

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

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Digital I/O extension module with 4 digital inputs (0...250 V AC/DC), with screw connection, incl. DIN rail connector

## Product Features

- Channel-to-channel electrical isolation
- Extended temperature range, -40°C ... +70°C
- Easy module replacement even during operation (hot swap)
- Digital wide-range inputs/outputs (0 ...250 V AC/DC)
- Suitable for ATEX zone 2
- Easy startup via thumbwheel



## Key commercial data

package_quantity	1
GTIN	4046356610490

## 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	99 mm
Depth	114.5 mm

## Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (operation)	-40 °F ... 158 °F
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °F ... 185 °F
Permissible humidity (operation)	20 % ... 85 %
Permissible humidity (storage/transport)	20 % ... 85 %

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## Technical data

### Ambient conditions

<b>Altitude</b>	2000 m
<b>Vibration (operation)</b>	In accordance with IEC 60068-2-6: 5 g, 10 Hz - 150 Hz
<b>Shock</b>	16 g, 11 ms

### General

<b>Surge voltage category</b>	II
<b>Mounting position</b>	Any
<b>Assembly instructions</b>	on standard DIN rail NS 35 in accordance with EN 60715
<b>Pollution degree</b>	2
<b>Housing material</b>	PA 6.6-FR
<b>Inflammability class according to UL 94</b>	V0
<b>MTTF</b>	1766 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
<b>MTTF</b>	653 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
<b>MTTF</b>	250 Years (Telcordia standard, temperature 40°C, operating cycle 100% (7 days a week, 24 hours a day))

### Supply

<b>Supply voltage range</b>	19.2 V DC ... 30.5 V DC (T-connector)
<b>Max. current consumption</b>	max. 11 mA (At 24 V DC, at 25°C)
<b>Transient surge protection</b>	Yes

### Digital inputs

<b>Number of inputs</b>	4
<b>Switching level "1" signal</b>	10 V AC/DC ... 50 V AC/DC (Low-voltage input)
<b>Switching level "1" signal</b>	50 V AC/DC ... 250 V AC/DC (High-voltage input)
<b>Switching level "0" signal</b>	0 V AC/DC ... 4 V AC/DC (Low-voltage input)
<b>Switching level "0" signal</b>	0 V AC/DC ... 20 V AC/DC (High-voltage input)
<b>Input frequency</b>	≤ 2 Hz

### Electrical isolation

<b>Digital I/O</b>	300 V (Rated insulation voltage (in each case between the digital inputs // TBUS supply, reinforced insulation according to EN 61010))
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### Test voltage

<b>Digital I/O</b>	2.5 kV AC (50 Hz, 1 min.)
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### Connection data

<b>Connection method</b>	Screw connection
<b>Conductor cross section solid min.</b>	0.2 mm <sup>2</sup>
<b>Conductor cross section solid max.</b>	2.5 mm <sup>2</sup>
<b>Conductor cross section stranded min.</b>	0.2 mm <sup>2</sup>
<b>Conductor cross section stranded max.</b>	2.5 mm <sup>2</sup>
<b>Conductor cross section AWG/kcmil min.</b>	24

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## Technical data

### Connection data

<b>Conductor cross section AWG/kcmil max</b>	14
<b>Stripping length</b>	7 mm
<b>Tightening torque</b>	0.6 Nm
<b>Screw thread</b>	M3

### Status indicator

<b>Status display</b>	Green LED (supply voltage, PWR)
<b>Status display</b>	Green LED (bus communication, DAT)
<b>Status display</b>	Red LED (periphery error, ERR)
<b>Status display</b>	Yellow LED (digital input, DI1)
<b>Status display</b>	Yellow LED (digital input, DI2)
<b>Status display</b>	Yellow LED (digital input, DI3)
<b>Status display</b>	Yellow LED (digital input, DI4)

### Approvals and conformance

<b>Conformance</b>	CE-compliant
<b>ATEX</b>	# II 3 G Ex nA IIC T4 Gc X
<b>IECEX</b>	Ex nA IIC T4 Gc
<b>UL, USA / Canada</b>	UL 508 Listed
<b>Standard designation</b>	EMC Directive 2004/108/EC
<b>Standards/regulations</b>	EN 61000-6-2
<b>Standard designation</b>	EMC Directive 2004/108/EC
<b>Standards/regulations</b>	EN 61000-6-4
<b>Standard designation</b>	Ex Directive (ATEX)
<b>Standards/regulations</b>	EN 60079-0
<b>Standard designation</b>	Ex Directive (ATEX)
<b>Standards/regulations</b>	EN-60079-15

## classifications

### eCl@ss

<b>eCl@ss 4.0</b>	27230207
<b>eCl@ss 4.1</b>	27230207
<b>eCl@ss 5.0</b>	27230207
<b>eCl@ss 5.1</b>	27242208
<b>eCl@ss 6.0</b>	27242208
<b>eCl@ss 7.0</b>	27242208
<b>eCl@ss 8.0</b>	27242208

### ETIM

<b>ETIM 3.0</b>	EC001423
<b>ETIM 4.0</b>	EC000310
<b>ETIM 5.0</b>	EC000310

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## classifications

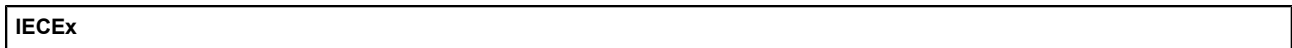
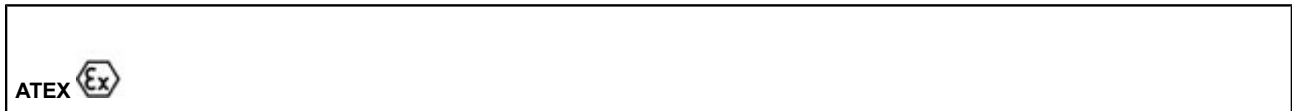
### UNSPSC

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

## approvals

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

### Approval details



## accessories

### Trusted Wireless device

RAD-2400-IFS - 2901541



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

### accessories

RAD-900-IFS - 2901540



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### DIN rail connector

ME 17,5 TBUS 1,5/ 5-ST-3,81 GN - 2709561



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### Extension module

RAD-DOR4-IFS - 2901536

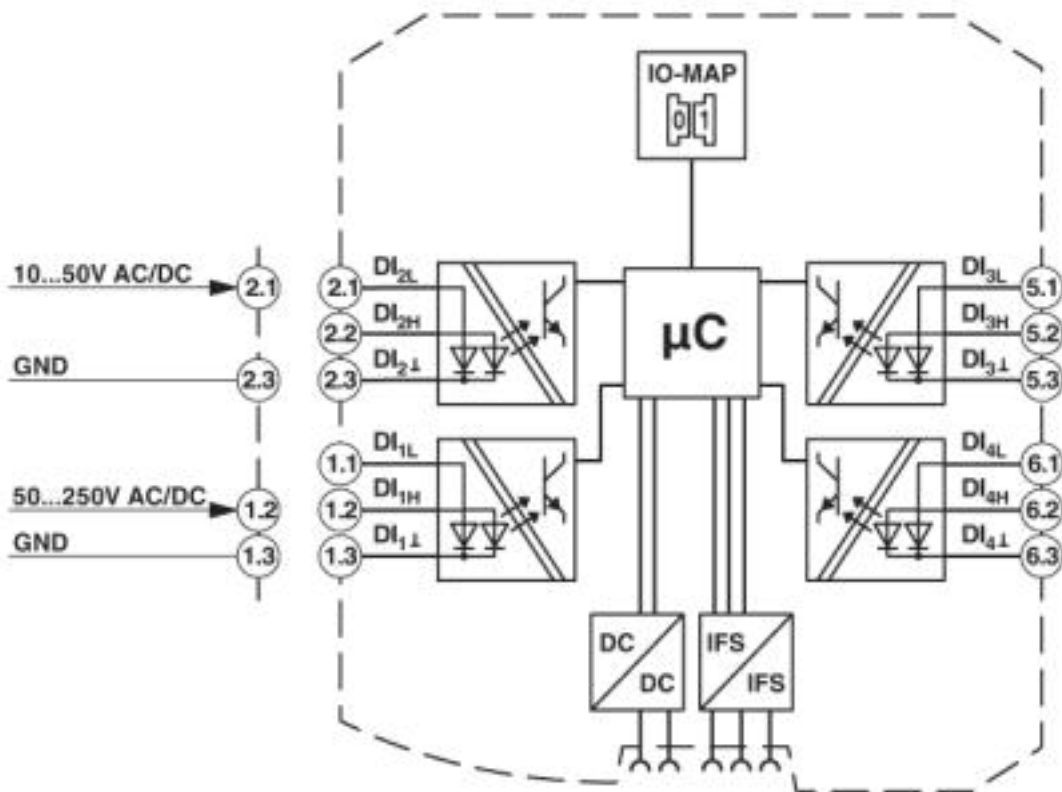


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### Drawings

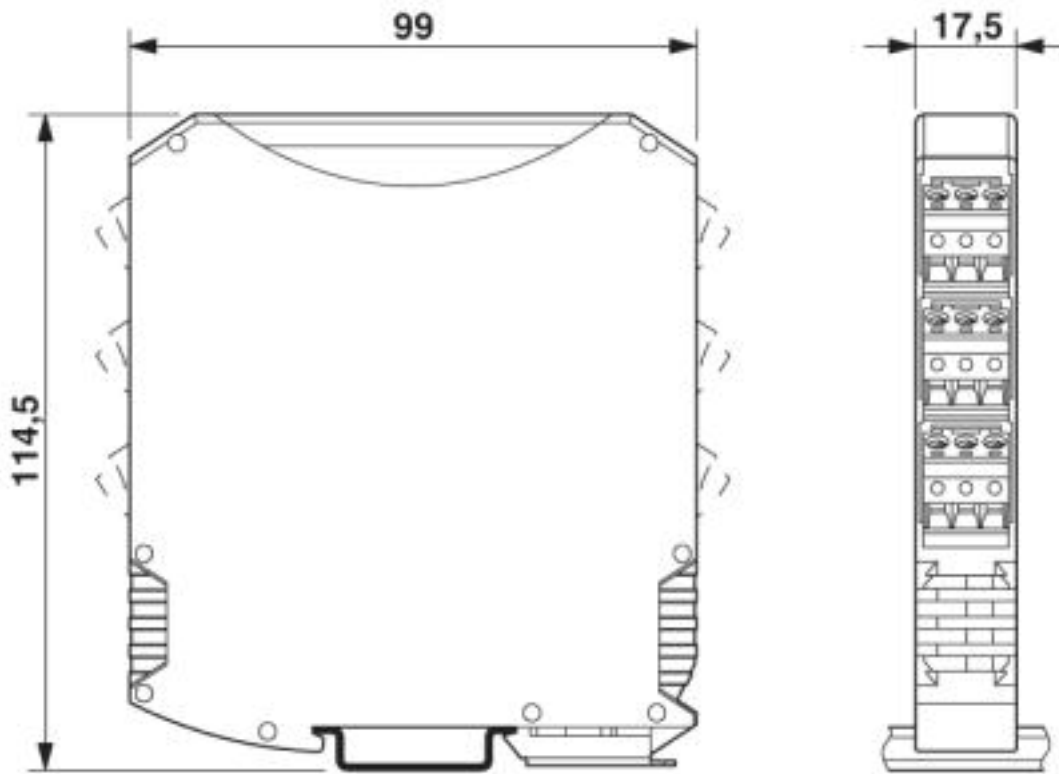
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Block diagram



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

Dimensioned drawing



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