



Manual

eSIGN 24 V

Functional description of the signal tower with configuration software

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310.657.006

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WERMA Signaltechnik GmbH + Co.KG

78604 Riethem-Weilheim, Germany

Phone: +49 (0)7424 / 9557-222

Fax: +49 (0)7424 / 9557-44

support@werma.com

www.werma.com

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1 Overview

1.1 Function

The new *eSIGN* brings new dimensions to light. Electronic modularity enables the product to create a variety of signal modes with various colours, brightness levels and light effects, from the classic signal tower to completely customised settings. *eSIGN* can also switch with ease between variable filling level indications or full-surface signalling. In addition to providing you with an overview of your process cycles, this also opens up completely new options.

The WERMA *eSIGN* configuration software can be used to configure the individual segments and to transfer the configuration to the *eSIGN*.

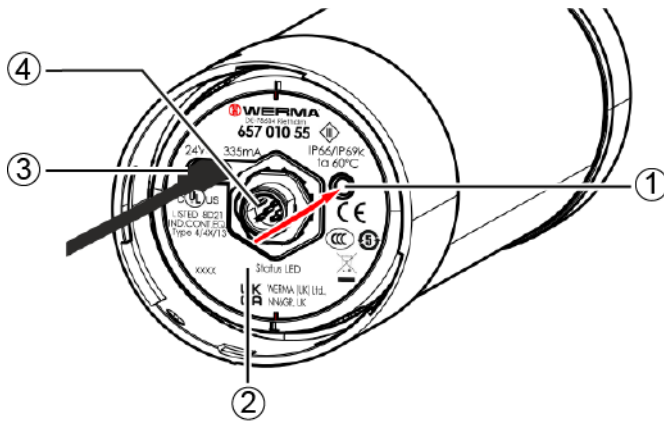
The configuration can be performed with or without connecting an *eSIGN*. If no *eSIGN* is connected, the configuration can be saved in a configuration file and later loaded and transferred to a connected *eSIGN*.

1.2 Hardware description

The hardware information applies to the following part numbers:

- 657.000.55 - 9 segments
- 657.100.55 - 9 segments with siren
- 657.500.55 - 15 segments
- 657.600.55 - 15 segments with siren

1.2.1 Overview of the connection area



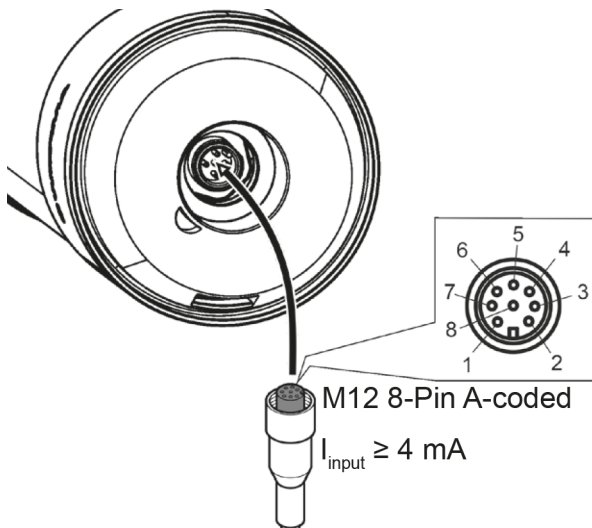
Item	Description
1	User button
2	Status LED
3	USB-C connection
4	8-pin M12 connector

LED status	Description
LED flashes yellow	Normal operation
LED pulses	Firmware update is being installed
LED is off	USB-C cable not properly connected

i The user button is not functional in the current eSIGN version and is kept available for future functional enhancements.

1.2.2 Overview of the 8-pin M12 connector

The eSIGN is connected via an 8-pin M12 connector with the following assignment:



M12 pin assignment	Wire colour of M12 cable	Function
1	White	Signal 1
2	Brown	Signal 2
3	Green	Signal 3
4	Yellow	Signal 4
5	Grey	Signal 5
6	Pink	Signal 6
7	Blue	COM
8	Red	+24V

1.3 System requirements for the eSIGN configuration software

Operating system	Windows 10 x86/x64 Up-to-date Windows updates are a compulsory requirement.
USB port	Required for the hardware configuration.

i Supported operating systems are only supported for as long as Microsoft also supports them through the Microsoft Support Lifecycle.

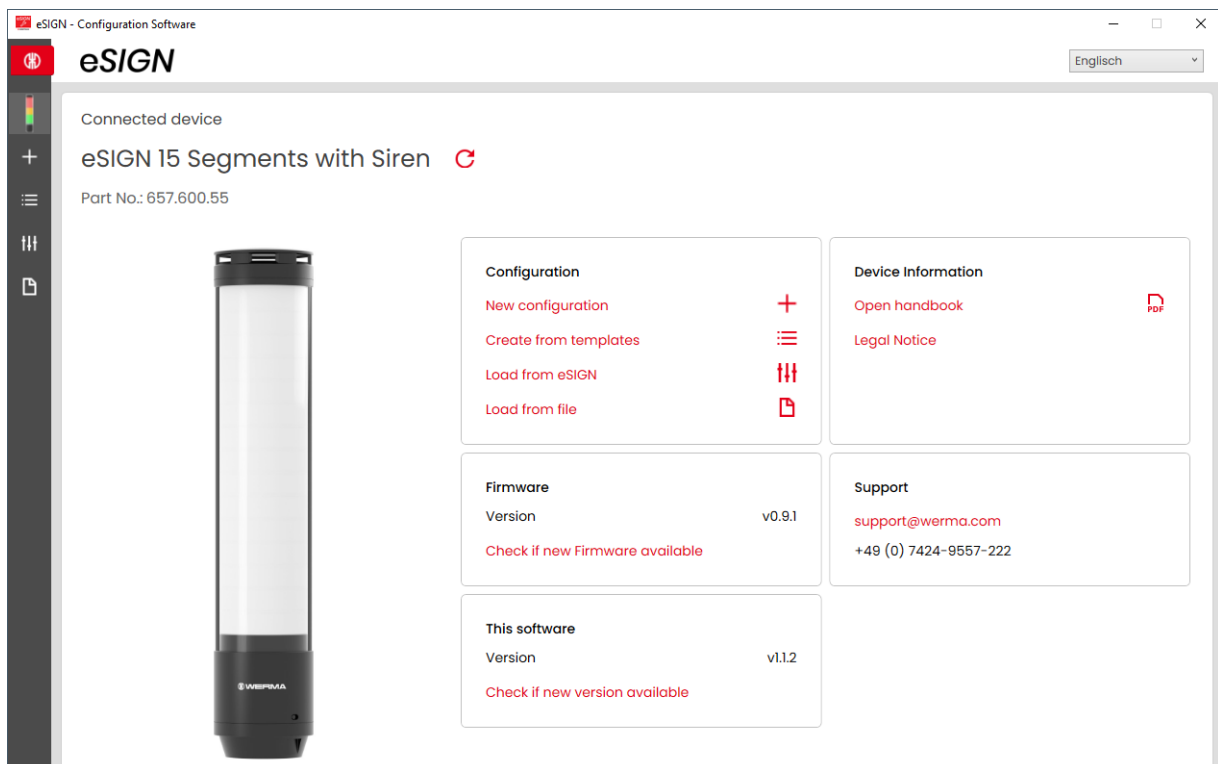
2 Installing the eSIGN configuration software

The eSIGN configuration software does not need to be installed and runs as a portable version.

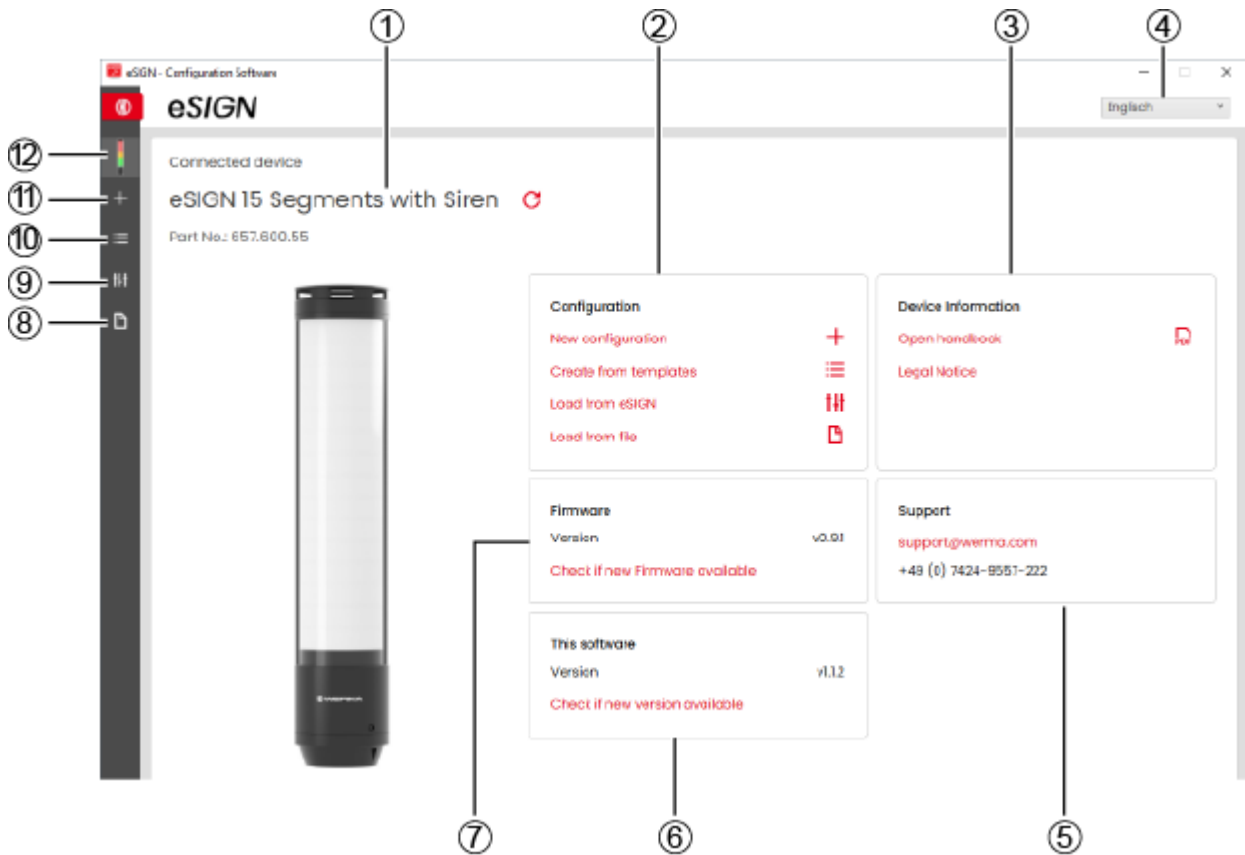
1. Download the eSIGN configuration software from the following website: www.werma.com/software.

3 Starting the eSIGN configuration software

1. Double-click on `Werma-eSIGN-Konfigurator.exe`.
→ The eSIGN configuration software starts.



3.1 Overview



Item	Description
1	Connected eSIGN variant
2	Configuration Area
3	Device Information Area
4	Set the language
5	Support Area
6	This Software Area
7	Firmware Area
8	Open the existing configuration
9	Load the configuration from the eSIGN
10	Create a configuration from sample templates
11	Create a new configuration
12	Open the start screen

3.1.1 Configuration Area

The following options for creating a configuration are available in the **Configuration** area:

- **New configuration:** Create a new configuration (see "Creating a new configuration", p. 115).
- **Create from templates:** Open standard templates that can be transferred to the device immediately (see "Creating a configuration from sample templates", p. 164).
- **Load from eSIGN:** Open the current configuration (for example the default setting) for editing (see "Loading the configuration of the connected eSIGN", p. 166).
- **Load from file:** Open and reuse an existing configuration (see "Opening the existing configuration", p. 167).

3.1.2 Device Information Area

The handbook and legal information can be opened in the **Device Information** area.

3.1.3 Support Area

The **Support** area displays the contact information of the WERMA support team.

3.1.4 This Software Area

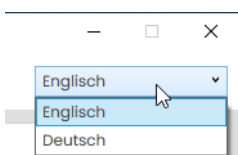
The **This Software** area displays information about the eSIGN configuration software and offers a possibility to update the configuration software.

3.1.5 Firmware Area

The **Firmware** area displays information about the firmware of the connected eSIGN and offers a possibility to update the firmware.


3.2 Setting the language

1. Select the desired language in the selection menu.

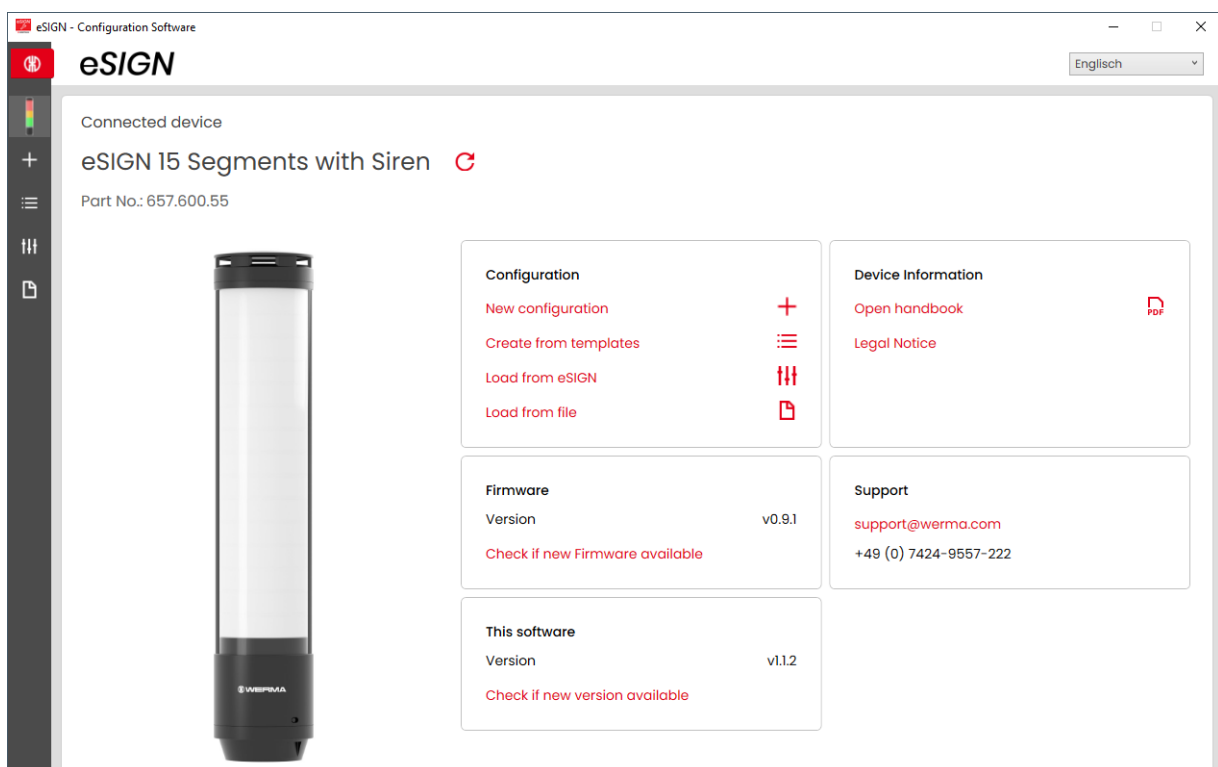


4 Creating a new configuration


 The configuration can be performed with or without connecting an eSIGN.

 The eSIGN can be connected simultaneously to a computer via the USB cable and to the 24V power supply via the M12 cable.

1. Use the USB cable to connect the eSIGN to the computer.
→ The eSIGN configuration software detects the connected eSIGN.



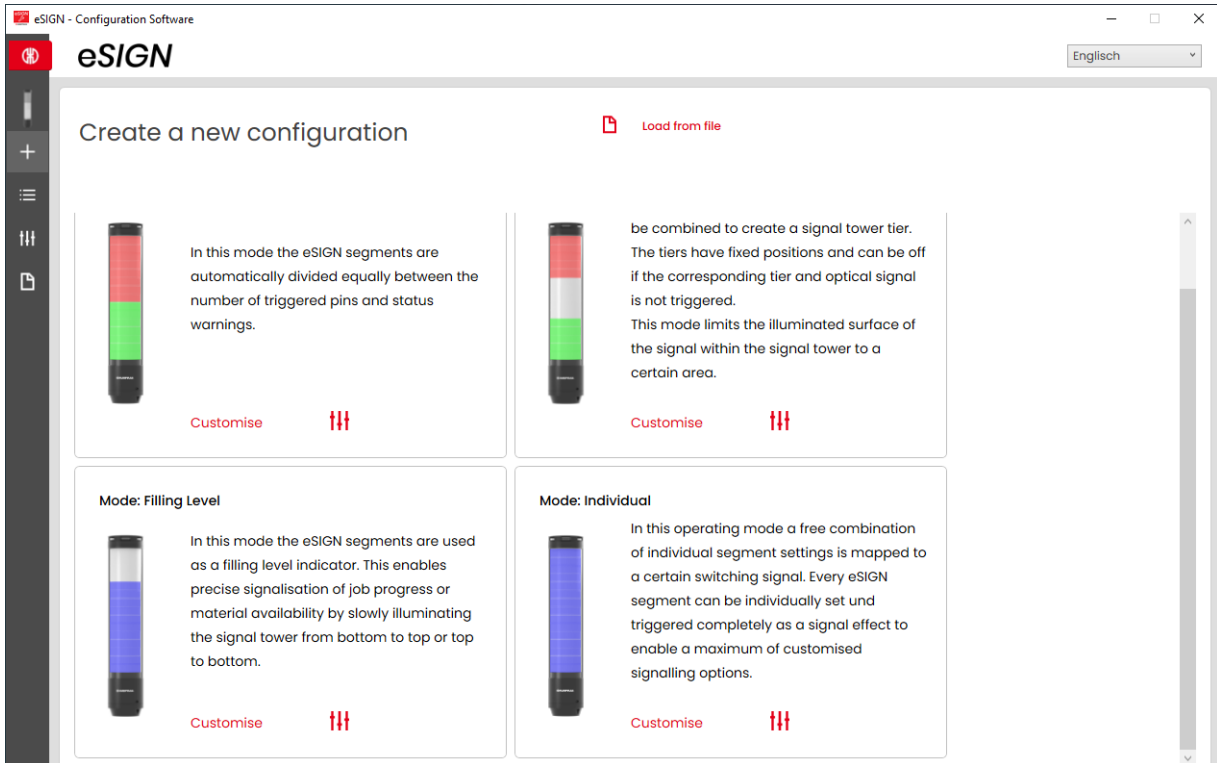
2. If the eSIGN configuration software does not detect the connected eSIGN: Click on **Refresh connected device**.

No Device connected 

3. Click on **New configuration** in the **Configuration** area.



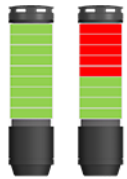
→ The **Create a new configuration** screen appears.



4. Depending on the desired configuration mode, click on **Customise** in the **Autoscale, Signal Tower, Filling Level** or **Individual** area.

Customise

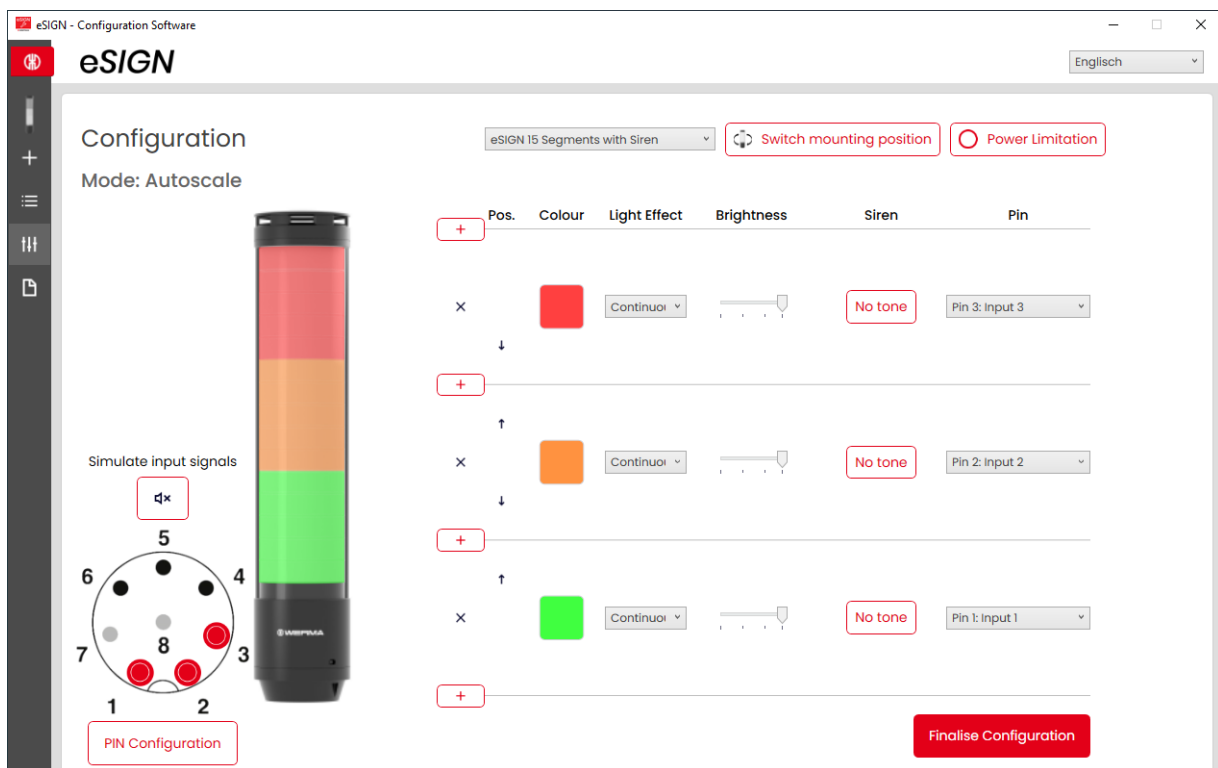
4.1 Autoscale mode



eSIGN segments are automatically divided equally between the number of triggered pins and status warnings.

This enables the full potential of the eSIGN to be exploited by providing full-surface illumination. If for example only one status warning is active then the entire surface of the eSIGN is illuminated in one colour for maximum visibility.

If several status warnings are active, the illuminated area is split proportionally. If the segments cannot be divided equally then the highest priority colour (highest position in the signal tower) receives the remaining segment. If several segments are remaining then they will be divided equally according to the prioritisation (position in the signal tower from top to bottom).



Pos.	Colour	Light Effect	Brightness	Siren	Pin
+					
x	Red	Continuous	[Slider]	No tone	Pin 3: Input 3
↓					
+					
x	Orange	Continuous	[Slider]	No tone	Pin 2: Input 2
↓					
+					
x	Green	Continuous	[Slider]	No tone	Pin 1: Input 1
↓					
+					



If necessary, the orientation of the displayed signal tower can be rotated by 180° with the **Switch mounting position** button.



If necessary (for example, to take into account the power limits of control outputs), the power consumption of the eSIGN can be reduced with the **Power Limitation** button. In this case, the current power requirement of the tower is reduced to less than 500 mA. As a result, the optical signals' brightness or the audible signals' volume is reduced.

The **Autoscale** mode is the standard default operating mode at the time of delivery and is set as follows:

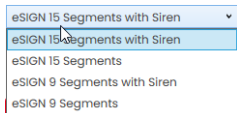
- Variants with 9 segments:
 - 3 tiers red/yellow/green
 - Continuous light
- Variants with 15 segments:
 - 5 tiers red/yellow/green/white/blue
 - Continuous light

The default setting deviates from this standard for customer-specific versions and is documented separately.

4.1.1 Selecting the eSIGN variant

The variant is pre-selected accordingly if eSIGN has been connected. If no eSIGN has been connected, the variant of the eSIGN to be configured can be selected.

1. If necessary, select the variant of the eSIGN to be configured.



4.1.2 Adding or removing a tier

As soon as a tier is added or removed in **Autoscale** mode, the individual eSIGN segments are automatically re-divided and evenly distributed across all tiers. If the segments cannot be divided equally then the highest priority colour (highest position in the signal tower) receives the remaining segment. If several segments are remaining then they will be divided equally according to the prioritisation (position in the signal tower from top to bottom).

Adding a tier

1. Click on **Add**.



x

→ A tier has been added.

Removing a tier

1. Click on **Remove**.

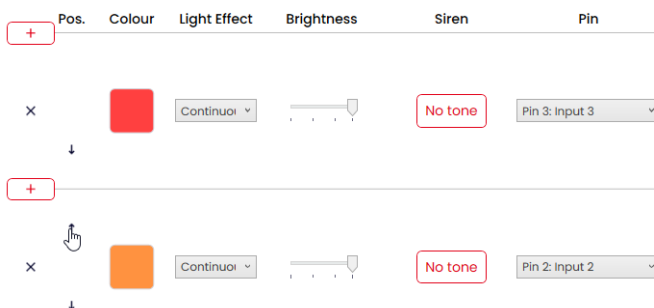


→ A tier has been removed.

4.1.3 Moving a tier

The individual tiers can be moved up or down as required.

1. In the **Pos.** column, click on the Move up or Move down arrow to move the tier up or down.



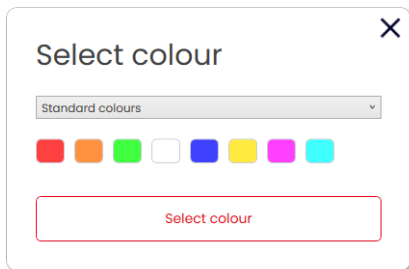
4.1.4 Selecting a colour

A standard colour or individual colour can be assigned to every tier.

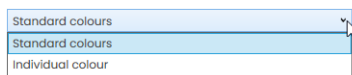
1. Click on the colour field in the **Colour** column.



→ The **Select colour** window appears.



2. Select whether to use a standard colour or an individual colour.



Standard colour

3. Click on the desired colour field.

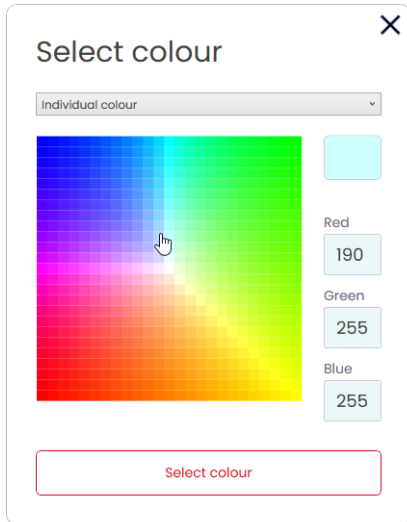


The following 8 standard colours are available for selection:

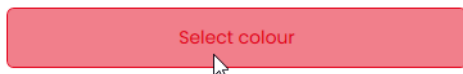
- red
- yellow
- green
- white
- blue
- light yellow
- violet
- turquoise

Individual colour

4. Select the desired colour in the colour field or enter the appropriate RGB value in the **Red**, **Green** and **Blue** fields.

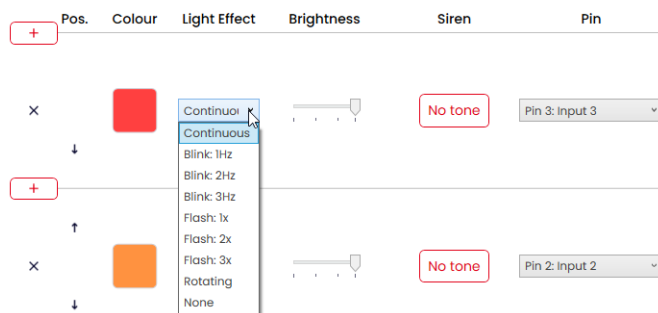


5. Click on **Select colour**.



4.1.5 Selecting a light effect

1. Select the desired light effect in the **Light Effect** column.



The following 8 light effects are available for selection:

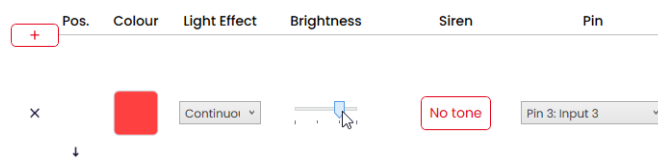
- Continuous light
- Blinking 1 Hz
- Blinking 2 Hz
- Blinking 3 Hz
- Flashing 1x
- Flashing 2x

- Flashing 3x
- Rotating
- None

 The **None** setting can be selected if the tier is only to be configured with a siren.

4.1.6 Setting the brightness

1. Set the desired brightness of the tier from the four options in the **Brightness** column.



4.1.7 Selecting the siren

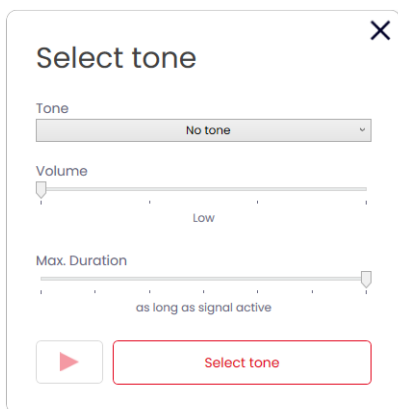
If the connected or selected eSIGN has a siren, you can select a signal tone which will sound when the tier is activated.

 If several tiers are set, and the tiers are activated at the same time, the siren will sound for the colour with the highest priority (highest position within the tower).

1. Click on **No tone** in the **Siren** column.




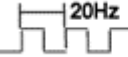
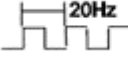
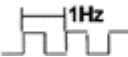

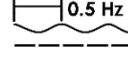





→ The **Select tone** window appears.



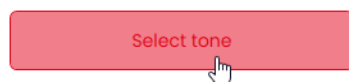
2. Select the desired Tone, the desired Volume and Max. Duration.

The following 10 tones are available for selection:

Sound	Frequency	Description	Max. dB (A)
1	 2.7 kHz	Continuous tone	104
2	 0.9 kHz	Continuous tone	96
3	 2.8 kHz	Pulse tone	97
4	 0.9 kHz	Pulse tone	93
5	 2.8 kHz	Pulse tone	103
6	 0.9 kHz	Pulse tone	96
7	 2.8 kHz	Pulse tone	104
8	 2.3 kHz- 3.6 kHz	Sweep tone	104
9	 2.6 kHz	Continuous tone	105
10	 1200 Hz 800 Hz	Alternating tone	92

 The selected settings can be tested using the **Play** button (▶). The sound file is then played by the computer.

3. Click on Select tone.



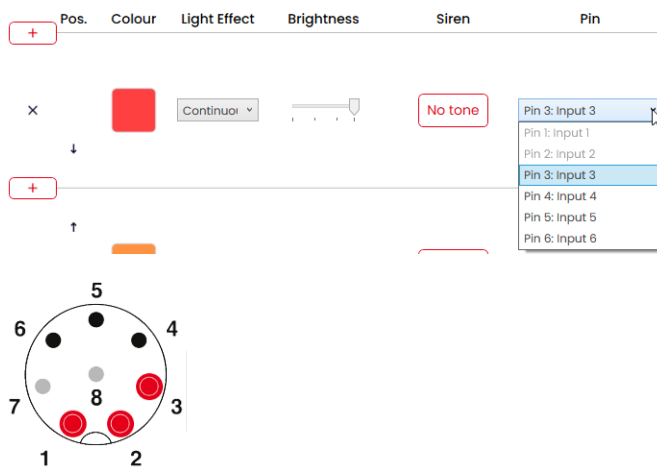
4.1.8 Selecting a pin



The fields are pre-configured with a standard configuration, starting from the bottom tier of the tower with pin 1.

Pins that are already in use are shown in grey. The configuration can be changed as required.

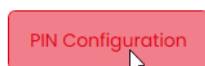
1. In the **Pin** column select the pin of the 8-pin connector on which the signal to trigger the tier is sent.



Modifying the pin configuration

If necessary, the assignment of the wire colour to the pin can be changed and a description of the signal added.

1. Click on **PIN Configuration** under the pin overview.



→ The **PIN Configuration** window appears.

PIN Configuration ✕

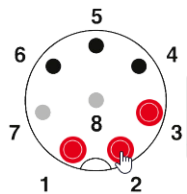
	Wire Colour	Description
Pin 1: Input 1	<input type="text" value="WH"/>	<input type="text"/>
Pin 2: Input 2	<input type="text" value="BN"/>	<input type="text"/>
Pin 3: Input 3	<input type="text" value="GN"/>	<input type="text"/>
Pin 4: Input 4	<input type="text" value="YE"/>	<input type="text"/>
Pin 5: Input 5	<input type="text" value="GY"/>	<input type="text"/>
Pin 6: Input 6	<input type="text" value="PK"/>	<input type="text"/>
Pin 7: COM	<input type="text" value="BU"/>	<input type="text"/>
Pin 8: +24V	<input type="text" value="RD"/>	<input type="text"/>

2. Enter the desired wire colour in the **Wire Colour** column.
3. Enter the description of the signal in the **Description** column.
4. Click on **Save**.

4.1.9 Simulating signal inputs

Once all settings have been made, the signal inputs can be simulated.

1. Click on the pin that activates the desired tier in the pin overview.



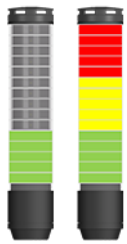
4.1.10 Finalising the configuration

1. Make additional changes to the configuration as required.
2. Once all tiers are configured as desired, click on **Finalise**.
→ The **Finalise** window appears.



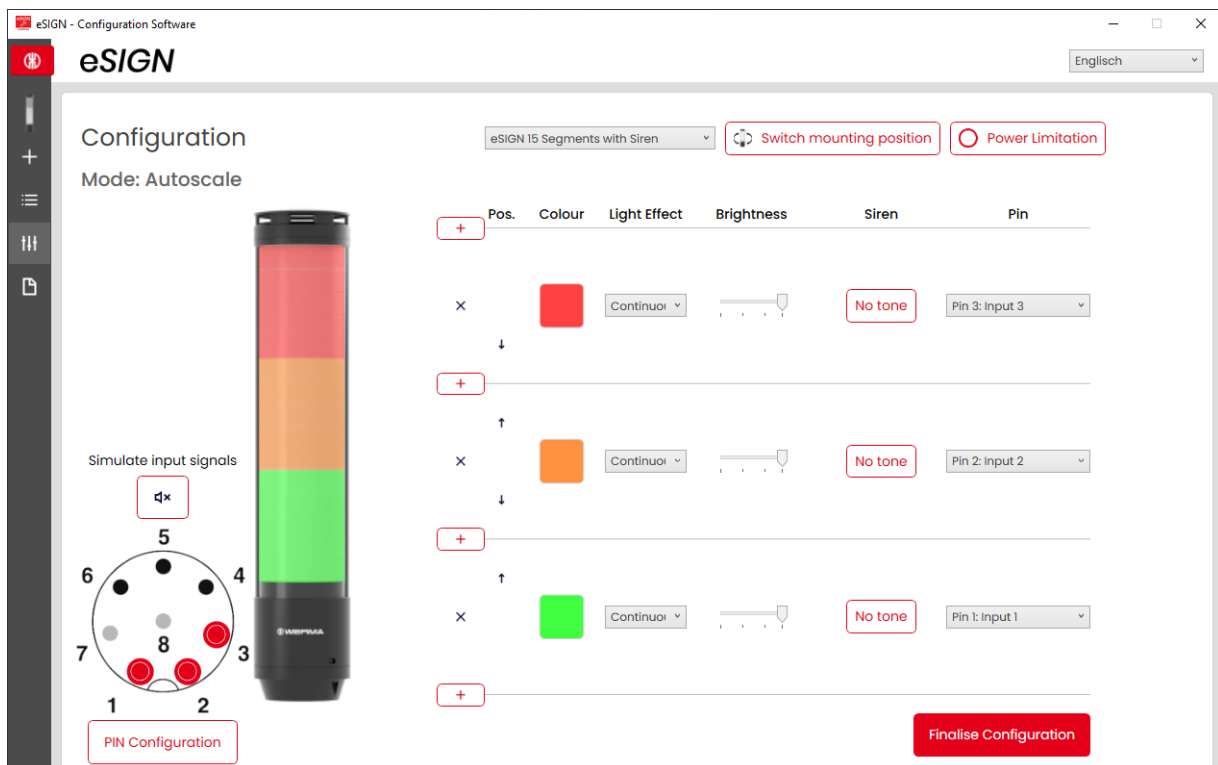
3. Click on **Save** to save the configuration in a configuration file.
4. Click on **Send to device** to transfer the configuration to the connected eSIGN.
5. Click on **Open PDF Configuration Sheet** to display an overview of the current configuration.
6. Click on **Save PDF Configuration Sheet** to save the overview of the current configuration as a PDF file.

4.2 Signal tower mode



Individual eSIGN segments can be combined to create a signal tower tier. This enables a classic signal tower to be created in an electronically modular form. In this mode the tiers have fixed positions and can be off if the corresponding tier and optical signal is not triggered.

This mode limits the illuminated surface of the signal within the signal tower to a certain area.



eSIGN Configuration Software

Configuration

Mode: Autoscale

eSIGN 15 Segments with Siren

Switch mounting position

Power Limitation

Pos.	Colour	Light Effect	Brightness	Siren	Pin
+	Red	Continuoi	[Slider]	No tone	Pin 3: Input 3
x	Orange	Continuoi	[Slider]	No tone	Pin 2: Input 2
+	Green	Continuoi	[Slider]	No tone	Pin 1: Input 1
x					

Simulate input signals

PIN Configuration

Finalise Configuration

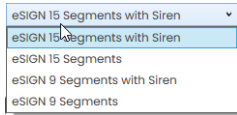
i If necessary, the orientation of the displayed signal tower can be rotated by 180° with the **Switch mounting position** button.

i If necessary (for example, to take into account the power limits of control outputs), the power consumption of the eSIGN can be reduced with the **Power Limitation** button. In this case, the current power requirement of the tower is reduced to less than 500 mA. As a result, the optical signals' brightness or the audible signals' volume is reduced.

4.2.1 Selecting the eSIGN variant

The variant is pre-selected accordingly if eSIGN has been connected. If no eSIGN has been connected, the variant of the eSIGN to be configured can be selected.

1. If necessary, select the variant of the eSIGN to be configured.



4.2.2 Adding or removing a tier

As soon as a tier is added or removed in **Signal Tower** mode, the individual eSIGN segments are automatically re-divided and evenly distributed across all tiers.

Adding a tier

1. Click on **Add**.



x

→ A tier has been added.

Removing a tier

1. Click on **Remove**.

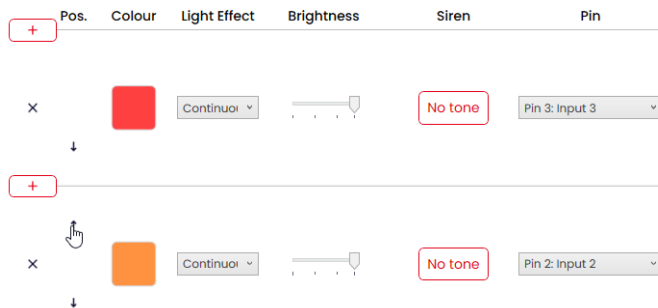


→ A tier has been removed.

4.2.3 Moving a tier

The individual tiers can be moved up or down as required.

1. In the **Pos.** column, click on the Move up or Move down arrow to move the tier up or down.



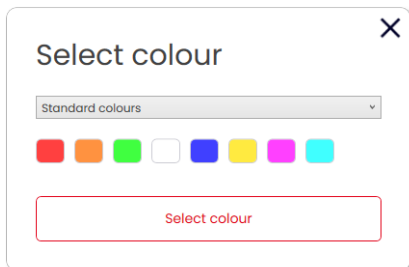
4.2.4 Selecting a colour

A standard colour or individual colour can be assigned to every tier.

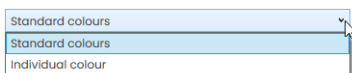
1. Click on the colour field in the **Colour** column.



→ The **Select colour** window appears.



2. Select whether to use a standard colour or an individual colour.



Standard colour

3. Click on the desired colour field.

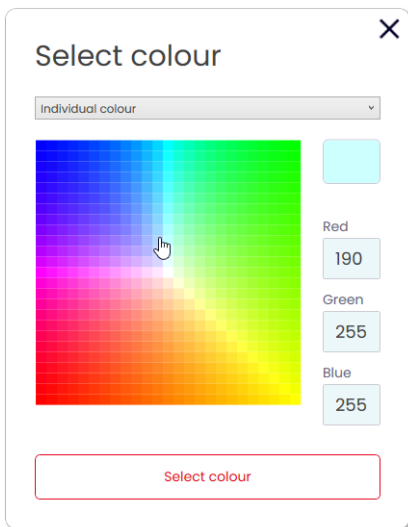


The following 8 standard colours are available for selection:

- red
- yellow
- green
- white
- blue
- light yellow
- violet
- turquoise

Individual colour

4. Select the desired colour in the colour field or enter the appropriate RGB value in the **Red**, **Green** and **Blue** fields.

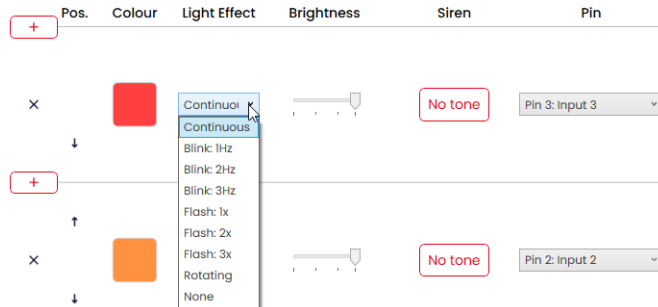


5. Click on **Select colour**.



4.2.5 Selecting a light effect

1. Select the desired light effect in the **Light Effect** column.



The following 8 light effects are available for selection:

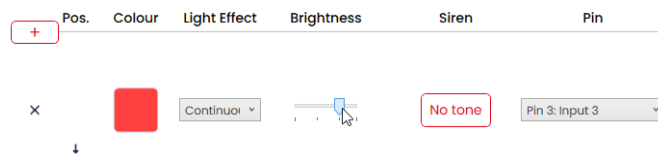
- Continuous light
- Blinking 1 Hz
- Blinking 2 Hz
- Blinking 3 Hz
- Flashing 1x
- Flashing 2x
- Flashing 3x
- Rotating
- None



The **None** setting can be selected if the tier is only to be configured with a siren.

4.2.6 Setting the brightness

1. Set the desired brightness of the tier from the four options in the **Brightness** column.



4.2.7 Selecting the siren

If the connected or selected eSIGN has a siren, you can select a signal tone which will sound when the tier is activated.

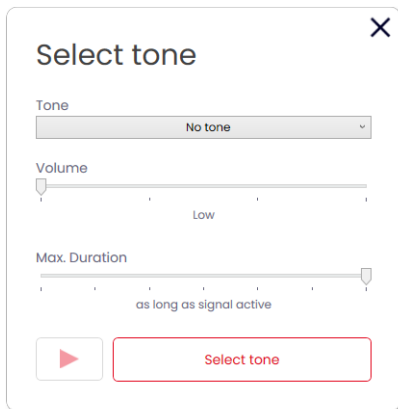


If several tiers are set, and the tiers are activated at the same time, the siren will sound for the colour with the highest priority (highest position within the tower).

1. Click on **No tone** in the **Siren** column.




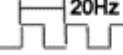
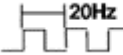




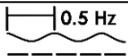

→ The **Select tone** window appears.




2. Select the desired **Tone**, the desired **Volume** and **Max. Duration**.

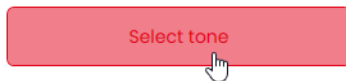
The following 10 tones are available for selection:

Sound	Frequency	Description	Max. dB (A)
1	 2.7 kHz	Continuous tone	104
2	 0.9 kHz	Continuous tone	96
3	 2.8 kHz	Pulse tone	97
4	 0.9 kHz	Pulse tone	93
5	 2.8 kHz	Pulse tone	103
6	 0.9 kHz	Pulse tone	96

Sound	Frequency	Description	Max. dB (A)
7	 2.8 kHz	Pulse tone	104
8	 2.3 kHz- 3.6 kHz	Sweep tone	104
9	— 2.6 kHz	Continuous tone	105
10	 — 1200 Hz — 800 Hz	Alternating tone	92

 The selected settings can be tested using the **Play** button (▶). The sound file is then played by the computer.

3. Click on **Select tone**.



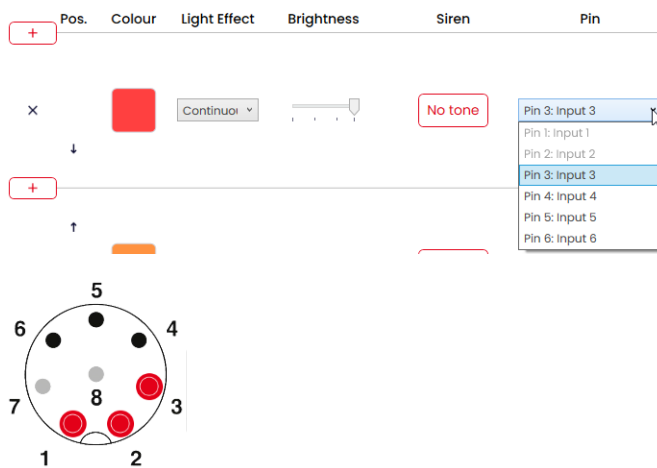
4.2.8 Selecting a pin



The fields are pre-configured with a standard configuration, starting from the bottom tier of the tower with pin 1.

Pins that are already in use are shown in grey. The configuration can be changed as required.

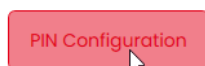
1. In the **Pin** column select the pin of the 8-pin connector on which the signal to trigger the tier is sent.



Modifying the pin configuration

If necessary, the assignment of the wire colour to the pin can be changed and a description of the signal added.

1. Click on **PIN Configuration** under the pin overview.



→ The **PIN Configuration** window appears.

PIN Configuration ✕

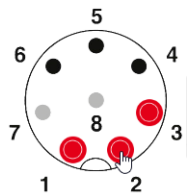
	Wire Colour	Description
Pin 1: Input 1	<input style="width: 60px;" type="text" value="WH"/>	<input style="width: 100%; height: 20px;" type="text"/>
Pin 2: Input 2	<input style="width: 60px;" type="text" value="BN"/>	<input style="width: 100%; height: 20px;" type="text"/>
Pin 3: Input 3	<input style="width: 60px;" type="text" value="GN"/>	<input style="width: 100%; height: 20px;" type="text"/>
Pin 4: Input 4	<input style="width: 60px;" type="text" value="YE"/>	<input style="width: 100%; height: 20px;" type="text"/>
Pin 5: Input 5	<input style="width: 60px;" type="text" value="GY"/>	<input style="width: 100%; height: 20px;" type="text"/>
Pin 6: Input 6	<input style="width: 60px;" type="text" value="PK"/>	<input style="width: 100%; height: 20px;" type="text"/>
Pin 7: COM	<input style="width: 60px;" type="text" value="BU"/>	<input style="width: 100%; height: 20px;" type="text"/>
Pin 8: +24V	<input style="width: 60px;" type="text" value="RD"/>	<input style="width: 100%; height: 20px;" type="text"/>

2. Enter the desired wire colour in the **Wire Colour** column.
3. Enter the description of the signal in the **Description** column.
4. Click on **Save**.

4.2.9 Simulating signal inputs

Once all settings have been made, the signal inputs can be simulated.

1. Click on the pin that activates the desired tier in the pin overview.



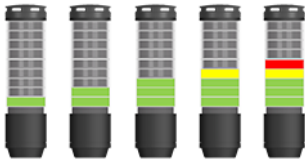
4.2.10 Finalising the configuration

1. Make additional changes to the configuration as required.
2. Once all tiers are configured as desired, click on **Finalise**.
→ The **Finalise** window appears.



3. Click on **Save** to save the configuration in a configuration file.
4. Click on **Send to device** to transfer the configuration to the connected eSIGN.
5. Click on **Open PDF Configuration Sheet** to display an overview of the current configuration.
6. Click on **Save PDF Configuration Sheet** to save the overview of the current configuration as a PDF file.

4.3 Filling Level mode



In this operating mode eSIGN segments are used as a filling level indicator. This enables precise signalisation of job progress or material availability in machine processes by slowly illuminating the signal tower from bottom to top or top to bottom.

Mode: Filling Level ✕

Device

eSIGN 15 Segments with Siren

Colours

Single Colour

Number of signal combinations: 15

= Number of assigned segments: 15
= Number of unassigned segments: 0

Allocation of unassigned segments

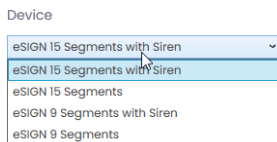
Top (filled)

Generate Configuration

4.3.1 Selecting the eSIGN variant

The variant is pre-selected accordingly if eSIGN has been connected. If no eSIGN has been connected, the variant of the eSIGN to be configured can be selected.

1. If necessary, select the variant of the eSIGN in **Device** field.



4.3.2 Selecting the number of signal combinations

1. Select in the **Number of signal combinations** area how many eSIGN segments are to be used for the filling level indicator.

If not all eSIGN segments are used for the filling level indicator:

2. Select in the **Allocation of unassigned segments** field how to display the eSIGN segments that are not to be used for the filling level indicator.

Setting	Description
Top (filled)	Unassigned eSIGN segments are assigned to the top and triggered with the top tier.
Bottom (filled)	Unassigned eSIGN segments are assigned to the bottom and triggered with the bottom tier.
Top (not active)	Unassigned eSIGN segments are assigned to the top and are always off.
Bottom (not active)	Unassigned eSIGN segments are assigned to the bottom and are always off.

4.3.3 Selecting a colour

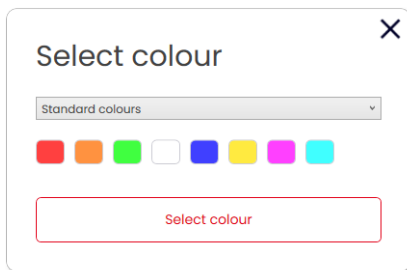
A uniform colour or colour gradient can be selected for the filling level indicator. The colour gradient option means that the gradual transformation between the two colours is automatically calculated.

If necessary, the colour of each segment of the filling level indicator can be adjusted later.

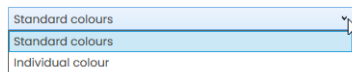
1. In the **Colours** field, select whether the fill level should be displayed in a uniform colour or as a colour gradient.

Single colour

2. Click on the colour field to select the desired colour.
→ The **Select colour** window appears.



3. Select whether to use a standard colour or an individual colour.



Standard colour

4. Click on the desired colour field.

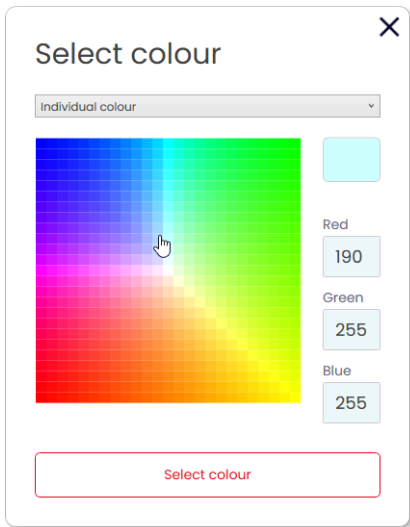


The following 8 standard colours are available for selection:

- red
- yellow
- green
- white
- blue
- light yellow
- violet
- turquoise

Individual colour

5. Select the desired colour in the colour field or enter the appropriate RGB value in the **Red**, **Green** and **Blue** fields.



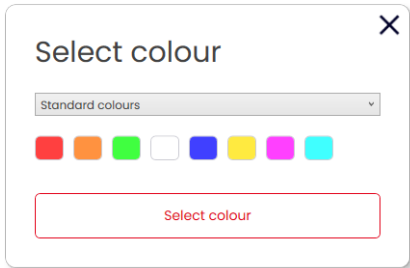
6. Click on **Select colour**.



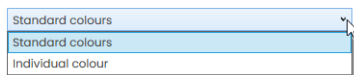
7. Click on **Generate configuration**.
→ The **Configuration** screen appears.

Colour gradient

8. Click on the colour fields for the start and end colour of the colour gradient.
→ The **Select colour** window appears.



9. Select whether to use a standard colour or an individual colour.



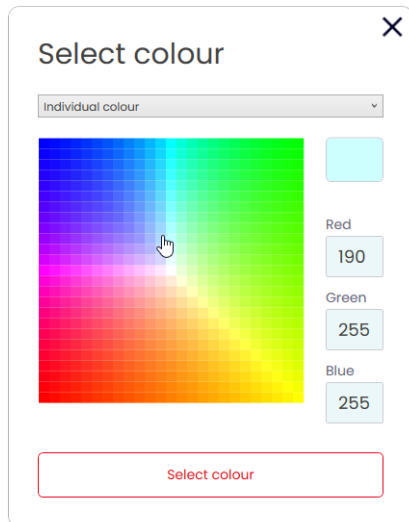
Standard colour

10. Click on the desired colour field.

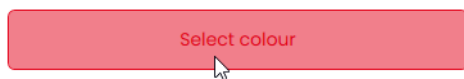


Individual colour

11. Select the desired colour in the colour field or enter the appropriate RGB value in the **Red**, **Green** and **Blue** fields.

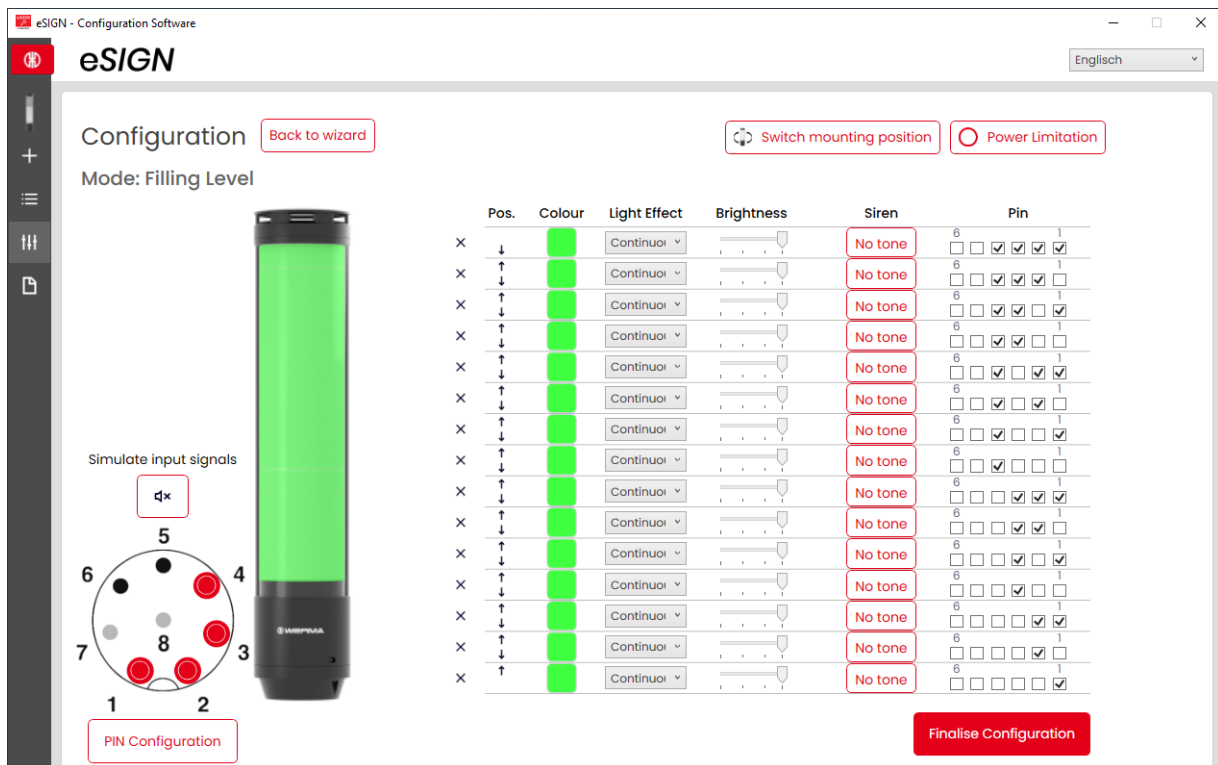


12. Click on **Select colour**.



13. Click on **Generate configuration**.
→ The **Configuration** screen appears.

4.3.4 Configuring the filling level indicator



i If necessary, the orientation of the displayed signal tower can be rotated by 180° with the **Switch mounting position** button.

i If necessary (for example, to take into account the power limits of control outputs), the power consumption of the eSIGN can be reduced with the **Power Limitation** button. In this case, the current power requirement of the tower is reduced to less than 500 mA. As a result, the optical signals' brightness or the audible signals' volume is reduced.

i If necessary, the configuration of the colour and segment can be opened and adjusted via the **Back to wizard** link.

Removing or adding segments

Removing a segment

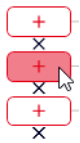
1. Click on **Remove**.



→ The segment has been removed.

Adding a segment

1. Click on **Add**.







→ The segment has been added.

Moving a segment

The individual segments can be moved up or down as required.

1. In the **Pos.** column, click on the Move up or Move down arrow to move the segment up or down.

	Pos.	Colour	Light Effect	Brightness	Siren	Pin	
x	↓		Continui		No tone	6	1
x	↑		Continui		No tone	6	1

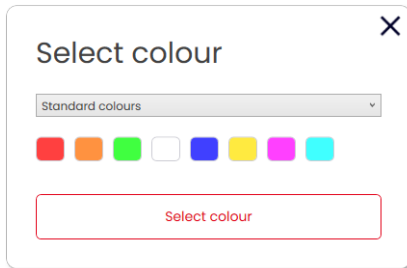
Selecting a colour

A standard colour can be selected for each segment or an individual colour assigned as required.

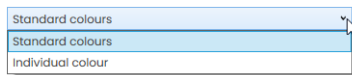
1. Click on the colour field in the **Colour** column.

	Pos.	Colour	Light Effect	Brightness	Siren	Pin				
x	↓		Continual		No tone	6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
x	↑		Continual		No tone	6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

→ The **Select colour** window appears.



2. Select whether to use a standard colour or an individual colour.



Standard colour

3. Click on the desired colour field.

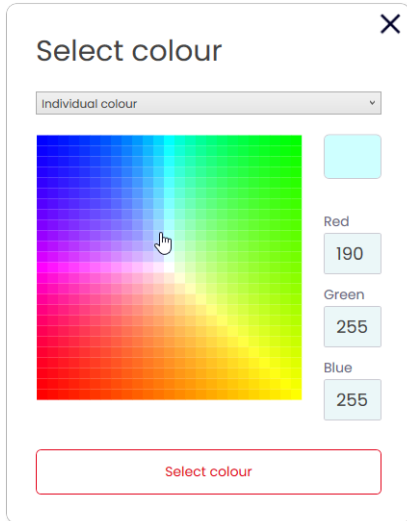


The following 8 standard colours are available for selection:

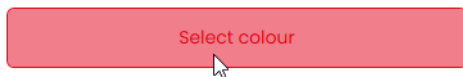
- red
- yellow
- green
- white
- blue
- light yellow
- violet
- turquoise

Individual colour

4. Select the desired colour in the colour field or enter the appropriate RGB value in the **Red**, **Green** and **Blue** fields.



5. Click on **Select colour**.



Selecting a light effect

1. Select the desired light effect in the **Light Effect** column.

Pos.	Colour	Light Effect	Brightness	Siren	Pin
×	↓	Continuous	<input type="range"/>	No tone	6 <input type="checkbox"/> 1 <input checked="" type="checkbox"/>
×	↑	Continuous	<input type="range"/>	No tone	6 <input type="checkbox"/> 1 <input checked="" type="checkbox"/>
×	↓	Blink: 1Hz	<input type="range"/>	No tone	6 <input type="checkbox"/> 1 <input checked="" type="checkbox"/>
×	↑	Blink: 2Hz	<input type="range"/>	No tone	6 <input type="checkbox"/> 1 <input checked="" type="checkbox"/>
×	↓	Blink: 3Hz	<input type="range"/>	No tone	6 <input type="checkbox"/> 1 <input checked="" type="checkbox"/>
×	↑	Flash: 1x	<input type="range"/>	No tone	6 <input type="checkbox"/> 1 <input checked="" type="checkbox"/>
×	↓	Flash: 2x	<input type="range"/>	No tone	6 <input type="checkbox"/> 1 <input checked="" type="checkbox"/>
×	↑	Flash: 3x	<input type="range"/>	No tone	6 <input type="checkbox"/> 1 <input checked="" type="checkbox"/>
×	↓	Rotating	<input type="range"/>	No tone	6 <input type="checkbox"/> 1 <input checked="" type="checkbox"/>
×	↑	None	<input type="range"/>	No tone	6 <input type="checkbox"/> 1 <input checked="" type="checkbox"/>

The following 8 light effects are available for selection:

- Continuous light
- Blinking 1 Hz
- Blinking 2 Hz
- Blinking 3 Hz
- Flashing 1x
- Flashing 2x
- Flashing 3x
- Rotating
- None



The **None** setting can be selected if the tier is only to be configured with a siren.

Setting the brightness

1. Set the desired brightness of the tier from the four options in the **Brightness** column.



Selecting the siren

If the connected or selected eSIGN has a siren, you can select a signal tone which will sound when the segment is activated.

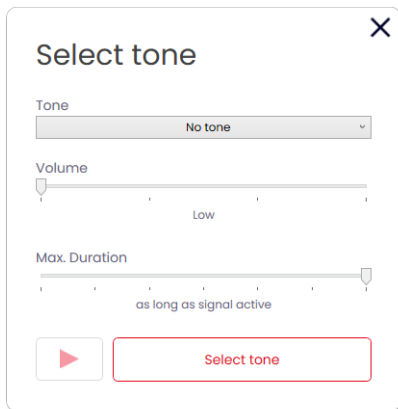


If several tiers are set, and the tiers are activated at the same time, the siren will sound for the colour with the highest priority (highest position within the tower).

1. Click on **No tone** in the **Siren** column.




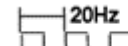


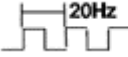
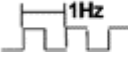

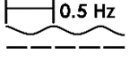

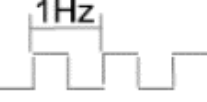
→ The **Select tone** window appears.




2. Select the desired **Tone**, the desired **Volume** and **Max. Duration**.

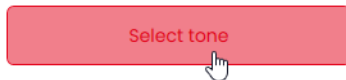
The following 10 tones are available for selection:

Sound	Frequency	Description	Max. dB (A)
1	 2.7 kHz	Continuous tone	104
2	 0.9 kHz	Continuous tone	96
3	 420Hz 2.8 kHz	Pulse tone	97
4	 20Hz 0.9 kHz	Pulse tone	93

Sound	Frequency	Description	Max. dB (A)
5	 2.8 kHz	Pulse tone	103
6	 0.9 kHz	Pulse tone	96
7	 2.8 kHz	Pulse tone	104
8	 2.3 kHz- 3.6 kHz	Sweep tone	104
9	 2.6 kHz	Continuous tone	105
10	 1200 Hz 800 Hz	Alternating tone	92

 The selected settings can be tested using the **Play** button (▶). The sound file is then played by the computer.

3. Click on **Select tone**.



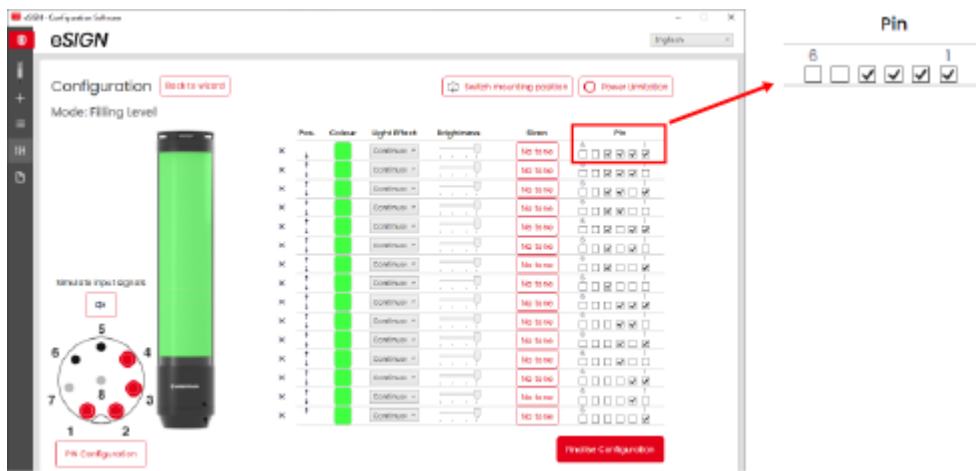
Selecting a pin

- i** The fields are pre-configured with a standard configuration, starting from the bottom tier of the tower with pin 1.
- Pins that are already in use are shown in grey. The configuration can be changed as required.

The filling level indicator is triggered via bit coding. The checkboxes in the **Pin** column correspond to the 6 pins or signal inputs. Selecting one or more checkboxes indicates that these pins or signal inputs must be triggered to activate the corresponding setting.

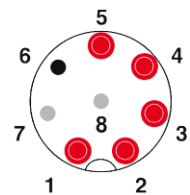
Example:

For the complete tower to be displayed in green, pins 1-4 must be triggered.



- In the **Pin** column select the pins of the 8-pin connector on which the signal to trigger the tier is sent.

	Pos.	Colour	Light Effect	Brightness	Siren	Pin
X	↓	Green	Continual	Slider	No tone	6 <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
X	↑	Green	Continual	Slider	No tone	6 <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>



Modifying the pin configuration

If necessary, the assignment of the wire colour to the pin can be changed and a description of the signal added.

1. Click on **PIN Configuration** under the pin overview.



→ The **PIN Configuration** window appears.

PIN Configuration

	Wire Colour	Description
Pin 1: Input 1	WH	
Pin 2: Input 2	BN	
Pin 3: Input 3	GN	
Pin 4: Input 4	YE	
Pin 5: Input 5	GY	
Pin 6: Input 6	PK	
Pin 7: COM	BU	
Pin 8: +24V	RD	

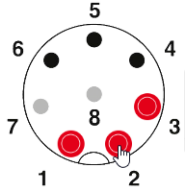
Save

2. Enter the desired wire colour in the **Colour** column.
3. Enter the description of the signal in the **Description** column.
4. Click on **Save**.

4.3.5 Simulating signal inputs

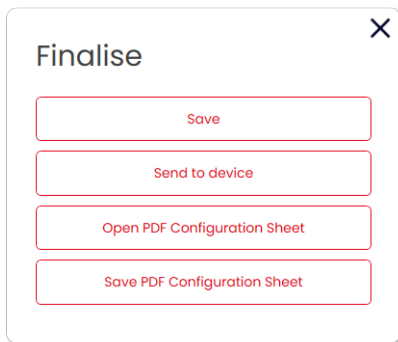
Once all settings have been made, the signal inputs can be simulated.

1. Click on the pin that activates the desired tier in the pin overview.



4.3.6 Finalising the configuration

1. Make additional changes to the configuration as required.
2. Once all tiers are configured as desired, click on **Finalise**.
→ The **Finalise** window appears.



3. Click on **Save** to save the configuration in a configuration file.
4. Click on **Send to device** to transfer the configuration to the connected eSIGN.
5. Click on **Open PDF Configuration Sheet** to display an overview of the current configuration.
6. Click on **Save PDF Configuration Sheet** to save the overview of the current configuration as a PDF file.

4.4 Individual mode



In this operating mode a free combination of individual segment settings is mapped to a certain switching signal. Every eSIGN segment can be individually set and triggered as a complete signal effect in the form of the entire signal tower to enable a maximum of customised signalling options.

Mode: Individual
✕

Device

eSIGN 15 Segments with Siren
▼

Configuration type

Individual Configuration
▼

Generate Configuration

4.4.1 Selecting the eSIGN variant

The variant is pre-selected accordingly if eSIGN has been connected. If no eSIGN has been connected, the variant of the eSIGN to be configured can be selected.

1. If necessary, select the variant of the eSIGN in the **Device** field.

Device

eSIGN 15 Segments with Siren
▼

eSIGN 15 Segments with Siren
▼

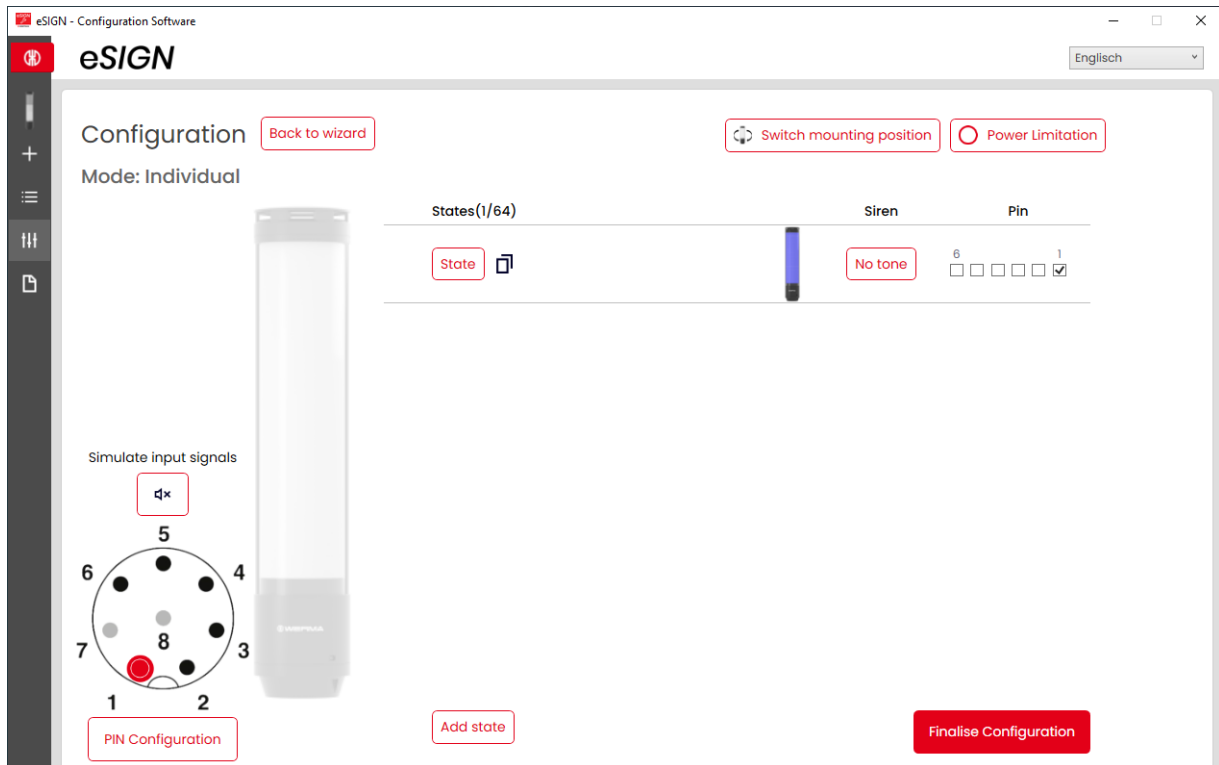
eSIGN 15 Segments

eSIGN 9 Segments with Siren

eSIGN 9 Segments

2. Click on **Generate configuration**.
→ The **Configuration** screen appears.

4.4.2 Configuring signal effects



- i** If necessary, the orientation of the displayed signal tower can be rotated by 180° with the **Switch mounting position** button.
- i** If necessary (for example, to take into account the power limits of control outputs), the power consumption of the eSIGN can be reduced with the **Power Limitation** button. In this case, the current power requirement of the tower is reduced to less than 500 mA. As a result, the optical signals' brightness or the audible signals' volume is reduced.
- i** The configuration of the eSIGN variant can be opened and adjusted again via the **Back to wizard** link as required.

Modifying the signal effect

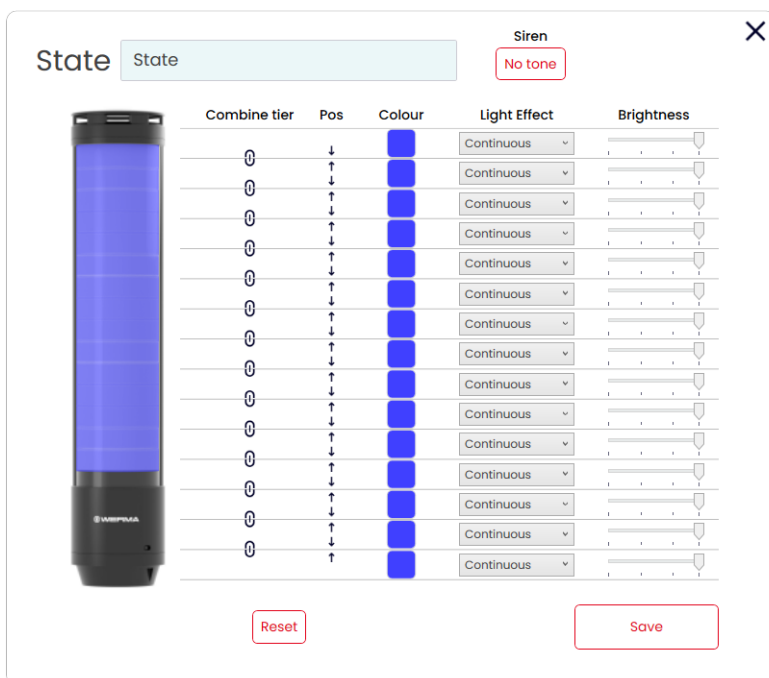
- i** Up to 64 signal effects can be configured and transferred to an eSIGN.
A signal effect consists of the individual optical settings of each segment and, if relevant, a signal tone.

1. Click on **State**.

States(1/64)



→ The **State** window appears.



- i** If necessary, the current signal effect can be reset to the default settings via the **Reset** button.

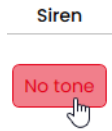
Naming the signal effect

1. Enter a description for the current signal effect in the **State** field.

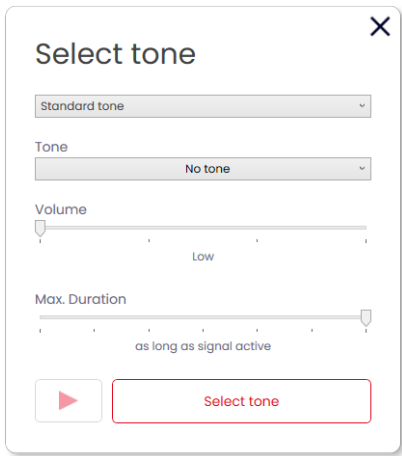
Selecting the siren

If the connected or selected eSIGN has a siren, you can select a signal tone which will sound when the signal effect is activated.

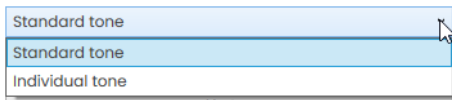
1. Click on **No tone** in the **Siren** field.



→ The **Select tone** window appears.





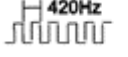
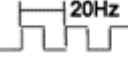
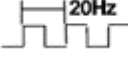


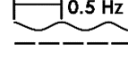

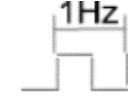
2. Select whether to use a standard tone or an individual tone.



Standard tone

3. Select the desired **Tone**, the desired **Volume** and **Max. Duration**.

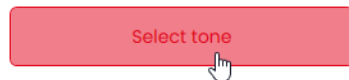
The following 10 tones are available for selection:

Sound	Frequency	Description	Max. dB (A)
1	 2.7 kHz	Continuous tone	104
2	 0.9 kHz	Continuous tone	96
3	 2.8 kHz	Pulse tone	97
4	 0.9 kHz	Pulse tone	93
5	 2.8 kHz	Pulse tone	103
6	 0.9 kHz	Pulse tone	96
7	 2.8 kHz	Pulse tone	104
8	 2.3 kHz- 3.6 kHz	Sweep tone	104
9	 2.6 kHz	Continuous tone	105
10	 1200 Hz 800 Hz	Alternating tone	92



The selected settings can be tested using the **Play** button (▶). The sound file is then played by the computer.

4. Click on **Select tone**.



Individual tone

Select tone
✕

Individual tone ▾

Volume Low

Graphical Parameter Description

Tone type
Permanent ▾

Hold time Frequency 2 (ms) ?

Frequency 1 (Hz) ?

Repeat count ?

Pause after repeat (ms) ?

Pause between cycles (ms) ?

Select tone

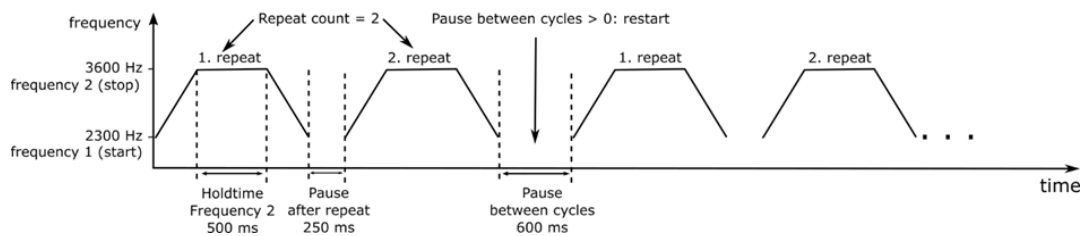
1. Make the settings as desired.



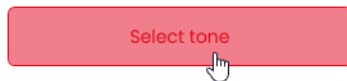
The **Individual tone** option allows a customer-specific tone to be generated from different parameters.

Further information on the individual settings can be accessed via the **Graphical Parameter Description** button and by clicking on **?**.

The following screen can be accessed via the **Graphical Parameter Description** button to indicate the effect of the individual settings:



2. Click on **Select tone**.

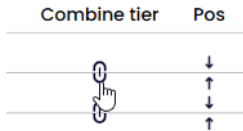


Connecting or separating segments

If required, multiple segments can be connected to form a tier and then separated again.

Connecting segments

1. In the **Combine tier** column, click on the **Combine tier** symbol.



Separating segments

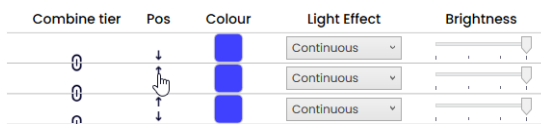
1. In the **Combine tier** column, click on the **Separate tier** symbol.



Moving tiers

The individual tiers can be moved up or down as required.

1. In the **Pos.** column, click on the Move up or Move down arrow to move the tier up or down.



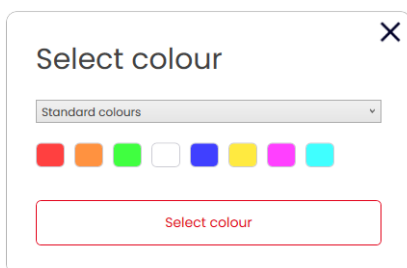
Selecting a colour

A standard colour can be selected for each segment or an individual colour assigned as required.

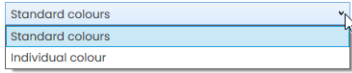
1. Click on the colour field in the **Colour** column.



→ The **Select colour** window appears.



2. Select whether to use a standard colour or an individual colour.



Standard colour

3. Click on the desired colour field.

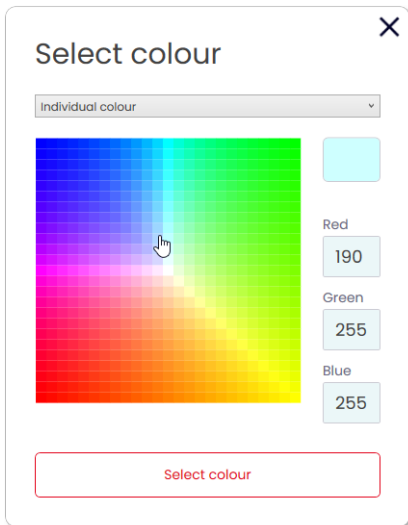


The following 8 standard colours are available for selection:

- red
- yellow
- green
- white
- blue
- light yellow
- violet
- turquoise

Individual colour

4. Select the desired colour in the colour field or enter the appropriate RGB value in the **Red**, **Green** and **Blue** fields.



5. Click on **Select colour**.



Selecting a light effect

1. Select the desired light effect in the **Light Effect** column.

Combine tier	Pos	Colour	Light Effect	Brightness
0	↓	■	Continuous	▬
0	↑	■	Continuous	▬
0	↓	■	Blink: 1Hz	▬
0	↑	■	Blink: 2Hz	▬
0	↓	■	Blink: 3Hz	▬
0	↑	■	Flash: 1x	▬
0	↓	■	Flash: 2x	▬
0	↑	■	Flash: 3x	▬
0	↓	■	Rotating	▬
0	↑	■	None	▬
n	↓	■	Continuous	▬

The following 8 light effects are available for selection:

- Continuous light
- Blinking 1 Hz
- Blinking 2 Hz
- Blinking 3 Hz
- Flashing 1x
- Flashing 2x
- Flashing 3x
- Rotating
- None

Setting the brightness

1. Set the desired brightness of the tier from the four options in the **Brightness** column.

Combine tier	Pos	Colour	Light Effect	Brightness
0	↓	■	Continuous	▬
n	↓	■	Continuous	▬

As soon as all settings have been made:

2. Click on **Save**.



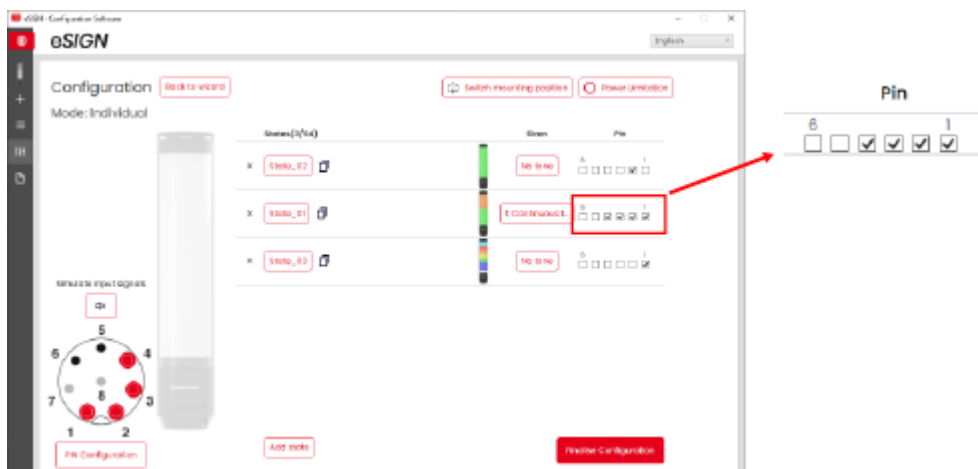
4.4.3 Selecting a pin

- i** The fields are pre-configured with a standard configuration.
The configuration can be changed as required.

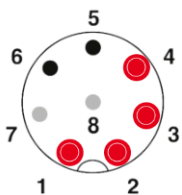
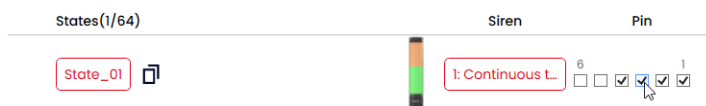
The individual signal effects are triggered via bit coding. The checkboxes in the **Pin** column correspond to the 6 pins or signal inputs. Selecting one or more checkboxes indicates that these pins or signal inputs must be triggered to activate the corresponding signal effect.

Example:

Pins 1-4 must be triggered to activate the **State_01** signal effect.



1. In the **Pin** column, select the pins of the 8-pin connector on which the signal to trigger the signal effect is sent.



Modifying the pin configuration

If necessary, the assignment of the wire colour to the pin can be changed and a description of the signal added.

1. Click on **PIN Configuration** under the pin overview.



→ The **PIN Configuration** window appears.

PIN Configuration
✕

	Wire Colour	Description
Pin 1: Input 1	WH	
Pin 2: Input 2	BN	
Pin 3: Input 3	GN	
Pin 4: Input 4	YE	
Pin 5: Input 5	GY	
Pin 6: Input 6	PK	
Pin 7: COM	BU	
Pin 8: +24V	RD	

Save

2. Enter the desired wire colour in the **Wire Colour** column.
3. Enter the description of the signal in the **Description** column.
4. Click on **Save**.

4.4.4 Duplicating the signal effect



Up to 64 signal effects can be configured and transferred to an eSIGN.

A signal effect consists of the individual optical settings of each segment and, if relevant, a signal tone.

1. Click on **Duplicate** in the line of the desired signal effect.



2. Configure the signal effect as described.

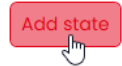
4.4.5 Adding a signal effect



Up to 64 signal effects can be configured and transferred to an eSIGN.

A signal effect consists of the individual optical settings of each segment and, if relevant, a signal tone.

1. Click on **Add state**.



2. Configure the signal effect as described.

4.4.6 Deleting a signal effect

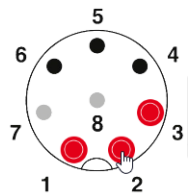
1. Click on **Remove** in the line of the desired signal effect.



4.4.7 Simulating signal inputs

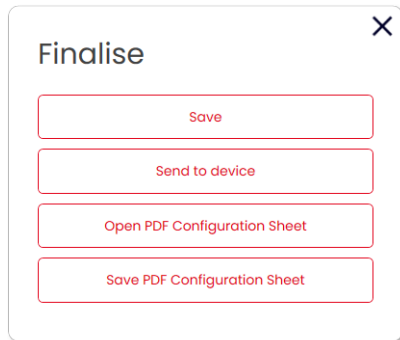
Once all settings have been made, the signal inputs can be simulated.

1. Click on the pin that activates the desired signal effect in the pin overview.



4.4.8 Finalising the configuration

1. Make additional changes to the configuration as required.
2. Once all signal effects are configured as desired, click on **Finalise**.
→ The **Finalise** window appears.

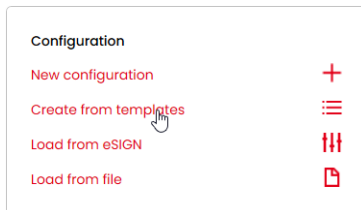


3. Click on **Save** to save the configuration in a configuration file.
4. Click on **Send to device** to transfer the configuration to the connected eSIGN.
5. Click on **Open PDF Configuration Sheet** to display an overview of the current configuration.
6. Click on **Save PDF Configuration Sheet** to save the overview of the current configuration as a PDF file.

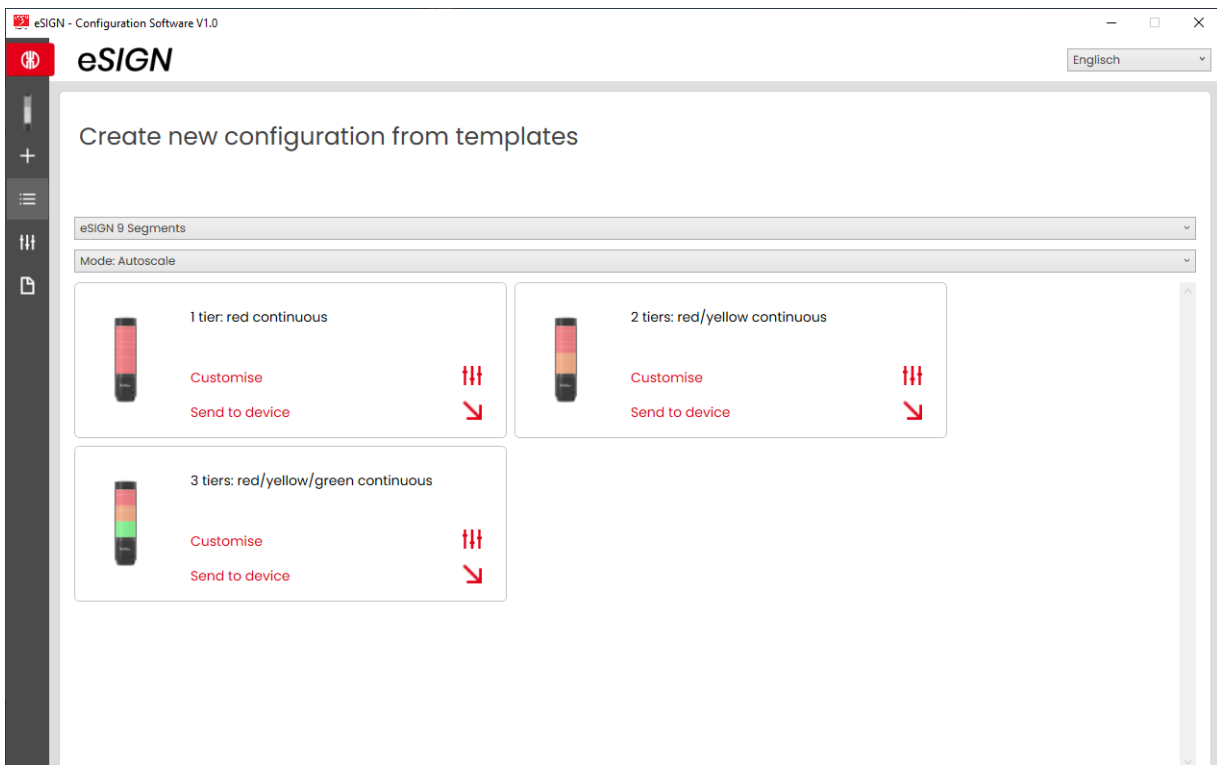
5 Creating a configuration from sample templates

The eSIGN configuration software provides several predefined configurations that can be transferred directly to a connected eSIGN or used as a basis for your own configurations.

1. Click on **Create from templates** in the **Configuration** area.



→ The **Create new configuration from templates** window appears.



2. Select the eSIGN variant.
3. Select the mode.
→ The available templates are displayed.
4. Click on **Customise** in the desired template to load and continue editing the template.
5. Click on **Send to device** to load the template and transfer it directly to the connected eSIGN.

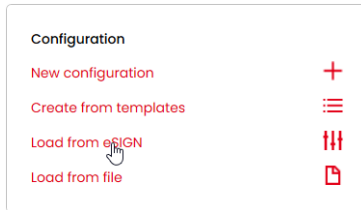


For more information on the configuration, see "*Creating a new configuration*", p. 115.

6 Loading the configuration of the connected eSIGN

If an eSIGN is connected to the computer, the eSIGN configuration software offers the option of opening the current configuration (if available) for editing. If no eSIGN is connected, this menu item is faded out.

1. Click on **Load from eSIGN** in the **Configuration** area.



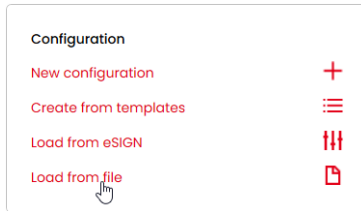
→ The **Configuration** window appears in the set mode and is already filled with the current configuration.



For more information on the configuration, see "Creating a new configuration", p. 115.

7 Opening the existing configuration

1. Click on **Load from file** in the **Configuration** area.



2. Select the desired configuration and click on **Open**.



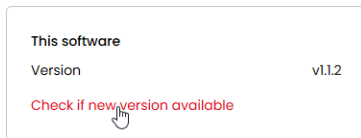
Alternatively, the last used configurations can be displayed via the side menu (see "Overview", p. 113).

8 Updating eSIGN configuration software




The computer must be connected to the internet to perform a software update.

1. Click on **Check if new version available** in the This Software area.

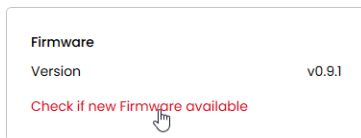


- The eSIGN configuration software checks for software updates.
- A corresponding message appears if an update is found.

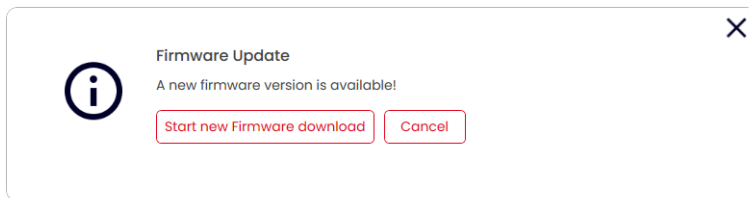
9 Updating the firmware

-  The computer must be connected to the internet and an eSIGN to perform a firmware update.

1. Click on **Check if new Firmware available** in the Firmware area.



- The eSIGN configuration software checks for firmware updates for the connected eSIGN.
- A corresponding message appears if an update is found.



2. Click on **Start new Firmware download**.
- The new firmware is transferred to the connected eSIGN.

10 Support



WERMA Signaltechnik GmbH + Co.KG

D-78604 Rietheim-Weilheim

Support : +49 (0)7424 / 9557-222

Fax: +49 (0)7424 / 9557-44

support@werma.com

www.werma.com

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X. Sources from the main developer of this application

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