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Repeater, for potential isolation and increasing the range in RS-485 2-wire LON bus systems, 3-way isolation, rail-mountable





Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	200.0 g
Custom tariff number	85176200
Country of origin	Germany

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download
Othization restriction	area

Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-40 °C 70 °C
Ambient temperature (storage/transport)	-40 °C 85 °C
Permissible humidity (operation)	10 % 95 % (non-condensing)
Altitude	5000 m (For restrictions see manufacturer's declaration)
Degree of protection	IP20
Noise immunity	EN 61000-6-2:2005

General



Technical data

General

Transmission channels	2 (1/1), RxD, TxD, full duplex
Bit distortion	< 1.5 % (applies to device: Distortions caused by system-specific cables are not accounted for)
Electrical isolation	VCC // RS-485 (A) // RS-485 (B)
Test voltage data interfaces	2 kV AC
Test voltage data interface/power supply	2 kV AC
	2 kV
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 50 081-1
Net weight	188.8 g
Housing material	PA
Color	green
MTTF	1808 Years (SN 29500 standard, temperature 25°C, operating cycle 21 % (5 days a week, 8 hours a day))
	796 Years (SN 29500 standard, temperature 40 °C, operating cycle 34.25 % (5 days a week, 12 hours a day))
	334 Years (SN 29500 standard, temperature 40°C, operating cycle 100 % (7 days a week, 24 hours a day))
Conformance	CE-compliant
UL, USA / Canada	508 recognized
	Class I, Div. 2, Groups A, B, C, D
	Class I, Zone 2, AEx nA IIC T4
	Class I, Zone 2, Ex nA IIC T4 Gc X

Power supply

Nominal supply voltage	24 V AC/DC ±20 %
Typical current consumption	90 mA (24 V DC)

Serial interface

Interface 1	RS-485 interface in acc. with EIA/TIA-485, DIN 66259-4
Operating mode	Semi-duplex
Connection method	Pluggable screw connection
File format/coding	Manchester, slip-tolerant
Data direction switching	Automatic control
Transmission medium	2-wire twisted pair, shielded
Transmission length	≤ 1200 m (depends on transmission speed, bus system and cable type)
Termination resistor	120 Ω
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24



Technical data

Serial interface

Conductor cross section AWG max.	14
Serial transmission speed	39.1/ 78.1/ 500/ 625/ 1000/ 1250/ 2000 kbps
Interface 2	RS-485 interface in acc. with EIA/TIA-485, DIN 66259-4
Operating mode	Semi-duplex
Connection method	Pluggable screw connection
File format/coding	Manchester, slip-tolerant
Data direction switching	Automatic control
Transmission medium	2-wire twisted pair, shielded
Transmission length	≤ 1200 m (depends on transmission speed, bus system and cable type)
Termination resistor	120 Ω
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Serial transmission speed	39.1/ 78.1/ 500/ 625/ 1000/ 1250/ 2000 kbps

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 50 081-1
Noise immunity	EN 61000-6-2:2005
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-6
Conformance	CE-compliant
UL, USA / Canada	508 recognized
	Class I, Div. 2, Groups A, B, C, D
	Class I, Zone 2, AEx nA IIC T4
	Class I, Zone 2, Ex nA IIC T4 Gc X

Classifications

eCl@ss

eCl@ss 4.0	27250312
eCl@ss 4.1	27250312
eCl@ss 5.0	27242208
eCl@ss 5.1	27242208
eCl@ss 6.0	27242208



Classifications

eCl@ss

eCl@ss 7.0	27242208
eCl@ss 8.0	19179290

ETIM

ETIM 2.0	EC000698
ETIM 3.0	EC000698
ETIM 4.0	EC000698
ETIM 5.0	EC000310

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	43201553

Approvals

Approvals

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UL Recognized / cUL Recognized / EAC / UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

UL Listed / cUL Listed / cUL Recognized / cUL Recognized / UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

UL Recognized **5**



Approvals

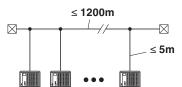
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Drawings

Schematic diagram

DIP switches

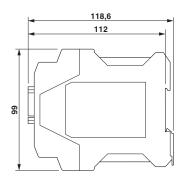
Application drawing

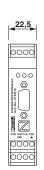


Cable lengths according to the RS-485 standard

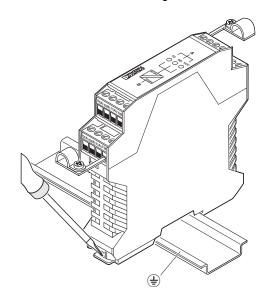


Dimensional drawing

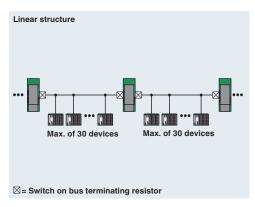




Schematic diagram



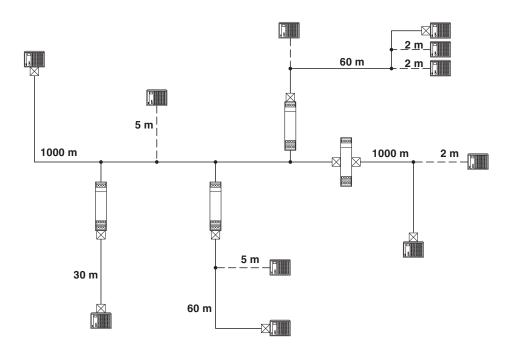
Application drawing



Line structure

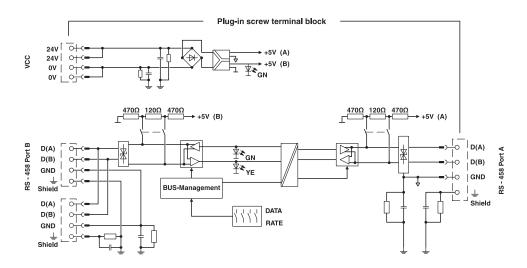


Application drawing



Cable lengths

Circuit diagram





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