

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

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Technical data

Notes

Utilization restriction

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

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Limiting continuous current	500 mA
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Connection data

Supply

Tightening torque	0.56 Nm ... 0.79 Nm
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Interfaces

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

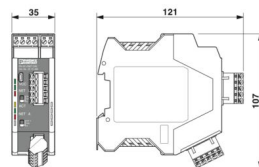
Data: CAN interface, in accordance with ISO/IS 11898 for DeviceNet™, CAN, CANopen®

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

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Material specifications

Color	green
Material (Housing)	PA 6.6-FR

Mechanical tests

Free fall in accordance with IEC 60068-2-32	: 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
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ATEX

Identification	Ex 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
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Shipbuilding

Identification	DNV GL
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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
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Electrostatic discharge

Standards/regulations	EN 61000-4-2
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Electrostatic discharge

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

Electromagnetic HF field

Standards/regulations	EN 61000-4-3
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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
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Fast transients (burst)

Input	± 2 kV
Signal	± 2 kV
Comments	Criterion B

Surge current load (surge)

Standards/regulations	EN 61000-4-5
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Surge current load (surge)

Input	± 0.5 kV
Signal	± 1 kV
Comments	Criterion B

Conducted interference

Standards/regulations	EN 61000-4-6
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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

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Standards/regulations	DIN EN 50178, DIN EN 60950
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Mounting

Mounting type	DIN rail mounting
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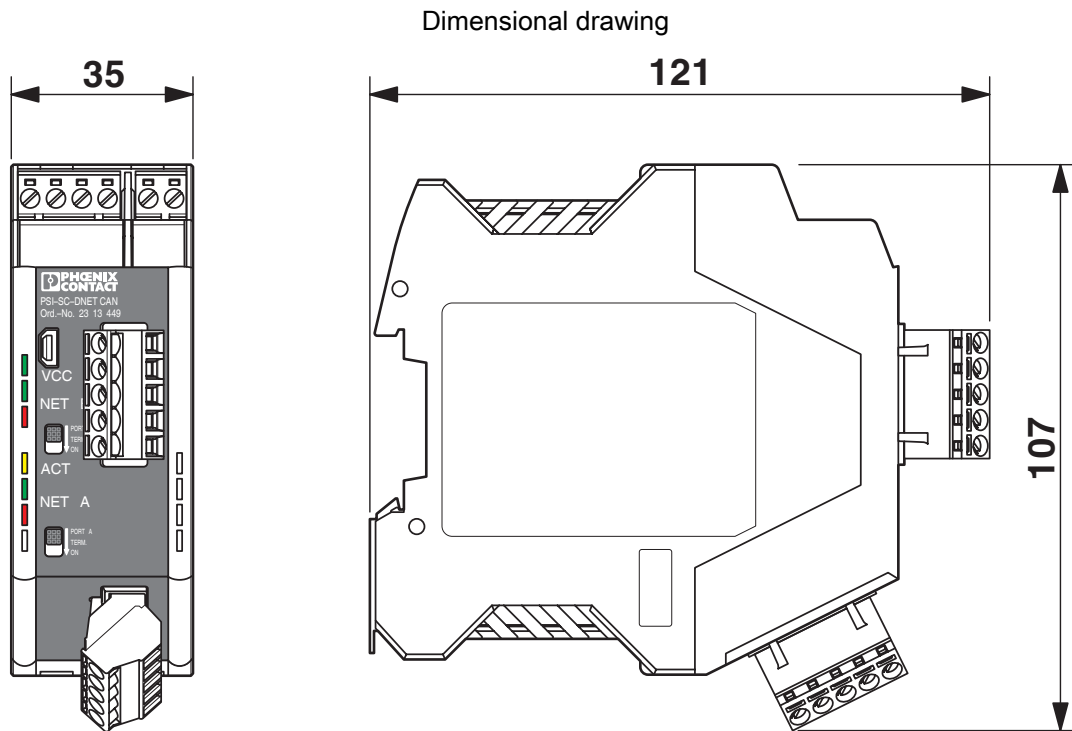
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Drawings



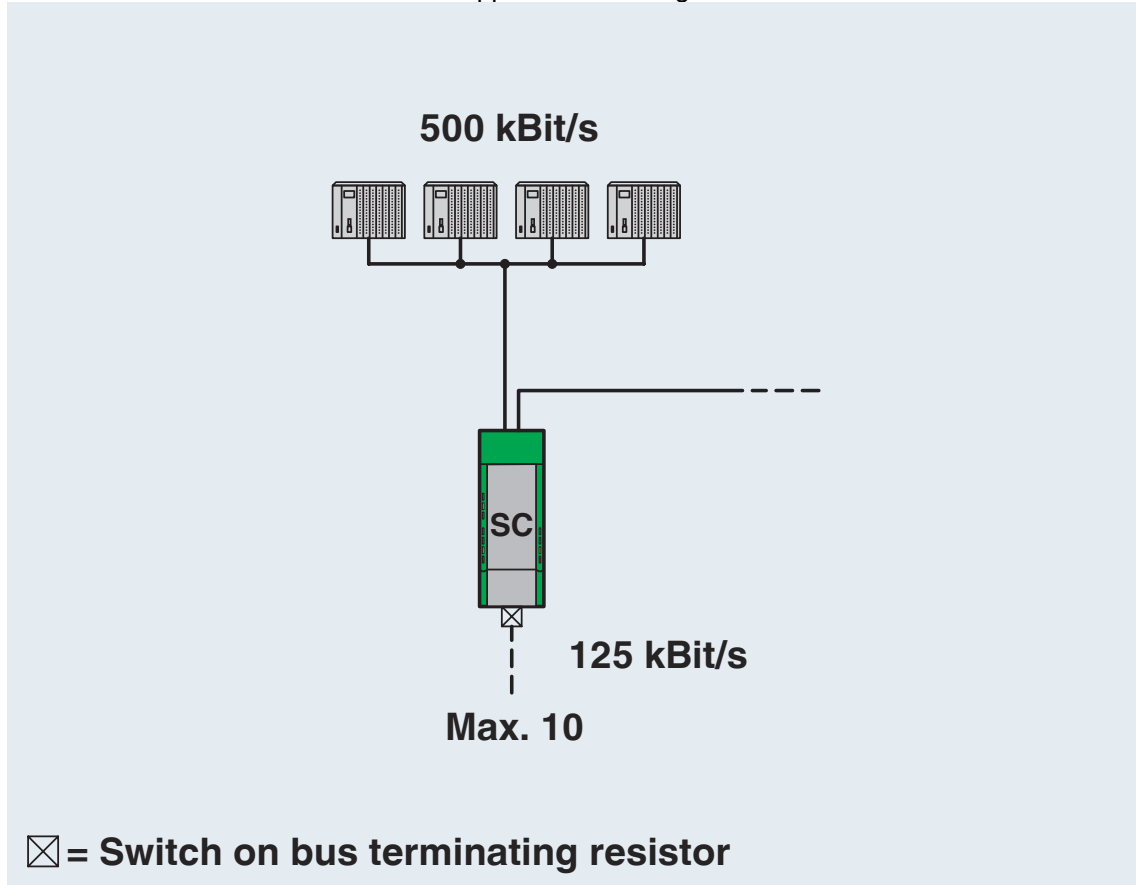
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Application drawing



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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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