

Repeater - PSM-ME-REP LON485-P - 2708041

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




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

Why buy this product

- Integrated surge protection with transient discharge to the DIN rail
- Space-saving slim 22.5 mm device
- High-quality 3-way isolation between all interfaces
- Integrated, connectable termination resistors
- All connections can be plugged in using a COMBICON screw terminal block



Key Commercial Data

Packing unit	1 STK
GTIN	 4 017918 907570
GTIN	4017918907570

Technical data

Note

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

Dimensions

Caption	Slim design
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)

Repeater - PSM-ME-REP LON485-P - 2708041

Technical data

Ambient conditions

Altitude	5000 m (For restrictions see manufacturer's declaration)
Degree of protection	IP20
Noise immunity	EN 61000-6-2:2005

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 2014/30/EU
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))
Degree of pollution	2
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc (Please follow the special installation instructions in the documentation!)
IECEX	Ex nA IIC T4 Gc
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 %
Max. current consumption	100 mA
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

Repeater - PSM-ME-REP LON485-P - 2708041

Technical data

Serial interface

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
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 2014/30/EU
Noise emission	EN 50 081-1
Noise immunity	EN 61000-6-2:2005
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-2
Contact discharge	± 6 kV (Test Level 3)
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 3 GHz (Test Level 3)
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-4-5
Signal	± 2 kV
Standards/regulations	EN 55011
	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc
IECEX	Ex nA IIC T4 Gc

Repeater - PSM-ME-REP LON485-P - 2708041

Technical data

Standards and Regulations

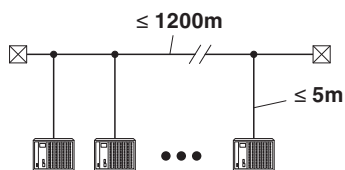
UL, USA/Canada	508 recognized
	Class I, Div. 2, Groups A, B, C, D
	Class I, Zone 2, AEx nA IIC T4
	Class I, Zone 2, Ex nA IIC T4 Gc X
Noxious gas test	ISA-S71.04-1985 G3 Harsh Group A

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

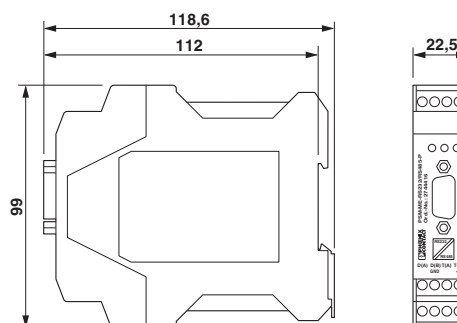
Drawings

Application drawing



Cable lengths according to the RS-485 standard

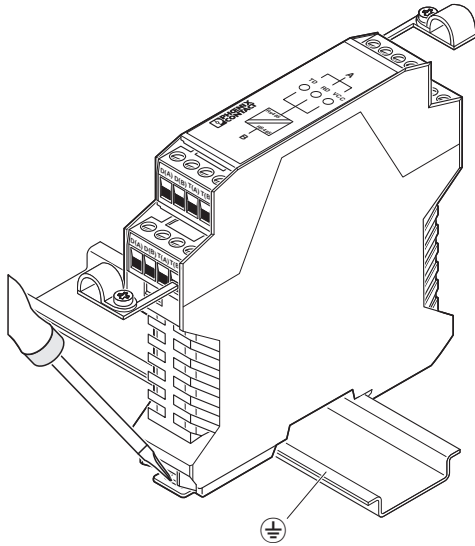
Dimensional drawing



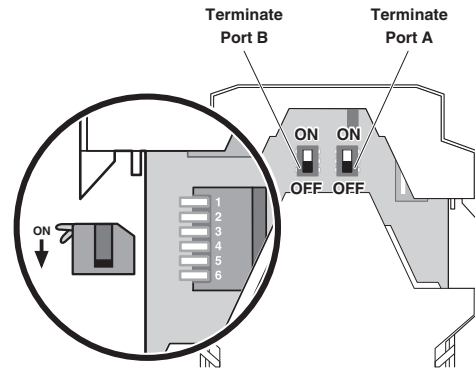
Slim design

Repeater - PSM-ME-REP LON485-P - 2708041

Schematic diagram



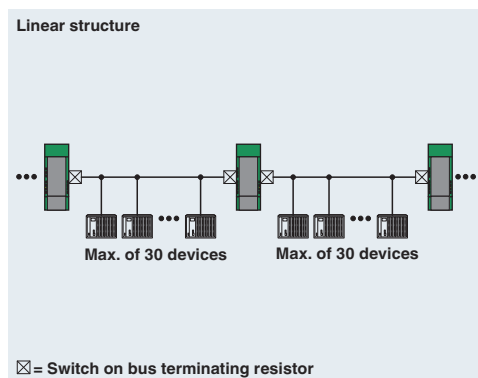
Schematic diagram



DIP switches

Removal

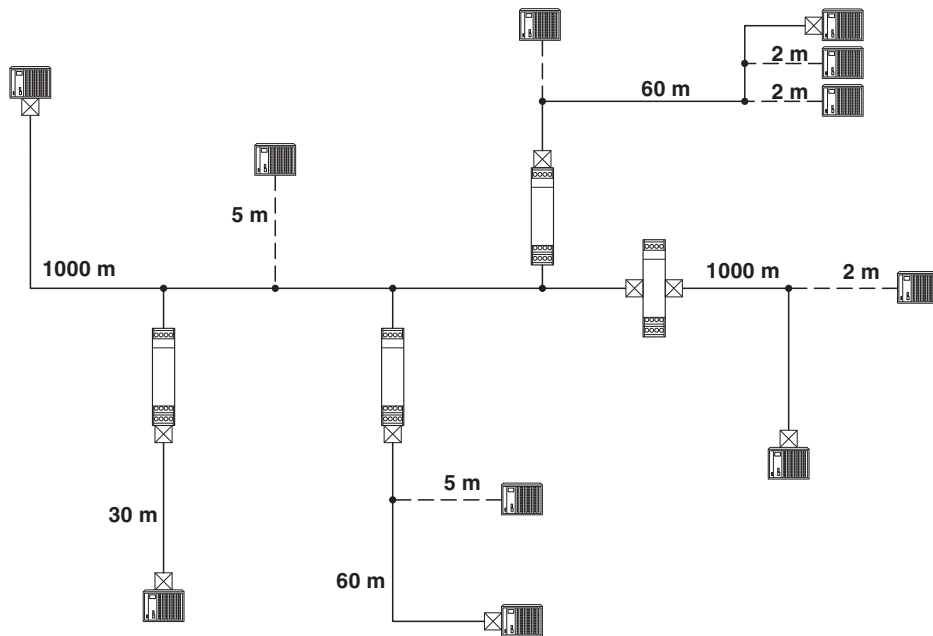
Application drawing



Line structure

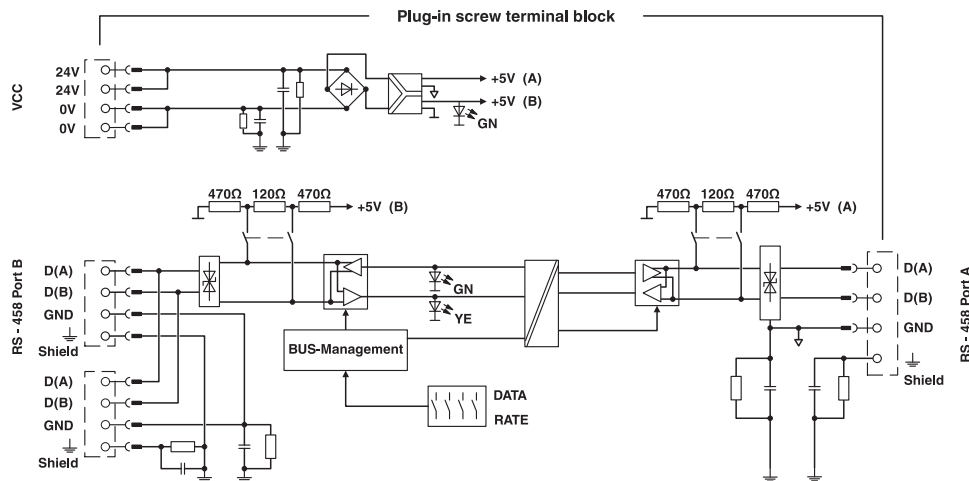
Repeater - PSM-ME-REP LON485-P - 2708041

Application drawing



Cable lengths

Circuit diagram



Approvals

Approvals

Repeater - PSM-ME-REP LON485-P - 2708041

Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

UL Listed / cUL Listed / cUL Recognized / UL Listed / IECEx / ATEX / cULus Listed

Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
EAC			RU *- DE.A*30.B.01735
cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	

Phoenix Contact 2018 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>