

# IB IL 24 DO 4-2MBD-PAC - Digital module



2861988

<https://www.phoenixcontact.com/us/products/2861988>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.

Inline, Digital output terminal, Digital outputs: 4, 24 V DC, connection technology: 3-conductor, transmission speed in the local bus: 2 Mbps, degree of protection: IP20, including Inline connector and labeling field



## 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 output digital signals.

## Your advantages

- 4 digital outputs
- Connection of actuators in 2- and 3-conductor technology
- Nominal current per output: 500 mA
- Total current of the terminal: 2 A
- Short-circuit and overload-protected outputs
- Diagnostic and status indicators

## Commercial data

Item number	2861988
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI132
GTIN	4017918974633
Weight per piece (including packing)	89.7 g
Weight per piece (excluding packing)	66 g
Customs tariff number	85389091
Country of origin	DE

## Technical data

### Dimensions

Width	12.2 mm
Height	140.5 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

### Notes

#### Note on application

Note on application	Only for industrial use
---------------------	-------------------------

### 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 (LocalbusSlave)

Length code (hex)	41
ID code (dec.)	189
Length code (dec)	65
Process data channel	4 bit
Input address area	0 Byte
Output address area	4 bit
Parameter channel (PCP)	0 bit
Register length (bus)	4 bit

#### Fieldbus data telegram

Required parameter data	3 Byte
Required configuration data	4 Byte

### Output data

#### Digital:

Output name	Digital outputs
Connection method	Spring-cage connection
Connection technology	3-conductor
Number of outputs	4

# IB IL 24 DO 4-2MBD-PAC - Digital module



2861988

<https://www.phoenixcontact.com/us/products/2861988>

Protective circuit	Overload protection, short-circuit protection of outputs; electronic
Output voltage	24 V DC ( $U_S - 1$ V)
Limitation of the voltage induced on circuit interruption	-46 V ... -15 V
Maximum inrush current	max. 1.5 A (for 20 ms)
Maximum output current per channel	500 mA
Maximum output current per module	2 A
Nominal output voltage	24 V DC (voltage difference at $I_{nom} \leq 1$ V)
Output voltage when switched off	max. 2 V
Output current when switched off	max. 300 $\mu$ A
Nominal load, lamp	12 W
Nominal load, ohmic	12 W (48 $\Omega$ )
Maximum operating frequency with ohmic nominal load	max. 300 Hz (this switching frequency is limited by the data rate selected, the number of bus devices, the structure of the bus, the software used and the control or computer system used)
Reverse voltage resistance to short pulses	Reverse voltage proof
Behavior with overload	Auto restart
Behavior with inductive overload	Output can be destroyed
Behavior at voltage switch-off	The output follows the power supply without delay
Overcurrent shut-down	min. 0.7 A
Output current with ground connection interrupt when switched off	max. 25 mA

## Product properties

Product type	I/O component
Product family	Inline
Type	modular
Scope of supply	including Inline connector and labeling field
No. of channels	4
Operating mode	Process data operation with 4 bits
Diagnostics messages	Short-circuit or overload of the digital outputs Error message in the diagnostic code (bus) and display (2 Hz) via the LED (D) on the module

## 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	1.3 W
---	-------

## Potentials: Communications power ( $U_L$ )

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 65 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)

# IB IL 24 DO 4-2MBD-PAC - Digital module



2861988

<https://www.phoenixcontact.com/us/products/2861988>

Current draw	max. 2 A
--------------	----------

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

## Connection data

### Connection technology

Connection name	Inline connector
-----------------	------------------

### 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)
------------------	---------------------------------------

## Mounting

Mounting type	DIN rail mounting
---------------	-------------------

# IB IL 24 DO 4-2MBD-PAC - Digital module



2861988

<https://www.phoenixcontact.com/us/products/2861988>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2861988>



**cULus Listed**

Approval ID: E140324

# IB IL 24 DO 4-2MBD-PAC - Digital module



2861988

<https://www.phoenixcontact.com/us/products/2861988>

## Classifications

### ECLASS

ECLASS-13.0	27242604
ECLASS-15.0	27242604

### ETIM

ETIM 10.0	EC001599
-----------	----------

### UNSPSC

UNSPSC 21.0	32151600
-------------	----------

2861988

<https://www.phoenixcontact.com/us/products/2861988>

## 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	16bf95ad-fa84-45ca-b6ae-c9404c6089d7

### EF3.1 Climate Change

CO2e kg	2.195 kg CO2e
---------	---------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)