

# Inline function terminal - IB IL CNT-PAC - 2861852

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Inline counter terminal block, complete with accessories (connectors and labeling fields), 1 counter input, 1 control input, 1 output, 24 V DC, 500 mA, 3-wire connection method

## Product Description

The terminal is designed for use within an Inline station.

The counter terminal acquires and processes fast pulse sequences from sensors. It has a counter input (source), a control input (gate), and a switching output that can be freely parameterized. The switching output is set independently of the terminal. Fast response times can therefore be achieved, which are independent of both the bus and controller.

The terminal can be operated in four different operating modes: frequency measurement, event counting, time measurement, and pulse generation (pulse generator).

## Your advantages

- 1 counter input
- 1 control input
- 1 freely parameterizable switching output
- Four operating modes: event counting, time or state-controlled frequency measurement, time measurement (period or pulse length), and pulse generator
- Processing of 5 V or 24 V signals
- Input frequency of up to 100 kHz
- 16-bit counter value for time measurement
- 24-bit counter value for event counting and frequency measurement



## Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4017918894559

## Technical data

### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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## Technical data

### Dimensions

Width	24.4 mm
Height	135 mm
Depth	71.5 mm

### Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
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)
Degree of protection	IP20

### General

Mounting type	DIN rail
Color	green
Net weight	130 g
Note on weight specifications	with connectors
Operating mode	Process data operation with 2 words
Diagnostics messages	Sensor supply short-circuit
	Sensor supply overload

### Interfaces

Designation	Inline local bus
No. of channels	2
Connection method	Inline data jumper
Transmission speed	500 kbps
Transmission physics	Copper

### Inline potentials

Designation	Communications power ( $U_L$ )
Supply voltage	7.5 V DC (via voltage jumper)
Current consumption	typ. 40 mA
	max. 50 mA
Power consumption	max. 0.375 W (at $U_L$ )
Designation	Segment circuit supply ( $U_S$ )
Supply voltage	24 V DC (via voltage jumper)
Current consumption	max. 1 A
	min. 0 A (without connected peripherals)

### Counter inputs

Input name	Counter input for 24 V signals
Number of inputs	1 (only one counter input can be used, either for 24 V or for 5 V signals)

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## Technical data

### Counter inputs

Connection method	Spring-cage connection
Operating mode	Event counting, frequency/time measurement
Input voltage	24 V DC (Nominal voltage)
	30 V DC (maximum)
Input voltage range "0" signal	0 V DC ... 5 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC
Input frequency	max. 100 kHz
Input current	typ. 5 mA
Input name	Counter input for 5 V signals
Number of inputs	1 (only one counter input can be used, either for 24 V or for 5 V signals)
Connection method	Spring-cage connection
Connection technology	2-wire (shielded), external 5 V supply
Operating mode	Event counting, frequency/time measurement
Input voltage	5 V DC (Nominal voltage)
	8 V DC (maximum)
Input voltage range "0" signal	0 V ... 1.5 V
Input voltage range "1" signal	3.5 V ... 8 V
Input frequency	max. 100 kHz
Input current	typ. 5 mA
Input resistance	approx. 1.7 kΩ

### Digital outputs

Output name	Switching output
Connection method	Spring-cage connection
Connection technology	2-wire
Number of outputs	1
Protective circuit	Short-circuit protection Yes, short-circuit-proof (automatically switched on again)
	Overload protection
Output voltage	24 V DC (Nominal voltage)
Output current	max. 0.5 A (Nominal current)
Nominal load, inductive	max. 12 VA (1.2 H, 48 Ω)
Nominal load, lamp	max. 12 W
Nominal load, ohmic	max. 12 W (48 Ω)
Limitation of the voltage induced on circuit interruption	approx. -18 V
Behavior with inductive overload	Output can be destroyed
Reverse voltage resistance to short pulses	Reverse voltage proof

### Standards and Regulations

Connection in acc. with standard	CUL
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

### Environmental Product Compliance

# Inline function terminal - IB IL CNT-PAC - 2861852

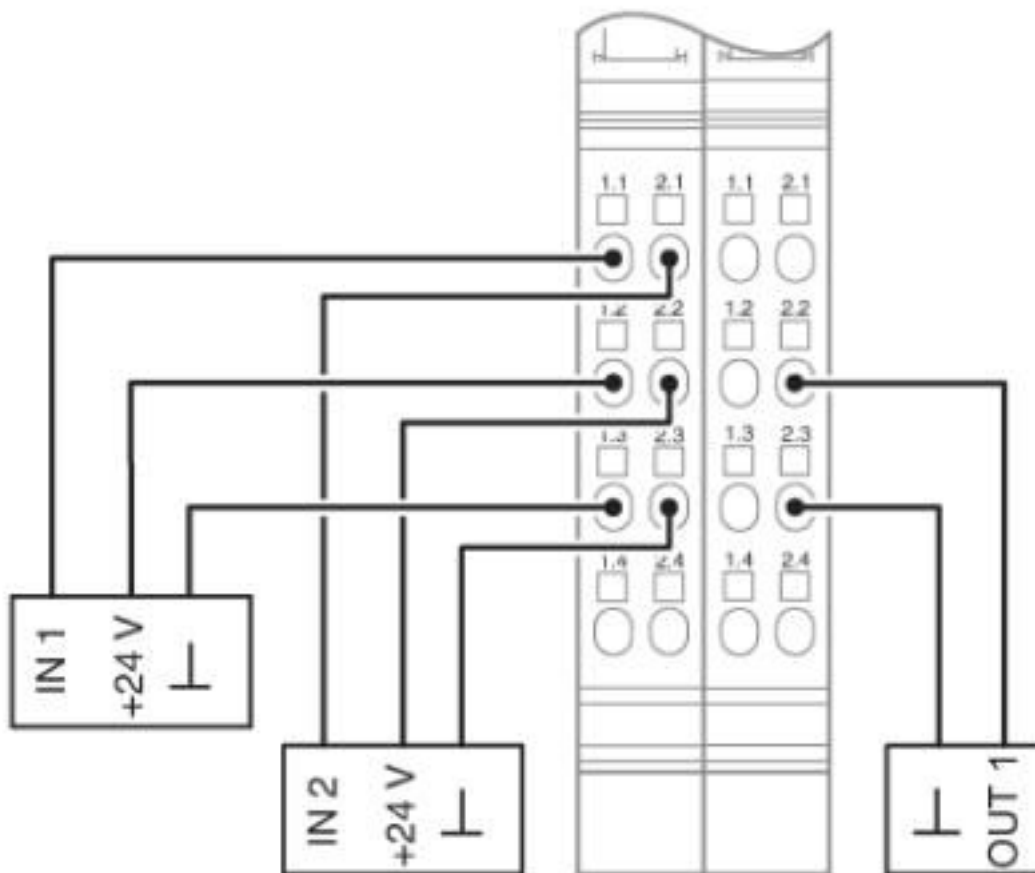
## Technical data

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

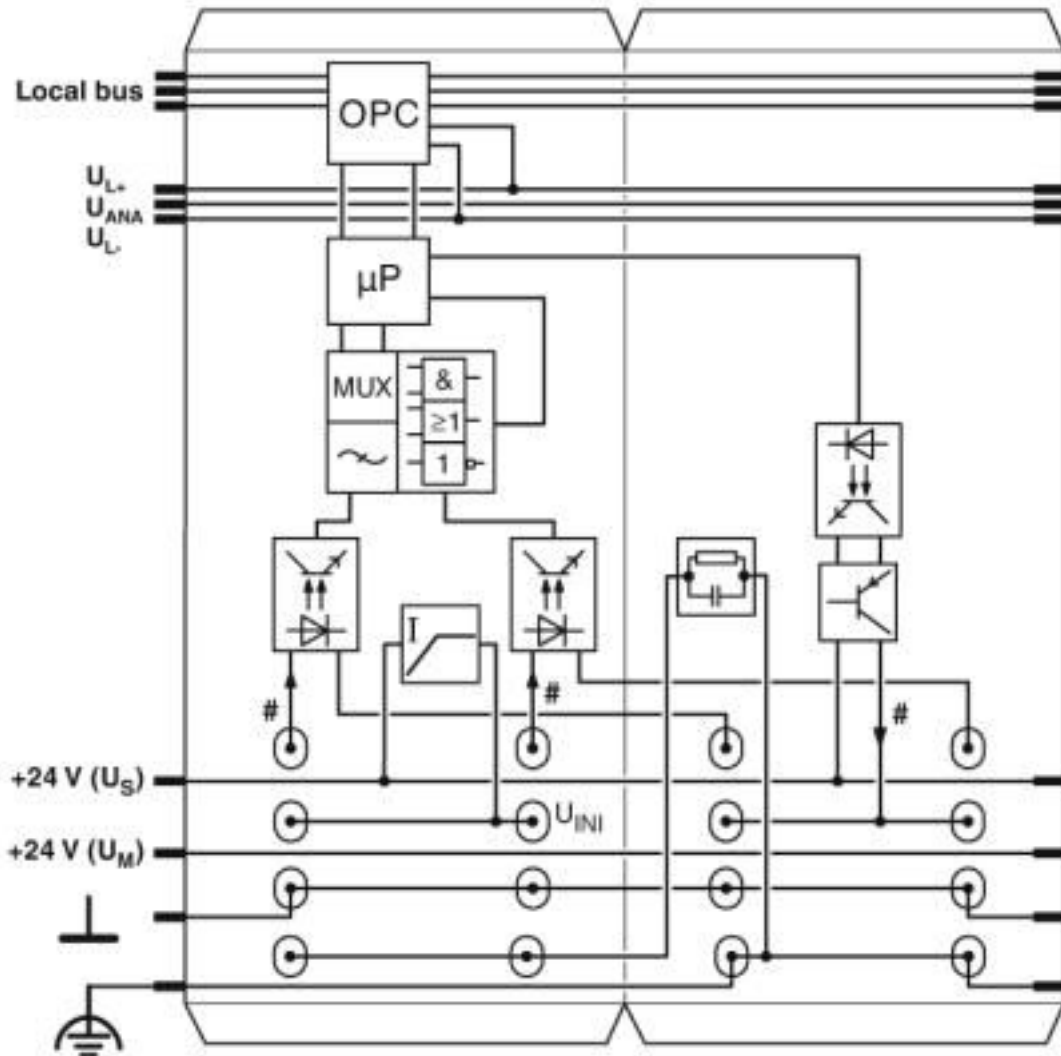
## Drawings

Connection diagram



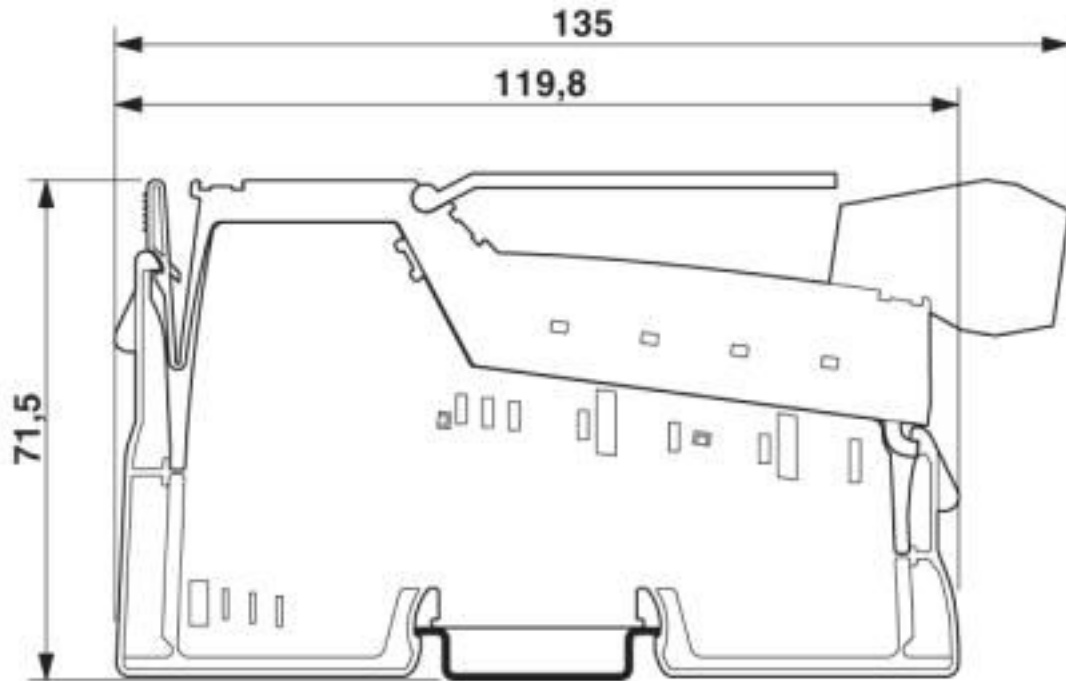
# Inline function terminal - IB IL CNT-PAC - 2861852

Block diagram



# Inline function terminal - IB IL CNT-PAC - 2861852

Dimensional drawing



## Classifications

### eCl@ss

eCl@ss 10.0.1	27242605
eCl@ss 4.0	27250300
eCl@ss 4.1	27250300
eCl@ss 5.0	27250300
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242605
eCl@ss 8.0	27242605
eCl@ss 9.0	27242605

### ETIM

ETIM 2.0	EC001433
ETIM 3.0	EC001601
ETIM 4.0	EC001601
ETIM 5.0	EC001601
ETIM 6.0	EC001601
ETIM 7.0	EC001601

### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404

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## Classifications

### UNSPSC

UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

## Approvals





### Approvals

#### Approvals

DNV GL / BSH / BV / LR / ABS / BSH / RINA / UL Recognized / EAC

#### Ex Approvals

### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAA00002CU
BSH			Anwenderhinweis
BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	20989/B2_BV
LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	08/20033
ABS		<a href="http://www.eagle.org/eagleExternalPortalWEB/">http://www.eagle.org/eagleExternalPortalWEB/</a>	17-HG1621871-PDA
BSH			658
RINA		<a href="http://www.rina.org/en">http://www.rina.org/en</a>	ELE001320XG

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## Approvals

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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EAC		EAC-Zulassung
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## Accessories

### Accessories

#### Connector set

Connector set - IB IL AO/CNT-PLSET - 2732664



Connector set

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#### Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



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#### Plug

Inline connector - IB IL SCN-8 - 2726337

Connector, for digital 1, 2 or 8-channel Inline terminals





## Inline function terminal - IB IL CNT-PAC - 2861852

### Accessories

Inline shield connector - IB IL SCN-6 SHIELD - 2726353



Inline shield connector

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### Terminal marking

Insert strip - ESL 62X10 - 0809492



Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 10 mm, Number of individual labels: 72

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