

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
Catalog page	Page 502 (C-8-2015)
GTIN	4055626076218
Weight per piece (including packing)	196.9 g
Weight per piece (excluding packing)	200 g
Customs tariff number	85177900
Country of origin	US

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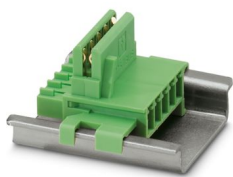


Set consists of

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

2709561

<https://www.phoenixcontact.com/us/products/2709561>



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

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Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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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 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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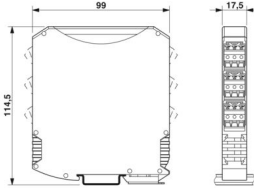
<https://www.phoenixcontact.com/us/products/2702290>

Stripping length	7 mm
Conductor cross section, rigid min.	0.2 mm ²
Conductor cross section, rigid 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

Signaling

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

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 IBE _X U 18ATEXB018X
IECE _X	IECE _X 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

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

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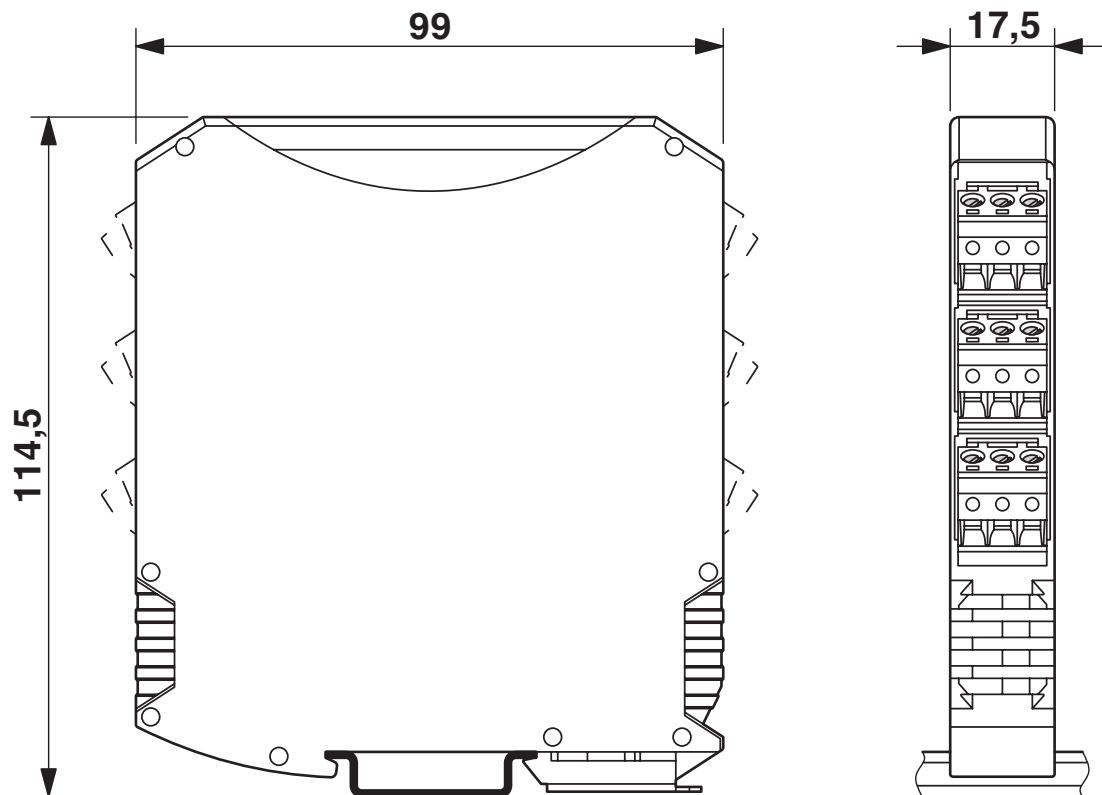
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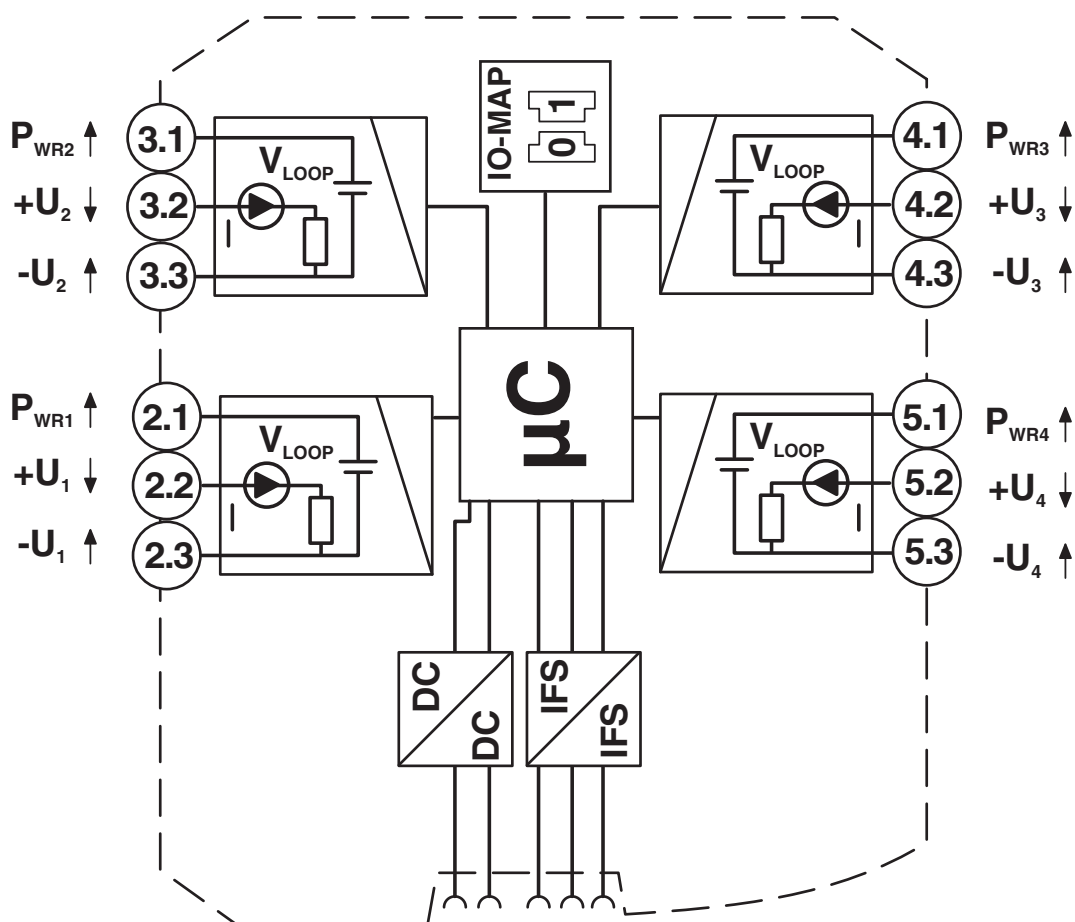
Drawings

Dimensional drawing



Slim design

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2702290>



UL Listed
Approval ID: FILE E 238705



cUL Listed
Approval ID: FILE E 238705



cUL Listed
Approval ID: FILE E 196811



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Classifications

ECLASS

ECLASS-11.0	27242601
ECLASS-12.0	27242601
ECLASS-13.0	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

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	79373e14-1184-4179-bb37-75904848c584

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Mandatory accessories

RAD-2400-IFS - Wireless module

2901541

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

RAD-900-IFS - Wireless module

2901540

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

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RAD-RS485-IFS - Communication module

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

RAD-2400-IFS-JP - Wireless module

2702863

<https://www.phoenixcontact.com/us/products/2702863>



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 use in Japan

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RAD-900-IFS-AU - Wireless module

2702878

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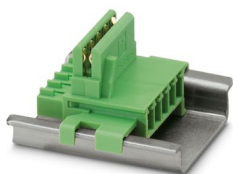
Radioline - 900 MHz wireless transceiver with RS-232/485 interface, can be extended with I/O modules, RSMA (female) antenna connection, point-to-point, star, and mesh networks up to 250 stations, range of up to 32 km (line of sight), for use in Australia.

Accessories

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RAD-AO4-IFS - I/O extension module

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

RAD-AO4-IFS - I/O extension module

2901538

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

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