

## Bus coupler - IL PB BK DP/V1-PAC - 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 [phoenixcontact.net/products](http://phoenixcontact.net/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

- PROFIBUS 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



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 907471
GTIN	4017918907471
Weight per Piece (excluding packing)	293.400 g
Custom tariff number	85389091
Country of origin	Germany

## Bus coupler - IL PB BK DP/V1-PAC - 2862246

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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#### Dimensions

Width	85 mm
Height	119.8 mm
Depth	71.5 mm

#### Ambient conditions

Ambient temperature (operation)	0 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	85 % (non-condensing)
Permissible humidity (storage/transport)	85 % (non-condensing)
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)
Degree of protection	IP20

#### General

Mounting type	DIN rail
Net weight	240 g
Note on weight specifications	with connectors

#### Interfaces

Designation	PROFIBUS DP
No. of channels	1
Connection method	D-SUB-9 female connector
Transmission speed	9.6 kbps ... 12 Mbps
Number of positions	9
Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	500 kbps

#### System limits of the bus coupler

Designation	System limits of the bus coupler
Amount of process data	max. 176 Byte (per station)
	max. 176 Byte (Input)
	max. 176 Byte (Output)
Number of parameter data	max. 168 Byte (DP/V1 mode)
Number of configuration data	max. 168 Byte (DP/V1 mode)
Number of supported devices	max. 63 (per station)

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### Technical data

#### System limits of the bus coupler

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

#### Inline potentials

Designation	Bus coupler supply $U_{BC}$ ; 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 consumption	typ. 100 mA (without connected Inline I/O terminals)
	max. 1.25 A (with max. number of connected I/O terminal blocks)
Designation	Communications power ( $U_L$ )
Supply voltage	7.5 V DC
Power supply unit	max. 2 A DC
Designation	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)
Power supply unit	max. 0.5 A DC
Designation	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)
Power supply unit	max. 8 A DC (sum of $U_M + U_S$ )
Designation	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)
Power supply unit	max. 8 A DC (sum of $U_M + U_S$ )

#### Electrical isolation

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

#### Standards and Regulations

Mechanical tests	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 5g
	Shock in acc. with EN 60068-2-27/IEC 60068-2-27 Operation: 25g, 11 ms duration, semi-sinusoidal shock impulse

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## Technical data

### Standards and Regulations

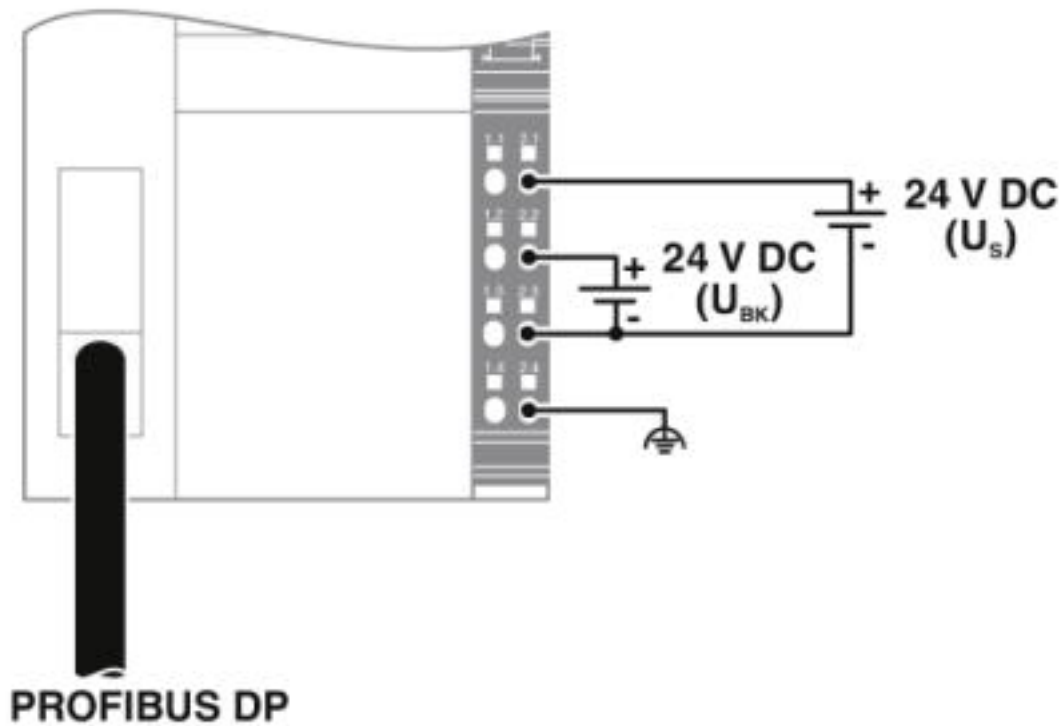
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
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### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

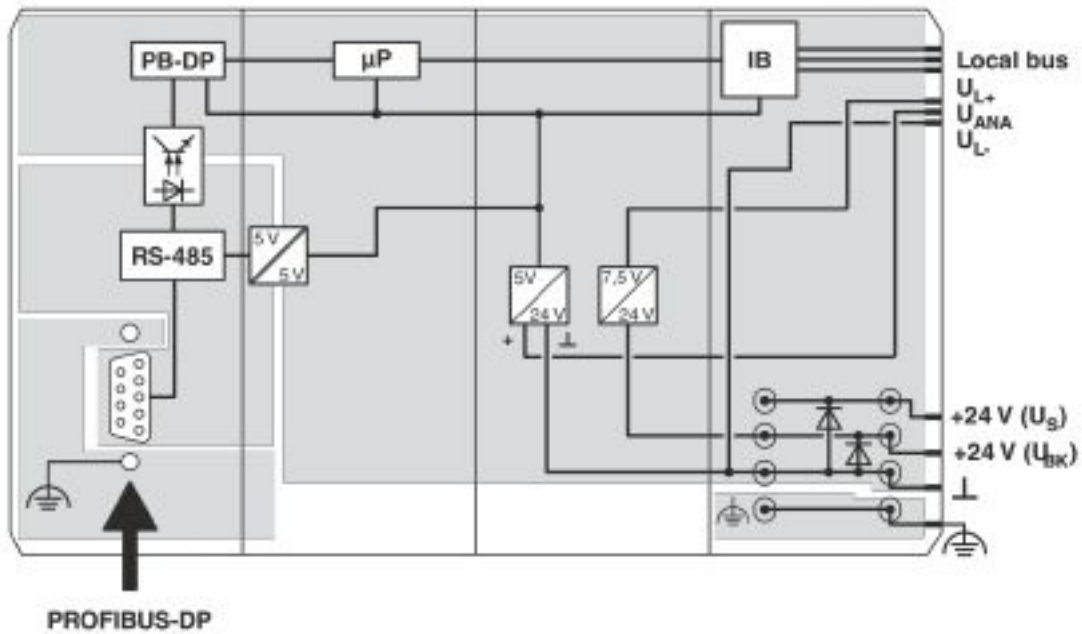
## Drawings

Connection diagram

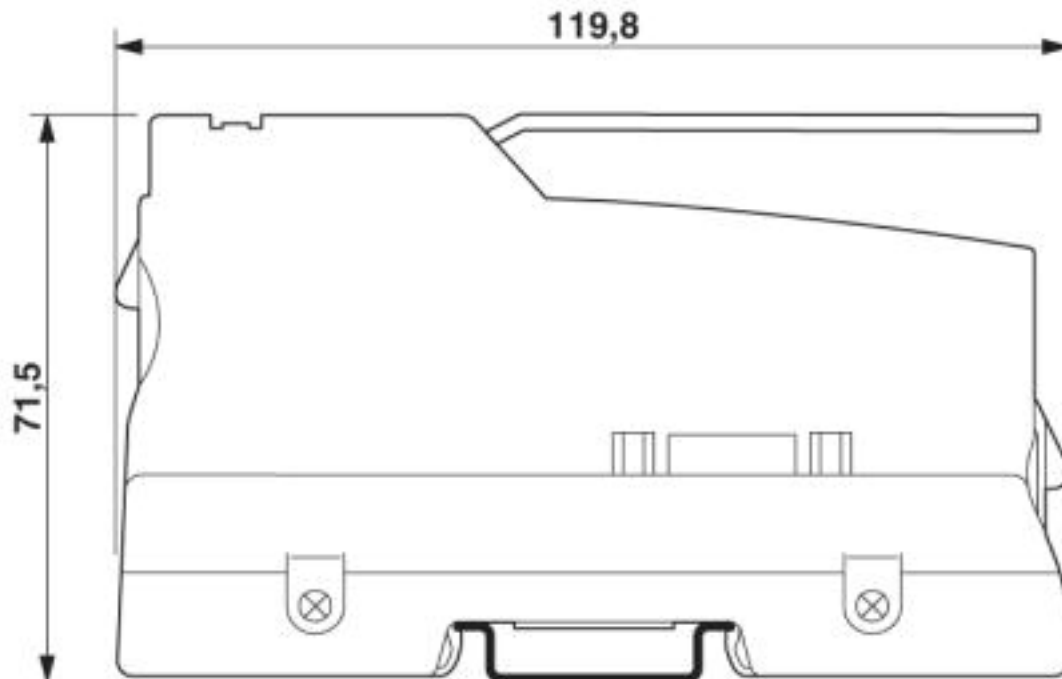


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Block diagram

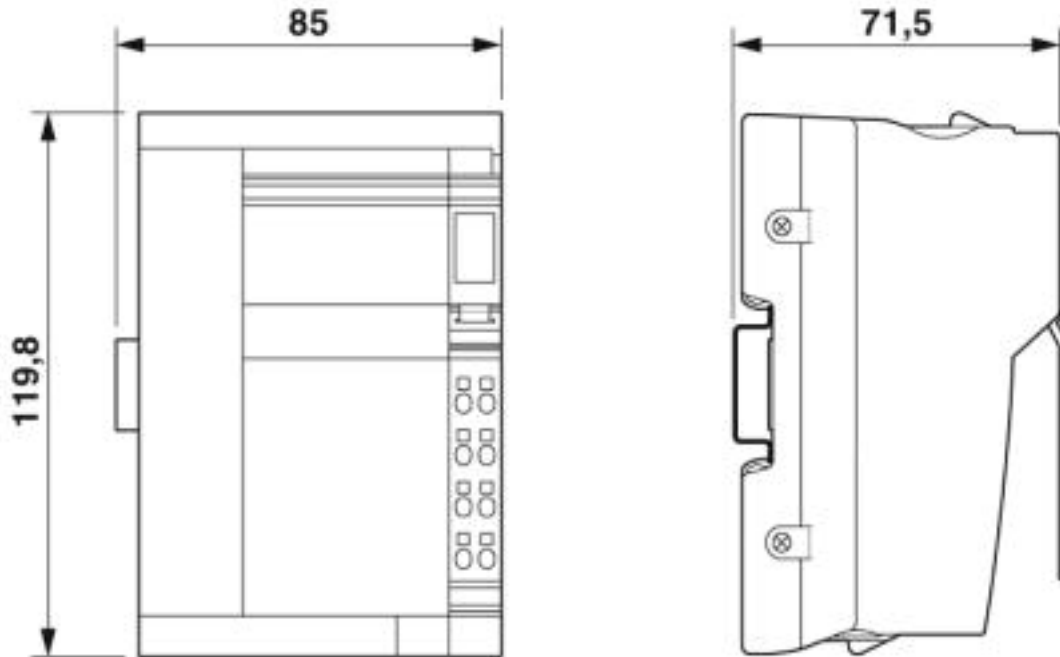


Dimensional drawing



## Bus coupler - IL PB BK DP/V1-PAC - 2862246

Dimensional drawing



### Classifications

#### eCl@ss

eCl@ss 4.0	27250200
eCl@ss 4.1	27250200
eCl@ss 5.0	27250200
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242608
eCl@ss 8.0	27242608
eCl@ss 9.0	27242608

#### ETIM

ETIM 2.0	EC001434
ETIM 3.0	EC001604
ETIM 4.0	EC001604
ETIM 5.0	EC001604
ETIM 6.0	EC001604
ETIM 7.0	EC001604

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## Classifications

### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	32151602

## Approvals

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#### Approvals

UL Listed / cUL Listed / EAC / EAC / cULus Listed

#### Ex Approvals

UL Listed / cUL Listed / cULus Listed

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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EAC		EAC-Zulassung
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EAC		RU *- DE.A*30.B.01735
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cULus Listed	
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## Bus coupler - IL PB BK DP/V1-PAC - 2862246

### Accessories

#### Accessories

#### Data plug

#### D-SUB bus connector - SUBCON-PLUS-PROFIB - 2744348



D-SUB plug, 9-pos., pin, axial version with two cable entries, below 35°, bus system: PROFIBUS DP up to 12 Mbps, termination resistor can be switched on via slide switch, pin assignment: 3, 5, 6, 8; spring-cage connection terminal blocks

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#### D-SUB bus connector - SUBCON-PLUS-PROFIB/SC2 - 2708232



D-SUB connector, 9-pos., male connector, cable entry < 35°, bus system: PROFIBUS DP up to 12 Mbps, termination resistor can be switched on via slide switch, pin assignment: 3, 5, 6, 8; screw connection terminal blocks

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#### D-SUB bus connector - SUBCON-PLUS-PROFIB/PG/SC2 - 2708245



D-SUB connector, 9-pos., male connector, cable entry < 35°, bus system: PROFIBUS DP up to 12 Mbps with PG D-SUB socket for connecting a programming device, termination resistor can be switched on via slide switch, pin assignment: 3, 5, 6, 8; screw connection terminal blocks

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#### D-SUB bus connector - SUBCON-PLUS-PROFIB/90/IDC - 2313672



D-SUB connector, 9-pos., male connector, cable entry < 90°, bus system: PROFIBUS DP up to 12 Mbps, termination resistor can be switched on via slide switch, pin assignment: 3, 5, 6, 8; IDC terminal block connection

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#### D-SUB bus connector - SUBCON-PLUS-PROFIB/90/PG/IDC - 2313685



D-SUB connector, 9-pos., male connector, cable entry < 90°, bus system: PROFIBUS DP up to 12 Mbps with PG D-SUB socket for connecting a programming device, termination resistor can be switched on via slide switch, pin assignment: 3, 5, 6, 8; IDC terminal block connection

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### Accessories

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#### D-SUB bus connector - SUBCON-PLUS-PROFIB/90/SC - 2313698



D-SUB connector, 9-pos., male connector, cable entry < 90°, bus system: PROFIBUS DP up to 12 Mbps, termination resistor can be switched on via slide switch, pin assignment: 3, 5, 6, 8; screw connection terminal blocks

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#### D-SUB bus connector - SUBCON-PLUS-PROFIB/90/PG/SC - 2313708



D-SUB connector, 9-pos., male connector, cable entry < 90°, bus system: PROFIBUS DP up to 12 Mbps with PG D-SUB socket for connecting a programming device, termination resistor can be switched on via slide switch, pin assignment: 3, 5, 6, 8; screw connection terminal blocks

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#### D-SUB bus connector - SUBCON-PLUS-PROFIB/AX/SC - 2744380



D-SUB connector, 9-pos., male connector, axial version with two cable entries, bus system: PROFIBUS DP up to 12 Mbps, termination resistor can be switched on via slide switch, pin assignment: 3, 5, 6, 8; screw connection terminal blocks

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#### D-SUB bus connector - SUBCON-PLUS-PROFIB/35/M12 - 2902320



D-SUB plug, 9-pos., pin, assignment: 3, 5, 6, 8; two M12 cable glands (B-coded) under 35°. Bus system: PROFIBUS DP up to 12 Mbps. Termination resistor via separate M12 terminator.

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#### D-SUB bus connector - SUBCON-PLUS-PROFIB/90/M12 - 2902318



D-SUB plug, 9-pos., pin, assignment: 3, 5, 6, 8; two M12 cable glands (B-coded) under 90°. Bus system: PROFIBUS DP up to 12 Mbps. Termination resistor via separate M12 terminator.

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### End block

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### Accessories

End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

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### Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



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### Plug

Inline connector - IB IL SCN-PWR IN-CP - 2727637



Connector, colored, for Inline power and segment terminal blocks

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### Terminal marking

Insert strip - ESL 62X10 - 0809492



Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 10 mm, Number of individual labels: 72