Chorus

GEWISS

Easy 4 channel push-button

GW 10 752
GW 12 752
GW 14 752

Technical Manual

Summary

1 Introduction

This manual describes the functions of the device named GW1x782 “**Easy 4 channel push-button**” and how to use the ETS configuration software to change the settings and configurations.

2 Application

The EIB 4 channel push-button panel is 2 DIN module input device to be fitted inside flush-mounting boxes.
There is 4 push-button available to send different kind of bus command (switch on/off, dimming, move up/down, etc..) to the actuators.
Each channel is fitted with 2 night localisation LEDs (amber LED) and a commanded load status indicator (green LED). The night localisation could be enabled or disabled through an apposite parameter.

Generally speaking, the device can perform the following functions:

- load activation /deactivation commands (ON/OFF)
- timed activation commands
- dimmer management (with single or double push-button)
- awing/shutter management (with single or double push-button)
- scene management

For each input channel it's possible to set a function through an apposite parameter.

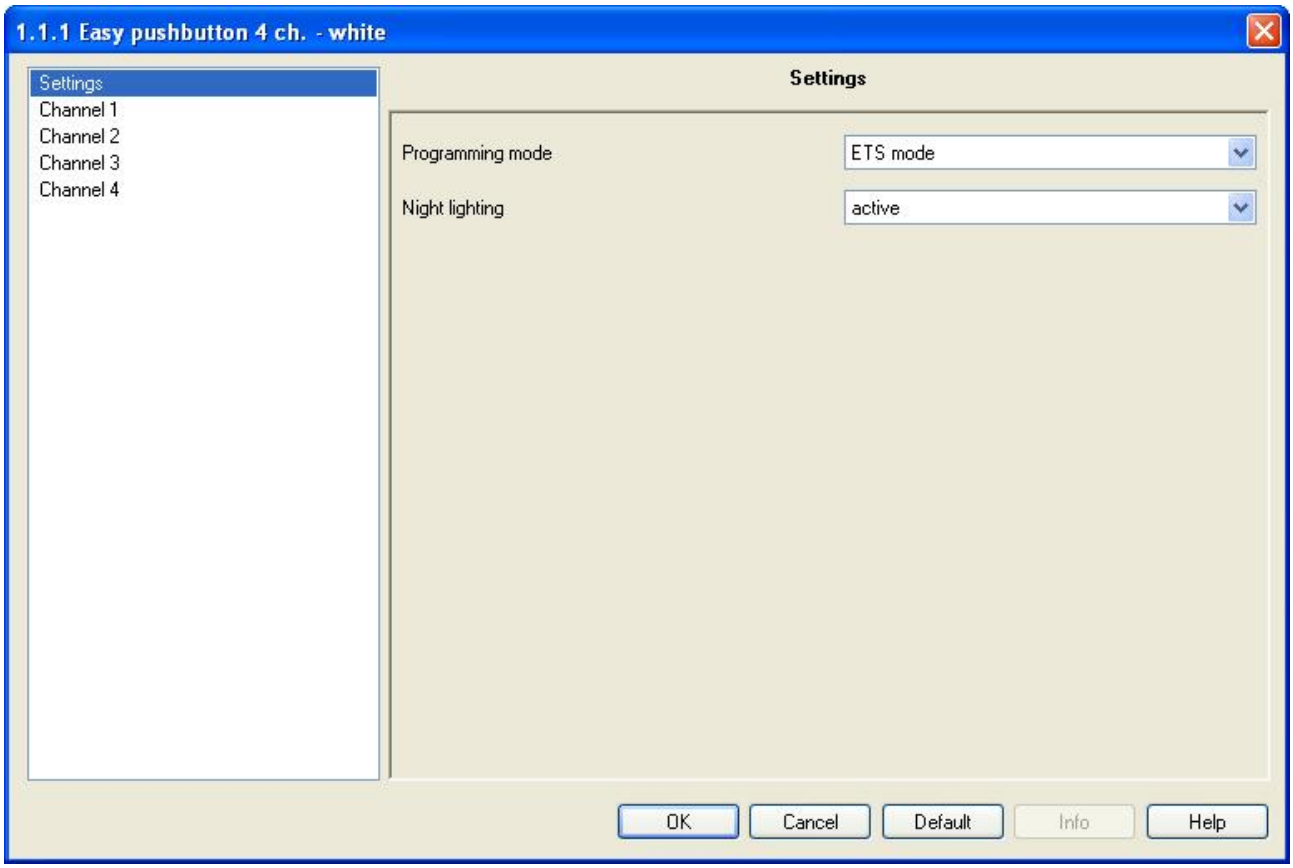
2.1 Limits to the associations

Maximum number of group addresses:	40
Maximum number of logical associations:	40

This means that it could be possible to define maximum 40 group addresses and realize maximum 40 associations between group addresses and communication objects.

3 *"Settings"* menu

Here it is possible to configure the programming mode between ETS mode (S-Mode) and Easy mode by the Easy controller software (Kit GW90837, Kit GW90838, GW90840) and enable the night localisation of the buttons (see Diag 3.1).



Diag. 3.1

3.1 Parameters

➢ *3.1.1 Programming mode*

This parameter determines the programming mode of the device:

- ***ETS mode***

Select this value if you want to configure the device with ETS (S-Mode); all the configuration parameters are now visible.

- ***Easy mode***

Select this value if you want to configure the device with the Easy controller software.
Remember to download the application program with this value selected before using the device by the Easy controller software if you have already used the device in an ETS project.

➢ *3.1.2 Night lighting*

This is to activate/deactivate the lighting function of the front yellow amber coloured LEDs; the settings are:

- ***deactivated***

The front yellow amber coloured LED will never be working, therefore when the green led is deactivated the front indicator light will not be backlit.

- ***active***

The front yellow amber coloured LED is working when the green led is deactivated; in this case the front indicator light is backlit by the yellow amber LED indicating that the led status is deactivated, in the case of lack of light in the environment where the device is installed, it also acts as a device localisation light.

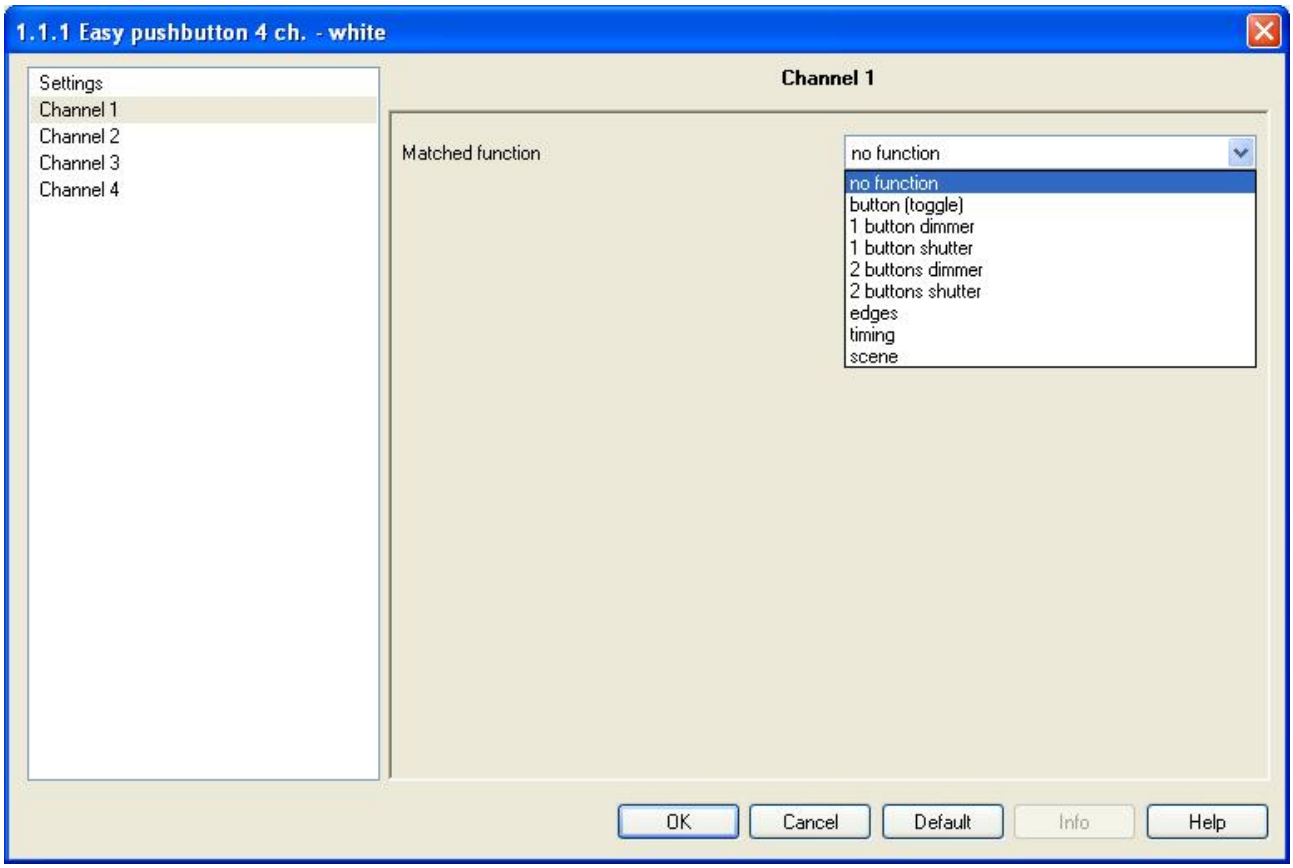
3.2 Communication objects

There are no communication objects enabled by the ***Settings*** menu.

For the sake of simplicity, the ***Channel 1, Channel 2, Channel 3 and Channel 4*** menu options will be described in the following chapters once only (referring to the general menu ***Channel x***) as all menus carry the same options.

4 "*Channel x*" menu

This chapter describes the parameters and the communication objects relative to channels 1, 2, 3 and 4 (hereinafter referred to generally as *channel x*) see Diag. 4.1.
The value set for the first option (***Matched function***) determines the structure of the entire menu.



Diag 4.1

4.1 Parameters

➢ *4.1.1 Matched function*

This determines the function associated to the general channel x; according to the value of these settings, the ***Channel x*** menu will behave differently. The settings are:

- ***no function***

No function is associated to the general channel x, consequently it will not be used.

- ***button (toggle)***

See chapter 5 - ***"Button (toggle)"* function**

- ***1 button dimmer***

See chapter 6 - ***"1 button dimmer"* function**

- ***1 button shutter***

See chapter 7 - ***"1 button shutter"* function**

- ***2 buttons dimmer***

See chapter 8 - *"**2 buttons dimmer**"* **function**

- ***2 buttons shutter***

See chapter 9 - ***"2 buttons shutter"*** **function**

- ***edges***

See chapter 10 - ***"Edges"*** **function**

- ***timing***

See chapter 11 - ***"Timing"*** **function**

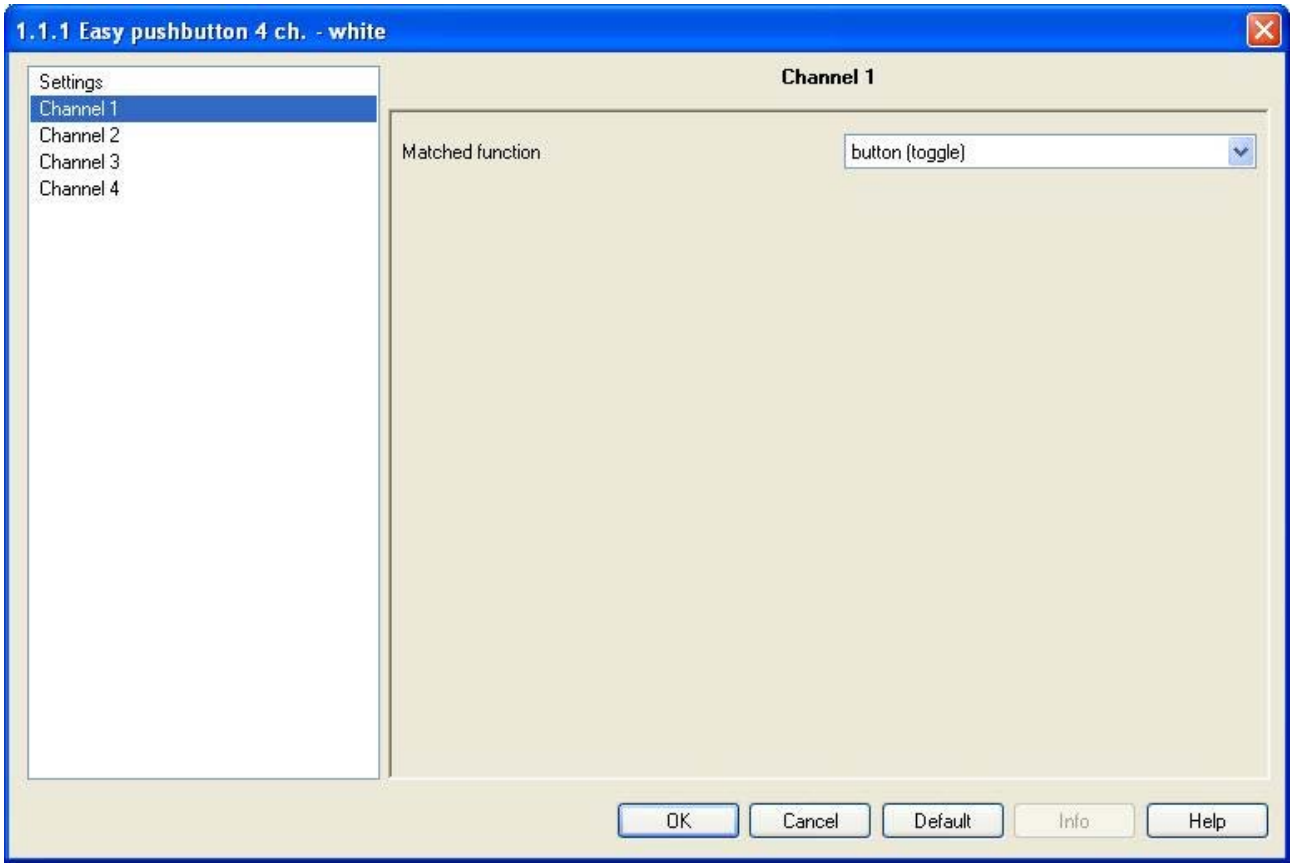
- ***scene***

See chapter 12 - ***"Scene"*** **function**

5 *"Button toggle"* function

Here you can configure the sending of ON/OFF cyclic commands. When you push the button, the device sends a telegram to the bus with an opposite logic value to the actuator status; if the actuator status has a "0" value, it will send a "1" value, and vice versa.
You have to link the ***Ch.x – Status feedback*** communication object that the device uses to detect, for instance, the status of an actuator so that the next command that the push-button sends will be the opposite of the current device status. This means that, if the actuator status has changed after the execution of a scene, through the above mentioned communication object, the push-button is still able to detect the actuator status so that the device is immediately able to send to the correct command without having to realign with the actuator status (generating a no-load pressure).
When a communication object telegram is received with a "1" logic value, the green led switches ON; vice versa, when a communication object telegram is received with a "0" logic value, the green led will switch OFF (if the night lighting option is enabled, the amber led will switch ON).

ATTENTION: If you don't link the actuator status feedback with the push button's ***Ch.x – Status feedback*** communication object, the device always sends a command with a "1" logic value and so does not work correctly.



Diag. 5.1

5.1 Parameters

There are no parameters to be configured for this function.

5.2 Communication objects

The ***Button toggle*** function makes the following communication objects visible (See Diag. 5.2.):

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority	ty
0	Ch.1 - Status feedback	On/Off status	1 bit	C	-	W	-	-	1 bit DPT_Switch	Low	
1	Ch.1 - Switch	On/Off	1 bit	C	R	-	T	-	1 bit DPT_Switch	Low	

Diag. 5.2

➢ 5.2.1 Ch.x – Switch

The device sends ON/OFF commands to the bus through this communication.
The enabled flags are C (communication), R (read by bus), and T (transmission).
The standard format of the object is *1.001 DPT_Switch*, the size of the object is *1 bit* and the information it contains is *ON/OFF* or more generally *1/0.*

➢ 5.2.2 Ch.x – Status feedback

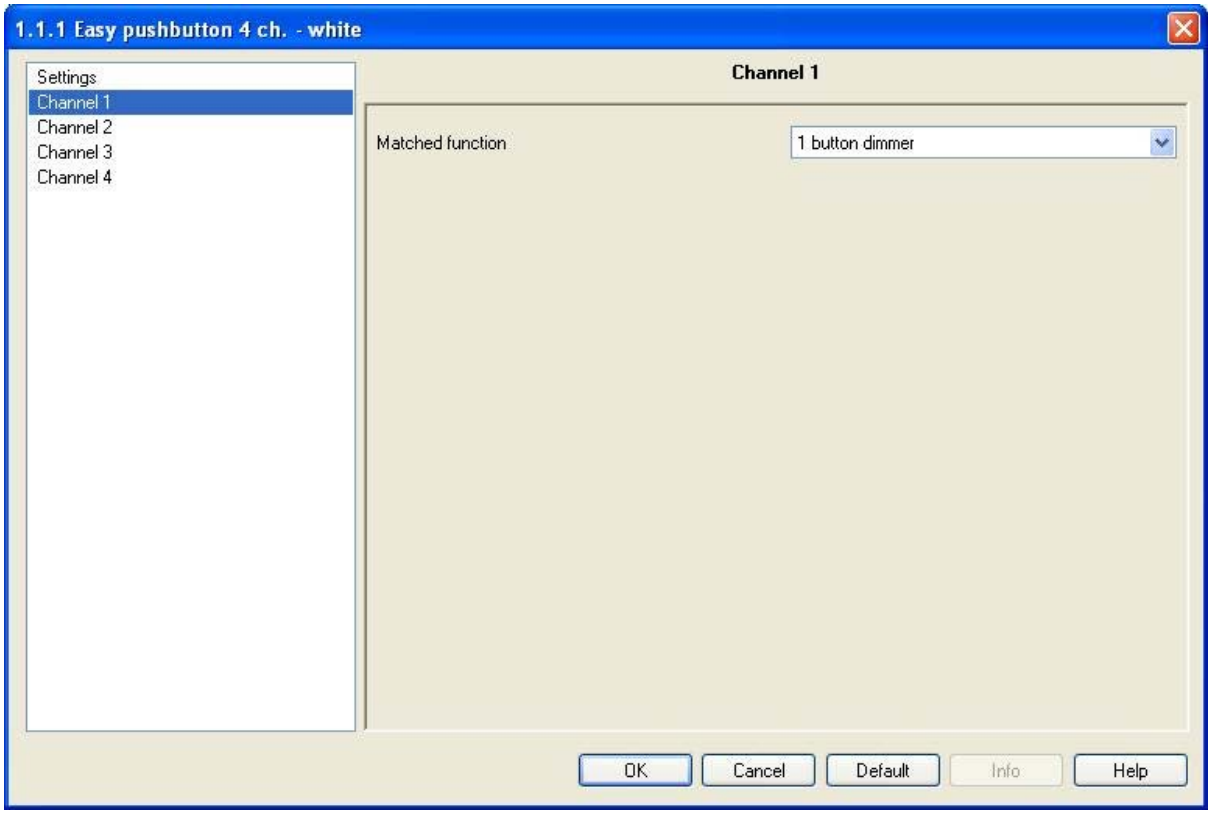
Through this communication object the device receives status feedbacks for the devices it controls, generally actuators, so that it is always updated about their status and therefore able to manage them correctly. Please note that the use of this object is essential in order for the cycle switching to function correctly.
The enabled flags are C (communication), W (written by bus).
The standard format of the object is *1.001 DPT_Switch*, the size of the object is *1 bit* and the information it contains is *ON/OFF* status or more generally *1/0 status.*

6 *"1 button dimmer"* function

Here it is possible to configure the channel to control a dimmer with one button, regulating the increase and decrease in brightness on the dimmer using the same button. It is possible to send ON/OFF telegrams and brightness dimming telegrams.
As just one button manages the ON/OFF and brightness dimming functions, it is configured so that each time it is pressed it will send the opposite command compared to the previous command, and it will differentiate between short (press and release) pressures and prolonged (press and hold) pressures:

- If the contact remains closed for a time which is longer than 0,5 sec, a prolonged pressure is recognised that, in this case, is interpreted as a brightness dimming command. If the dimmer actuator status feedback received is OFF or a *decrease brightness* command is the last command sent from the device, the new command will *increase the brightness*; vice versa, if the dimmer actuator status feedback received is ON or a *increase brightness* command is the last command sent from the device, the new command will be a *decrease brightness* command. In both cases, when the contact is re-opened, a stop regulation telegram is sent, to terminate the dimmer increase/decrease brightness operation and it sets the brightness value reached at the moment that the stop regulation command is received. Please note that the use of the ***Ch.x - Dimmer status feedback*** communication object is essential in order to know the actual status of the dimmer actuator.
- If the contact remains closed for a time which is shorter than 0,5 sec, a short pressure is recognised that, in this case, is interpreted as an ON/OFF command. If the dimmer actuator status feedback received is ON, the new command will be an OFF command; vice versa, if the dimmer actuator status feedback received is OFF, the new command will be an ON command; the *increase/decrease brightness* commands in this case do not determine the value of the last command sent to discriminate the value of the future command that will be sent.

Using this type of function, the brightness dimming depends on the so-called brightness dimming characteristic curve that varies from device to device, according to how the manufacturer has designed the curve that regulates output and consequently brightness. This means that the speed at which the brightness reaches maximum and minimum levels does not depend on the commands sent by the 4-channel push-button panel, as the latter regulates the brightness by blocking the increase/decrease according to the desired value. When a communication object telegram is received with a "1" logic value, the green led switches ON; vice versa, when a communication object telegram is received with a "0" logic value, the green led will switch OFF (if the night lighting option is enabled, the amber led will switch ON).
The ***Channel x*** menu can be seen in Diag.6.1 below.



Diag. 6.1

6.1 Parameters

There are no parameters to be configured for this function.

6.2 Communication objects

The ***1 button dimmer*** function makes the following communication objects visible (See Diag. 6.2.):

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority
0	Ch.1 - Dimmer status feedback	On/Off status	1 bit	C	-	W	-	-	1 bit DPT_Switch	Low
1	Ch.1 - Switch	On/Off	1 bit	C	R	-	T	-	1 bit DPT_Switch	Low
3	Ch.1 - Brightness dimming	Increase/Decrease	4 bit	C	R	-	T	-	3 bit controlled DPT_Control_Dimming	Low

Diag. 6.2

➢ 6.2.1 Ch.x – Switch

Using this communication object, the device sends ON/OFF commands to the bus following short closings of the button contacts. The value sent through this object, as we will see in paragraph ***6.2.2 Ch.x – Dimmer status feedback***, is always the opposite value compared to the last value received on this object.
The enabled flags are C (communication), R (read by bus) and T (transmission).
The standard format of the object is *1.001 DPT_Switch*, the size of the object is *1 bit* and the information it contains is *ON/OFF*.

➢ 6.2.2 Ch.x – Dimmer status feedback

Using this communication object, the device receives bus telegrams which notify the status of the loads controlled by the dimmer that will be managed through the general channel x.
The use of this object is obligatory in order to be able to manage this function; the status of the load controlled by the dimmer could change, for instance to perform a scene command, following a command received from other devices etc.. This said, you have to use this object because the value of the commands to be sent is the opposite to the last value sent or the value received by the object in question.
The enabled flags are C (communication) and W (written by bus).
The standard format of the object is *1.001 DPT_Switch*, the size of the object is *1 bit* and the information it receives is *ON/OFF status*.

➢ 6.2.3 Ch.x – Brightness dimming

Using this communication object, the device sends increase/decrease brightness commands to the bus following prolonged closings of the button contacts. The value sent through this object is always the opposite to the last command sent to this object or, as mentioned in the introduction to the function, an increase command if the last value received by the ***Ch.x – Dimmer status feedback*** object is “OFF and a decrease command if the last value received by the ***Ch.x – Dimmer status feedback*** object is “ON”).
The coding of this type of command allows you to differentiate between increase and decrease, and also the percentage value of the same variation; in this specific case, when the button is pressed and held it sends “increase by 100%” (decrease by 100%) of the brightness value commands, when the button is released the stop regulation command is sent. This allows for a faster or slower dimmer action according to the device and the intrinsic output/brightness dimming characteristics for each device.
The enabled flags are C (communication), R (read by bus) and T (transmission).
The standard format of the object is *3.007 DPT_Control_Dimming*, the size of the object is *4 bit* and the information it contains is *increase/decrease by 100%, stop regulation.*

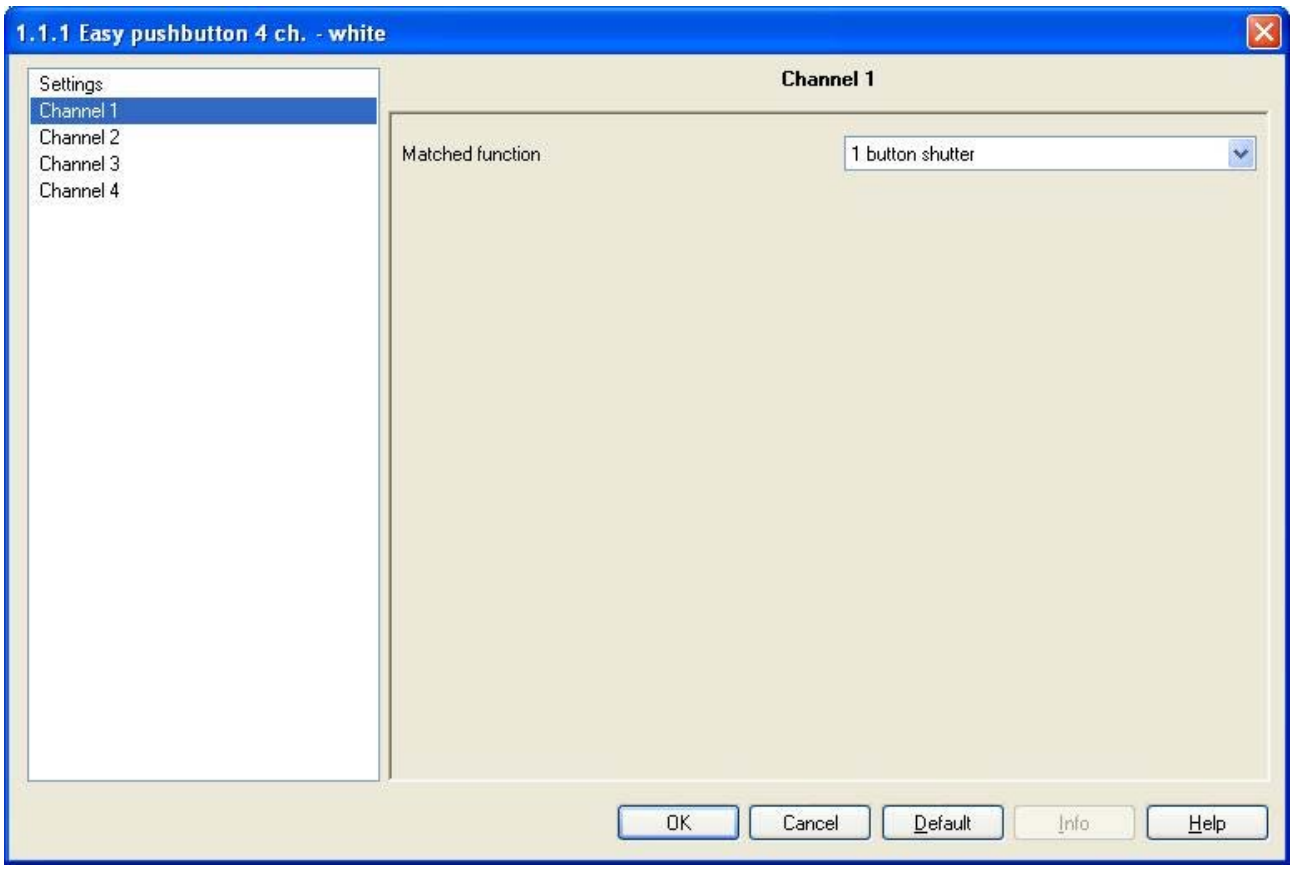
7 *"1 button shutter"* function

Here it is possible to configure the channel to control a shutter with one button, regulating the UP and DOWN movement of the shutter and the opening/closing of the laths, where applicable.
It is possible to send Up/Down telegrams and lath regulation telegrams.
As just one button manages the Up/Down and lath regulation functions, it is configured so that each time it is pressed it will send the opposite command compared to the previous movement signal received by the shutter actuator; it will differentiate between short (press and release) pressures and prolonged (press and hold) pressures:

- If the contact remains closed for a time which is longer than 0,5 sec, a prolonged pressure is recognised that, in this case, is interpreted as an Up/Down command. If the last movement signal received was "UP", the new command will be a "DOWN" command, and vice versa.
- if the contact remains closed for a time which is shorter than 0,5 sec, a short pressure is recognised that, in this case, is interpreted as a lath regulation command. If the last movement signal received was "UP", the new command will be a "close lath" command; vice versa, if the last movement signal received was "DOWN", the new command will be an "open lath" command. If the shutter is moving, a lath regulation command will simply stop the Up/Down movement of the shutter; the shutter must be at a standstill in order to regulate the laths.

The green led is always OFF.

The ***Channel x*** menu can be seen in Diag.7.1 below.



Diag. 7.1

7.1 Parameters

There are no parameters to be configured for this function.

7.2 Communication objects

The ***1 button shutter*** function makes the following communication objects visible (See Diag. 7.2.):

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority
0	Ch.1 - Movement feedback	Increase/Decrease	1 bit	C	-	W	-	-	1 bit DPT_UpDown	Low
1	Ch.1 - Shutter stop/Louvres step	Stop/step	1 bit	C	R	-	T	-		Low
2	Ch.1 - Shutter movement	Up/Down	1 bit	C	R	-	T	-	1 bit DPT_UpDown	Low

Diag. 7.2

➢ 7.2.1 Ch.x – Shutter movement

Using this communication object, the device sends Up/Down commands to the bus following prolonged closings of the contacts (press and hold event). The value sent through this object is always the opposite to the last command received by the ***Ch.x – Movement feedback*** object, as we will see in paragraph ***7.2.3 Ch.x – Movement feedback***.
The enabled flags are C (communication), R (read by bus) and T (transmission).
The standard format of the object is *1.008 DPT_UpDown*, the size of the object is *1 bit* and the information it contains is *UP/DOWN*.

➢ 7.2.2 Ch.x – Shutter stop/Louvres step

Using this communication objects, the device sends open/close lath regulation commands to the bus following short closings of the contacts (press and release event). If the shutter is moving, a lath regulation command will simply stop the Up/Down movement of the shutter; the shutter must be at a standstill in order to regulate the laths.
The enabled flags are C (communication), R (read by bus) and T (transmission).
The standard format of the object is *1.007 DPT_Step*, the size of the object is *1 bit* and the information it contains is *open/close regulation or stop movement*.

➢ 7.2.3 Ch.x – Movement feedback

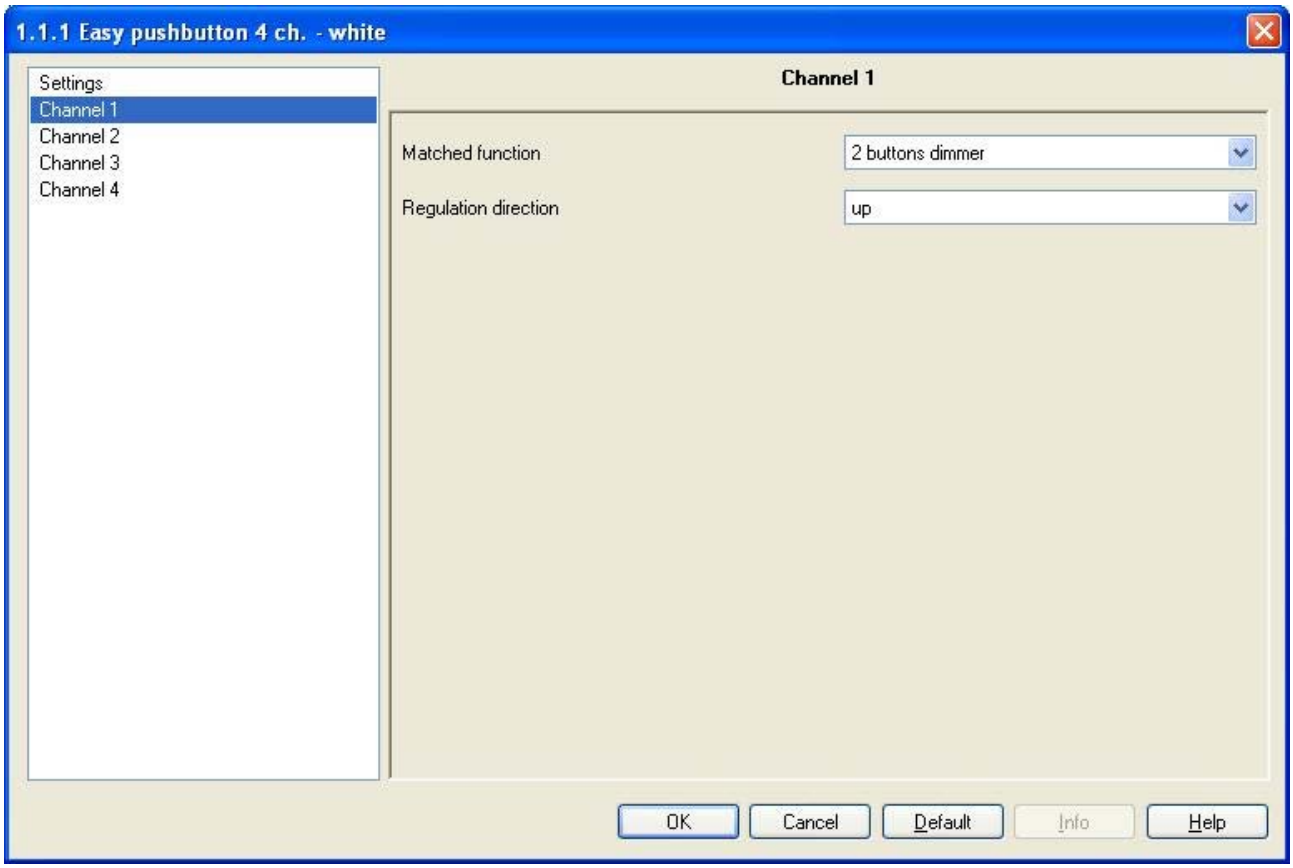
Using this communication object, the device receives notification of movement of the controlled shutter from the bus.
It is essential for the device to use this communication object in order to function correctly as the commands to be sent to the ***Ch.x - Shutter movement*** and ***Ch.x Shutter Stop/Louvres step*** objects depend on the value received on this object and the type of command detected.
The enabled flags are C (communication) and W (written by bus).
The standard format of the object is *1.008 DPT_UpDown*, the size of the object is *1 bit* and the information received is an *UP/DOWN* notification.

8 *"2 buttons dimmer"* function

Here it is possible to configure the combined channels to control a dimmer with two buttons, using one button for the ON function and to regulate the increase in the brightness and the other for the OFF function and to regulate the decrease in brightness.
Even if in this case two channels control the function, the press and release events are still discriminated from the press and hold events:

- If the contact remains closed for a time which is longer than 0,5 sec, a prolonged pressure is recognised that, in this case, is interpreted as a brightness dimming command. The difference between *increase* or *decrease* brightness command depending on the setting of the parameter ***Regulation direction***. When the contact is re-opened, a stop regulation telegram is sent, to terminate the dimmer increase/decrease brightness operation and it sets the brightness value reached at the moment that the stop regulation command is received.
- If the contact remains closed for a time which is shorter than 0,5 sec, a short pressure is recognised that, in this case, is interpreted as an ON/OFF command. The difference between *ON* or *OFF* command depending on the setting of the parameter ***Regulation direction***: if you set the value ***up***, the device will send an ON command; vice versa, if you set the value ***down***, the device will send an OFF command.

Using this type of function, the brightness dimming depends on the so-called brightness dimming characteristic curve that varies from device to device, according to how the manufacturer has designed the curve that regulates output and consequently brightness.
When a communication object telegram is received with a "1" logic value on the ***Ch.x – Dimmer status feedback***, the green led switches ON; vice versa, when a communication object telegram is received with a "0" logic value, the green led will switch OFF (if the night lighting option is enabled, the amber led will switch ON).
The ***Channel x*** menu can be seen in Diag. 8.1.



Diag. 8.1

8.1 Parameters

➢ 8.1.1 Regulation direction

Here you can set the kind of command associated to the button of channel x. The settings are:

- ***up***

Following prolonged pressure on the button, the device send an *increase* brightness command; following shorted pressure on the button, the device send an *ON* command

- ***down***

Following prolonged pressure on the button, the device send a *decrease* brightness command; following shorted pressure on the button, the device send an *OFF* command

8.2 Communication objects

The ***2 buttons dimmer*** function makes the following communication objects visible (See Diag. 8.2.):

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority
0	Ch.1 - Dimmer status feedback	On/Off status	1 bit	C	-	W	-	-	1 bit DPT_Switch	Low
1	Ch.1 - Switch	On/Off	1 bit	C	R	-	T	-	1 bit DPT_Switch	Low
3	Ch.1 - Brightness dimming	Increase/Decrease	4 bit	C	R	-	T	-	3 bit controlled DPT_Control_Dimming	Low

Diag. 8.2

➢ 8.2.1 Ch.x – Switch

Using this communication object, the device sends ON/OFF commands to the bus following short press and release events on the buttons. The value sent through this object depends on the setting of the parameter ***Regulation direction***.
The enabled flags are C (communication), R (read by bus) and T (transmission).
The standard format of the object is *1.001 DPT_Switch*, the size of the object is *1 bit* and the information it contains is *ON/OFF*.

➢ 8.2.2 Ch.x – Dimmer status feedback

Using this communication object, the device receives bus telegrams which notify the status of the loads controlled by the dimmer that will be managed through the general channel x.
The use of this object is not obligatory in order to be able to manage this function; you have to link it if you want to manage the green led.
The enabled flags are C (communication) and W (written by bus).
The standard format of the object is *1.001 DPT_Switch*, the size of the object is *1 bit* and the information it receives is *ON/OFF status*.

➢ 8.2.3 Ch.x – Brightness dimming

Using this communication object, the device sends increase/decrease brightness commands to the bus following prolonged pressure on the buttons. The value sent through this object depends on the settings of the parameter ***Regulation direction***. The coding of this type of command allows you to differentiate between increase and decrease, and also the percentage value of the same variation; in this specific case, when the button is pressed and held it sends “increase by 100%” (decrease by 100%) of the brightness value commands, when the button is released the stop regulation command is sent. This allows for a faster or slower dimmer action according to the device and the intrinsic output/brightness dimming characteristics for each device.
The enabled flags are C (communication), R (read by bus) and T (transmission).
The standard format of the object is *3.007 DPT_Control_Dimming*, the size of the object is *4 bit* and the information it contains is *increase/decrease by 100 % value, stop regulation.*

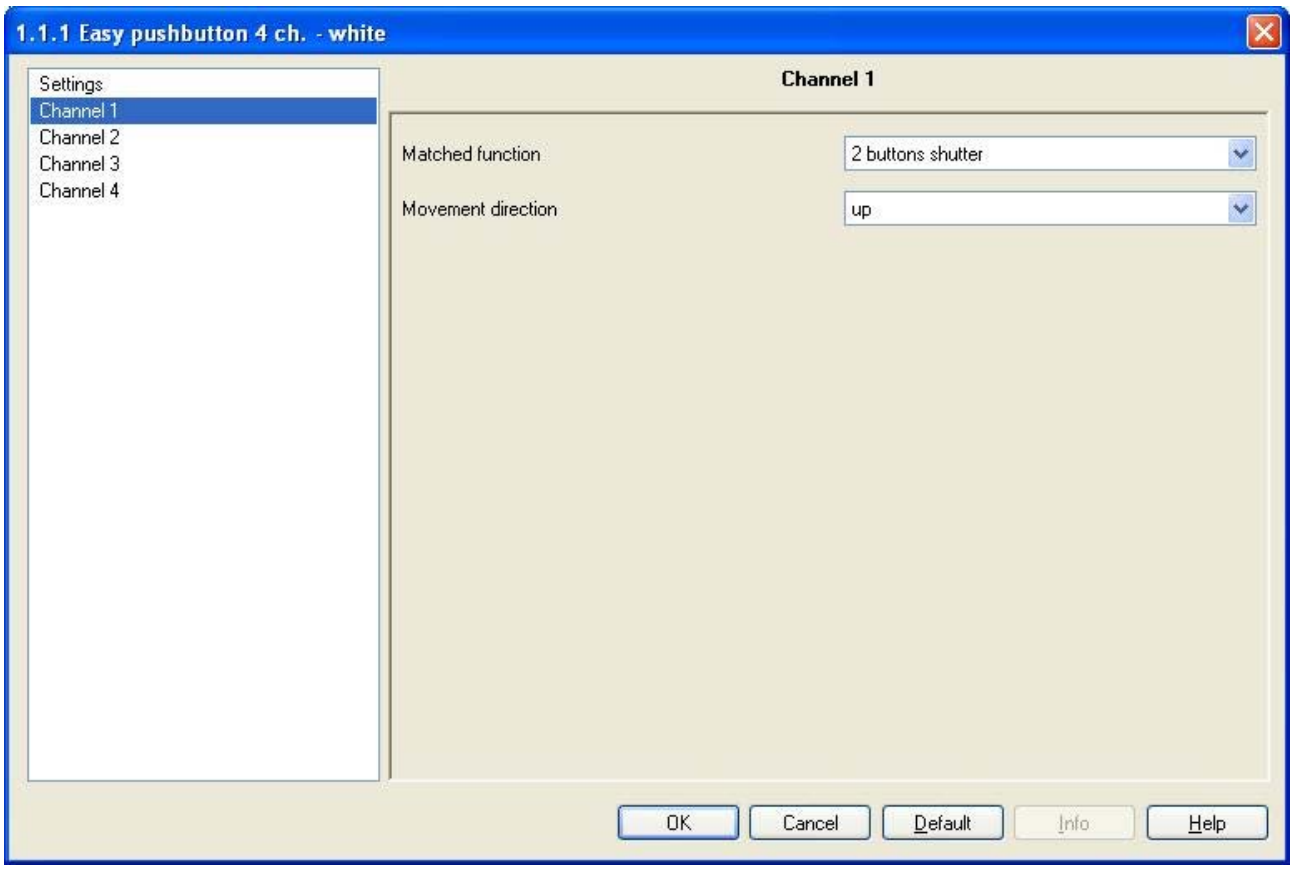
9 *"2 buttons shutters"* function

Here it is possible to configure the channel to control a shutter with two buttons, regulating the UP and DOWN movement of the shutter and the opening/closing of the laths, where applicable.
It is possible to send Up/Down telegrams and lath regulation telegrams.
Even if in this case two channels control the function, the press and release events are still discriminated from the press and hold events:

- If the button is pressed and held for a time which is longer than 0,5 sec, a prolonged pressure is recognised that, in this case, is interpreted as an Up/Down command. The difference between *UP* or *DOWN* command depending on the setting of the parameter ***Movement direction***. When the button is released, the device performs no actions.
- if the button is pressed and held for a time which is shorter than 0,5 sec, a short pressure is recognised that, in this case, is interpreted as a lath regulation command. The difference between *OPEN* or *CLOSED* regulation command depending on the setting of the parameter ***Movement direction***. If the shutter is moving, a lath regulation command will simply stop the Up/Down movement of the shutter; the shutter must be at a standstill in order to regulate the laths.

The green led is always OFF.

The ***Channel x*** menu can be seen in Diag.9.1 below.



Diag. 9.1

9.1 Parameters

➢ *9.1.1 Movement direction*

Here you can set the kind of command associated to the button of channel x. The settings are

- ***up***

Following prolonged pressure on the button, the device send an *UP* command; following shorted pressure on the button, the device send an *OPEN LATH* command and if the shutter is moving, the

command will simply stop the Up/Down movement of the shutter. The shutter must be at a standstill in order to regulate the laths.

- ***down***

Following prolonged pressure on the button, the device send a *DOWN* command; following shorted pressure on the button, the device send a *CLOSE LATH* command and if the shutter is moving, the command will simply stop the Up/Down movement of the shutter. The shutter must be at a standstill in order to regulate the laths.

9.2 Communication objects

The ***2 buttons shutters*** function makes the following communication objects visible (See Diag. 9.2.):

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority
1	Ch.1 - Shutter stop/Louvres step	Stop/step	1 bit	C	R	-	T	-		Low
2	Ch.1 - Shutter movement	Up/Down	1 bit	C	R	-	T	-	1 bit DPT_UpDown	Low

Diag. 9.2

➢ *9.2.1 Ch.x – Shutter movement*

Using this communication object, the device sends Up/Down commands to the bus following prolonged closings of the contacts (press and hold event). The value sent through this object depend on the setting of the parameter ***Movement direction***.
The enabled flags are C (communication), R (read by bus) and T (transmission).
The standard format of the object is *1.008 DPT_UpDown*, the size of the object is *1 bit* and the information it contains is *UP/DOWN*.

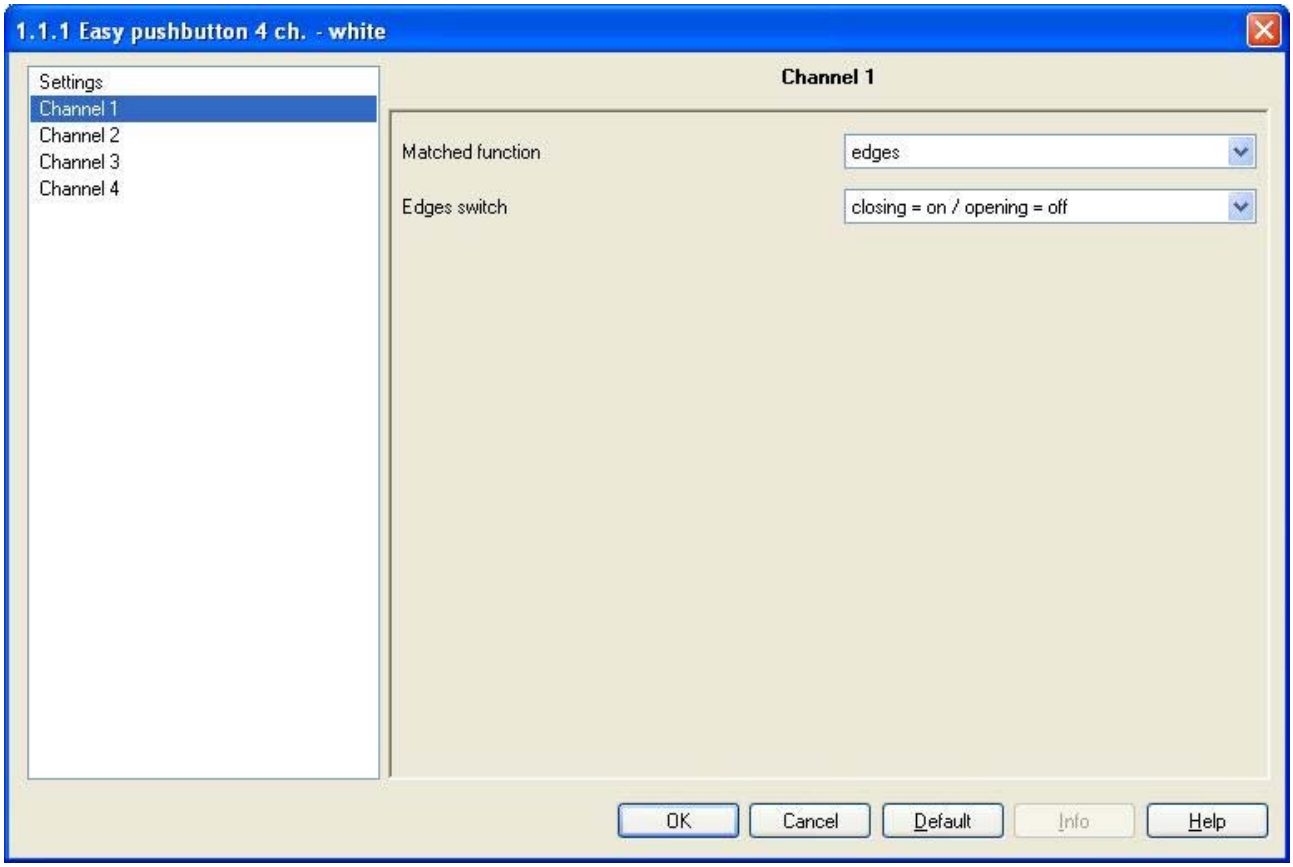
➢ *9.2.2 Ch.x – Shutter stop/Louvres step*

Using this communication objects, the device sends open/close lath regulation commands to the bus following short closings of the contacts (press and release event). If the shutter is moving, a lath regulation command will simply stop the Up/Down movement of the shutter; the shutter must be at a standstill in order to regulate the laths. The value sent through this object depend on the setting of the parameter ***Movement direction***.
The enabled flags are C (communication), R (read by bus) and T (transmission).
The standard format of the object is *1.007 DPT_Step*, the size of the object is *1 bit* and the information it contains is *open/close regulation or stop movement*.

10 *"Edges"* function

Here it is possible to configure the type of command (ON or OFF) to send following a change in contact status (edge); it is possible to differentiate the type of command according to the edge that is detected (from contact open to contact closed and vice versa).
When a communication object telegram is received with a "1" logic value on the ***Ch.x – Status feedback (edges function)*** communication object, the green led switches ON; vice versa, when a communication object telegram is received with a "0" logic value, the green led will switch OFF (if the night lighting option is enabled, the amber led will switch ON).

The ***Channel x*** menu can be seen in Diag.10.1 below.



Diag. 10.1

10.1 Parameters

➢ *10.1.1 Edges switch*

Here you can configure the command to be sent following a change in the contact status from closed to open and vice versa. The settings are:

- ***closing = on / opening = off***

When a change in the push-button contact from open to closed is detected, the device will send a telegram to the bus with a "1" logic value through the ***Ch.x – Switch*** communication object.
When a change in the push-button contact from closed to open is detected, the device will send a telegram to the bus with a "0" logic value through the ***Ch.x – Switch*** communication object.

- ***closing = off / opening = on***

When a change in the push-button contact from open to closed is detected, the device will send a telegram to the bus with a "0" logic value through the ***Ch.x – Switch*** communication object.

When a change in the push-button contact from closed to open is detected, the device will send a telegram to the bus with a “1” logic value through the ***Ch.x – Switch*** communication object.

- ***closing = on / opening = no effect***

When a change in the push-button contact from open to closed is detected, the device will send a telegram to the bus with a “1” logic value through the ***Ch.x – Switch*** communication object.
When a change in the push-button contact from closed to open is detected, the device will not send a telegram to the bus.

- ***closing = off / opening = no effect***

When a change in the push-button contact from open to closed is detected, the device will send a telegram to the bus with a “0” logic value through the ***Ch.x – Switch*** communication object.
When a change in the push-button contact from closed to open is detected, the device will not send a telegram to the bus.

10.2 Communication objects

The ***Edges*** function makes the following communication objects visible (See Diag. 10.2.):

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority
1	Ch.1 - Switch	On/Off	1 bit	C	R	-	T	-	1 bit DPT_Switch	Low
20	Ch.1 - Status feedback (edges function)	On/Off status	1 bit	C	-	W	-	-	1 bit DPT_Switch	Low

Diag. 10.2

➢ *10.2.1 Ch.x – Switch*

The device sends ON/OFF commands to the bus through this communication object following a change in a push-button contact status, according to the values set under the ***Edges switch*** parameter.
The enabled flags are C (communication), R (read by bus) and T (transmission).
The standard format of the object is *1.001 DPT_Switch*, the size of the object is *1 bit* and the information it contains is *ON/OFF* or more generally *1/0*.

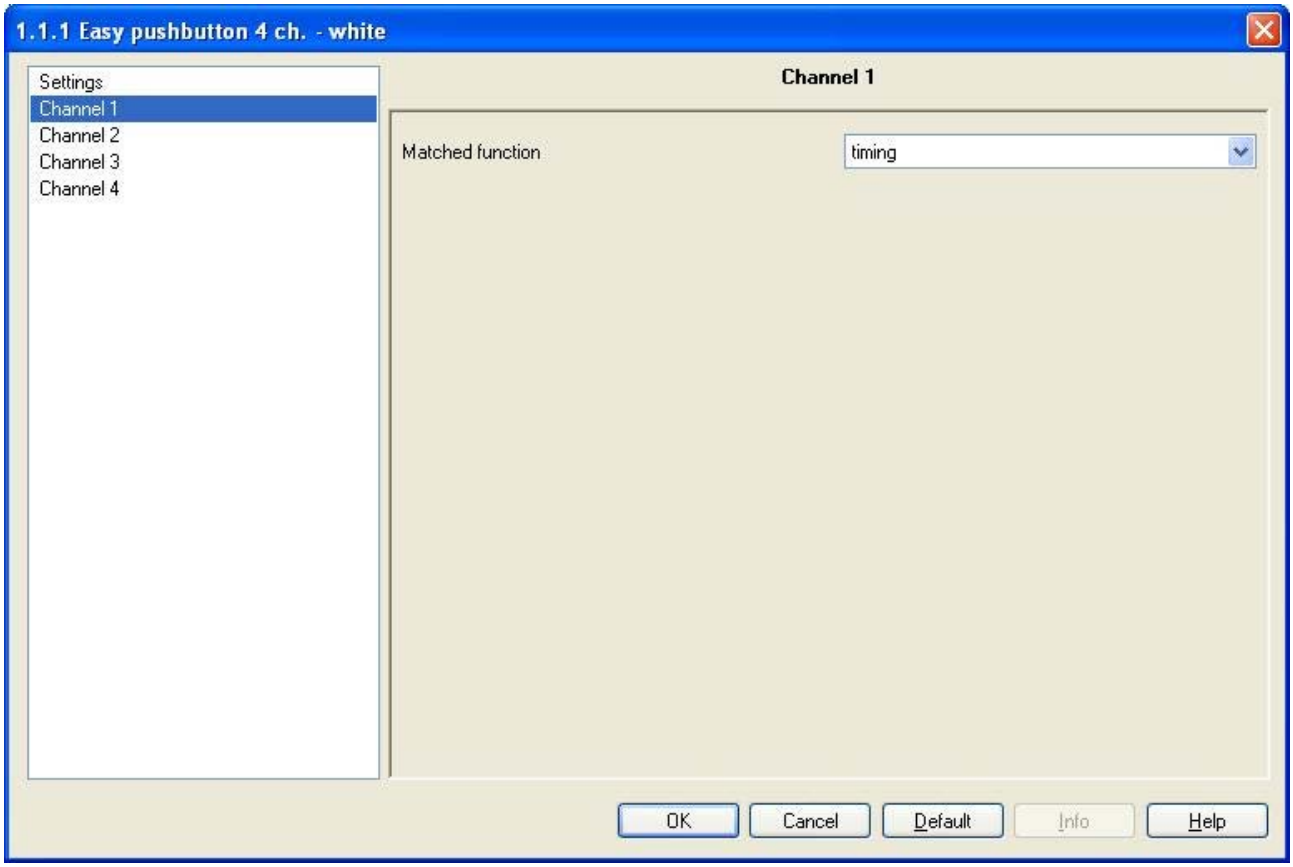
➢ *10.2.2 Ch.x – Status feedback (edges function)*

Using this communication object, the device receives bus telegrams which notify the status of the loads controlled by the switch actuator that will be managed through the general channel x.
The use of this object is not obligatory in order to be able to manage this function; you have to link it if you want to manage the green led.
The enabled flags are C (communication) and W (written by bus).
The standard format of the object is *1.001 DPT_Switch*, the size of the object is *1 bit* and the information it receives is *ON/OFF status*.

11 *"Timing"* function

Here it is possible to configure the channel to manage the timed activation of a switch actuator.
When you push the button associated with channel x, the device send a START temporization command on the bus to the switch actuator trough the ***Ch.x – Timed switch*** communication object; the switch actuator automatically switch off when the time of activation has elapsed.
This function is usually called staircase light function.
When a communication object telegram is received with a "1" logic value on the ***Ch.x – Status feedback***, the green led switches ON; vice versa, when a communication object telegram is received with a "0" logic value, the green led will switch OFF (if the night lighting option is enabled, the amber led will switch ON).

The ***Channel x*** menu can be seen in Diag. 11.1.



Diag. 11.1

11.1 Parameters

There are no parameters to be configured for this function.

11.2 Communication objects

The ***Timing*** function makes the following communication objects visible (See Diag. 11.2.):

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority
0	Ch.1 - Status feedback	On/Off status	1 bit	C	-	W	-	-		Low
1	Ch.1 - Timed switch	Activate timing	1 bit	C	R	-	T	-		Low

Diag. 11.2

➢ 11.2.1 Ch.x – Timed switch

The device sends START temporization commands to the bus through this communication object following a push of the push-button.
The enabled flags are C (communication), R (read by bus) and T (transmission).
The standard format of the object is *1.010 DPT_Start*, the size of the object is *1 bit* and the information it contains is *START temporization*.

➢ 11.2.2 Ch.x – Status feedback

Using this communication object, the device receives bus telegrams which notify the status of the loads controlled by the switch actuator that will be managed through the general channel x.
The use of this object is not obligatory in order to be able to manage this function; you have to link it if you want to manage the green led.
The enabled flags are C (communication) and W (written by bus).
The standard format of the object is *1.001 DPT_Switch*, the size of the object is *1 bit* and the information it receives is *ON/OFF status*.

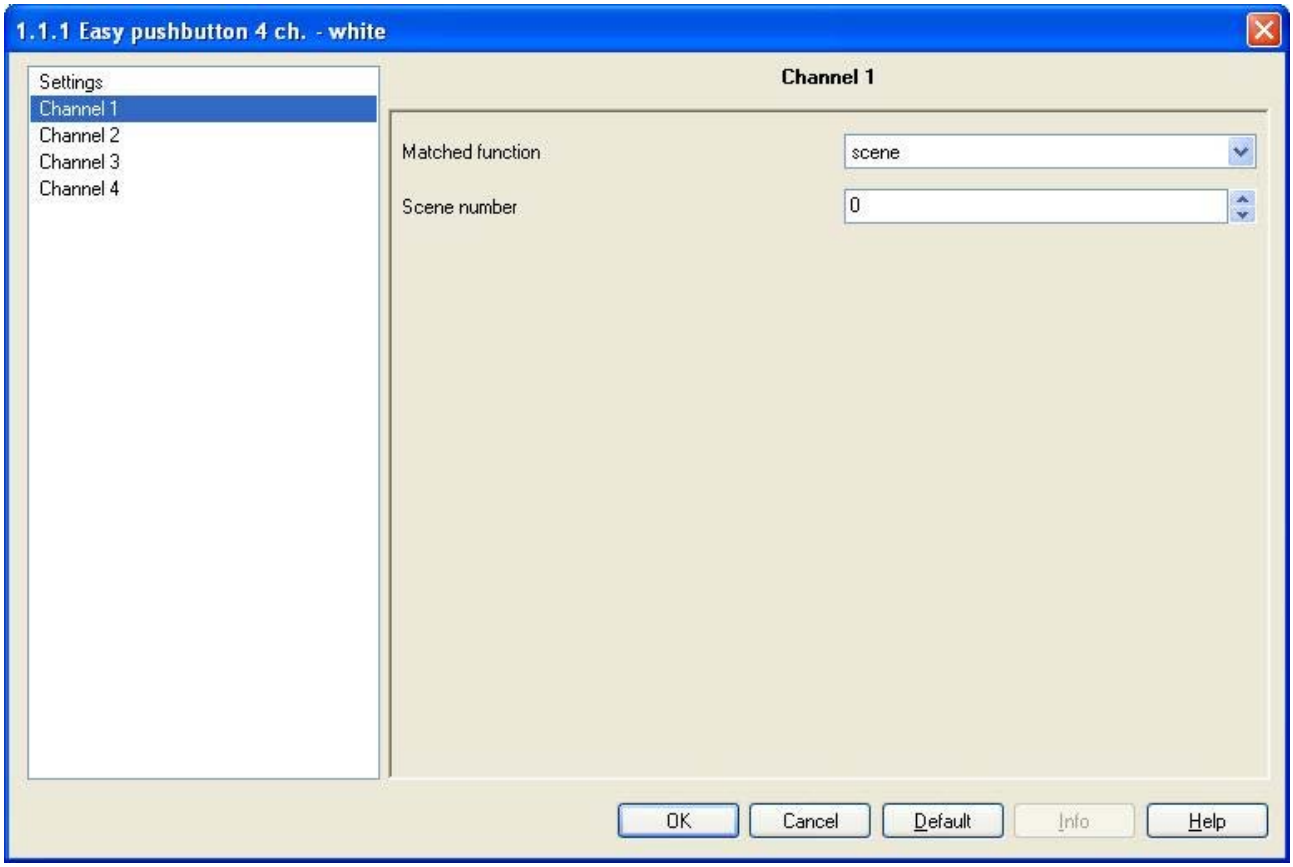
12 *"Scene"* function

Here it is possible to configure the channel to send and execute scene commands. Only one scene can be managed per channel.
The learn scene and perform scene commands differ, also in this case, according to the type of action detected on the contact:

- If the contact remains closed for a time which is longer than 3 seconds, a prolonged pressure is recognised that, in this case, is interpreted as a learn scene command.
- if the contact remains closed for a time which is shorter than 3 seconds, a short pressure is recognised that, in this case, is interpreted as an execute scene command.

In this function, the green led blink shortly when the device sends a learn scene command.

The ***Channel x*** menu can be seen in Diag. 12.1.



Diag. 12.1

12.1 Parameters

➢ *12.1.2 Scene number (0.. 7)*

Here it is possible to set the value of the scene you intend to activate/deactivate.
Remember that the 4 channel push-button is only able to manage one scene per channel.
The value set for this option (that varies from 0 to 7) is important as the output devices (actuators, dimmers etc.) are usually able to manage more than one scene, which is identified by the command value that is received; it is recommended to configure this option correctly, making sure the number is assigned according to the scene that you intend to manage with the general channel x.

12.2 Communication objects

The ***Scene*** function makes the following communication object visible (See Diag. 12.2.):

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

Diag. 12.2

➢ 12.2.1 Ch.x – Scene

The device sends execute scene commands to the bus through these communication objects following press and release events on the push-button and learn scene commands following press and hold events.
The enabled flags are C (communication), R (read by bus) and T (transmission).
The standard format of the object is *18.001 DPT_SceneControl*, the size of the object is *1 byte* and the information it contains refers to *execute/learn scene y* (where y indicates the general scene number associated to the commands, that is the value set under the item ***Scene number (0.. 7)***).

NOTES