

IB IL 24 DI8/HD-PAC - Digital module

2700173

<https://www.phoenixcontact.com/ca/products/2700173>



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Inline, Digital input terminal, Digital inputs: 8, 24 V DC, connection technology: 1-conductor, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connector and labeling field

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 1-conductor technology

Commercial data

Item number	2700173
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	D23
Product key	DRI131
Catalog page	Page 123 (C-6-2019)
GTIN	4046356492485
Weight per piece (including packing)	83.2 g
Weight per piece (excluding packing)	60 g
Customs tariff number	85389099
Country of origin	DE

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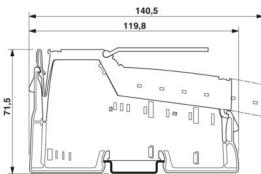
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Technical data

Dimensions

Dimensional drawing	
Width	12.2 mm
Height	119.8 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

Notes

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

Interfaces

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

System properties

Module	
ID code (dec.)	190
ID code (hex)	BE
Length code (hex)	81
Length code (dec)	129
Process data channel	8 bit
Input address area	1 Byte
Output address area	0 Byte
Register length	8 bit
Required parameter data	1 Byte
Required configuration data	4 Byte

Input data

Digital:	
Input name	Digital inputs
Description of the input	EN 61131-2 types 1 and 3

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Number of inputs	8
Connection method	Spring-cage connection
Connection technology	1-conductor
Input voltage	24 V DC
Input voltage range "0" signal	-3 V DC ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30 V DC
Nominal input voltage U_{IN}	24 V DC
Nominal input current at U_{IN}	typ. 2.4 mA
Typical input current per channel	2.4 mA
Typical response time	1 ms
Delay at signal change from 0 to 1	1 ms
Delay at signal change from 1 to 0	1 ms

Product properties

Product type	I/O component
Product family	Inline
Type	modular
Scope of delivery	including Inline connector and labeling field
No. of channels	8
Operating mode	Process data mode with one byte

Electrical properties

Maximum power dissipation for nominal condition	24.12 W
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Potentials

Power consumption	max. 0.8 W (Module, complete)
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Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 30 mA
Power consumption	max. 0.225 W

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. 5.5 mA

Electrical isolation/isolation of the voltage ranges

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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Conductor connection

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

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)	-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 % (according to DIN EN 61131-2)
Permissible humidity (storage/transport)	10 % ... 95 % (according to DIN EN 61131-2)

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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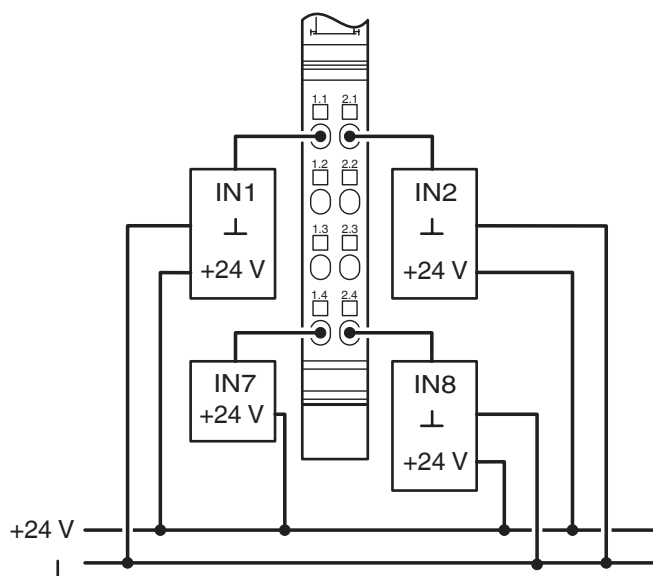
Drawings

Dimensional drawing



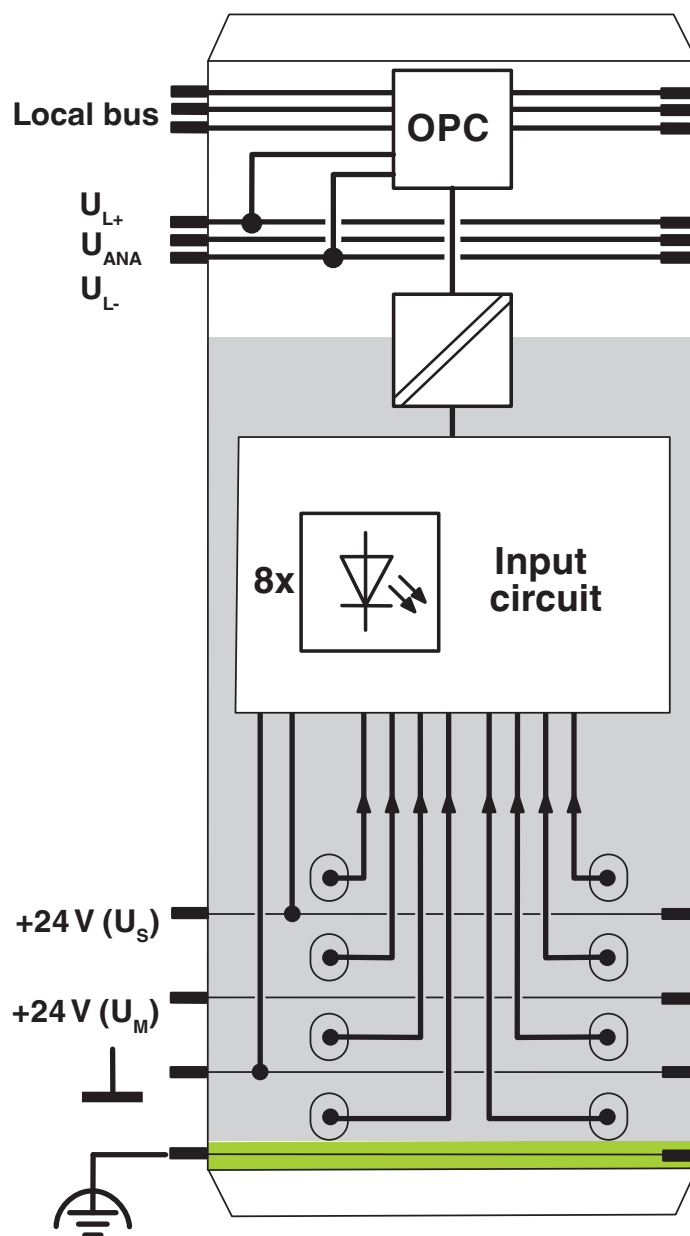
Dimensions (in mm)

Connection diagram



Connection example

Block diagram



Internal wiring of the terminal points

Approvals

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**EAC**
Approval ID: TR TS_D_01921-19

**UL Listed**
Approval ID: FILE E 140324

**cUL Listed**
Approval ID: FILE E 140324

**DNV GL**
Approval ID: TAA00002CU

**BV**
Approval ID: 21595/C0 BV

**RINA**
Approval ID: ELE121121XG

ABS
Approval ID: 22-2226444-PDA

**cUL Listed**
Approval ID: FILE E 199827

**UL Listed**
Approval ID: FILE E 199827

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Classifications

ECLASS

ECLASS-11.0	27242604
ECLASS-12.0	27242604
ECLASS-13.0	27242604

ETIM

ETIM 9.0	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	040bdeac-04b0-4493-835f-cde42f15ec52