

Easy 8 channel RF receiver



GW 10 776
GW 12 776
GW 14 776

Technical Manual

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1 Introduction

This manual describes the functions of the device named GW1x776 "**Easy 8 channel EIB RF receiver**" and how to use the ETS configuration software to change the settings and configurations.

2 Application

The 8 channel EIB RF receiver is a device that allows the Chorus RF system command and control devices to communicate with a KNX/EIB system, which hence allows the Home Automation Konnex system to be extended using RF control devices.

This device is in fact fitted with 8 EIB output channels, each of which can be configured independently to perform different functions. Up to 4 different RF command sources (transmitters) can be connected to each channel which manages a total of 32 channels of the RF remote control, RF pushbutton panel, IR with twilight switch RF movement detector, 2 RF channel input modules, etc.

The functions each channel is able to perform are those typical to an input interface, that is ON/OFF commands, shutter control, dimmer control, scene management, priority commands.

Not all RF control devices can perform the above listed functions, so before starting to configure the device using the ETS software, please read the INSTALLATION AND USER MANUAL, which lists all the commands that the different RF control devices can perform.

This manual refers solely to the configuration using the ETS software. Please refer to the INSTALLATION AND USER MANUAL supplied with the product for instructions on how to configure the RF Receiver with RF control devices.

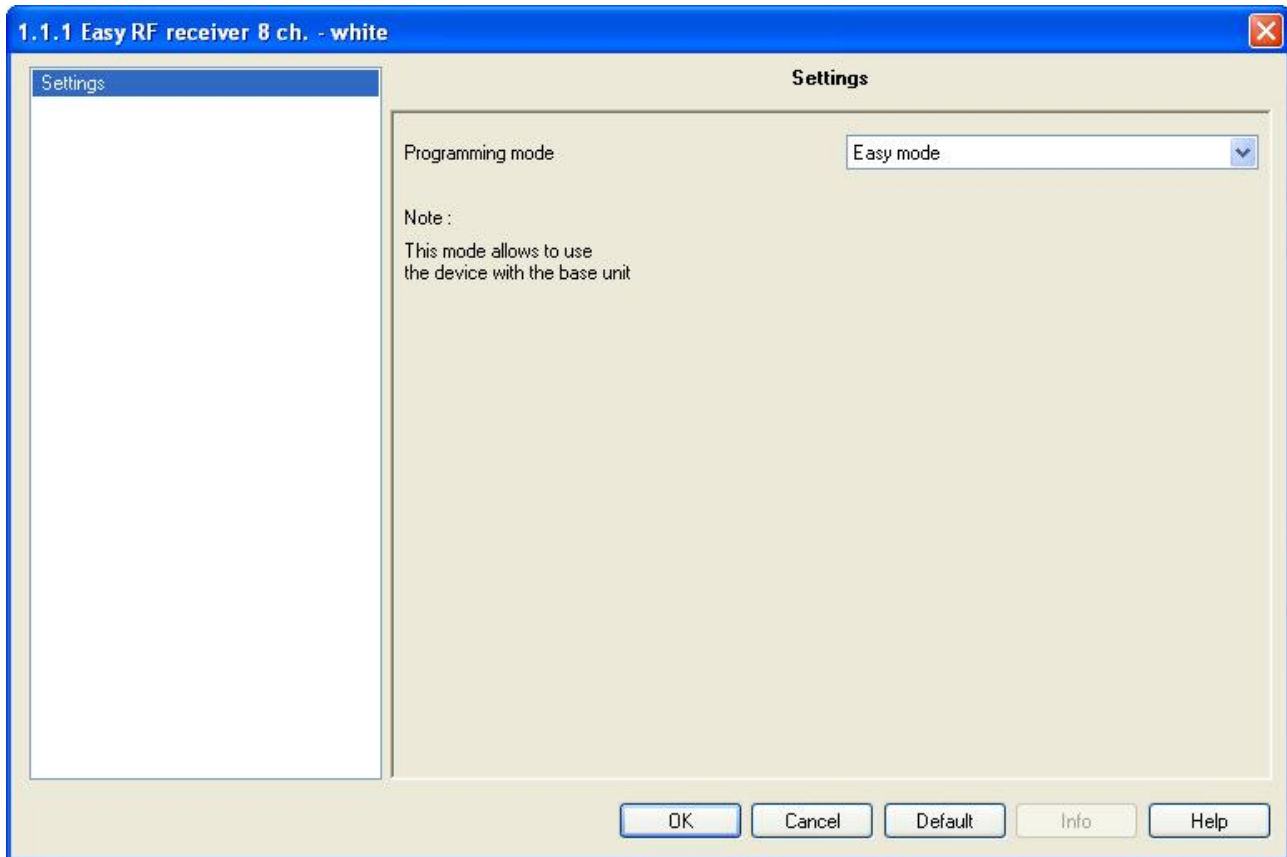
2.1 *Limits to the associations*

Maximum number of group addresses:	100
Maximum number of logical associations:	100

This means that it could be possible to define maximum 100 group addresses and realize maximum 100 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) 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.

3.2 Communication objects

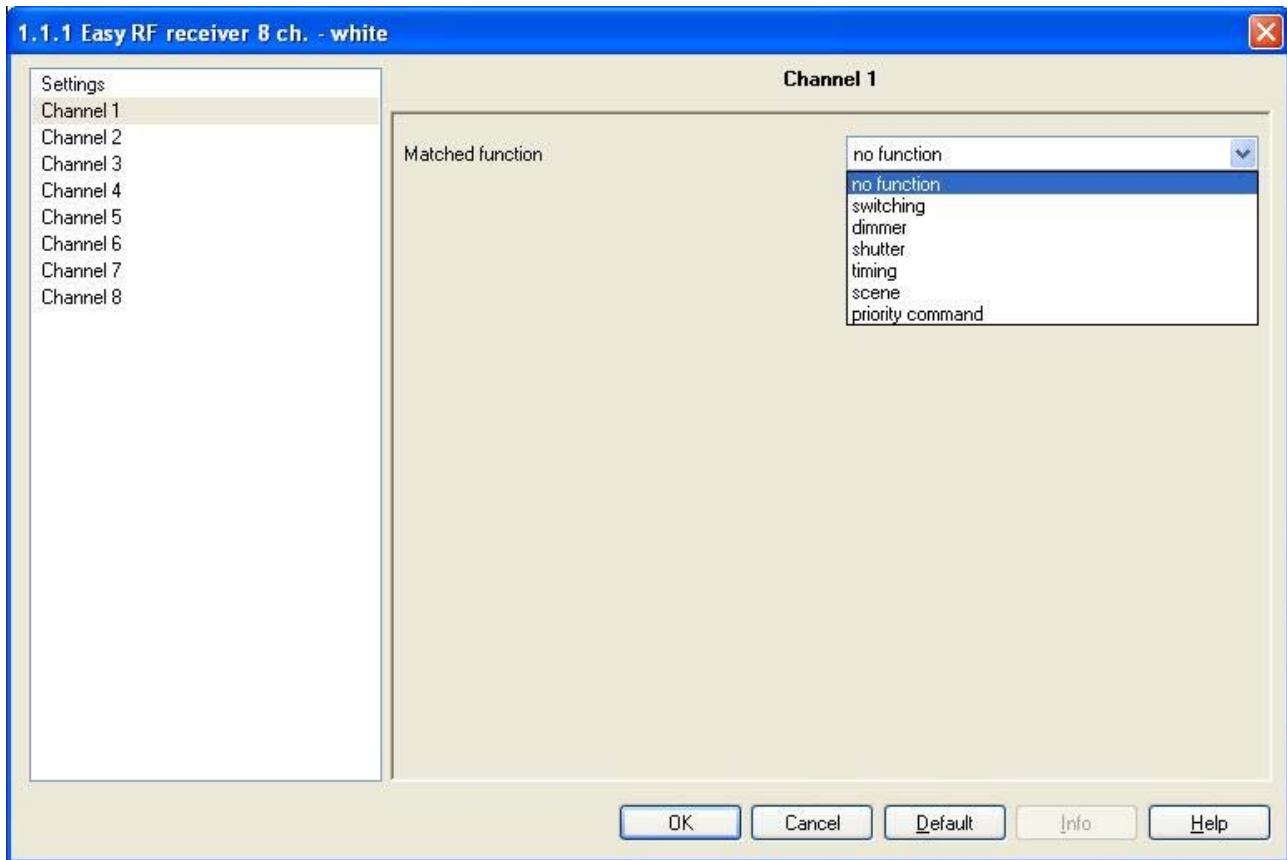
There are no communication objects enabled by the **Settings** menu.

For the sake of simplicity, the **Channel 1**, **Channel 2**, **Channel 3**, **Channel 4**, **Channel 5**, **Channel 6**, **Channel 7** and **Channel 8** 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, 4, 5, 6, 7 and 8 (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.

- ***switching***

See chapter 5 - “***Switching***” function

- ***dimmer***

See chapter 6 - “***Dimmer***” function

- ***shutter***

See chapter 7 - “***Shutter***” function

- ***timing***

See chapter 8 - “***Timing***” function

- ***scene***

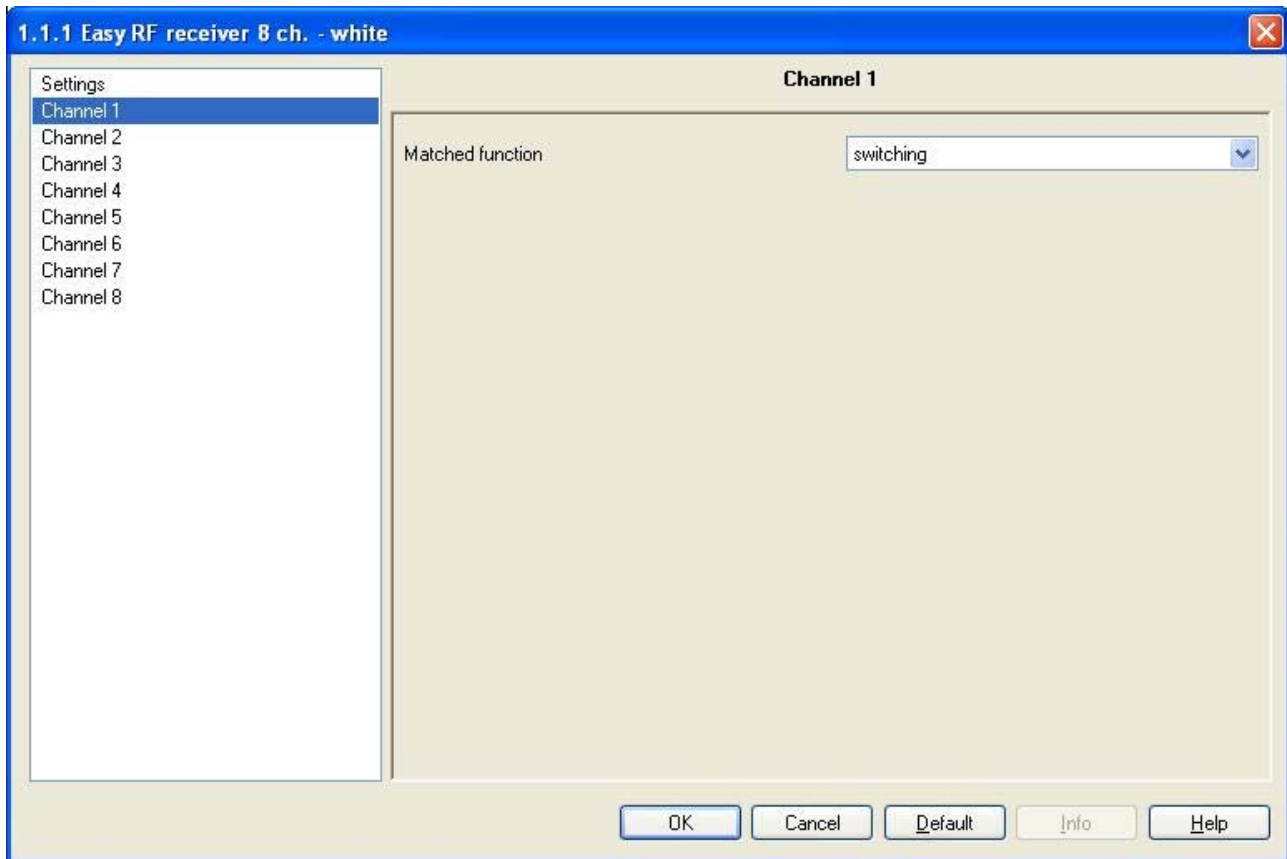
See chapter 9 - “***Scene***” function

- **priority command**
See chapter 10 - “**Priority command**” function

5 “Switching” function

This function allows you to enable the general channel x to send on/off commands to the actuators that control the loads.

The **Channel x** menu can be seen in Diag.5.1 below.



Diag. 5.1

5.1 Parameters

There are no parameters to be configured for this function.

5.2 Communication objects

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

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	-	-	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

Using these communication objects, the device sends ON/OFF commands to the bus after receiving load activation/deactivation commands from the RF control devices associated to the general channel x.

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 sends 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 when the RF control device associated to the general channel x is a 2 RF channel input module configured for cycle switching.

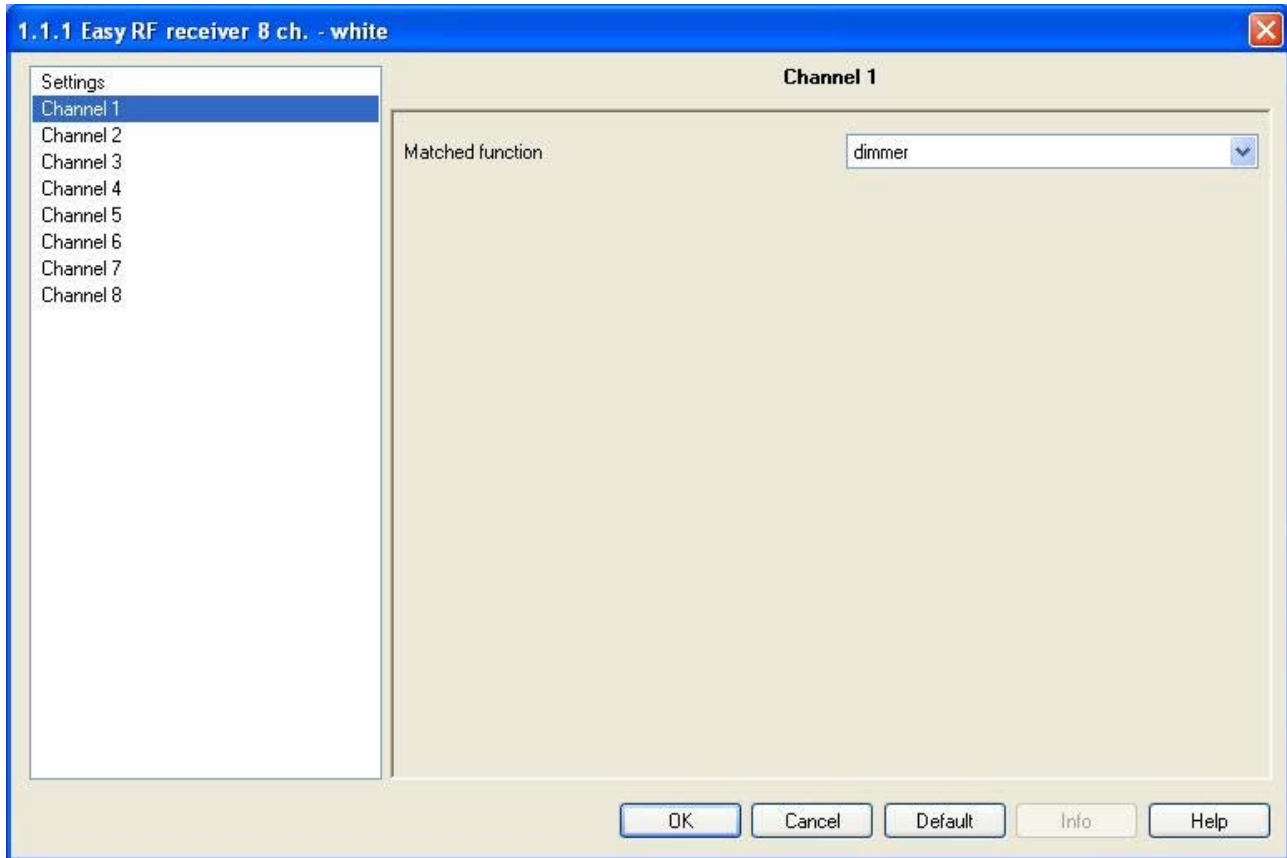
The enabled flags are C (communication), W (written by bus).

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 "Dimmer" function

Here it is possible to configure the channel to control a dimmer actuator, sending ON/OFF telegrams and brightness dimming telegrams.

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 *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
1	Ch.1 - Switch	On/Off	1 bit	C	R	-	T	-	1 bit DPT_Switch	Low
4	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 according to the command received from the RF control devices associated to the general channel x.

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 command it sends is *On/Off*.

➤ 6.2.2 Ch.x - Brightness dimming

Using this communication object, the device sends brightness increase/decrease commands to the bus according to the command received from the RF control devices associated to the general channel x.

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, according to the RF control received, "increase to 100%" (decrease to 0%)" of the brightness value commands and stop control commands are sent. This allows for a faster or slower dimmer action according to the manufacturing features on the controlled device.

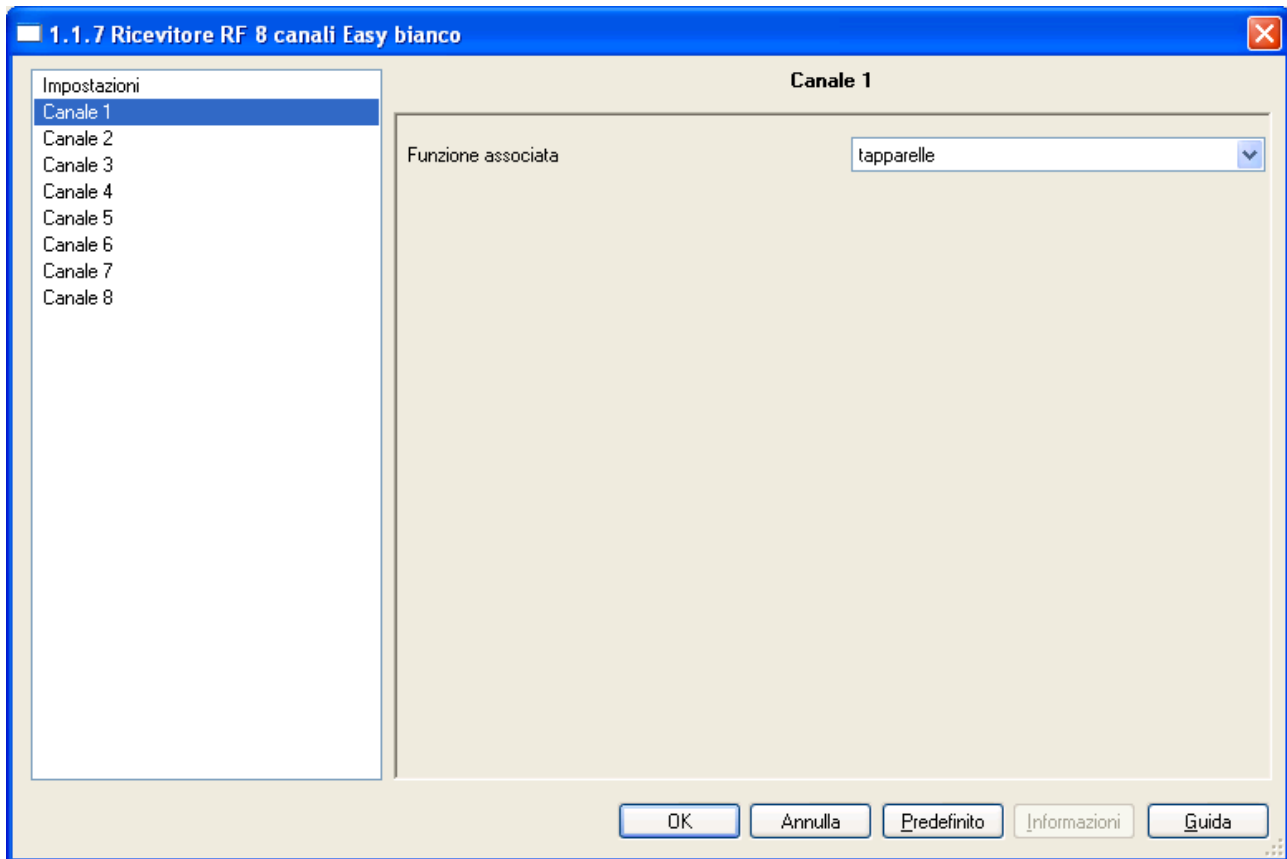
The enabled flags are C (communication), R (read by bus) and T (transmission) .

The standard format of the object is *3.007 DPT_Control_Dimming*, the size of the object is *4 bit* and the command it sends is *increase/decrease by the set percentage value*.

7 "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.

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 **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
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 these communication objects, the device sends UP/DOWN movement commands to the bus according to the command received from the RF control devices associated to the general channel x. 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 command it sends is *Up/Down movement*.

➤ 7.2.2 Ch.x - Shutter stop/Louvres step

Using this communication object, the device sends louvres open/close control commands to the bus according to the command received from the RF control devices associated to the general channel x. If the shutter is moving, this command will stop the Up/Down movement of the shutter; the shutter must be at a standstill in order to control the louvres.

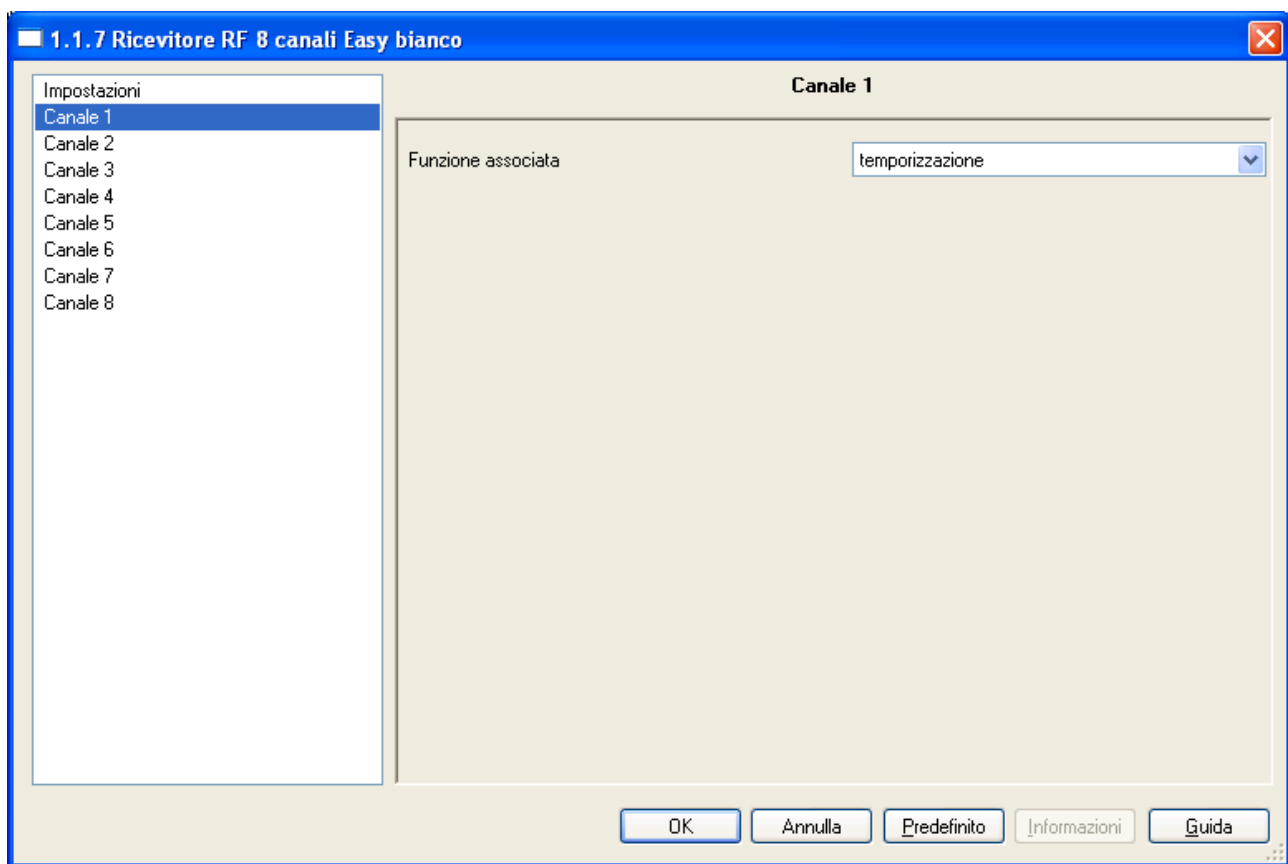
The enabled flags are C (communication), R (read by bus) and T (transmission) .

The standard format of the object is *1.007 DPT_Step*, the size of the object is *1 bit* and the command it sends is *open/close control or stop movement*.

8 “Timing” function

Here it is possible to configure the channel to manage the timed activation of a switch actuator (ex. staircase light function).

The **Channel x** menu can be seen in Diag. 8.1.



Diag. 8.1

8.1 Parameters

There are no parameters to be configured for this function.

8.2 Communication objects

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

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority
1	Ch.1 - Timed switch	Timing enabling	1 bit	C	R	-	T	-	1 bit DPT_Start	Low

Diag. 8.2

➤ 8.2.1 Ch.x - Timed switch

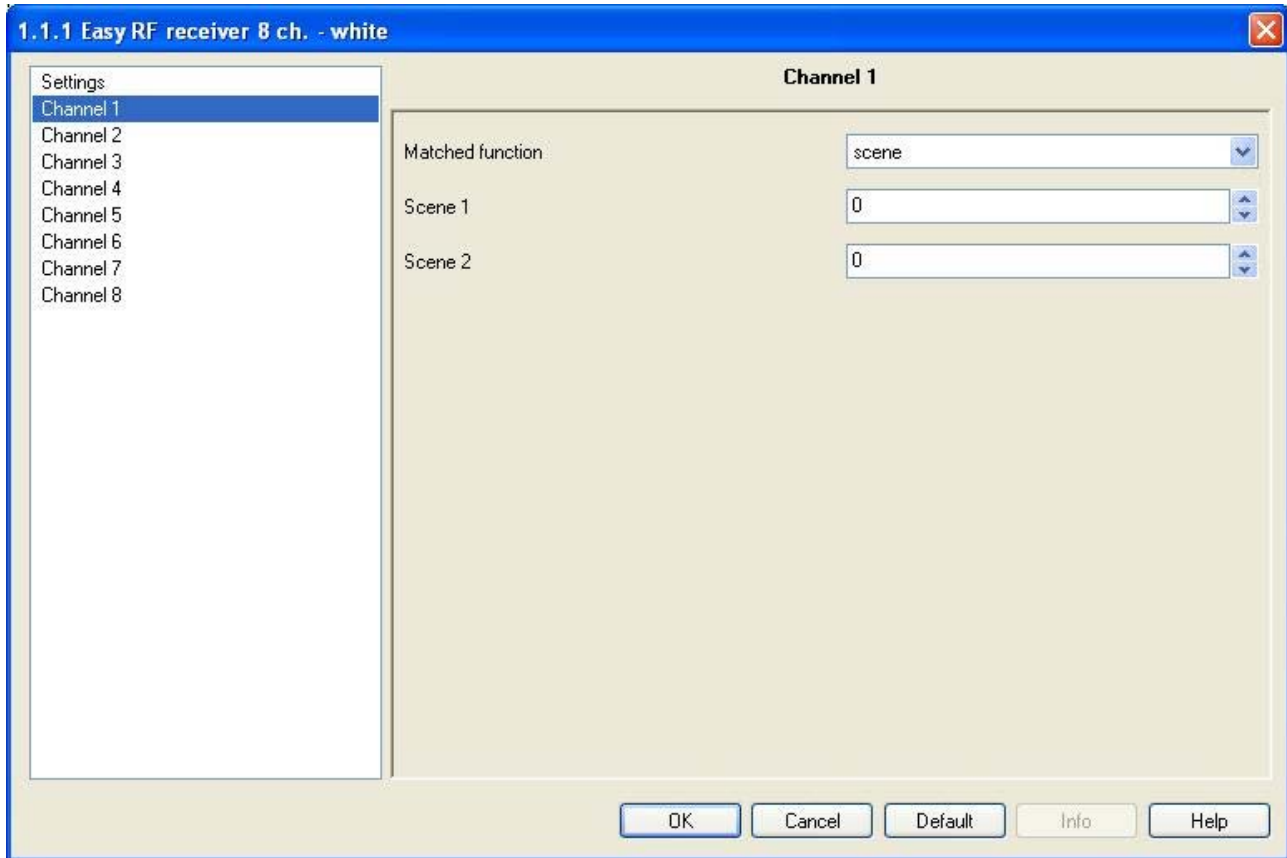
Using this communication object, the device sends START temporization commands to the bus according to the command received from the RF control devices associated to the general channel x. The enabled flags are C (communication), R (read by bus) and T (transmission).

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*.

9 “Scene” function

Here it is possible to configure the channel to send learn and execute scene commands. Two scenes can be managed per channel.

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



Diag. 9.1

9.1 Parameters

➤ 9.1.1 Scene 1

Here you can set the value for scene 1 that is to be enabled/disabled after receiving a command from the RF devices associated to the general channel x; the settings range from 0 to 7.

The value set for this option 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 scene 1 on the general channel x to which it refers.

➤ 9.1.1 Scene 2

Here you can set the value for scene 2 that is to be enabled/disabled after receiving a command from the RF devices associated to the general channel x; the settings range from 0 to 7.

The value set for this option 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 scene 2 on the general channel x to which it refers.

9.2 Communication objects

The **Scene** function makes the following communication object visible (See Diag. 9.2.):

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. 9.2

➤ 9.2.1 Ch.x - Scene

Using this communication object, the device sends execute/store scene 1 or scene 2 commands after receiving execute/store scene 1 or scene 2 commands from the RF control devices associated to the general channel x.

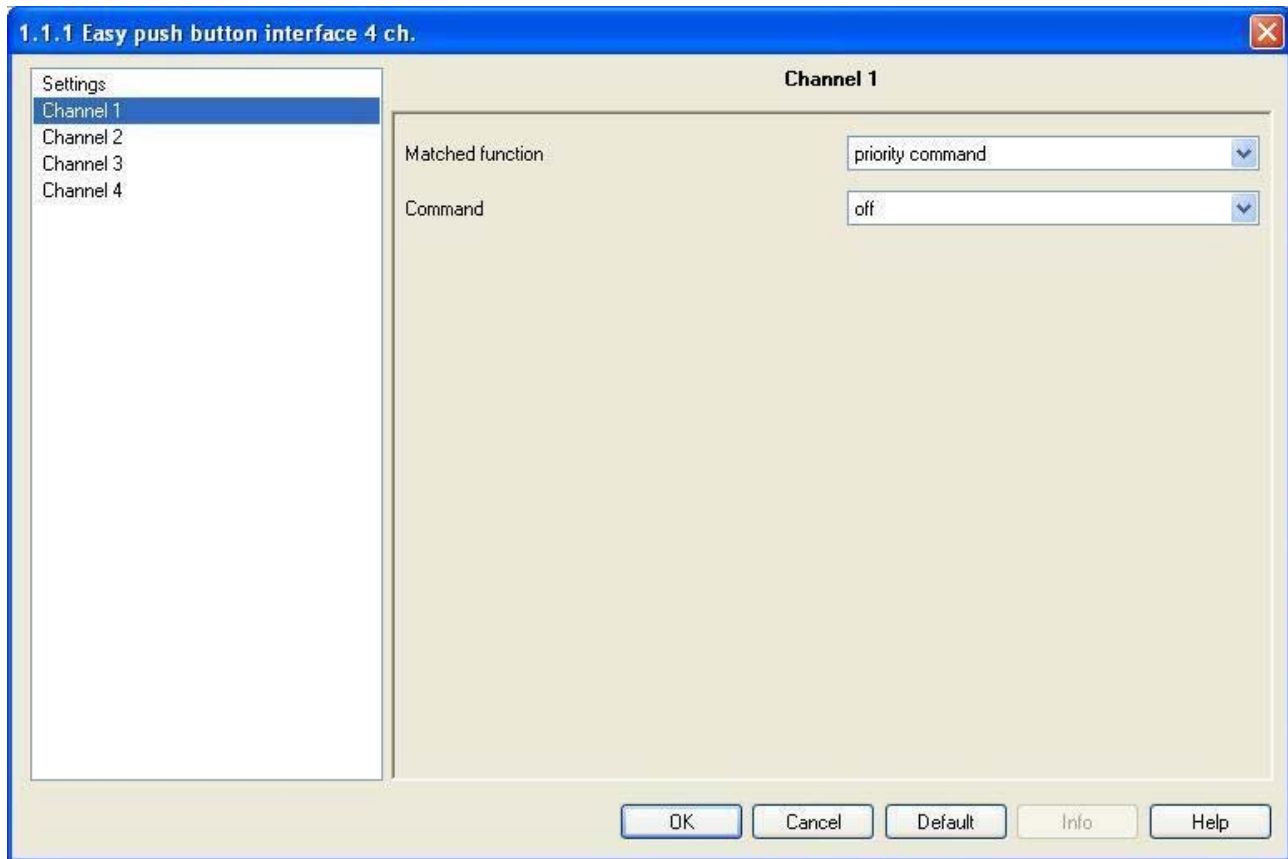
The enabled flags are C (communication), R (read by bus) and T (transmission) .

The standard format of the object is *18.001 DPT_SceneControl*, the size of the object is *1 byte* and the commands it sends are *execute/store scene (1 or 2)*.

10 “Priority command” function

Here it is possible to configure the channel to send enable and disable forced positioning commands. It is also possible to configure the value of an enable forced positioning command between ON(DOWN) and OFF(UP).

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



Diag. 10.1

10.1 Parameters

➤ 10.1.1 Command

Here it is possible to set the value of the enable forced positioning command you intend to send;
The settings are:

- **on**

When an enable forced positioning command is received from the RF devices associated to the general channel x, the device will send an enable forced positioning ON (DOWN) command to the bus with a “1” logic value through the **Ch.x – Priority command** communication object.

- **off**

When an enable forced positioning command is received from the RF devices associated to the general channel x, the device will send an enable forced positioning OFF (UP) command to the bus with a “0” logic value through the **Ch.x – Priority command** communication object.

10.2 Communication objects

The **Priority command** function makes the following communication object visible (See Diag. 10.2.):

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority
3	Ch.1 - Priority command	On/Off forced positioning	2 bit	C	R	-	T	-	1 bit controlled DPT_Switch_Control	Low

Diag. 10.2

➤ 10.2.1 Ch.x – Priority command

Using this communication object, the device sends ENABLE/DISABLE forced positioning commands after receiving ENABLE/DISABLE forced positioning commands from the RF control devices associated to the general channel x, according to the values set under the **Channel x** menu option associated to the **priority command** function.

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

The standard format of the object is *2.001 DPT_Switch_Control*, the size of the object is *2 bit* and the commands it sends is *forced positioning enabled on/off, forced positioning disabled*

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