IB IL 24 DI 32/HD-2MBD-PAC - Digital module

2692885

https://www.phoenixcontact.com/us/products/2692885

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The figure shows the product version IB IL 24 DI 32/HD-PAC

Inline, Digital input terminal, Digital inputs: 32, 24 V DC, connection technology: 1-conductor, transmission speed in the local bus: 2 Mbps, degree of protection: IP20, including Inline connectors and marking fields

Product description

Inline terminals with “2 MBD” added to their item designation work with a transmission speed of 2 Mbps. These terminal blocks are discontinued or no longer in the range. If you require this transmission speed, please ask your local Phoenix Contact representative. If you can work with a transmission speed of 500 kbps, select as a replacement the corresponding variant that does not have “2MBD” added to its item designation. Please note that a uniform transmission speed must always be used within one inline station. The terminal is designed for use within an Inline station. It is used to acquire digital signals.

Your advantages

- 32 digital inputs
- Connection of sensors in 1-conductor technology

ELEKTROGERÄTE RÜCKNAHME

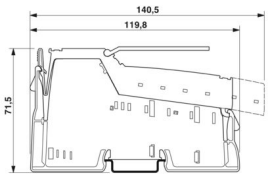
Commercial data

Item number	2692885
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI131
GTIN	4046356437455
Weight per piece (including packing)	203 g

Weight per piece (excluding packing)	203 g
Customs tariff number	85389091
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	Only for industrial use

Utilization restriction

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

Mounting

Mounting type	DIN rail mounting

Material specifications

Color (Housing)	green (RAL 6021)

Interfaces

Inline local bus

Number of interfaces	2
Connection method	Inline data jumper
Transmission speed	2 Mbps

System properties

Programming data

Length code (hex)	02
ID code (dec.)	190
Length code (dec)	02
Process data channel	32 bit
Input address area	4 Byte
Output address area	0 Byte
Parameter channel (PCP)	0 Byte
Register length (bus)	32 bit

Fieldbus data telegram (PROFIBUS)

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	32
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	15 V DC ... 30 V DC
Nominal input voltage U_{IN}	24 V DC
Nominal input current at U_{IN}	typ. 2.8 mA
Permissible conductor length to the sensor	30 m
Typical input current per channel	2.8 mA
Typical response time	2 ms
Delay at signal change from 0 to 1	2 ms
Delay at signal change from 1 to 0	4 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	32
Operating mode	Process data operation with 2 words

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	3.6 W

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 90 mA (HW 00)
	max. 30 mA (from HW 01)

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. 50 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

Inline connector

Connection method	Spring-cage connection
Conductor cross-section, rigid	0.08 mm² ... 1.5 mm²
Conductor cross-section, flexible	0.08 mm² ... 1.5 mm²
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)

Mechanical test

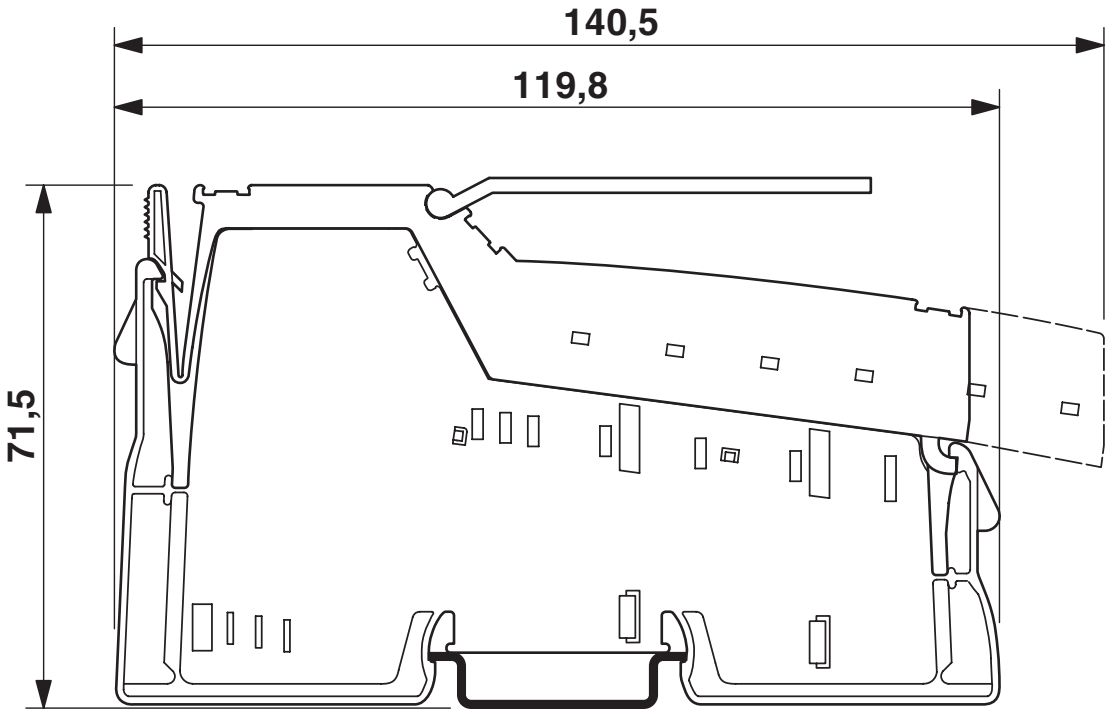
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	25g

Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

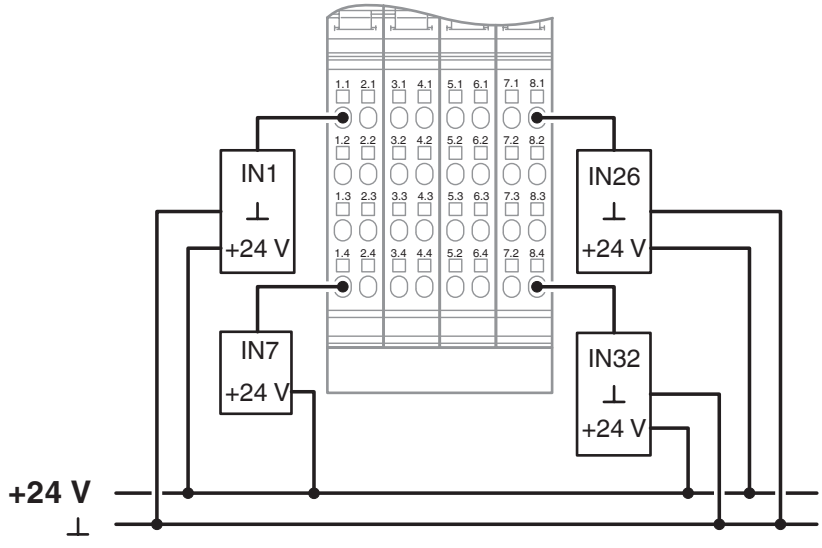
Drawings

Dimensional drawing



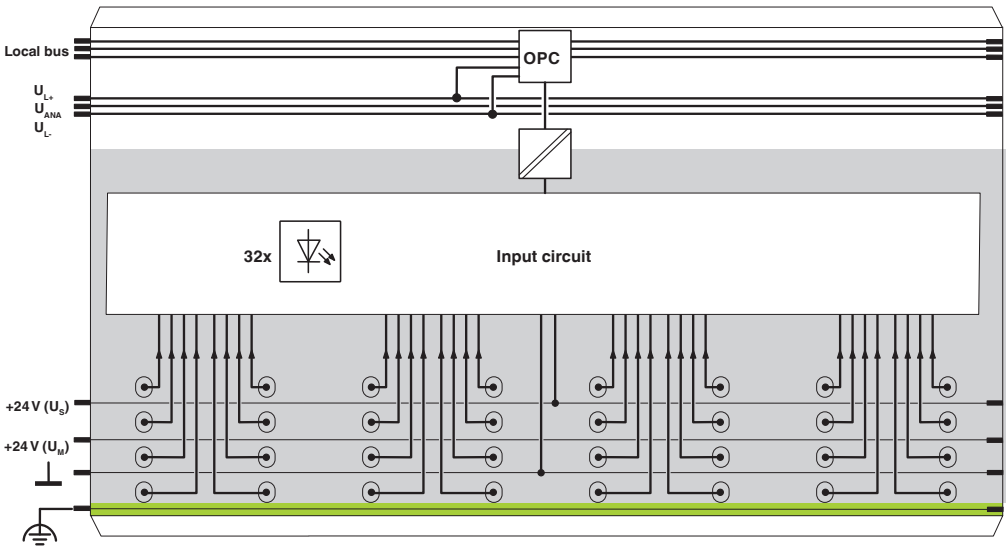
Dimensions (in mm)

Connection diagram



Connection example

Block diagram



Internal wiring of the terminal points

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2692885

cULus Recognized
Approval ID: E140324

cULus Listed
Approval ID: E199827

Classifications

ECLASS

ECLASS-13.0	27242604
ECLASS-15.0	27242604

ETIM

ETIM 10.0	EC001599

UNSPSC

UNSPSC 21.0	32151600

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)

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