

# IB IL 24 DI 8-PAC - Digital module



2861247

<https://www.phoenixcontact.com/us/products/2861247>

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Inline, Digital input terminal, Digital inputs: 8, 24 V DC, connection technology: 4-conductor, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connectors and marking fields

## Product description

The terminal is designed for use within an Inline station. It is used to acquire digital signals.

## Your advantages

- 8 digital inputs
- Connection of sensors in 2-, 3-, and 4-conductor technology
- Maximum permissible load current per sensor: 250 mA
- Maximum permissible load current from the terminal: 2 A

## Commercial data

Item number	2861247
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI131
GTIN	4017918894184
Weight per piece (including packing)	192.4 g
Weight per piece (excluding packing)	118 g
Customs tariff number	85389099
Country of origin	DE

## Technical data

### Dimensions

Dimensional drawing	
Width	48.8 mm
Height	119.8 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

### 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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### Material specifications

Color (Housing)	green (RAL 6021)
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### Interfaces

#### Inline local bus

Number of interfaces	2
Connection method	Inline data jumper
Transmission speed	500 kbps

### System properties

#### Programming data (LocalbusSlave)

Length code (hex)	81
ID code (dec.)	190
Length code (dec)	129
Process data channel	8 bit
Input address area	1 Byte
Output address area	0 Byte
Parameter channel (PCP)	0 Byte
Register length (bus)	8 bit

#### Fieldbus data telegram

Required parameter data	1 Byte
Required configuration data	4 Byte

## Input data

Digital:

Input name	Digital inputs
Description of the input	IEC 61131-2 type 1
Number of inputs	8
Cable length	max. 30 m (to the sensor)
Connection method	Spring-cage connection
Connection technology	4-conductor
Input voltage	24 V DC
Input voltage range "0" signal	-3 V DC ... 5 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC
Nominal input voltage $U_{IN}$	24 V DC
Nominal input current at $U_{IN}$	min. 5 mA (at nominal voltage)
Sensor current per channel	max. 250 mA
Typical response time	< 1 ms
Protective circuit	Short-circuit and overload protection

## Product properties

Product type	I/O component
Product family	Inline
Type	modular
Scope of supply	including Inline connectors and marking fields
No. of channels	8
Operating mode	Process data mode with one byte

Insulation characteristics

Overvoltage category	II (IEC 60664-1, EN 60664-1)
Pollution degree	2 (IEC 60664-1, EN 60664-1)

## Electrical properties

Maximum power dissipation for nominal condition	1.35 W
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Potentials: Communications power ( $U_L$ )

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 50 mA

Potentials: Segment circuit supply ( $U_S$ )

Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 2 A
	0 A (without sensors)

Electrical isolation/isolation of the voltage ranges

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Test voltage: 7.5 V supply (bus logics)/24 V supply (I/O)	500 V AC, 50 Hz, 1 min
Test voltage: 7.5 V supply (bus logic)/functional ground	500 V AC, 50 Hz, 1 min
Test voltage: 24 V supply (I/O) / functional ground	500 V AC, 50 Hz, 1 min

## 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 <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)	-25 °C ... 55 °C
Degree of protection	IP20
Air pressure (operation)	70 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)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (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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## Drawings

Dimensional drawing



Connection diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2861247>



**DNV GL**

Approval ID: TAA00000BN



**BV**

Approval ID: 21595/C1 BV



**RINA**

Approval ID: ELE121121XG

**ABS**

Approval ID: 22-2226444-PDA



**cULus Recognized**

Approval ID: E140324



**cULus Listed**

Approval ID: E199827

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## Classifications

### ECLASS

ECLASS-13.0	27242604
ECLASS-15.0	27242604

### ETIM

ETIM 10.0	EC001599
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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	7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	4161cd82-162c-46b0-9424-797422040d23

### EF3.1 Climate Change

CO2e kg	2.649 kg CO2e
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