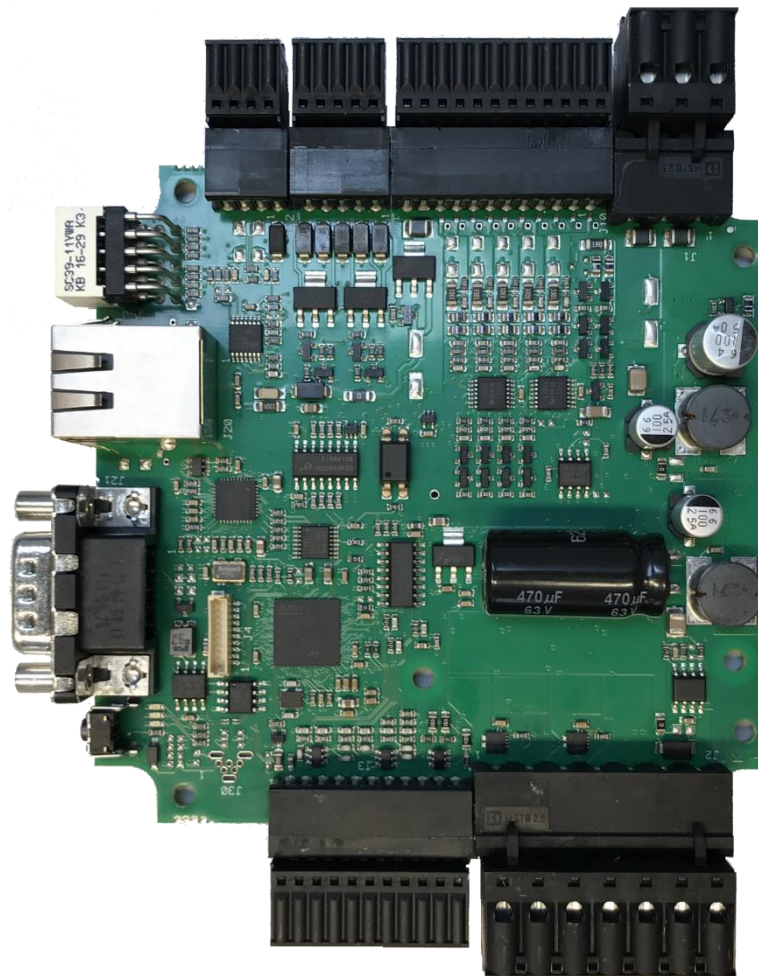


igus® Motion Plastics®

dryve D2, ST- DC- EC/BLDC-Motor Control System Manual V1.0



Website shop
www.igus.eu/D2



Videos/Tutorials
www.igus.eu/dryveXP

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1 Safety Instructions, Protective Measures and Guidelines

1.1 Important Instructions

The manual for the dryve D2 motor controller refers to the manual for the dryve D1 motor controller for a description of its functionality. Only the existing differences (hardware/EMC) are discussed in this manual.

The dryve D1 manual is available for download at www.igus.eu/D1.

Read this manual carefully before operating the dryve D2 motor control system. Familiarise with the safety instructions and ensure that the required safety measures are followed.

This manual was created according to the best of our knowledge and belief. It is used for technical documentation and for assisting the user during the initial operation. The warnings, cautions and instructions issued by igus® regarding the dryve D2 motor control system must in any case be passed on to the end user if the dryve D1 motor control system is used as part of an overall system.

igus® undertakes warranties only for igus® products in accordance with the standards, norms and specifications given in this manual. The guarantee covers only the replacement or repair of a defective dryve D2 motor control system. There is no liability for consequential damage and consequential errors. The igus® GmbH does not take any responsibility for the integration of the dryve D2 motor control system into the overall system. The responsibility for it lies with the plant designer or the end user. Please observe the instructions under "**Qualified Personnel**". The company igus® assumes no liability for personal injury or damage to property resulting from misuse or unauthorised technical modification of the dryve D2 motor control system.

The igus® GmbH reserves the right to make changes and improvements to the product or the technical documentation at any time without prior notice.

The dryve D2 motor control system must only be used if:

- All instructions and safety instructions for installation given in this manual have been observed.
- The controller has been properly installed in an enclosure in accordance with the applicable ESD regulations.
- No modifications have been made to the dryve D2 motor controller and it is in a technically flawless condition.
- The operating limits that are specified in [Technical Data](#) (p. 4) are complied with.

1.2 Qualified Personnel

The operation of the product must only be carried out by qualified personnel.

- The personnel must have read and understood this manual and any other additional documentation that exists
- The personnel must be familiar with all relevant applicable standards, provisions, and accident prevention regulations.
- The personnel must be able, due to their training, to anticipate or recognise any hazards that may arise when using the control system.
- The personnel must ensure the safety of persons and objects when using the motor control system in the overall system.

1.3 Maintenance

The dryve D2 is maintenance-free Apart from the connectors and does not contain any components that the user can replace from the outside. Never open the motor control system. If hardware problems occur, please get in touch with [Customer service](#) (p. 5)

1.4 Technical Data

Mechanical Data

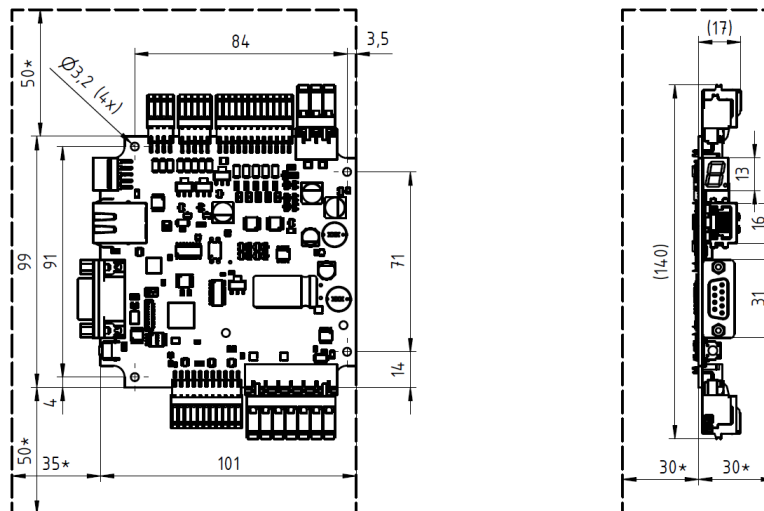
D x W x H in millimetres, incl. connectors & mounting elements	110 x 20 x 140
Weight in grams	120 g
Protection Class	IP 00

2 Installation

2.1 Mechanical Installation

- The dryve D2 motor controller must be installed in an enclosure that meets the electrical requirements - precautions must be taken to avoid electrostatic discharges.
- To avoid overheating, the circuit board must be installed vertically or, in the case of a horizontal installation position, with the power transistors facing upwards (product label facing downwards). If, for structural reasons, a horizontal orientation with the power transistors facing downwards must be selected, the maximum power must be reduced by 30%.
- The mounting location must be free from extreme shocks, vibrations, or impacts.
- Minimum clearance above and below the unit: 50 mm.
- 35 mm space must be left in front of the unit for connectors and cables.
- If several dryve D2 units are placed next to each other, a free space of 30 mm must be maintained between them (continuous operation).
If the clearance must be further reduced (absolute minimum clearance 10 mm), the maximum continuous current must be reduced to 5.5 A or active cooling must be used (continuous operation).
- The heated airflow of other units and components must not be routed through the area of the dryve D2.
- The PCB can be fixed in the enclosure using 4x M3 screws - metallic contact surfaces must be shielded by plastic spacers/washers.
- The maximum tightening torque of the M3 screws must not exceed 0.6 Nm.

Mechanical Drawing



* Required space to adjacent components/walls in control cabinets/housings

3 Continuation Commissioning

All further information on commissioning and using the dryve D2 motor controller can be found in the manual for the functionally identical dryve D1 motor controller.

The dryve D1 manual is available for download at www.igus.eu/D1

4 Service

Technical Support (After Sales)

DE-dryve@igus.net

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Technical support for igus® dryve motor control systems

Documentation/FW

www.igus.eu/D1

Ordering of additional motor controllers, download of manuals,
FW updates, certificates and the CANopen EDS file



Sample Programs

www.igus.eu/sample-program

Download sample programs for connecting the dryve D1/D2 to higher-level controllers.
Examples for the integration of DI/Os, AIs, Step/Direction, and bus systems

Videos/Tutorials

www.igus.eu/dryveXP

Videos with tutorials on the range of functions of the dryve D1/D2 and how to set it up for operation
Further videos about other igus® motor controller/driver



Website drylin drive technology

www.igus.eu/drivetechnology

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