

IB IL INC-IN - Inline function terminal

2819228

<https://www.phoenixcontact.com/us/products/2819228>

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Inline measurement terminal for position encoder, without accessories, 1 input for incremental encoder with rectangular signal (symmetrical or asymmetrical), 3 digital inputs 24 V DC, 3-conductor connection system

Product description

The terminal is designed for use within an Inline station. The terminal is used for detecting positions, lengths, or angular positions with incremental encoders. Both symmetrical (RS-422) and asymmetrical (5 V DC to 24 V DC) encoders with rectangular signals can be connected to the terminal block. Rotary transducers or length measurement systems can be read in with or without a Z pulse. To increase operational safety, all encoder inputs are monitored for broken cables. Using a special operating mode, the terminal supports distance-coded incremental encoders, with which the reference run can be reduced to very short distances. In addition to the input for the encoder signals, the terminal also has three digital 24 V DC inputs, one input for the home position switch, and two inputs for limit position switches. Thus 2 or 3-conductor sensors can be connected. Input E3 can also be used as an "open collector" output.

Your advantages

- Maximum input frequency: 300 kHz
- Supports incremental encoders with symmetrical signals in accordance with EIA standard RS-422 (line driver)
- Precise evaluation via 1x, 2x, or 4x sampling
- Direction of rotation indicator via LED
- 25-bit actual position value
- Supports incremental encoder with asymmetrical signals (push-pull)
- Supplies encoder with 5 V or 24 V voltage
- Three digital inputs for connecting two limit switches or a home position switch

Commercial data

Item number	2819228
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DRI161
GTIN	4017918891213
Weight per piece (including packing)	130.3 g
Weight per piece (excluding packing)	120 g
Customs tariff number	85389091
Country of origin	DE

Technical data

Product properties

Type	modular
Insulation characteristics	
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

System properties

Programming data	
Register length (bus)	32 bit
Fieldbus data telegram	
Required parameter data	1 Byte

Electrical properties

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

Supply

Drawing encoder supply voltage	Main circuit U_M
Encoder supply voltage	5 V DC
	24 V DC
Encoder supply current	max. 250 mA
I/O voltage	500 V AC (test voltage)
Typical current consumption	70 mA

Potentials: Communications power (U_L)

Supply voltage	7.5 V (via voltage jumper)
Current draw	max. 70 mA

Potentials: Main circuit supply (U_M)

Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 1 A
	typ. 340 mA

Input data

Digital

Number of inputs	3
Input voltage range "0" signal	-30 V DC ... 5 V DC
Input voltage range "1" signal	15 V DC ... 30 V DC
Connection method	Inline connector
Connection technology	3-conductor

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Incremental encoder

Number of inputs	1
Input frequency (5 V)	0 kHz ... 300 kHz
Input frequency (24 V)	0 Hz ... 300 kHz
Encoder signals	symmetrical encoders according to EIA-422 and asymmetrical encoders

Counter:

Number of inputs	3
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Connection data

Inline connector

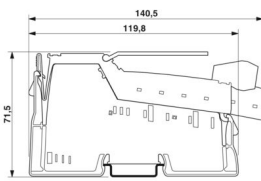
Connection method	Spring-cage connection
Conductor cross-section, rigid	0.08 mm ² ... 1.5 mm ²
Conductor cross-section, flexible	0.08 mm ² ... 1.5 mm ²
Conductor cross-section AWG	28 ... 16

Interfaces

Inline local bus

Connection method	Inline data jumper
Transmission speed	500 kbps
Transmission physics	Copper

Dimensions

Dimensional drawing	
Width	24.4 mm
Height	119.8 mm
Depth	71.5 mm

Material specifications

Color	green
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	75 % ... 85 %

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Permissible humidity (storage/transport)	75 % ... 85 %
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Mounting

Mounting type	DIN rail mounting
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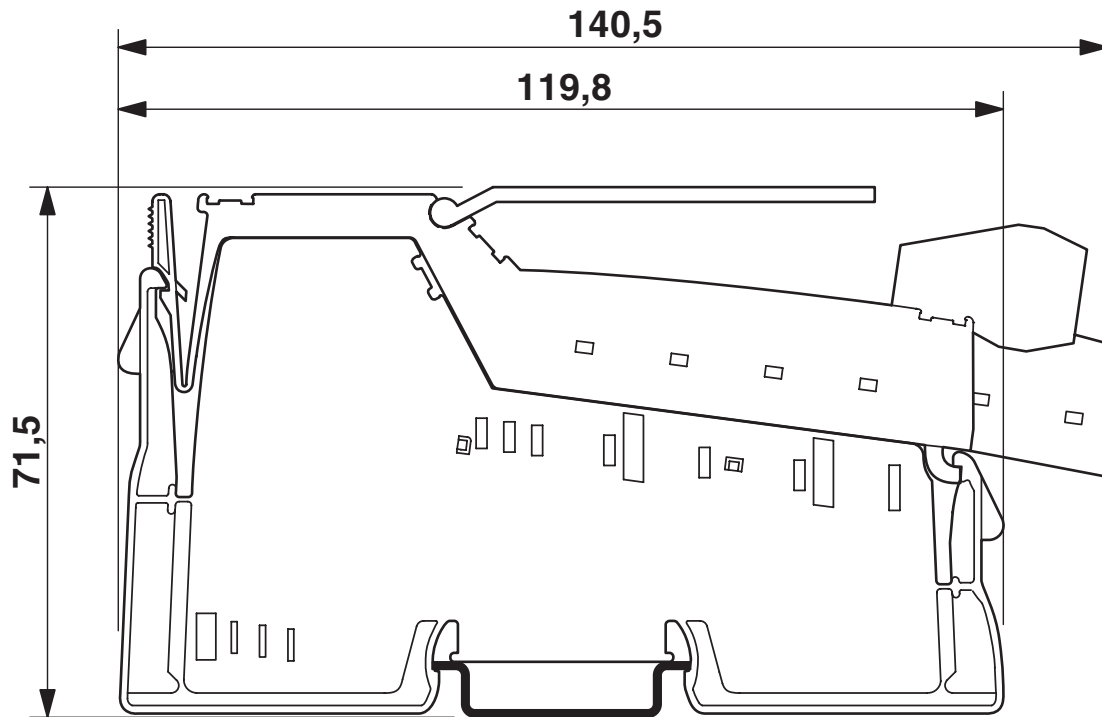
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Drawings

Dimensional drawing

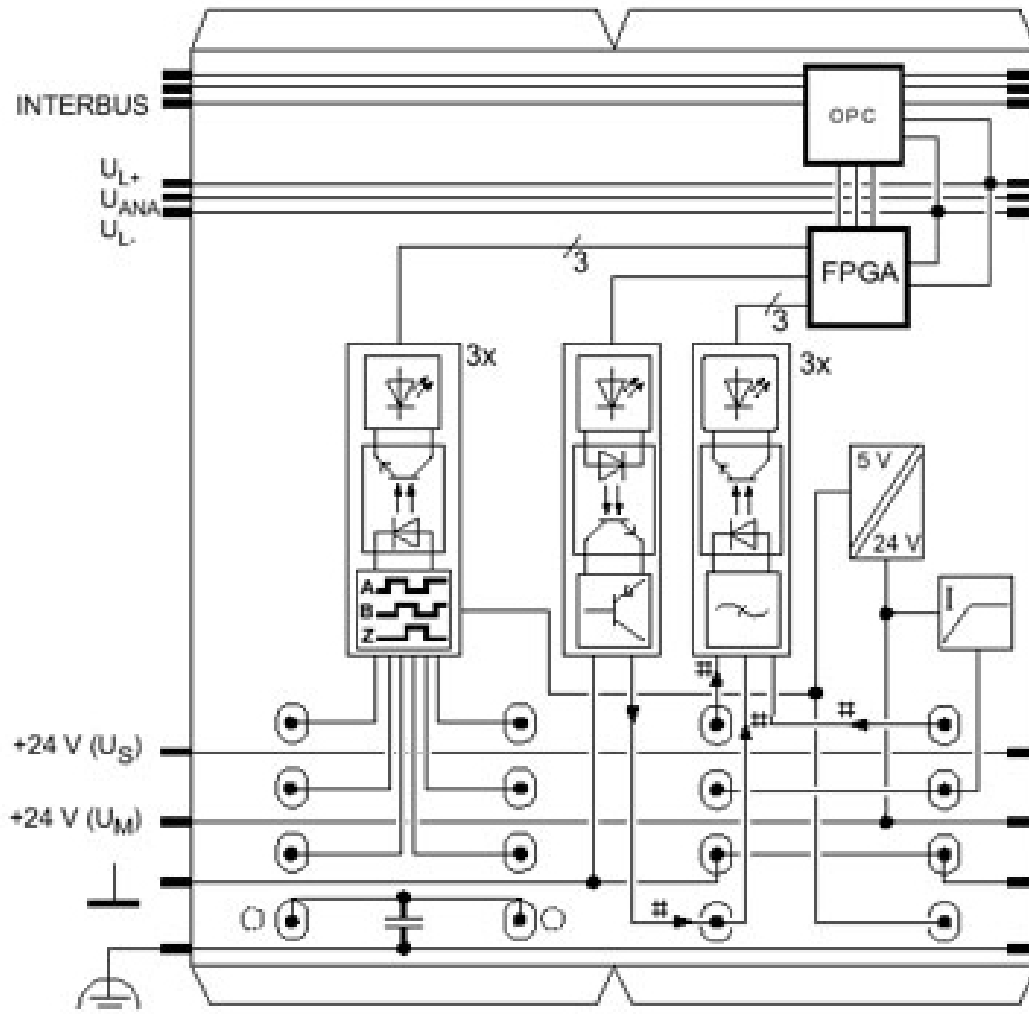


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Block diagram



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Environmental product compliance

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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