

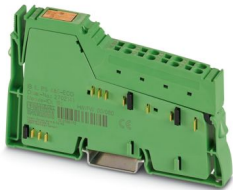
# IB IL RS 485-ECO - Communication module



2702141

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

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Inline, Communication module, Serial data transmission; interface: RS-485: 1; Transmission speed: 110 bps ... 38400 bps; transmission speed in the local bus: 500 kbps; degree of protection: IP20; Communication via process data; Scope of supply: including Inline connector

## 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

## 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)	74.4 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

Note on application	Only for industrial use
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### Material specifications

Color (Housing)	green (RAL 6021)
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### 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
Protocols supported	Transparent
Termination resistor	typ. 120 $\Omega$ (active, integrated)
Data bits	6 ... 8
Stop bits	1 or 2
Input buffer	4 kByte
Output buffer	1 kByte

### System properties

#### Programming data (LocalbusSlave)

Length code (hex)	07
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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	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
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#### 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
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##### Inline connector

Connection method	Spring-cage connection
Conductor cross-section, rigid	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>

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Conductor cross-section, flexible	0.08 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
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)
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## Mounting

Mounting type	DIN rail mounting
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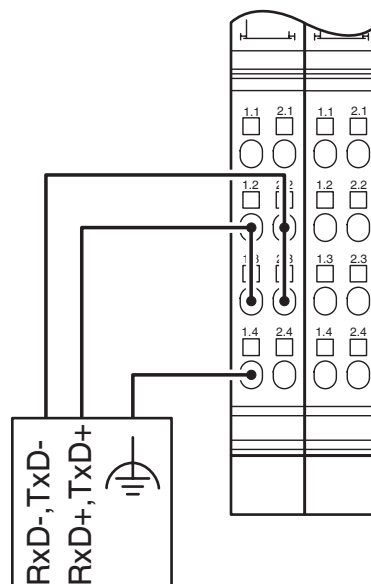
## Drawings

Dimensional drawing



## Dimensions

Connection diagram



Inline terminal as network end point

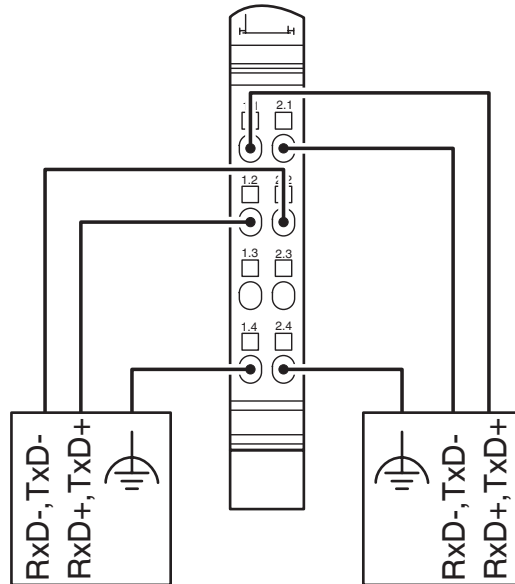
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Connection diagram



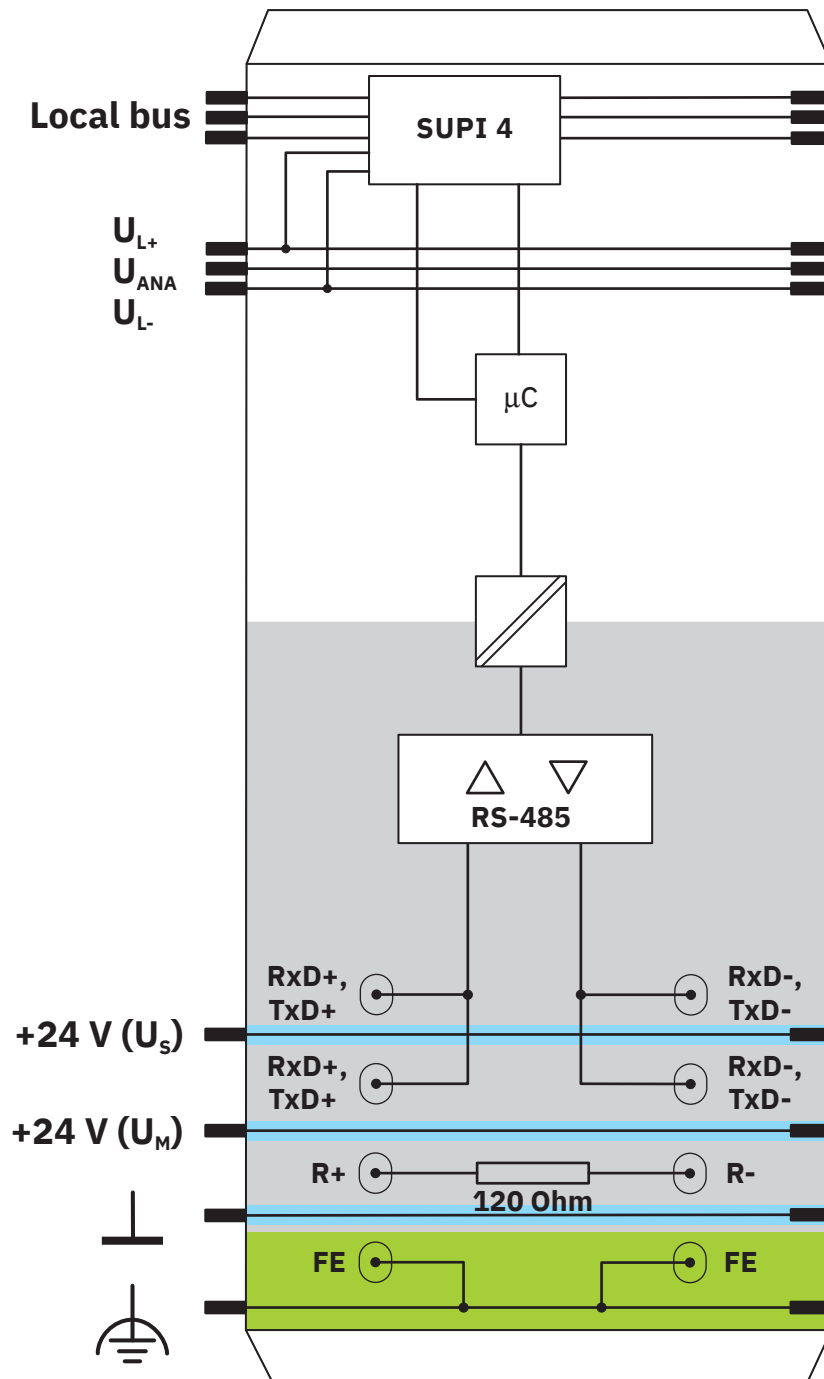
Inline terminal in the network center

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Block diagram



Internal wiring of the terminal points

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## Approvals

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**cULus Listed**

Approval ID: E238705

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## Classifications

### ECLASS

ECLASS-13.0	27242608
ECLASS-15.0	27242608

### ETIM

ETIM 10.0	EC001604
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### UNSPSC

UNSPSC 21.0	32151600
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## 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%
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### EF3.1 Climate Change

CO2e kg	4.221 kg CO2e
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