

Safety Instructions

English



SoMat eDAQ / eDAQ-lite

Documentation

All documentation for the eDAQ / eDAQ-lite data acquisition system is available in electronic form on the accompanying CD-ROM. Modifications are reserved in the documentation. The latest edition of the relevant documentation is available as a download at <http://www.hbm.com/HBMdoc>.

Safety Rules

The supply connection, as well as the signal and sense leads, must be installed in such a way that electromagnetic interference does not adversely affect device functionality.

Automation equipment and devices must be covered over in such a way that adequate protection or locking against unintentional actuation is provided (such as access checks, password protection, etc.).

When devices are working in a network, these networks must be designed in such a way that malfunctions in individual nodes can be detected and shut down.

Safety precautions must be taken both in terms of hardware and software, so that a line break or other interruptions to signal transmission, such as via the bus interfaces, do not cause undefined states or loss of data in the automation device.

Before connecting the device, make sure that the mains voltage and current type specified on the type plate correspond to the mains voltage and current type at the site of installation and that the current circuit used is sufficiently safe.

The maximum permissible supply voltage for the eDAQ is 55 V DC.

The maximum permissible supply voltage for the eDAQ-lite is 18 V DC for the ELCPU processor and 55 V DC for the ELCPU-PLUS processor.

Appropriate use

The eDAQ / eDAQ-lite and its connected transducers may be used for measurement tasks only and directly related control tasks. To ensure safe operation, the transducer may only be used as specified in the operating manual. It is also essential to follow the respective legal and safety regulations for the application concerned during use. The same applies to the use of accessories.

Each time, before starting up the equipment, you must first run a project planning and risk analysis that takes into account all the safety aspects of automation technology. This particularly concerns personal and machine protection.

Additional safety precautions must be taken in plants where malfunctions could cause major damage, loss of data or even personal injury. In the event of a fault, these precautions establish safe operating conditions.

This can be done, for example, by mechanical interlocking, error signaling, limit value switches, etc.

General dangers of failing to follow the safety instructions

The eDAQ / eDAQ-lite complies with the state of the art and is safe to operate. Inappropriate use and operation by untrained personnel can give rise to remaining dangers.

Anyone responsible for installing, starting up, maintaining or repairing the equipment needs to have read and understood the operating manual and in particular the safety instructions.

Maintenance and cleaning

The eDAQ / eDAQ-lite is maintenance free. Please note the following when cleaning the housing:

- Before cleaning, disconnect the equipment from the power supply.
- Clean the housing with a soft, slightly damp (not wet!) cloth. Never use solvents, since these could damage the labelling on the front panel and the display.
- When cleaning, ensure that no liquid gets into the equipment or connections.

Remaining dangers

The scope of supply and performance of the data acquisition system covers only a small area of measurement technology. In addition, equipment planners, installers and operators should plan, implement and respond to the safety engineering considerations of measurement technology in such a way as to minimize remaining dangers. Prevailing regulations must be complied with at all times. There must be reference to the remaining dangers connected with measurement technology. After making settings and carrying out activities that are password-protected, you must make sure that any controls that may be connected remain in safe condition until the switching performance of the amplifier system has been tested.

Working safely

Error messages may only be acknowledged if the cause for the error has been removed and no further danger exists.

Conversions and modifications

HBM's express consent is required for modifications affecting the SoMat eDAQ design and safety. HBM does not take responsibility for damage resulting from unauthorized modifications.

In particular, any repair or soldering work on motherboards is prohibited. When exchanging complete assemblies, it is essential to use original HBM parts only. The product is delivered from the factory with a fixed hardware and software configuration. Changes can only be made within the possibilities documented in the manuals.

Qualified personnel

The equipment may be used by qualified personnel only; the specifications and the special safety regulations need to be followed in all cases.

This means people who meet at least one of the three following requirements:

- Knowledge of the safety concepts of automation technology is a requirement and as project personnel, you must be familiar with these concepts.
- As automation plant operating personnel, you have been instructed how to handle the machinery and are familiar with the operation of the equipment and technologies described in this documentation.
- As commissioning engineers or service engineers, you have successfully completed the training to qualify you to repair the automation systems. You are also authorized to activate, to ground and label circuits and equipment in accordance with safety engineering standards.

It is also essential to comply with the appropriate legal and safety regulations for the application concerned during use. The same applies to the use of accessories.

The term "qualified personnel" refers to staff familiar with the installation, fitting, start-up and operation of the product, and trained according to their job.

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