application	Only for industrial use
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#### Utilization restriction

CCCex note	Use in potentially explosive areas is not permitted in China.
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### Interfaces

#### PROFIBUS DP

Number of interfaces	1
Connection method	D-SUB-9 female connector
Number of positions	9
Transmission speed	9.6 kbps ... 12 Mbps

#### Inline local bus

Number of interfaces	1
Connection method	Inline data jumper
Transmission speed	500 kbps

#### Fieldbus: Local bus gateway

Max. number of local bus devices	63
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### System properties

#### System limits

Number of supported devices	max. 63 (per station)
Number of local bus devices that can be connected	max. 63
Number of devices with parameter channel	max. 16
Number of supported branch terminals with remote bus branch	0

#### Module

ID code (hex)	none
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## Product properties

Product type	I/O component
Product family	Inline
Type	modular
Scope of supply	including Inline connector and labeling field

## Electrical properties

Maximum power dissipation for nominal condition	3 W
Protective circuit	Protection against polarity reversal, surge protection (24-V supply $U_{BK}$ and $U_S$ )

Potentials: Bus coupler supply  $U_{BK}$ ; Communications power  $U_L$  (7.5 V) and the analog supply  $U_{ANA}$  (24 V) are generated from the bus coupler supply.

Supply voltage	24 V DC (via Inline connector)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 1.25 A (with max. number of connected I/O terminal blocks) typ. 100 mA (without connected Inline I/O terminals)

Potentials: Communications power ( $U_L$ )

Supply voltage	7.5 V DC
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Potentials: Supply of analog modules ( $U_{ANA}$ )

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)

Potentials: Main circuit supply ( $U_M$ )

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)

Potentials: Segment circuit supply ( $U_S$ )

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)

Electrical isolation/isolation of the voltage ranges

Test voltage: PROFIBUS/local bus and supply voltage $U_{BK}$ and $U_S$	500 V
Test voltage: PROFIBUS / FE	500 V
Test voltage: PROFIBUS / FE D-SUB	500 V
Test voltage: Local bus and supply voltage $U_{BK}$ and $U_S$ / FE	500 V
Test voltage: Local bus and supply voltage $U_{BK}$ and $U_S$ / FE D-SUB	500 V
Test voltage: FE / FE D-SUB	500 V

## Connection data

Connection technology

Connection name	Inline connector
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## Conductor connection

Connection method	Spring-cage connection
Conductor cross section rigid	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	28 ... 16
Stripping length	8 mm

## Inline connector

Connection method	Spring-cage connection
Conductor cross section, rigid	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section, flexible	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	28 ... 16
Stripping length	8 mm

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	0 °C ... 55 °C
Degree of protection	IP20
Air pressure (operation)	80 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	85 % (non-condensing)
Permissible humidity (storage/transport)	85 % (non-condensing)

## Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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## Mounting

Mounting type	DIN rail mounting
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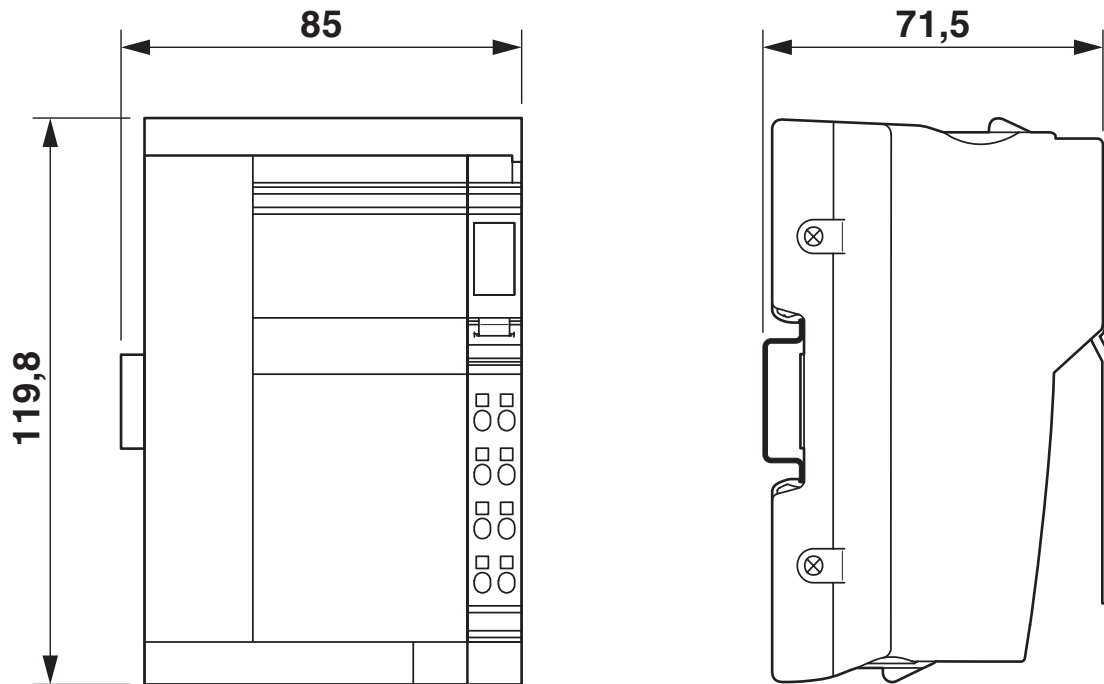
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## Drawings

Dimensional drawing



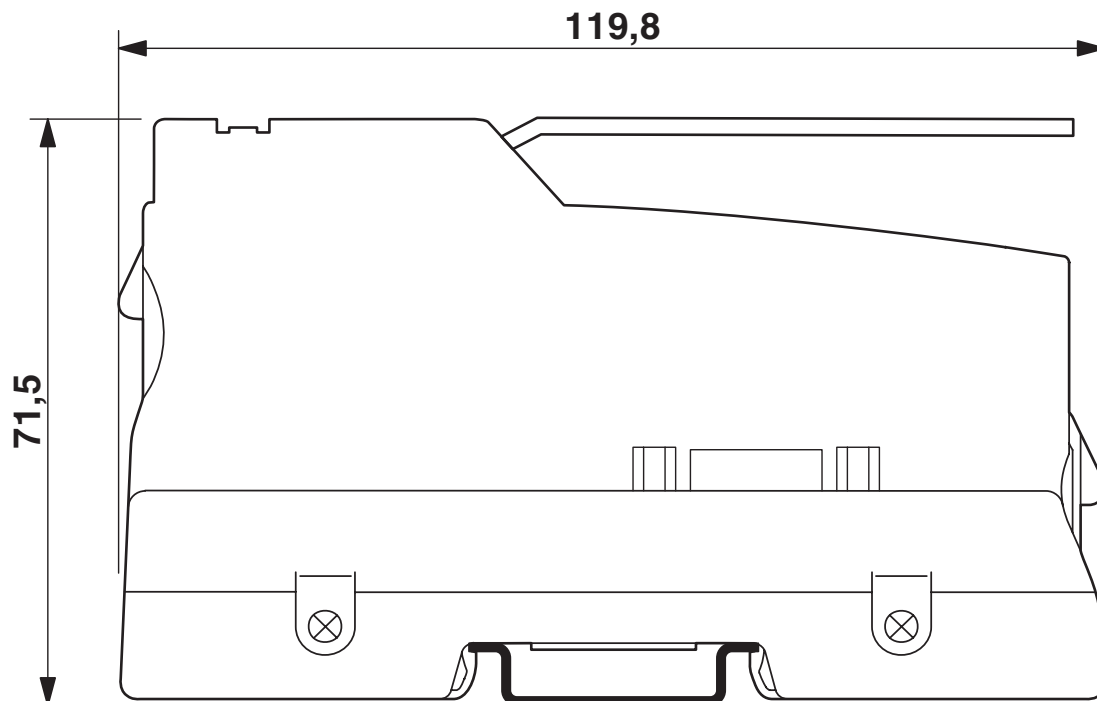
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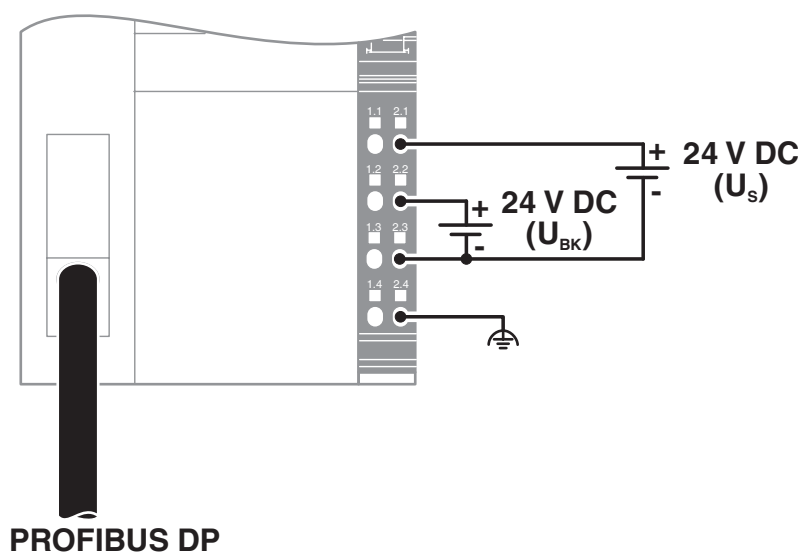
<https://www.phoenixcontact.com/us/products/2862246>



Dimensional drawing



Connection diagram



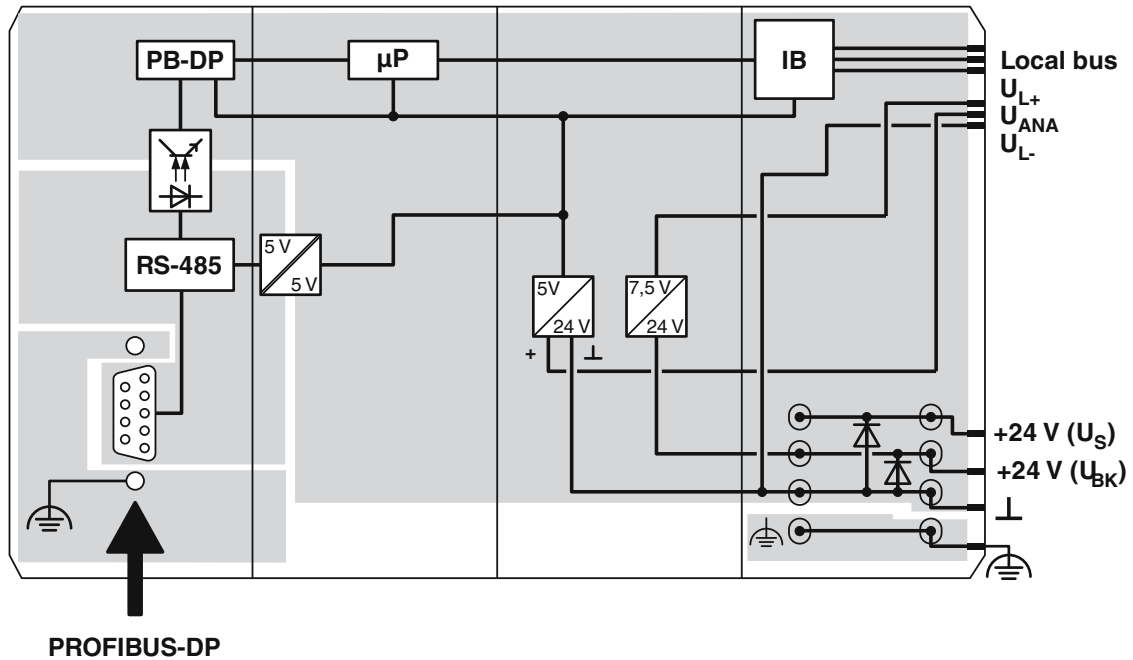
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Block diagram



# IL PB BK DP/V1-PAC - Bus coupler




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## Approvals


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**EAC**  
Approval ID: TR\_TS\_D\_00850-20




**UL Listed**  
Approval ID: E140324



**cUL Listed**  
Approval ID: E140324



**cUL Listed**  
Approval ID: E199827



**UL Listed**  
Approval ID: E199827



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## Classifications

### ECLASS

ECLASS-13.0	27242608
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### ETIM

ETIM 9.0	EC001604
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### UNSPSC

UNSPSC 21.0	32151600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	7fa1d4a7-2732-4590-b73f-9de616d4d189

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