

ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>



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 documentation. Our General Terms of Use for Downloads are valid.



Wireless MUX set, two modules with 16 digital inputs and outputs and 2 analog inputs and outputs (0 ... 20 mA, 0 ... 10 V) each, RSMA (female) antenna connection, without antennas

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

Commercial Data

Item number	2702875
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	DNC
Product Key	DNC662
Catalog Page	Page 386 (C-6-2019)
GTIN	4055626369846
Weight per Piece (including packing)	645.6 g
Weight per Piece (excluding packing)	630 g
Customs tariff number	85176200
Country of origin	DE

Technical Data

Product properties

Type	Block design
Product type	Wireless module
Product family	Inline
Application	I/O
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%)
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

Delay time	≤ 10 ms (Latency, typical)
	≤ 800 ms (Failsafe function for wireless interruption)

Electrical properties

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 (at 24 V DC, at 25 °C)
Protective circuit	Polarity protection, surge protection

Input data

Analog

Input name	Analog inputs
Description of the input	Single ended
Number of inputs	2
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
Measured value resolution	12 bits

ILB BT ADIO MUX - Wireless set



2702875

<https://www.phoenixcontact.com/in/products/2702875>

Protective circuit	Surge voltage; Suppressor diodes in the analog inputs, current limitation via internal protective circuit
--------------------	---

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
Typical input current per channel	2.3 mA

Output data

Analog

Output name	Analog outputs
Number of outputs	2
DAC resolution	12 bit
Current output signal	0 mA ... 20 mA
Load/output load current output	$\leq 500 \Omega$
Voltage output signal	0 V ... 10 V
Load/output load voltage output	$\geq 2 \text{ k}\Omega$

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
Maximum output current per channel	500 mA
Nominal output voltage	24 V DC
Output current when switched off	$\leq 10 \mu\text{A}$ (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)
Reverse voltage resistance to short pulses	Reverse voltage proof
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

Connection data

Conductor cross section, rigid	0.2 mm ² ... 1.5 mm ²
--------------------------------	---

Conductor cross section, flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross section, flexible [AWG]	... 16
Stripping length	8 mm

Interfaces

Functions

Wireless licenses	Europe, 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 dBm

Signaling

Diagnostic messages

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

Diagnostic messages

Diagnostics	Wireless connection
Message	FS LED

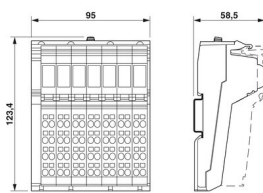
Diagnostic messages

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

ILB BT ADIO MUX - Wireless set



2702875

<https://www.phoenixcontact.com/in/products/2702875>

Note on dimensions	with connectors
--------------------	-----------------

Material specifications

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 %

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 RCPHIL19-2130
-------------	-------------------

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)
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.

ILB BT ADIO MUX - Wireless set



2702875

<https://www.phoenixcontact.com/in/products/2702875>

Criterion B	Temporary impairment to operational behavior that is corrected by the device itself.
-------------	--

Standards and regulations

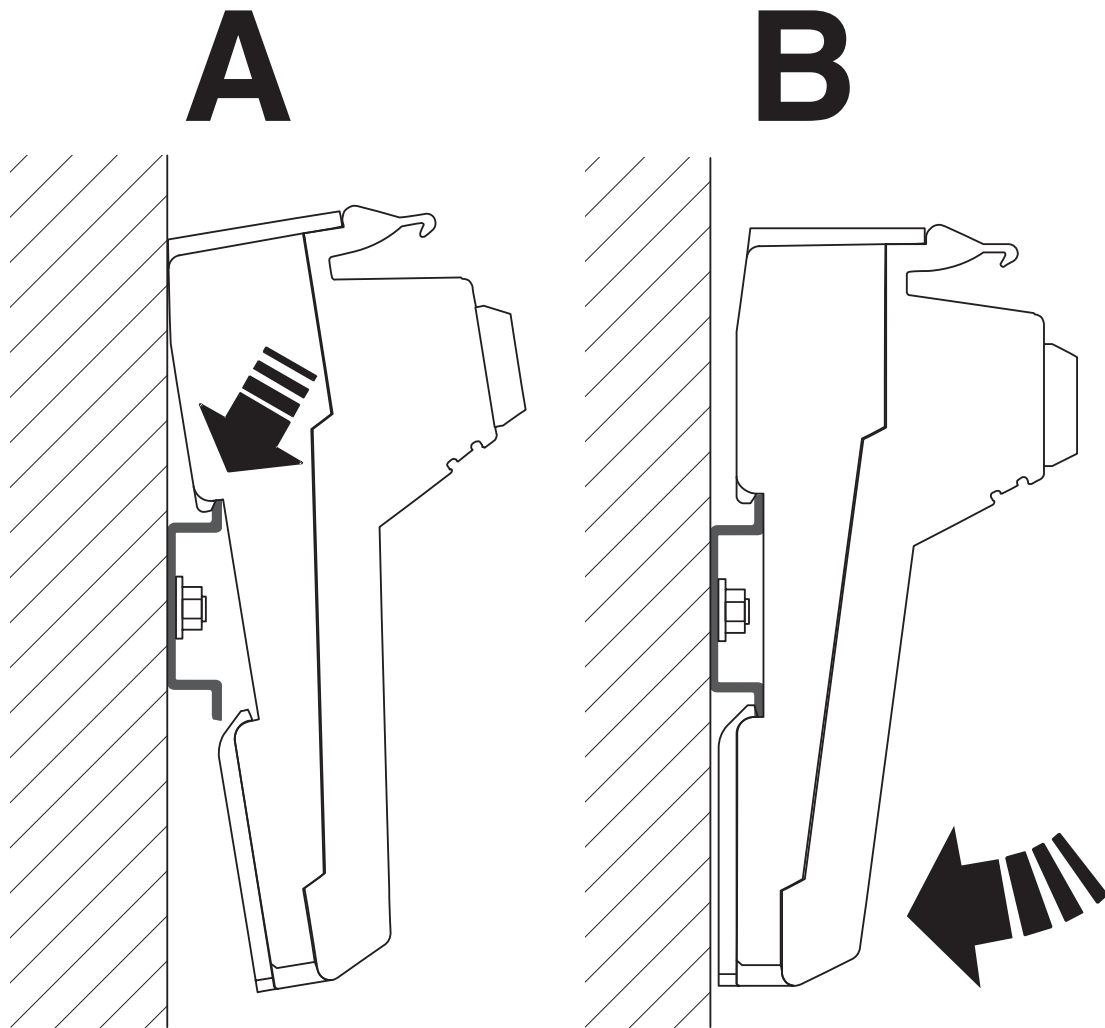
Protection class	III
Free from substances that could impair the application of coating	in accordance with VW-AUDI-Seat central standard P-VW 3.10.7 57 65 0
Standards/specifications	EN 300328
	EN 61000-6-4
	EN 61000-6-2
	EN 62311
	EN 60950

Mounting

Mounting type	DIN rail mounting
---------------	-------------------

Drawings

Schematic diagram



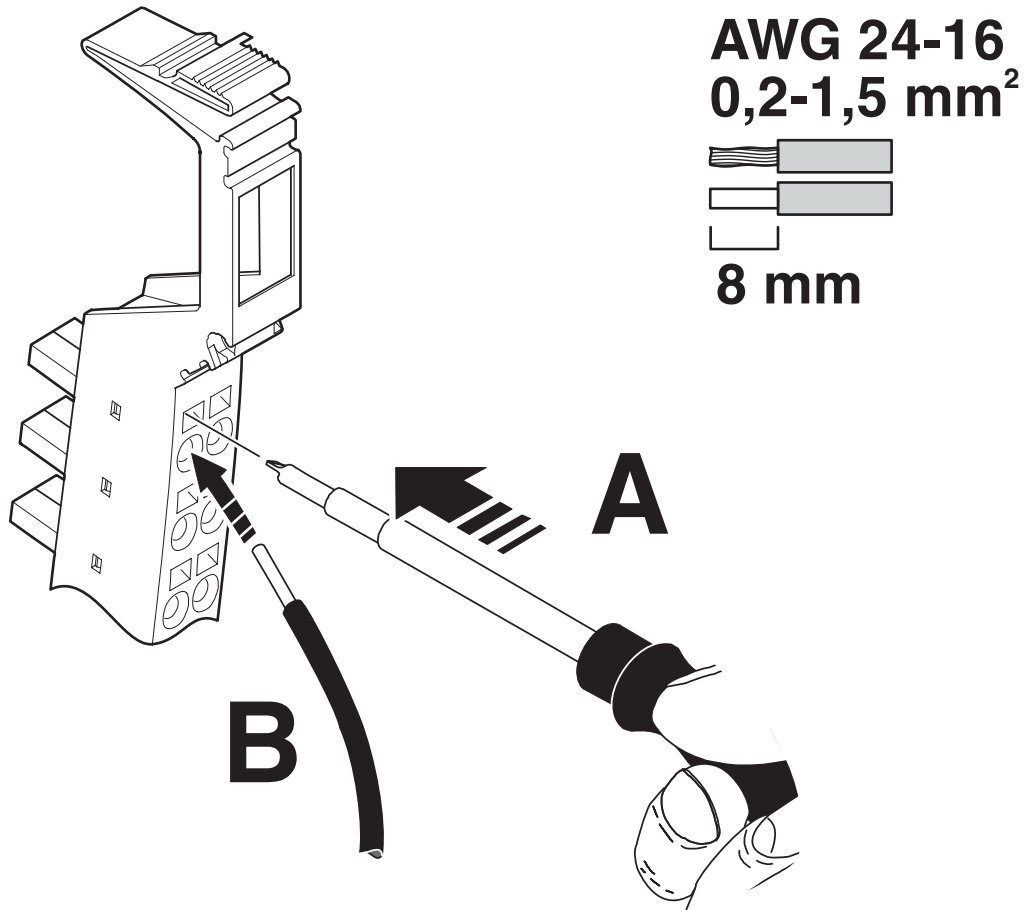
Mounting

ILB BT ADIO MUX - Wireless set

2702875

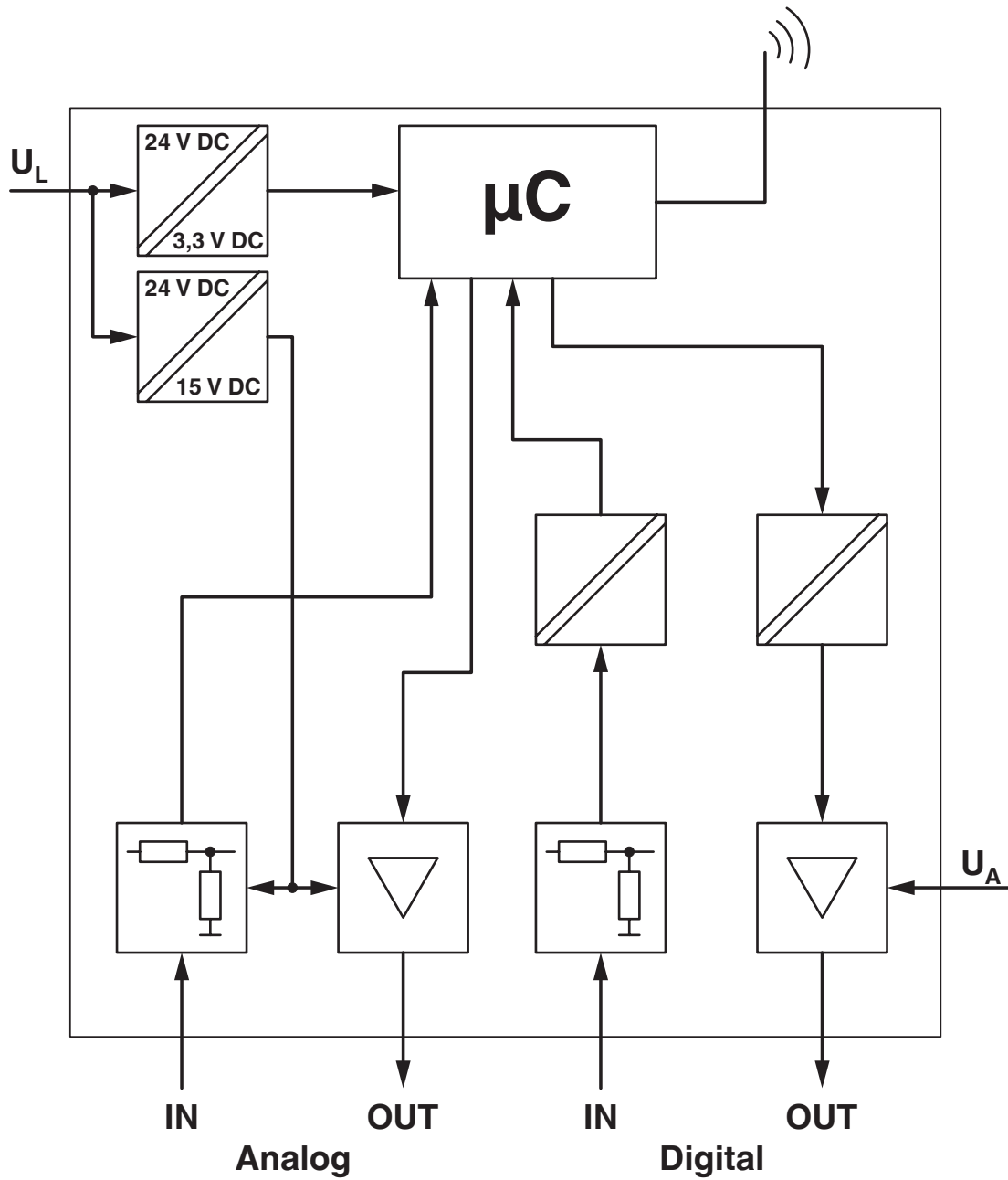
<https://www.phoenixcontact.com/in/products/2702875>

Schematic diagram



Connecting cables

Block diagram



Basic circuit diagram

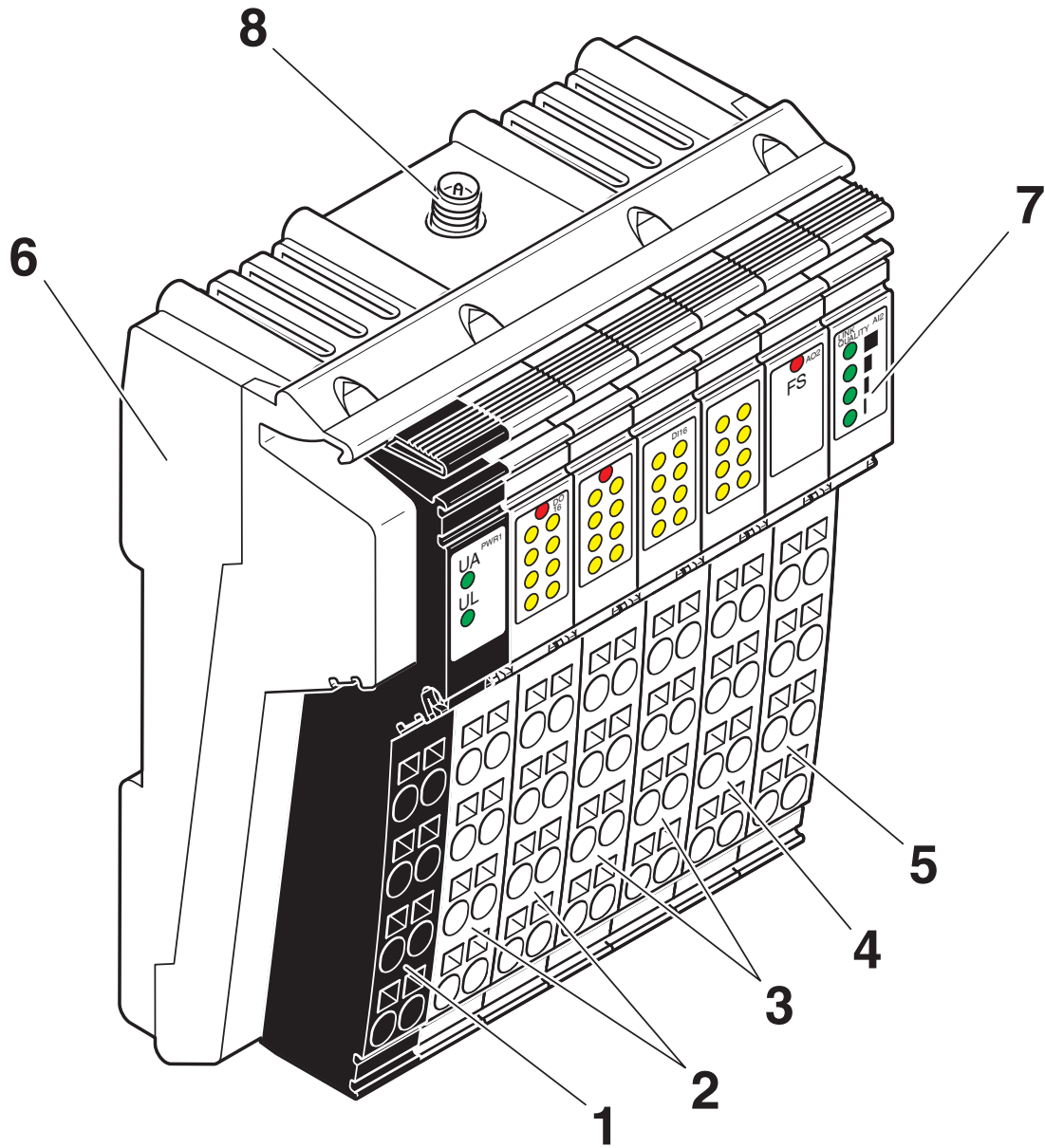
ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>



Schematic diagram



Function elements

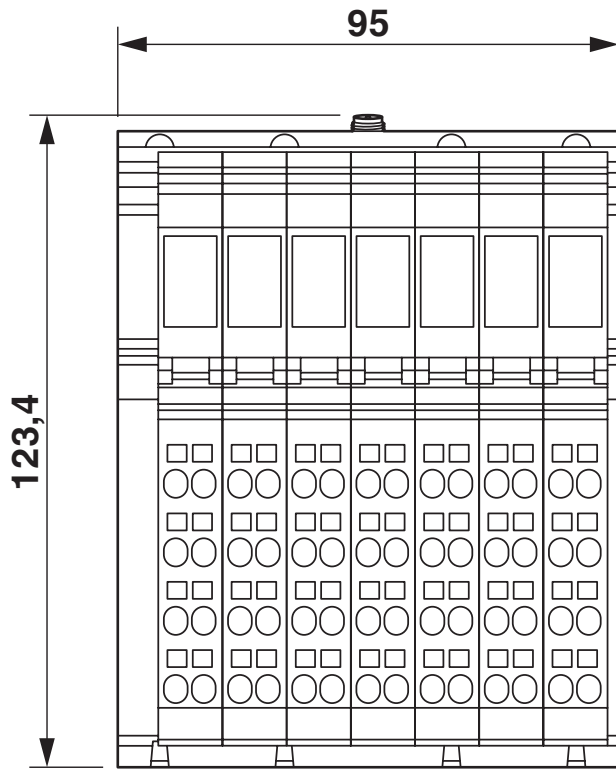
ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>



Dimensional drawing



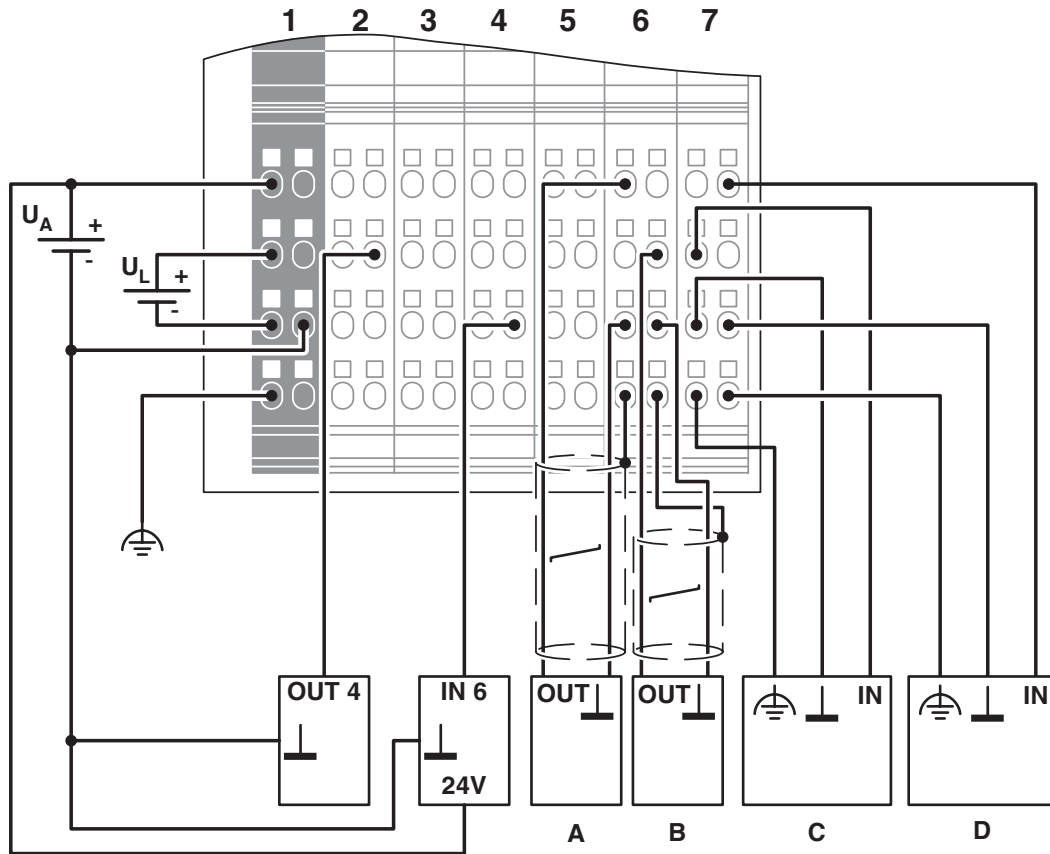
Dimensional drawing

ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>

Connection diagram



Device connections

ILB BT ADIO MUX - Wireless set



2702875

<https://www.phoenixcontact.com/in/products/2702875>

Approvals



UL Listed

Approval ID: FILE E 140324



cUL Listed

Approval ID: FILE E 140324



MIC

Approval ID: 202-LSF002

ILB BT ADIO MUX - Wireless set



2702875

<https://www.phoenixcontact.com/in/products/2702875>

Classifications

ECLASS

ECLASS-11.0	27242602
ECLASS-12.0	27242602
ECLASS-13.0	27242602

ETIM

ETIM 8.0	EC001597
----------	----------

UNSPSC

UNSPSC 21.0	32151600
-------------	----------

ILB BT ADIO MUX - Wireless set



2702875

<https://www.phoenixcontact.com/in/products/2702875>

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>



Accessories

IB IL SCN 6-SHIELD-TWIN - Inline shield connector

2740245

<https://www.phoenixcontact.com/in/products/2740245>

Inline shield connector



IB IL SCN-PWR IN-CP - Inline connector

2727637

<https://www.phoenixcontact.com/in/products/2727637>

Connector, colored, for Inline power and segment terminal blocks



IB IL SCN-8 - Inline connector

2726337

<https://www.phoenixcontact.com/in/products/2726337>

Connector, for digital 1, 2 or 8-channel Inline terminals



ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>



IB IL FIELD 2 - Labeling field

2727501

<https://www.phoenixcontact.com/in/products/2727501>

Labeling field, width: 12.2 mm



ESL 62X10 - Insert strip

0809492

<https://www.phoenixcontact.com/in/products/0809492>

Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems:
Laser printer, mounting type: insert, lettering field size: 62 x 10 mm, Number of
individual labels: 72



ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>



ZBFM 6/WH:UNBEDRUCKT - Flat zack marker sheet

0803618

<https://www.phoenixcontact.com/in/products/0803618>

Flat zack marker sheet, Sheet, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 5 x 5.5 mm, Number of individual labels: 100



CLIPFIX 35-5 - End clamp

3022276

<https://www.phoenixcontact.com/in/products/3022276>

Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray



ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>

ANT-OMNI-2459-04 - Antenna

1284780

<https://www.phoenixcontact.com/in/products/1284780>



Multiband omnidirectional antenna for freely mobile applications, compact design, frequency band: 2.4 GHz / 5 GHz / 6 GHz, gain: 2.0 dBi / 2.5 dBi / 3.0 dBi, degree of protection: IP68/IP69K, shock- and vibration-resistant, connection: N (male)

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

2701362

<https://www.phoenixcontact.com/in/products/2701362>



Omnidirectional antenna for wall 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

ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>

RAD-ISM-2400-ANT-VAN-3-0-RSMA - Antenna

2701358

<https://www.phoenixcontact.com/in/products/2701358>



Omnidirectional antenna with protection against vandalism for control cabinet mounting, frequency band: 2.4 GHz, gain: 3 dBi, degree of protection: IP55, shockproof: IK08, connection: RSMA (male), incl. 1.5 m connecting cable

RAD-ISM-2459-ANT-FOOD-6-0-N - Antenna

2702898

<https://www.phoenixcontact.com/in/products/2702898>



Multiband omnidirectional antenna with protection against vandalism for control cabinet mounting, frequency band: 2.4 GHz / 5 GHz / 6 GHz, gain: 6 dBi / 8 dBi / 8 dBi, degree of protection: IP68, shockproof: IK08, resistant to cleaning agents, shock- and vibration-resistant, connection: N (female)

ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>

ANT-OMNI-0671-02 - Antenna

1396318

<https://www.phoenixcontact.com/in/products/1396318>



Multiband omnidirectional antenna with protection against vandalism for control cabinet mounting, frequency band: 0.6 GHz ... 7.1 GHz, gain: 2 dBi ... 4 dBi, degree of protection: IP67, shockproof: IK10, seawater-resistant, connection: N (female)

ANT-OMNI-0671-01 - Antenna

1396316

<https://www.phoenixcontact.com/in/products/1396316>



Multiband omnidirectional antenna for wall or mast mounting, 0.6 GHz ... 7.1 GHz, gain: 1 dBi ... 3 dBi, degree of protection: IP67, seawater-resistant, connection: N (female), incl. mounting bracket and mast clamps

ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>

RAD-ISM-2400-ANT-OMNI-6-0 - Antenna

2885919

<https://www.phoenixcontact.com/in/products/2885919>

Omnidirectional antenna for wall or mast mounting, 2.4 GHz, gain: 6 dBi, degree of protection: IP67, saltwater-resistant, shock- and vibration-resistant, connection: N (female), incl. mounting bracket and mast clamps, ATEX and IECEx approval



ANT-DIR-2459-01 - Antenna

2701186

<https://www.phoenixcontact.com/in/products/2701186>

Directional antenna for wall or mast mounting, 2.4 GHz / 5 GHz, gain: 9 dBi, degree of protection: IP67, shockproof: IK06, saltwater-resistant, connection: N (female), incl. mounting bracket and mast clamps, ATEX and IECEx approval



ILB BT ADIO MUX - Wireless set



2702875

<https://www.phoenixcontact.com/in/products/2702875>

RAD-PIG-EF316-N-RSMA - Antenna cable

2701402

<https://www.phoenixcontact.com/in/products/2701402>

Antenna cable for control cabinet feed-through, outside diameter: 3.2 mm (0.126 in.), inner conductor: stranded, attenuation: 0.6 / 0.9 / 1.4 dB at 0.9 / 2.4 / 5.8 GHz, connection: N (female) -> RSMA (male), cable length: 0.5 m (1.6 ft.)



RAD-PIG-RSMA/N-0.5 - Antenna cable

2903263

<https://www.phoenixcontact.com/in/products/2903263>

Antenna cable, outside diameter: 5 mm (0.2 in.), inner conductor: solid, attenuation: 0.4 / 0.5 / 0.6 dB at 0.9 / 2.4 / 5.8 GHz, connection: N (male) -> RSMA (male), cable length: 0.5 m (1.6 ft.)



ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>

RAD-PIG-RSMA/N-1 - Antenna cable

2903264

<https://www.phoenixcontact.com/in/products/2903264>



Antenna cable, outside diameter: 5 mm (0.2 in.), inner conductor: solid, attenuation: 0.5 / 0.8 / 1.1 dB at 0.9 / 2.4 / 5.8 GHz, connection: N (male) -> RSMA (male), cable length: 1 m (3.3 ft.)

RAD-PIG-RSMA/N-2 - Antenna cable

2903265

<https://www.phoenixcontact.com/in/products/2903265>



Antenna cable, outside diameter: 5 mm (0.2 in.), inner conductor: solid, attenuation: 0.9 / 1.3 / 2.0 dB at 0.9 / 2.4 / 5.8 GHz, connection: N (male) -> RSMA (male), cable length: 2 m (6.5 ft.)

ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>

RAD-PIG-RSMA/N-3 - Antenna cable

2903266

<https://www.phoenixcontact.com/in/products/2903266>



Antenna cable, outside diameter: 5 mm (0.2 in.), inner conductor: solid, attenuation: 1.2 / 2.0 / 3.0 dB at 0.9 / 2.4 / 5.8 GHz, connection: N (male) -> RSMA (male), cable length: 3 m (10 ft.)

RAD-PIG-RSMA/N-5 - Antenna cable

2702140

<https://www.phoenixcontact.com/in/products/2702140>



Antenna cable, outside diameter: 5 mm (0.2 in.), inner conductor: solid, attenuation: 2.0 / 3.3 / 4.8 dB at 0.9 / 2.4 / 5.8 GHz, connection: N (male) -> RSMA (male), cable length: 5 m (16 ft.)

ILB BT ADIO MUX - Wireless set



2702875

<https://www.phoenixcontact.com/in/products/2702875>

RAD-CAB-EF393- 3M - Antenna cable

2867649

<https://www.phoenixcontact.com/in/products/2867649>



Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: stranded, attenuation: 1.0 / 1.8 / 3.1 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 3 m (10 ft.)

RAD-CAB-EF393- 5M - Antenna cable

2867652

<https://www.phoenixcontact.com/in/products/2867652>



Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: stranded, attenuation: 1.6 / 2.9 / 5.0 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 5 m (16 ft.)

ILB BT ADIO MUX - Wireless set



2702875

<https://www.phoenixcontact.com/in/products/2702875>

RAD-CAB-EF393-10M - Antenna cable

2867665

<https://www.phoenixcontact.com/in/products/2867665>



Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: stranded, attenuation: 2.9 / 5.6 / 9.9 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 10 m (32 ft.)

RAD-CAB-EF393-15M - Antenna cable

2885634

<https://www.phoenixcontact.com/in/products/2885634>



Antenna cable, outside diameter: 10 mm (0.4 in.), inner conductor: stranded, attenuation: 4.3 / 8.3 / 14.8 dB at 0.9 / 2.4 / 5.8 GHz, connection: 2 x N (male), cable length: 15 m (50 ft.)

ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>



CN-LAMBDA/4-5.9-BB - Surge protection device

2838490

<https://www.phoenixcontact.com/in/products/2838490>



Attachment plug with Lambda/4 technology as surge protection for coaxial signal interfaces. Connection: N connectors socket-socket

RAD-ADP-N/F-N/F - Adapter

2867843

<https://www.phoenixcontact.com/in/products/2867843>



Antenna adapter for control cabinet feed-through, frequency range: 0.3 GHz ... 6 GHz, degree of protection: IP65, connection: 2 x N (female)

ILB BT ADIO MUX - Wireless set

2702875

<https://www.phoenixcontact.com/in/products/2702875>



RAD-ADP-RSMA/M-RSMA/F-90 - Adapter

2904790

<https://www.phoenixcontact.com/in/products/2904790>



Antenna adapter, frequency range: 0.3 GHz ... 6 GHz, connection: RSMA (male)
-> RSMA (female), 90° angled

RAD-TAPE-SV-19-3 - Weather protection tape

2903182

<https://www.phoenixcontact.com/in/products/2903182>



Vulcanizing sealing tape for external protection of adapters, cable connections,
etc. against the effects of weather, roll length: 3 m

Phoenix Contact 2023 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

info@phoenixcontact.co.in