

## I/O module - ILB PN 24 DI16 DIO16-2TX - 2878146

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Inline, Block IO, PROFINET, RJ45 socket, Digital inputs: 32, 24 V DC, 3-conductor, Digital outputs: 16, 24 V DC, 500 mA, 2-wire, Degree of protection IP20, including Inline connector

### Product Features

- 16/32 inputs, 24 V DC
- 16 outputs, 24 V DC, 500 mA
- 2 RJ45 sockets angled 45°



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	560.8 g
Custom tariff number	85389091
Country of origin	Germany

### Technical data

#### Note

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

Width	156 mm
Height	141 mm
Depth	57 mm
Note on dimensions	Specifications with connectors

#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	max. 85 % ((non-condensing))

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## Technical data

### Ambient conditions

Air pressure (operation)	80 kPa ... 108 kPa (up to 2000 m above mean sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (up to 3500 m above mean sea level)
Degree of protection	IP20

### Interfaces

Fieldbus system	PROFINET
Designation	PROFINET
Connection method	RJ45 socket
Transmission speed	10/100 MBit/s (with auto negotiation)
Transmission physics	Copper

### PROFINET

Device function	PROFINET device
Specification	Version 1.1
Update rate	min. 1 ms

### Digital inputs

Input name	Digital inputs
Description of the input	16 fixed and 16 freely selectable
Connection method	Spring-cage connection
	3-conductor
Number of inputs	32
Typical response time	approx. 500 µs
Protective circuit	Short-circuit protection, overload protection of the sensor supply
Input characteristic curve	IEC 61131-2 type 1
Input voltage	24 V DC
Input voltage range "0" signal	-30 V DC ... 5 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC

### Digital outputs

Output name	Digital outputs
Connection method	Spring-cage connection
	2-wire
Number of outputs	16
Protective circuit	Short-circuit and overload protection
Nominal output voltage	24 V DC
Maximum output current per channel	500 mA
Nominal load, inductive	12 VA (1.2 H, 50 Ω)
Nominal load, lamp	12 W

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## Technical data

### Digital outputs

Nominal load, ohmic	12 W (48 Ω)
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### Power supply for module electronics

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Supply current	60 mA
Current consumption	60 mA

### General

Mounting type	DIN rail
Net weight	500 g
Note on weight specifications	with connectors
Diagnostics messages	Short-circuit / overload of the digital outputs Message in the diagnostics register
	Short-circuit, sensor supply Message in the diagnostics register
	Undervoltage Power supply for sensors Message in the diagnostics register
Mounting type	NS 35/7,5

### Standards and Regulations

Conformity with EMC directives	EN 55011:1998+A1:1999 Class A
Noise emission	Industrial environment
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 25g
Connection in acc. with standard	CUL

## Classifications

### eCl@ss

eCl@ss 4.0	27250302
eCl@ss 4.1	27250302
eCl@ss 5.0	27250302
eCl@ss 5.1	27242604
eCl@ss 6.0	27242604
eCl@ss 7.0	27242604
eCl@ss 8.0	27242604
eCl@ss 9.0	27242604

### ETIM

ETIM 2.0	EC001430
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## Classifications

### ETIM

ETIM 3.0	EC001599
ETIM 4.0	EC001599
ETIM 5.0	EC001599

### UNSPSC

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

## Approvals

### Approvals

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#### Approvals

UL Recognized / cUL Recognized / cULus Recognized

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#### Ex Approvals

UL Listed / cUL Listed / cULus Listed


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#### Approvals submitted

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### Approval details

UL Recognized 
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cUL Recognized 
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cULus Recognized 
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## I/O module - ILB PN 24 DI16 DIO16-2TX - 2878146

### Accessories

#### Accessories

##### Data cable by the meter

###### Cable - FL CAT5 HEAVY - 2744814



CAT5-SF/UTP cable (J-02YS(ST)C HP 2 x 2 x 24 AWG), heavy-duty installation cable, 2 x 2 x 0.22 mm<sup>2</sup>, solid conductor, shielded, outer sheath: 7.8 mm diameter, inner sheath: 5.75 mm ± 0.15 mm diameter

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###### Network cable - FL CAT5 FLEX - 2744830



CAT5-SF/UTP cable (J-LI02YS(ST)C H 2 x 2 x 26 AWG), light-duty, flexible installation cable 2 x 2 x 0.14 mm<sup>2</sup>, stranded, shielded, outer sheath: 5.75 mm ± 0.15 mm diameter

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#### End block

##### End clamp - CLIPFIX 35-5 - 3022276



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 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

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### Accessories

#### RJ45 connector - FL PLUG RJ45 GR/2 - 2744856



RJ45 connector, shielded, with bend protection sleeve, 2 pieces, gray for straight cables, for assembly on site. For connections that are not crossed, it is recommended that you use the connector set with gray bend protection sleeve.

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#### RJ45 connector - FL PLUG RJ45 GN/2 - 2744571



RJ45 connector, shielded, with bend protection sleeve, 2 pieces, green for crossed cables, for assembly on site. For connections that are crossed, it is recommended that the connector set with green bend protection sleeves is used.

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### Terminal marking

#### Insert strip - ESL 62X10 - 0809492



Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems, Plotter: Laser printer, Mounting type: Insert, Lettering field: 62 x 10 mm

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#### Flat zack marker sheet - ZBFM 6/WH:UNBEDRUCKT - 0803618



Flat zack marker sheet, Sheet, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5 x 5.5 mm

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### Universal tools

#### Assembly tool - FL CRIMPTOOL - 2744869



Crimping pliers, for assembling the RJ45 plugs FL PLUG RJ45..., for assembly on site

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## Accessories

### Spare parts

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



Connector, colored, for Inline power and segment terminal blocks

Inline connector - IB IL SCN-12-ICP - 2727611



Connector, color coded, for digital 4, or 16-channel Inline input terminals

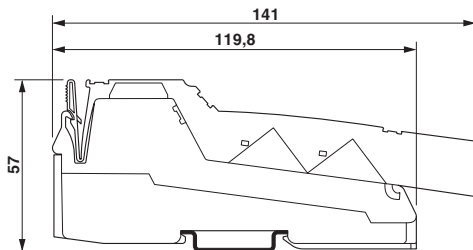
Inline connector - IB IL SCN-12-OCP - 2727624



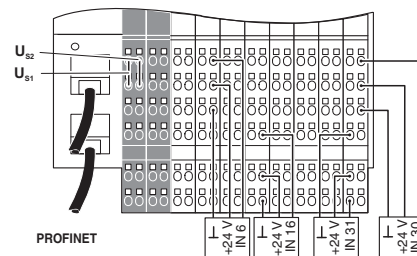
Connector, colored identification, for digital 4, or 16-channel Inline output terminal blocks

## Drawings

Dimensional drawing



Connection diagram







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