L-force Controls

PC based Automation

Global Drive Control (GDC)

Industrial PC as Gateway
This manual applies to the Lenze »Global Drive Control« (»GDC«) as of version 4.10 (SP 4)

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*Your opinion is important to us.* ................................................ 12
2 Safety instructions

Please observe the following safety instructions when you want to commission a controller or system using the »Global Drive Control«.

Please read the documentation supplied with the controller / system components carefully before you start commissioning the devices with the »Global Drive Control«!

The device documentation contains safety instructions which must be observed!

⚠️ Danger!

According to our present level of knowledge it is not possible to ensure the absolute freedom from errors of a software.

If necessary, systems with built-in controllers must be provided with additional monitoring and protective equipment according to relevant safety regulations (e.g. law on technical equipment, regulations for the prevention of accidents), so that an impermissible operating status does not endanger persons or facilities.

During commissioning persons must keep a safe distance from the motor or the machine parts driven by the motor. Otherwise there would be a risk of injury by the moving machine parts.

⚠️ Stop!

If you change parameters in the »Global Drive Control« while a device is connected online, the changes will be directly accepted by the device!

A wrong parameter setting can cause unpredictable motor movements. By unintentional direction of rotation, too high speed or jerky operation, the driven machine parts may be damaged!
3 About this Manual

This Software Manual contains information about the Industrial PC (IPC) as gateway.

Note!

The Software Manual supplements the Mounting Instructions enclosed with the controller, the Hardware Manual, and the Software Manual for the controller.

The Mounting Instructions contain safety information which must be observed!

3.1 Conventions used

This Software Manual uses the following conventions to distinguish between different types of information:

<table>
<thead>
<tr>
<th>Type of information</th>
<th>Writing</th>
<th>Examples/notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable identifier</td>
<td>Italic</td>
<td>By setting bEnable to TRUE...</td>
</tr>
<tr>
<td>Window pane</td>
<td></td>
<td>The Message window... / the Options dialog box...</td>
</tr>
<tr>
<td>Control element</td>
<td>Bold</td>
<td>The OK button... / The Copy command... / The Properties tab... / The Name input field...</td>
</tr>
<tr>
<td>Sequence of menu commands</td>
<td></td>
<td>If the execution of a function requires several commands, the individual commands are separated by an arrow: Select File→Open to...</td>
</tr>
<tr>
<td>Keyboard command</td>
<td>Bold</td>
<td>Use &lt;F1&gt; to open the Online Help.</td>
</tr>
</tbody>
</table>
| Program listings          | Courier | IF var1 < var2 THEN
|                           |         | a = a + 1
|                           |         | END IF                                                                                             |
| Keyword                   | Courier | Hyperlinks are highlighted references which are activated by means of a mouse click.               |
|                           |bold     |                                                                                                    |
| Hyperlink                 | Underline |                                                                                                   |
| Step-by-step instructions |         | Step-by-step instructions are indicated by a pictograph.                                           |
3.2 Definition of notes used

The following signal words and symbols are used in this Software Manual to indicate dangers and important information:

Safety instructions

Layout of the safety instructions:

<table>
<thead>
<tr>
<th>Pictograph</th>
<th>Signal word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>⚠️</td>
<td>Danger!</td>
<td>Danger of personal injury through dangerous electrical voltage Indicates an impending danger that may lead to death or severe personal injury if the corresponding measures are not taken.</td>
</tr>
<tr>
<td>⚠️</td>
<td>Danger!</td>
<td>Danger of personal injury through a general source of danger Indicates an impending danger that may lead to death or severe personal injury if the corresponding measures are not taken.</td>
</tr>
<tr>
<td>⏹️</td>
<td>Stop!</td>
<td>Danger of material damage Indicates a potential danger that may lead to material damage if the corresponding measures are not taken.</td>
</tr>
</tbody>
</table>

Application notes

<table>
<thead>
<tr>
<th>Pictograph</th>
<th>Signal word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>💡</td>
<td>Note!</td>
<td>Important note for trouble-free operation</td>
</tr>
<tr>
<td>📡</td>
<td>Tip!</td>
<td>Useful tip for easy handling</td>
</tr>
</tbody>
</table>
4 IPC as gateway

This chapter describes how to use the gateway function of an IPC to establish an online connection to a field device.

The »Global Drive Control« (»GDC«) serves to access field devices like 9300, 8200 and ECS. If the field devices are driven by an IPC via the CAN fieldbus, the »GDC« is able to use the IPC as a gateway. »GDC« is interfaced to the IPC via Ethernet.

4.1 Setting of the communication path

![Tip!](image)

Before working on the communication parameters, switch to the offline mode. To activate the offline mode, press the F4 button:

To use the IPC as gateway, you must select the suitable communication driver: Options → Communication.

Select communication driver

Select Gateway IPC -> CAN from the list of drivers available:

![Selection communication driver]

Access the Gateway IPC -> CAN dialog window via the Parameter button.

Set communication parameters:

![Gateway IPC -> CAN]
To set the communication parameters, you must enter the following information about your configuration:

<table>
<thead>
<tr>
<th>Information</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP address</td>
<td>IP address of the IPC which serves as gateway for communication</td>
</tr>
<tr>
<td>CAN interface</td>
<td>Number of the CAN interface, to which the required field device is connected</td>
</tr>
<tr>
<td>CAN address</td>
<td>Node address of the field device which you want to trigger via the gateway function of the IPC</td>
</tr>
</tbody>
</table>

Confirm data by OK.

4.2 Connect to drive

Tip!
Exit the offline mode by pressing the F4 button if the F2 button is deactivated.

Note!
A manual assignment of the device description via the F3 button is not required.

Access the Connect to drive dialog window using F2:

Activate the search process by pressing the Connect button to establish an online connection to the drive.
The parameters of the connected drive are read from the connected drive.

4.2.1 Remedy in case of error

If no drive can be found, the »GDC« displays an error message:

- Check the physical connections to the controller and IPC,
- Make sure that the communication parameters set for the physical configuration are correct.

Information on the respective target system of the »GDC« can be found in the corresponding hardware manual.
4.2.2 Online mode via IPC gateway function

After the parameters have been read in successfully, the drive is in online mode. The drive parameters are available in the »GDC«:

In a separate window, the »GDC« provides an overview of the selected drives at the system bus:

![Image of GDC window showing drive parameters]

**Note!**

The »GDC« displays the selected drive in the *Drives connected to bus* dialog window via the gateway function. More drives can be connected to the system bus which are not visible in the overview of the dialog window.
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Your opinion is important to us

These Instructions were created to the best of our knowledge and belief to give you the best possible support for handling our product.

If you have suggestions for improvement, please e-mail us to:
feedback-docu@Lenze.de

Thank you for your support.

Your Lenze documentation team