PSI-SC-DNET CAN - Segment coupler

2313449

https://www.phoenixcontact.com/us/products/2313449

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Modular segment coupler for electrical isolation and increasing the range for DeviceNet/SDS/CANopen, data rate of up to 1 Mbps. Different data rates at the interfaces can be configured via software. High-quality electrical isolation between the interfaces, DIN-rail mountable, 24 V DC supply.

Your advantages

- Data rates of up to 1 Mbps
- All connections can be plugged in using a COMBICON screw terminal block
- Can be combined with PSI-MOS FO converters in a modular way thanks to DIN rail connectors
- Approved for use in zone 2
- High-quality 4-way isolation between all interfaces

Commercial data

Item number	2313449
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DN05
Product key	DNC133
GTIN	4046356451857
Weight per piece (including packing)	234.7 g
Weight per piece (excluding packing)	234.7 g
Customs tariff number	85176200
Country of origin	DE

Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area

Product properties

Product type	Interface converter
MTTF	949 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	443 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	181 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)
MTBF	743 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	163 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))

Electrical properties

Electrical isolation	in accordance with EN 60950
	VCC // CAN A // CAN B
Maximum power dissipation for nominal condition	1.32 W
Test voltage data interface/power supply	1.5 kV_{rms} (50 Hz, 1 min.)

Supply

Supply voltage range	10 V DC ... 30 V DC (via pluggable COMBICON screw terminal block)
Nominal supply voltage	24 V DC
Typical current consumption	55 mA (24 V DC)
Max. current consumption	80 mA
	≤ 2 A (For operation in a joining station, via the DIN rail connector)

Function

Status and diagnostic indicators	LEDs: VCC (supply voltage), NET A (Mod/Net status port A), NET B (Mod/Net status port B), ACT (activity/data traffic)

Output data

Switching

Output name	Relay output
Number of outputs	1
Contact switching type	N/O contact
Minimum switching voltage	10 V DC
Maximum switching voltage	30 V DC

Limiting continuous current	500 mA

Connection data

Supply

Tightening torque	0.56 Nm ... 0.79 Nm

Interfaces

Bit distortion, input	± 35 %
Bit distortion, output	< 6.25 %
Signal	CAN
	CANopen®
	DeviceNet™

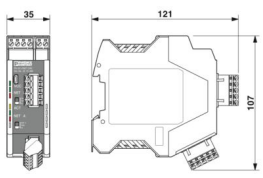
Data: CAN interface, in accordance with ISO/IS 11898 for DeviceNet™, CAN, CANopen®

Serial transmission speed	≤ 1000 kbps
Connection method	COMBICON plug-in screw terminal block
No. of channels	2 (CAN_High / CAN_Low)
Transmission length	≤ 5000 m (Dependent on the data rate and the protocol used)
Termination resistor	124 Ω, integrated and can be connected
	Integrated and ready to be switched
Conductor cross-section flexible max.	2.5 mm²
Conductor cross-section flexible min.	0.2 mm²
Conductor cross-section, rigid max.	2.5 mm²
Conductor cross-section, rigid min.	0.2 mm²
Conductor cross-section AWG max.	14
Conductor cross-section AWG min.	24
Transmission medium	2-wire twisted pair, shielded
File format/coding	Bit stuffing, NRZ

Data: CAN interface, in accordance with ISO/IS 11898 for DeviceNet™, CAN, CANopen®

Serial transmission speed	≤ 1000 kbps
Connection method	COMBICON plug-in screw terminal block
Transmission length	≤ 5000 m (Dependent on the data rate and the protocol used)
Termination resistor	124 Ω, integrated and can be connected

Dimensions

Dimensional drawing	
Width	35 mm
Height	111 mm
Depth	121 mm

Material specifications

Color	green
Material (Housing)	PA 6.6-FR

Mechanical tests

Free fall in accordance with IEC 60068-2-32	Free fall: 1 m
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	Vibration (operation): 5g, 10...150 Hz, 2.5 h, in XYZ direction
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	Shock (operation): 15g, 11 ms period, half-sine shock pulse

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	30 % ... 95 % (non-condensing)

Approvals

CE

Certificate	CE-compliant

ATEX

Identification	Ⓔx II 3 G Ex nA IIC T4 Gc X
Note	Please follow the special installation instructions in the documentation!

UL, USA/Canada

Identification	508 Listed

Shipbuilding

Identification	DNV GL

Shipbuilding data

Temperature	B
Humidity	A
Vibration	A
EMC	B
Enclosure	Required protection according to the Rules shall be provided upon installation on board

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise immunity	EN 61000-6-2

Noise emission

Standards/regulations	EN 55011

Electrostatic discharge

Standards/regulations	EN 61000-4-2

Electrostatic discharge

Contact discharge	± 6 kV
Discharge in air	± 8 kV
Comments	Criterion B

Electromagnetic HF field

Standards/regulations	EN 61000-4-3

Electromagnetic HF field

Frequency range	80 MHz ... 3 GHz
Field intensity	10 V/m
Comments	Criterion A

Fast transients (burst)

Standards/regulations	EN 61000-4-4

Fast transients (burst)

Input	± 2 kV
Signal	± 2 kV
Comments	Criterion B

Surge current load (surge)

Standards/regulations	EN 61000-4-5

Surge current load (surge)

Input	± 0.5 kV
Signal	± 1 kV
Comments	Criterion B

Conducted interference

Standards/regulations	EN 61000-4-6

Conducted interference

Comments	Criterion A
Voltage	10 V

Emitted interference

Standards/regulations	EN 55011
Comments	Class A, industrial applications

Standards and regulations

Free from substances that could impair the application of coating	in accordance with VW-AUDI-Seat central standard P-VW 3.10.7 57 65 0
Electrical isolation	in accordance with EN 60950

Air clearances and creepage distances

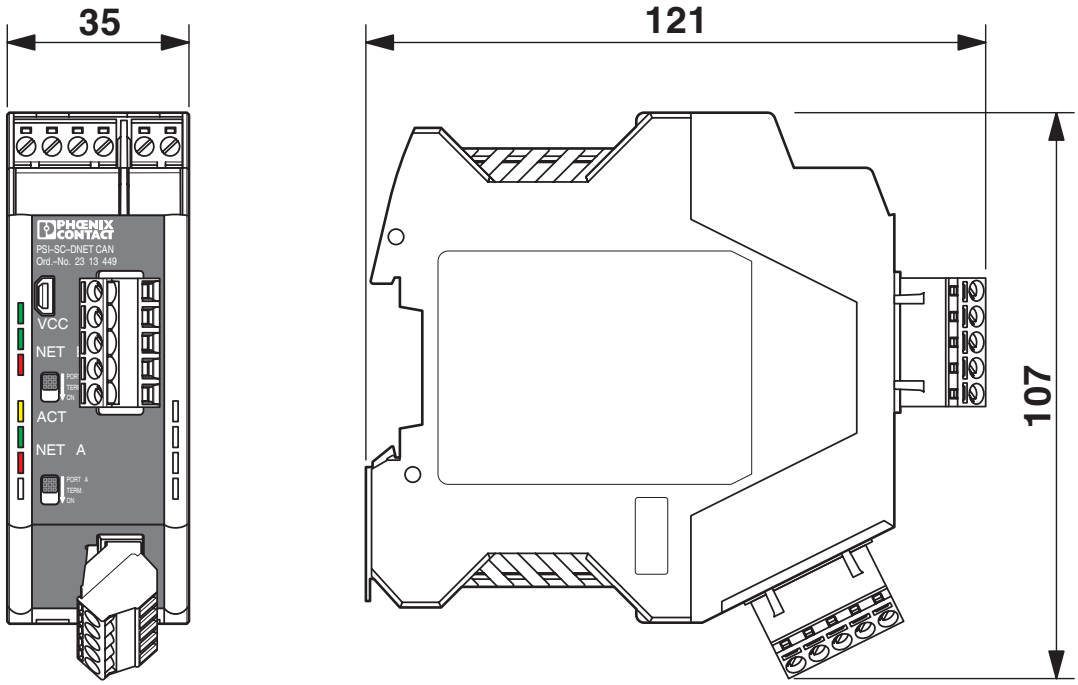
Standards/regulations	DIN EN 50178, DIN EN 60950

Mounting

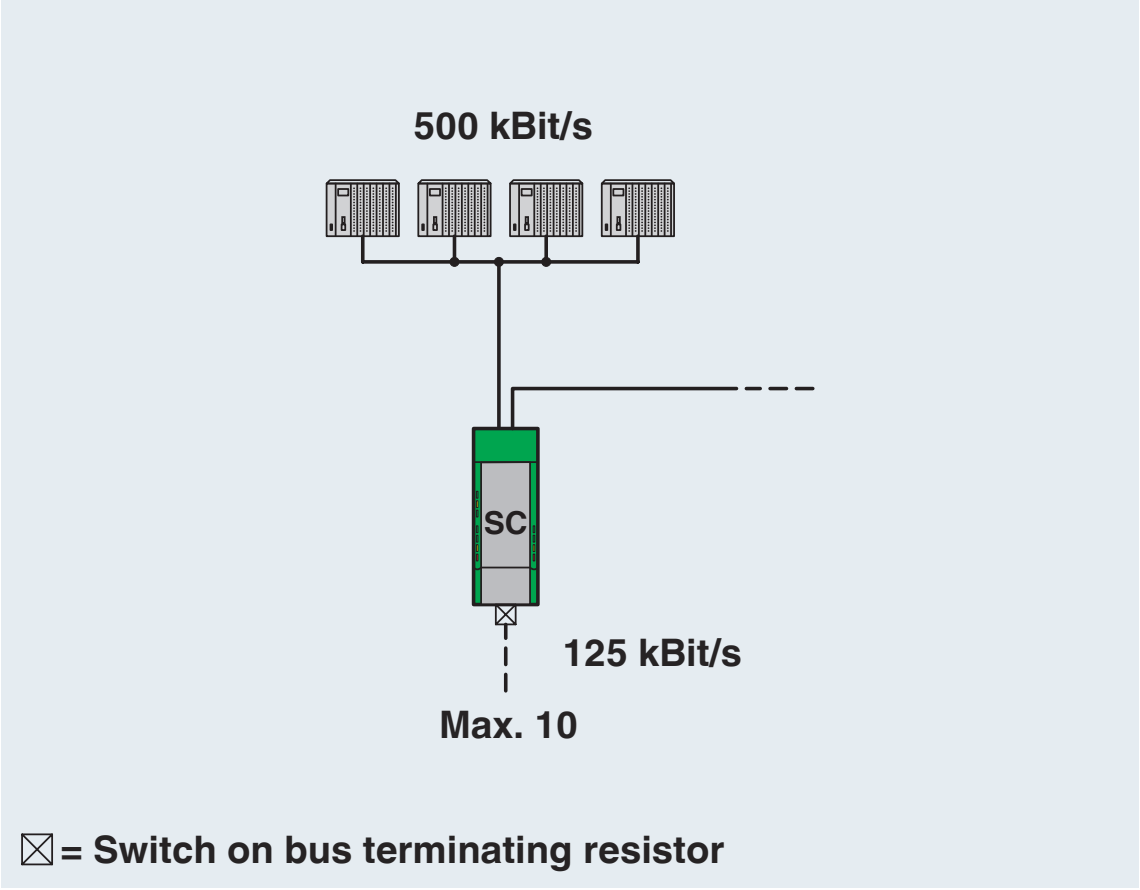
Mounting type	DIN rail mounting

Drawings

Dimensional drawing



Application drawing



Environmental product compliance

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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