

## 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 Inline IB IL CNT counter terminal registers and processes quick pulse trains from sensors. It has a counter input, a control input, and a switching output that can be parameterized by the module itself. This way, quick response times can be achieved independent of the bus and the control system. The module can be operated in different operating modes:

- Event counting
- Time measurement and
- Pulse generation

The inputs can be used to connect initiators with 24 V DC supply and 5 V DC supply. The switching output supplies a maximum current of 500 mA. The Inline counter terminals can be labeled using hinged labeling fields. The fields have insert cards that can be labeled individually to suit the application. Additionally, there is the ZB-FM-6... Zack strip for labeling the terminal points.

### Product Features

- 24 V sensor supply including monitoring
- Gate input
- 16-bit counter value for time measurement
- 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
- 1 counter
- 24-bit counter value for event counting and frequency measurement



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	184.2 g
Custom tariff number	85389091
Country of origin	Germany

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## Technical data

### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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### 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 % (according to DIN EN 61131-2)
Permissible humidity (storage/transport)	10 % ... 95 % (according to DIN EN 61131-2)
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
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

Fieldbus system	Lokalbus
Designation	Inline local bus
Connection method	Inline data jumper
Transmission speed	500 kBit/s
Transmission physics	Copper

### Power supply for module electronics

Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Communications power $U_L$	7.5 V (via voltage jumper)
Current consumption	typ. 40 mA (from the local bus)
Power consumption	max. 0.375 W (at $U_L$ )

### Inline potentials

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### Technical data

#### Inline potentials

Communications power $U_L$	7.5 V DC (via voltage jumper)
Current consumption from $U_L$	typ. 40 mA
	max. 50 mA
Segment circuit supply $U_S$	24 V DC (nominal value)
Current consumption from $U_S$	max. 1 A
Power consumption	max. 0.375 W (at $U_L$ )

#### 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)
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
	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 k $\Omega$

#### Digital outputs

Output name	Switching output
Connection method	Spring-cage connection
	2-wire
Number of outputs	1
Protective circuit	Short-circuit protection Yes, short-circuit-proof (automatically switched on again)

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### Technical data

#### Digital outputs

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)

#### Standards and Regulations

Test section	5 V supply, incoming remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min.
	5 V supply, outgoing remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min.
	7.5 V supply (bus logics)/24 V supply (I/O) 500 V AC 50 Hz 1 min.
	24 V supply (I/O) / functional earth ground 500 V AC 50 Hz 1 min.
Connection in acc. with standard	CUL
Protection class	III, IEC 61140, EN 61140, VDE 0140-1

### Classifications

#### eCl@ss

eCl@ss 4.0	27250304
eCl@ss 4.1	27250304
eCl@ss 5.0	27250304
eCl@ss 5.1	27242605
eCl@ss 6.0	27242605
eCl@ss 7.0	27242605
eCl@ss 8.0	27242605

#### ETIM

ETIM 2.0	EC001433
ETIM 3.0	EC001601
ETIM 4.0	EC001601
ETIM 5.0	EC001601

#### UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	43201404

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## Approvals

### Approvals

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#### Approvals

UL Recognized / cUL Recognized / LR / ABS / RINA / BSH / BV / BSH / EAC / cULus Recognized

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#### Ex Approvals

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#### Approvals submitted

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### Approval details

UL Recognized 

cUL Recognized 

LR

ABS

RINA

BSH


BV

BSH

EAC

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

### Approvals

cULus Recognized  US

### Accessories

#### Accessories

##### Connector set

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



Connector set

##### Labeling panel

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



##### Plug

Inline connector - IB IL SCN-8 - 2726337

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



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



Inline shield connector

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## Accessories

### Terminal marking

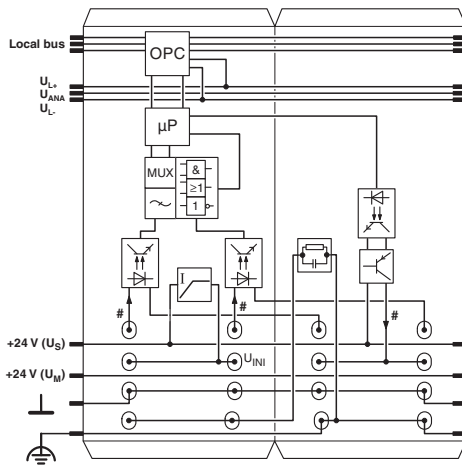
Insert strip - ESL 62X10 - 0809492

Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems, Plotter: Laser printer, Mounting type: Insert, Lettering field: 62 x 10 mm

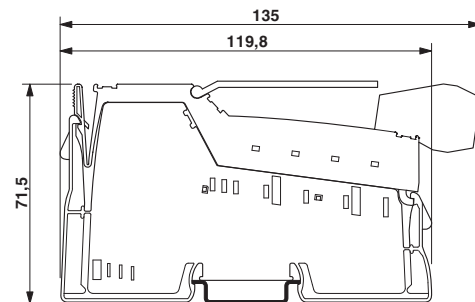


## Drawings

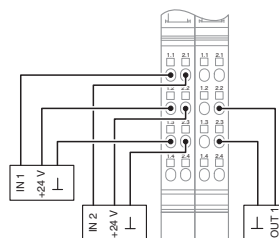
Block diagram



Dimensional drawing



Connection diagram



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