IB IL IMPULSE-IN-PAC - Function module

2861768

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CRA-READY



Inline measurement terminal block for position encoder, complete with accessories (connector and labeling field), 1 input for inductive length measuring scales with the impulse interface (P interface)

Product description

The terminal is designed for use within an Inline station. The terminal block is used to evaluate magnetostrictive position sensors with a start/stop interface. The time between a query pulse and its response pulse is directly proportional to the position of the position encoder on the measuring path. Impulses are transmitted with immunity to interference via a differential driver according to RS-422.

Your advantages

- Ultrasonic speed of the encoder of 2,500 m/s ... 2,999.99 m/s
- Position resolution of 5 µm
- Evaluation of the position of a magnet
- 1 magnetostrictive encoder can be connected
- Measuring range length of up to 3.85 m
- 24 V encoder supply incl. monitoring
- Shield connection

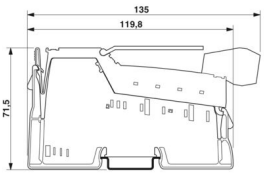
ELEKTROGERÄTE RÜCKNAHME

Commercial data

Item number	2861768
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI161
GTIN	4017918934095
Weight per piece (including packing)	89.8 g
Weight per piece (excluding packing)	71 g
Customs tariff number	85389091
Country of origin	DE

Technical data

Dimensions

Dimensional drawing	
Width	12.2 mm
Height	135 mm
Depth	71.5 mm

Notes

Note on application	Only for industrial use
Note on application	As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA.

Mounting

Mounting type	DIN rail mounting

Material specifications

Color (Housing)	green (RAL 6021)

Interfaces

Inline local bus

Number of interfaces	2
Connection method	Inline data jumper
Transmission speed	500 kbps

System properties

Programming data

Length code (hex)	02
ID code (dec.)	95
Length code (dec)	02
Process data channel	32 bit
Input address area	4 Byte
Output address area	4 Byte
Parameter channel (PCP)	0 Byte
Register length (bus)	32 bit

Fieldbus data telegram (PROFIBUS)

Required parameter data	6 Byte
Required configuration data	5 Byte

Product properties

Product type	I/O component
Product family	Inline
Type	modular
Operating mode	Process data operation with 2 words
Special properties	The product is being prepared for compliance with the Cyber Resilience Act (CRA)
Diagnostics messages	Failure or overload of the encoder supply I/O error message

Insulation characteristics

Overvoltage category	II (IEC 60664-1, EN 60664-1)
Pollution degree	2 (IEC 60664-1, EN 60664-1)

Electrical properties

Maximum power dissipation for nominal condition	0.85 W

Encoder

Number	1
Nominal output voltage	24 V DC
Voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current carrying capacity	max. 250 mA
Protective circuit	Short-circuit protection; Electronic and thermal

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (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. 250 mA
	typ. 150 mA (with connected sensor)

Electrical isolation/isolation of the voltage ranges

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

Connection data

Connection technology

Connection name	Inline connector

Inline connector

Connection method	Spring-cage connection

Conductor cross-section, rigid	0.08 mm² ... 1.5 mm²
Conductor cross-section, flexible	0.08 mm² ... 1.5 mm²
Conductor cross-section AWG	28 ... 16
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

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

Mechanical test

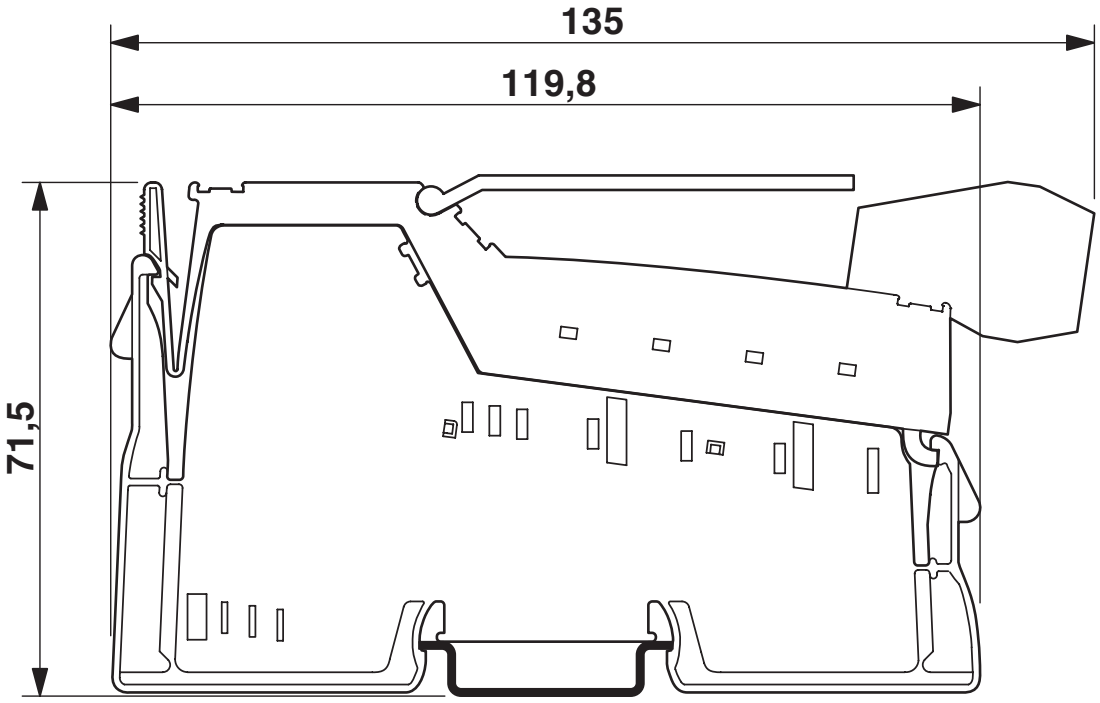
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	25g

Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

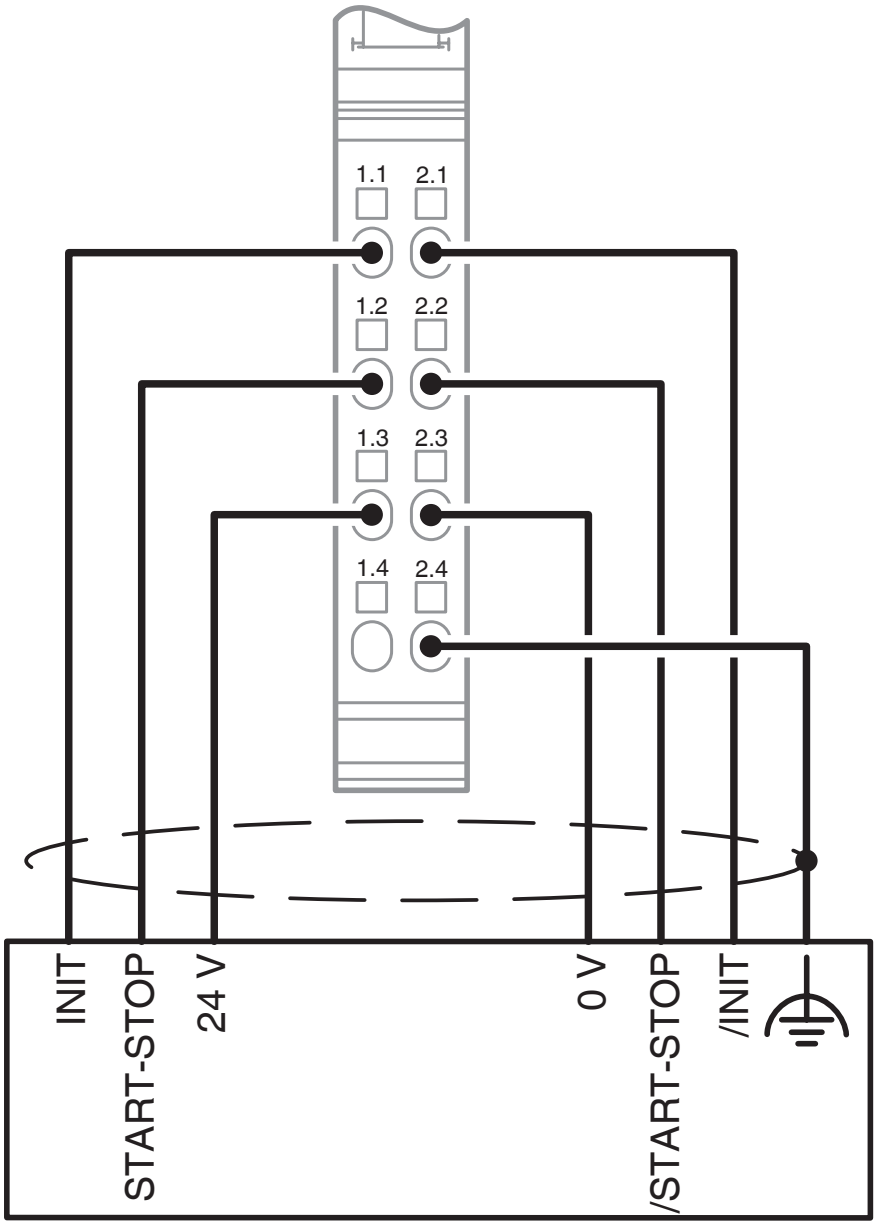
Drawings

Dimensional drawing



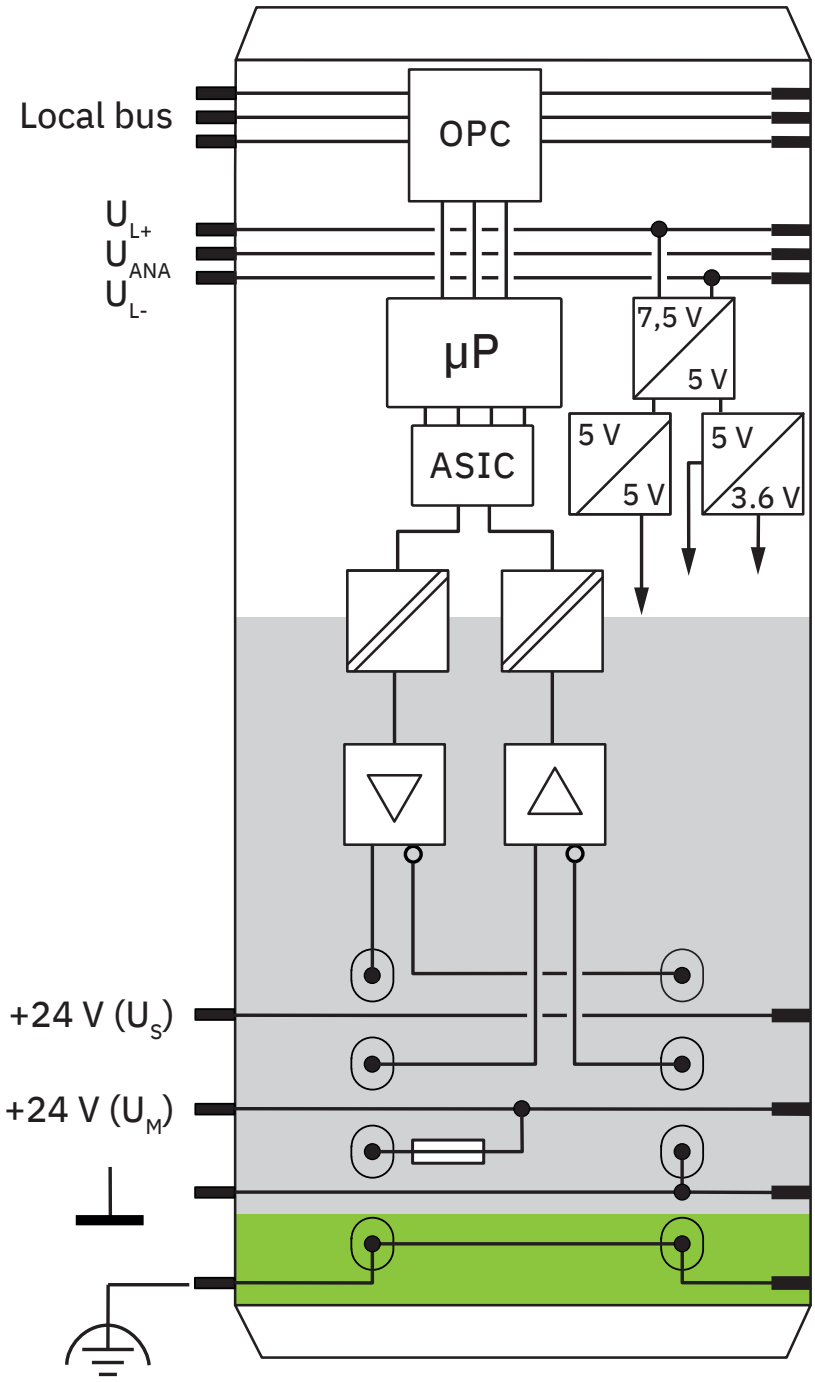
Dimensions (in mm)

Connection diagram



Connection example

Block diagram



Internal wiring of the terminal points

Classifications

ECLASS

ECLASS-13.0	27242605
ECLASS-15.0	27242605

ETIM

ETIM 10.0	EC001601

UNSPSC

UNSPSC 21.0	32151600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	99bc4c10-2759-49f4-93d2-add6c9f4edd8

EF3.1 Climate Change

CO2e kg	8.507 kg CO2e

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