

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 |
|-------------------------|---|

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) |

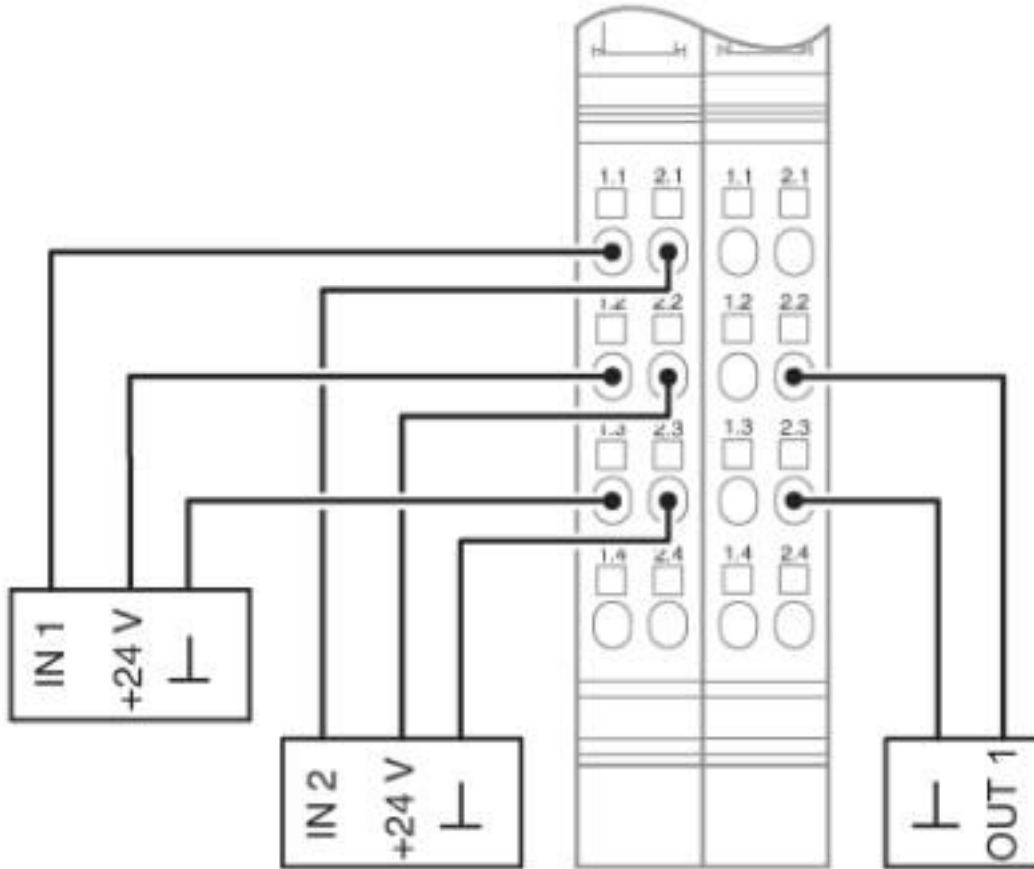
Environmental Product Compliance

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

Drawings

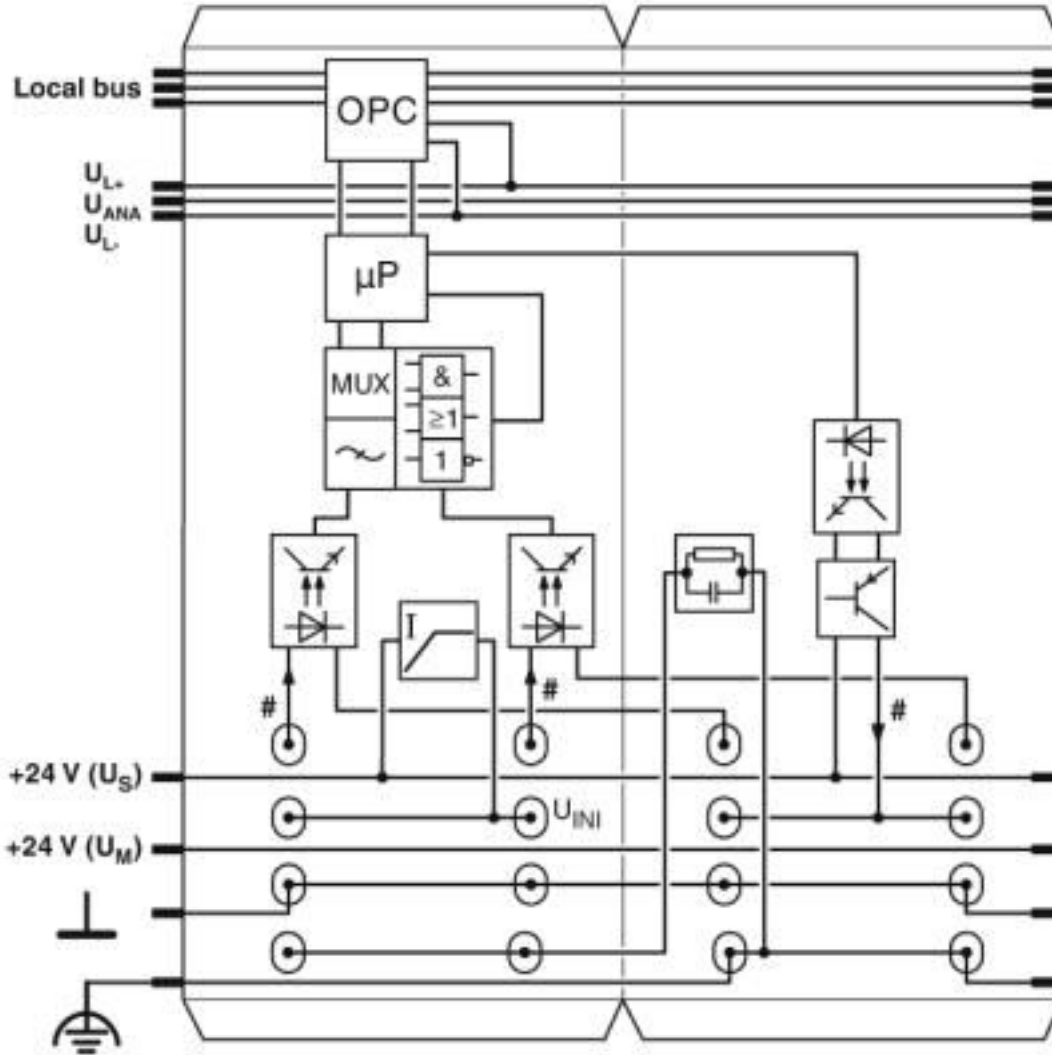
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Connection diagram



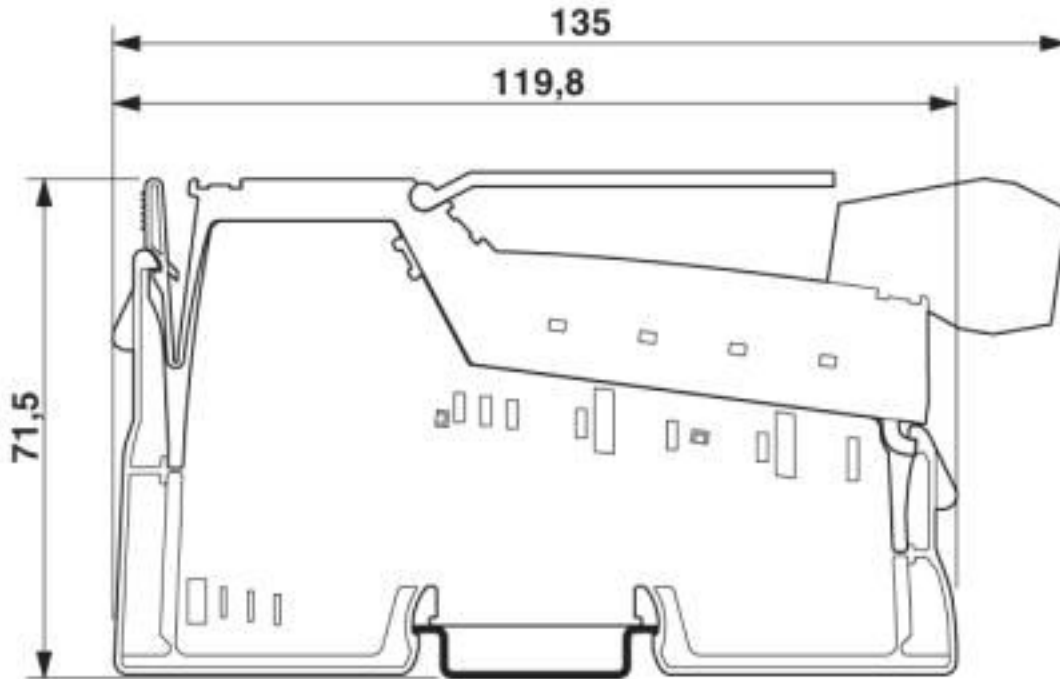
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Block diagram



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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 |
|-------------|----------|

Approvals

Approvals

Approvals

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 |
|---------------|--|---|---------------|

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

Accessories

Accessories

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