

## Wireless module - RAD-868-IFS - 2904909

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Radioline - 868 MHz wireless transceiver with RS-232/RS-485 interface, can be extended with I/O modules, RSMA (female) antenna connection, point-to-point, star, and mesh networks up to 99 stations, range of up to 20 km (with a clear line of sight), for use in Europe

### Product Description


Radioline is the new wireless system for large systems. Special features include extremely easy assignment of inputs and outputs by simply turning the thumbwheel - without any programming. Radioline transmits I/O signals (I/O mode) or serial data (serial mode) and is therefore very versatile. Alternatively, I/O signals can now also be connected to controllers directly using the Modbus protocol (PLC/Modbus RTU mode). In addition, you can implement various network structures: from a simple point-to-point connection to complex mesh networks. Thanks to the latest Trusted Wireless technology, Radioline is the ideal choice for industrial use.

### Your advantages

- ✓ License-free 868 MHz frequency band
- ✓ Particularly suitable for non-time-critical signal transmission over large distances with obstacles
- ✓ Range of several kilometers thanks to adjustable data rates for the wireless interface
- ✓ Quick and easy startup without programming
- ✓ High degree of reliability due to Trusted Wireless 2.0 technology (AES encryption, frequency hopping method, and coexistence management)
- ✓ Mesh networks of up to 99 devices
- ✓ Integrated RS-232/RS-485 interface
- ✓ 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 046356 899345
GTIN	4046356899345
Weight per Piece (excluding packing)	190.500 g
Custom tariff number	85176200
Country of origin	Germany

# Wireless module - RAD-868-IFS - 2904909

## 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	116 mm
Depth	114.5 mm

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C
	-40 °F ... 158 °F
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)
	Serial data (Activation and configuration via PSI-CONF software)
	PLC/Modbus RTU mode (Activation and configuration via PSI-CONF software)
	PLC / Modbus RTU dual mode (Activation and configuration via PSI-CONF software)
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	729 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	331 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
	131 Years (Telcordia standard, temperature 40 °C, operating cycle 100 % (7 days a week, 24 hours a day))
Wireless licences	Belgium
	Bulgaria
	Denmark
	Germany
	Estonia

# Wireless module - RAD-868-IFS - 2904909

## Technical data

### General

	France
	Finland
	Greece
	Great Britain
	Italy
	Ireland
	Iceland
	Croatia
	Liechtenstein
	Luxembourg
	Latvia
	Lithuania
	Malta
	Netherlands
	Norway (The device may not be operated within 20 km of Ny Ålesund town center.)
	Austria
	Poland
	Portugal
	Romania
	Sweden
	Switzerland
	Slovakia
	Slovenia
	Spain
	South Africa
	Czech Republic
	Turkey (The device may only be operated with Phoenix Contact antennas in accordance with the "Short Range Radio Devices (SRD) Regulations" Gazette No. 26464 dated March 16, 2007.)
	Hungary
	United Arab Emirates (TRA, ID: ER48068)
	Cyprus (rep.)
Export note	*The range may be considerably above or below that stated. It is dependent on the environment, antenna technology, transmission power, and the product used.

### 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

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## Technical data

### Wireless interface

Antenna connection	RSMA (female)
Direction	Bi-directional
Frequency	868 MHz
Frequency range	869.4 MHz ... 869.65 MHz
Number of channel groups	14
Channel distance	30 kHz (Depending on the network structure and the data transmission rate)
Data rate	1.2 kbps (adjustable)
	9.6 kbps (Default setting, adjustable)
	19.2 kbps (adjustable)
	60 kbps (adjustable)
	120 kbps (adjustable)
Receiver sensitivity	-122 dBm (1.2 kbps)
	-114 dBm (9.6 kbps)
	-111 dBm (19.2 kbps)
	-104 dBm (60 kbps)
	-103 dBm (120 kbps)
Transmit capacity, minimum	16 dBm
Transmit capacity, maximum	≤ 27 dBm (Default setting, adjustable)
Range	± 20 km (The range may be considerably above or below that stated, and depends on the environment, antenna technology, and the product used)
Security	128-bit data encryption

### Serial interface

Interface 1	RS-232
Connection method	COMBICON plug-in screw terminal block
Connection technology	3-wire
Transmission length	≤ 15 m
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
Interface 2	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 / 187.5 kbps
Interface 3	Configuration interface
Connection method	S-PORT (socket)

# Wireless module - RAD-868-IFS - 2904909

## Technical data

### System limits

Designation	Wireless module
Number of supported devices	≤ 99 (per wireless network)
Number of possible extension modules	≤ 32 (per wireless module)
Designation	Wireless network
I/O data mode	≤ 99 (I/O extension modules per wireless network, serial interfaces deactivated)
Serial data mode	0 (no I/O extension modules can be used)
PLC/Modbus RTU mode	≤ 99 (I/O extension modules per wireless network, access to extension modules via Modbus RTU protocol)

### RSSI output

Number of outputs	1
Voltage output signal	0 V ... 3 V

### RF link relay output

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

### Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
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)
	3x green, 1x yellow LED (LED bar graph receive quality, RSSI)
	Green LED (receive data, RX)
	Green LED (transmit data, TX)

### Conformance/approvals

# Wireless module - RAD-868-IFS - 2904909

## Technical data

### Conformance/approvals

Designation	CE
Identification	CE-compliant
Additional text	RED 2014/53/EU
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	Corrosive gas test
Identification	ISA-S71.04-1985 G3 Harsh Group A

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Standards/specifications	Ex Directive (ATEX) EN 60079-0
	Ex Directive (ATEX) EN-60079-15
	RED directive 2014/53/EU EN 300328 EN 61000-6-4 EN 61000-6-2 EN 50371 EN 60950-1
Standards/regulations	EN 61000-4-2
Contact discharge	± 6 kV (Test Level 3)
Indirect discharge	± 6 kV
Standards/regulations	EN 61000-4-3
Frequency range	26 MHz ... 3 GHz (Test Level 3)
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-4-5
Signal	± 1 kV (asymmetrical)
Standards/regulations	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Flammability rating according to UL 94	V0
Interface description	Trusted Wireless
Channel distance	30 kHz (Depending on the network structure and the data transmission rate)
Security	128-bit data encryption
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

# Wireless module - RAD-868-IFS - 2904909

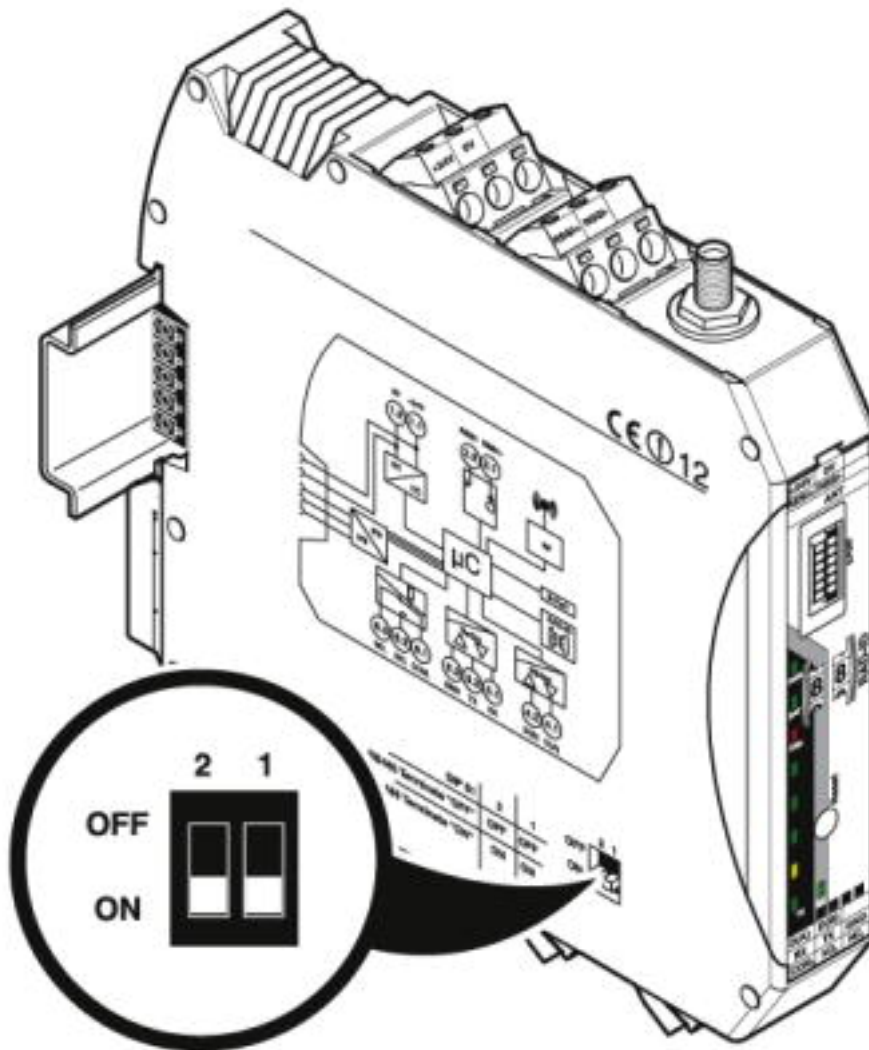
## Technical data

### Environmental Product Compliance

	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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## Drawings

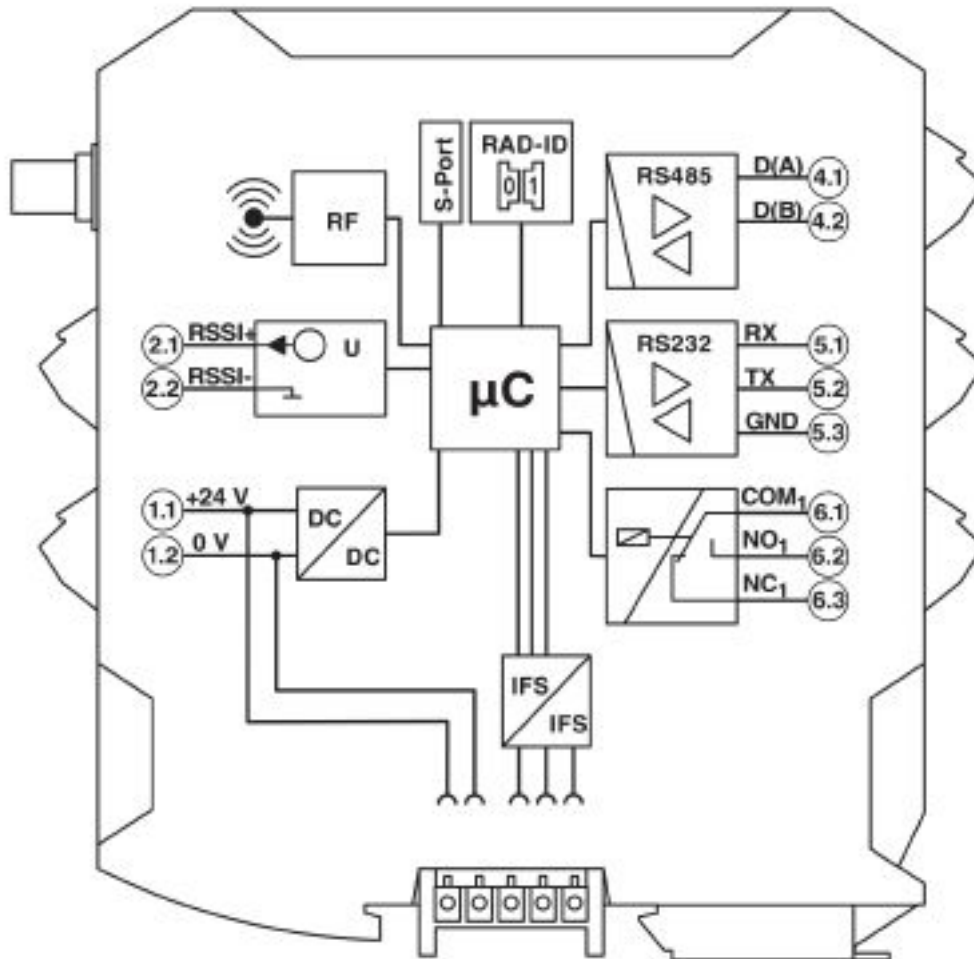
Schematic diagram



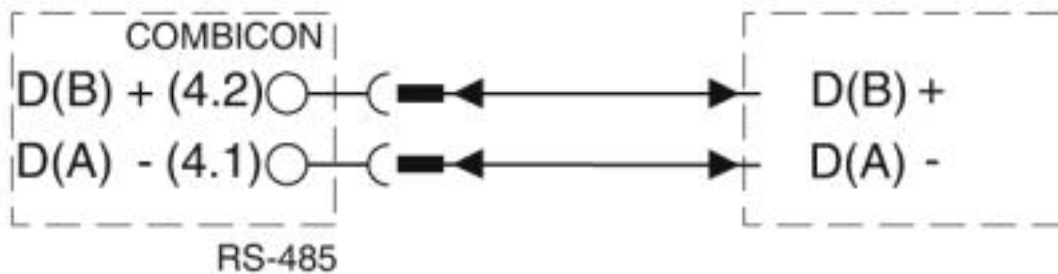
DIP switches

# Wireless module - RAD-868-IFS - 2904909

Circuit diagram



Connection diagram

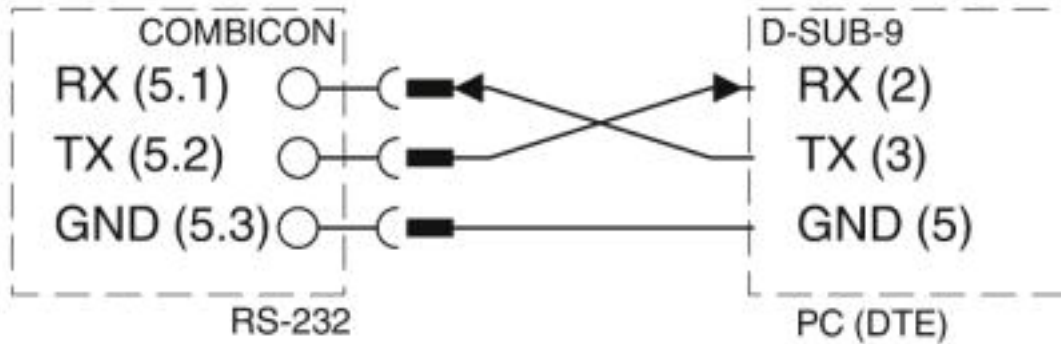


RS-485 connection



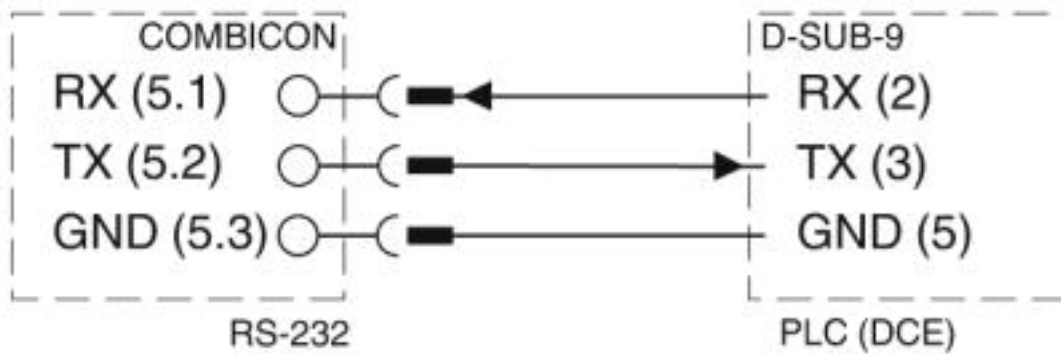
## Wireless module - RAD-868-IFS - 2904909

Connection diagram



RS-232 connection

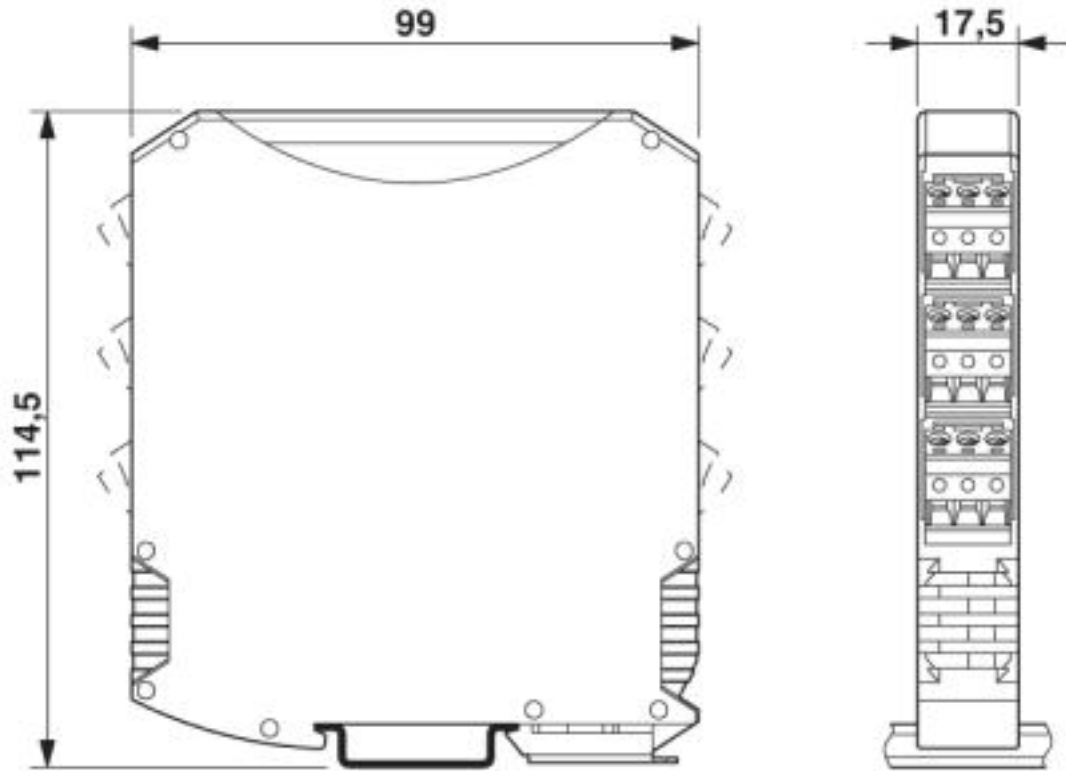
Connection diagram



RS-232 connection

# Wireless module - RAD-868-IFS - 2904909

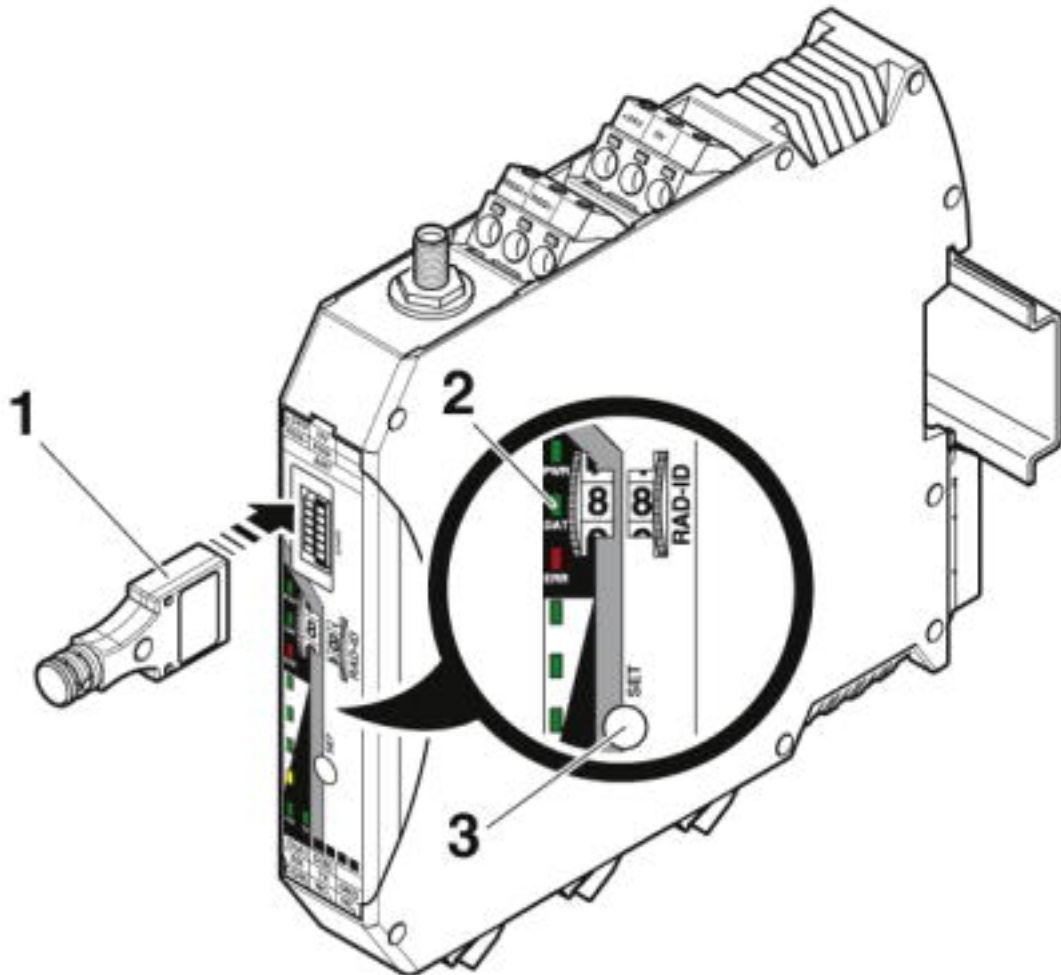
Dimensional drawing



Slim design

## Wireless module - RAD-868-IFS - 2904909

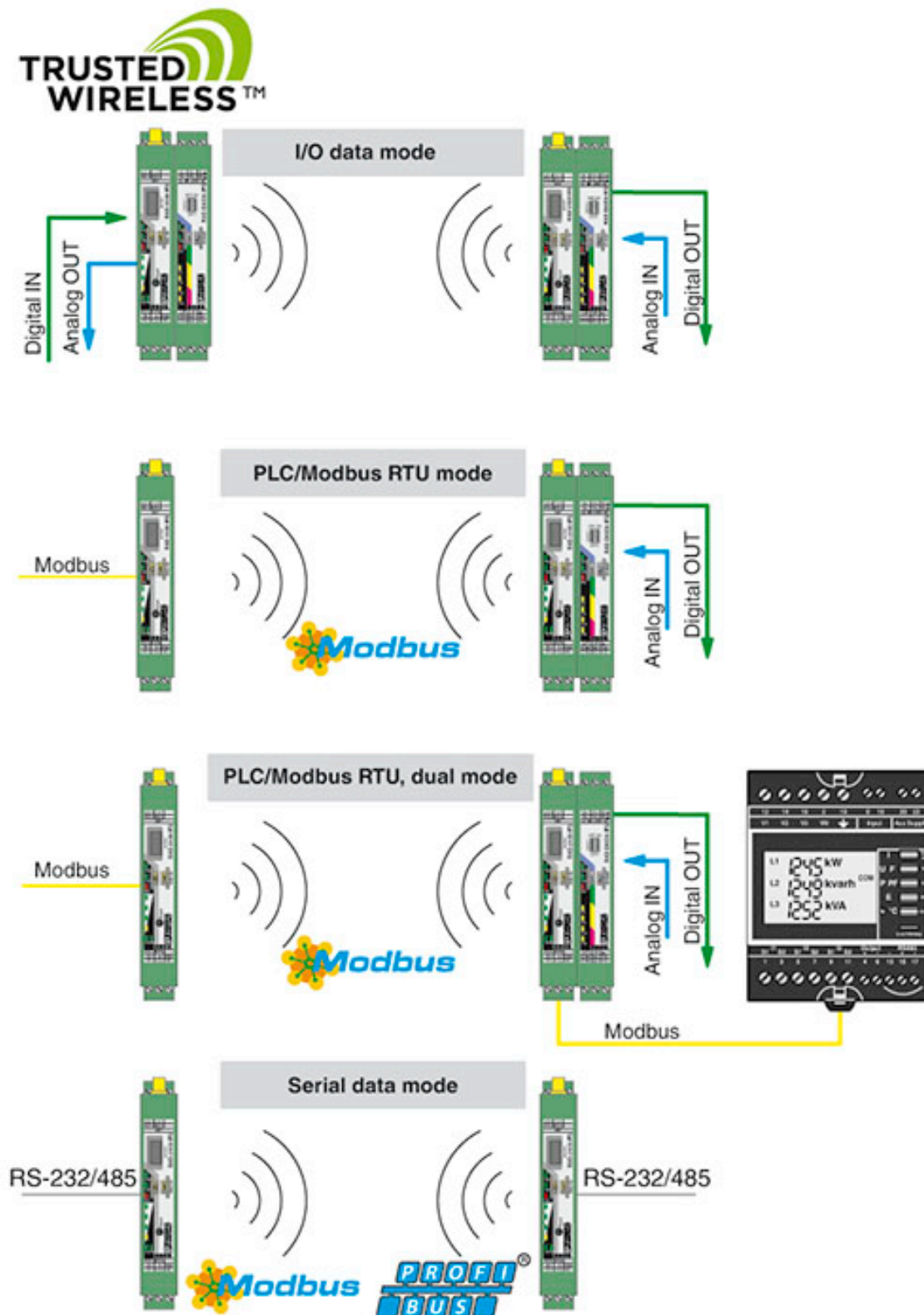
Schematic diagram



Configuration via CONFSTICK

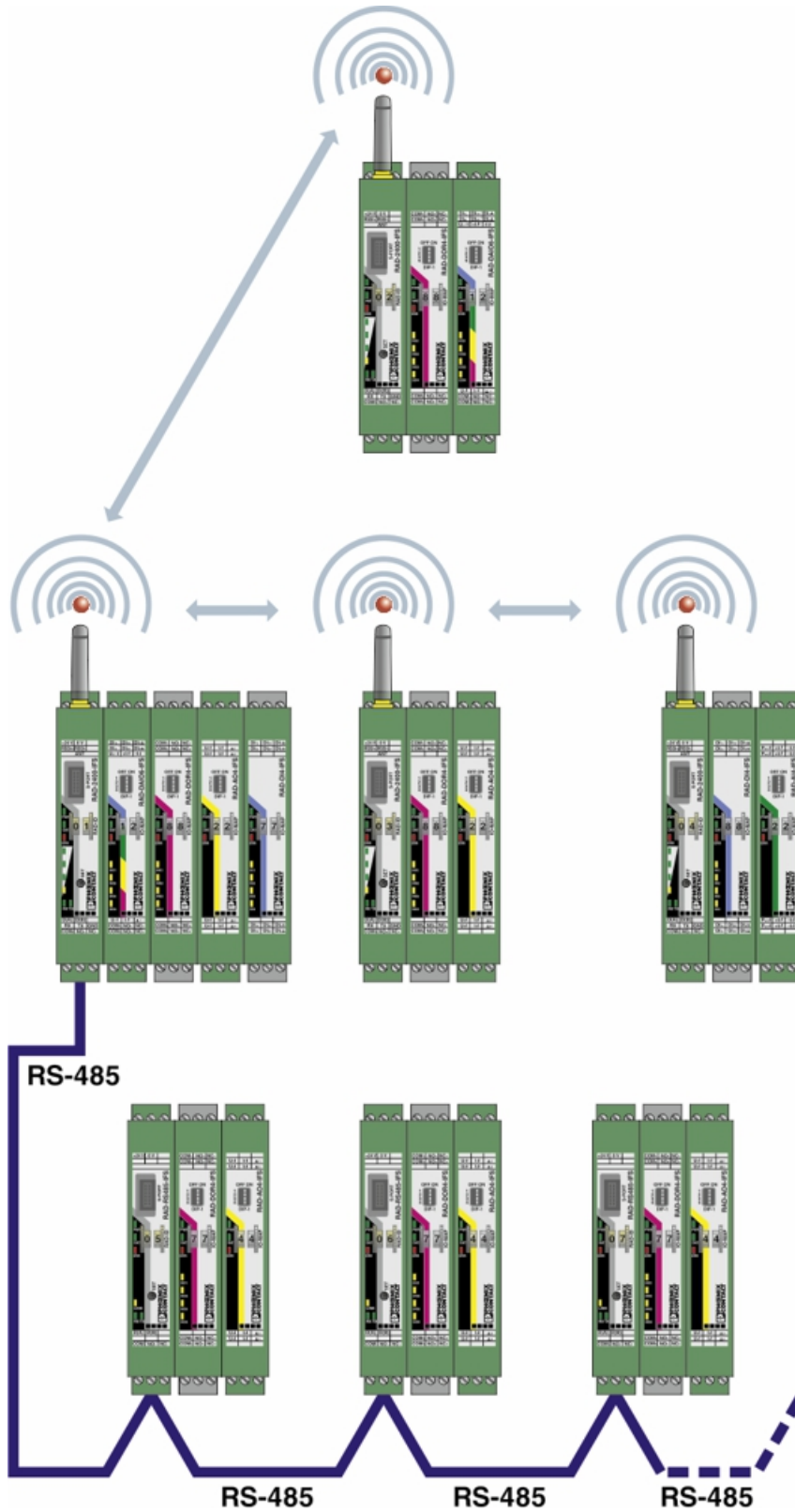
# Wireless module - RAD-868-IFS - 2904909

Application drawing



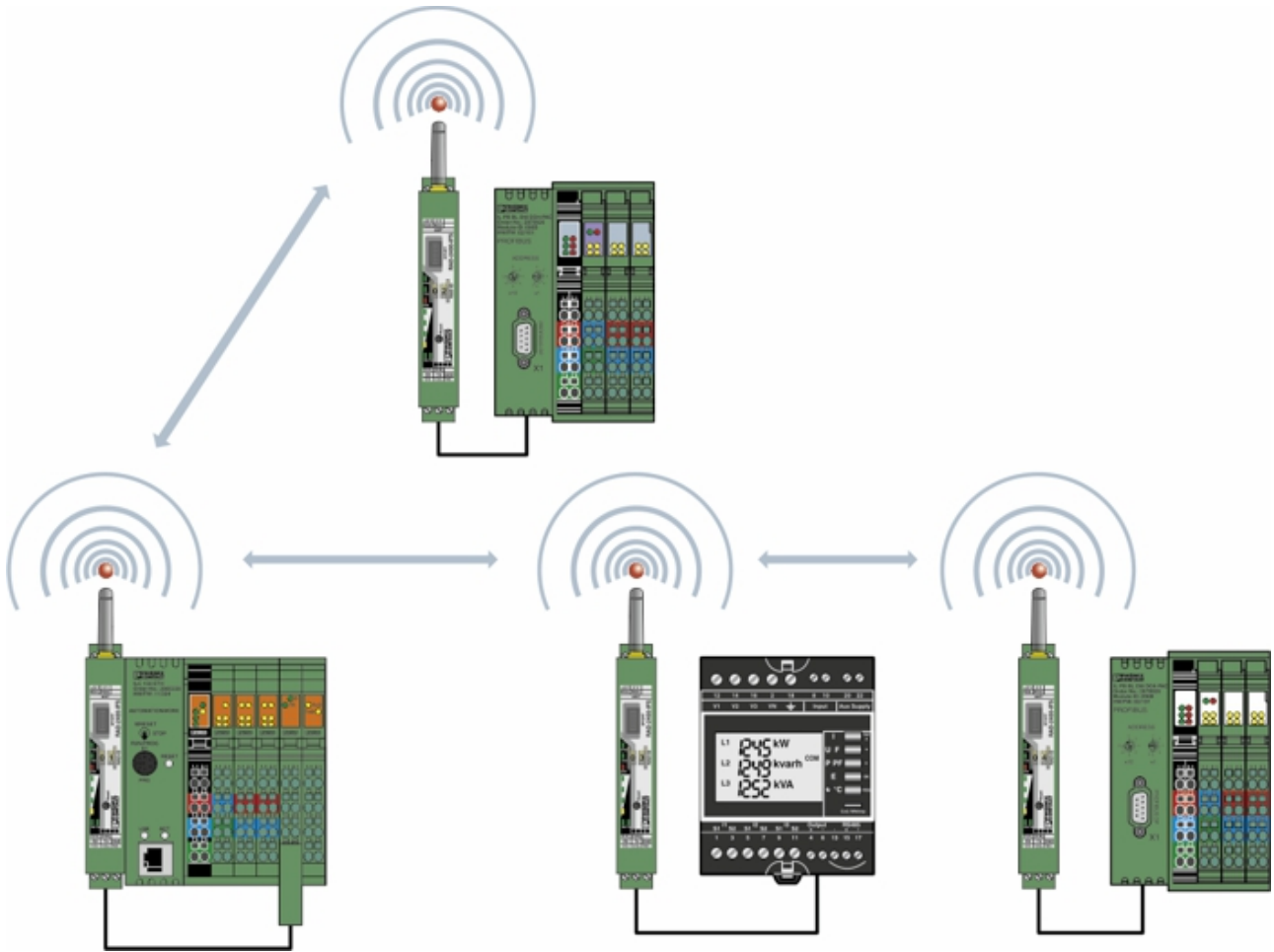
# Wireless module - RAD-868-IFS - 2904909

Functional drawing



# Wireless module - RAD-868-IFS - 2904909

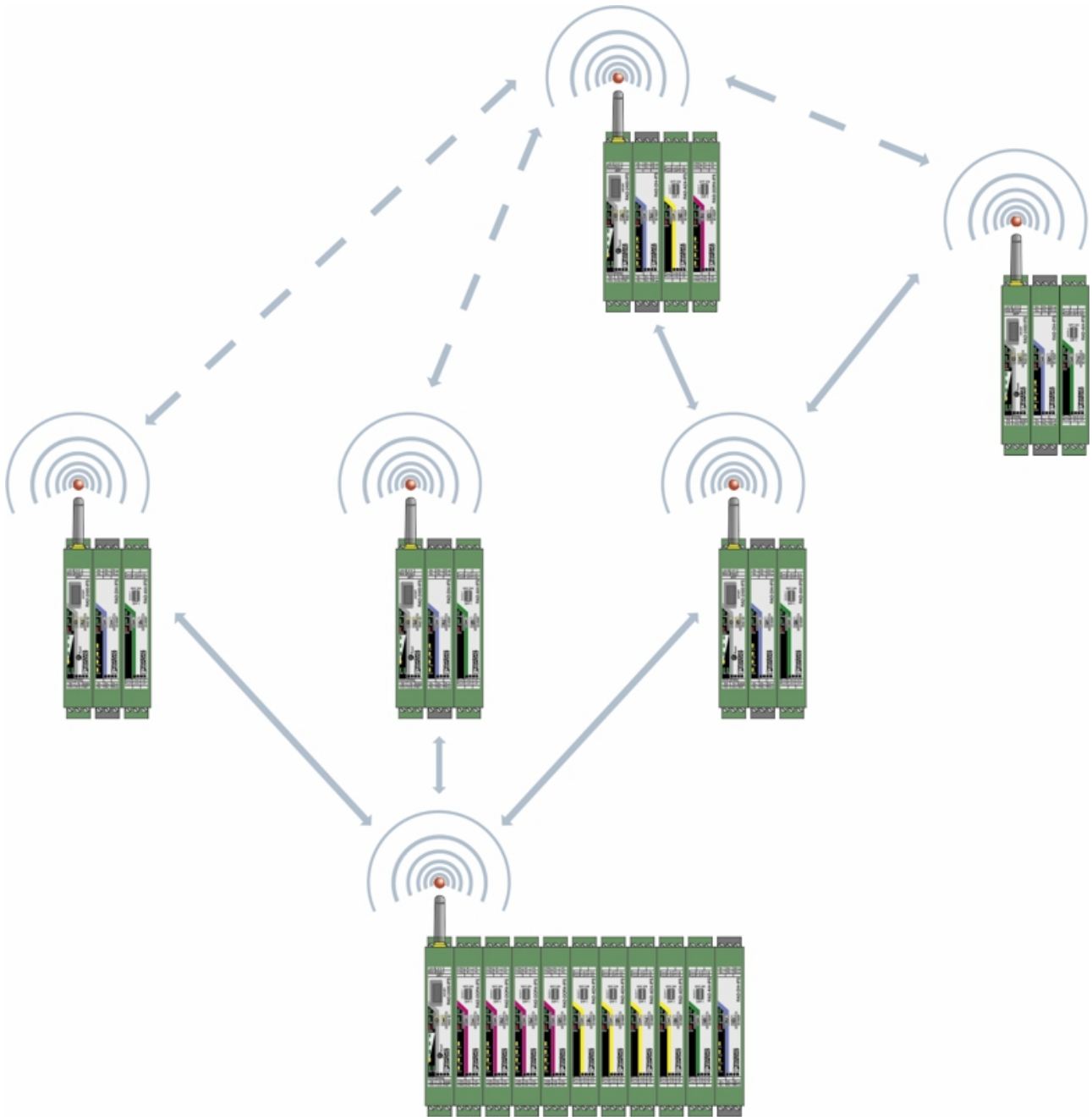
Application drawing



Serial data mode

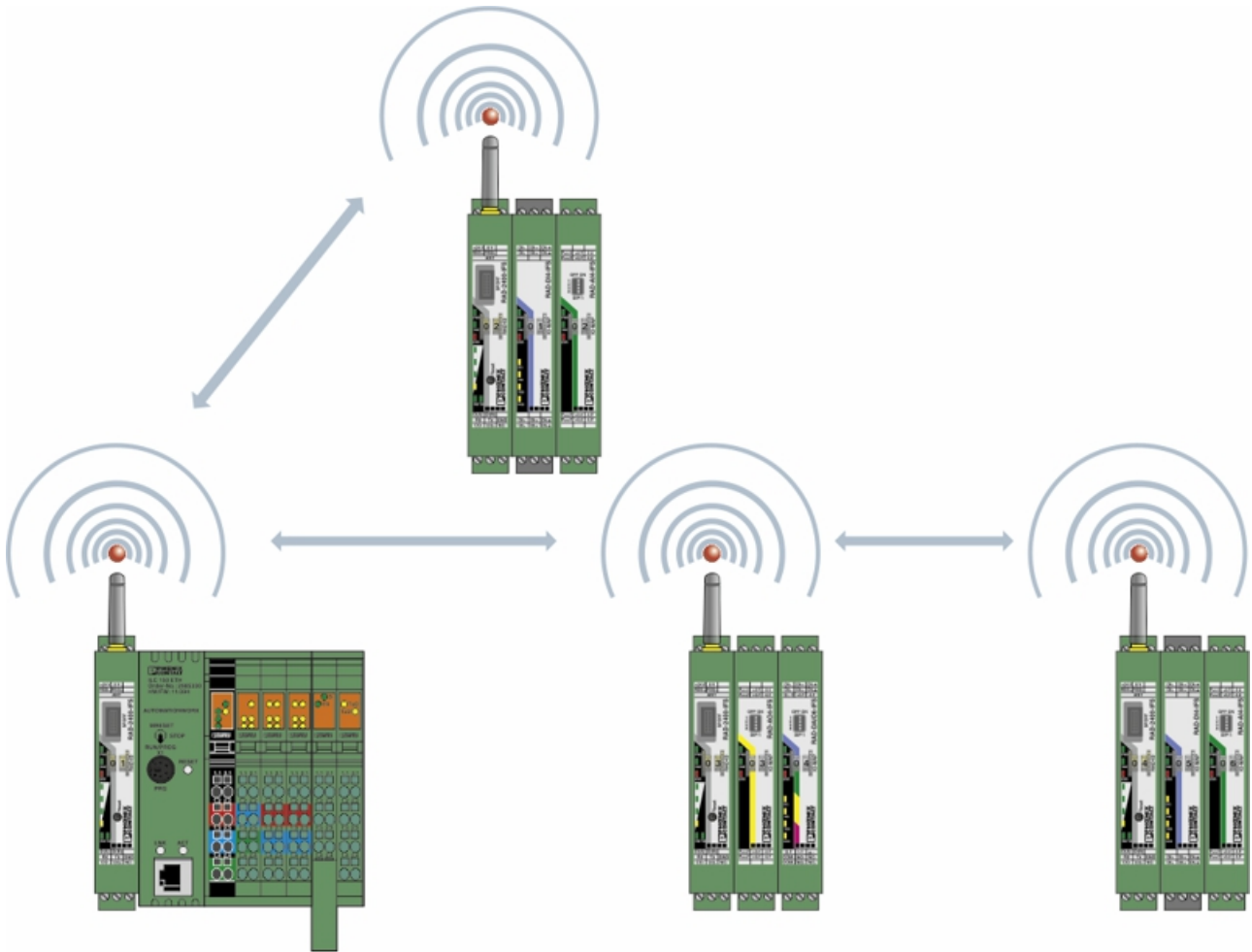
# Wireless module - RAD-868-IFS - 2904909

Application drawing



# Wireless module - RAD-868-IFS - 2904909

Application drawing





## Wireless module - RAD-868-IFS - 2904909

### 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	19170501
eCl@ss 5.0	19030100
eCl@ss 5.1	19030100
eCl@ss 6.0	19170200
eCl@ss 7.0	19170201
eCl@ss 8.0	19170201
eCl@ss 9.0	19170201

#### ETIM

ETIM 4.0	EC000816
ETIM 5.0	EC000816
ETIM 6.0	EC000816
ETIM 7.0	EC000816

### Accessories

#### Accessories

##### Antenna

Antenna - RAD-900-ANT-OMNI-2-N - 2904802



Omnidirectional antenna, 868 MHz / 900 MHz, gain: 2 dBi, polarization: linear, opening angle: h/v 360°/50°, degree of protection: IP66, connection: N (female), for control cabinet mounting (optional wall mounting)

Antenna - ANT-OMNI-VAN-868-01 - 1090616



Omnidirectional antenna with protection against vandalism, 868 MHz, gain: 2.5 dBi, polarization: linear vertical, opening angle: h/v 360°/55°, degree of protection: IP67, shock resistance: IK08, connection: N (female), for control cabinet mounting, wall mounting as an option

## Wireless module - RAD-868-IFS - 2904909

### Accessories

Antenna - ANT-OMNI-868-01 - 2702136



Omnidirectional antenna, 868 MHz, gain: 4 dBi, polarization: linear, opening angle: h/v 360°/30°, degree of protection: IP67, seawater-resistant, connection: N (female), incl. mounting bracket and mast clips, ATEX and IECEx approval

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Antenna - ANT-DIR-868-01 - 2702137



Directional antenna, 868 MHz, gain: 3.5 dBi, polarization: circular, opening angle: h/v 135°/90°, degree of protection: IP67, seawater-resistant, connection: N (female), incl. mounting bracket and mast clips, ATEX and IECEx approval

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Antenna - RAD-ISM-900-ANT-YAGI-3-N - 2867801



Directional antenna, 868 MHz / 900 MHz, gain: 5 dBi, polarization: linear, opening angle: h/v 168°/78°, degree of protection: IP65, connection: N (female), incl. mounting bracket and mast clips

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Antenna - RAD-ISM-900-ANT-YAGI-6.5-N - 2867814



Directional antenna, 868 MHz / 900 MHz, gain: 8.5 dBi, polarization: linear, opening angle: h/v 100°/62°, degree of protection: IP65, connection: N (female), incl. mounting bracket and mast clips

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Antenna - RAD-ISM-900-ANT-YAGI-10-N - 5606614



Directional antenna 868 MHz / 900 MHz, gain: 12 dBi, polarization: linear, opening angle: h/v 56°/46°, degree of protection: IP65, connection: N (female), incl. mounting bracket and mast clips

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### Coaxial adapter

## Wireless module - RAD-868-IFS - 2904909

### Accessories

#### Adapter - RAD-ADP-N/F-N/F - 2867843



Antenna adapter for control cabinet feed-through, frequency range: 0.3 GHz ... 6 GHz, degree of protection: IP65, connection: 2 x N (female)

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#### Adapter - RAD-ADP-RSMA/M-RSMA/F-90 - 2904790



Antenna adapter, frequency range: 0.3 GHz ... 6 GHz, connection: RSMA (male) -> RSMA (female), 90° angled

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#### Antenna barrier - BAR-ANT-N-N-EX - 2702198



Antenna barrier for control cabinet feed-through, type of protection: Ex i, degree of protection: IP65, barrier installation: Zone 2 / 22, antenna installation: in dust and gas Ex area, frequency range: 0.3 GHz ... 6 GHz, connection: 2 x N (female), ATEX, EAC Ex and IECEx approval

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#### Antenna splitter - RAD-SPL-2-N/N - 2702293



Antenna splitter, frequency range: 0.3 GHz ... 6 GHz, degree of protection: IP65, connection: 3 x N (female), suitable connection cable for the antenna connection (Order No. 2700677)

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### Coaxial cable

#### Antenna cable - RAD-PIG-EF316-N-RSMA - 2701402



Antenna cable for control cabinet feed-through, outside diameter: 3.2 mm (0.126 in.), inner conductor: stranded, attenuation: 0.6 / 0.9 / 1.4 dB at 0.9 / 2.4 / 5.8 GHz, connection: N (female) -> RSMA (male), cable length: 0.5 m (1.6 ft.)

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## Wireless module - RAD-868-IFS - 2904909

### Accessories

#### Antenna cable - RAD-PIG-RSMA/N-0.5 - 2903263



Antenna cable, outside diameter: 5 mm (0.2 in.), inner conductor: solid, attenuation: 0.4 / 0.5 / 0.6 dB at 0.9 / 2.4 / 5.8 GHz, connection: N (male) -> RSMA (male), cable length: 0.5 m (1.6 ft.)

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#### Antenna cable - RAD-PIG-RSMA/N-1 - 2903264



Antenna cable, outside diameter: 5 mm (0.2 in.), inner conductor: solid, attenuation: 0.5 / 0.8 / 1.1 dB at 0.9 / 2.4 / 5.8 GHz, connection: N (male) -> RSMA (male), cable length: 1 m (3.3 ft.)

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#### Antenna cable - RAD-PIG-RSMA/N-2 - 2903265



Antenna cable, outside diameter: 5 mm (0.2 in.), inner conductor: solid, attenuation: 0.9 / 1.3 / 2.0 dB at 0.9 / 2.4 / 5.8 GHz, connection: N (male) -> RSMA (male), cable length: 2 m (6.5 ft.)

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#### Antenna cable - RAD-PIG-RSMA/N-3 - 2903266



Antenna cable, outside diameter: 5 mm (0.2 in.), inner conductor: solid, attenuation: 1.2 / 2.0 / 3.0 dB at 0.9 / 2.4 / 5.8 GHz, connection: N (male) -> RSMA (male), cable length: 3 m (10 ft.)

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#### Antenna cable - RAD-PIG-RSMA/N-5 - 2702140



Antenna cable, outside diameter: 5 mm (0.2 in.), inner conductor: solid, attenuation: 2.0 / 3.3 / 4.8 dB at 0.9 / 2.4 / 5.8 GHz, connection: N (male) -> RSMA (male), cable length: 5 m (16 ft.)

## Wireless module - RAD-868-IFS - 2904909

### Accessories

#### Antenna cable - FL LCX PIG-EF142-N-N - 2700677



Antenna cable, outside diameter: 5 mm (0.2 in.), inner conductor: stranded, attenuation: 0.3 / 0.5 / 0.8 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 0.5 m (1.6 ft.)

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#### Antenna cable - RAD-CAB-EF393- 3M - 2867649



Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: stranded, attenuation: 1.0 / 1.8 / 3.1 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 3 m (10 ft.)

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#### Antenna cable - RAD-CAB-EF393- 5M - 2867652



Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: stranded, attenuation: 1.6 / 2.9 / 5.0 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 5 m (16 ft.)

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#### Antenna cable - RAD-CAB-EF393-10M - 2867665



Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: stranded, attenuation: 2.9 / 5.6 / 9.9 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 10 m (32 ft.)

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#### Antenna cable - RAD-CAB-EF393-15M - 2885634



Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: stranded, attenuation: 4.3 / 8.3 / 14.8 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 15 m (50 ft.)

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### Communication module

## Wireless module - RAD-868-IFS - 2904909

### Accessories

Communication module - RAD-RS485-IFS - 2702184



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

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### Configuration memory

Configuration memory - RAD-868-CONF-RF1 - 2702197



Radioline - configuration stick for easy and safe network addressing for the 868 MHz wireless module (RAD-868-...), unique network ID, RF band 1

Configuration memory - RAD-MEMORY - 2902828



Radioline - memory stick for saving custom configuration data

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### Control box

Control box - FL RUGGED BOX - 2701204



Control box for robust construction of wireless systems for industrial applications, IP66, 25 x 18 x 13 cm, polycarbonate material, gray, drilled, incl. DIN rail, plugs, and screw connections, without devices

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### DIN rail connector

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.

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### Extension module

## Wireless module - RAD-868-IFS - 2904909

### Accessories

#### I/O extension module - RAD-DAIO6-IFS - 2901533



Radioline - I/O extension module, 2 digital inputs and outputs (0 ... 250 V AC/DC) and 1 analog input (0/4 ... 20 mA) and output (0/4 ... 20 mA, 0 ... 10 V)

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#### I/O extension module - RAD-DI4-IFS - 2901535



Radioline - I/O extension module, 4 digital inputs (0 ... 250 V AC/DC)

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#### I/O extension module - RAD-DOR4-IFS - 2901536



Radioline - I/O extension module, 4 digital relay outputs (5 A, 250 V AC/DC)

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#### I/O extension module - RAD-DI8-IFS - 2901539



Radioline - I/O extension module, 8 digital inputs (0 ... 30.5 V DC) or 2 pulse inputs up to 100 Hz

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#### I/O extension module - RAD-DO8-IFS - 2902811



Radioline - I/O extension module, 8 digital transistor outputs (30.5 V DC/200 mA)

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## Wireless module - RAD-868-IFS - 2904909

### Accessories

I/O extension module - RAD-AI4-IFS - 2901537



Radioline - I/O extension module, 4 analog current inputs (0/4 mA ... 20 mA)

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I/O extension module - RAD-AO4-IFS - 2901538



Radioline - I/O extension module, 4 analog current or voltage outputs (0/4 mA ... 20 mA, 0 V ... 10 V)

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I/O extension module - RAD-PT100-4-IFS - 2904035



Radioline - I/O extension module, 4 Pt 100 inputs (-50°C ... +250°C / -58 °F ... 482 °F)

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I/O extension module - RAD-NAM4-IFS - 2316275



Radioline - I/O extension module, 4 NAMUR digital input module used in Radioline and PROFIBUS PA MUX I/O systems. Fulfills the NAMUR proximity sensor standard EN 60947-5-6, and communication to the head stations for Radioline systems and the FB-MUX/HS...PA via the T-BUS connector installed on the DIN rail. This module has channel-to-channel isolation.

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I/O extension module - RAD-AI4-U-IFS - 2702290



Radioline - I/O extension module, 4 analog voltage inputs (0 ... 5 V, 0 ... 10 V)

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### Mounting material



## Wireless module - RAD-868-IFS - 2904909

### Accessories

Weather protection tape - RAD-TAPE-SV-19-3 - 2903182



Vulcanizing sealing tape for external protection of adapters, cable connections, etc. against the effects of weather, roll length: 3 m

Mounting material - FL RUGGED BOX POLE SET - 2701205



Set for mast mounting of the FL RUGGED BOX housing, incl. screw clamps for masts up to a diameter of 89 mm

### Power supply

Power supply unit - MINI-SYS-PS-100-240AC/24DC/1.5 - 2866983



Primary-switched MINI POWER supply for DIN rail mounting, input: 1-phase, output: 24 V DC/1.5 A

### Programming cable

Cable for programming - RAD-CABLE-USB - 2903447



Radioline - USB data cable for communication between the PC and Radioline devices, energy supply for diagnostics and configuration via the USB port of the PC, cable length: 2 m / 6.5 ft

### Shield connection clamp

Shield connection clamp - SKS 8-SNS35 - 3062786



Shield connection terminal block, for applying the shield to busbars

### Surge protection for information technology

## Wireless module - RAD-868-IFS - 2904909

### Accessories

Surge protection device - TTC-6P-3-HF-F-M-12DC-PT-I - 2906796



Surge protection, consisting of protective plug and base element, with integrated status indicator and knife disconnection for three signal wires with common reference potential. For HF applications and telecommunications interfaces without supply voltage. Indirect grounding via gas-filled surge arrester.

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### Surge protection for transceiver systems

Surge protection device - CN-LAMBDA/4-2.25-BB - 2801057



Attachment plug with Lambda/4 technology as surge protection for coaxial signal interfaces. Connection: N connectors socket-socket

Surge protection device - CN-UB-70DC-6-BB - 2803166



Attachment plug with surge protection for coaxial signal interfaces. Connection: N connector, female/female

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### Additional products

I/O extension module - RAD-DAIO6-IFS - 2901533



Radioline - I/O extension module, 2 digital inputs and outputs (0 ... 250 V AC/DC) and 1 analog input (0/4 ... 20 mA) and output (0/4 ... 20 mA, 0 ... 10 V)

I/O extension module - RAD-DI4-IFS - 2901535



Radioline - I/O extension module, 4 digital inputs (0 ... 250 V AC/DC)

## Wireless module - RAD-868-IFS - 2904909

### Accessories

I/O extension module - RAD-DOR4-IFS - 2901536



Radioline - I/O extension module, 4 digital relay outputs (5 A, 250 V AC/DC)

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I/O extension module - RAD-DI8-IFS - 2901539



Radioline - I/O extension module, 8 digital inputs (0 ... 30.5 V DC) or 2 pulse inputs up to 100 Hz

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I/O extension module - RAD-DO8-IFS - 2902811



Radioline - I/O extension module, 8 digital transistor outputs (30.5 V DC/200 mA)

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I/O extension module - RAD-AI4-IFS - 2901537



Radioline - I/O extension module, 4 analog current inputs (0/4 mA ... 20 mA)

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I/O extension module - RAD-AO4-IFS - 2901538



Radioline - I/O extension module, 4 analog current or voltage outputs (0/4 mA ... 20 mA, 0 V ... 10 V)

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## Wireless module - RAD-868-IFS - 2904909

### Accessories

I/O extension module - RAD-PT100-4-IFS - 2904035



Radioline - I/O extension module, 4 Pt 100 inputs (-50°C ... +250°C / -58 °F ... 482 °F)