

2701160

<https://www.phoenixcontact.com/us/products/2701160>

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Inline function terminal, version for extreme conditions, for connecting a CAN bus system, complete with accessories (connector and labeling field)



The figure shows the standard item

Product description

The terminal is designed for use within an Inline station. It can be used to integrate a lower-level CAN bus system into the Inline station and therefore into the bus system used. Within the Inline station, the terminal acts as a CAN master for the lower-level CAN system. Thanks to special engineering measures and tests, the terminal can be used under extreme ambient conditions.

Your advantages

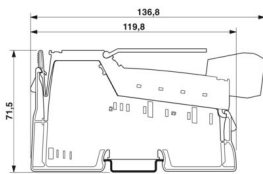
- Protocol: Transparent mode
- Transmission speed of CAN bus: 250 kbps
- Smallest data type: 1 byte
- Maximum data width of 2 x 64 bytes (= 128 bytes = 64 words)
- DIP switches for setting the data width
- Can be used under extreme ambient conditions
- Extended temperature range of -40 °C ... +70 °C (see "Tested successfully: use under extreme ambient conditions" in the data sheet)
- Coated PCBs

Commercial data

Item number	2701160
Packing unit	1 pc
Sales key	DR01
Product key	DRI153
GTIN	4046356713856
Weight per piece (including packing)	108.7 g
Weight per piece (excluding packing)	108.7 g
Customs tariff number	85389091
Country of origin	DE

Technical data

Dimensions

Dimensional drawing	
Width	12.2 mm
Height	136.8 mm
Depth	71.5 mm

Material specifications

Color	green
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Interfaces

Inline local bus

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

CAN bus

Number of interfaces	1
Connection method	Inline shield connector
Transmission speed	250 kbps
Protocols supported	CAN

S-PORT

Number of interfaces	1 (Interface with plugged in memory stick)
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System properties

Local diagnostics

Error messages via the bus	CAN bus voltage faulty
	Bus stop

Module

ID code (dec.)	191
ID code (hex)	BF
Length code (hex)	20
Length code (dec)	32
Process data channel	64 Byte
Input address area	max. 64 Byte

IB IL CAN-MA-XC-PAC - Communication module



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Output address area	max. 64 Byte
Register length	64 Byte
Required parameter data	1 Byte
Required configuration data	5 Byte

Product properties

Product type	I/O component
Product family	Inline
Type	modular
Scope of supply	including Inline connector and labeling field
Operating mode	Process data mode with up to 64 words
Special properties	Extreme conditions version

Electrical properties

Power dissipation	0.9 W (Module)
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Potentials

Power consumption	typ. 1.06 W (Module, complete)
	max. 1.16 W (Module, complete)

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (via voltage jumper)
Current draw	max. 115 mA
	typ. 110 mA

Potentials: Main circuit supply (U_M)

Supply voltage	24 V DC (via voltage jumper)
Current draw	max. 12 mA
	typ. 10 mA

Electrical isolation/isolation of the voltage ranges

Test voltage: 24 V supply U_M , bus, logic/CAN interface	500 V AC, 50 Hz, 1 min
Test voltage: 24 V supply U_M , bus, logic/functional ground	500 V AC, 50 Hz, 1 min
Test voltage: CAN interface/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 ² ... 1.5 mm ²
Conductor cross-section, flexible	0.08 mm ² ... 1.5 mm ²
Conductor cross-section AWG	28 ... 16
Stripping length	8 mm

Environmental and real-life conditions

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.)
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)

Standards and regulations

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

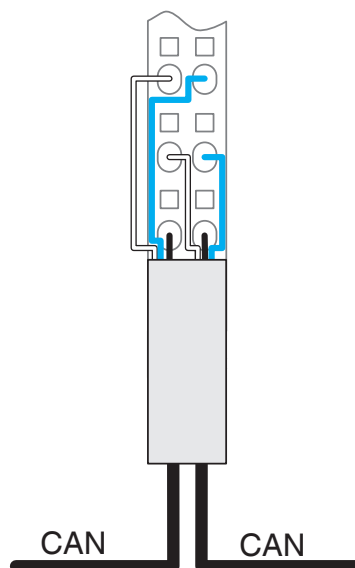
Mounting type	DIN rail mounting
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Drawings

Dimensional drawing

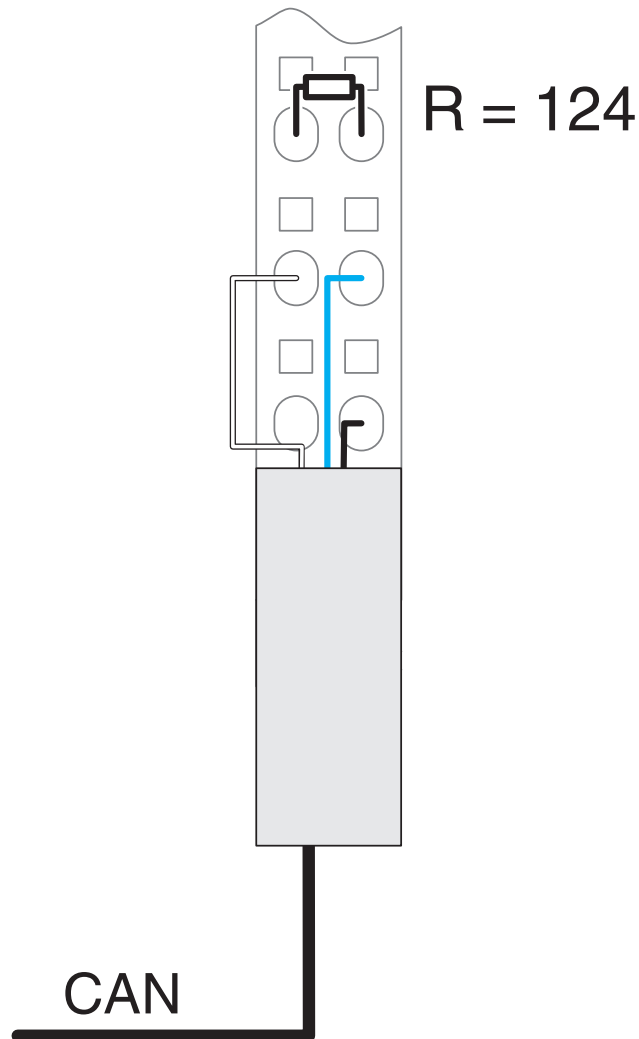


Connection diagram



CAN master in the center of a CAN bus when using the original connector

Connection diagram



CAN master at the end of a CAN bus
(R = 124 Ω termination resistor)

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Classifications

UNSPSC

UNSPSC 21.0	32151600
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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-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
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