

# IB IL PWM/2-PAC - Function module



2861632

<https://www.phoenixcontact.com/us/products/2861632>

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Inline function terminal for pulse width and frequency modulation or activation of impulse-driven motor control parts with pulse/direction interface, two outputs for 5 V or 24 V



## Product description

The terminal is designed for use within an Inline station. Two channels that operate independently of one another offer the option of pulse width modulation (PWM) for the output signals. The terminal block supports the following operating modes: PWM (pulse width modulation), frequency generator, single shot (single pulse generator), and pulse direction signal.

## Your advantages

- 2 independent channels
- Output of 5 V or 24 V signals
- Maximum frequency of 50 kHz
- Pulse direction signal output without integrated ramp function for controlling step motor power supply units
- Single pulse output (pulse length of 10  $\mu$ s to 25.5 s can be set)
- Pulse width modulation (period length can be set in increments from 100  $\mu$ s to 10 s, duty factor in 0.39% increments)
- Frequency output (frequency can be set between 0 Hz and 50 kHz)

## Commercial data

Item number	2861632
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI164
Catalog page	Page 154 (C-6-2019)
GTIN	4017918948313
Weight per piece (including packing)	164 g
Weight per piece (excluding packing)	163 g
Customs tariff number	85389091
Country of origin	DE

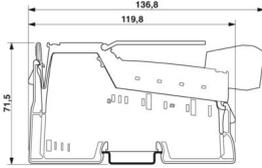
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## Technical data

### Dimensions

Dimensional drawing	
Width	24.4 mm
Height	136.8 mm
Depth	71.5 mm

### Interfaces

#### Inline local bus

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

### System properties

#### Module

ID code (dec.)	191
ID code (hex)	BF
Length code (hex)	02
Length code (dec)	02
Process data channel	32 bit
Input address area	4 Byte
Output address area	4 Byte
Register length	4 Byte
Required parameter data	1 Byte
Required configuration data	5 Byte

### Output data

#### Digital:

Output name	Digital output: 24 V DC
Connection technology	2-conductor (shielded)
Number of outputs	2
Protective circuit	Short-circuit protection, overload protection of the outputs; integrated damping diode for each channel
Output voltage	24 V
Maximum output current per module / terminal block	1 A
Nominal output voltage	24 V DC

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Nominal load, inductive	12 VA (1.2 H, 24 Ω)
Nominal load, lamp	12 W
Nominal load, ohmic	12 W
Maximum operating frequency with ohmic nominal load	500 Hz
Reverse voltage resistance to short pulses	Reverse voltage proof
Behavior with overload	Auto restart
Behavior at voltage switch-off	The output follows the power supply without delay
Overcurrent shut-down	as of 0.7 A

Digital:

Output name	Digital output: 5 V DC
Connection technology	2-conductor (shielded)
Number of outputs	2
Protective circuit	Short-circuit protection, overload protection of the outputs; integrated damping diode for each channel
Nominal output voltage	5 V DC
Maximum operating frequency with ohmic nominal load	50 kHz

## Product properties

Product type	I/O component
Product family	Inline
Type	modular
Operating mode	PWM, frequency generator, single-shot, pulse/direction signal Process data operation with 2 words
Diagnostics messages	Short circuit or overload of a 24 V output yes

## Electrical properties

Potentials: Communications power ( $U_L$ )

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 130 mA
Power consumption	max. 0.98 W

Potentials: Segment circuit supply ( $U_S$ )

Supply voltage	24 V DC (via voltage jumper)
Current draw	max. 1 A 0 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: 7.5 V supply (bus logic) / 5 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: 5 V supply (I/O)/functional ground	500 V AC, 50 Hz, 1 min.

## Connection data

Connection technology

# IB IL PWM/2-PAC - Function module



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Connection name	Inline connector
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## Conductor connection

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

## 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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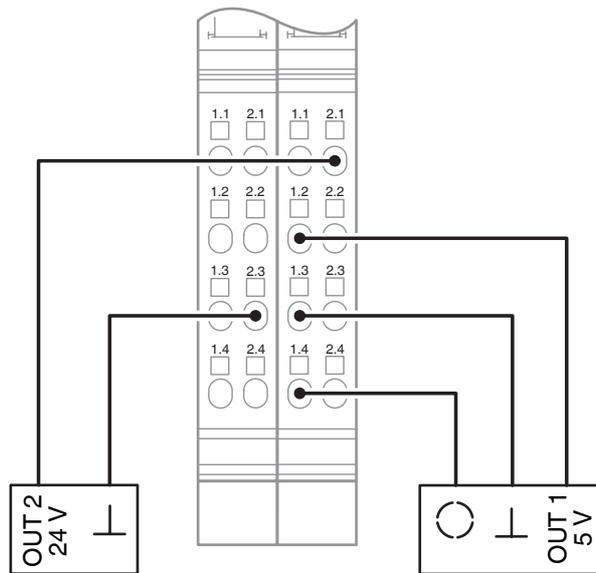
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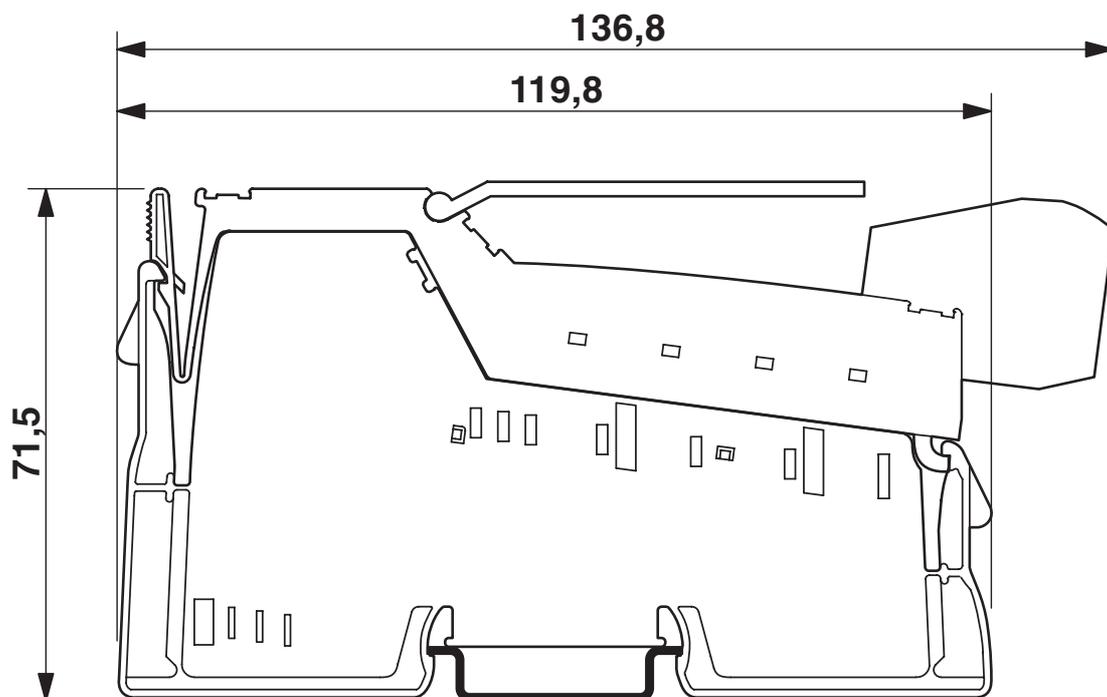
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## Drawings

Connection diagram



Dimensional drawing



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2861632>



**DNV GL**

Approval ID: TAA00002CU



**LR**

Approval ID: LR23398855TA



**BV**

Approval ID: 20989/B2\_BV



**UL Listed**

Approval ID: FILE E 140324



**cUL Listed**

Approval ID: FILE E 140324

**BSH**

Approval ID: 658a



**RINA**

Approval ID: ELE121121XG

**ABS**

Approval ID: 22-2226444-PDA

**cULus Listed**

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## Classifications

### ECLASS

ECLASS-11.0	27242605
ECLASS-12.0	27242605
ECLASS-13.0	27242605

### ETIM

ETIM 9.0	EC001601
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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	e51d1a97-1d8c-4946-ade4-de7a5f52abac

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