

1 channel 8A motor command actuator



GW 10 797

GW 12 797

GW 14 797

Technical Manual

Summary

| | | |
|-----|----------------------------------|----|
| 1 | Introduction | 3 |
| 2 | Application..... | 4 |
| 2.1 | Limits to the associations | 4 |
| 2.2 | Block diagrams | 4 |
| 3 | “General” Menu | 6 |
| 3.1 | Parameters | 6 |
| 3.2 | Communication objects | 11 |
| 4 | “Automatic movements” menu | 14 |
| 4.1 | Parameters | 14 |
| 4.2 | Communication objects | 15 |
| 5 | “Block” menu | 16 |
| 5.1 | Parameters | 16 |
| 5.2 | Communication objects | 17 |
| 6 | “Alarms” menu..... | 18 |
| 6.1 | Parameters | 18 |
| 6.2 | Communication objects | 20 |
| 7 | “Scenes” menu..... | 21 |
| 7.1 | Parameters | 22 |
| 7.2 | Communication objects | 22 |

1 Introduction

This manual describes the functions of the device named GW1x797 “1 channel 8A motor command actuator” and how to use the ETS configuration software to change the settings and configurations.

2 Application

The GW 1x797 motor command actuator is used to control motors on shutters and blinds using an 8 A relay. The device has 1 channel with an output that has an exchange contact to which two terminals are connected, one to control the upstroke movement of the shutter/blind, and the other to control the downstroke movement. Apart from the relay that manages the running of the motor, there is also a relay connected in series to the first on the line which powers the relay that manages the load so that it is impossible to interrupt the power to stop the motor from running and that there is a hardware interlock that prevents the two contacts from being powered at the same time, which would damage the motor it is connected to. The device is fitted with two front buttons to locally control the motor, 2 two-coloured leds with night lighting function (amber LED) and a movement in progress status signal (green LED).

On the back of the device there is a button and red physical address programming LED; it is important to remember that the device must be configured when the shutter/blind is completely open in the upper end position.

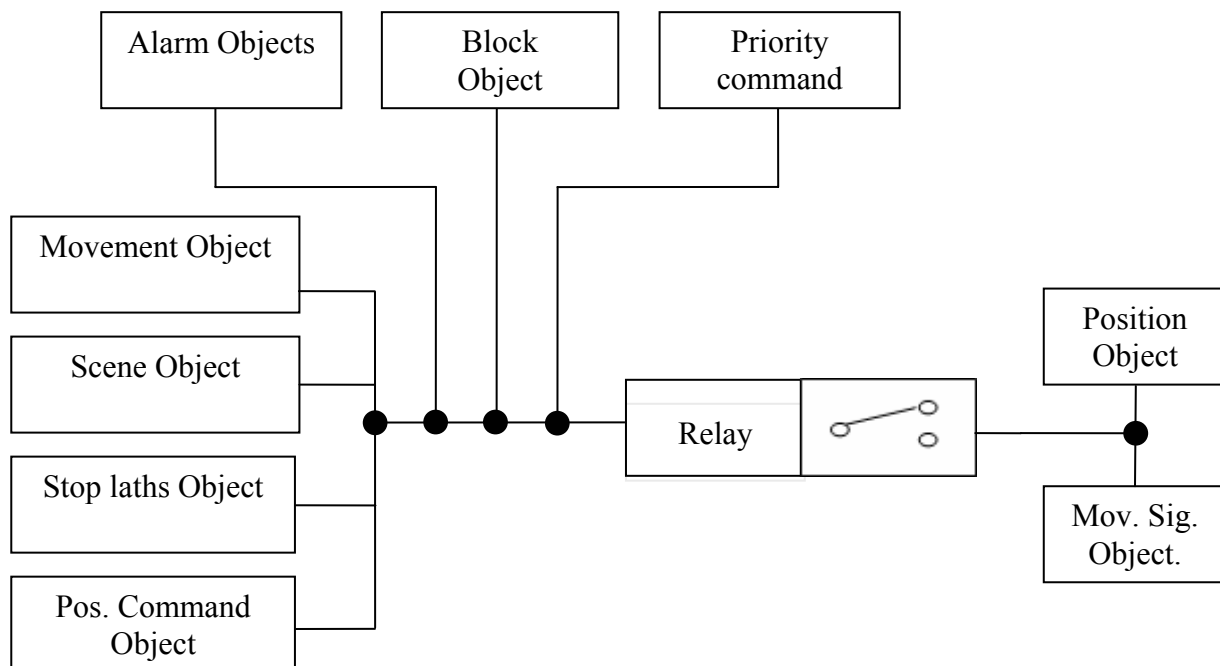
2.1 Limits to the associations

The maximum number of logical associations that the device is able to memorize is 140; this means that the maximum number of logical connections between communication objects and group addresses is 140.

The maximum number of group addresses that the device is able to memorize is 140; this means that it is possible to associate the communication objects to a maximum of 140 group addresses.

2.2 Block diagrams

The status of the actuator relay managing the running of the motor depends on the communication objects that are enabled. For all the foreseen operation modes, the Block object has maximum priority. These are, in order of priority, the Priority command object, the Safety object, and finally the Switch, Scene, Logic object (see diag. 2.1).



Diag. 2.1

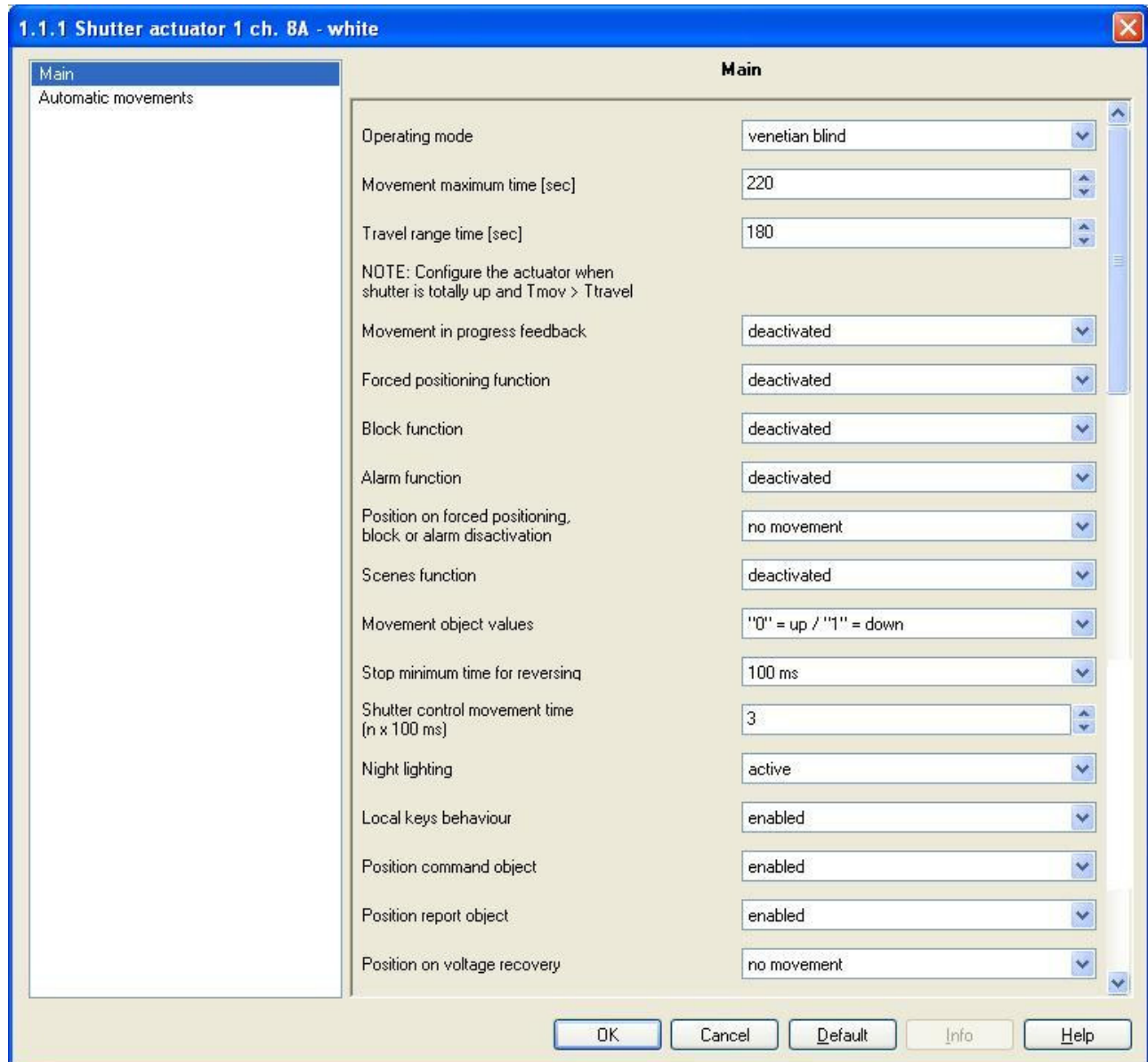
The activation of the relay is also influenced by parameters that determine the status when the power to the bus drops below a certain level, or when the device is started up or rebooted. The table below summarises the priorities described above.

| Priority | Object |
|----------|--|
| Maximum | Relay status on loss of power to the bus Priority command object Block object Alarm Objects |
| Minimum | Relay status on reinstatement of power to the bus Movement/Scene/Stop/Command position object |

The relay status on loss of power to the bus refers to the first relay, that is the one that powers the second relay that manages the load; this status is fixed and can not be modified and consists in the opening of the relay contact which interrupts the power line that leads to the load.

3 “General” Menu

The **Main** menu lists all the parameters needed to configure the device settings according to the type of application required (see fig. 3.1).



Diag. 3.1

3.1 Parameters

➤ 3.1.1 Operating mode

This selects the actual operation mode for the device, the settings refer to:

- **shutter**

This enables the device which controls the shutter motor. In this specific case it will not therefore be possible to control the lath regulation steps as shutters do not have laths.

- **venetian blind**

This enables the device which controls the blind motor. In this specific case it is possible to control the lath regulation steps as blinds, unlike shutters, do have them.

The item **Shutter control movement time (n X 100 ms)** and the new menu **Automatic movements** are then displayed and will be analysed in chapter 4. The other items are common to both operating modes.

➤ **3.1.2 Movement maximum time [sec]**

Here it is possible to set the maximum time for which the device can power the load. The settings range from 0 (seconds) to 3000 (seconds).

This time is most important mainly because, as years go by, the motors can wear and the limit switches can alter; correct settings ensure that under all circumstances the shutter/blind can be raised/lowered completely before the minimum/maximum level is reached.

It is recommended to set a value of roughly 10% more than the standard travel range time, and in any case always longer than the travel range time.

➤ **3.1.3. Travel range time [sec]**

Here it is possible to set the movement (stroke) period for the shutter/blind. The settings range from 0 (seconds) to 3000 (seconds).

This setting indicates the shutter/blind stroke time, that is the time it takes for the shutter to open completely, starting from a totally closed position, and also the time it takes for the shutter to close completely, starting from a totally open position; it is most important to enter the correct settings as the intermediate positions of the shutters/blinds are calculated by the device using the settings found in this parameter.

This time must be less than the setting entered under the item **Movement maximum time [sec]**.

➤ **3.1.4 Movement in progress feedback**

This enables the viewing and use of the **Movement feedback** object through which the device signals the type of movement in progress. The settings are:

- **deactivated**

The device does not signal the movements in progress; the communication object mentioned above is therefore not visible.

- **active**

The device signals the movements in progress using the communication object mentioned above. When the device starts an upstroke movement, it will signal this movement to the bus through the **Movement feedback** communication object; it will do the same for a downstroke movement.

➤ **3.1.5 Forced positioning function**

This is to enable the function and make the relative **Priority command** communication object visible.

The forced positioning function, according to the command received from the bus, forces the device into a specific condition mode until an forced positioning cancellation command is received; any command received during the period in which the forced positioning is enabled is ignored, as can be seen in the block diagram (paragraph 2.2), it has higher priority compared to any other bus command. The settings are:

- **deactivated**

The forced positioning function is not enabled and consequently the communication object is not visible.

- **active**

The forced positioning function is enabled by the **Priority command** communication object and it is possible to enable it using a bus command; when it is enabled, any commands received from the bus (block, alarm, movement command) are ignored until the forced positioning cancellation command is received.

It is possible to forced positioning the exchange contact status, and also the load controlled by the actuator according to the command received from the bus, which could be: shutter/blind forced UP (completely open) or shutter/blind forced DOWN (completely closed).

Should the power to the bus be lost when the forced positioning is enabled, when the power is reinstated the device will memorise the fact that the forced positioning function was enabled before the loss of

power and automatically reinstate the function, putting the load in the condition set by the previous forced positioning command.

The behaviour of the device at the end of the forced positioning period is indicated under the item **Position on forced positioning, block or alarm deactivation** (see 3.1.8).

➤ 3.1.6 Block function

This is to enable and configure the function and make the **Block** menu and relative communication object visible.

The block function, once the relative trigger command is received from the bus, blocks the device in a specific condition mode until a block cancellation command is received; any command received during the period in which the block is enabled (except an forced positioning command) is ignored, as can be seen in the block diagram (paragraph 2.2), it has higher priority compared to any other bus command, except for the priority command. The settings are:

- **deactivated**

The block function is not enabled and consequently the **Block** menu and the communication object are not visible.

- **active**

The block function is enabled by the **Block** communication object and it is possible to trigger it using a bus command; when it is enabled, any commands received from the bus (scene, alarm, movement command) are ignored until the block cancellation command is received.

With this function the new **Block** menu is also visible (see Chapter 4) where the settings used to configure the function are displayed.

➤ 3.1.7 Alarm function

This is to enable and configure the function and make the **Alarms** menu visible.

The alarm function allows the device to function in normal operation mode until specific and settable conditions occur, at this point the device overrides the status and forces a specific condition status; to deactivate the alarm function the normal operating conditions must be reinstated. Whatever command is received (except a trigger block and trigger forced positioning command) during the period that the alarm status is enabled is ignored which, as can be seen in the block diagram (paragraph 2.2), has higher priority compared to any other bus command, except for the block and forced positioning commands. The settings are:

- **deactivated**

The alarm function is not enabled and consequently the **Alarms menu** is not visible.

- **active**

The alarm function is enabled by a bus command; when it is enabled, any commands received from the bus (scene, movement command) are ignored until the normal operating mode is reinstated.

The new **Alarms** menu is also visible (see Chapter 5) where the settings used to configure the function are displayed and where it is possible to enable the communication objects that allow them to be used.

➤ 3.1.8 Position on forced positioning, block or alarm deactivation

This defines the condition that the load must assume each time the block function, the forced positioning function and the alarm functions are deactivated. The settings are:

- **shutter up**

Each time that the block function, the forced positioning function or the alarm functions are cancelled, the device will move the shutter/blind to the upper end position.

- **shutter down**

Each time that the block function, the forced positioning function or the alarm functions are cancelled, the device will move the shutter/blind to the lower end position.

- **no movement**

Each time that the block function, the forced positioning function or the alarm functions are cancelled, the device leaves the shutter/blind in the position set by the previous enabled function.

- **back to previous position**

Each time that the block function, the forced positioning function or the alarm functions are cancelled, the device moves the shutter/blind to the position in which it was found before the function was enabled.

- **last received cmd follows / back to prev. position**

Each time that the block function, the forced positioning function or the alarm functions are cancelled, the device moves the shutter/blind to the position set by the last command received (scene, movement, position command) whilst the function was enabled. If no command is received during the period in which any of the above listed functions is enabled, the device will move the shutter/blind to the position in which it was found before the function was enabled.

ATTENTION: Given that the forced positioning, block and alarm functions are all totally independent, in the event that they have all been triggered, the **Position on forced positioning, block or alarm disactivation** settings will only be enforced when all the functions have been cancelled; this means that, supposing that the forced positioning and block functions have both been triggered, when the forced positioning function is deactivated the load will be taken to the condition set by the block function which is still enabled, and only when this too has been deactivated, the position of the shutter/blind will be controlled by the **Position on forced positioning, block or alarm disactivation** settings.

➤ **3.1.9 Scenes function**

This is to enable and configure the function and make the **Scenes menu** and relative **Scene** communication object visible.

The scenes function sends two possible commands to the device:

- execute scene, that is a command to create a specific condition
- scene storing, that is a command to memorise the current status (at the moment the command is received) of the exchange contact, and then reproduce it once the execute command is received

This function foresees 8 different scenes, so the device can memorise /reproduce 8 different conditions of the load position. The settings are:

- **deactivated**

The scenes function is not enabled and consequently the **Scenes menu** and the communication object are not visible.

- **active**

The scenes function is active and is managed by the **Scene** communication.

The new **Scenes** menu is also visible (see Chapter 7) where the settings used to configure the function are displayed.

➤ **3.1.10 Movement object values**

This allows you to define which command the upstroke movement and downstroke movement is associated to, and also the opening and closing of the laths where this option is foreseen. The settings are:

- **"0" = up / "1" =down**

When a **Movement** communication object telegram is received from the bus with a "0" logic value, the device will interpret it as an UP command; vice versa when the bit has a "1" value, the device will interpret it as a DOWN command. If the device is in **Blind** mode, when a **Shutter stop/Louvres step** communication object telegram is received from the bus with a "0" logic value, the device will interpret it as Open Laths command; vice versa when the bit has a "1" logic value, the device will interpret it as a Close Laths command. This type of configuration is the same as the one defined by the KONNEX Standard.

- **"1" = up / "0" =down**

When a **Movement** communication object telegram is received from the bus with a "1" logic value, the device will interpret it as an UP command; vice versa when the bit has a "0" logic value, the device will interpret it as a DOWN command. If the device is in **Blind** mode, when a **Shutter stop/Louvres step** communication object telegram is received from the bus with a "1" logic value, the device will interpret it as Open Laths command; vice versa when the bit has a "0" value, the device will interpret it as a Close Laths command.

➤ **3.1.11 Stop minimum time for reversing**

This allows you to set the minimum time that must pass between a movement command on the load in one direction and then in the other. The settings range are provided in the drop-down menu (an interval of from 100 ms to 5 seconds).

This setting value must be entered according to the type of load being used; there are in fact motorised shutters which require very little inversion time, that is the minimum time between when the UP contact is charged and when the DOWN contact is charged, which must be guaranteed in order not to damage the motor. In this case, if the device receives a command to move in the opposite direction to its current direction, it will stop all movement, disconnecting the charge to the contact, and after a period of time equal to that set under this item above, it will charge the other contact and perform the requested inversion.

➤ **3.1.12 Shutter control movement time ($n \times 100$ ms)**

This defines the multiplication factor of the base time (100 milliseconds) and refers to the length of time the motor is powered when a lath regulation command is performed. The settings range from 1 to 120.

This means that, if we take for instance a default value of 3, each time a lath open or close regulation command is received from the bus, it charges the relative motor contact for a period of 300 milliseconds. This ensures that the requested lath regulation effect is achieved.

➤ **3.1.13 Night lighting**

This is to enable/deactivate the localisation function of the 2 front yellow amber coloured LEDs; the settings are:

- **deactivated**

The front yellow amber coloured LEDs will never be enabled, therefore no movement will occur and the front indicator lights will not be backlit.

- **active**

The front yellow amber coloured LEDs are enabled when no movement is in progress; in this case the front indicator lights are backlit by the yellow amber LEDs indicating that there is no movement in progress, in the case of lack of light in the environment, it also acts as a device localisation light.

➤ **3.1.14 Local keys behaviour**

This enables the use of the local buttons to move the load; the settings are:

- **disabled**

When the buttons on the front of the device are pressed, this produces no effect.

- **enabled**

When the buttons on the front of the device are pressed, this has an effect on the device as seen below:

- prolonged pressure on the button (for a period over 500 milliseconds) causes the movement of the load in the direction indicated on the drawing on the pressed button. In the case where prolonged pressure is detected whilst another movement is in progress, if this involves an inversion in direction, the device will stop the movement in progress, and once the time set under the **Stop minimum time for reversing** parameter has passed, it will perform the new movement; if the prolonged pressure on the button does not involve an inversion in direction, the movement in progress will continue until the travel range time expires.

- short pressure on the button (for a period of less than 500 milliseconds), if there is movement in progress, causes the movement to be stopped, regardless of whether the button pressed was in the same or opposite direction.

If there is no movement in progress, short pressure on the button regulates the opening and closing of the laths (according to which button is pressed), only when the **Operating mode** is set to **Blinds**; on the contrary, short pressure will produce no effect.

➤ **3.1.15 Position command object**

This enables the viewing and use of the **Position Command** object through which the device is able to receive the setting commands from the bus relative to the awning/blind percentage position to be implemented. The settings are:

- **disabled**

It is not possible for the bus to set the percentage position of the awnings/blinds; the communication object mentioned above is therefore not visible.

- **enabled**

It is possible for the bus to set the percentage position of the awning/blind using the communication object mentioned above; in this case when a telegram with the information on the percentage position of the load is received by the **Position command** communication object, the device performs an Increase/Decrease movement to reach the position received in the command.

➤ **3.1.16 Position feedback object**

This enables the viewing and use of the **Position feedback** object through which the device is able to send the current awning/blind percentage position to the bus. The settings are:

- **disabled**

The device will not indicate the current percentage position of the awnings/blinds; the communication object mentioned above is therefore not visible.

- **enabled**

The device signals the current percentage position of the awning/blind using the communication object mentioned above; in this case at the end of each movement of the awning/blind, the device sends a bus telegram to the **Position feedback** communication object, with the current percentage position of the load.

➤ **3.1.17 Position on voltage recovery**

This is used to set the status of the shutter/blind when the bus power is reinstated (29 V SELV); the settings are:

- **shutter up**

Each time that the bus power is reinstated, the device will move the shutter/blind to the upper end position.

- **shutter down**

Each time that the bus power is reinstated, the device will move the shutter/blind to the lower end position.

- **no movement**

Each time that the bus power is reinstated, the device will leave the shutter/blind in the same position.

To conclude, please note that when the bus is not powered, the device will not perform any activity; if the power blacks out when a movement is in progress, when the power is reinstated we recommend you take the shutter/blind to the upper end position (using a bus command or the front button) so that the device is correctly realigned with the actual position of the load.

3.2 Communication objects

The **Main** menu is used to set the parameters which define the standard operations of the device; therefore the communication objects, whose visibility depends on the settings in the items of the **Main** menu, are those indicated in Diag. 3.2.

| Number | Name | Object Function | Length | C | R | W | T | U | Data Type | Priority |
|--------|---------------------------|----------------------------|--------|---|---|---|---|---|-------------------------------------|----------|
| 0 | Movement | Up/Down | 1 bit | C | - | W | - | - | 1 bit DPT_UpDown | Low |
| 1 | Shutter stop | Stop | 1 bit | C | - | W | - | - | | Low |
| 1 | Shutter stop/Louvres step | Stop/Step | 1 bit | C | - | W | - | - | | Low |
| 2 | Movement feedback | Increase/Decrease | 1 bit | C | R | - | T | - | 1 bit DPT_UpDown | Low |
| 6 | Priority command | Forced positioning up/down | 2 bit | C | - | W | - | - | 1 bit controlled DPT_Switch_Control | Low |
| 9 | Position command | % Value | 1 Byte | C | - | W | - | - | 8 bit unsigned value DPT_Scaling | Low |
| 10 | Position feedback | % Value | 1 Byte | C | R | - | T | - | 8 bit unsigned value DPT_Scaling | Low |

Fig. 3.2

➤ 3.2.1 Movement

Here it is possible to raise/lower the shutter/blinds using a bus command. When the device receives a telegram on this communication object, according to the command received, it will feed power to the contact associated to the requested movement.

This allows you to define which command the upstroke movement and downstroke movement is associated to according to the value in the **Movement object values** in the **Main** menu;

The enabled flags are C (communication), W (written by bus) .

If the **Movement object values** in the **Main** menu are set to **"0" = Up / "1" =Down**

the object format is standard and is *1.008 DPT_UpDown*, so the size of the object is 1 bit and the commands that it receives are UP/DOWN movements; on the contrary, the object format, whilst maintaining the same telegram structure, the same size and the same flags, is not KONNEX standard as the up and down commands are coded in the opposite manner compared to standard settings.

➤ 3.2.2 Shutter stop

This stops all movement of the shutter whatever it is. When the device receives a telegram on this communication object, if the shutter is moving it will instantly stop the movement, regardless of the value received.

The enabled flags are C (communication), W (written by bus) .

The standard format of the object is *1.008 DPT_UpDown*, so the size of the object is 1 bit and the commands it receives are *stop movement* commands.

➤ 3.2.3 Shutter stop/Louvres step

This stops all movement of the blinds whatever it is. When the device receives a telegram on this communication object, if the blind is moving it will instantly stop the movement, regardless of the value received; whilst if the blind is still, it will regulate the lath open/close command according to the command received.

This allows you to define which command is to be associated to the open lath command and which to the close lath command according to the value in the **Movement object values** in the **Main** menu;

The enabled flags are C (communication), W (written by bus) .

If the **Movement object values** in the **Main** menu are set to **"0" = Up / "1" =Down**

The object format is standard and is *1.008 DPT_UpDown*, so the size of the object is 1 bit and the commands that it receives are STOP commands (if the blind is moving) or open/close lath regulation command (if the blind is still); on the contrary the object format, whilst maintaining the same telegram structure, the same size and the same flags, is not KONNEX standard as the lath open and close regulation commands are coded in the opposite manner compared to standard settings.

➤ 3.2.4 Movement feedback

This is to allow the device to indicate the movement that the shutter/blind is performing by telegram to the bus. When the device has to move the load following the onset of certain conditions (receipt of bus command, local command etc.), it instantly sends a telegram to this communication object with the information of the movement in progress.

The enabled flags are C (communication), R (read by bus) and T (transmission) .

The standard format of the object is *1.008 DPT_UpDown*, so the size of the object is 1 bit and the commands it sends are *UP/DOWN movement feedback*.

➤ 3.2.5 Priority command

Using this communication object, the device is able to receive the trigger UP forced positioning, trigger DOWN forced positioning and deactivate forced positioning commands from the bus. This communication object is not influenced by the value set under **Movement object values**; this means that an enabled ON forced positioning command is equal to a DOWN forced positioning enabled, vice versa the enabled OFF forced positioning command is equal to UP forced positioning enabled.

The enabled flags are C (communication), W (written by bus) .

The standard format of the object is *2.001 DPT_Switch_Control*, so the size of the object is 2 bit and the commands it receives is *Up/Down forced positioning enabled , forced positioning disabled*.

➤ 3.2.6 Position command

Here you can set the percentage position required for the shutter/blinds using a bus command. When the device receives a telegram on this communication object, according to the command received, it charges the contact which will perform the movement and the shutter/blind will be moved to the value

indicated in the command; in this case it is the device which autonomously decides the movement to be performed in order to reach the position indicated in the bus command received.

We would like to emphasise the importance of the value entered under the ***Travel range time [sec]*** setting as the intermediate positions and the relative autonomous movements that the device makes when it receives a command on this communication object, are calculated using the settings indicated under this parameter.

The enabled flags are C (communication), W (written by bus) .

The standard format of the object is *5.001 DPT_Scaling*, so the size of the object is 1 *byte* and the commands it receives is a shutter/blind percentage position value which ranges from 0% to 100%.

➤ **3.2.7 Position feedback**

This is to allow the device to indicate the position that the shutter/blind has reached at the end of the movement to the bus. When the device has finished the movement of the load, it instantly sends a telegram to this communication object with the current percentage position of the load.

We would like to emphasise the importance of the value entered under the ***Travel range time [sec]*** setting as the percentage position indicated by this object is calculated using the settings indicated under this parameter.

The enabled flags are C (communication), R (read by bus) and T (transmission) .

The standard format of the object is *5.001 DPT_Scaling*, so the size of the object is 1 *byte* and the value that it sends indicates the current shutter/blind percentage position which ranges from 0% to 100%.

4 “Automatic movements” menu

The **Automatic movements** menu, visible if the **Operating mode** in the **Main menu** is set to blinds, displays the parameters which are used to set the automatic regulation of the laths at the end of any movements of the blinds (see Diag. 4.1).

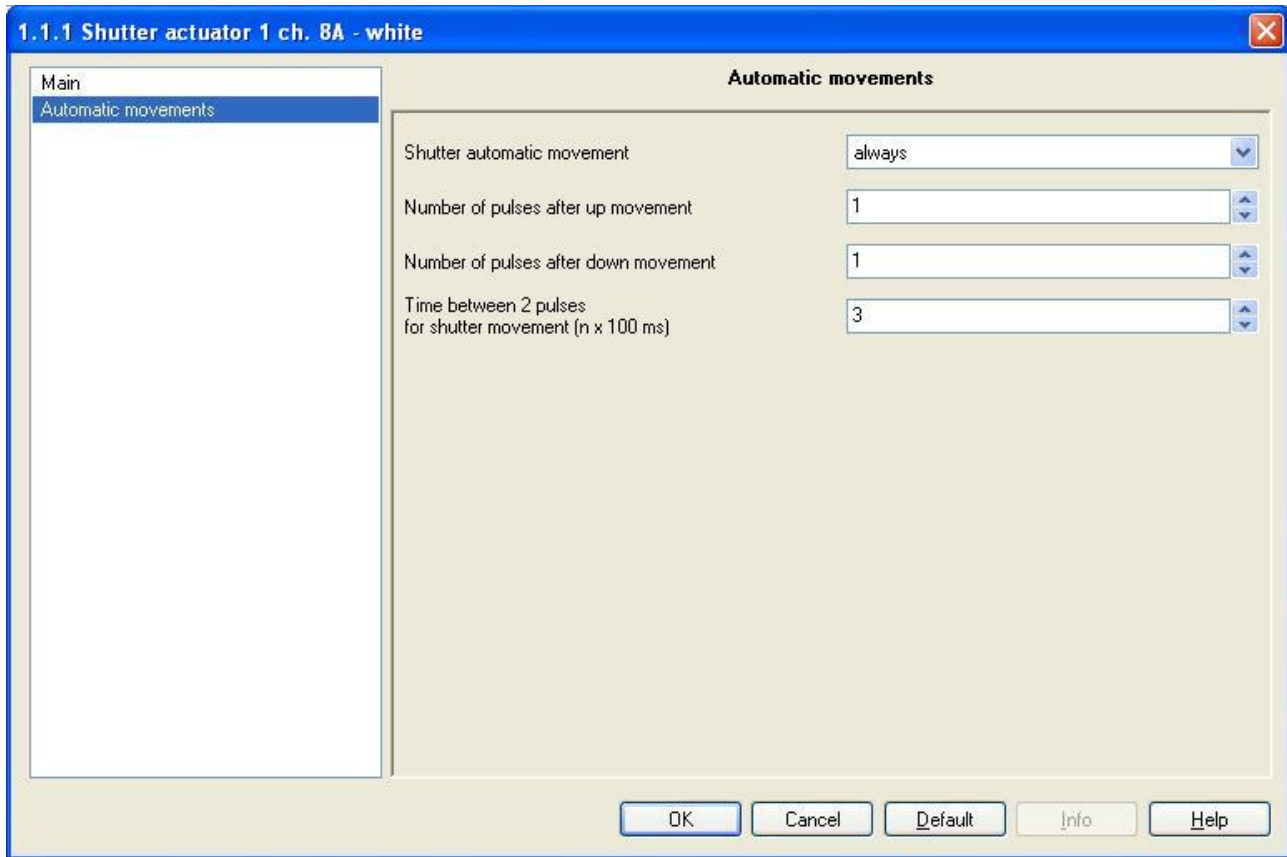


Fig. 4.1

4.1 Parameters

➤ 4.1.1 Shutter automatic movement

This indicates when the automatic regulation should be performed; the automatic regulations in question are performed in the following cases:

- when the blind terminates a movement generated by a perform scene command (with an intermediate final position)
- when the blind terminates a movement generated by the receipt of a value on the **Position command** object (if the final position is intermediate)
- on cancellation of an forced positioning, block or safety function if at the end of the same the shutter must be moved to an intermediate position

According to the value set for this item, different options will be visible so that the function can be configured correctly; the settings are:

- **never**

There is never a situation where the laths are automatically regulated; with this setting flagged, there are no other options available in the **Automatic movements** menu.

- **always**

Every time that any of the conditions described in the presentation of the function occurs, regardless of whether the movement is UP or DOWN, the device will always automatically regulate the laths; with this setting, the **Automatic movements** menu displays the options: **Number of pulses after up movement**, **Number of pulses after down movement** and **Time between 2 pulses for shutter movement (n X 100 ms)** which will be analysed further on.

- **after down movement**

Every time that any of the conditions described in the presentation of the function occur, and it is a DOWN movement, the device will always automatically regulate the laths; with this setting, the **Automatic movements** menu displays the option **Number of pulses after down movement** and **Time between 2 pulses for shutter movement (n X 100 ms)** which will be analysed further on.

- **after up movement**

Every time that any of the conditions described in the presentation of the function occur, and it is an UP movement, the device will always automatically regulate the laths; with this setting, the **Automatic movements** menu displays the option **Number of pulses after up movement** and **Time between 2 pulses for shutter movement (n X 100 ms)** which will be analysed further on.

➤ **4.1.2 Number of pulses after up movement**

This sets the number of close lath regulation pulses the device must automatically perform following a condition as seen in paragraph 4.1.1 with an UP movement; the settings range from 1(pulse) to 16 (pulses).

This value is strictly related to the value set for the **Shutter control movement time (n X 100 ms)** in the **Main** menu as it is useless entering, for instance, a setting increased by 2 if the setting indicated for the parameter above has a lath activation time that is half the time needed to completely open or completely close a lath; this is because, with two pulses the laths move from completely open to completely closed, and another pulse would generate no action.

➤ **4.1.3 Number of pulses after down movement**

The same applies as indicated in the previous paragraph, but in relation to a downwards movement.

➤ **4.1.4 Time between 2 pulses for shutter movement (n X 100 ms)**

This is used to define the factor that, multiplied by the base (100 milliseconds) defines the standby period between the automatic execution of a lath regulation pulse and another; the setting is only valid if at least one of the options **Number of pulses after up movement** and **Number of pulses after down movement** are set to a value other than 1. The settings range from 3 to 10.

This means that, if the device has to perform an automatic lath movement with a number of pulses higher than 1, there is a standby period between one pulse and another determined by the value indicated under this item, multiplied by the temporal base (100 milliseconds).

4.2 Communication objects

There are no communication objects enabled by the **Automatic movements** menu.

5 “Block” menu

The **Block** menu, visible if the **Block function** in the **Main menu** is set to **active**, displays the parameters which are used to set the block function parameters used by the device (see Diag. 5.1).

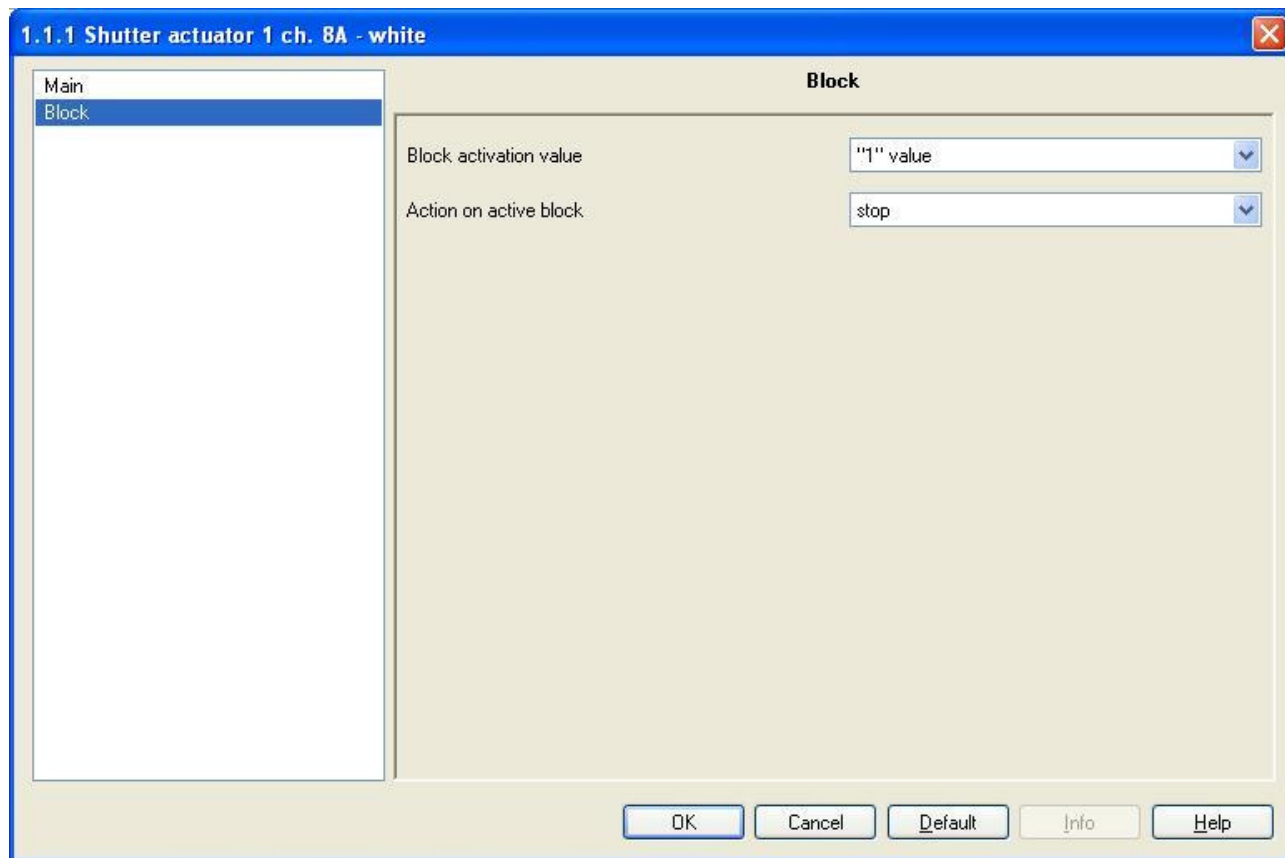


Fig. 5.1

5.1 Parameters

➤ 5.1.1 Block activation value

This is used to set what logic value the bus telegram must indicate to trigger the block function; the settings are:

- **value “0”**

When the device receives a telegram from the bus with a “0” logic value, it triggers the block function and applies the conditions set in the **Block menu**. When the device receives a telegram a “1” logic value, it deactivates the block function if it is enabled, on the contrary the command is ignored.

- **value “1”**

When the device receives a telegram from the bus with a “1” logic value, it triggers the block function and applies the conditions set in the **Block menu**. When the device receives a telegram a “0” logic value, it deactivates the block function if it is enabled, on the contrary the command is ignored.

➤ 5.1.2 Action on active block

This is to set the action that the device must perform when it receives a trigger block command from the bus; when the block is deactivated, the behaviour of the device depends on the **Position on forced positioning, block or alarm disactivation** settings in the **Main** menu. The settings are:

- **shutter up**

When the block function is triggered the device immediately raises the shutter/blind to the upper end position; if the shutter is already in the upper end position, the device will perform no action.

- **shutter down**

When the block function is triggered the device immediately lowers the shutter/blind to the lower end position; if the shutter is already in the lower end position, the device will perform no action.

- **stop**

When the block function is triggered the device immediately stop any movement of shutter/blind; if the shutter is already at a standstill, the device will perform no action.

5.2 Communication objects

The **Block function** in the **Main** menu, if enabled, makes the **Block menu** and relative communication object visible, as seen in Diag. 5.2.

| Number | Name | Object Function | Length | C | R | W | T | U | Data Type | Priority |
|--------|-------|------------------|--------|---|---|---|---|---|------------------|----------|
| 17 | Block | Switching on/off | 1 bit | C | - | W | - | - | 1 bit DPT Enable | Low |

Fig. 5.2

➤ 5.2.1 Block

Using this communication object, the device is able to receive the block trigger/ deactivate commands from the bus.

The enabled flags are C (communication), W (written by bus) .

The standard format of the object is *1.003 DPT_Enable*, so the size of the object is *1 bit* and the information it contains is *enabled/disabled*.

6 “Alarms” menu

The **Alarms menu**, visible if the **Alarm function** in the **Main menu** is set to **active**, displays the parameters which are used to set the alarm function parameters used by the device (see Diag. 6.1). This function is usually used in combination with the wind or rain sensors to protect the shutter/blind from damage caused by weather conditions. The device indicates an alarm condition with the alternate flashing of the two green front indicator lights.

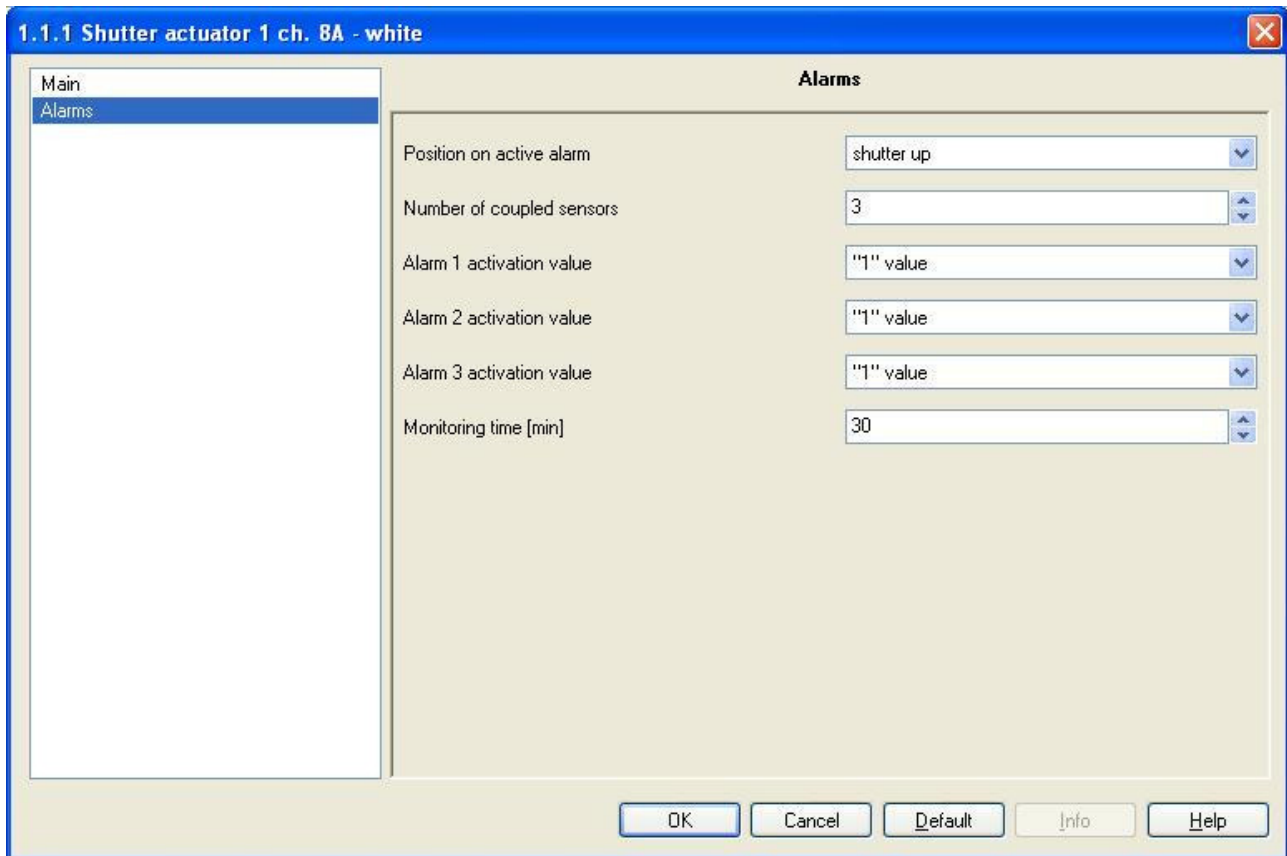


Fig. 6.1

6.1 Parameters

➤ 6.1.1 Position on active alarm

This is used to set the condition the device must apply to the shutter/blind when the alarm is triggered; the settings are:

- **shutter up**

When the alarm function is triggered the device immediately raises the shutter/blind to the upper end position; if the shutter is already in the upper end position, the device will perform no action.

- **shutter down**

When the alarm function is triggered the device immediately lowers the shutter/blind to the lower end position; if the shutter is already in the lower end position, the device will perform no action.

- **ignore alarm**

The other items in the alarms menu can be configured but the function can not be enabled.

➤ 6.1.2 Number of coupled sensors

Here you can enter the number of the sensors that you intend to use to create the alarm function; according to the value set for this item, different options will be visible so that the function can be configured correctly. The settings range from 0 (sensors) to 3 (sensors).

- 0

No sensor is enabled and therefore no communication object either; in this case no other option is visible and the function can not be configured.

- 1

One sensor is enabled and the new item **Alarm 1 activation value** appears. This setting enables the communication object **Alarm 1** which allows you to configure the alarm function.

- 2

Two sensors are enabled and the new items **Alarm 1 activation value** and **Alarm 2 activation value** appear. This setting enables the communication objects **Alarm 1** and **Alarm 2** which allows you to configure the alarm function; in this case the device triggers an alarm status even when only one of the two sensors indicate an alarm status, whilst it returns to normal operation mode when both the sensors indicate that the status alarm has been cancelled. There is therefore an OR logic relationship between the enabled sensors.

- 3

Three sensors are enabled and the new items **Alarm 1 activation value**, **Alarm 2 activation value** and **Alarm 3 activation value** appear. This setting enables the communication objects **Alarm 1**, **Alarm 2** and **Alarm 3** which allows you to configure the alarm function; in this case the device triggers an alarm status even when only one of the three sensors indicates an alarm status, whilst it returns to normal operation mode when both the sensors indicate that the status alarm has been cancelled. There is therefore an OR logic relationship between the enabled sensors.

➤ 6.1.3 Alarm 1 activation value

This is used to set what logic value the bus telegram sent to the first sensor must indicate to trigger the alarm function; the settings are:

- “0”value

When the device receives from the bus a telegram from sensor number 1 bus with a “0” logic value, it triggers the alarm function and applies the conditions set in the **Alarms** menu, indicating the alarm status with the alternate flashing of the two green front indicator lights. On receiving a “1” value, it deactivates the alarm function if the other combined sensors are not in alarm status, on the contrary the device will remain in alarm status until all the sensors indicate that the alarm status has been cancelled. As we will see later on, it is essential to configure the sensor so that it periodically sends an alarm unarmed status notice to the device.

- “1” value

When the device receives from the bus a telegram from sensor number 1 bus with a “1” logic value, it triggers the alarm function and applies the conditions set in the **Alarms** menu, indicating the alarm status with the alternate flashing of the two green front indicator lights. On receiving a “0” value, it deactivates the alarm function if the other combined sensors are not in alarm status, on the contrary the device will remain in alarm status until all the sensors indicate that the alarm status has been cancelled. As we will see later on, it is essential to configure the sensor so that it periodically sends an alarm unarmed status notice to the device.

➤ 6.1.4 Alarm 2 activation value

The same applies as indicated in the previous paragraph, but in relation to the second sensor (please refer to 6.1.3 for further details).

➤ 6.1.5 Alarm 3 activation value

The same applies as indicated in the previous paragraph, but in relation to the third sensor (please refer to 6.1.3 for further details).

➤ 6.1.6 Monitoring time [min]

Here you can set the time, expressed in minutes, after which the device triggers the alarm function if it does not periodically receive the alarm unarmed status telegram from all the sensors; the values can range from 1 (minute) to 60 (minutes).

It is most important to configure the sensors connected to the device so that they periodically communicate the alarm unarmed status to the device, at an interval which is lower than the value set for this option. This allows the device to monitor the operation status of all the sensors connected to it and, if even one malfunctions, it will trigger the alarm function as it will assume that, as the sensor is not sending status information, it is faulty.

If a series of sensors are enabled for alarm functions, the monitoring time shall be same for all the sensors, but each one has a separate counter; the counter on each sensor is reset every time that the sensor sends the bus telegram with the alarm unarmed status information.

Also in this case, if just one sensor does not communicate the alarm unarmed status notice within the preset monitoring time, the alarm will be triggered; naturally the alarm function will be deactivated when all the sensors have communicated the alarm unarmed status notice.

6.2 Communication objects

According to the values entered in the **Number of coupled sensors** in the **Alarms menu**, different communication objects will be enabled, as seen in Diag. 6.2.

| Number | Name | Object Function | Length | C | R | W | T | U | Data Type | Priority |
|--------|---------|-----------------|--------|---|---|---|---|---|-----------|----------|
| 3 | Alarm 1 | Alarm input | 1 bit | C | - | W | - | - | | Low |
| 4 | Alarm 2 | Alarm input | 1 bit | C | - | W | - | - | | Low |
| 5 | Alarm 3 | Alarm input | 1 bit | C | - | W | - | - | | Low |

Fig. 6.2

➤ 6.2.1 Alarm 1

Using this communication object the device is able to receive from the bus the alarm status of sensor 1. It is possible to determine which logic value of the bit carrying the information must indicate an alarm armed status and consequently the alarm unarmed status; in any case, the alarm unarmed status information must be sent periodically at an interval which is lower than the set monitoring time.

The enabled flags are C (communication), W (written by bus).

If the **Alarm 1 activation value** item in the **Alarms menu** is set to **"1" value**, the object format is standard and is *1.005 DPT_Alarm*, so the size of the object is *1 bit* and the commands that it receives are *alarm status armed/unarmed*; on the contrary the object format, whilst maintaining the same telegram structure, the same size and the same flags, is not KONNEX standard as the alarm armed status and the alarm unarmed status information is coded in the opposite manner compared to standard settings.

➤ 6.2.2 Alarm 2

This communication object is only visible when the **Number of coupled sensors** in the **Alarms menu**, is set higher than **1**.

The same applies as indicated in the previous paragraph, but in relation to the second sensor (please refer to **6.2.1** for further details).

➤ 6.2.3 Alarm 3

This communication object is only visible when the **Number of coupled sensors** in the **Alarms menu**, is set on **3**.

The same applies as indicated in the previous paragraph, but in relation to the third sensor (please refer to **6.2.1** for further details).

7 “Scenes” menu

The **Scenes menu**, visible if the **Scenes function** in the **Main menu** is set to **active**, displays the parameters which are used to customise the scenes function parameters (see Diag. 7.1).

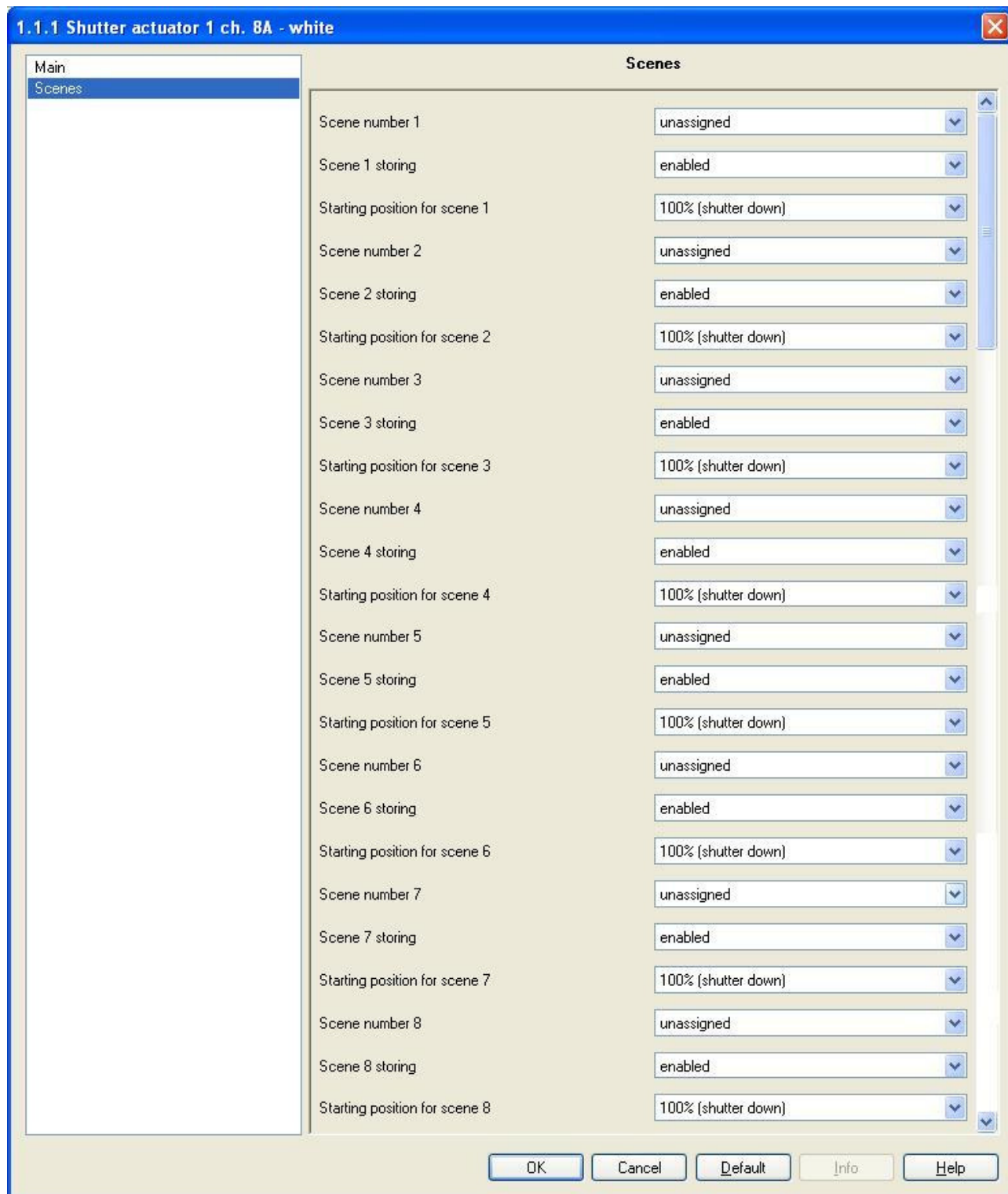


Fig. 7.1

7.1 Parameters

This chapter provides a general description of the parameters for all the scenes, using an X to indicate the scene number the description refers to.

➤ 7.1.1 Scene number *x*

Here you can assign a number to the scene *x* so that it can be recalled by a bus command; the values can range from 0 to 63 plus the “unassigned” value if you decide not to number or use scene *x*. There is only one rule to follow when assigning this value: it must be different from the number assigned to other scenes.

➤ 7.1.2 Scene *x* storing

This enables the function which memorises the position of the shutter/blind after a scene storing command; the settings are:

- **enabled**

It is possible to learn the current position of the shutter/blind and then reproduce it following an execute scene command.

- **disabled**

It is not possible to learn the current position of the shutter/blind and then reproduce it following an execute scene command; all storing commands will be ignored. Following an execute scene command, the final position to which the shutter/blind will be moved will be the position indicated under the item **Starting position for scene *x***.

➤ 7.1.3 Starting position for scene *x*

Here it is possible to set the default position shutter/blind. This value is useful if the **Scene *x* storing** is set to **disabled** as it allows you to fix the position of the shutter/blind following an execute scene command received from the bus; if the above item is set to **enabled**, the default value has no particular significance as it will determine the position of the shutter/blind following the execute scene command until it receives a memorise scene command, which will overwrite the value.

The settings are provided in the drop-down menu, with an interval of from 0% (shutter up) to 100% (shutter down).

7.2 Communication objects

The **Scenes function** in the **Main** menu, if enabled, makes the **Scenes menu** and relative communication object visible, as seen in Diag. 7.2.

| Number | Name | Object Function | Length | C | R | W | T | U | Data Type | Priority |
|--------|-------|-----------------|--------|---|---|---|---|---|-----------|----------|
| 18 | Scene | Execute/Store | 1 Byte | C | - | W | - | - | | Low |

Fig. 7.2

➤ 7.2.1 Scene

Using this communication object, the device is able to receive the perform and memorise scene commands from the bus.

The enabled flags are C (communication), W (written by bus).

The standard format of the object is *18.001 DPT_SceneControl*, so the size of the object is 1 byte and already mentioned it is used to receive the perform and memorise scene bus commands.

GEWISS - MATERIALE ELETTRICO

SAT



+39 035 946 111
8.30 - 12.30 / 14.00 - 18.00
da lunedì a venerdì



+39 035 946 260
24 ore al giorno



SAT on line
gewiss@gewiss.com