

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



2702290

<https://www.phoenixcontact.com/us/products/2702290>

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



## Your advantages

- Easy module replacement even during operation (hot swap)
- Extended temperature range of -40 °C ... +70 °C
- Channel-to-channel electrical isolation
- Easy startup via thumbwheel

## Commercial data

Item number	2702290
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN26
Product key	DNC61D
GTIN	4055626076218
Weight per piece (including packing)	200 g
Weight per piece (excluding packing)	196.9 g
Customs tariff number	85177900
Country of origin	US

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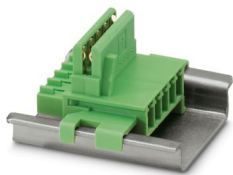
## Set consists of

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

2709561

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



## Technical data

### Notes

#### Note on application

Note on application	Only for industrial use
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### Product properties

Product type	Extension module
MTTF	887 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	357 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
	65 Years (Telcordia standard, temperature 40 °C, operating cycle 100 % (7 days a week, 24 hours a day))

#### Insulation characteristics

Overvoltage category	II
Degree of pollution	2

### Electrical properties

Electrical isolation	50 V (Rated insulation voltage (in each case between the analog inputs / TBUS supply, reinforced insulation in accordance with EN 61010))
	300 V (Rated insulation voltage (to adjacent devices, basic insulation in accordance with EN/IEC 61010))
Test voltage	1.5 kV AC (50 Hz, 1 min.)
Maximum power dissipation for nominal condition	2.88 W
Transient surge protection	yes

#### Supply

Supply voltage range	19.2 V DC ... 30.5 V DC (DIN rail bus connector)
Max. current consumption	≤ 120 mA (At 24 V DC, at 25°C)

### Input data

#### Analog

Description of the input	Voltage input
Number of inputs	4
Voltage input signal	0 V ... 5 V (can be set via DIP switches)
	0 V ... 10 V (can be set via DIP switches)
Resolution	16 bit (Bit)
Precision	≤ 0.1 % (at 25 °C)
Supply voltage	≥ 12 V DC (30 mA maximum current draw)

### Connection data

Connection method	Screw connection
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Stripping length	7 mm
Conductor cross-section, rigid min.	0.2 mm <sup>2</sup>
Conductor cross-section, rigid 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

## Signaling

Status display	LED supply voltage, PWR (green)
	Green LED (bus communication, DAT)
	LED periphery error, ERR (red)

## Dimensions

Dimensional drawing	
Width	17.5 mm
Height	113 mm
Depth	114.5 mm

## Material specifications

Color	green
Flammability rating according to UL 94	V0
Housing material	PA 6.6-FR

## Environmental and real-life conditions

### 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
Altitude	2000 m
Permissible humidity (operation)	20 % ... 85 %
Permissible humidity (storage/transport)	20 % ... 85 %
Shock	16g, 11 ms
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz

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## Approvals

### Conformity/Approvals

Conformance	CE-compliant
ATEX	Ⓜ II 3 G Ex ec IIC T4 Gc IBExU 18ATEXB018X
IECEX	IECEX IBE 13.0019X
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D T4 Class I, Zone 2, IIC T4

## Standards and regulations

Standard designation	EMC Directive 2014/30/EU
Standards/specifications	EN 61000-6-2
Standard designation	EMC Directive 2014/30/EU
Standards/specifications	EN 61000-6-4
Standard designation	Ex Directive (ATEX)
Standards/specifications	EN 60079-0
Standard designation	Ex Directive (ATEX)
Standards/specifications	EN 60079-15

## Mounting

Assembly note	on standard DIN rail NS 35 in accordance with EN 60715
Mounting position	any
Useable DIN rail type	DIN rail: 35 mm

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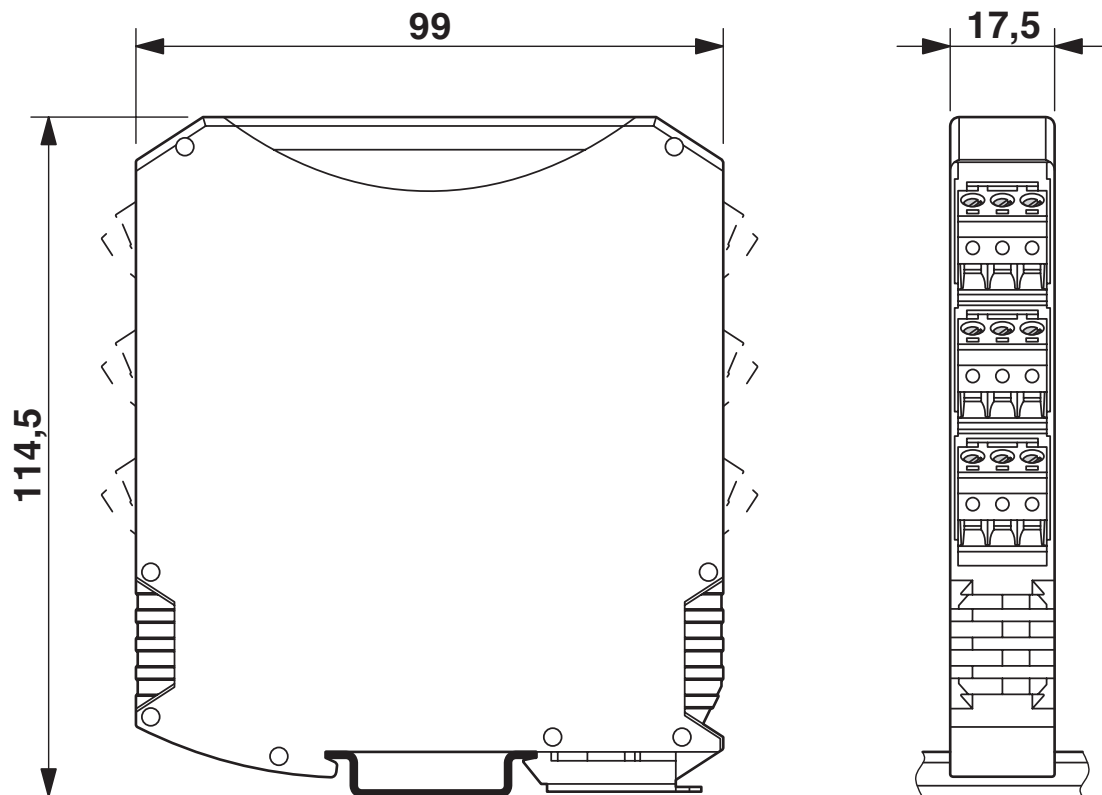
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## Drawings

Dimensional drawing



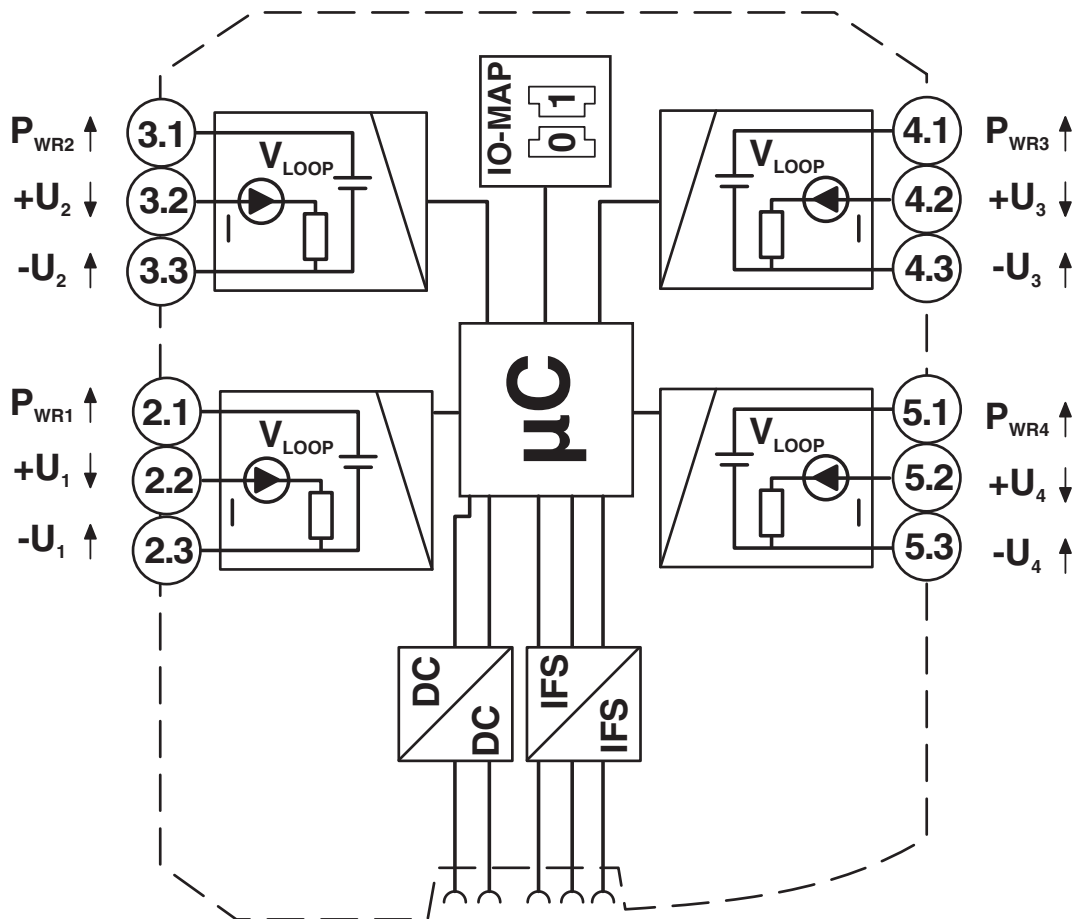
Slim design

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Circuit diagram



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## Approvals

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 **UL Listed**  
Approval ID: E238705

 **cUL Listed**  
Approval ID: E238705

 **cUL Listed**  
Approval ID: E196811

 **UL Listed**  
Approval ID: E196811



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## Classifications

### ECLASS

ECLASS-13.0	27242601
ECLASS-15.0	27242601

### ETIM

ETIM 9.0	EC001596
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### UNSPSC

UNSPSC 21.0	32151600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol(CAS: 79-94-7)
SCIP	79373e14-1184-4179-bb37-75904848c584

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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)