



# 1 channel 16A actuator





GW 10 796 GW 12 796 GW 14 796

# **Technical Manual**

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# **1** Introduction

This manual describes the functions of the device named GW1x796 "1 channel 16A actuator" and how to use the ETS configuration software to change the settings and configurations.

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# 2 Application

The GW 1x796 actuator is used to activate/deactivate an electric load using a 16 A relay. The device has 1 channel with an output that has a changeover contact to which two terminals are connected, one with a normally open (NO) contact function and the other with a normally closed (NC) functions to which it is possible to connect the load according to requirements. The device is fitted with 1 front button to control the relay that commands the load, 1 green LED that indicates the output status (NO contact closed and NC contact open) and 1 amber LED for night lighting of the front button. On the back of the device there is a button and red physical address programming LED.

The device must be configured using the ETS software to perform the functions listed below:

- Switching ON/OFF
- Delay on activation/deactivation
- Delay on activation/functioning of stairway lights
- Flashing

# 2.1 Limits to the associations

The maximum number of logical associations that the device is able to memorize is 115; this means that the maximum number of logical connections between communication objects and group addresses is 115. The maximum number of group addresses that the device is able to memorize is 115; this means that it is possible to associate the communication objects to a maximum of 115 group addresses.

# 2.2 Block diagrams

The status of the actuator relay depends on the communication objects that are activated. For all the foreseen Operating modes, the Block object has maximum priority. These are, in order of priority, the Priority Command object, the Safety object, and finally the Switching, Scene, Logical 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 bus voltage drop
	Block object
	Priority command object
	Security Object
	Relay status on voltage recovery
Minimum	Switching/Scene/Logical object

# 3 "Main" 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).

1.1.1 Switch actuator 1 ch.	16A - white									
Main		Main								
Forced positioning Safety Logic Scenes	Operating mode Mode activation value	switching ON/OFF								
	Status feedback sending Local pushbutton behaviour Night lighting	cyclical switching (On/Off)								
	Relay status on bus voltage drop	open (with NO) / closed (with NC)								
	Relay status on bus voltage recovery	open (with NU) / closed (with NL)								
	ОК	Cancel Default Info Help								

Diag. 3.1

## 3.1 Parameters

## > 3.1.1 Operating mode

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

#### • switching ON/OFF

This activates/deactivates the load according to the commands received from the bus.

#### delay on activation / deactivation

This further implements the above item, as it allows you to activate/deactivate the load and set a delay time between the reception of the activate/deactivate load command received from the bus and the actual moment that the relay switches. There are two independent delay times, one determines the delay between the activate load command and the switching, and the other determines the delay between the deactivate load command and the actual switching.

If this function is selected , a new menu entitled *Delay* will appear where it is possible to enter the delay times.

#### delay on activation / stairs light function

This allows a timed activate load command, that is after the device receives the "activate load" command it will instantly perform the switching and, after a specific time that can be entered in the settings, the device then automatically deactivates the same load; it is also possible to configure the device so that it can receive a "stop timer" command that stops the timer and deactivates the load. There is also the

possibility to set a delay between the activate load command received from the bus and the actual moment the relay switches.

Chorus

When this function is selected, two new menus appear in the menu list: A **Delay** menu where you can enter the activate load delay settings and a **Stairs light** menu where you can enter the settings for this function.

#### • flashing

This allows you to activate/deactivate the load in cycles, that is after the device receives the "enable" flashing mode command from the bus, it will activate the load for the specific set time after which it will automatically deactivate the same load for another specific set time; this operation works in cycles and therefore produces a "flashing" effect on the load. When the device receives a "deactivate" flashing mode, it terminates the "flashing" function and the relay remains in the status it was when the command was received.

If this function is selected , a new menu entitled *Flashing* will appear where it is possible to enter the time for which the load remains activated, and the time for which is remains deactivated.

#### > 3.1.2 Mode activation value

This determines the "logic value" of the telegram received from the bus that activates the function indicated in the *Operating mode*; the settings are:

#### • "0" value

When the device receives a telegram from the bus with a "0" logic value, it sets the operating mode:

 If the operating mode is Switching ON/OFF, when the device receives the above value it switches the relay (close NO contact / open NC contact); vice versa when it receives a "1" logic value, the device switches the contact back to normal conditions (open NO contact / close NC contact). See diag. 3.2.





If the operating mode is delay on activation / deactivation, when the device receives the above value, after the delay time indicated in the settings, it switches the relay (close NO contact / open NC contact); vice versa when it receives a "1" logic value, the device switches the contact back to normal conditions (open NO contact / close NC contact). See diag. 3.3.





- if the operating mode is delay on activation / stairs light function, when the device receives the above value, after the delay time indicated in the settings, it switches the relay (close NO contact / open NC contact) and at the end of the stairs light time setting, it automatically switches the contact back to normal conditions (open NO contact / close NC contact); when it receives a "1" logic value, if the function is activated, the device will stop the timer and switch the contact back to normal conditions (open NO contact). See diag. 3.4.



if the operating mode is set to **flashing**, when the device receives the above value it activates the "flashing" function alternating the contact switching phases according to the times in the settings; when it receives a "1" logic value, if the function is activated it deactivates the "flashing" function. See diag. 3.5.



Diag. 3.5

#### • "1" value

If this value is set, when the device receives a telegram from the bus where the bit carrying the information has a "1" logic value, it will set the operating mode.

The above described actions apply also in this case, the only difference being that they respond to the opposite logic values indicated above; please refer to this description where necessary.

#### 3.1.3 Status feedback sending

This allows you to set the conditions for sending the load activated/deactivated status information; the settings are:

#### off

The device never sends the telegram with the load activated/deactivated status information to the bus.

#### • active on change

Following a variation in the load status (change from contact closed to contact open and vice versa), the device sends the telegram with the load activated/deactivated status information to the bus.

#### • active on demand

Upon receiving a status read request from the bus, the device sends a response telegram to the applicant with the relative load activated/deactivated status information.

#### • active on change and on start-up

When the device is started-up (start/reinstatement of bus power) and following a variation in the load status (see **ON on variation**), it sends the telegram with the load activated/deactivated status information to the bus.

The load activated/deactivated status can be summarised as follows

If the operating mode is set to Switching ON/OFF, an ON load means that the changeover contact is not in its "normal" condition (NO contact closed / NC contact open); in this case the device will send a load activated status message with a logic value "1". Vice versa, a OFF load means that the changeover contact is in its "normal" condition (NO contact open / NC contact closed); in this case the device will send a load deactivated status message with a "0" logic value.



- If the operating mode is set to **Delay on activation/deactivation**, an ON load means that the changeover contact is not in its "normal" condition (NO contact closed / NC contact open); in this case the device will send information on the enabled operating mode with a "1" logic value. Vice versa, an OFF load means that the changeover contact is in its "normal" condition (NO contact open / NC contact closed); in this case the device will send a mode deactivated status message with a "0" logic value. The switching of the changeover contact may, if a delay time has been set, not occur immediately after receiving the bus command, so it is useful to remember that the status information will only be sent after the contact has actually been switched.
- if the Operating mode is set to **Delay on activation/stairs light function**, an ON load means the condition to which the relay switches (NO contact closed / NC contact open) after any activate delay time set; in this case the device will send the load activated information with a "1" logic value. Vice versa, a OFF load refers to the condition where, at the end of the set stairs light time, the device automatically sets the changeover contact to its "normal" condition (NO contact open / NC contact closed); in this case the device will send a load deactivated status message with a logic value "0".
- If the operating mode is set to **flashing**, an ON load means that the changeover contact is not in its "normal" condition (NO contact closed / NC contact open); in this case the device will send a load activated status message with a "1" logic value. Vice versa, an OFF load means that the changeover contact is in its "normal" condition (NO contact open / NC contact closed); in this case the device will send a load deactivated status message with a "0" logic value. Given the alternation of the switching phase of the changeover contact, the status information will also continually change its value.

The value in the status information described above is valid in any case, even if the *Mode activation value* is set to *"0 value"*, as this latter item indicates the value of the telegram received by the bus that activates the actual function, whilst the status information indicates, as clearly illustrated above, the status of the changeover or load contact.

## > 3.1.4 Local pushbutton behaviour

This allows you to configure the functions on the front button; the settings are:

#### no effect

When the local button is pressed, this produces no effect on the device.

#### • cyclical switching (On/Off)

The front switch on the device switches the relay which controls the changeover contact, changing the load status every time it is pressed. Even if the device is in a specific condition after receiving a priority, block or safety command, when the local button is pressed this switches the relay and therefore changes the load status which had been previously set by one of the above listed commands; however, even if it is possible to use the local button to switch the relay the device remains in the condition set by the command it received from the bus (block, priority, safety command) it is therefore no longer possible to command it from the bus unless the "generated command is overridden (e.g. unblock command, forced positioning command disabled etc).

#### • as switching object (On/Off)

The front button on the device acts like the Switching communication object, sending cyclical commands (if the logic status is "1", it sends a "0" command and vice versa) as any other device connected to the actuator by bus telegrams does. If the device is in a specific condition after receiving a priority, block or safety command, when the local button is pressed this <u>DOES NOT</u> switch the relay because, as it acts like the **Switching** object, the command is ignored by the device until normal operating conditions have been reinstated.

#### • as switchng object (On only)

The front button on the device acts like the *Switching* communication object, sending ON commands (if the logic status is "1") as any other device connected to the actuator by bus telegrams does. In this case, if the device is in a specific condition after receiving a priority block or safety command, when the local button is pressed this <u>DOES NOT</u> switch the relay because, as it acts like the *Switching* object, the ON command is ignored by the device until normal operating conditions have been reinstated.

#### • as switchng object (Off only)

The front button on the device acts like the **Switching** communication object, sending OFF commands (if the logic status is "0") as any other device connected to the actuator by bus telegrams does. In this case, if the device is in a specific condition after receiving a priority block or safety command, when the

local button is pressed this <u>DOES NOT</u> switch the relay because, as it acts like the **Switching** object, the OFF command is ignored by the device until normal operating conditions have been reinstated.

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## > 3.1.5 Night lighting

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

#### deactivated

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

#### active

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

### > 3.1.6 Relay status on bus voltage drop

This is used to set the status of the changeover contact when the bus power is lost (29 V SELV); the settings are:

#### • open (with NO) / closed (with NC)

This determines the "normal" condition of the changeover contact (NO contact open / NC contact closed) when there is a loss of power supply to the bus. With this setting whatever condition the device is in (normal mode, block activated, safety activated, priority command enabled) before the bus loses power, following a loss of power it moves to the (open (with NO) / closed (with NC) status, ignoring the status of the load set by the conditions listed above.

#### • closed (with NO) / open (with NC)

This determines the "switched" condition of the changeover contact (NO contact closed / NC contact open) when there is a loss of power supply to the bus. With this setting whatever condition the device is in (normal mode, block activated, safety activated, priority command enabled) before the bus loses power, following a loss of power it moves to the (closed (with NO) / open (with NC) status, ignoring the status of the load set by the conditions listed above.

#### • as before voltage drop

The condition of the changeover contact when the bus loses power is determined by the condition the device is in (normal mode, block activated, safety activated, priority command activates) before the bus loses power.

#### 3.1.7 Relay status on voltage recovery

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

#### • open (with NO) / closed (with NC)

This determines the "normal" condition of the changeover contact (NO contact open / NC contact closed) when the power supply is reinstated to the bus. With this setting whatever condition the changeover contact is in before the bus loses power, when it is reinstated it will move to (open (with NO) / closed (with NC) status.

#### • closed (with NO) / open (with NC)

This determines the "switched" condition of the changeover contact (NO contact closed / NC contact open) when the power supply is reinstated to the bus. With this setting whatever condition the changeover contact is in before the bus loses power, when it is reinstated it will move to (closed (with NO) / open (with NC) status.

#### • as before voltage drop

The condition of the changeover contact when the bus loses power is determined by the condition the device is in before the bus loses power.

If the device is in a "closed (with NO) / open (with NC)" status determined by a bus command received by the *Switching* communication object, and under the *Relay status on bus voltage drop* is set to "open (with NO) / closed (with NC)", when power is reinstated to the bus, it will return to the "closed

(with NO) / open (with NC)" condition as dictated by the command received previously from the bus and it does not remain in the condition determined by the loss of power to the bus.

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# 3.2 Communication objects

The communication objects, whose visibility depends on the settings in the items of the *Main* menu, are the 2 indicated in Diag. 3.6.

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority
u≓o	Status	On/Off status	1 bit	С	R	(4)	Т	( <del>)</del>	1 bit DPT_Switch	Low
□↓1	Switching	On/Off	1 bit	С	-	W	823	8 <del>1</del>	1 bit DPT_Switch	Low

Diag. 3.6

## > 3.2.1 Status

Using this communication object, the device communicates the activated/deactivated status of the connected load according to the settings under the *Status feedback sending* option (see paragraph *3.1.3*).

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

The standard format of the object is 1.001 DPT\_Switch, so the size of the object is 1 bit and the information it contains is ON/OFF.

## > 3.2.2 Switching

This is to activate/deactivate the function in the **Operating mode** option in the **Main** menu. When the device receives a telegram on this communication object, according to the command received, it will switch the changeover contact following the configured settings and, through the **Status** object, it will send the load activated/deactivated status information.

To explain the concept of activation/deactivation of the set function, if the device has been configured as *Operating mode*  $\rightarrow$  *Switching*, when the device receives an "activation mode" telegram, the changeover contact is immediately switched; on receiving a "deactivation mode" telegram, it returns to its normal condition. If the device has been configured as *Operating mode*  $\rightarrow$  *flashing* when it receives an "activation mode" telegram the device will start the flashing phase, according to the times set and when it receives a "deactivation mode" telegram it will terminate the flashing.

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

The standard format of the object is 1.001 DPT\_Switch, so the size of the object is 1 bit and the commands it interprets are the ON/OFF type.

# 4 "Delay" Menu

The **Delay** menu lists all the parameters needed to configure the delay times for the configured operating modes. This menu is displayed when the operating mode is *delay on activation /deactivation* (see diag. 4.1) or *delay on activation / function of stairs light* (see diag. 4.2); this menu differs according to which of the two different modes are set.

1.1.1 Switch actuator 1 ch.	16A - white									
Main	Delay									
Block Forced positioning Safety Logic Scenes	Delay on activation function Delay on activation [hours] Delay on activation [minutes] Delay on activation [seconds] Resettable delay on activation Delay function on deactivation Delay on deactivation [hours] Delay on deactivation [minutes] Delay on deactivation [seconds] Resettable delay on deactivation	active005noactive0055no								
	ок (	Cancel Default In	fo <u>H</u> elp							

Diag. 4.1

1.1.1 Switch actuator 1 ch.	. 16A - white								
Main	Delay								
Delay Stairs light Block Forced positioning Safety Logic Scenes	Delay on activation function   Delay on activation [hours]   Delay on activation [minutes]   Delay on activation [seconds]   Resettable delay on activation	active 0 0 5 no							
	ОК	Cancel Default	Info Help						

Diag. 4.2

## 4.1 Parameters

This chapter describes the parameters and the communication objects of the delay menu relative to the two modes, differentiating the two menus only concerning the deactivate delay function

## > 4.1.1 Delay on activation function

Here it is possible to set the parameters relative to the delay before activation and view the further options *Delay on activation [hours]*, *Delay on activation [minutes]*, *Delay on activation [seconds]* and *Resettable delay on activation* in the *Delay* menu. The settings are:

#### • deactivated

This disables the delay on activation function so the receipt of an operating mode activation command from the bus, the changeover contact will be commanded without any delay between receiving the bus command and the execution of the same command.

The options **Delay on activation [hours]**, **Delay on activation [minutes]**, **Delay on activation [seconds]** and **Resettable delay on activation** are not visible.

#### • active

This enables the delay on activation function so the receipt of an operating mode activation command from the bus, the changeover contact will not be commanded immediately and there will be a delay between receiving the bus command and the execution of the same command.

The options **Delay on activation [hours]**, **Delay on activation [minutes]**, **Delay on activation [seconds]** and **Resettable delay on activation** are visible.

## 4.1.2 Delay on activation [hours]

Here you can set the first of the three values (hours) for the activation delay time (hours, minutes, seconds); the values range from 0 (hours) to 24 (hours).

## 4.1.3 Delay on activation [minutes]

Here you can set the second of the three values (minutes) for the activation delay time (hours,minutes,seconds); the values range from 0 (minutes) to 59 (minutes).

## > 4.1.4 Delay on activation [seconds]

Here you can set the third of the three values (seconds) for the activation delay time (hours, minutes, seconds); the values range from 0 (seconds) to 59 (seconds).

### > 4.1.5 Resettable delay on activation

This allows you to enable the reset the activation delay time; the settings are:

#### • *no*

This disables the reset function for the activation delay time; if during the activation delay time the device receives an operating mode activation command, the delay time will continue to run and will not be reset.

## • yes

This enables the reset function for the activation delay time; if during the activation delay time the device receives an operating mode activation command, the delay time is reset and the load remains deactivated; in theory this can occur many times, as there is no limit to the number of reset commands.

#### > 4.1.6 Delay on deactivation function

Here it is possible to set the parameters relative to the delay before deactivation and view the further options **Delay on deactivation [hours]**, **Delay on deactivation [minutes]**, **Delay on deactivation [seconds]** and **Resettable delay on deactivation**. The settings are:

#### • deactivated

This disables the delay on deactivation function so in receiving an operating mode deactivation command from the bus, the changeover contact will be commanded without any delay between receiving the bus command and the execution of the same command. In this case, the options below **Delay on** activation [hours], **Delay on activation** [minutes], **Delay on activation** [seconds] and Resettable delay on activation are not visible.

#### active

This enables the delay on deactivation function so on receiving an operating mode deactivation command from the bus, the changeover contact will not be commanded immediately and there will be a delay between receiving the bus command and the execution of the same command. In this case, the options below **Delay on activation [hours]**, **Delay on activation [minutes]**, **Delay on activation [seconds]** and **Resettable delay on activation** are visible.

## > 4.1.7 Delay on deactivation [hours]

Here you can set the first of the three values (hours) for the deactivation delay time (hours, minutes, seconds); the values range from 0 (hours) to 24 (hours).

#### > 4.1.8 Delay on deactivation [minutes]

Here you can set the second of the three values (minutes) for the deactivation delay time (hours, minutes, seconds); the values range from 0 (minutes) to 59 (minutes).

## > 4.1.9 Delay on deactivation [seconds]

Here you can set the third of the three values (seconds) for the deactivation delay time (hours, minutes, seconds); the values range from 0 (seconds) to 59 (seconds).

## > 4.1.10 Resettable delay on deactivation

This allows you to enable the reset of the deactivation delay time; the settings are:

#### • *no*

This disables the reset function for the deactivation delay time; if during the deactivation delay time the device receives an operating mode deactivation command, the delay time will continue to run and will not be reset.

#### • yes

This enables the reset function for the deactivation delay time; if during the deactivation delay time the device receives an operating mode deactivation command, the delay time is reset and the load remains activated; in theory this can occur many times, as there is no limit to the number of reset commands.

# 4.2 Communication objects

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

# 5 "Stairs light" Menu

The	Stairs	light	menu	lists	all t	the	parameters	needed	to	configure	the	stairs	light	operating	modes	(see
Diag	. 5.1).															

1.1.1 Switch actuator 1 ch.	16A - white	
Main Delav		Stairs light
Delay Stairs light Block Forced positioning Safety Logic Scenes	Stairs light timing [hours]   Stairs light timing [minutes]   Stairs light timing [seconds]   Timing stop function   Warning function   Warning time   Load deactivation time [ms]   Activation command during timing   Multiplicative factor maximum value   Timing setting via bus	0 0 5 5 deactivated active 15 sec 500 extension (multiply by factor) 2 deactivated v
		Cancel Default Info Help

Diag. 5.1

## 5.1 Parameters

## > 5.1.1 Stairs light timing [hours]

Here you can set the first of the three values (hours) for the activation delay time for the stairs light (hours, minutes, seconds) that is the mode activation time; the values range from 0 (hours) to 24 (hours).

## > 5.1.2 Stairs light timing [minutes]

Here you can set the second of the three values (minutes) for the activation delay time for the stairs light (hours,minutes,seconds) that is the mode activation time; the values range from 0 (minutes) to 59 (minutes).

## 5.1.3 Stairs light timing [seconds]

Here you can set the third of the three values (seconds) for the activation delay time for the stairs light (hours,minutes,seconds) that is the mode activation time; the values range from 0 (seconds) to 59 (seconds).

## ➤ 5.1.4 Timing stop function

This allows you to set the behaviour of the device when it receives a deactivation mode command; the settings are:

#### • deactivated

On receiving a deactivation mode bus command, the device ignores the command and continues the timing phase; the load is deactivated at the end of the set time and it is not possible to deactivate it using a bus command.

#### active

On receiving a deactivation mode bus command, the device immediately executes the command after the timing phase and deactivates the load; the load is deactivated at the end of the set time and also by bus command.

### > 5.1.5 Warning function

This enables the function signalling that the stairs light function is about to terminate, deactivating and reactivating the load very briefly; the settings are:

#### deactivated

The device will not give warning that the stairs light time is about to terminate; The options *Warning time* and *Load deactivation time [ms]* are not visible.

#### active

When the set stairs light time (*Warning time*) is about to terminate, the device will "flash" the load (short deactivation of the load for a time set under *Load deactivation time [ms]*) to warn the imminent termination of the stairs light time.

The options *Warning time* and *Load deactivation time [ms]* are visible.

### > 5.1.6 Warning time

Here you can set the warning time before the deactivation of the stairs light function, upon which the device will consequently signal the imminent termination of the stairs light function; the values are 15 - 30 - 60 seconds.

## 5.1.7 Load deactivation time [ms]

Here you can set the length of time that the load remains deactivated during the warning function; the values range from 500 (milliseconds) to 1500 (milliseconds).

## > 5.1.8 Activation command during timing

This allows you to set the behaviour of the device when it receives an activation mode command whilst the same function is already activated (timing in progress); the settings are:

#### no effect

On receiving the command the device ignores it and continues with the current timing phase.

#### reset

On receiving the command the device resets the stairs light time.

#### • extension (multiply by factor)

On receiving the command the device extends the stairs light time, increasing it by the time of the standard stairs light time.

On the contrary to the reset option, the **extension** option does not reset the timing but it changes its duration and becomes a multiple of the set stairs light time; only when this option is flagged you can view the **Multiplicative factor maximum value** setting (see Diag. 5.2).



### > 5.1.9 Multiplicative factor maximum value

Here you can set the maximum factor for the stairs light time, and consequently the number of bus commands received during the timing which are recognised by the device as an extension command of the stairs light time. For instance, if you select '2', the stairs light time can be extended once, therefore doubling the time and only one bus command will be recognised by the device during the timing. The values range from 1 to 5.

#### > 5.1.10 Timing setting via bus

This allows you to enable the stairs light time setting using a bus command; the settings are:

#### deactivated

It is not possible to set the stairs light time using a bus command; the stairs light time remains the one entered using the ETS configuration setting.

#### active

It is possible to set the stairs light time using a bus command; the communication object *Activation time* is enabled to receive the stairs light time sent by the bus.

## 5.2 Communication objects

The *Timing setting via bus* in the *Stairs light* menu, if enabled, makes the communication object visible, as seen in Diag. 5.3.

Number	Name	Object Function	Length	C	R	₩	Т	U	Data Type	Priority
□【10	Activation time	Timing	2 Byte	C	10	W	225	32	2 byte float value DPT_Value_Time1	Low



#### 5.2.1 Activation time

Using this communication object the device is able to receive the stairs light time value from the bus, expressed in seconds and coded to KONNEX standards; when the device receives a new value on this communication object, this becomes the new stairs light time, overwriting the old value which will consequently be cancelled; if the new value is received whilst the timing is in progress, it will become effective the next time the timing is activated.

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

The standard format of the object is 9.010 DPT\_Value\_Time1, so the size of the object is 2 byte.

# 6 *"Flashing*" Menu

The	Flashing	menu	lists	all the	parameters	needed	to co	onfigure	the	flashing	operating	modes	(see Diag.
6.1).													

1ain	Flashing									
lashing										
lock forced positioning	Flashing start value	active	~							
afety										
ogic	Activation time [min]	U	•							
cenes	Activation time [sec]	5	\$							
	Deactivation time [min]	0								
			v							
	Deactivation time [sec]	5	*							

Diag. 6.1

## 6.1 Parameters

## ➢ 6.1.1 Flashing start value

This allows you to activate the flashing each time the bus power is reinstated; the settings are:

#### • deactivated

Each time the bus power is reinstated (29 Volt SELV) the device, on completing the initialisation phase, behaves according to the *Relay status on bus voltage recovery* in the *Main* menu, and will not start flashing.

#### • active

Each time the bus power is reinstated (29 Volt SELV) the device, on completing the initialisation phase, will start the flashing phase, ignoring the behaviour settings configured for the **Relay status on bus voltage recovery** in the **Main** menu.

## ➢ 6.1.2 Activation time [min]

Here you can set the first of the two values (minutes) for the time that the load remains activated (format: minutes, seconds); the settings range from 0 (minutes) to 59 (minutes).

## 6.1.3 Activation time [sec]

Here you can set the second of the two values (seconds) for the time that the load remains activated (format: minutes, seconds); the settings range from 0 (seconds) to 59 (seconds).

Chorus

## ➢ 6.1.4 Deactivation time [min]

Here you can set the first of the two values (minutes) for the time that the load remains deactivated (format: minutes, seconds); the settings range from 0 (minutes) to 59 (minutes).

## > 6.1.5 Deactivation time [sec]

Here you can set the second of the two values (seconds) for the time that the load remains deactivated (format: minutes, seconds); the settings range from 0 (seconds) to 59 (seconds).

# 6.2 Communication objects

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

# 7 *"Block"* menu

The *Block* menu lists all the parameters needed to configure the block functions used by the device (see Diag. 7.1).

1.1.1 Switch actuator 1 ch.	16A - white								
Main Delay	Block								
Block Forced positioning Safety Logic Scenes	Block function Block activation value Block object start value Relay status on active block Relay status on block deactivation	active   "1" value   "0" value   open (with NO) / closed (with NC)   follows last received command							
	ОК	Cancel Default Info Help							

Diag. 7.1

# 7.1 Parameters

## > 7.1.1 Block function

This is to enable and configure the function and make the (*Block activation value, Block object start value, Relay status on active block, Relay status on block deactivation*) and the relative *Block* communication object.

The block function, according to the command received from the bus, blocks the device in a specific condition until a block deactivation command is received; any command received during the period in which the block is activated is ignored, because 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 block function is not enabled and consequently the various options and communication object are not visible.

#### active

The block function can be activated by the **Block** communication object and it is possible to activate it using a bus command; when it is activated, any commands received from the bus (enable mode, priority command, safety command) are ignored until the block deactivation command is received. In this section you can also view the other settings to configure the function.

## > 7.1.2 Block activation value

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

Chorus

#### • "0" value

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

#### • "1" value

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

#### > 7.1.3 Block object start value

This is used to set what logic value the *Block* communication object must assume each time the bus power is reinstated; the settings are:

#### • "0" value

Each time the bus power is reinstated (29 Volt SELV) the device, on completing the initialisation phase, sets the logic value on the **Block** communication object to "0"; if this is also the block activation value, once the bus power is reinstated the device is "blocked", if the block activation value is "1" the device will be "unblocked" and will behave according to the **Relay status on bus voltage recovery** in the **Main** menu.

#### • "1" value

Each time the bus power is reinstated (29 Volt SELV) the device, on completing the initialisation phase, sets the logic value on the **Block** communication object to "1"; if this is also the block activation value, once the bus power is reinstated the device is "blocked", if the block activation value is "0" the device will be "unblocked" and will behave according to the **Relay status on bus voltage recovery** in the **Main** menu.

#### > 7.1.4 Relay status on active block

This allows you to configure the changeover contact status when the block function is activated; the settings are:

#### • open (with NO) / closed (with NC)

When the block is activated the device sets a "normal" condition for the changeover contact (NO contact open / NC contact closed) regardless of the contact conditions before the block was activated.

#### • closed (with NO) / open (with NC)

When the block is activated the device sets a "switched" condition for the changeover contact (NO contact closed / NC contact open) regardless of the contact conditions before the block was activated.

#### > 7.1.5 Relay status on block deactivation

This allows you to configure the changeover contact status when the block function is deactivated; the settings are:

#### • follows last received command

When the block is deactivated the device sets the changeover contact according to the last command received from the bus when the block was activated; if it receives an enable mode command, a scene enable command, a priority command or a logic value change command, the last of these commands received during the time the block was activated will be performed as soon as the block is deactivated. If no command is received, the device will return to the conditions set before the block was activated (if the operating mode is *delay on activation/deactivation* or *delay on activation/stairs light function*, the conditions to which the device is reset depends on the activation/deactivation status of the timings as the block, if activated, does not terminate any timing in progress).



When the block is activated the changeover contact remains in the same condition it was when the block was activated, regardless of any commands received from the bus during the block activation period.

Chorus

#### • open (with NO) / closed (with NC)

When the block is deactivated the device sets a "normal" condition for the changeover contact (NO contact open / NC contact closed) regardless of the bus commands received when block was activated.

#### • closed (with NO) / open (with NC)

When the block is deactivated the device sets a "*switched*" condition for the changeover contact (NO contact closed / NC contact open) regardless of the bus commands received when block was activated.

## 7.2 Communication objects

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

Number	Name	Object Function	Length	С	R	W	Т	U	Data Type	Priority
■\$\$9	Block	Switching On/Off	1 bit	С	32	W	22	245	1 bit DPT_Enable	Low

Diag. 7.2

## > 7.2.1 Block

Using this communication object, the device is able to receive the block activation/deactivation 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.

# 8 *"Forced positioning"* menu

The *Forced positioning* menu lists all the parameters needed to configure the forced positioning mode functions used by the device (see Diag. 8.1).

1.1.1 Switch actuator 1 ch. 16A	white		<				
Main	Forced positioning						
Block Forced positioning	Forced positioning function	active					
Safety Logic Scenes	Relay status on forced positioning end	follows last received command					
	ОК	Cancel Default Info Help	)				

Diag. 8.1

## 8.1 Parameters

## > 8.1.1 Forced positioning function

This is to enable and configure the function and make the *Relay status at forced positioning end* and 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 a forced positioning deactivation command is received; any command received during the period (except a block activation command) in which the forced positioning is activated 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 block function is not enabled and consequently the various options and communication object are not visible.

#### active

The forced positioning function can be activated by the *Priority command* communication object and it is possible to activate it using a bus command; when it is activated, any commands received from the bus (enable mode, safety command) are ignored until the forced positioning deactivation command is received (except for the block command).

It is possible to force the changeover contact status according to the command received from the bus, which could be: changeover contact forced into *"normal"* condition (NO contact open / NC contact closed) or changeover contact forced into *"switched"* condition (NO contact closed / NC contact open).

Should the power to the bus be lost when the forced positioning is active, when the power is reinstated the device will memorise the fact that the forced positioning function was active before the loss of power and automatically reinstate the function, putting the changeover load in the condition set by the previous forced positioning command.

Chorus

Unlike the block function in which the changeover contact status is defined only in the configuration phase, the forced positioning function allows you to set the changeover contact status according to the command received.

The item below is also visible where it is possible to set the behaviour of the device at the end of a forced positioning.

#### > 8.1.2 Relay status on forced positioning end

This allows you to configure the changeover contact status when the forced positioning function is deactivated; the settings are:

#### • follows last received command

When the forced positioning is deactivated the device sets the changeover contact according to the last command received from the bus when the forced positioning was activated; if it receives an activation mode command, a scene enable command, a priority command or a logic value change command, the last of these commands received during the time the forced positioning was activated will be performed as soon as the forced positioning is deactivated. If no command is received, the device will return to the conditions set before the forced positioning was activated (if the operating mode is *delay on activation/deactivation* or *delay on activation/stairs light function*, the conditions to which the device is reset depends on the activation/deactivation status of the timings as the forced positioning, if activated, does not terminate any timing in progress).

#### • no change

When the forced positioning is activated the changeover contact remains in the same condition it was when the forced positioning was activated, regardless of any commands received from the bus during the forced positioning activation period.

#### • open (with NO) / closed (with NC)

When the forced positioning is deactivated the device sets a "normal" condition for the changeover contact (NO contact open / NC contact closed) regardless of the bus commands received when forced positioning was activated.

#### • closed (with NO) / open (with NC)

When the forced positioning is deactivated the device sets a "switched" condition for the changeover contact (NO contact closed / NC contact open) regardless of the bus commands received when forced positioning was activated.

## 8.2 Communication objects

The *Forced positioning function* in the *Forced positioning* menu, if enabled, makes the communication object visible, as seen in Diag. 8.2.

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority
<b>⊒</b> ‡2	Priority command	On/Off forced positioning	2 bit	C	8	W	9.72	370	1 bit controlled DPT_Switch_Control	Low

Diag. 8.2

## > 8.2.1 Priority command

Using this communication object, the device is able to receive the activate forced positioning ON, activate forced positioning OFF and deactivate forced positioning commands from the bus. 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 forced positioning enabled on/off, forced positioning disabled.

# 9 "Safety" Menu

The *Safety* menu lists all the parameters needed to configure the safety mode functions used by the device (see Diag. 9.1).

1.1.1 Switch actuator 1 ch. 16	6A - white						
Main		Safety					
Delay Block Forced positioning Safety Logic Scenes	Safety function Control method Relay status on safety Monitoring time [minutes] Monitoring time [seconds]	active periodic transmission absence open (with NO) / closed (with NC) 59 59 59					
	ОК С.	ancel Default Info Help					

Diag. 9.1

## 9.1 Parameters

## > 9.1.1 Safety function

This is to activate and configure the function and make the **Control method**, **Relay status on safety**, **Monitoring time [minutes]**, **Monitoring time [seconds]**) and relative **Safety** communication object visible.

The safety function allows the device to function in normal operating mode until specific and settable conditions occur (see paragraphs below), at this point the device forces the status in a specific condition; to deactivate the safety function the normal operating conditions must be reinstated. Whatever command is received (except an activate block and activate forced positioning command) during the period that the safety status is activated 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 safety function is not enabled and consequently the various options and communication object are not visible.

#### active

The safety function is active and is managed by the Safety communication object.

In this section you can also view the other settings (*Control method, Relay status on safety, Monitoring time [minutes], Monitoring time [seconds]*) which can be used to configure the function.

## > 9.1.2 Control method

Here you can set the conditions for which the device must activate the safety function; on the contrary to the *Block* and *Priority command* functions which are activated by a bus command, the safety function is enabled by the device when the condition configured in this section occur. The settings are:

#### • *"1" value* or *periodic transmission absence*

The safety function is activated when two events occur:

- The Safety communication object does not receive the telegram with the "0" logic value (periodic transmission absence) for a period of time equal to the values configured in the Monitoring time [minutes] and Monitoring time [seconds].
- The **Safety** communication object receives a telegram with a "1" logic value ("1" value received).

In both cases the safety function is deactivated when the **Safety** communication object receives a telegram with a "0" logic value; once the safety function has been deactivated, the monitoring time is reset.

#### • *"0" value or periodic transmission absence*

The safety function is activated when two events occur:

- The Safety communication object does not receive the telegram with the "1" logic value (periodic transmission absence) for a period of time equal to the values configured in the Monitoring time [minutes] and Monitoring time [seconds].
- The **Safety** communication object receives a telegram with a "0" logic value ( "0" value received).

In both cases the safety function is deactivated when the **Safety** communication object receives a telegram with a "0" logic value; once the safety function has been deactivated, the monitoring time is reset.

#### • periodic transmission absence

The safety function is activated when the **Safety** communication object does not receive any telegrams whatever the bit value that carries the information (periodic transmission absence) for a period of time equal to the values configured in the **Monitoring time [minutes]** and **Monitoring time [seconds]**. In both cases the safety function is deactivated when the **Safety** communication object receives a telegram with a "0" or "1" logic value; once the safety function has been deactivated, the monitoring time is reset.

#### > 9.1.3 Relay status on safety

This allows you to configure the changeover contact status when the safety function is activated; the settings are:

#### • open (with NO) / closed (with NC)

When the safety function is activated the device sets a "normal" condition for the changeover contact (NO contact open / NC contact closed) regardless of the contact conditions before the safety was activated.

When the safety function is deactivated, the changeover contact remains in a "*normal*" condition regardless of the commands received by the *Switching* object whilst the same function was activated.

#### • closed (with NO) / open (with NC)

When the safety function is activated the device sets a "*switched*" condition for the changeover contact (NO contact closed / NC contact open) regardless of the contact conditions before the safety was activated.

When the safety function is deactivated, the changeover contact remains in a "*switched*" condition regardless of the commands received by the *Switching* object whilst the same function was activated.

Should the power to the bus be lost when the safety function is active, when the power is reinstated the device will memorise the fact that the safety function was active before the loss of power and automatically reinstate the function, putting the changeover load in the condition set in the **Relay status on safety** option seen above.

## > 9.1.4 Monitoring time [minutes]

Here you can set the first of two values (minutes) for the time after which, if the device does not receive the expected telegram (see item *Control method*) it will activate the safety function; the values can range from 0 (minute) to 59 (minutes).

## 9.1.5 Monitoring time [seconds]

Here you can set the second of two values (seconds) for the time after which, if the device does not receive the expected telegram (see item *Control method*) it will activate the safety function; the values can range from 0 (seconds) to 59 (seconds).

## 9.2 Communication objects

The *Safety function* in the *Safety* menu, if enabled, makes the communication object visible, as seen in Diag. 9.2.

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority
■【7	Safety state	Monitoring	1 bit	С		ୖ₩	( <b>u</b> )	8 <del>9</del>	1 bit DPT_Switch	Low

#### Diag. 9.2

### 9.2.1 Safety state

Using this communication object, the device is able to receive the telegrams from the bus and monitor and where necessary activate the safety function.

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

The standard format of the object is 1.001 DPT\_Switch, so the size of the object is 1 bit, used to monitor and where necessary activate the safety function, that is to discriminate the "safety" condition from a "normal" operating mode.

# 10 "*Logic*" Menu

The *Logic* menu lists all the parameters needed to configure the logic conditions that the load activation/deactivation conditions are subject to (see Diag. 10.1).

Main		Logic	
Delay Block Forced positioning Safetu	Logic function	active	~
Logic	Logical operation to execute	OR	*
Scenes	Logical input number	4	
	Logical input operation	OR	~
	Input 1 value on sending	"0" value	~
	Input 2 value on sending	"O" value	<b>~</b>
	Input 3 value on sending	"0" value	~
	Input 4 value on sending	"0" value	~
	NOT operation for input 1	deactivated	~
	NOT operation for input 2	deactivated	~
	NOT operation for input 3	deactivated	~
	NOT operation for input 4	deactivated	× •
	ОК	Cancel Default Info	Help

Diag. 10.1

## 10.1 Parameters

## > 10.1.1 Logic function

This is to activate and configure the function and make the *Logic operation to execute, Logical input number, Logic input operation, Input x value on sending, NOT operation for input x* options visible. (*x* refers to the number associated to the various logic inputs).

The logic function allows you to control the load, no longer using the *Switching* object, but by using the result of logic operations settings; the logic functions consists in two logic ports: the first operation is performed among the logic inputs, the result of which becomes in turn the input of the second logic operation together with the enable mode command received from the bus.

To make this concept more understandable, an initial logic operation is performed among the logic inputs identified by the communication objects **Logical x** (x refers to the number associated to the various logic inputs (see Diag. 10.2).





The result of the first logic operation becomes, in turn, the input of the second logic operation, as seen in Diag.10.3.



Diag. 10.3

The series of these two operations constitutes the logic function that determines the activation/deactivation of the device operating mode. The settings are:

#### deactivated

The logic function is not enabled and the operating mode is activated/deactivated by a bus command to the *Switching* communication object.

#### active

The logic function is enabled and the operating mode is activated/deactivated by the result of the logic function, as illustrated above.

The other options used to configure the functions are also visible: *Logic operation to execute, Logical input number, Logic input operation, Input x value on sending, NOT operation for input x*).

## > 10.1.2 Logic operation to execute

Here you can configure the type of operation to be performed in relation to the second logic. The settings are:

#### • OR

The logic operation that is performed is called OR; a truth table can be seen below for the OR logic operation with two inputs (A and B) and the relative result (Q)

A	В	Q
0	0	0
0	1	1
1	0	1
1	1	1

In reference to the name of the variables in the above table, the Q value determines the activation/deactivation operating mode, according to the value set in the *Activation mode value* in the *Main* menu.

#### • NOR

The logic operation that is performed is called *NOR*; that is negation of the *OR* logic operation; the table below shows the truth table for the NOR logic operation with two inputs (A and B) and the relative result (Q)

А	В	Q
0	0	1
0	1	0
1	0	0
1	1	0

In reference to the name of the variables in the above table, the Q value determines the activation/deactivation operating mode, according to the value set in the *Activation mode value* in the *Main* menu.

#### • AND

The logic operation that is performed is called AND; a truth table can be seen below for the AND logic operation with two inputs (A and B) and the relative result (Q)

Α	В	Q
0	0	0
0	1	0
1	0	0
1	1	1

In reference to the name of the variables in the above table, the Q value determines the activation/deactivation operating mode, according to the value set in the *Activation mode value* in the *Main* menu.

#### • NAND

The logic operation that is performed is called *NAND*; that is the negation of the *AND* logic operation; the table below shows the truth table for the NAND logic operation with two inputs (A and B) and the relative result (Q)

Α	В	Q
0	0	1
0	1	1
1	0	1
1	1	0

In reference to the name of the variables in the above table, the Q value determines the Operating mode activation/deactivation function, according to the value set in the *Activation mode value* in the *Main* menu.

### > 10.1.3 Logical input number

Here you can configure the logical input number (auxiliaries), used to perform the first logic operation. The settings range from 1 (logical input) to 4 (logical inputs).

#### • 1

Only one auxiliary logical input is enabled and the options visible are *Input 1 value on sending, NOT* operation for input 1 whilst the other options in the *Main* menu are not visible; in this case only the second logic operation is performed between the auxiliary logic input and the switching object. This setting enables the *Logical 1* communication object.

The same applies (including the addition of the parameters and the communication objects for the different inputs) for values:

- 2
- 3
- 4

#### > 10.1.4 Logic input operation

Here you can configure the type of operation to be performed in relation to the first logic. The settings are:

- **OR** (for the truth table see **10.1.2**)
- *NOR* (for the truth table see **10.1.2**)
- AND (for the truth table see 10.1.2)
- **NAND** (for the truth table see **10.1.2**)

#### • XOR

Setting this value, the logic operation that is performed is called *XOR*; a truth table can be seen below for the XOR logic operation with two inputs (A and B) and the relative result (Q)

Α	В	Q
0	0	0
0	1	1
1	0	1
1	1	0

In reference to the name of the variables in the above table, the Q value determines the input for the second logic operation.

#### • XNOR

Setting this value, the logic operation that is performed is called *XNOR*; that is the negation of the *XOR* logic operation; the table below shows the truth table for the NOR logic operation with two inputs (A and B) and the relative result (Q)

Α	В	Q
0	0	1
0	1	0
1	0	0
1	1	1

In reference to the name of the variables in the above table, the Q value determines the input for the second logic operation.

### > 10.1.5 Input 1 value on sending

This allows you to set the value for logical input 1 each time the bus power is reinstated. The settings are:

#### • "0" value

The value of logical input 1 each time the bus power is reinstated is "0", regardless of the value that it had before the power was lost.

#### "1" value

The value of logical input 1 each time the bus power is reinstated is "1", regardless of the value that it had before the power was lost.

#### > 10.1.6 Input 2 value on sending

The same applies as indicated in the previous paragraph, but this refers to logical input 2. Please refer to **10.1.5** for further details).

## 10.1.7 Input 3 value on sending

The same applies as indicated in the previous paragraph, but this refers to logical input 3. Please refer to **10.1.5** for further details).

#### 10.1.8 Input 4 value on sending

The same applies as indicated in the previous paragraph, but this refers to logical input 4. Please refer to **10.1.5** for further details).

#### 10.1.9 NOT operation for input 1

This allows you to negate the value received from the bus for logical input 1. The NOT operation is also a logic operation that negates the value of a logic status; the truth table is seen below



Logical operator

А	Q
0	1
1	0

Truth table

The settings are:

#### deactivated

The NOT logic operation applied to logical input 1 is not enabled; therefore the value that the *Logical* 1 communication object receives from the bus constitutes the actual logic function input to be implemented.

#### active

The NOT logic operation applied to logical input 1 is enabled; therefore the value that the *Logical* 1 communication object receives from the bus will not constitute the actual logic function input to be implemented, but this will be its negated value.

When power is reinstated to the bus, the negation operation is not applied to the value set under the option *Input 1 value on sending*.

## > NOT operation for input 2

The same applies as indicated in the previous paragraph, but this refers to logical input 2. Please refer to **10.1.9** for further details).

### > 10.1.11 NOT operation for input 3

The same applies as indicated in the previous paragraph, but this refers to logical input 3. Please refer to **10.1.9** for further details).

### 10.1.12 NOT operation for input 4

The same applies as indicated in the previous paragraph, but this refers to logical input 4. Please refer to **10.1.9** for further details).

# 10.2 Communication objects

The *Logical input number* in the *Logic* menu enable different communication objects according to the value that is set; the objects are those seen in Diag. 10.4.

Number	Name	Object Function	Length	C	R	W	T	U	Data Type	Priority
<b>⊒</b> ‡]3	Logical 1	Logic	1 bit	C	15	W	0.72	373	1 bit DPT_Switch	Low
□₹4	Logical 2	Logic	1 bit	C	1.5	W	278	376	1 bit DPT_Switch	Low
<b>⊒</b> ‡ 5	Logical 3	Logic	1 bit	С	15	W	8.73	0.50	1 bit DPT_Switch	Low
<b>□</b> ‡6	Logical 4	Logic	1 bit	С	12	W	6.58	()	1 bit DPT_Switch	Low

Diag. 10.4

## > 10.2.1 Logical 1

This communication object is visible if the **Safety function** option is set to **active**; in fact, once the logic function has been enabled, the minimum logical input number under the **Logical input number** is **1** so this object is always visible once the function has been enabled.

Using this communication object, the device is able to receive the telegrams from the bus whose value (or negated value) constitutes input 1 of the logic function.

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

The standard format of the object is 1.001 DPT\_Switch, so the size of the object is 1 bit and, as already explained, it is used as input 1 for the logic function.

## > 10.2.2 Logical 2

This communication object is only visible when the *Logical input number* value is set higher than 1. The same applies as indicated for the previous object, but this refers to logical input 2. Please refer to **10.2.1** for further details).

## > 10.2.3 Logical 3

This communication object is only visible when the *Logical input number* value is set higher than 2. The same applies as indicated for the previous object, but this refers to logical input 3. Please refer to **10.2.1** for further details).

## > 10.2.4 Logical 4

This communication object is only visible when the *Logical input number* value is set higher than 4. The same applies as indicated for the previous object, but this refers to logical input 4. Please refer to **10.2.1** for further details).

# 11 "Scenes" menu

The Scenes menu lists all the parameters needed to configure the scene operating mode (see Diag. 11.1).

1.1.1 Switch actuator 1 ch. 16A - w	hite	×						
Main	Scenes							
Block Forced positioning	Scenes function	active						
Safety Logic	Scene number 1	unassigned						
Scenes	Scene 1 storing	enabled 💌						
	Start status scene 1 relay	open (with NO) / closed (with NC)						
	Scene number 2	unassigned						
	Scene 2 storing	enabled						
	Start status scene 2 relay	open (with NO) / closed (with NC)						
	Scene number 3	unassigned						
	Scene 3 storing	enabled						
	Start status scene 3 relay	open (with NO) / closed (with NC)						
	Scene number 4	unassigned						
	Scene 4 storina	enabled						
	Start status scene 4 relay	open (with NO) / closed (with NC)						
	Scene number 5	unassigned						
	Scene 5 storing	enabled						
	Start status scene 5 relay	open (with NO) / closed (with NC)						
	Scene number 6	unassigned						
	Scene 6 storing	enabled						
	Start status scene 6 relay	open (with NO) / closed (with NC)						
	Scene number 7	unassigned						
	Scene 7 storing	enabled						
	Start status scene 7 relay	open (with ND) / closed (with NC)						
	Scene number 8	unassigned						
	Scene 8 storing	enabled						
	Start status scene 8 relay	open (with ND) / closed (with NC)						
	OK Can	ncel Default Info Help						

Diag. 11.1

# 11.1 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.

## > 11.1.1 Scenes function

This is to enable and configure the function and make the **Scene number x**, **Scene x storing**, **Start status scene x relay** and relative **Scene** communication object visible.

The scenes function sends two possible commands to the device:

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

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

#### deactivated

The scenes function is not enabled and consequently the various options and communication object are not visible.

#### active

The scenes function is enabled and is managed by the **Scene** communication object. Here you can also view and configure the functions for the **Scene number x**, **Scene x storing**, **Start status scene x relay** options.

### > 11.1.2 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.

## > 11.1.3 Scene x storing

This enables the function which memorises the position of the changeover contact after a learn scene command; the settings are:

#### enabled

It is possible to learn the changeover contact status and then reproduce it following a perform scene command.

#### not enabled

It is not possible to learn the changeover contact status and then reproduce it following a perform scene command; all learn commands will be ignored.

Following a perform scene command, the changeover contact will be in the position indicated under the option *Start status scene x relay*.

#### 11.1.4 Start status scene x relay

Here it is possible to set the default value for the changeover contact status. This value is useful if the **Scene x storing** is set to **disabled** as it allows you to set the changeover contact status following a perform 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 changeover contact status following the perform scene command until it receives a memorise scene command, which will overwrite the value. The settings are:

#### • open (with NO) / closed (with NC)

The default value for the changeover contact status will be: open (with NO) / closed (with NC).

#### • closed (with NO) / open (with NC)

The default value for the changeover contact status will be: closed (NO contact) / open (NC contact)

# 11.2 Communication objects

The *Scenes function* in the *Scenes* menu, if enabled, makes the communication object visible, as seen in Diag. 11.2.

Number	Name	Object Function	Length	С	R	W	T	U Data Type	Priority
<b>⊒</b> ‡8	Scene	Execute/Store	1 Byte	С	÷	W	( <b>-</b> )	9 <del>.</del>	Low

Diag. 11.2

## > 11.2.1 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







+39 035 946 260 24 ore al giorno



SAT on line gewiss@gewiss.com