

FL IL 24 BK-PN-PAC - Bus coupler



2878816

<https://www.phoenixcontact.com/us/products/2878816>

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PROFINET bus coupler for Inline, 24 V DC, complete with accessories (plug and labeling field)



Your advantages

- Automatic speed detection of the system bus
- 2-part 7-segment display for diagnostics
- Overall width: 85 mm
- Up to 61 terminals (16 PCP devices) can be connected

Commercial data

Item number	2878816
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DR14
Product key	DRI11A
GTIN	4046356048613
Weight per piece (including packing)	354.8 g
Weight per piece (excluding packing)	322.52 g
Customs tariff number	85389091
Country of origin	DE

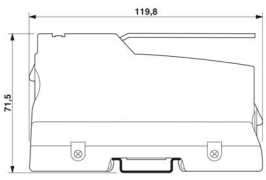
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Technical data

Dimensions

Dimensional drawing	
Width	85 mm
Height	119.8 mm
Depth	71.5 mm

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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Material specifications

Color	green
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Interfaces

PROFINET

No. of channels	1
Connection method	RJ45 jack
Note on the connection method	Autonegotiation
Transmission speed	100 Mbps
Transmission physics	Copper

Inline local bus

Connection method	Inline data jumper
Transmission speed	500 kbps / 2 Mbps (automatic detection, no combined system)

Fieldbus: Local bus gateway

Max. number of local bus devices	62
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System properties

System limits

Number of local bus devices that can be connected	max. 63
Number of devices with parameter channel	max. 8
Number of supported branch terminals with remote bus branch	0

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Device function	PROFINET device
Specification	Version 1.1
Update rate	min. 4 ms

Programming data

Register length (master)	384 Byte
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Functionality

Basic functions	PROFINET device
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Input data

Digital:

Connection technology	2-, 3-conductor
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Product properties

Product type	I/O component
Product family	Inline
Type	modular

Electrical properties

Transmission medium	Twisted pair cable 0.14 mm ² ... 0.22 mm ²
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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. 1.5 A (with max. number of connected I/O terminal blocks) typ. 92 mA (without connected Inline I/O terminals)

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC $\pm 5\%$
Power supply	max. 2 A DC (observe derating)

Potentials

Supply voltage	24 V DC -15 % / +20 %
Power supply	max. 0.5 A DC (observe derating)

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)
Power supply	max. 8 A DC (sum of $U_M + U_S$)

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)
Power supply	max. 8 A DC (sum of $U_M + U_S$)

Supply: Module electronics

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Connection method	Inline connector
Supply voltage	24 V DC (via Inline connector)
Supply voltage range	19.2 V DC ... 30 V DC (including ripple)
Current consumption	max. 1.5 A typ. 92 mA (without connected Inline I/O terminals)
Ripple	Permissible ripple 3.6 V _{pp} within the permissible voltage range

Connection data

Connection technology

Connection name	Inline connector
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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

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)	-20 °C ... 70 °C
Permissible humidity (operation)	75 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	75 % ... 95 % (non-condensing)

Mounting

Mounting type	DIN rail mounting
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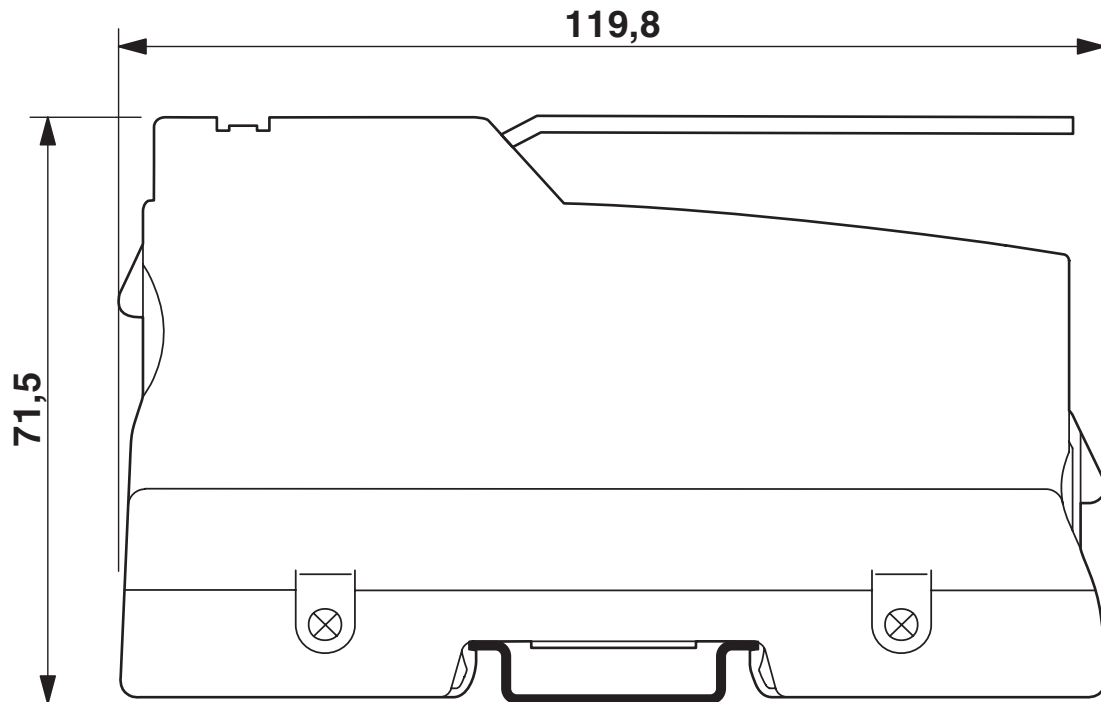
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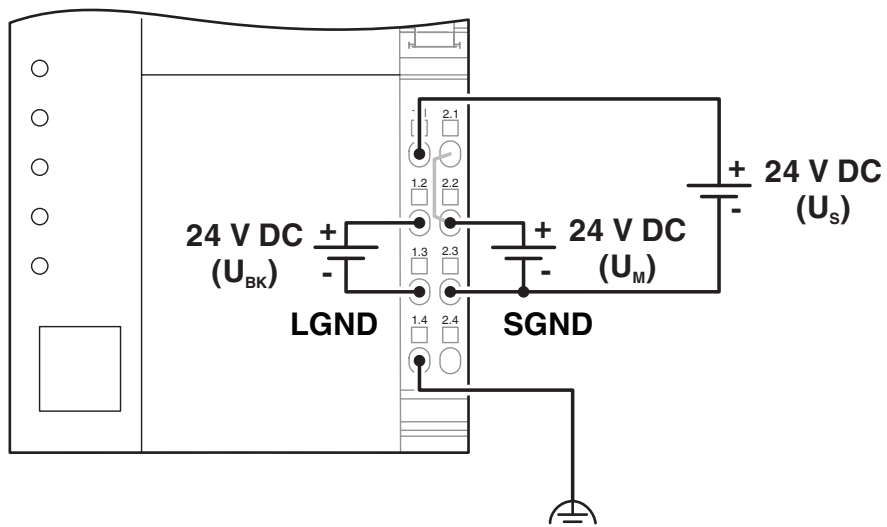
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Drawings

Dimensional drawing



Connection diagram



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Environmental product compliance

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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