IB IL RS 485-ECO - Communication module

2702141

https://www.phoenixcontact.com/us/products/2702141

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CRA-READY



Inline, Communication module, Serial data transmission; Communication via process data; interface: RS-485: 1; Transmission speed: 110 bps ... 38400 bps; transmission speed in the local bus: 500 kbps; degree of protection: IP20; Scope of supply: including Inline connector; The product is being prepared for compliance with the Cyber Resilience Act (CRA).

Product description

The terminal is designed for use within an Inline station. The terminal is used to operate standard I/O devices with serial interfaces on a bus system. Inline ECO terminals are approved for the temperature range from 0°C to +55°C. The electronics base and Inline connector are supplied as standard.

Your advantages

- One serial input and output channel in RS-485 format
- Data is transmitted in transparent mode
- Transmission speed can be set up to 38400 bps
- Number of data bits, stop bits and parity can be set
- Parameterization and data exchange via process data

ELEKTROGERÄTE RÜCKNAHME

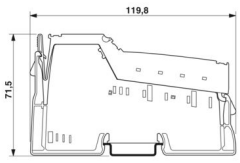
Commercial data

Item number	2702141
Packing unit	1 pc

Minimum order quantity	1 pc
Sales key	DR01
Product key	DRI151
GTIN	4046356983235
Weight per piece (including packing)	74 g
Weight per piece (excluding packing)	84.8 g
Customs tariff number	85389099
Country of origin	DE

Technical data

Dimensions

Dimensional drawing	
Width	12.2 mm
Height	119.8 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

RS-485

Number of interfaces	1
Connection method	Spring-cage connection
Note on the connection method	Use shielded cables.
Transmission speed	110 bps ... 38400 bps (can be parameterized)
Transmission physics	Copper
Protocol	Transparent
Input buffer	4 kByte
Output buffer	1 kByte
Data bits	6 ... 8
Stop bits	1 or 2
Parity	Even, odd or no parity

Termination resistor	typ. 120 Ω (active, integrated)
Idle time	78 µs (between sending and receiving data)

System properties

Programming data

Length code (hex)	07
ID code (dec.)	191
Length code (dec)	07
Process data channel	112 bit
Input address area	14 Byte
Output address area	14 Byte
Parameter channel (PCP)	0 Byte
Register length (bus)	112 bit

Fieldbus data telegram (PROFIBUS)

Required parameter data	16 Byte
Required configuration data	5 Byte

Product properties

Product type	I/O component
Product family	Inline
Type	modular
Installation location	Control cabinet
Scope of supply	including Inline connector
Special properties	The product is being prepared for compliance with the Cyber Resilience Act (CRA)
	Communication via process data

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	0.7 W

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 85 mA
	typ. 70 mA

Electrical isolation/isolation of the voltage ranges

Test voltage: Serial interface/7.5 V supply (bus logic)	500 V AC, 50 Hz, 1 min
Test voltage: Serial interface/24 V supply U_M	500 V AC, 50 Hz, 1 min
Test voltage: Serial interface/functional ground	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 (U_M)/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)	0 °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

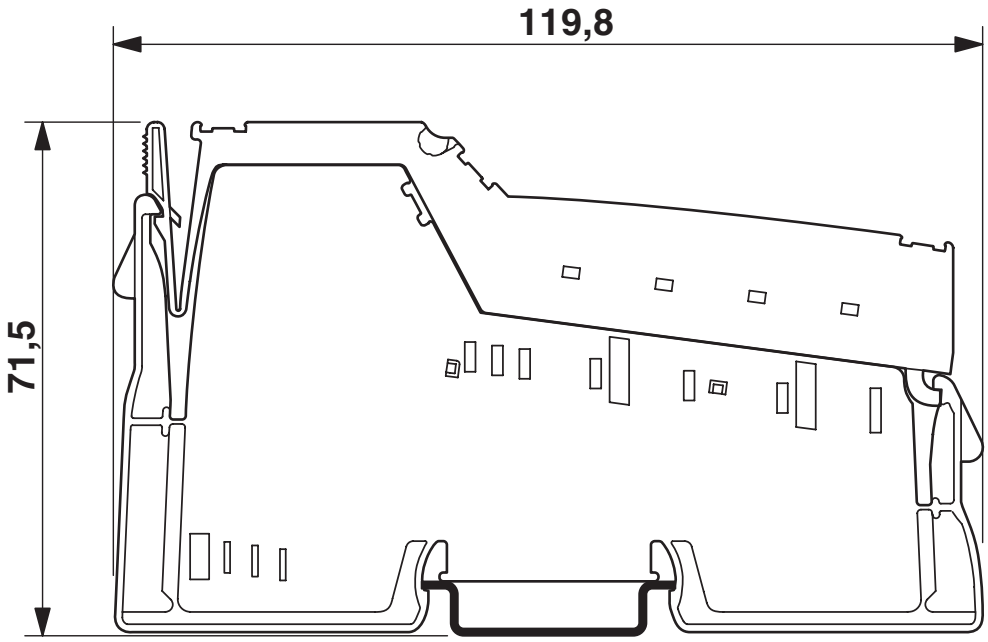
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	25g

Standards and regulations

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

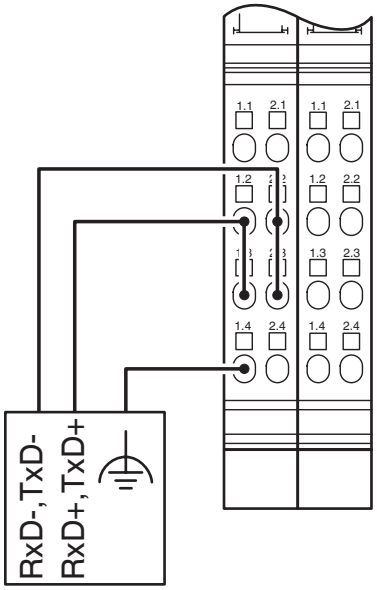
Drawings

Dimensional drawing



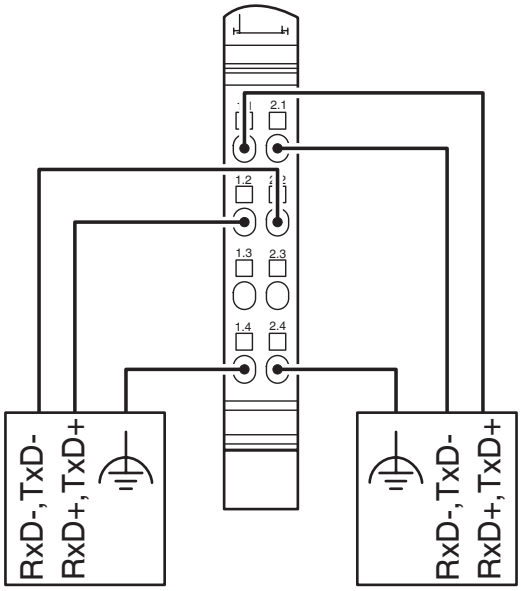
Dimensions

Connection diagram



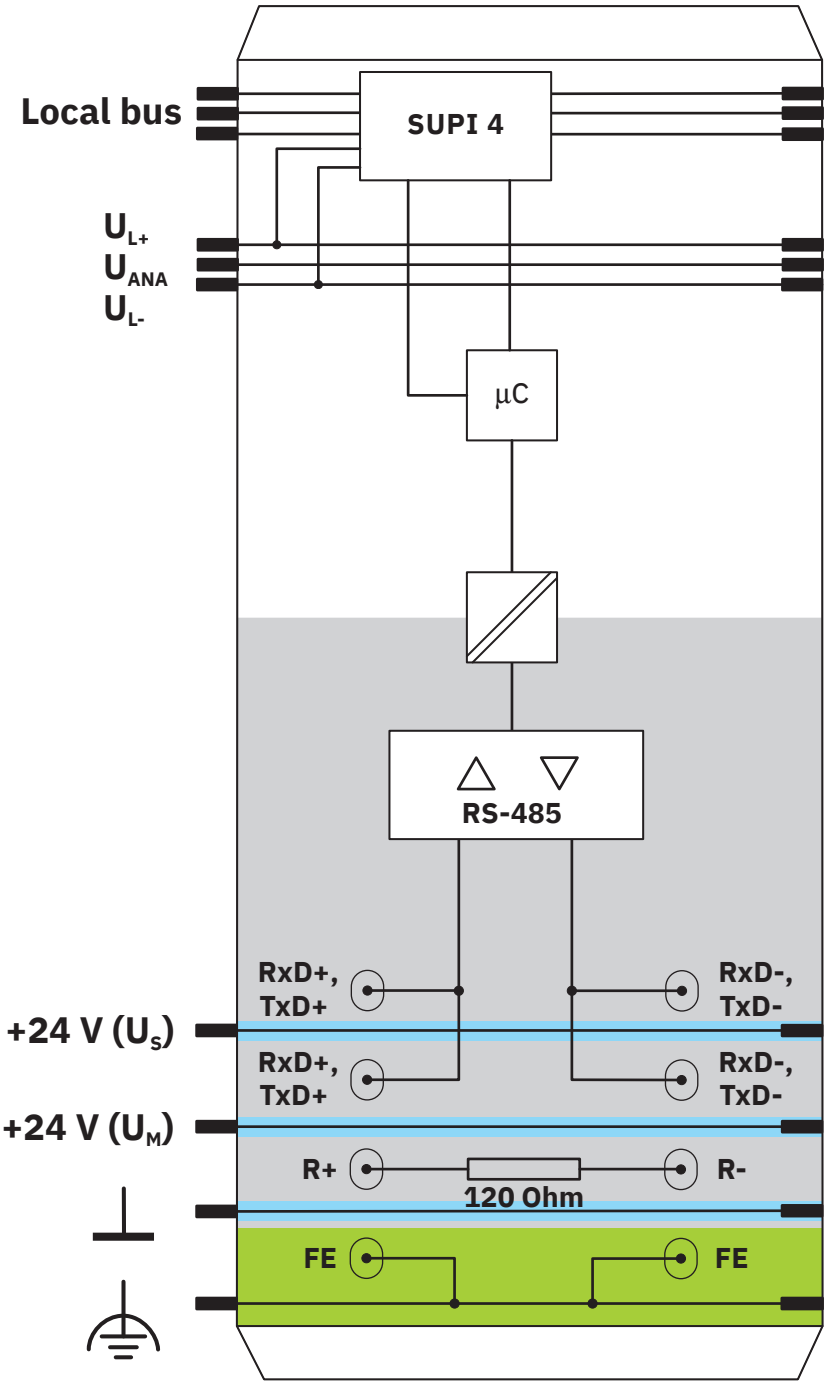
Inline terminal as network end point

Connection diagram



Inline terminal in the network center

Block diagram



Internal wiring of the terminal points

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2702141

cULus Listed
Approval ID: E238705

Classifications

ECLASS

ECLASS-13.0	27242608
ECLASS-15.0	27242608

ETIM

ETIM 10.0	EC001604

UNSPSC

UNSPSC 21.0	32151600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	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.)	No substance above 0.1 wt%

EF3.1 Climate Change

CO2e kg	4.221 kg CO2e

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