



**These instructions must be read  
prior to installation  
and use!**



# HELLA

Control device ONYX.NODE



Installation instructions



Operating guidelines

## Preliminary remarks HELLA Control device ONYX.NODE

With this HELLA product you have opted for a high-quality product with a most up-to-date technology that can nevertheless be easily installed and operated. In these instructions we describe the basic installation, commissioning and use.



These instructions are addressed to trained electricians.

The following symbols will assist you with the installation or use and require a safety-conscious conduct:



### Attention!

This symbol indicates instructions that, if disregarded, can put the user in danger.



### Attention!

This symbol indicates instructions that, if disregarded, can potentially result in damage to the product.



This symbol indicates instructions for use or helpful information.



This symbol requires you to act.



### Attention!

This symbol indicates a risk of injury or danger to life due to an electric shock.



This symbol indicates parts of the product, for which you will find important information in these installation instructions.

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## General notes

### Questions

In case of questions concerning the installation or the use of your product, please consult your authorized specialist shop.

### Warranty

Warranty claims are subject to statutory limitation periods. Wear parts are excluded from the warranty; the same applies for changes in colour and changes in characteristics caused by UV radiation.

### Liability

In case of non-observance of the directions and information given in these instructions and in case of improper operation or unintended use, the manufacturer shall not accept any warranty claims concerning any damage to the product. In these cases the liability for consequential damage to any parts or persons is ruled out as well.

### Legal notes

The graphs and texts of these instructions were carefully prepared. We cannot be held liable for any errors and their potential consequences! Subject to technical modifications to the product and to these instructions! These instructions include copyrighted information. All rights reserved! The listed product or brand names are trademarks of the respective owners.

### EC declaration of conformity

The HELLA Sonnen- und Wetterschutztechnik GmbH hereby declares that this product complies with the basic requirements and the other applicable regulations of the EC directives. The complete declaration of conformity can be found in the download area of our website <https://www.hella.info>.

## Safety instructions



These installation instructions refer to prefabricated elements, that (1) for 100% are made from parts, which are defined by us, and (2) which are made in manufacturing processes, which are defined by us too; in all other cases we do not provide any guarantee!

The safety instructions as well as the appropriate instructions must be read carefully before installation and use. In case of non-observance of the directions and information given in these instructions and in case of improper installation and operation or unintended use, the manufacturer shall not accept any warranty claims concerning any damage to the product. In these cases the liability for consequential damage to any parts or persons is ruled out as well.



- Follow the described installation steps and pay attention to recommendations and notes.
- Keep these instructions in a safe place.
- All installation and removal works, as well as maintenance and repair works are only allowed to be carried out by authorised and qualified specialist staff.
- Observe the regulations for prevention of accidents of the employer's liability insurance association!
- Before operation check the unit for visible damage. If the unit is damaged, it should not be used; please consult authorized specialist staff immediately.
- Only use unmodified original parts from HELLA.
- In case of unauthorised opening of the device, improper use, incorrect installation or incorrect operation, there is a risk of damage to persons or property.
- Never let children play with the unit.

Use ONYX.NODE in dry rooms only.



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## Safety instructions



### Attention! Risk of injury or danger to life due to an electric shock!

- Set-up, examination, commissioning and error correction of the unit must only be performed by authorised or trained expert staff (as per VDE 0100).
- Switch off the current to the connecting lines when working at the unit. There is danger to life! Take safety precautions against unintentional switching on!
- Check the electrical wires regularly for damage. Do not use the unit if any damage is found.



### Observance of regulations and rules

The building owner is responsible for the observance of statutory rules and country-specific provisions on site.

## Designated use

The control device ONYX.NODE may only be used for the control of outdoor blinds / exterior Venetian blinds, roller shutters, awnings and facade blinds that are provided with drives, which are intended for this use. With ONYX.NODE, the lighting may be used up to the performance data given. Any use other or beyond that is not considered intended use. The connection of external devices must be carried out in consultation with the specialist staff. ONYX.NODE is a single control device, which means that only one drive can connected per ONYX.NODE.



- It is not allowed to use radio system in areas with an increased risk of interference (e.g. hospitals, airports).
- The remote control is only admissible for devices and systems, where a malfunction in the transmitter or receiver does not pose a risk to persons, animals or objects, or if this safety risk is covered by other safety installations.



- **Follow the wiring diagram precisely!**
- We cannot accept responsibility for damage, that can result from improper installation.

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## Scope of delivery

The following components are included in the scope of delivery:

- Control device ONYX.NODE (quantity as per purchase order)
- Short instructions control device ONYX.NODE

## Device description

ONYX.NODE  
Art. no. 50680002  
220-240 V AC / 50-60 Hz

ONYX.NODE is a control device for the interior (flush-mounted socket). It is suitable for the control of 230 V Venetian blind, roller shutter and awning motors, as well as for the switching on/off of 230 V lights.

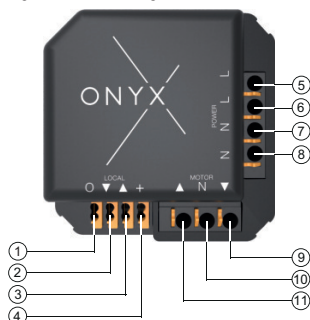


Fig. 1: Connections:

### Legend

- |                              |                             |
|------------------------------|-----------------------------|
| ① No function                | ⑦ Mains connection input N  |
| ② Pushbutton connection DOWN | ⑧ Mains connection output N |
| ③ Pushbutton connection UP   | ⑨ Motor connection DOWN     |
| ④ Pushbutton connection +    | ⑩ Motor connection N        |
| ⑤ Mains connection input L   | ⑪ Motor connection UP       |
| ⑥ Mains connection output L  |                             |

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## Technical data

Input	220-240 V AC / 50-60 Hz
Output	450 VA
Nominal capacity	0.3 W
IP rating	IP20
Admissible ambient temperature	0 °C to +55 °C
Radio frequency	868.3 MHz
Transmission power	12.6 mW
Installation type	Flush-mounted box min. ø65 mm (inside), depth min. 60 mm; surface-mounted in corresponding surface-mounted casing
Dimensions LxWxH	49x49x24.5 mm
Weight	48 g

## Installation



Prior to starting the installation, check the proper function of the transmitter and the receiver at the desired installation position. The flush-mounted box must be fastened in a way that the drilled hole does not hit wiring. Extended instructions for the electrical installation can be found in the download area of our website <http://www.hella.info>.



Minimum requirements flush-mounted socket: ø65 mm (inside), 60 mm deep.

1. Place the ONYX.NODE in the box.
2. Connect the stripped cables without end sleeves, as shown in Fig. 2.

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## Connection diagram

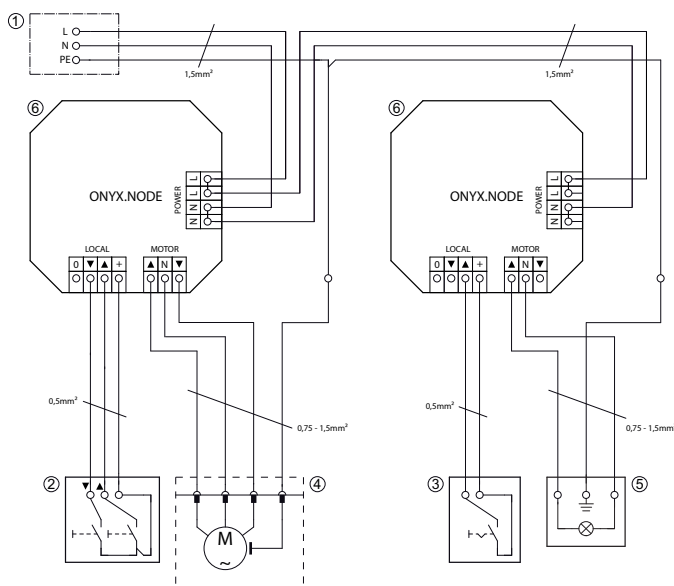


Fig. 2: Wiring diagram for Venetian blind, roller shutter and awning motor, lighting

### Legend

- |                                |             |
|--------------------------------|-------------|
| ① Junction box                 | ④ Motor     |
| ② Button                       | ⑤ Lighting  |
| ③ Switch (pushbutton possible) | ⑥ ONYX.NODE |

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## Connection diagram



### Attention!

The motor cable must be directly connected to the control device ONYX.NODE: Clamping points/junctions in the motor cable are unacceptable.



### Attention!

When actuating the 230 V lighting, the maximum output power of 450 VA may not be exceeded. This must especially be observed with lightings with electrical ballasts, which have a high inrush current. In addition, a cut-off relay must be used with higher electric capacities.

### "Power"-terminals for mains voltage 230 V AC / 50 Hz

The input is provided for the voltage supply of the module and the load. The names L and N mark live cord and neutral conductor. Both clamps (L and N) are present in duplicate, the voltage supply can thus be transferred to the next control device. Observe the terminal assignment in Fig.1.

### "Motor"-terminals for motor connection

The outputs are provided for the connection of the drive or the connection of the lighting. The arrows on the device show the running direction of the drive. 230 V lighting is connected to N and ▲ (L).

### "Local"-terminals for pushbutton

To control the ONYX.NODE, a Venetian blind pushbutton or a switch / pushbutton for the lighting can be connected to the terminals "Local". Hence, the ONYX.NODE can also be operated without a smart phone. Up to four ONYX.NODE (Art.-No. 50680002) can be connected to a central pushbutton (a switch in case of lighting possible). If several ONYX.NODE are to be operated by one pushbutton, the following must be observed:

- All ONYX.NODE must be connected to the same phase.
- If several ONYX.NODE are operated by one pushbutton only, make sure that L and N are not interchanged.
- The cabling may only be performed in a de-energized condition.

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## Connection diagram

### Direction assignment of the outputs when connecting a Venetian blind, roller shutter, awning motor

After having connected the drive, please check the direction assignment of the outputs. When pressing the pushbutton into the UP-direction, the motor must move into the retracting direction. When pressing the pushbutton into the DOWN-direction, the motor must move into the extending direction. If this is not the case, please exchange the connections on the outputs. The direction assignment can take place through the ONYX®-app at a later time.

## Configuration



Before configuring the ONYX.NODE, download HELLA's free app ONYX® from the app store / Google Play to your smart phone.

Before you can use ONYX.NODE in combination with ONYX.CENTER or ONYX.CLICK, ONYX.NODE must be added in the app ONYX®. You will find all information regarding the configuration in the instructions for ONYX.CENTER / ONYX.CLICK, directly in the app ONYX® or in the download area on our homepage <https://www.hella.info>.



### Precondition:

ONYX.NODE is installed (see chapter "Wiring diagram"). The mechanical end positions of the drives must be adjusted.

## Operating guidelines



### Roller shutter mode

If a pushbutton is pressed briefly, the drive moves to the respective end position (latching mode). As a standard, the roller shutter mode is adjusted on delivery.



### Venetian blind mode

If the pushbutton is pressed briefly (<2 seconds), the drive stops after releasing the pushbutton (tilting mode). If the pushbutton is pushed for more than two seconds, the drive moves to the respective end position (latching mode).



### Light mode

When pressing the pushbutton, the lighting is switched on. When pressing the pushbutton again, the lighting is switched off. Only in the light mode, also a switch can be connected to the control device.



### Groups

Groups with their different sun protection units can be configured freely in the ONYX®-app. All units in one group can be controlled together.



### Favourite position (heart symbol)

In the ONYX®-app six freely selectable positions per sun protection unit can be saved, which you simply can use again at a later time.



### Automatic Operation

In the ONYX®-app you can set up as many time functions as you like, which, at the desired times, make your sun protection units move to the adjusted positions. ONYX® is also provided with an astro function, which, at sunrise or sunset, moves your sun protection unit automatically to a defined position. With the help of the sun sensor a particular position can be defined, if the threshold value of the sun is below or exceeds the preset value.

## Settings



### Device type

The different device types can be selected in the ONYX®-app under "advanced settings".

It is necessary to define the type of device. By selecting the appropriate category, it is assigned to this type. Device types are outdoor blind, roller shutter, awning, facade blind and light. For device types, you do not want to be displayed in the app, i.e. central pushbutton without a connected drive, the drive type "Hidden" is available. By default the device type "Roller shutter" is set.



### Outdoor blind parameters

You find the outdoor blind parameters under "advanced settings" in the ONYX®-app.

Under "Tilting time" it is possible to transmit the time the outdoor blind requires for a complete tilting to the ONYX® control. This must especially be observed, if a drive with a slow slat tilting is mounted.

#### Preset tilting times:

Outdoor blind 90°:	1.25 s
Outdoor blind 180°:	2.5 s



### Motor parameters

You find the adjustment possibilities for the motors under "advanced settings" in our ONYX®-app.

If your sun protection unit moves contrary to the direction of your control command, you can activate the reversal of the direction of rotation with the icon "Reverse direction of rotation".

In addition, the "automatic running time" can be activated/deactivated under "motor parameters". The automatic running time should be deactivated only, if ONYX.NODE is not directly connected to a drive, i.e. to a cut-off relay. The running time can be adjusted manually, when the automatic running time is deactivated. As a standard the automatic running time is activated.

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## Settings



### Pushbutton settings

You find the adjustment possibilities for the pushbutton under "advanced settings" in the ONYX®-app.

The actuating direction at the connected Venetian blind pushbutton can be reversed with "Reverse direction of pushbutton". This function can be useful, if the Venetian blind pushbutton is not correctly connected to ONYX.NODE.

Under "Forwarding pushbutton actuation" the pushbutton signal of the connected Venetian blind pushbutton can be forwarded to other ONYX® components. This function can be used for groups, which can be activated via one single pushbutton.



### Wind resistance class

You find the wind resistance classes in the ONYX®-app under "advanced settings". These preset wind resistance classes are only relevant, if the optional weather sensor ONYX.WEATHER is used. Please note, that the real values set depend on the installation situation on-site; these values are available in the documentation of the sun protection device and must be strictly observed!

#### Preset wind resistance classes:

Roller shutter	Class 4 (13.8 m/s)
Awning	Class 2 (10.7 m/s)
Facade blinds	Class 4 (13.8 m/s)
Outdoor blind	Class 4 (13.8 m/s)

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## Settings



### Output selection and entry type

These two adjusting possibilities are only available for the device type "light".

Under "output selection" you can select the output of the "motor"-terminal to be used for the actuation of the lighting. It is possible to select between "Channel A" (connection N and ▲) and "Channel B" (connection N and ▼). As a standard "Channel A" is set.

Under "Entry type" you can select, if a pushbutton or a switch is connected to the control device.

As a standard "pushbutton" is set.



A detailed description of all settings of the ONYX®-app are available in the download area of our website <https://www.hella.info>.

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## Ideal use of the radio signal



In case of bad reception, the position of the ONYX.NODE must be changed.



Radio systems that send on the same frequency may cause interference with reception. It must be considered that the range of the radio signal is limited by statutory regulations and structural measures.

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## Fault removal

Problem	Possible cause	Troubleshooting
Drive does not run or runs only briefly.	Motor connection incorrect.	Check the connection as per Fig. 2. Change connection, if necessary.
Lighting can not be controlled.	Incorrect connection.	
Drive runs into the wrong direction.	Directions were interchanged during installation.	Perform the reversal of the direction in the ONYX®-app, as described in the chapter "Settings".
Incorrect operation when controlling the lighting via a light switch.	Entry type with ONYX.NODE is set to "pushbutton".	Selection of the entry type "light switch" in the ONYX®-app, as described in the chapter "Settings".
ONYX.NODE can not be controlled in the ONYX®-app (off-line).	<ul style="list-style-type: none"> <li>- The wrong control device was added.</li> <li>- No mains voltage at the ONYX.NODE.</li> </ul>	<ul style="list-style-type: none"> <li>- Check if the serial number is correct and add it again.</li> <li>- Provide mains voltage with ONYX.NODE.</li> </ul>
Poor or no radio reception.	Adverse position of ONYX.CENTER / ONYX.CLICK or ONYX.NODE.	Reposition ONYX.CENTER / ONYX.CLICK or ONYX.NODE.
Device locked.	ONYX.NODE is already configured in another network.	Follow the instructions on your screen, perhaps voltage interruption.

## Disposal



Dispose of the device in accordance with the current country-specific regulations for electronic scrap (e.g. collecting points).

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### HELLA Interior Venetian Blinds

regulate the lighting in a room very comfortably, immediately gracing it with much more atmosphere.



### HELLA Venetian Blinds

serve for the light regulation, as view protection, anti-glare blind and heat protection.



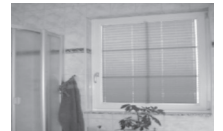
### HELLA Insect Screens

and you decide who is allowed to come in and who isn't.



### HELLA Front-mounted Roller Shutter

for more safety and protection against rain, wind, heat, the cold, noise and nosey glances, also available for subsequent installation.



### HELLA Pleated Blind

folds up very compactly and protects very well against the sun and nosey glances where only little space is available.



### HELLA Facade Awning

with exposing mechanism for lovely facade design with perfect heat protection and anti-glare blind.

For questions, wishes and ideas:

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