

Communication module - RAD-RS485-IFS - 2702184

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Radioline - RS-485 multipoint multiplexer, can be extended with I/O modules, can be used as Modbus/RTU bus coupler or can be combined with Radioline wireless system, up to 99 stations, range of up to 1.2 km on in-house copper cables

Your advantages

- Multipoint multiplexer for I/O signals
- Up to 99 bus stations in the network
- Quick and easy startup without programming
- Can be combined with Radioline wireless modules
- Modular extension with up to 32 I/O extension modules supported
- Extended temperature range, -40 °C ... +70 °C
- Approved for use in zone 2



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 007373
GTIN	4055626007373
Weight per Piece (excluding packing)	200.000 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 area
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Dimensions

Width	17.5 mm
Height	113 mm
Depth	114.5 mm

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Technical data

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C (>55°C derating)
	-40 °F ... 158 °F (>131°F derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
	-40 °F ... 185 °F
Permissible humidity (operation)	20 % ... 85 %
Permissible humidity (storage/transport)	20 % ... 85 %
Altitude	2000 m
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz
Shock	16g, 11 ms

General

Set consists of	2709561 ME 17,5 TBUS 1,5/ 5-ST-3,81 GN
Operating mode	I/O data (Default setting, configuration via thumbwheel)
	Modbus/RTU slave (Default setting, configuration via thumbwheel)
Overvoltage category	II
Assembly instructions	on standard DIN rail NS 35 in accordance with EN 60715
Degree of pollution	2
Housing material	PA 6.6-FR
Flammability rating according to UL 94	V0
MTTF	1233 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	514 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
	212 Years (Telcordia standard, temperature 40 °C, operating cycle 100 % (7 days a week, 24 hours a day))

Supply

Supply voltage range	19.2 V DC ... 30.5 V DC
Max. current consumption	≤ 65 mA (at 24 V DC, at 25 °C, stand-alone)
	≤ 6 A (at 24 V DC, with DIN rail connector at full capacity)
Transient surge protection	Yes

Serial interface

Interface 1	RS-485
Connection method	COMBICON plug-in screw terminal block
Connection technology	2-wire
Transmission length	≤ 1200 m
Termination resistor	390 Ω (switchable via DIP switches)
	150 Ω (switchable via DIP switches)
	390 Ω (switchable via DIP switches)
Data rate	300 bps / 600 bps / 1.2 kbps / 2.4 kbps / 4.8 kbps / 9.6 kbps / 19.2 kbps / 38.4 kbps / 57.6 kbps / 93.75 kbps / 115.2 kbps (Default setting: 19.2/E/1)

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Serial interface

Interface 2	Configuration interface
Connection method	S-PORT (socket)

RF link relay output

Number of outputs	1
Contact type	PDT
Contact material	PdRu, gold-plated
Maximum switching voltage	30 V AC/DC
	60 V DC
Max. switching current	500 mA (30 V AC/DC)
Electrical service life	5x 10 ⁵ switching cycles with 0.5 A at 30 V DC

Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
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
Stripping length	7 mm
Tightening torque	0.6 Nm
Screw thread	M3

Status indicator

Status display	Green LED (supply voltage, PWR)
	Green LED (bus communication, DAT)
	Red LED (periphery error, ERR)
	Green LED (receive data, RX)
	Green LED (transmit data, TX)

Conformance/approvals

Designation	CE
Identification	CE-compliant
Designation	ATEX
Identification	# II 3 G Ex nA nC IIC T4 Gc
Certificate	IBExU 15 ATEX B008 X
Additional text	Please follow the special installation instructions in the documentation!
Designation	IECEX
Identification	Ex nA nC IIC T4 Gc
Certificate	IECEX IBE 13.0019X
Designation	UL, USA/Canada
Identification	508 Listed

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Conformance/approvals

	Class I, Div. 2, Groups A, B, C, D T4A
	Class I, Zone 2, IIC T4
Designation	Corrosive gas test
Identification	ISA-S71.04-1985 G3 Harsh Group A

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Flammability rating according to UL 94	V0
Shock	16g, 11 ms
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz

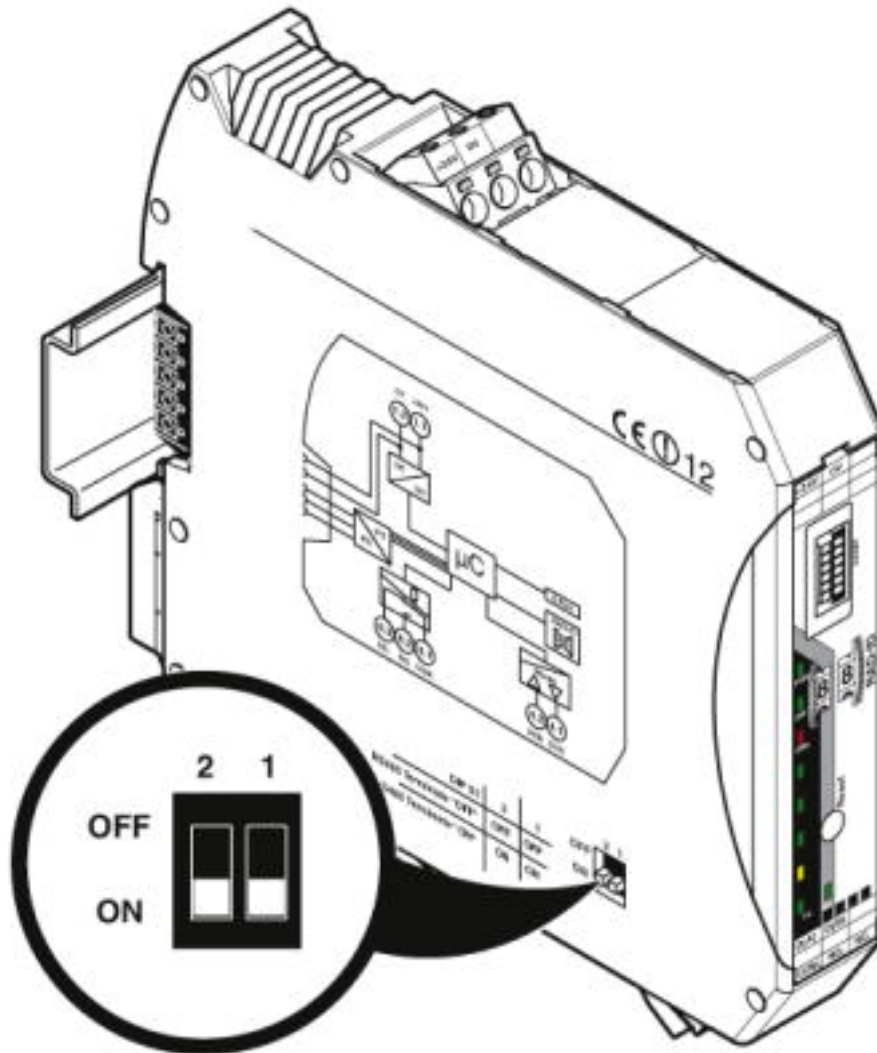
Environmental Product Compliance

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

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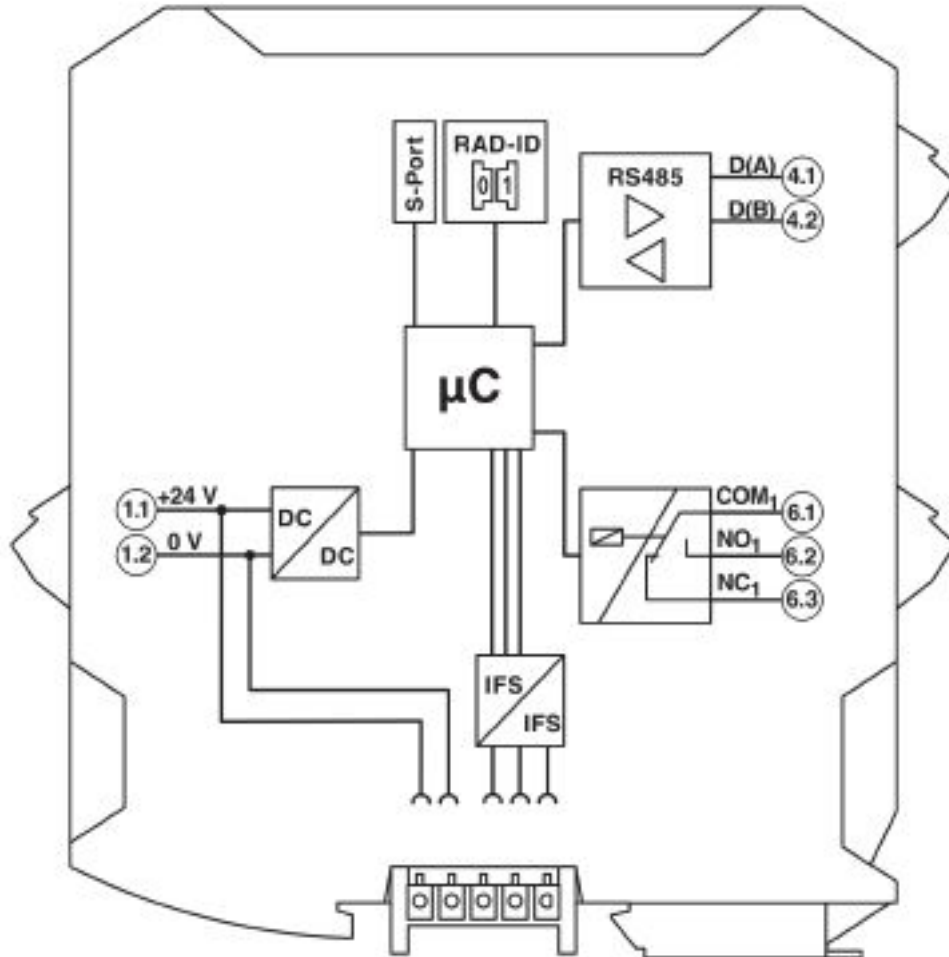
Schematic diagram



DIP switches

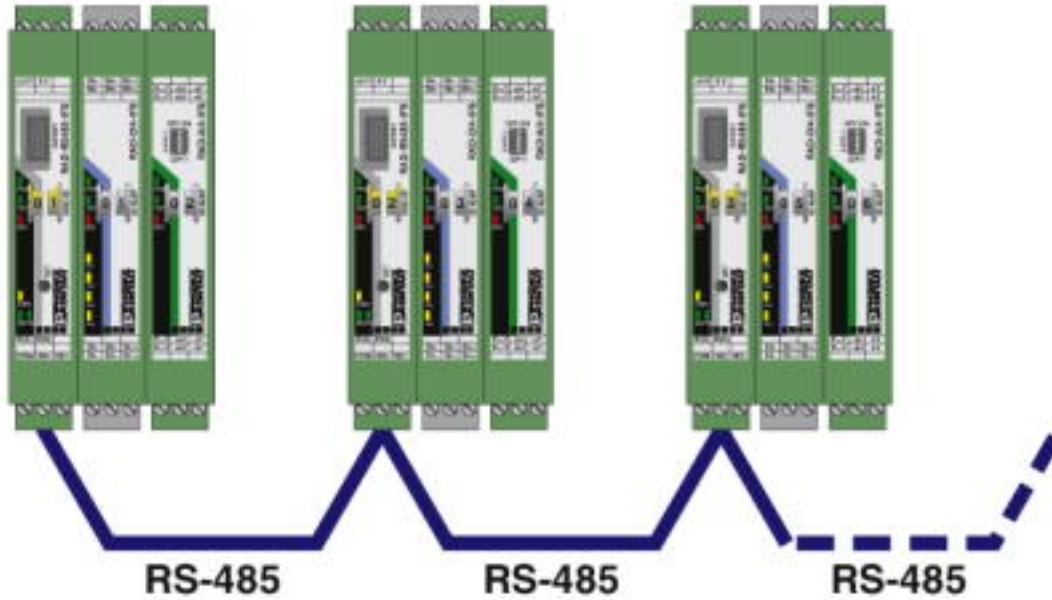
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Circuit diagram



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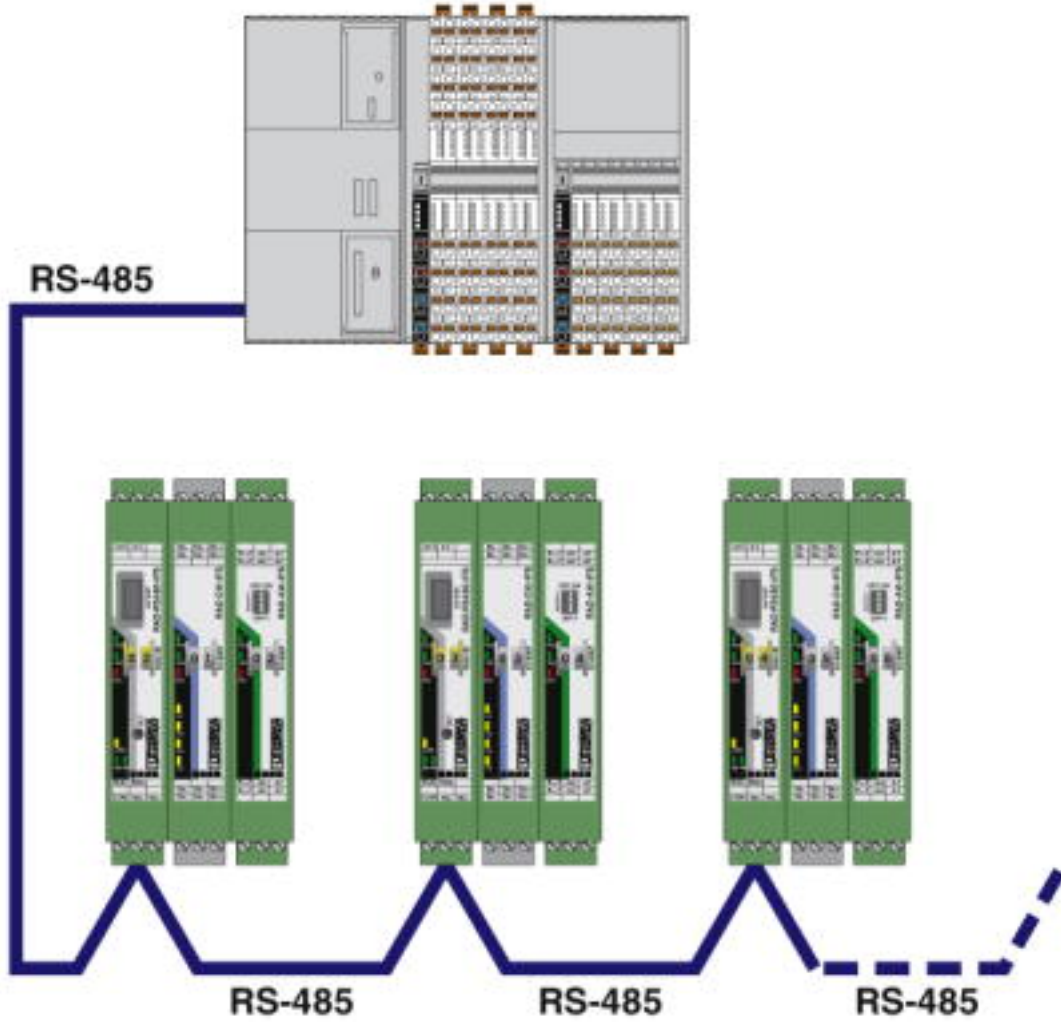
Functional drawing



I/O-to-I/O, only RS-485

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Functional drawing



Modbus/RTU slave

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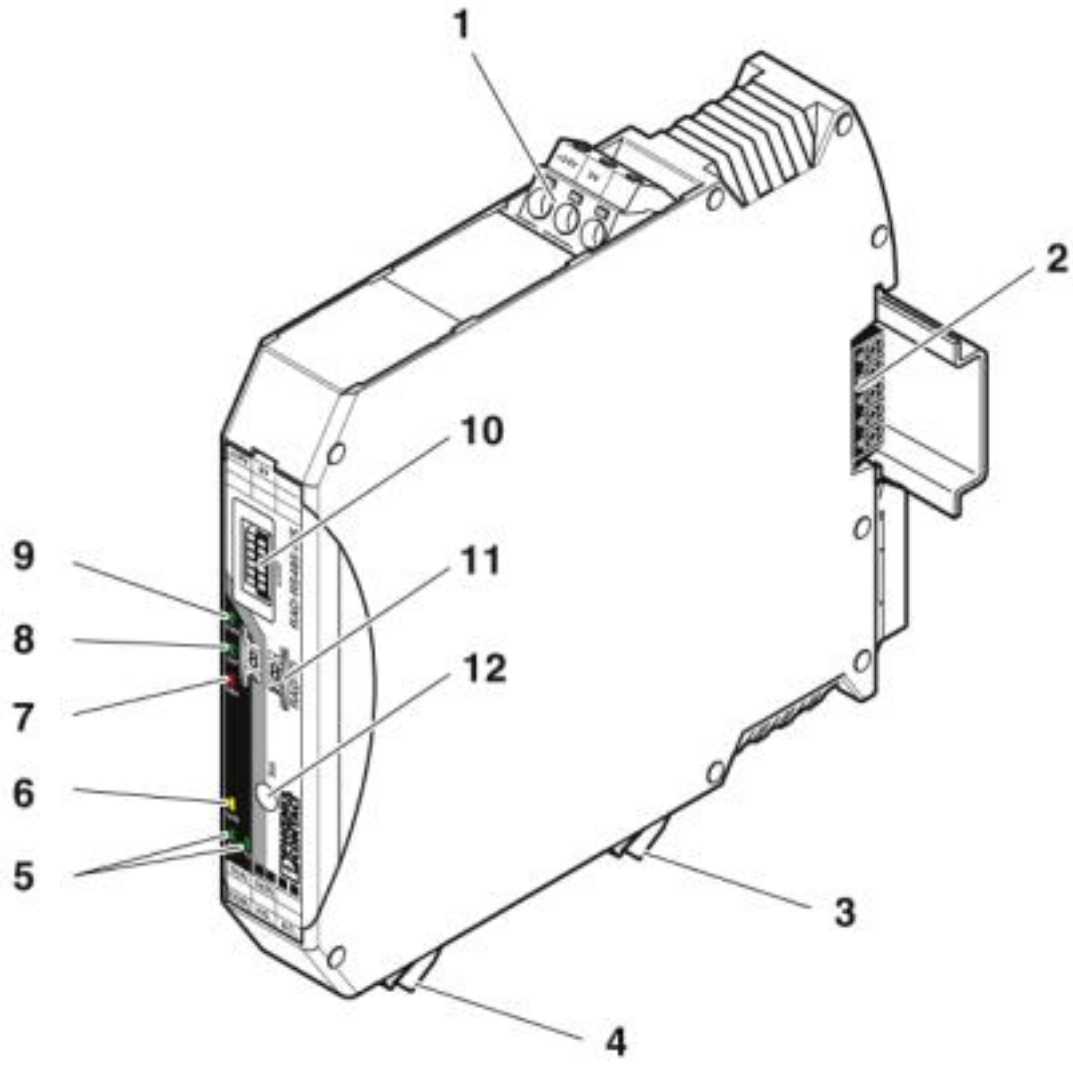
Functional drawing



Radioline connection station with up to 32 I/O extension modules

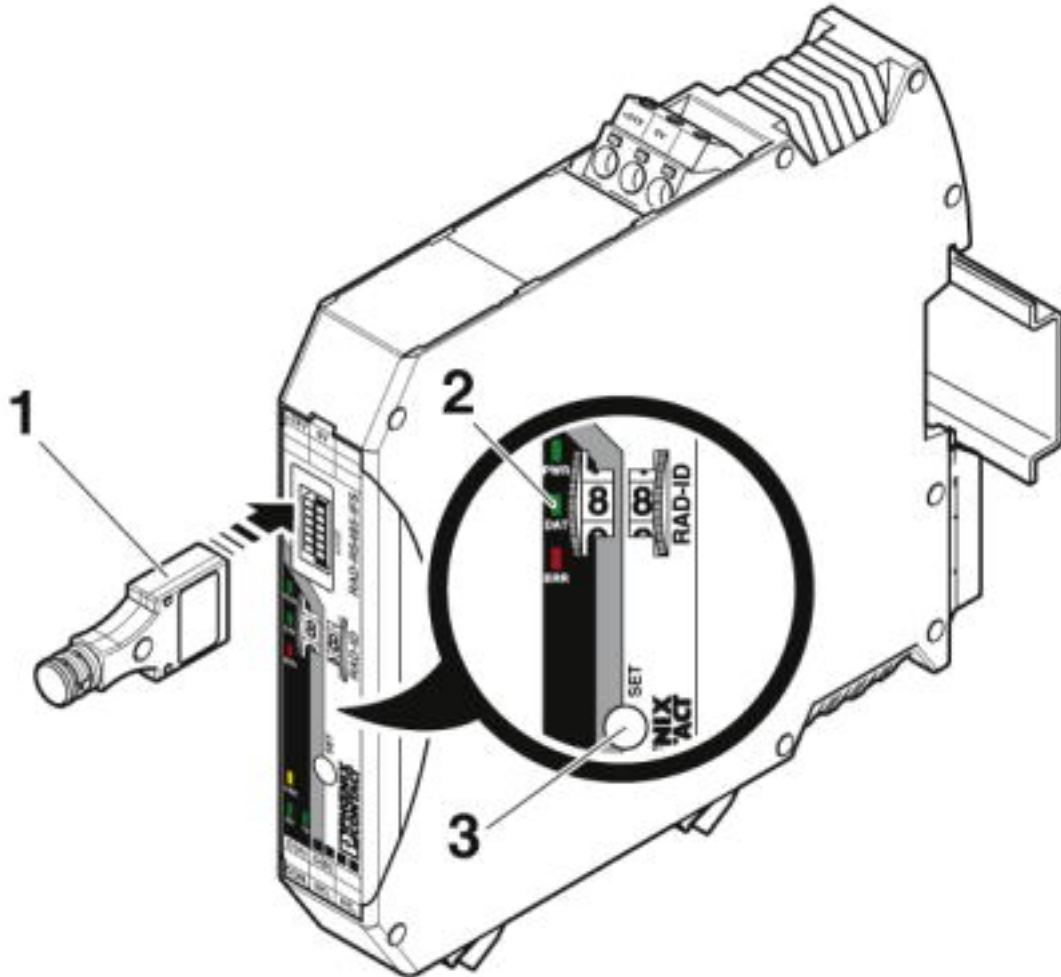
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Schematic diagram



Communication module - RAD-RS485-IFS - 2702184

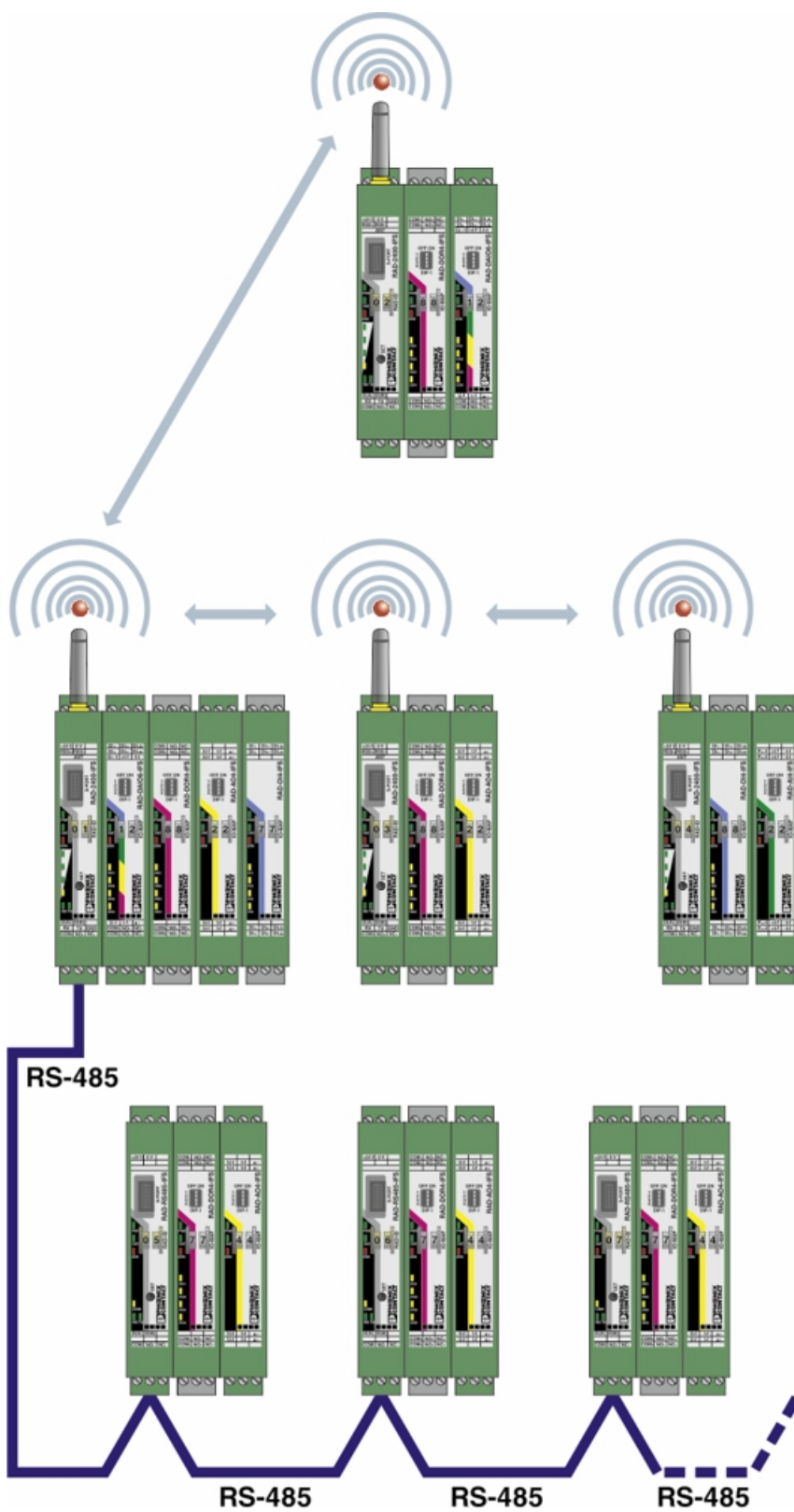
Schematic diagram



Configuration with memory stick

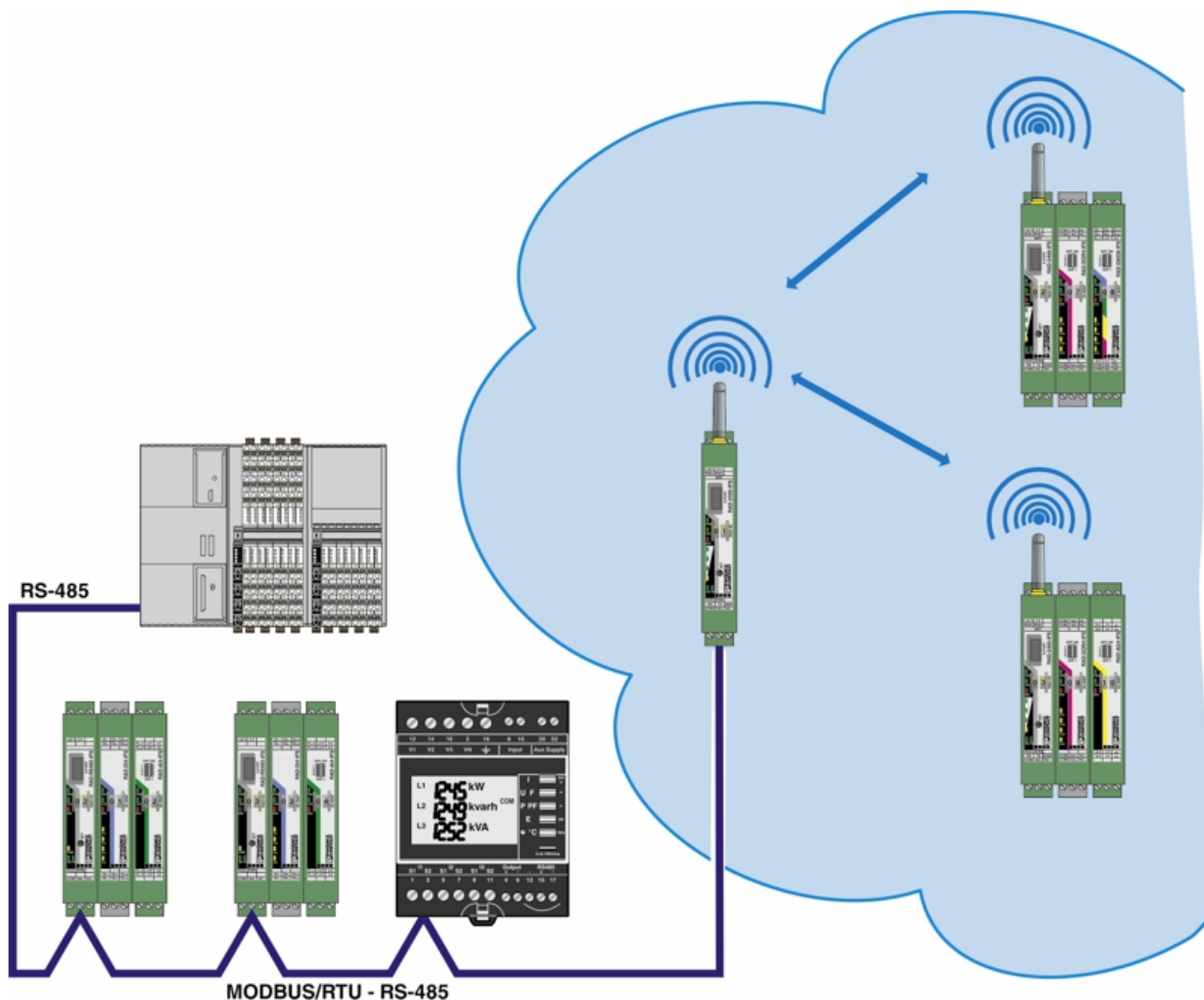
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Functional drawing



Communication module - RAD-RS485-IFS - 2702184

Functional drawing



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Articles in set

DIN rail bus connectors - ME 17,5 TBUS 1,5/ 5-ST-3,81 GN - 2709561



DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

Classifications

eCl@ss

eCl@ss 10.0.1	19179290
eCl@ss 5.0	27242200
eCl@ss 5.1	27242200
eCl@ss 6.0	19179200
eCl@ss 7.0	19179290
eCl@ss 8.0	19179290
eCl@ss 9.0	19179290

ETIM

ETIM 5.0	EC000310
ETIM 6.0	EC000310
ETIM 7.0	EC000310

UNSPSC

UNSPSC 13.2	43222604
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Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

IECEEx / ATEX / UL Listed / cUL Listed / cULus Listed


Approval details

UL Listed		http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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Approvals

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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cULus Listed			
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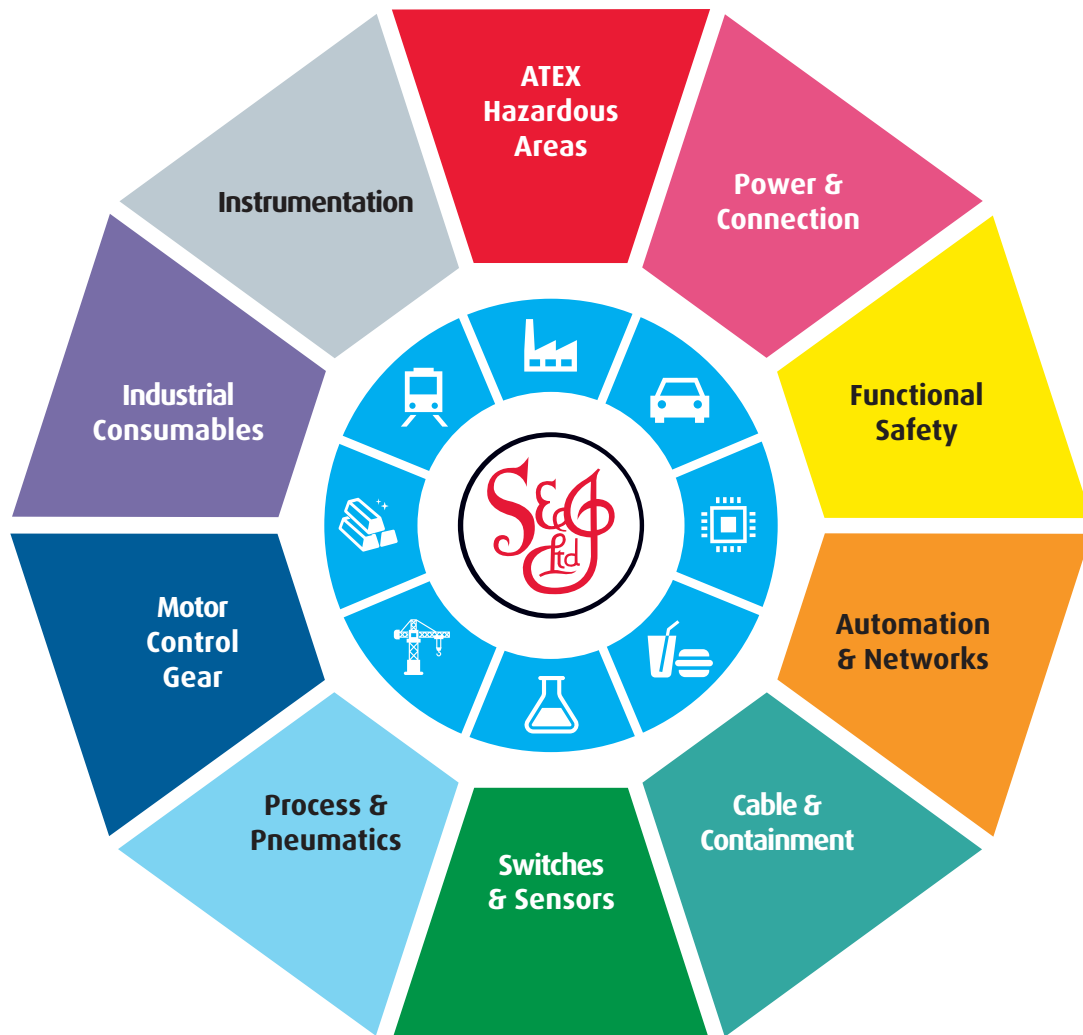
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