Display module 8EAD0000.000-1

1 General information

The 8EAD display module can be connected to connector X9 of an 8EI servo drive. It is used to display information as well as to set parameters for the 8EI servo drive:

- Display/Set the POWERLINK node number
- Display the operating system version of the 8EI servo drive
- Display general information about the 8EI servo drive

The 4 push keys on the front of the display module are used to navigate through the menu and to set parameters.

2 Order data

Model number	Short description	Figure
	Display modules	
8EAD0000.000-1	Display module, LCD, 128 x 64, black/white, 1x USB 3.0	

Table 1: 8EAD0000.000-1 - Order data

3 Technical data

Model number	8EAD0000.000-1
General information	
Power consumption	Max. 2.5 W
Certifications	
CE	Yes
UL	cULus E225616 Power conversion equipment
Display	
Type	LCD
Colors	Black/White
Resolution	128 x 64
Keys	
Type	Short stroke keys
Quantity	4
Electrical characteristics	
Nominal voltage	5 to 26 VDC
Operating conditions	
Protection per EN 60529	IP20
Environmental conditions	
Temperature	
Operation	
Nominal	5 to 40°C
Maximum	55°C
Storage	-25 to 55°C
Transport	-25 to 70°C

Table 2: 8EAD0000.000-1 - Technical data

Model number	8EAD0000.000-1
Relative humidity	
Storage	5 to 95%
Transport	95% at 40°C
Mechanical characteristics	
Dimensions	
Width	59 mm
Height	75 mm 1)
Depth	20 mm
Weight	53 g

Table 2: 8EAD0000.000-1 - Technical data

1) When connected: 66 mm.

4 Operation

4.1 General information

Display module 8EAD is equipped with four keys that carry out different commands depending on the information displayed. The respective commands are shown at the bottom of the screen being shown on the display module. The display module is connected via slot X9 of the ACOPOS P3 8EI servo drive. Note that it must be supplied with 24 VDC voltage.

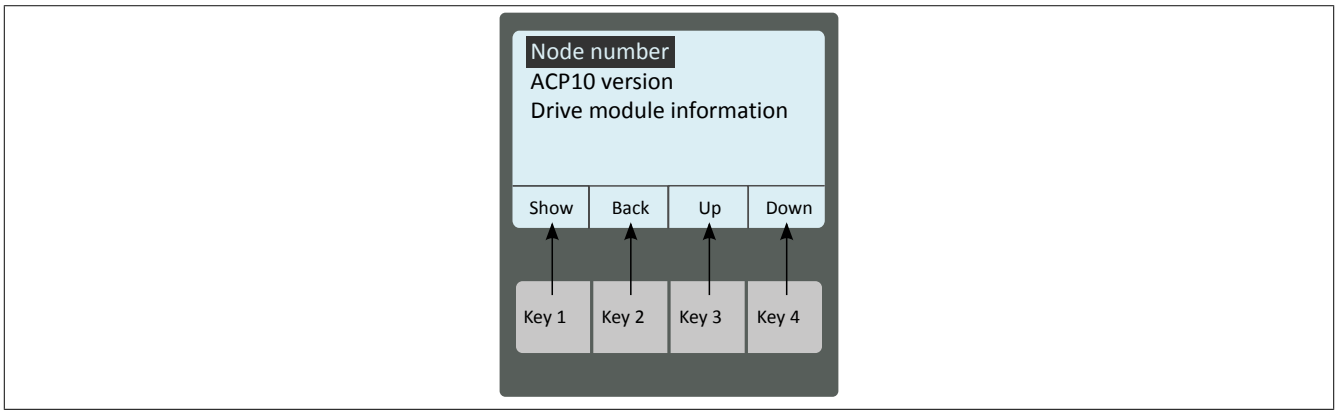


Figure 1: Display module 8EAD0000.000-1: Key/Command assignments (example)

Command	Function
Show	Selects the highlighted menu option and either shows respective information or opens the corresponding sub-menu.
Back	Switches to the higher-level menu.
Up	Moves the entry one position up.
Down	Moves the entry one position down.

Table 3: Command functions

4.2 Installation

The 8EAD display module is connected to connector X9 of an 8EI servo drive. A guide rail behind connector X9 on the 8EI servo drive allows optimal positioning of the 8EAD display module. The corresponding recess is located on the back of the 8EAD display module.

Information:

The 8EAD display module supports hot plugging.

Observe all safety guidelines in section "Safety guidelines" on page !

Connecting the 8EAD display module

1. Slide the 8EAD display module into the guide rail on the 8EI servo drive.
2. Slide the 8EAD display module down until the 8EAD display module's connector is inserted in connector X9 on the 8EI servo drive.

Removing the 8EAD display module

1. Slide the 8EAD display module up until the 8EAD display module's connector is disconnected from connector X9 on the 8EI servo drive.
2. Slide the 8EAD display module up and off of the guide rail on the 8EI servo drive.

4.3 8EAD0000.000-1 - Menu structure overview

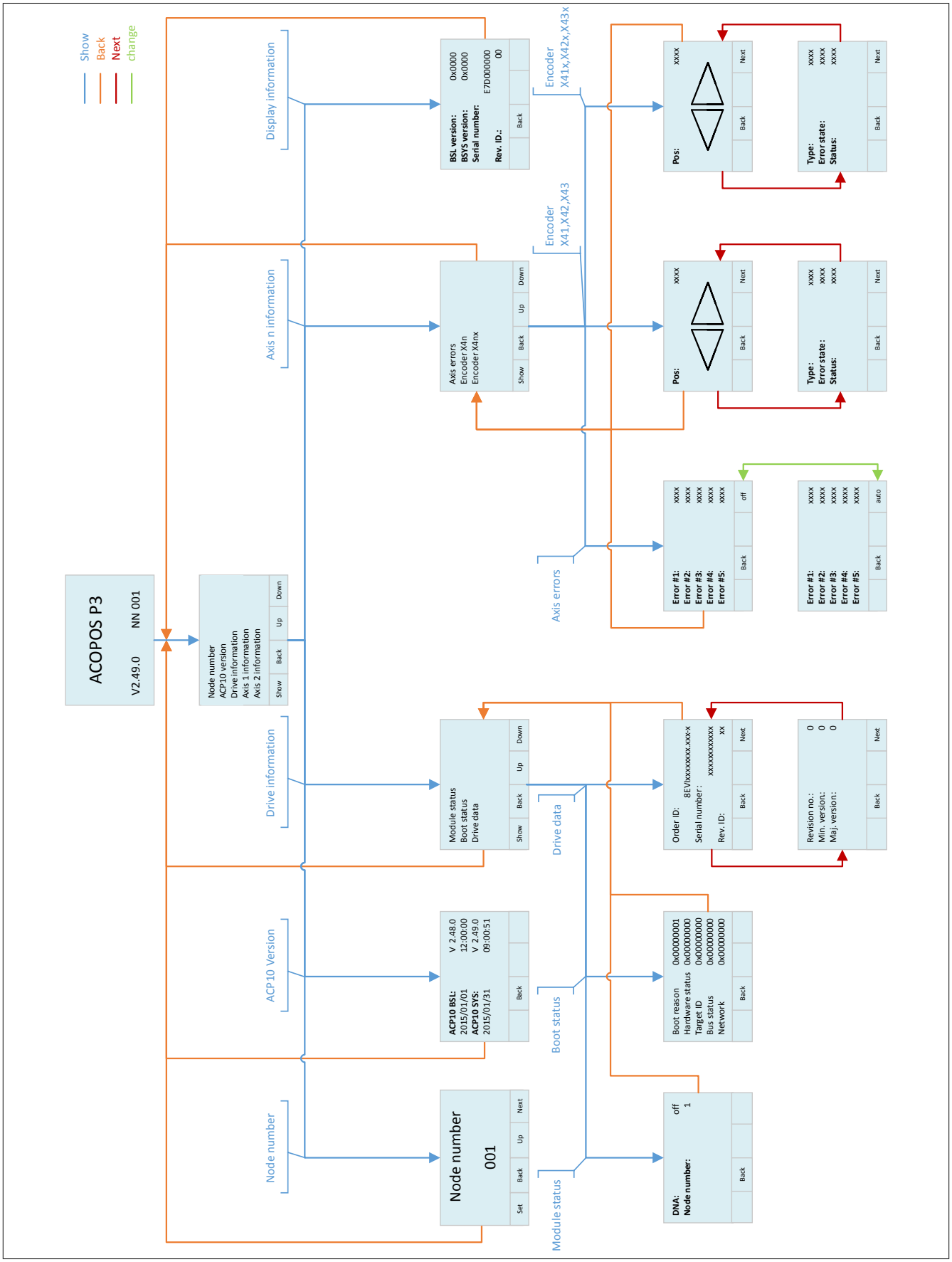


Figure 2: 8EAD0000.000-1 - Menu structure

4.4 Startup screen

After the boot procedure (approx. 5 seconds duration), the startup screen containing several values is shown:

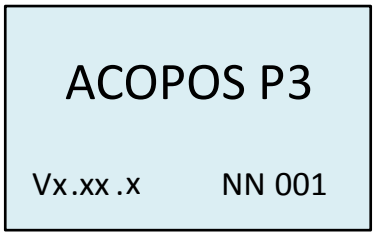


Figure 3: Startup screen

Position	Description
Top center	Model number
Bottom left	Current operating system version
Bottom right	Current node number (NN xxx or DNA xxx)

Table 4: Descriptions of values

4.5 Main menu

Pressing any key during the startup screen opens the main menu, which provides an overview of all configuration options and information.

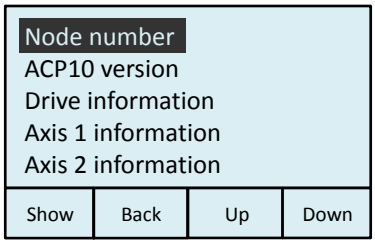


Figure 4: Main menu

Menu option	Description
Node number	Setting the POWERLINK node number
ACP10 version	Information about the ACOPOS operating system version
Drive information	Information about the module status, boot status and drive data
Axis 1 information	Information about axis 1
Axis 2 information	Information about axis 2
Axis 3 information	Information about axis 3
Display information	Information about the display module

Table 5: Main menu - Menu options

Information:

Menu options "Axis 2 information" and "Axis 3 information" are only visible in the main menu if they also exist.

Information:

The first 5 menu options are displayed. By default, the first menu option is selected (the menu option colors are inverted). Other entires are visible by pressing "Up" and "Down". If the last menu option is selected, it is possible to return to the top by pressing "Down" (wraparound).

4.6 Setting the POWERLINK node number

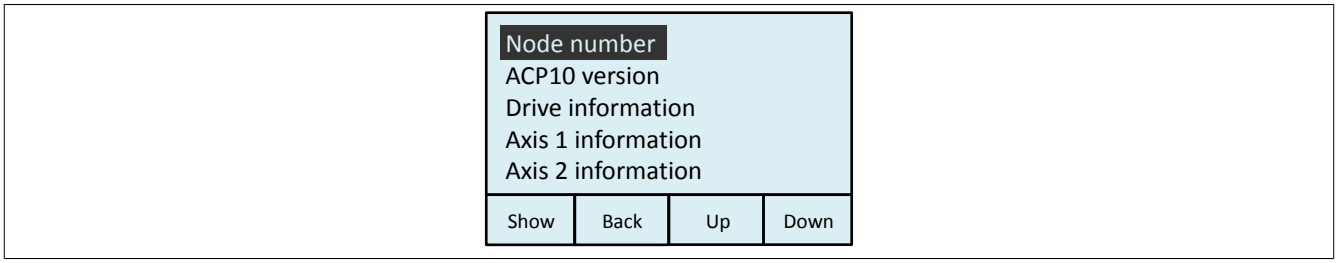


Figure 5: Node number - Main menu option

Procedure

1. Select "Node number" in the main menu and confirm by pressing key 1 ("Show"). The current node number setting on the 8EI servo drive is displayed. The last (lowest) digit in the node number is selected.

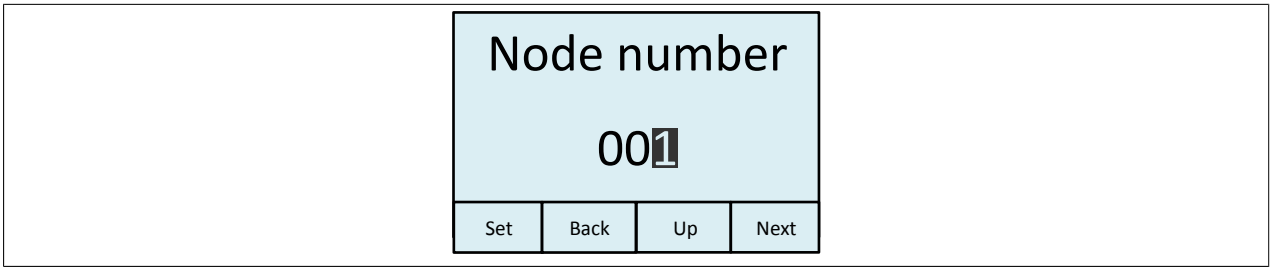


Figure 6: Setting the node number

2. Press key 3 ("Up") repeatedly until the digit has the desired value.
3. Press key 4 ("Next") to navigate to the next digit in the node number.
4. Repeat steps 2 and 3 until every digit of the node number has the desired value.
5. Applying / Not applying the node number

a) To apply the node number and exit menu option "Node number":
Press key 1 ("Set"). The new node number is applied on the next restart. The screen returns to the main menu.

> **Information:**
>
> **The new node number is only applied on when the ACOPOS P3 servo drive is restarted.**

b) To not apply the node number and exit the "Node number" menu option:
Press key 2 ("Back"). The new node number setting is not applied. The screen returns to the main menu.

4.7 ACP10 version

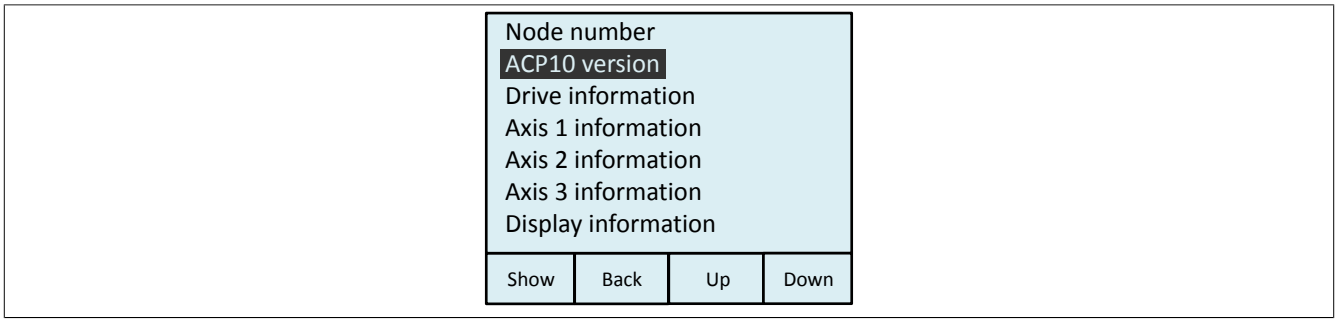


Figure 7: ACP10 version - Main menu option

Command	Function
Show	Displays information about the ACP10 version.
Back	Switches back to the startup screen.
Up	Moves the entry one position up.
Down	Moves the entry one position down.

Table 6: Command functions

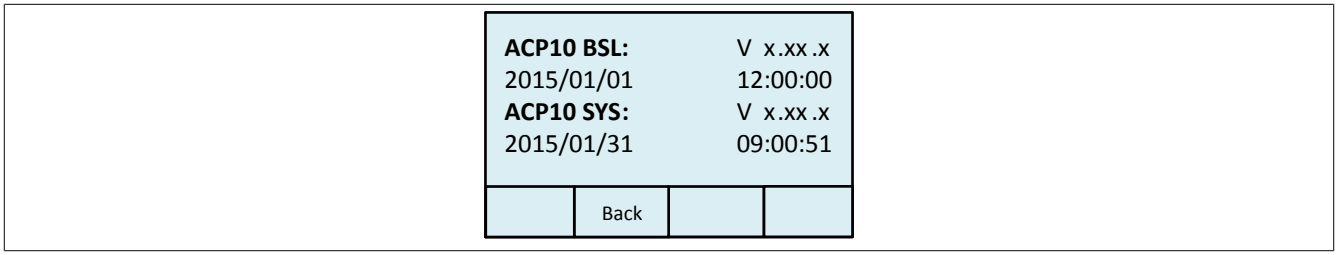


Figure 8: ACP10 version information

- **ACP10 BSL**: Base operating system firmware information (version, date, time)
- **ACP10 SYS:** System firmware information (version, date, time)

Command	Function
Back	Returns to the main menu.

Table 7: Command function

4.8 Drive information

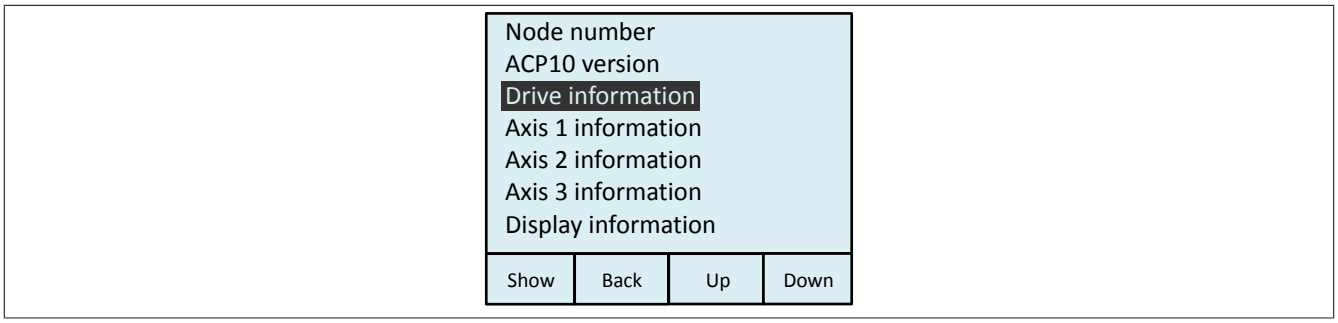


Figure 9: Drive information - Main menu option

Command	Function
Show	Switches to submenu "Drive information".
Back	Switches back to the startup screen.
Up	Moves the entry one position up.
Down	Moves the entry one position down.

Table 8: Command functions

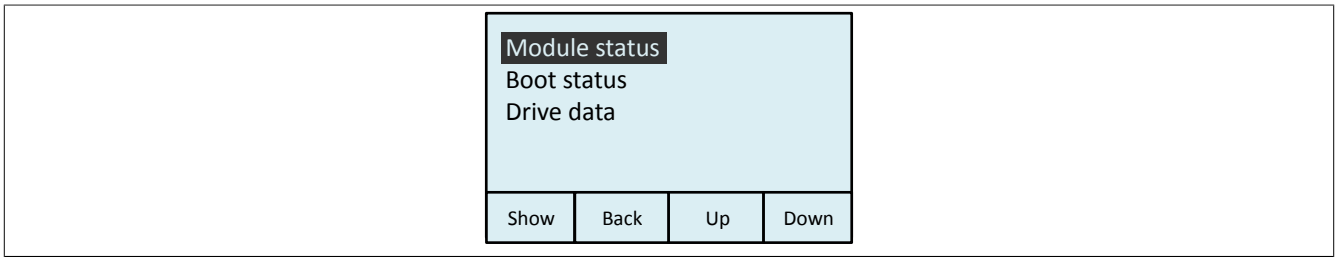


Figure 10: Submenu - Drive information

Command	Function
Show	Switches to the respective information.
Back	Returns to the main menu.
Up	Moves the entry one position up.
Down	Moves the entry one position down.

Table 9: Command functions

Module status

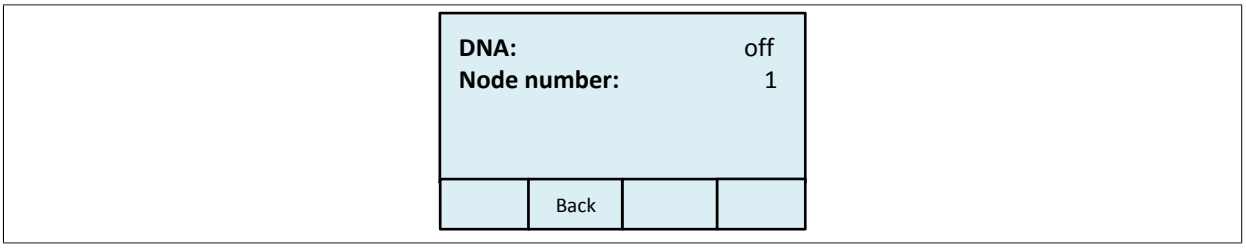


Figure 11: Module status

- **DNA** (dynamic node allocation): This window shows whether the function is enabled ("On") or disabled ("Off").
- **Node number:** Shows the currently set node number.

Command	Function
Back	Returns to submenu "Drive information".

Table 10: Command function

Boot status

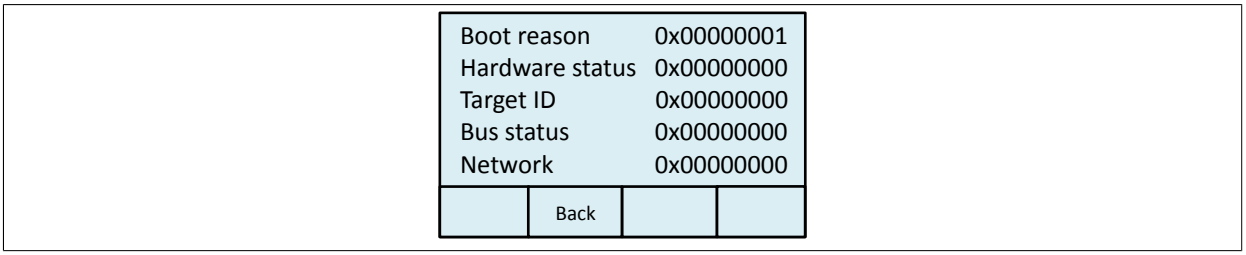


Figure 12: Boot status

Shows the internal state of the device and provides information for general troubleshooting. For more information, please contact Support.

Command	Function
Back	Returns to submenu "Drive information".

Table 11: Command function

Drive data

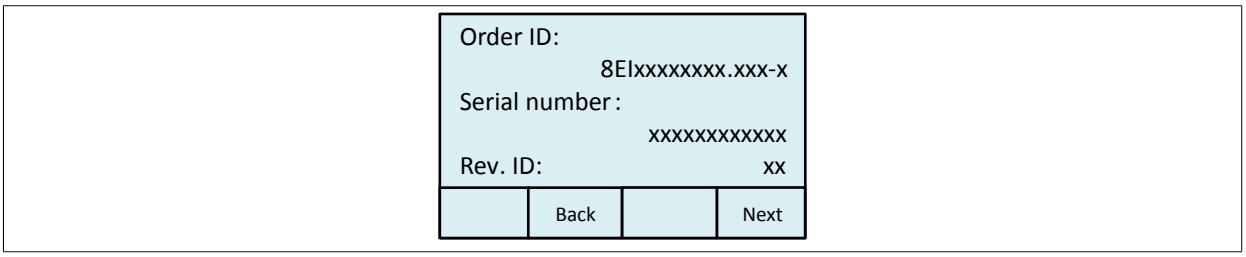


Figure 13: Drive data - Information

- **Order ID:** Displays the model number of the ACOPOS P3 servo drive.
- **Serial number:** Displays the serial number of the ACOPOS P3 servo drive.
- **Rev. ID:**: Displays the revision number of the ACOPOS P3 servo drive.

Command	Function
Back	Returns to submenu "Drive information".
Next	Displays "Drive data - Hardware information".

Table 12: Command functions

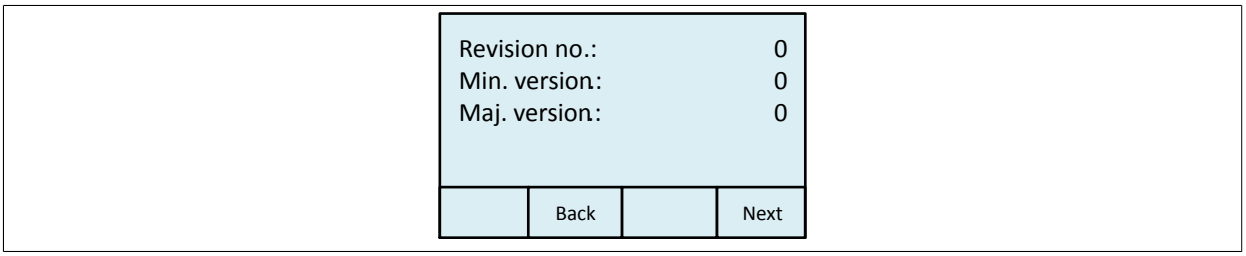


Figure 14: Drive data - Hardware information

For more details about individual states, please contact Support.

Command	Function
Back	Returns to submenu "Drive information".
Next	Displays "Drive data - Information".

Table 13: Command functions

4.9 Axis information

The main menu contains a menu option containing axis information for each axis of the ACOPOS P3 servo drive.

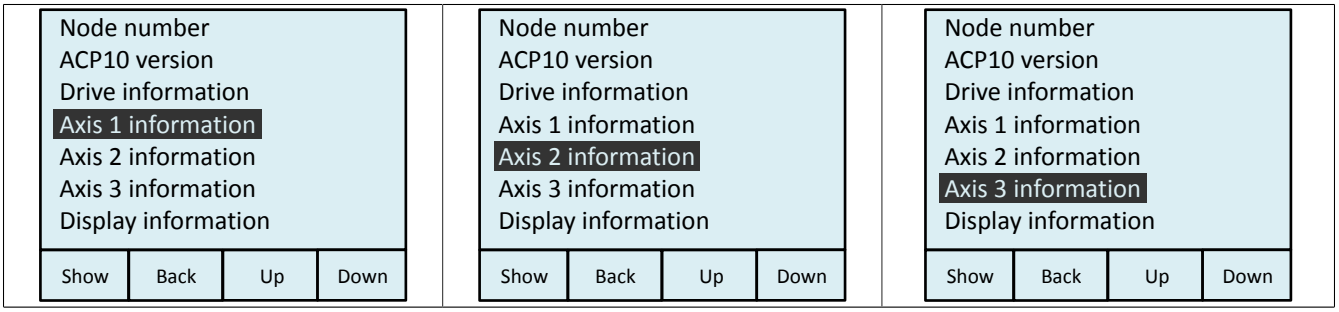


Table 14: Axis n information - Main menu option

Command	Function
Show	Switches to the respective "Axis information" submenu.
Back	Switches back to the startup screen.
Up	Moves the entry one position up.
Down	Moves the entry one position down.

Table 15: Command functions

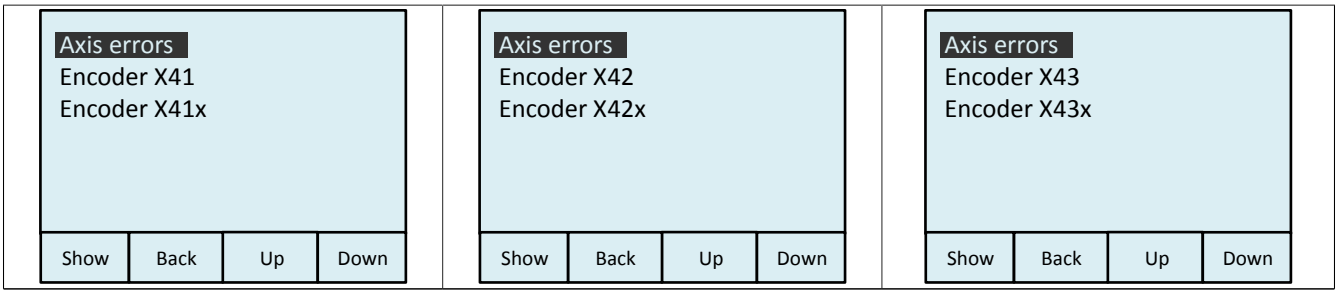


Table 16: Axis n information - Submenu

Command	Function
Show	Switches to the respective information.
Back	Returns to the main menu.
Up	Moves the entry one position up.
Down	Moves the entry one position down.

Table 17: Command functions

Axis errors

The first 5 axis errors are displayed by default (mode "Off"). Pressing key 4 switches between modes "Off" and "Auto".

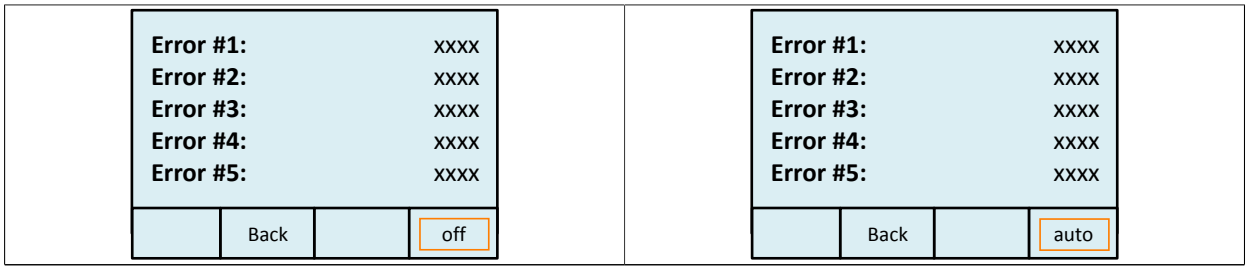


Table 18: Axis errors

Command	Function
Back	Returns to submenu "Axis information".
auto	Automatically rereads and overwrites errors. → The 5 most current errors are always displayed.
off	Errors remain frozen. → No notification of new errors.

Table 19: Command functions

Encoder X41, X42, X43

Displays information about the permanently installed encoder interface (in slot X41, X42, X43).

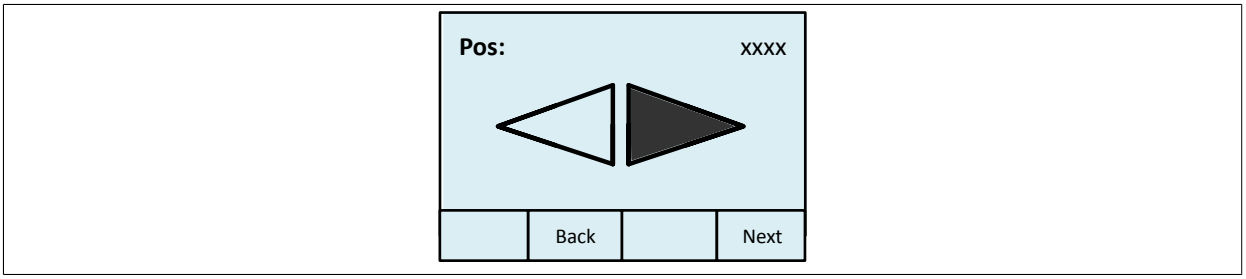


Figure 15: Encoder information

- **Pos:** Shows the position of the encoder in unit positions from the reference point.
- The two arrows indicate the direction of rotation of the connected encoder. The filled-in arrow shows the current direction of rotation of the encoder.

Command	Function
Back	Returns to submenu "Axis information".
Next	Displays "Onboard encoder - Information".

Table 20: Command functions

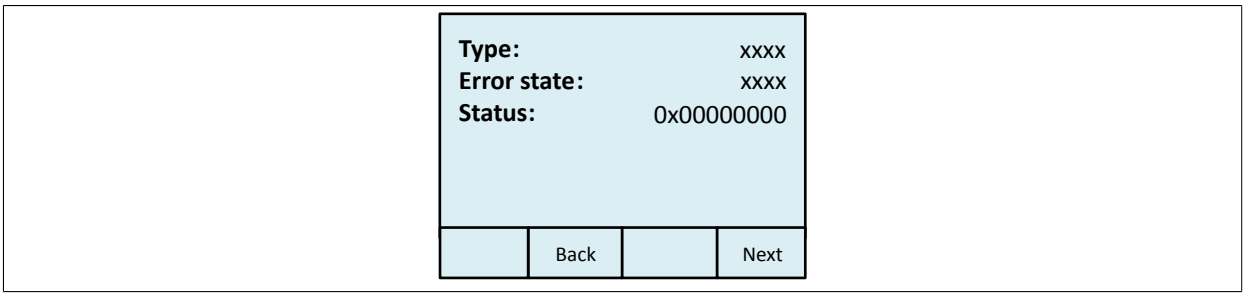


Figure 16: Onboard encoder information

- **Type:** Displays the encoder type.
- **Error state:** Displays the error state of the encoder. Different values can be displayed depending on the encoder being used.
- **Status:** Displays the state of the encoder. Different values can be displayed depending on the encoder being used.

Command	Function
Back	Returns to submenu "Axis information".
Next	Displays "Encoder information".

Table 21: Command functions

Encoder X41x, X42x, X43x (if available)

Displays information about optionally connected encoders (plug-in card in slot). This is possible depending on the configuration of the ACOPOS P3 servo drive. For functionality, see "Encoder X41, X42, X43".

4.10 Display information

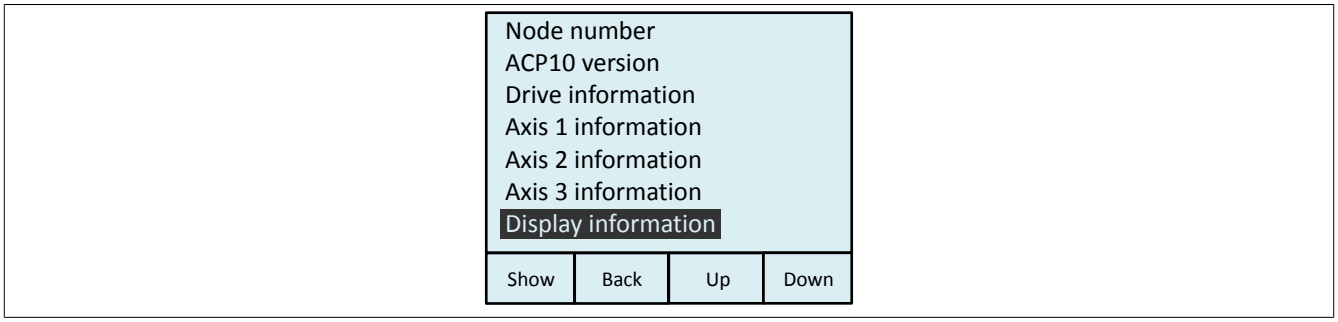


Figure 17: Display information - Main menu option

Command	Function
Show	Displays information about the display module.
Back	Switches back to the startup screen.
Up	Moves the entry one position up.
Down	Moves the entry one position down.

Table 22: Command functions

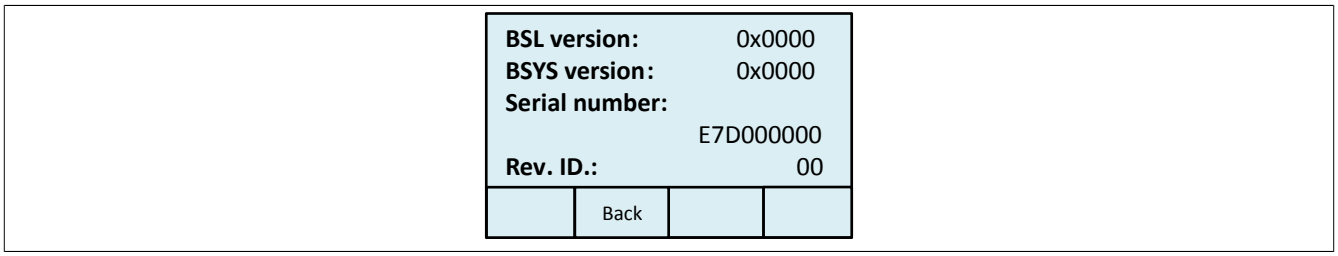


Figure 18: Display information - Submenu

- **BSL version:** Shows the version of the base operating system on the display module.
- **BSYS version:** Shows the version of the operating system on the display module.
- **Serial number:** Displays the serial number of the display module.
- **Rev. ID:** Displays the revision number of the display module.

Command	Function
Back	Returns to the main menu.

Table 23: Command function