ILB BT ADIO MUX-OMNI - Wireless set

2884208

https://www.phoenixcontact.com/us/products/2884208

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CRA-READY



Wireless MUX set, two modules with 16 digital inputs and outputs and 2 analog inputs and outputs (0 mA ... 20 mA, 0 V ... 10 V) each, RSMA (female) antenna connection, incl. omnidirectional antennas with 1.5 m cable. Product is being prepared for compliance with the Cyber Resilience Act (CRA).

Product description

The Wireless MUX transmits 16 digital and 2 analog signals bidirectionally. The Wireless MUX is supplied ready to use: Unpack – connect – switch on – and you have a working wireless path.

Your advantages

- Wireless diagnostics by means of bar graph
- Range of 50 m ... 100 m in industrial halls with omnidirectional antennas and up to 400 m outdoors with directional antennas
- Quick connection establishment and signal transmission
- Current Bluetooth 4.0 technology
- Plug and play - startup without configuration
- It couldn't be simpler: unpack – connect – switch on

ELEKTROGERÄTE RÜCKNAHME

Commercial data

Item number	2884208

Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN26
Product key	DNC662
GTIN	4046356049597
Weight per piece (including packing)	914 g
Weight per piece (excluding packing)	885 g
Customs tariff number	85176200
Country of origin	DE

Set consists of

ILB BT ADIO MUX - Wireless set

2702875

https://www.phoenixcontact.com/us/products/2702875



Wireless MUX set, two modules with 16 digital inputs and outputs and 2 analog inputs and outputs (0 mA ... 20 mA, 0 V ... 10 V) each, RSMA (female) antenna connection, without antennas. Product is being prepared for compliance with the Cyber Resilience Act (CRA).

RAD-ISM-2400-ANT-OMNI-2-1-RSMA - Antenna

2701362

https://www.phoenixcontact.com/us/products/2701362



Omnidirectional antenna for panel mounting, frequency band: 2.4 GHz, gain: 2 dBi, degree of protection: IP65, connection: RSMA (male), incl. 1.5 m connecting cable, mounting bracket, and mounting material

Technical data

Notes

Note on application	Only for industrial use
Note on application	As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA.

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area

Product properties

Product type	Wireless module
Product family	Inline
Application	I/O
Type	Stand-alone
MTTF	1458 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	557 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	219 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)
MTBF	465 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	140 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
Diagnostics messages	Short-circuit or overload of the digital outputs LED
	Wireless connection FS LED
	Logic and actuator voltage LED
	Link quality of the wireless connection 4 LEDs

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Times

Switch-on time	≤ 3 s (Until the wireless connection is established)
Delay time	≤ 10 ms (Latency, typical)
	≤ 800 ms (Failsafe function for wireless interruption)

Electrical properties

Maximum power dissipation for nominal condition	2.4 W

Supply: Module electronics

Connection method	Inline connector
Supply voltage	24 V DC

Supply voltage range	19.2 V DC ... 30.5 V DC (via power connector)
Current consumption	60 mA (Communications power at 24 V DC, 25 °C)
	25 mA (Actuator supply, +load current Digital OUT (8 A))
Protective circuit	Polarity protection, surge protection

Input data

Analog:

Input name	Analog inputs
Description of the input	Single ended
Number of inputs	2
Protective circuit	Surge voltage; Suppressor diodes in the analog inputs, current limitation via internal protective circuit
Measured value resolution	12 bits
Current input signal	0 mA ... 20 mA
Input resistance current input	50 Ω
Voltage input signal	0 V ... 10 V
Input resistance of voltage input	130 kΩ

Digital:

Input name	Digital inputs
Number of inputs	16
Connection method	Spring-cage connection
Connection technology	1-conductor
Input voltage range "0" signal	< 5 V
Input voltage range "1" signal	> 15 V
Nominal input voltage U_{IN}	24 V DC
Permissible conductor length to the sensor	100 m
Typical input current per channel	2.3 mA
Input frequency	≤ 10 Hz

Output data

Analog:

Output name	Analog outputs
Number of outputs	2
Protective circuit	Transient protection
DAC resolution	12 bit
Current output signal	0 mA ... 20 mA
Load/output load current output	≤ 500 Ω
Voltage output signal	0 V ... 10 V
Load/output load voltage output	≥ 2 kΩ

Digital:

Output name	Digital outputs
Connection method	Spring-cage connection

Connection technology	1-conductor
Number of outputs	16
Protective circuit	Short-circuit protection, overload protection, protected against reverse voltages
Output current	8 A (Total)
Maximum output current per channel	500 mA
Nominal output voltage	24 V DC
Output current when switched off	≤ 10 µA (When not loaded, a voltage can be measured even at an output that is not set.)
Nominal load, inductive	12 VA (1.2 H, 50 Ω)
Nominal load, lamp	12 W
Nominal load, ohmic	12 W (48 Ω)
Behavior with overload	Auto restart
Behavior with inductive overload	Output can be destroyed
Behavior at voltage switch-off	The output follows the power supply without delay
Reverse voltage resistance to short pulses	Reverse voltage proof
Resistance to permanent reverse voltage	≤ 2 A
Overcurrent shut-down	≥ 0.7 A

Connection data

Conductor cross-section, rigid	0.2 mm² ... 1.5 mm²
Conductor cross-section, flexible	0.2 mm² ... 1.5 mm²
Conductor cross-section, flexible [AWG]	... 16
Stripping length	8 mm

Interfaces

Functions

Wireless licenses	Europe, USA, Canada, additional countries in the e-shop

Wireless

Modulation type	GFSK (Gaussian Frequency Shift Keying)
Antenna connection method	RSMA (female)
No. of channels	40
Frequency range	2.402 GHz ... 2.48 GHz (ISM bandwidth)
Frequency band	2.4 GHz
Wireless standard	Bluetooth
Transmission power	5 dBm
Receiver sensitivity	-95.00 dBm

Signaling

Diagnostic messages

Diagnostics	Short-circuit or overload of the digital outputs
Message	LED

Diagnostic messages

Diagnostics	Wireless connection
Message	FS LED

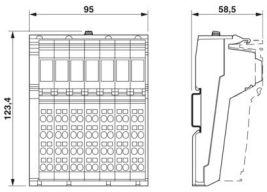
Diagnostic messages

Diagnostics	Logic and actuator voltage
Message	LED

Diagnostic messages

Diagnostics	Link quality of the wireless connection
Message	4 LEDs

Dimensions

Dimensional drawing	
Width	95 mm
Height	123.4 mm
Depth	57 mm
Note on dimensions	with connectors

Material specifications

Color (Housing)	green (RAL 6021)
Material (Housing)	PA 6.6-FR

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Degree of protection	IP20
Air pressure (operation)	795 hPa ... 1080 hPa (up to 2000 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (up to 3500 m above sea level)
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	95 % (non-condensing)
Permissible humidity (storage/transport)	95 %

Mechanical test

Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g, 10...150 Hz, 2.5 h, in XYZ direction
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	16g, 11 ms

Approvals

CE

Certificate	CE-compliant

UL, USA/Canada

Identification	508 Listed

Wireless approval, Europe

Note	RED 2014/53/EU

Wireless approval USA, FCC

Identification	YG3ADIOMUX
Note	FCC directive, part 15.247

Wireless approval India, WPC

Certificate	NR-ETA/5957

Wireless approval Japan, MIC

Identification	Japan MIC (RF) ID:202-LSF002

Wireless approval Canada, IC

Certificate	4720B-ADIOMUX
Note	ISC directive RSS 210

Wireless approval Mexico, IFT

Certificate	IFT RCPPHIL19-2130

Wireless approval South Africa, ICASA

Certificate	TA-2006/032

KC approval for South Korea

Certificate	MSIP-CRI-PCK-2884208

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU

Electrostatic discharge

Standards/regulations	EN 61000-4-2

Electrostatic discharge

Contact discharge	± 6 kV (Test Level 3)
Discharge in air	± 8 kV (Test Level 3)
Indirect discharge	± 6 kV
Comments	Criterion B

Electromagnetic HF field

Standards/regulations	EN 61000-4-3

Electromagnetic HF field

Frequency range	26 MHz ... 3 GHz (Test Level 3)
Field intensity	10 V/m
Comments	Criterion A

Fast transients (burst)

Standards/regulations	EN 61000-4-4

Fast transients (burst)

Input	± 2 kV (Test Level 3)
Signal	± 2 kV (Signal line)
Comments	Criterion B

Surge current load (surge)

Standards/regulations	EN 61000-4-5

Surge current load (surge)

Input	± 0.5 kV (symmetrical)
	± 1 kV (asymmetrical)
Signal	± 1 kV (Signal line, asymmetrical)
Comments	Criterion B

Conducted interference

Standards/regulations	EN 61000-4-6

Conducted interference

Frequency range	0.15 MHz ... 80 MHz
Comments	Criterion A
Voltage	10 V

Emitted interference

Emitted radio interference in acc. with EN 55011	EN 55016-2-3 Class A industrial applications

Criteria

Criterion A	Normal operating behavior within the specified limits.
Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.

Standards and regulations

Protection class	III
Free from substances that could impair the application of coating	VDMA 24364:2018-05

RED

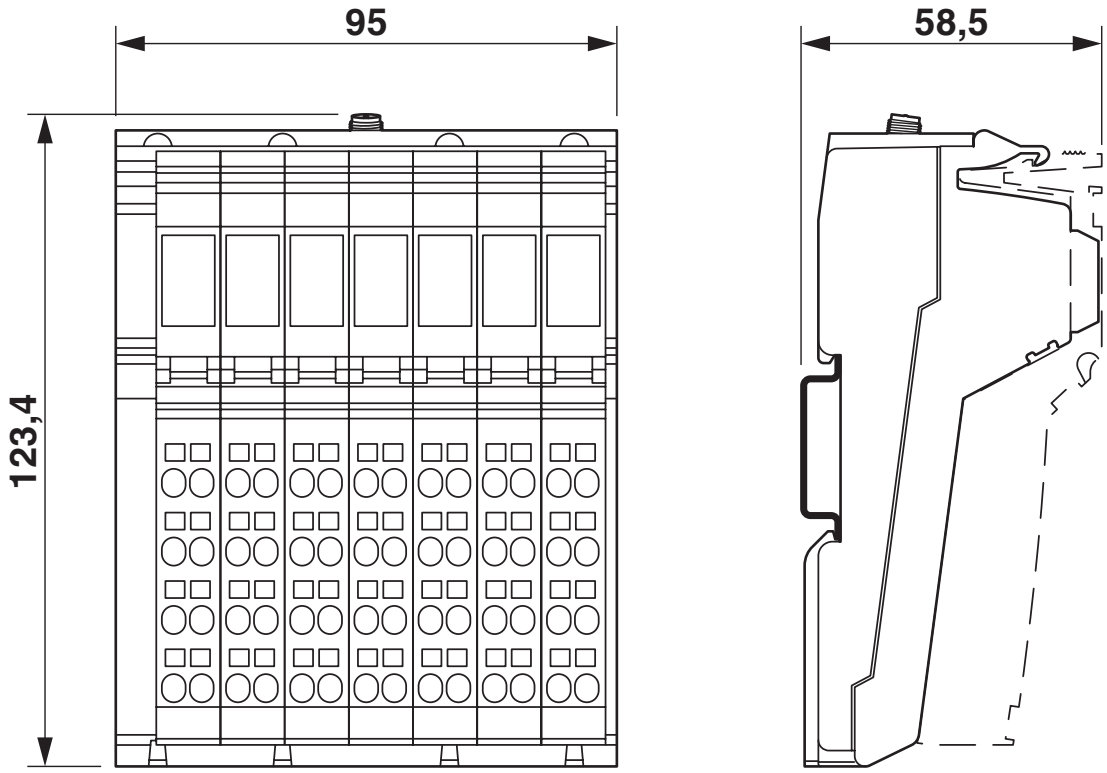
Standard designation	RED directive 2014/53/EU
Standards/specifications	EN 300328
	EN 61000-6-4
	EN 61000-6-2
	EN 62311
	EN 60950

Mounting

Mounting type	DIN rail mounting

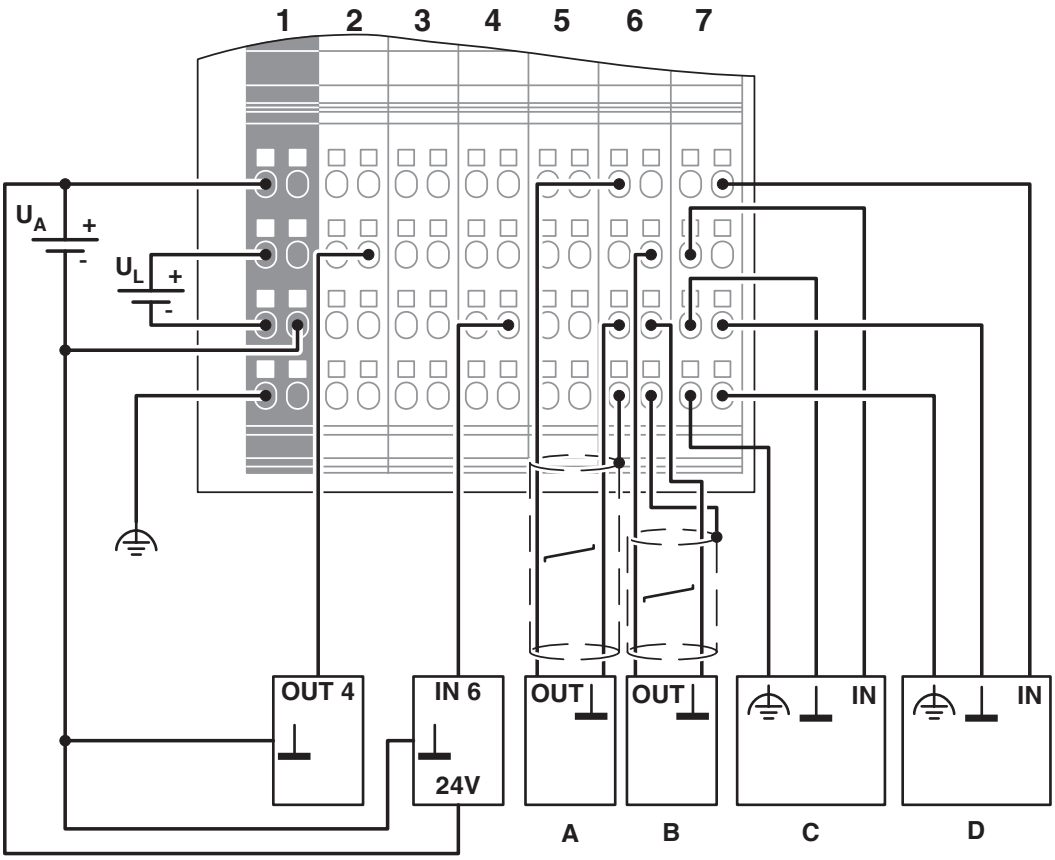
Drawings

Dimensional drawing



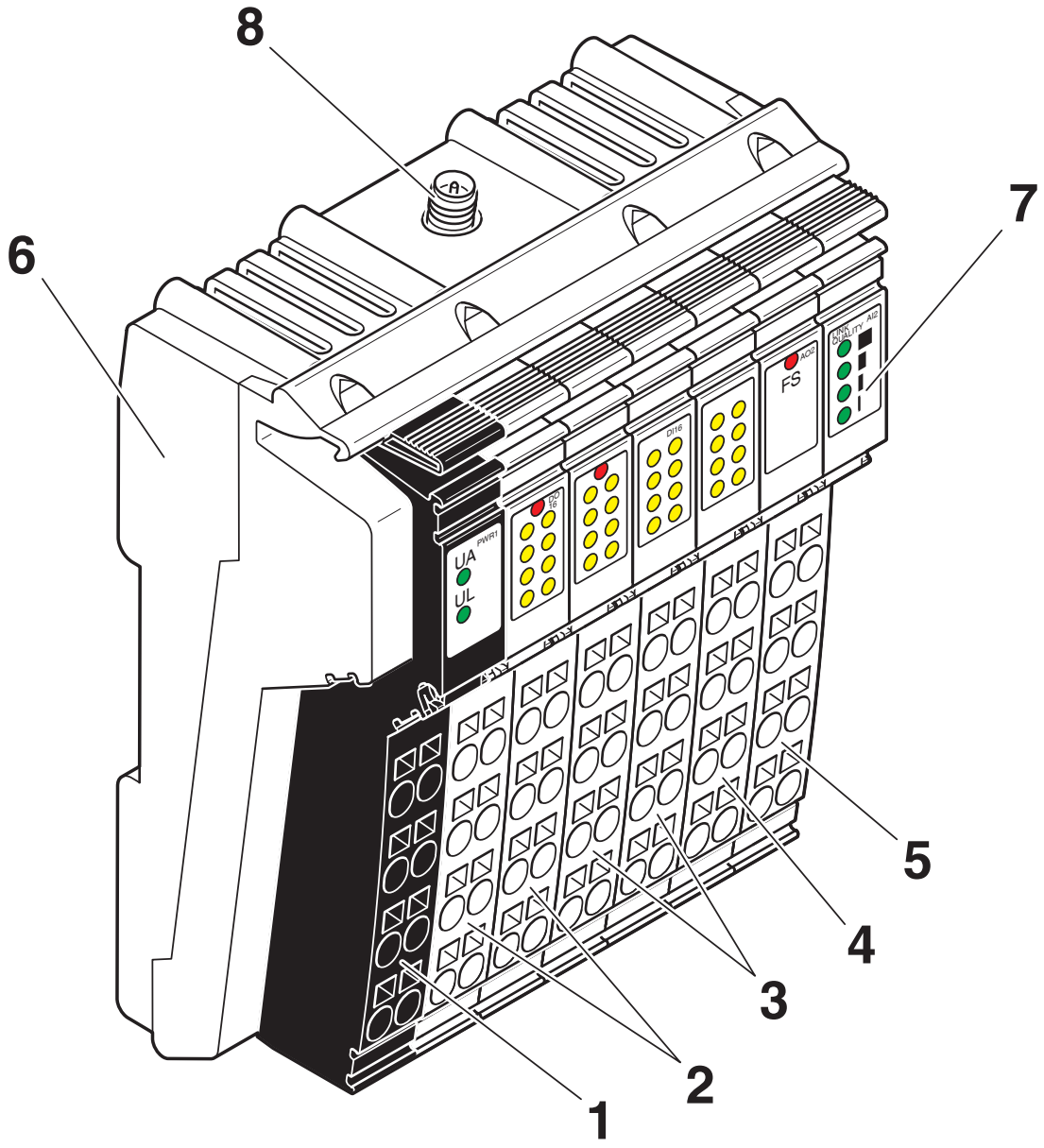
Housing dimensions

Connection diagram



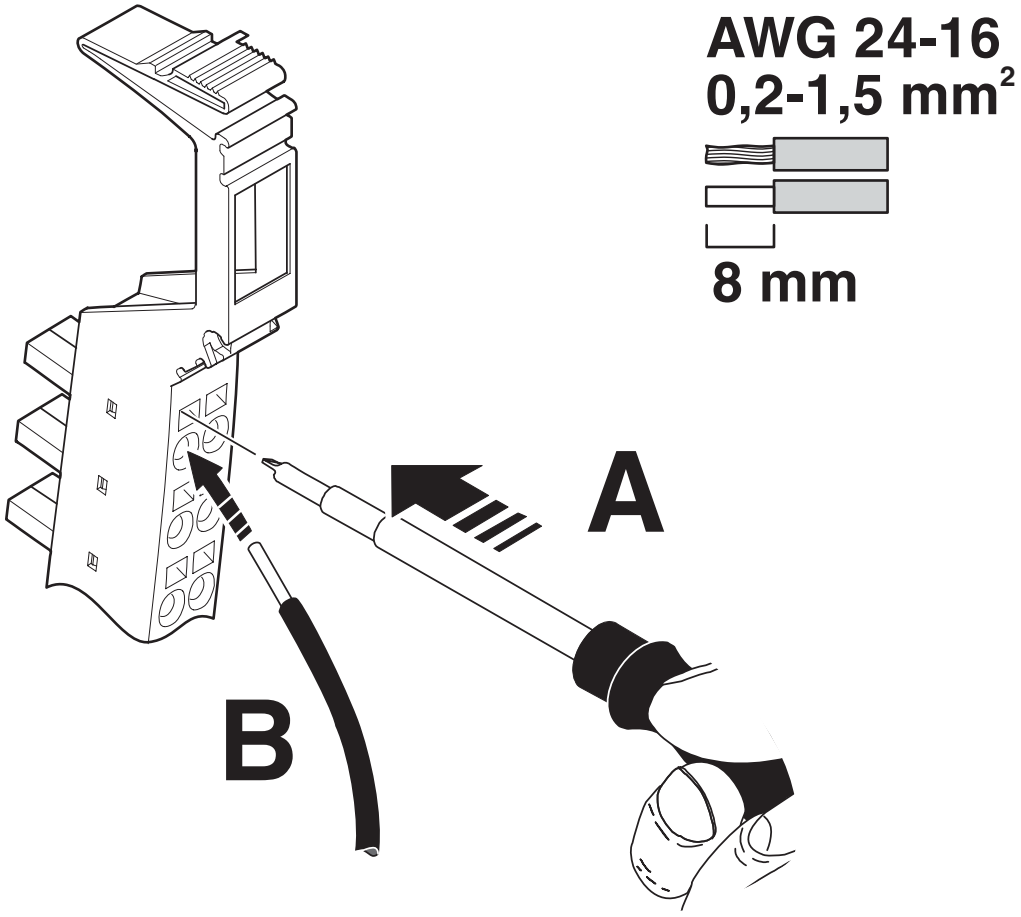
Device connections

Schematic diagram



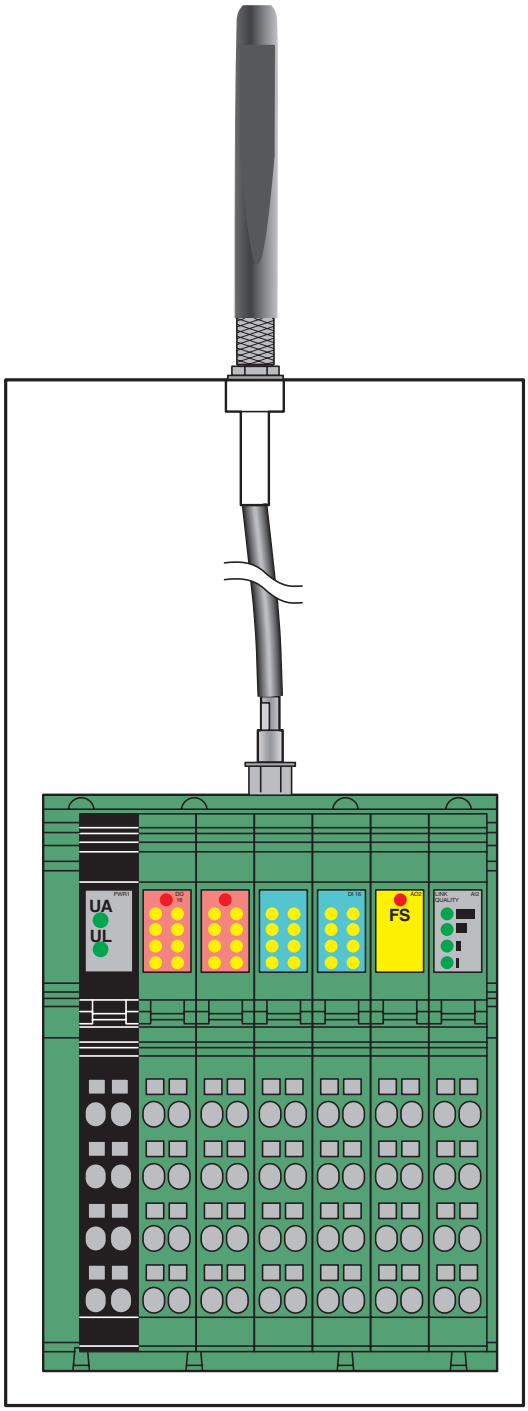
Function elements

Schematic diagram



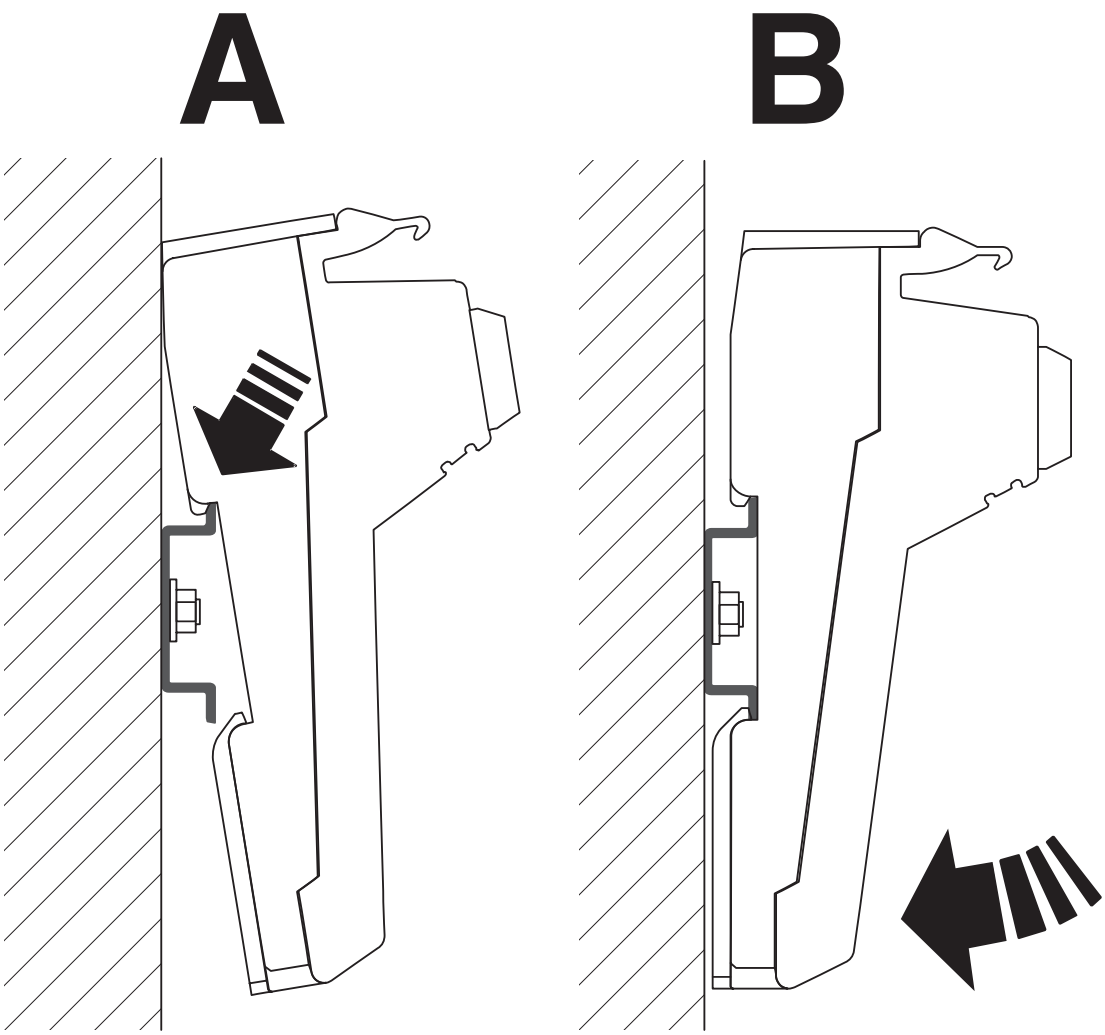
Connecting cables

Schematic diagram



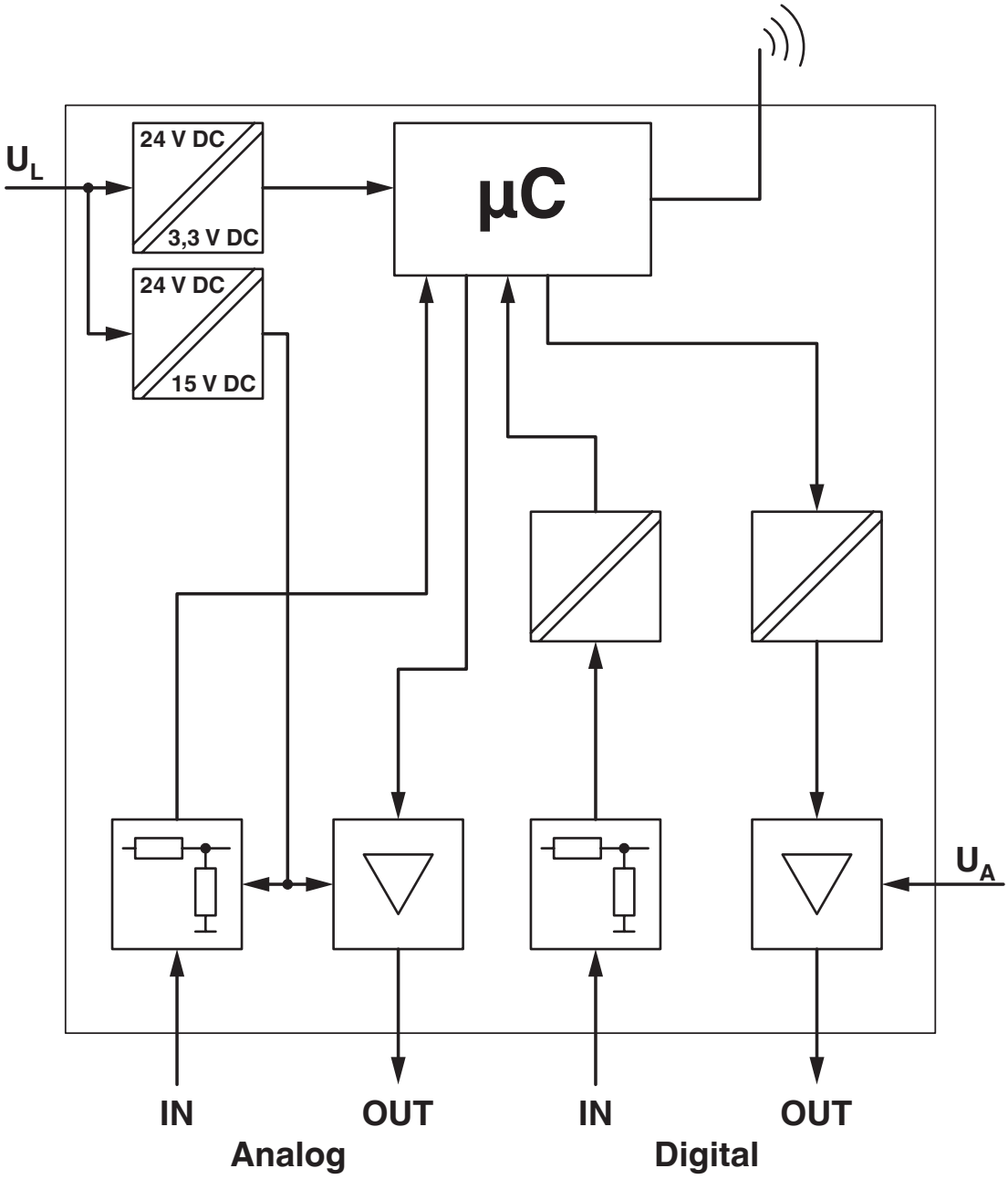
Installation example

Schematic diagram



Mounting

Block diagram



Block diagram

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2884208

KC
Approval ID: MSIP-CRI-PCK-2884208

FCC
Approval ID: YG3ADIOMUX

Industry Canada
Approval ID: 4720B-ADIOMUX

MIC
Approval ID: 202-LSF002

Classifications

ECLASS

ECLASS-13.0	27242602
ECLASS-15.0	27242602

ETIM

ETIM 10.0	EC001597

UNSPSC

UNSPSC 21.0	32151600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 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)
SCIP	82710383-ad84-4f18-bc08-99d7dfd2aa2d

EF3.1 Climate Change

CO2e kg	22.86 kg CO2e

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