LAUDA LRZ 921 Interface Module Ethernet USB Module Instruction Manual

Product Information

The Interface module LRZ 921 V15 is an Ethernet USB module designed for use with a specific product. It is important to read and understand the operation manual before using the module.

Contents

Product Using Instructions

General

1. **Intended use:** The interface module is intended to be used with a specific product.
2. **Compatibility:** Ensure that the interface module is compatible with your specific product before use.
3. **Technical changes:** Any technical changes to the interface module should be performed by qualified personnel.
4. **Copyright:** Respect the copyright of the operation manual and any associated documents.
5. **Contact LAUDA:** For any inquiries or assistance, contact LAUDA for support.

Safety

1. General safety information and warnings: Follow all safety guidelines and warnings provided in the operation manual.
2. Information about the interface module: Familiarize yourself with the specifications and features of the interface module.
3. Personnel qualification: Only qualified personnel should handle the installation and operation of the interface module.

Unpacking

- Follow the instructions provided in the operation manual for unpacking the interface module.

Device description

- **Purpose:** Understand the purpose of the interface module and how it integrates with the specific product.
- **Structure:** Learn about the physical structure and componentsof the interface module.

Before starting up

- Installing the interface module: Follow the instructions provided in the operation manual for installing the interfacemodule.
- Please refer to the complete operation manual for detailed instructions on using the interface module with your specific product.

General

Many types of LAUDA constant temperature equipment have vacant module slots for installing additional interfaces. The number, size and arrangement of the module slots vary depending on the device and are described in the operating manual accompanying the constant temperature equipment. Two additional module slots available as accessories can be fitted to a LiBus module box, which is then connected as an external casing to the LiBus interface on the constant temperature equipment.

This operating manual describes how to install and configure the EthernetUSB interface module (catalog no. LRZ 921). Constant temperature equipment can be connected to a PC or network via the Ethernet interface and controlled from there using the LAUDA command set. The interface functions provided for this purpose are described in chapters Ä Chapter 7.2.2 “Read commands” and Ä Chapter 7.2.3 “Write commands”. The two USB interfaces are intended for future expansion and do not currently have any function.

Intended use

The interface module can only be operated as intended and under the conditions specified in this operating manual. The interface module is an accessory that increases the connections options of LAUDA constant temperature equipment. It may only be installed in constant temperature equipment that supports the interface provided. Refer to the chapter “Compatibility” in this operating manual for a list of compatible product lines. Operation of the interface module is also permitted in combination with the LiBus module box (LAUDA catalog no. LCZ 9727). This operating manual also contains a description of how to install and connect up the module box.

Reasonably foreseeable improper use

- Operation after incomplete assembly
- Operation on incompatible constant temperature equipment
- Operation using cables or connections that are defective or do not confirm to standards

Compatibility

The interface module is available as an accessory for the following LAUDA product lines:

- ECO
- Proline

- Variocool, not compatible with Variocool NRTL
- Integral XT, not compatible with Integral IN

Operating interfaces of the same type:

- Only one Ethernet interface can be used for each item of constant temperature equipment.

Technical changes

- All technical modifications are prohibited without the written consent of the manufacturer. Damage resulting from a failure to observe this condition will void all warranty claims.
- However, LAUDA reserves the right to make general technical modifications.

Warranty conditions

- LAUDA grants a standard warranty of one year.

Copyright

Contact LAUDA

Contact the LAUDA Service department in the following cases:

- Troubleshooting
- Technical questions
- Ordering accessories and spare parts

Please contact our sales department for questions relating to your specific application.

Contact information

LAUDA Service

- **Phone:** +49 (0)9343 503-350
- **Fax:** +49 (0)9343 503-283
- **Email:** service@lauda.de

Safety

General safety information and warnings

- Read this operating manual carefully before use.
- Keep the operating manual in a place within easy reach of the interface module.
- This operating manual is part of the interface module. If the interface module is passed on, the operating manual must be kept with it.
- This operating manual is applicable in combination with the operating manual of the constant temperature equipment in which the interface module is installed.
- Manuals for LAUDA products are available for download on the LAUDA website: **https://www.lauda.de**
- The warnings and safety instructions in this operating manual must be observed without fail.
- There are also certain requirements for personnel, see Ä Chapter 2.3 “Personnel qualification”.

Structure of warnings

Warning signs	Type of danger
	Warning – danger zone.
Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an imminently dangerous situation that will result in de ath or serious injury if it is not avoided.
WARNING!	This combination of symbol and signal word indicates a potentially dangerous situation that can result in death or serious injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a potentially dangerous situation that can result in mat erial and environmental damage if it is not avoided.

Information about the interface module

- Always disconnect the constant temperature equipment from the power supply before installing the interface module or connecting interfaces.
- Always take the recommended safety measures against electrostatic discharge before handling interface modules.
- Avoid touching the circuit board with metallic tools.

- Do not start up the constant temperature equipment before installation of the interface module is complete.
- Store any unused interface modules in their packaging in accordance with the specified ambient conditions.
- Use only suitable cables of sufficient length for cable connections.
- Make sure that the protective screen on the cables and connectors complies with EMC regulations. LAUDA recommends using preassembled cables.
- Always lay cables correctly so that they do not pose a tripping hazard. Secure the laid cables and make sure that they cannot be damaged during operation.
- Check the condition of the cables and interfaces prior to each operation.
- Immediately clean any soiled parts, in particular unused interfaces.
- Make sure that the signals transmitted via the interface correspond to the permitted operating parameters of the interface module.

Personnel qualification

Specialized personnel: Only specialized personnel are permitted to install interfaces modules. Specialized personnel are personnel whose education, knowledge, and experience qualify them to assess the function and risks associated with the device and its use.

Unpacking

DANGER: Transport damage	
	Electric shock
	• Closely inspect the device for transport damage prior to commissioning! • Never operate a device that has sustained transport damage!

NOTICE: Electrostatic discharge	
	Material damage
	• Always observe safety measures against electrostatic discharge.

Please observe the following installation sequence:

1. Remove the interface module from its packaging.
2. If you want to store the interface module at the installation location, use the outer packaging. This packaging is protected against static charging.
3. After installing the equipment, dispose of the packaging materials in line with environmental regulations.

If you discover any damage on the interface module, contact LAUDA Service immediately, see Ä Chapter 1.6 “Contact LAUDA”.

Device description

Purpose

The Ethernet USB module was developed for the following purposes:

- Integrating constant temperature equipment in an Ethernet network.
- Controlling constant temperature equipment via the LAUDA command set.

The two USB interfaces on the Ethernet USB module have no function. They will therefore not be mentioned again in this operating manual.

Structure

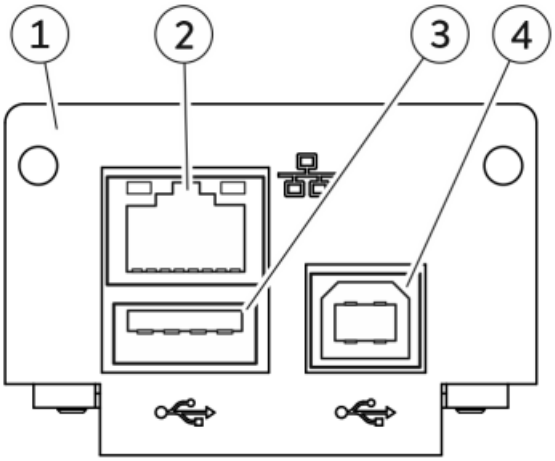


Fig. 1: Ethernet USB module

1. Cover with holes for M3x10 fastening screws
2. Ethernet interface (10/100 Mbit/s, RJ 45 with 2 LEDs *)
3. Host USB port, USB 2.0 type A (intended for future expansion)
4. Device USB port, USB 2.0 type B (intended for future expansion)

The two LEDs indicate whether the interface is connected and whether data is being transmitted (link/activity).

Material damage during repairs

- The Ethernet USB module is fitted with a micro-SD card for remote maintenance purposes.
- Only LAUDA service personnel are permitted to remove or exchange the micro-SD card.

Before starting up

Installing the interface module

The interface module is connected to an internal LiBus ribbon cable and inserted into a vacant module slot. The number and arrangement of the module slots vary depending on the device. The module slots are protected by a cover that is screwed onto the casing or attached to the slot opening.

WARNING: Touching live parts	
	Electric shock
	• Disconnect the device from the power supply before starting any installation work. • Always observe safety measures against electrostatic discharge.

- The module installation description essentially applies to all LAUDA constant temperature equipment; the example diagrams here show the installation of an analog module in constant temperature equipment from the Variocool product line.
- Please note that an interface module with a small cover can only be installed in a low module slot. The fitted cover must cover the opening on the module slot completely.
- You will require two M3 x 10 screws and a suitable screwdriver to secure the interface module.

Please observe the following installation sequence:

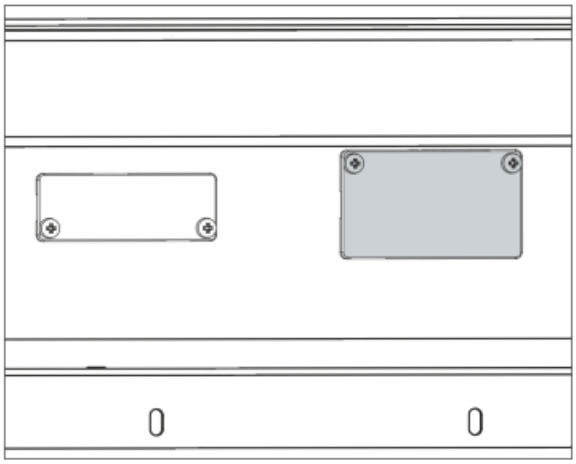
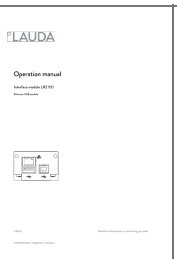


Fig. 2: Removing the cover (schematic diagram)

1. Turn off the constant temperature equipment and pull out the mains plug.
2. If necessary, remove the screws from the cover on the relevant module slot. If necessary, use a slotted screwdriver to prise off the cover.
3. Remove the cover from the module slot.
    - The module slot is open. The LiBus ribbon cable is attached to the inside of the cover and is easily accessible.
4. Disconnect the LiBus ribbon cable from the cover.
5. Connect the red plug on the LiBus ribbon cable to the red socket on the circuit board of the interface module. Plug and socket are reverse polarity protected: Make sure that the lug on the plug is aligned with the recess in the socket.
    - The interface module is correctly connected to the constant temperature equipment.
6. Slide the LiBus ribbon cable and the interface module into the module slot.
7. Secure the cover to the casing using two M3 x 10 screws.
    - The new interface on the constant temperature equipment is ready for operation.

Using the module box

Documents / Resources

	LAUDA LRZ 921 Interface Module Ethernet USB Module [pdf] Instruction Manual LRZ 921 Interface Module Ethernet USB Module, LRZ 921, Interface Module Ethernet USB Module, Module Ethernet USB Module, Ethernet USB Module, USB Module