

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

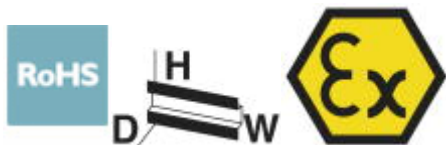
Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




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

Why buy this product

- Extended temperature range, -40 °C ... +70 °C
- Easy module replacement even during operation (hot swap)
- 8 digital inputs (0 ... 30.5 V DC)
- 2 pulse inputs (0 ... 100 Hz)
- Easy startup via thumbwheel
- Approved for use in zone 2



Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 609159
GTIN	4046356609159
Weight per Piece (excluding packing)	168.700 g
Weight per piece (including packing)	198.400 g
Custom tariff number	85177000
Country of origin	Germany

Technical data

Note

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

Dimensions

Width	17.5 mm
Height	99 mm
Depth	114.5 mm

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

Technical data

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

Overvoltage category	II
Mounting position	any
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	1624 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	612 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
	233 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 (DIN rail connector)
Max. current consumption	≤ 18 mA (At 24 V DC, at 25°C)
Transient surge protection	Yes

Digital inputs

Description of the input	Digital input
Number of inputs	8
Switching level "1" signal	10 V DC ... 30.5 V DC
Switching level "0" signal	0 V DC ... 4 V DC
Input frequency	≤ 10 Hz (Static mode)
Min. voltage input signal	0 V DC
Max. voltage input signal	30.5 V DC

Counter inputs

Number of channels	2
Switching level "1" signal	10 V DC ... 30.5 V DC
Switching level "0" signal	0 V DC ... 4 V DC
Input frequency	< 100 Hz (Pulse counter mode)

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

Technical data

Counter inputs

Pulse length	≥ 5 ms (Pulse/pause ratio 1:1)
Process data channel	32 Bit (per channel)

Electrical isolation

Digital I/O	50 V (Rated insulation voltage (between the channel groups 1...4 and 5...8/TBUS supply, reinforced insulation according to EN 61010))
-------------	---

Test voltage

Digital I/O	1.5 kV AC (50 Hz, 1 min.)
-------------	---------------------------

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 (counter mode, CNT)
	Yellow LED (digital input, DI1)
	Yellow LED (digital input, DI2)
	Yellow LED (digital input, DI3)
	Yellow LED (digital input, DI4)
	Yellow LED (digital input, DI5)
	Yellow LED (digital input, DI6)
	Yellow LED (digital input, DI7)
	Yellow LED (digital input, DI8)

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Standard designation	EMC Directive 2014/30/EU
Standards/regulations	EN 61000-6-2
Standard designation	EMC Directive 2014/30/EU
Standards/regulations	EN 61000-6-4
Standard designation	Ex Directive (ATEX)
Standards/regulations	EN 60079-0

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

Technical data

Standards and Regulations

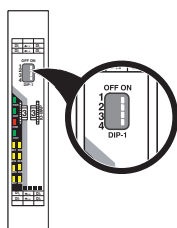
Standard designation	Ex Directive (ATEX)
Standards/regulations	EN-60079-15
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2
Flammability rating according to UL 94	V0
Shock	16g, 11 ms
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc
IECEX	Ex nA IIC T4 Gc
UL, USA/Canada	UL 508 Listed
	Class I, Div. 2, Groups A, B, C, D T4A
	Class I, Zone 2, IIC T4
Noxious gas test	ISA-S71.04-1985 G3 Harsh Group A

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

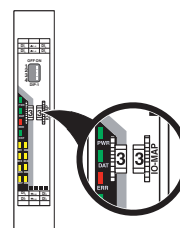
Drawings

Schematic diagram



DIP switches

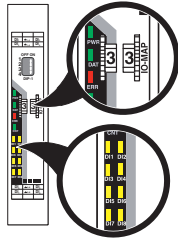
Schematic diagram



Thumb wheel

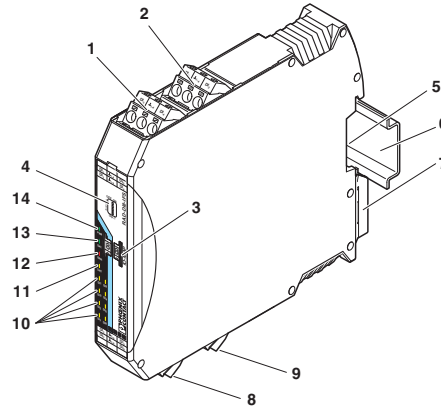
I/O extension module - RAD-DI8-IFS - 2901539

Schematic diagram



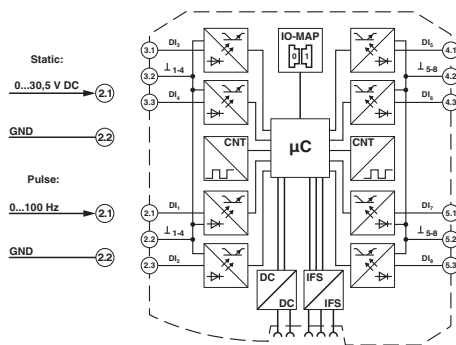
LED indicators

Schematic diagram

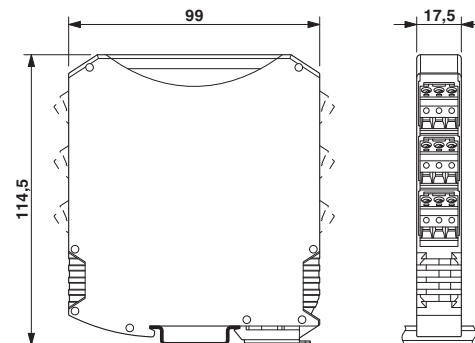


Function elements

Block diagram

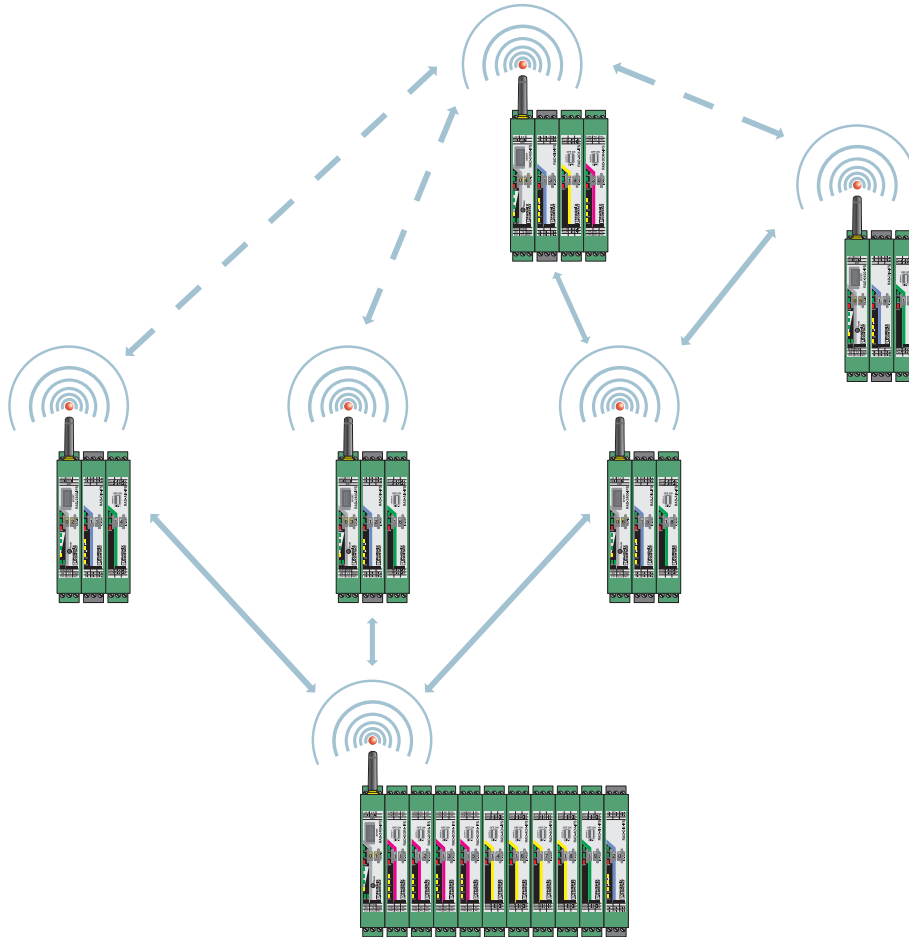


Dimensional drawing



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

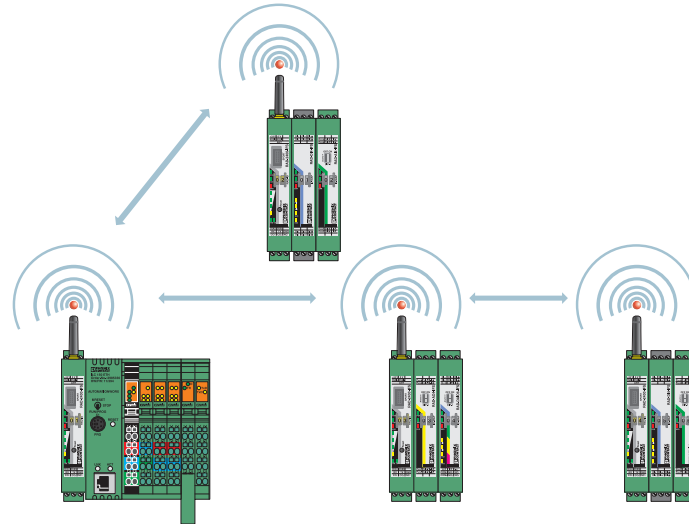
Application drawing



Wireless module in I/O data mode

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

Application drawing



Wireless module in PLC/Modbus RTU mode

Articles in set

Electronic housing - 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 4.0	27230207
eCl@ss 4.1	27230207
eCl@ss 5.0	27230207
eCl@ss 5.1	27242208
eCl@ss 6.0	27242208
eCl@ss 7.0	27242208
eCl@ss 8.0	27242604
eCl@ss 9.0	27242604

ETIM

ETIM 3.0	EC001423
ETIM 4.0	EC000310

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

Classifications

ETIM

ETIM 5.0	EC001599
ETIM 6.0	EC001599

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	43223108
UNSPSC 11	39121008
UNSPSC 12.01	43223108
UNSPSC 13.2	32151602

Approvals

Approvals


Approvals


UL Listed / cUL Listed / EAC / cULus Listed


Ex Approvals


IECEX / UL Listed / cUL Listed / ATEX / cULus Listed

Approval details

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

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

EAC		EAC-Zulassung
-----	---	---------------

cULus Listed		
--------------	---	--

Accessories

Accessories

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

Accessories

Communication module

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

DIN rail connector

Electronic housing - 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.

Extension module

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



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

Trusted Wireless device

Wireless module - RAD-2400-IFS - 2901541



Radioline - 2.4 GHz 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 250 stations, range of up to 5 km (with a clear line of sight), for worldwide use

Wireless module - RAD-868-IFS - 2904909



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

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

Accessories

Wireless module - RAD-900-IFS - 2901540



Radioline - 900 MHz wireless transceiver with RS-232/485 interface, can be extended with I/O modules, RSMA (female) antenna connection, point-to-point, star, and mesh networks up to 250 stations, range of up to 32 km (line of sight), use in North America

Necessary add-on products

Wireless module - RAD-2400-IFS - 2901541



Radioline - 2.4 GHz 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 250 stations, range of up to 5 km (with a clear line of sight), for worldwide use

Wireless module - RAD-900-IFS - 2901540



Radioline - 900 MHz wireless transceiver with RS-232/485 interface, can be extended with I/O modules, RSMA (female) antenna connection, point-to-point, star, and mesh networks up to 250 stations, range of up to 32 km (line of sight), use in North America

Wireless module - RAD-868-IFS - 2904909



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

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

Additional products

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

Accessories

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



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

Phoenix Contact 2017 © - all rights reserved
<http://www.phoenixcontact.com>