

Inline function terminal - IB IL CNT-XC-PAC - 2702134

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Inline counter terminal, version for extreme conditions, complete with accessories (connectors and marking fields), 1 counter input, 1 control input, 1 output, 24 V DC, 500 mA, 3-conductor connection technology

The figure shows the standard item

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
- Can be used under extreme ambient conditions
- Extended temperature range of -40 °C ... +70 °C (see "Tested successfully: use under extreme ambient conditions" in the data sheet)
- Coated PCBs

Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 981798

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GTIN	4046356981798
Weight per Piece (excluding packing)	180.000 g
Custom tariff number	85389099
Country of origin	Germany

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 (Standard)
	-40 °C ... 70 °C (Extended, see section "Tested successfully: use under extreme ambient conditions" in the data sheet.)
Ambient temperature (storage/transport)	-40 °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

Connection data

Designation	Inline connector
Connection method	Spring-cage connection
Conductor cross section solid min.	0.08 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.08 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section AWG min.	28
Conductor cross section AWG max.	16
Stripping length	8 mm

General

Mounting type	DIN rail
Color	green
Net weight	130 g
Note on weight specifications	with connectors

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Technical data

General

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)

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

Electrical isolation

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Technical data

Electrical isolation

Test section	7.5 V supply (bus logics)/24 V supply (I/O) 500 V AC 50 Hz 1 min.
	7.5 V supply (bus logics) / functional earth ground 500 V AC 50 Hz 1 min.
	24 V supply (I/O) / functional earth ground 500 V AC 50 Hz 1 min.

Standards and Regulations

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

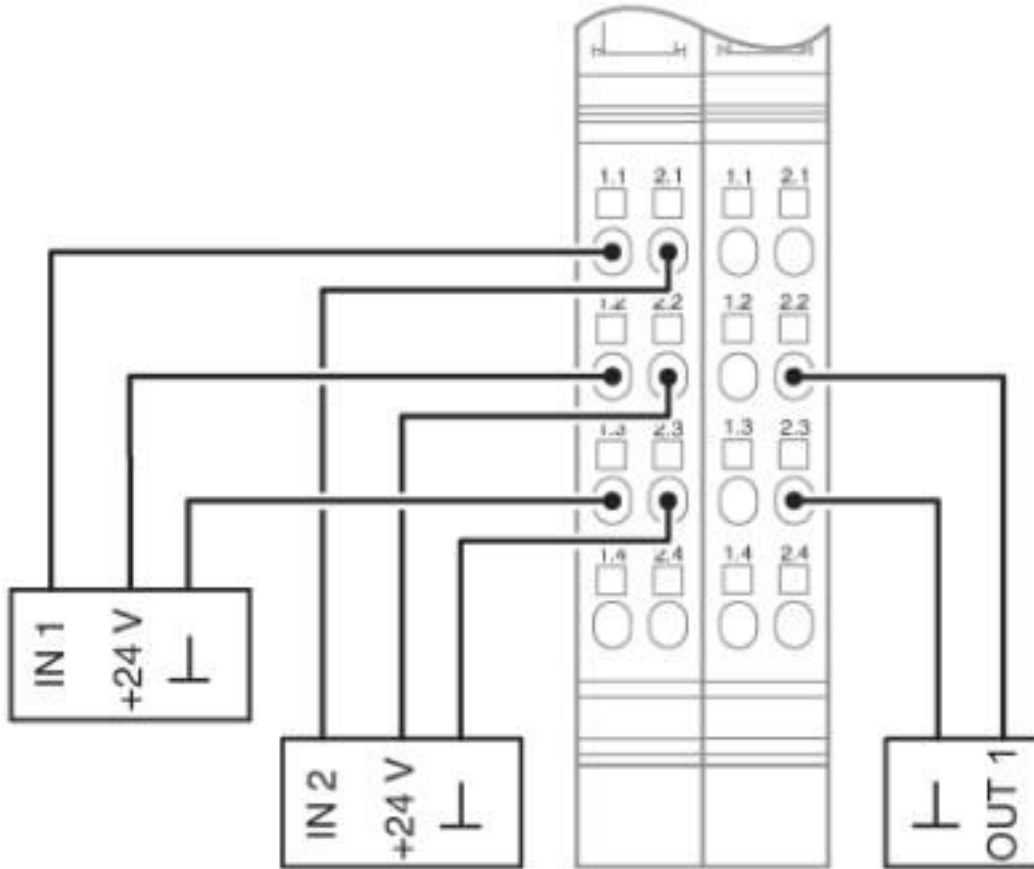
Environmental Product Compliance

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

Drawings

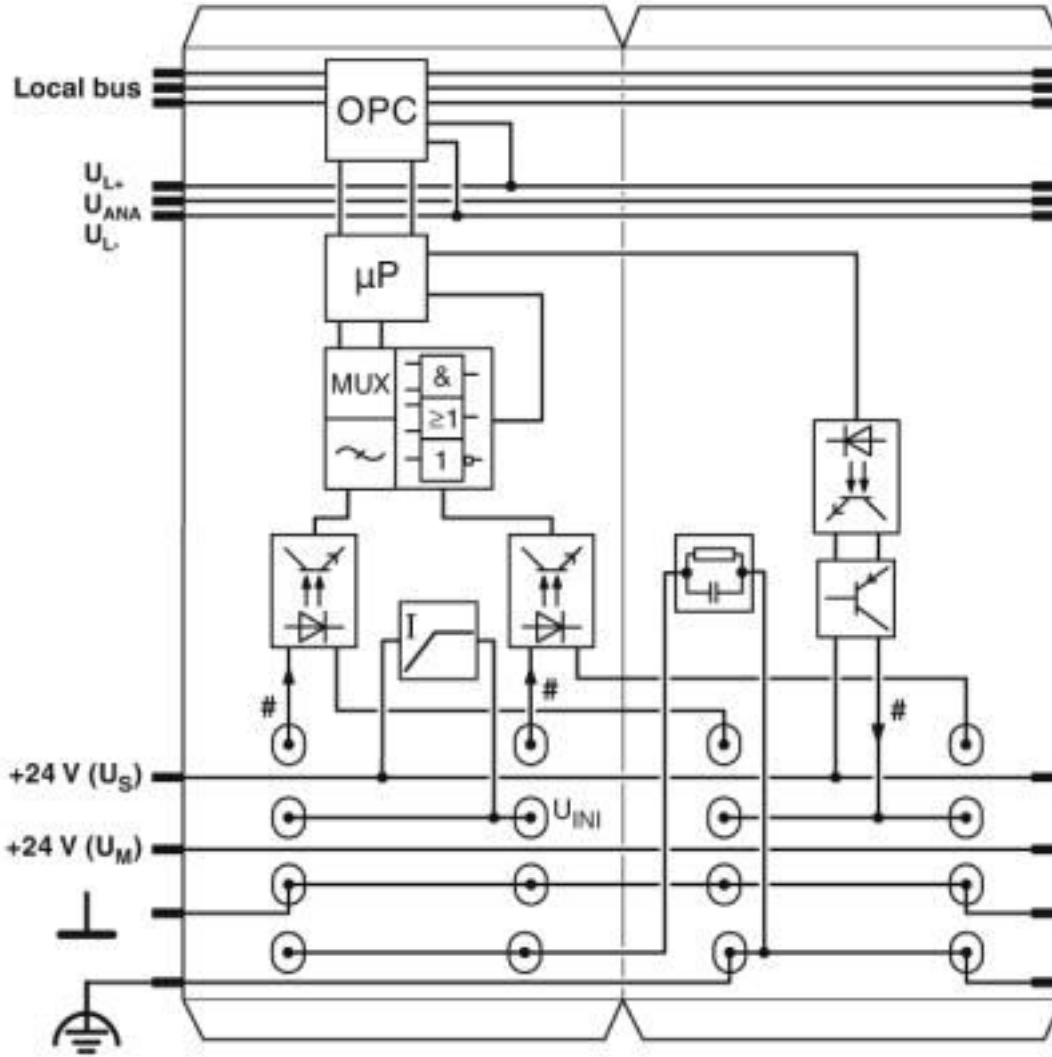
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Connection diagram



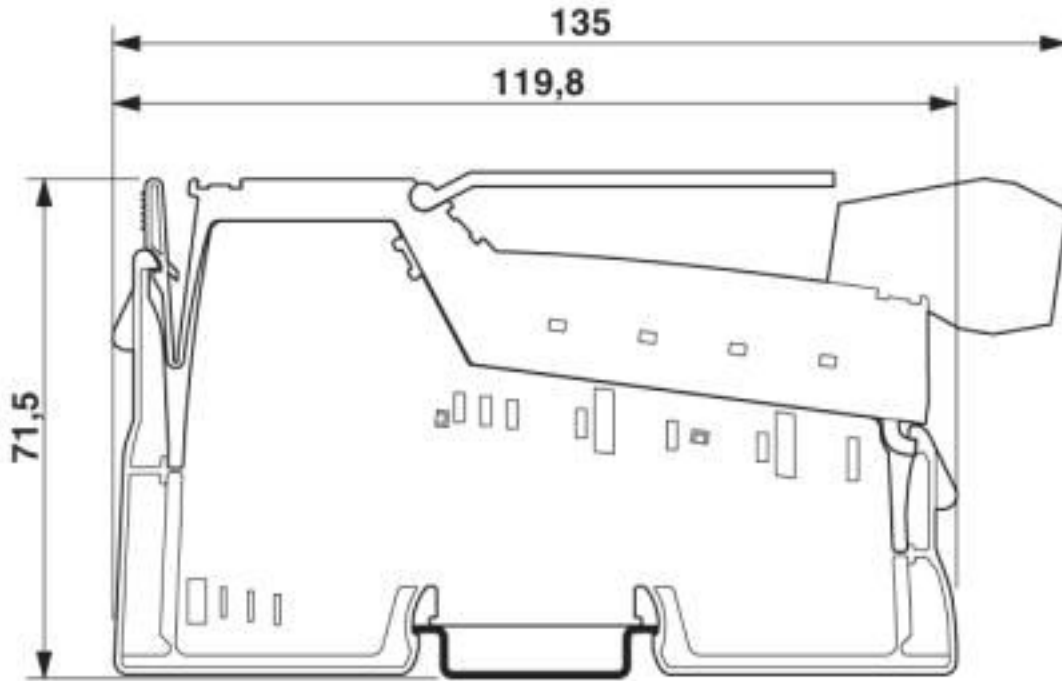
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Block diagram



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Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27242605
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 5.0	EC001601
ETIM 6.0	EC001601
ETIM 7.0	EC001601

UNSPSC

UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602

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Classifications

UNSPSC

UNSPSC 21.0	32151602
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Approvals

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UL Recognized / cUL Recognized / UL Recognized / cUL Recognized

Ex Approvals

Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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cUL Recognized		http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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Accessories

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Connector set

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Accessories

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

Terminal marking

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Accessories

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