

IL PB BK DP/V1-PAC - Bus coupler



2862246

<https://www.phoenixcontact.com/gb/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. **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	DRI112
Product key	DRI112
Catalog page	Page 109 (C-6-2019)
GTIN	4017918907471
Weight per piece (including packing)	276 g
Weight per piece (excluding packing)	240 g
Customs tariff number	85389091
Country of origin	DE

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2862246

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



Technical data

Dimensions

Dimensional drawing	
Width	85 mm
Height	119.8 mm
Depth	71.5 mm

Notes

Utilization restriction		
CCCex note	Use in potentially explosive areas is not permitted in China.	

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

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

Product properties

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2862246

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

Electrical properties

Maximum power dissipation for nominal condition	30 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
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2862246

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Conductor cross section rigid	0.08 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.08 mm ² ... 1.5 mm ²
Conductor cross section AWG	28 ... 16
Stripping length	8 mm

Inline connector

Connection method	Spring-cage connection
Conductor cross section, rigid	0.08 mm ² ... 1.5 mm ²
Conductor cross section, flexible	0.08 mm ² ... 1.5 mm ²
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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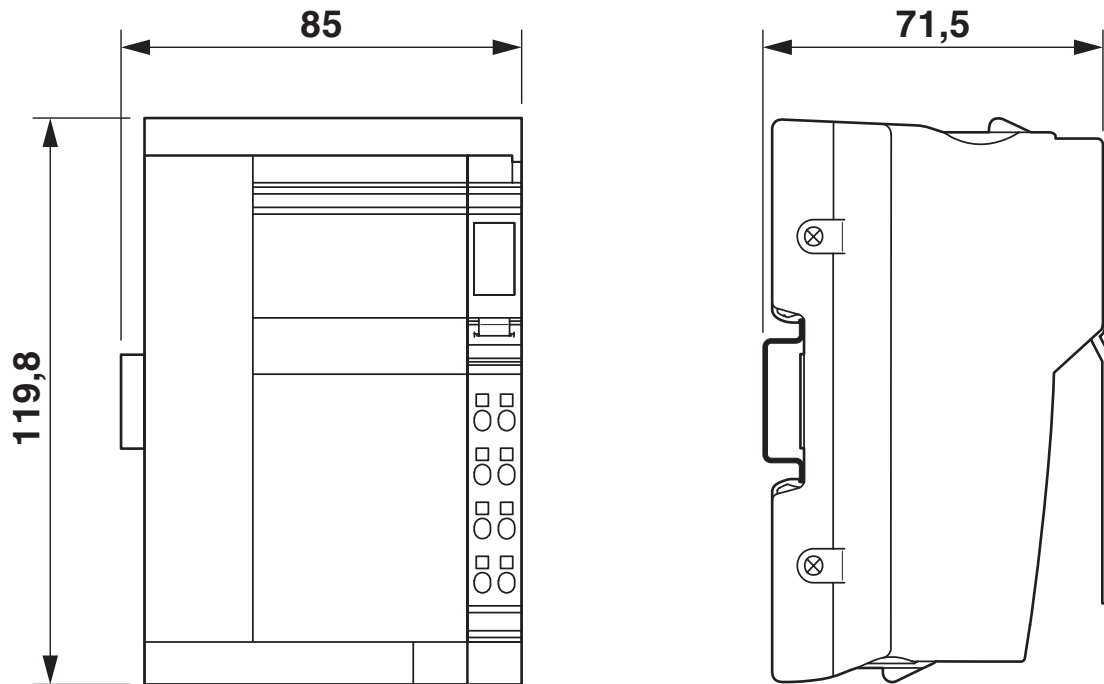
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Drawings

Dimensional drawing



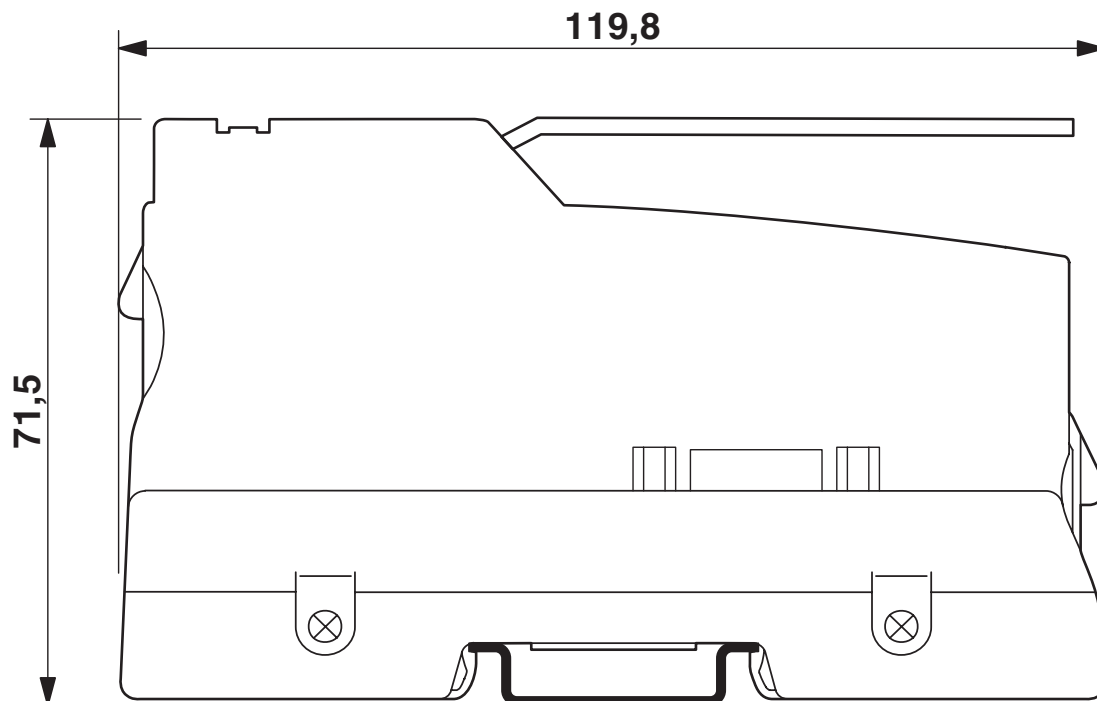
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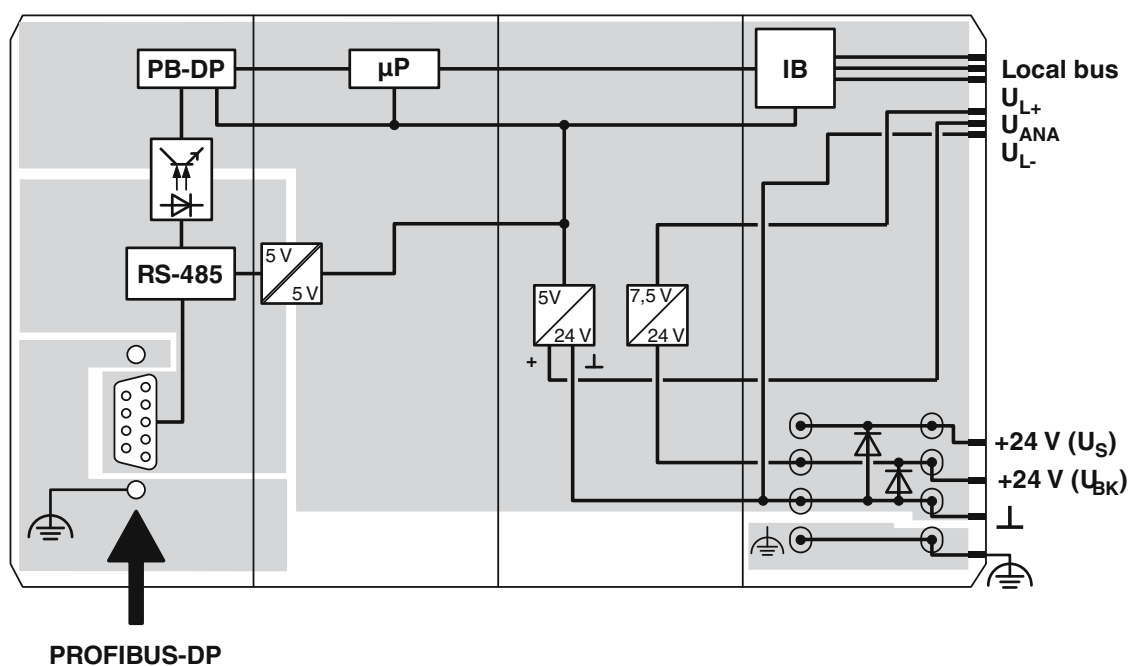
<https://www.phoenixcontact.com/gb/products/2862246>



Dimensional drawing



Block diagram



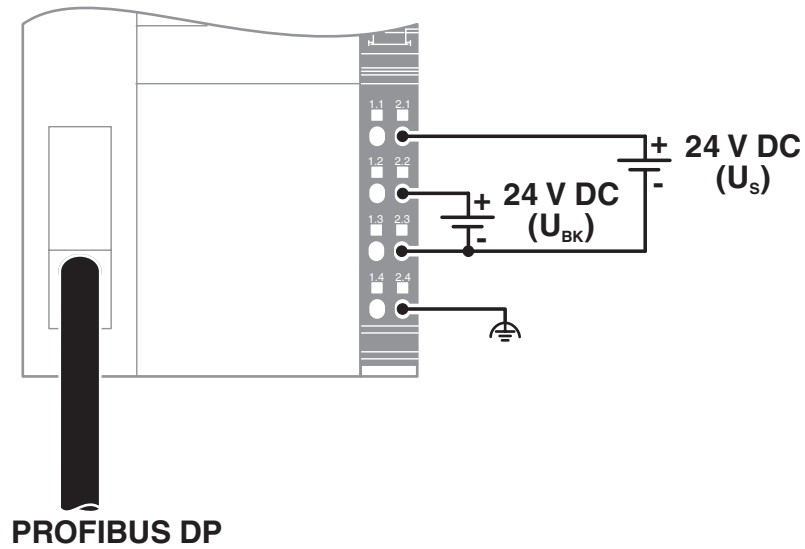
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Connection diagram



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Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2862246>



EAC
Approval ID: TR_TS_D_00850-20




UL Listed
Approval ID: FILE E 140324



cUL Listed
Approval ID: FILE E 140324

UAE-RoHS
Approval ID: 22-04-13087



cUL Listed
Approval ID: FILE E 199827



UL Listed
Approval ID: FILE E 199827

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Classifications

ECLASS

ECLASS-11.0	27242608
ECLASS-12.0	27242608
ECLASS-13.0	27242608

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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Accessories

IB IL SCN-PWR IN-CP - Inline connector

2727637

<https://www.phoenixcontact.com/gb/products/2727637>



Connector, colored, for Inline power and segment terminal blocks

IB IL FIELD 2 - Marking field

2727501

<https://www.phoenixcontact.com/gb/products/2727501>



Marking field, width: 12.2 mm

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ESL 62X10 - Insert strip

0809492

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Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems, CMS-P1-PLOTTER, mounting type: insert, lettering field size: 62 x 10 mm, Number of individual labels: 72



SUBCON-PLUS-PROFIB - D-SUB bus connector

2744348

<https://www.phoenixcontact.com/gb/products/2744348>

D-SUB plug, 9-pos., pin, axial version with two 35° 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; spring-cage connection terminal blocks



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CLIPFIX 35 - End bracket

3022218

<https://www.phoenixcontact.com/gb/products/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

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

2708232

<https://www.phoenixcontact.com/gb/products/2708232>



D-SUB connector, 9-pos., male connector, 35° cable entry, 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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SUBCON-PLUS-PROFIB/PG/SC2 - D-SUB bus connector

2708245

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D-SUB connector, 9-pos., male connector, 35° cable entry, 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

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

2313672

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D-SUB connector, 9-pos., male connector, 90° cable entry, 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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SUBCON-PLUS-PROFIB/90/PG/IDC - D-SUB bus connector

2313685

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D-SUB connector, 9-pos., male connector, 90° cable entry, 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

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

2313698

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D-SUB connector, 9-pos., male connector, 90° cable entry, 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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SUBCON-PLUS-PROFIB/90/PG/SC - D-SUB bus connector

2313708

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D-SUB connector, 9-pos., male connector, 90° cable entry, 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

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

2744380

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

2902320

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



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

2902318

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



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