



Manual Rev. 1.0 EN



ADQ-62

ADQ-LINK distribution box

Imprint

Manual ADQ-62

Rev. 1.0

Manufacturer and support

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All information contained in this manual has been compiled with the greatest care and to the best of our knowledge. Nevertheless, errors cannot be completely ruled out. Specifications and contents of this manual are subject to change without notice.

We are always grateful for notification of any errors.

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1. Introduction

Please check the packaging and contents for damage and completeness before commissioning. Should any defects occur, please inform us immediately.

- Does anything on the packaging indicate that anything was damaged during transport?
- Are there any signs of use on the device?

Under no circumstances may you operate the device if it is damaged. If in doubt, contact our technical service department.

Please read - before installing the device - this manual carefully!

1.1 Scope of delivery

- ALLDAQ ADQ-62

1.2 Safety instructions

Please note the following instructions:

- Never expose the device to direct sunlight during operation.
- Never operate the device near heat sources.
- Protect the device from moisture, dust, liquids and vapours.
- Do not use the device in damp rooms and under no circumstances in potentially explosive areas.
- Repairs may only be carried out by trained, authorised personnel.
- Please observe the installation regulations and all relevant standards (including VDE standards) when commissioning the instrument, especially when operating with voltages greater than 42 V.
- We recommend to always connect unused inputs to the corresponding reference ground to avoid crosstalk between the input channels.
- Always disconnect your field wiring from the voltage source before you make or break cable connections to the card.
- When handling the board, make sure that no static discharge can occur through the device. Follow standard ESD protection measures.
- Never connect the devices to live parts, especially not to mains voltage.
- Precautions to avoid unpredictable misuse must be taken by the user.

ALLNET® GmbH Computersysteme is not liable for improper use and resulting damage.

1.3 Installation and assembly site

The ADQ-62 is an ADQ-LINK distribution box designed for industrial use. The box may only be used in dry rooms. Ensure that there is sufficient Ventilation. Make sure that the connection cables are securely attached.

1.4 Brief description

Via the ADQ-LINK (point to point), two ALLDAQ products can be reliably and easily connected to communicate with each other via a differential connection. This makes the ADQ-LINK perfectly suited for use in harsh environments. The ADQ-LINK works very stable Even in cabinets, where optimal cable routing and decoupling between power lines and analog or digital signal/control lines cannot always be maintained. The ADQ-LINK connects two devices up to 100m without loss of speed or signal integrity. For shorter distances, the power supply can also be looped from one device to another through the same cable. The longer the cable, the higher the occurring shift of the respective ground potentials. However, this is no problem due to the capacitively insulated link cables.

The ADQ-62 can be used to expand an ADQ-LINK port. The ADQ-LINK technology is a point-to-point connection. By using an ADQ-62, a star array can be established with up to three participants. It is also possible to use several ADQ-62s in series. In addition, it is possible to loop the power supply via the cable and through the box. The link LED per port makes it easy to see the status of the connection.

2. Commissioning

2.1 Connecting the box

The box should be handled with care to ensure that the device is not damaged by electrostatic discharge (ESD), mechanical stress or current surges. Precautions should also be taken to avoid electric shock. Follow standard ESD protection measures.



Power supply

The box has no separate connection for the power supply. It must be ensured that the box is also supplied via a port on which a GND connection is bridged if it is an output port. This supplying ADQ-Link cable must not be longer than 2m. 5V are sufficient to supply the box. 12V are not required.

Cables

A standard network cable (Cat 5 or higher) is used to connect two ADQ-LINK devices. The recommended maximum cable length is 100m. Please note that over this length only the ADQ-LINK will remain, whereas a power supply will be required on the client end.

Operating mode

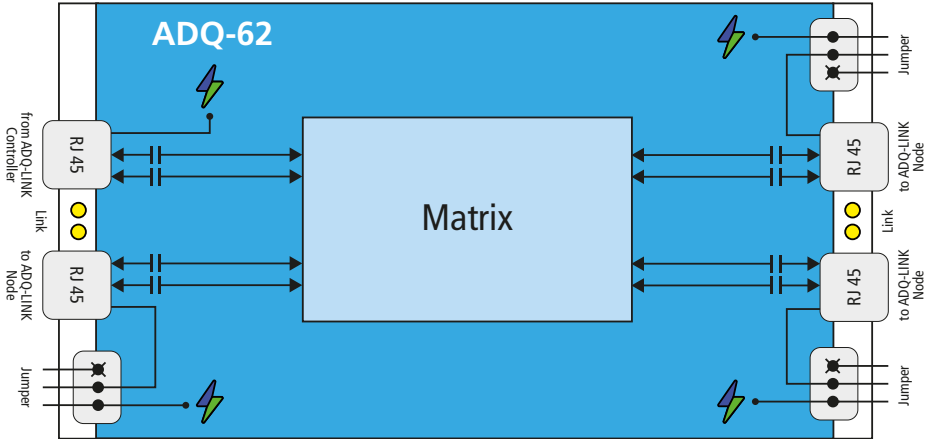
The jumper below the output ports can be used to set two different modes. ISO" should be used by default. Here, only the pure ADQ-LINK is produced capacitively isolated. In „GND" mode, the ground reference is also connected. The insulation no longer exists, but the 5V and 12V are also fed through the cable.

Mode	Description	Max. cable length
ISO*	Isolated ADQ-LINK	Up to 100m
GND	Full connection with power supply	Up to 2m


* Condition even without jumper plugged in.

3. Function groups

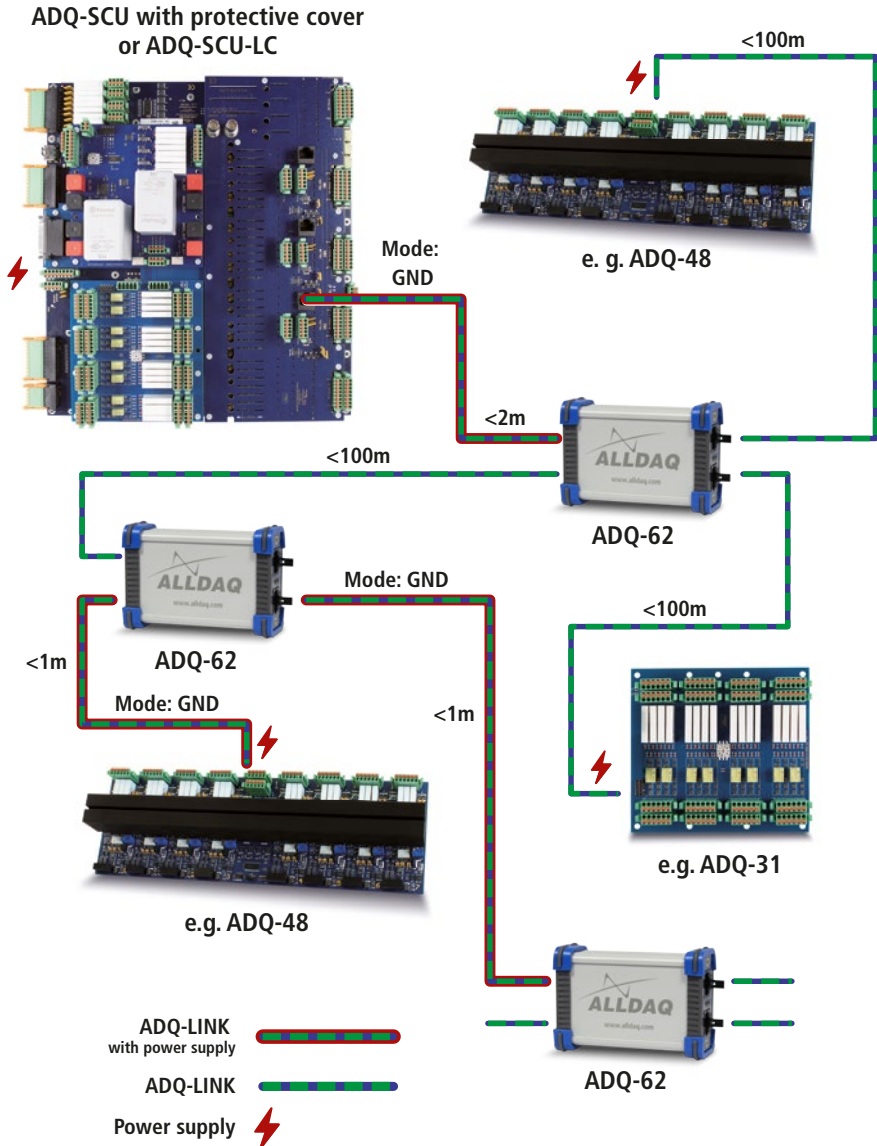
3.1 Block diagram



 5V / 12V supply

 On = ADQ-LINK available
 Off = No link

3.2 Example applications



4. Annex

4.1 Specifications

General

Element	Condition	Specifications
Power supply	Operation	5V via any port
Power consumption	5V	max. 200mA (Idle: 50mA)
Temperature range	Operation	0..70 °C
Humidity	Operation	20%..55% (non-condensing)
Dimensions	Without cables	90x63x33mm (LxWxH)
Connections		4x RJ45 socket
Certifications		EC Directive 2004/108/EC, emission EN 55022, Interference immunity EN 50082-2, RoHS
Manufacturer warranty		36 months

4.2 Manufacturer and support

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4.3 Packaging ordinance

„Both manufacturers and distributors are basically obliged to ensure that sales packaging is taken back from the final consumer after use and is reused or recycled. (according to § 4 sentence 1 of the packaging ordinance). If you as a customer have problems with the disposal of packaging and shipping materials, please write an e-mail to info@allnet.de.



4.4 Recycling advice and RoHS conformity

ALLNET® products are manufactured RoHS compliant (RoHS = Restriction of the use of certain hazardous substances).





4.5 CE identification

The ADQ-SCU bears the CE marking. This device meets the requirements of the EU Directive 2004/108/EC, Directive on Electromagnetic Compatibility and Mutual Recognition of Conformity. Conformity with the above directive is confirmed by the CE mark on the device.

4.6 Warranty

Within the warranty period, we will eliminate manufacturing and material defects free of charge. You will find the warranty conditions valid for your country on the homepage of your distributor. If you have any questions or problems concerning the application, you can reach us during our normal opening hours at the following telephone number +49 (0)89 894 222 - 474 or by e-mail to: support@alldaq.com.



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