

6 CHANNEL 10 A BALLAST DIMMING MODULE

Product Manual



Product Manual

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1.) PRODUCT DESCRIPTION

ITR500-0001 – 6 Channel 10A Ballast Dimming Module, can dimming from 0V to 10V for per channel. Database uploads to the product are done with most current ETS version. The device is manufactured in accordance with electromagnetic compatibility (EMC), electrical safety and environmental conditions. ITR500-0001 device's outputs for max 10A be switched ON or OFF on every output channel, also can manually switched. Control types include both input and output, so absorption and output type ballast can be connected to this module.

1.1.) TECHNICAL INFORMATION

Product Code	ITR500-0001
Power Supply	EIB Power Supply
Current Consumption	5 mA (static)
	15 mA (dynamic)
Dimming Output	24 mA @ 0 – 10 V DC per channel
Channel Current	10 A @ 220-250 V AC (50/60 Hz)
Maximum Air Humidity	<90 RH
Temperature Range	Operation (– 5°C45 °C)
	Storage (- 20°C60 °C)
Flammability	Non-flammable Product
Type of Protection	IP 20
Dimensions	90 x 144 x 66 mm (HxWxD)
Color	Light Grey and White
Configuration	Configuration with ETS
Certificaton	KNX Certified



1.2.) PRODUCT FUNCTIONS

- > 6 Channel 0-10 V dimming and maximum 10 A relay output for every channel.
- > Also can manually switch.
- The switch functions : Statistical total ON time, status response, status recovery, upper limit, lower limit, staircase light, scene control, scene dimming, sequence control, threshold switch, heating actuator(PWM).





1.3.) PRODUCT DIMENSIONS

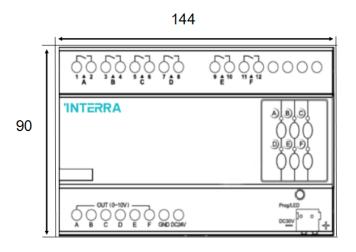


Fig 1 : Front Appearance and Measures of the Device.

The numerical values showing the dimensions above are in mm.

1.4.) CONNECTION DIAGRAM AND PROGRAMMING

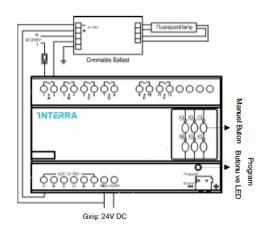


Fig 2 : KNX Connector(+ -), Programming LED and Button.

Connection to the device is via the KNX connector, AC and load wires. Once the connections have been made correctly, the device can now be programmed. The programming button is pressed first, then the programming LED is illuminated after pressing. In this way, the ETS configuration can be loaded to the device.



2.) MOUNTING

ITR500-0001 - 6 Channel 10 A Ballast Dimming Module during mounting; AC cables, load cables and KNX / EIB cables must be labeled and completely isolated from each other. The device must be installed on a DIN rail in the distribution board and cables must be connected for loads. After making sure that there is no short or open circuit, check that the KNX cable type is correct and not short-circuited. After this process, the KNX cables must be connected with the correct color and all cables must be properly assembled. After the processes are finished, ensure that the KNX line is isolated from the AC line.

3. ETS PARAMETERS AND DESCRIPTIONS

3.1. GENERAL PARAMETER PAGE

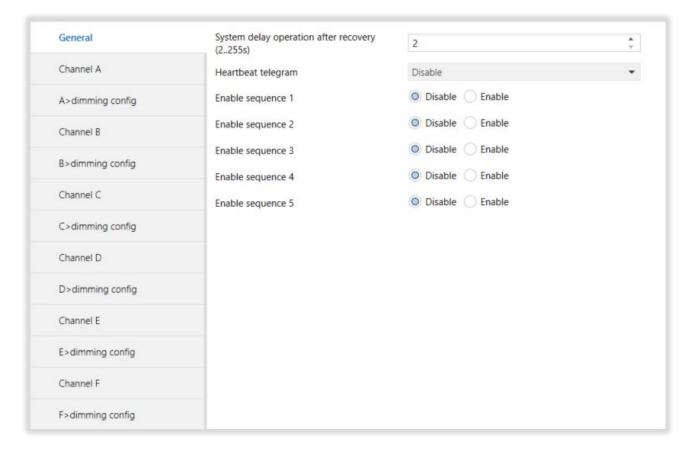


Fig 3 : General Parameter Configuration Page

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3.1.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES
System delay(2255s) after recovery	This parameter, is used for set the delay time for the device after power on.	2 255
Heartbeat telegram	This parameter, is used to send cyclically heartbeat telegrams. If the value is 0, the device will send 0 cyclically. Also, if the value is 1/0, the device will send alternately 0 and 1 value cyclically.	Disable Send value 0 cyclically Send value 1 cyclically Send value 1/0 inverted cyclically
Telegram is sent time interval (165535s)* ¹	This parameter, allows sending the telegram cyclically after time out.	1 5 65535s
Enable sequence 1 Enable sequence 5	This parameter, is used to enable or disable sequences 1-5.	Disable Enable

3.2. G:SEQUENCE 1-5

General	Operaton mode of the sequence 1	Start with "1",Stop with "0"	•
G:sequence 1	Control mode of the sequence 1	FWD	•
Channel A	Runing mode of the sequence 1	Single O Cycle	
A>dimming config	Runing time(0255 hours,0h&0m-unlimited)		* *
Channel B	Runing time(059 mins,0h&0m-unlimited) Position after running time out	0 Invalid	
B>dimming config	Total 24 steps,configuration as following:		
Channel C	>>Step 1 configuration	Invalid	•
C>dimming config	Time for step 1 (065535s) Time for step 1 (0999ms)	5	• •
Channel D	>>Step 2 configuration	Invalid	•
D>dimming config	Time for step 2 (065535s)	5	*
Channel E	Time for step 2 (0999ms)	0 Invalid	* *
E>dimming config	Time for step 3 (065535s)	5	÷
Channel F	Time for step 3 (0999ms)	0	*
F>dimming config	>>Step 4 configuration	Invalid	•
	Time for step 4 (065535s)	5	÷
	Time for step 4 (0999ms)	0	* *
	>>Step 5 configuration	Invalid	•
	Time for step 5 (065535s)	5	÷
	Time for step 5 (0999ms)	0	* *

Fig 4 : G:Sequence Parameter Page



3.2.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES
Operation mode of the sequence 1	 This parameter, is used to set the operation mode for sequence 1. Start with "1", Stop with "0" : If a telegram is received with a value if '1', sequence 1 will start. If a telegram is received with value of '0', sequence 1 will stop. Start with "0", Stop with "1" : If a telegram is received with a value of '0', sequence 1 will start. If a telegram is received with value of '0', sequence 1 will start. If a telegram is received with a value of '0', sequence 1 will start. If a telegram is received with a value of '0', sequence 1 will start. If a telegram is received with value of '1', sequence 1 will start. If a telegram is received with a value of '0' or '1', sequence 1 will start and not stop. 	Start with "1", Stop with "0" Start with "0", Stop with "1" Start with "1/0", Can't stop
Control mode of the sequence 1	This parameter, is used to set the control mode for sequence 1. FWD : Forward mode. REW : Backward mode. RANDOM : Random mode.	FWD REW RANDOM
Running mode of the sequence 1	This parameter, is used to set the running mode for sequence 1. Single : Will rune once. Cycle : Will run cyclically.	Single Cycle
Running time (0…255 hours, 0h&0m-unlimited)	This parameter, is used to set the running time in hours.	0 255
Running time (059 mins, 0h&0m-unlimited)	This parameter, is used to set the running time in minutes.	0 59
Position after running time out	This parameter, is used to set the scene to be activated when time out occurs.	Invalid Scene NO.01Scene NO.64
>>Step 1 configuration … Step 24 configuration	This parameter, is used to set the scene for step 124.	Invalid Scene NO.01Scene NO.64
Time for step 1 … Time for step 24	This parameter, is used to set the time for step 124 is seconds.	0 5 65535s
Time for step 1	This parameter, is used to set the time for step 124 in miliseconds.	0 999ms



3.3. CHANNEL A-F

General	Dimming output range	0-10v	•
G:sequence 1	The response of channel state(1bit)	Invalid	•
Channel A	The response of channel state(1byte)	Invalid	•
A>dimming config	Statistics total ON time to allowed (065535h=7.4years)	O Disable C Enable	
	The status after bus voltage recovery	OFF	•
Channel B	Maximum level	100%(255)	•
B>dimming config	Upper threshold level	100%(255)	•
Channel C	Lower threshold level	0%(0)	•
C>dimming config	Dimming minimum level	0%(0)	•
Channel D	Show the function page ==>>	Disable Enable	
D>dimming config			
Channel E			
E>dimming config			
Channel F			
F>dimming config			

Fig 5 : Channel A-F Parameter Page

3.3.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES
Dimming output range	This parameter, is used to set the dimming output.	0-10V 1-10V 2-10V
The response of channel state (1 bit)	 This parameter, is used to set the channel state response parameters(1 bit). 1 bit always response : The channel will always respond, if on it will respond with 1, if off it will respond with 0. 1 bit only changed : The channel will respond only when the dimmer state has changed. 	Invalid 1 bit always response 1 bit only changed
The response of channel (1 byte)	 This parameter, is used to set the channel state response parameters(1 byte). 1 byte always response : The channel will always respond. 1 byte only changed : The channel will respond when the light value has changed. 	Invalid 1 byte always response 1 byte only changed



Statistics total ON time to allowed (065535h=7.4 years)	This parameter, is used to enable or disable statistics function.	Disable Enable
Alarm when time out (1…65535h, 0-invalid)	This parameter, is used to set the alarm timeout parameters.	1 30000 65535h 0-invalid
Transmit telegram interval when alarm(1255s)	This parameter, is used to set the alarm time interval.	1 10 255s
The status after bus voltage recovery	This parameter, is used to set the status after bus voltage. OFF : After powered on, the channel will be OFF. Defined brightness value : After powered on, the channels status will be defined by the brightness value. Last brightnes value : After powered on, the channels status will be defined by the last brightness value.	OFF Defined brightness value Last brightness value
Brightness value	This parameter, is used to set the brightness value parameters.	0% 100%
Maximum level	This parameter, is used to set the maximum level.	0 100%
Upper threshold level	This parameter, is used to set the upper threshold level.	0 100%
Lower threshold level	This parameter, is used to set the lower threshold level.	0 100%
Dimming minimum level	This parameter, is used to set the minimum dimming level.	0 100%
Show the function page==>>	This parameter, is used to enable or disable the function page.	Enable Disable

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3.4. DIMMING

General	Enable switch ON/OFF	O Disable O Enable	
G:sequence 1	-Switching ON fade time(0255s)	3	* *
Channel A	-Switching OFF fade time(0255s)	3	*
A>dimming config	-Switching ON when light OFF -Switching OFF when light ON	Normal Not allowed to switch ON Normal Not allowed to switch OFF	
Channel B	Enable relative dimming	Disable Disable	
B>dimming config	-Relative(4bits) dimming fade time (brightness0%100%/2255s)	5	*
Channel C	-Relative dimming is saved as the brightness of the switch	No Yes	
C>dimming config	Enable absolute dimming	Disable O Enable	
Channel D	-Absolute(1byte) dimming fade time (brightness0%100%/0255s)	5	÷
D>dimming config	-Absolute dimming is saved as the brightness of the switch	No Yes	
Channel E			
E>dimming config			
Channel F			
F>dimming config			

Fig 6 : Dimming Parameter Page

3.4.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES
Enable switch ON/OFF	This parameter, is used to enable or disable the ON/OFF switch.	Disable Enable
-Switching ON fade time (0255s)	This parameter, is used to set the switch ON fade time.	0 3 255s
-Switching OFF fade time (0255s)	This parameter, is used to set the switch OFF fade time.	0 3 255s
-Switching ON when light OFF	 This parameter, is used to set the parameter for switching ON when the light is OFF. Normal : When the status is normal, the function can be used. Not allowed to switch ON : When the status is not allowed to switch ON, the function can not be used. 	Normal Not allowed to switch ON



-Switching OFF when light ON	This parameter, is used to set the parameter for switching OFF when the light is ON. Normal : When the status is normal, the function can be used. Not allowed to switch OFF : When the status is not	Normal Not allowed to switch OFF
Enable relative dimming	allowed to switch OFF, the function can not be used. This parameter, is used to enable or disable the relative dimming. Disable : Disallows relative dimming. Enable : Allows relative dimming.	Disable Enable
-Relative (4 bits) dimming fade time (brightness 0%100%/2255s)	This parameter, is used to set the fade time for relative dimming.	2 5 255s
-Relative dimming is saved as the brightness of the switch	This parameter, is used to enable or disable the relative dimming	No Yes
Enable absolute dimming	This parameter, is used to enable or disable absolute dimming.	Disable Enable
-Absolute (1 byte) dimming fade time (brightness0%100% /0255s)	This parameter, is used to set the fade time for absolute(1 byte) dimming.	0 5 255s
-Absolute dimming is saved as the brightness of the switch	This parameter, is used to enable or disable the absolute dimming saved brightness.	No Yes



3.5. FUNCTION

General	Enable function "staircase light"	O Disable C Enable
G:sequence 1	Enable function "flashing"	O Disable C Enable
Channel A	Enable function "scene"	Olisable Enable
A>dimming config	Enable function "threshold"	Disable Enable
	Enable function "logic"	Disable Enable
A:function	Enable function "heating"	O Disable C Enable
Channel B	NOTE:Recommend to only use a function for	a channel.
B>dimming config		
Channel C		
C>dimming config		
Channel D		
D>dimming config		
Channel E		
E>dimming config		
Channel F		
F>dimming config		

Fig 7 : Function Parameter Page

3.5.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES
Enable function "staircase light"	This parameter, is used to enable or disable the "staircase light" function.	Disable Enable
Enable function "flashing"	This parameter, is used to enable or disable the "flashing" function.	Disable Enable
Enable function "scene"	This parameter, is used to enable or disable the "scene" function.	Disable Enable
Enable function "threshold"	This parameter, is used to enable or disable the "threshold" function.	Disable Enable
Enable function "logic"	This parameter, is used to enable or disable the "logic" function.	Disable Enable
Enable function "heating"	This parameter, is used to enable or disable the "heating" function.	Disable Enable

3.6. STAIRCASE LIGHT FUNCTION

General	Staircase light operation	Start with "1",Stop with "0"	•
G:sequence 1	Brightness value	100%(255)	•
Channel A	Fade time of brighter(0255s)	3	*
A>dimming config	Fade time of darker(0255s)	3	÷
Azumining conlig	Duration time for brightness(0255min)	0	÷
A:function	Duration time for brightness(059sec)	5	÷
A:staircase light	Change staircase light time via bus	O Disable C Enable	
Channel B	Alarm staircase light via bus	Disable Enable	
B>dimming config			
Channel C			
C>dimming config			
Channel D			



3.6.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES
Staircase light operation	This parameter, is used to set the parameters for staircase lighting operation.	Start with "1", Stop with "0"
	Start with "1", Stop with "0" : If telegram "1" is received, the staircase lighting will activate, if telegram "0" is received the staircase lighting will deactivate.	Start with "1", Invalid with "0" Start with "1/0", Can't stop
	Start with "1", Invalid with "0" : If telegram "1" is received, the staircase lighting will activate, if telegram "0" is received the staircase function will be invalid.	
	Start with "1/0", Can't stop : If telegram "1/0" is received, the staircase lighting will remain constantly active.	
Brightness value	This parameter, is used to set the light intensity.	0 100%
Fade time of brighter(0255s)	This parameter, is used to set the rate at which the lighting intensity increases.	0 3 255s
Fade time of darker(0255s)	This parameter, is used to set the rate at which the lighting intensity decreases.	0 3 255s



Duration time for brightness (0255min)	This parameter, is used to set the time to attain maximum brightness.	0 255s
Duration time for brightness (059sec)	This parameter, is used to set the time to attain maximum brightness.	0 5 59
Change staircase light time via bus	 This parameter, is used to enable or disable staircase lighting times. Enable : Allows the staircase lighting time to be modified. Disable : Does not allow the staircase lighting time to be modified. If this is set the lighting can only be set via the database. 	Disable Enable
Alarm staircase light via bus	This parameter, is used to enable or disable the staircase warning light via the bus.Enable : Allows an alarm to be triggered.Disable : Does not allow an alarm to be triggered.	Disable Enable

3.7. FLASHING FUNCTION

General	Flashing operation	Start with "1",Stop with "0"	*
Gisequence 1	Brightness value	100%(255)	•
Channel A	Fade time of brighter(0255s)	3	\$
	Fade time of darker(0255s)	3	\$
A>dimming config	Duration time for brightness(0255min)	0	\$
Afunction	Duration time for brightness(059sec)	5	\$
A:staircase light	Duration time for darkness(0255min)	0	\$
	Duration time for darkness(059sec)	5	\$
A:flashing	Flashing number(1255,0-Unlimited)	0	\$
Channel B	Brightness after achieves the flashing	Invalid	
3>dimming config	number		

Fig 10 : Flashing Function Parameter Page



3.7.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES
Flashing operation	This parameter, is used to set the parameters for flashing operation. Start with "1", Stop with "0" : If telegram "1" is received, flashing function will be activated, if telegram "0" is received flashing function will be deactivated. Start with "0", Stop with "1" : If telegram "0" is received, flashing function will be activated, if telegram "1" is received flashing function will be deactivated. Start with "1/0", Can't stop : If telegram "1/0" is received, the flashing function will remain constantly active.	Start with "1", Stop with "0" Start with "0", Stop with "1" Start with "1/0", Can't stop
Brightness value	This parameter, is used to set the brightness value.	0 100%
Fade time of brighter(0255s)	This parameter, is used to set the rate at which the lighting intensity increases.	0 3 255s
Fade time of darker(0255s)	This parameter, is used to set the rate at which the lighting intensity decreases.	0 3 255s
Duration time for brightness (0255min)	This parameter, is used to set the brightness duration time in minutes.	0 255min
Duration time for brightness (059sec)	This parameter, is used to set the brightness duration time in seconds.	0 5 59sec
Duration time for darkness (0255min)	This parameter, is used to set the darkness duration time in minutes.	0 255min
Duration time for darkness (059sec)	This parameter, is used to set the darkness duration time in seconds.	0 5 59sec
Flashing number(1255, 0- Unlimited)	This parameter, is used to set the number of flashes.	0-unlimited 1255
Brightness after achieves the flashing number	This parameter, is used to set the brightness parameters for after a set number of flashes has been activated.	Invalid 0100%



3.8. SCENE FUNCTION

General	Fade time of scene dimming(2255s)	5	
G:sequence 1	Total 10 scenes, configuration as following:		
	>>Output assigned to(scene 164)	Not allocate	
Channel A	Output brightness value	100%(255)	,
A>dimming config	Fade time for brighter/darker(0255s)	3	;
A:function	>>Output assigned to(scene 164)	Not allocate	
A:staircase light	Output brightness value	100%(255)	
	Fade time for brighter/darker(0255s)	3	
A:flashing	>>Output assigned to(scene 164)	Not allocate	
A:scene	Output brightness value	100%(255)	
A:threshold	Fade time for brighter/darker(0255s)	3	
A:logic	>>Output assigned to(scene 164)	Not allocate	•
	Output brightness value	100%(255)	,
A:heating	Fade time for brighter/darker(0255s)	3	
Channel B	>>Output assigned to(scene 164)	Not allocate	,
B>dimming config	Output brightness value	100%(255)	
Channel C	Fade time for brighter/darker(0255s)	3	
Chariner	>>Output assigned to(scene 164)	Not allocate	8
C>dimming config	Output brightness value	100%(255)	1
Channel D	Fade time for brighter/darker(0255s)	3	
D>dimming config	>>Output assigned to(scene 164)	Not allocate	
Channel E	Output brightness value	100%(255)	•
and the first fact of	Fade time for brighter/darker(0255s)	3	
E>dimming config	>>Output assigned to(scene 164)	Not allocate	
Channel F	Output brightness value	100%(255)	

Fig 10 : Scene Function Parameter Page

3.8.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES
Fade time of scene dimming (2255s)	This parameter, is used to set the fade time for scene dimming.	2 5 255s
Total 10 scenes, configuration as following:		
> Output assigned to(scene 164)	This parameter, is used to set the output scene.	Not allocate Scene No 1Scene No.64



Output brightness value	This parameter, is used to set the output brightness value.	0 100%
Fade time for brighter/darker (0255s)	This parameter, is used to set the brightenig and dimming fading rate.	0 3 255s

3.9. THRESHOLD FUNCTION

General	Brightness value for switch ON of threshold	100%(255)	•
G:sequence 1	Fade time for switch ON of threshold(0255s)	3	* *
Channel A	Fade time for switch OFF of threshold (0255s)	3	* *
A>dimming config	Threshold 1 value is(0255)	80	* *
	Threshold 2 value is(0255)	180	* *
A:function	Input value <lower td="" threshold<=""><td>OFF</td><td>•</td></lower>	OFF	•
A:staircase light	Lower threshold <= Input value <= Upper threshold	ON	•
A:flashing	Input value>Upper threshold	OFF	•
A:scene	Change threshold 1 via bus	O Disable C Enable	
A:threshold	Change threshold 2 via bus	O Disable C Enable	

Fig 11 : Threshold Function Parameter Page

3.9.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES
Brightness value for switch ON of threshold	This parameter, is used to set the brightness value when switched on.	0 100%(255)
Fade time for switch ON of threshold(0255s)	This parameter, is used to set the switch on fade time.	0 3 255s
Fade time for switch OFF of threshold(0255s)	This parameter, is used to set the switch off fade time.	0 3 255s
Threshold 1 value is (0255)	This parameter, is used to set the value for threshold 1.	0 80 255
Threshold 2 value is (0255)	This parameter, is used to set the value for threshold 2.	0 180 255



Input value <=Lower threshold	 This parameter, is used to set the <=Lower threshold input value status. Unchanged : The switch position will not change. ON: The switch position is set to ON. OFF: The switch position is set to OFF. 	Unchanged ON OFF	
Lower threshold <= Input value <= Upper threshold	This parameter, is used to set the lower threshold <= input value <= upper threshold. Unchanged : The switch position will not change. ON: The switch position is set to ON. OFF: The switch position is set to OFF.	Unchanged OFF ON	
Input value >Upper threshold	 This parameter, is used to set the input upper threshold value status. Unchanged : The switch position will not change. ON: The switch position is set to ON. OFF: The switch position is set to OFF. 	Unchanged ON OFF	
Change threshold 1 via bus	 This parameter, is used to enable or disable the threshold 1 function. Enable : The value of threshold 1 can be changed from the bus. Disable : The value of threshold 1 can not be changed from the bus. 	0 59	
Change threshold 2 via bus	 This parameter, is used to enable or disable the threshold 2 function. Enable : The value of threshold 2 can be changed from the bus. Disable : The value of threshold 2 can not be changed from the bus. 	0 10 59	



3.10. LOGIC FUNCTION

General	Logic connection 1 enable	O Disable O Enable	
G:sequence 1	Function of logic block1	AND	•
Channel A	Object value of logic connection 1 after bus voltage recovery	•0" "1"	
A>dimming config	Result of logic block1 inverted	No Yes	
A function	Logic connection 2 enable	O Disable O Enable	
	Function of logic block2	AND	•
A:staircase light	Object value of logic connection 2 after bus voltage recovery	"0" "1"	
Aflashing	Result of logic block2 inverted	O No Yes	
A:scene			
A.threshold			
A:logic			

Fig 12 : Logic Function Parameter Page

3.10.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES
Logic connection 1 enable	This parameter, is used to enable or disable logic connection 1.	Enable Disable
-Function of logic block 1	 This parameter, is used to set the logic block 1 functions. AND : Boolean calculation is according to "AND". OR : Boolean calculation is according to "OR". XOR : Boolean calculation is according to "XOR". GATE : When the condition 1 is set to '1', the channel will pass through logic block 1 to logic block 2. 	AND OR XOR GATE
Object value of logic connection 1 after bus voltage recovery	This parameter, is used to send the logic 1 connection parameters after bus voltage recovery.	'0' '1'
Result logic of block 1 inverted	This parameter, is used to enable or disable the inversion of results from logic block 1.	No Yes
Logic connection 2 enable	This parameter, is used to enable or disable logic connection 2.	Disable Enable



-Function of logic block 2	 This parameter, is used to set the logic block 2 functions. AND : Boolean calculation is according to "AND". OR : Boolean calculation is according to "OR". XOR : Boolean calculation is according to "XOR". GATE : When the condition 1 is set to '1', the channel will pass through logic block 2. 	AND OR XOR GATE
-Object value of logic connection 2 after bus voltage recovery	This parameter, is used to send the logic 2 connection parameters after bus voltage recovery.	' 0' '1'
Result logic of block 2 inverted	This parameter, is used to enable or disable the inversion of result from logic block 2.	No Yes

3.11. HEATING FUNCTION

General	Brightness value for switch ON of heating	100%(255)	*
Gisequence 1	Fade time for switch ON of heating(0255s)	1	\$
Channel A	Fade time for switch OFF of heating(0255s)	1	÷
chamera	PWM cycle time set(165535min)	1	÷
A>dimming config	PWM cycle time set(059sec)	0	÷
A:function	Control telegram is received as	1bit pwm("ON"-start, "OFF"-stop) 1bit pwm("ON"-start, "OFF -stop)	
A:staircase light	The scale of ON	0 1byte("255"-ON,"0"-OFF,other valve) 50%(128)	•
A:flashing	Running automatically after bus voltage recovery	NO	-
A:scene	Forced position of PWM	O No Ves	
A:threshold			
A:logic			
A:heating			

Fig 13 : Heating Function Parameter Page

3.11.1. Parameters List

PARAMETERS	DESCRIPTION	VALUES
Brightness value for switch ON of heating	This parameter, is used to set the brightness value for when heating is switched on.	0 100%
Fade time for switch ON of heating (0255s)	This parameter, is used to set the rate at which the heating intensity increases when switched ON.	01255
Fade time for switch OFF of heating(0255s)	This parameter, is used to set the rate at which the heating intensity decreases when switched OFF.	01255



PWM cycle time set	This parameter, is used to set the PWM cycle time.	165535min
(165535min)		
PWM cycle time set(159sec)	This parameter, is used to set the PWM cycle time.	0 59sec
Control telegram is received as	 This parameter, is used to set the control type. 1 bit pwm("ON"-start, "OFF"-stop) : If telegram "1" is received, the PWM will start, if telegram "0" is received, the PWM will stop. 1 byte("255"-ON, "0"-OFF, other value) : If telegram "255" is received, the PWM will switch ON. If telegram "0" is received, the PWM will stop and the PWM status will be set according to the other value(1254). 	1 bit pwm("ON"-start "OFF"-stop) 1 byte("255"-ON, "0"-OFF other value)
The scale of ON	This parameter, is used to set the value for scale of ON.	1 50 100%
Running automatically after bus voltage recovery	This parameter, is used to set the PWM parameters. NO : The PWM will run a customised value. Defined Valve : The PWM will run a defined value. Recovery : The PWM will run automatically.	NO Defined value Recovery
-Position of the valve	This parameter, is used to set the value for position of the valve.	0 50 100%
Forced position of PWM	This parameter, is used to enable or disable the forced PWM position.	Yes No
-Valve of PWM	This parameter, is used to set the value for valve of PWM.	0 50 100%

4. ETS OBJECTS AND DESCRIPTIONS

There are several parameters and functions with the same feature when making the relevant configurations from the parameter pages. The objects of the same properties are the same, and only the names of the objects are different. Hence, in this section, 1 of the objects with the same feature is explained.

4.1. GENERAL

At the following table, the objects associated with the general parameter page are described.

Object Name	Function	Туре	Flags	
General	Heartbeat telegram	1 bit	СТ	
•	', will send the telegram value '0' cy I the telegram value '0/1' cyclically.	/clically, when set '1', w	vill send the telegram value '1' cyc	lically
General	Sequence1	1 bit	CWU	
This object, is used to e "1" is sent the sequence	enable or disable the sequence1. If a will be enabled.	telegram "0" is sent the	sequence 1 will be disabled, if tel	legrai
General	Sequence2	1 bit	CWU	
"1" is sent the sequence General This object, is used to e	e will be enabled. Sequence3 enable or disable the sequence3. If	1 bit telegram "0" is sent the	C W U sequence 1 will be disabled, if tel	legra
"1" is sent the sequence	•			- 3
General	Sequence4	1 bit	CWU	
This object, is used to e "1" is sent the sequence	nable or disable the sequence4. If the sequence4. If the sequence4.	telegram "0" is sent the	sequence 1 will be disabled, if tel	legrai
General	Sequence5	1 bit	CWU	
This object, is used to e "1" is sent the sequence	enable or disable the sequence5. If the sequence5. If the sequence5. If the sequence is a sequence i	telegram "0" is sent the	sequence 1 will be disabled, if tel	legra

4.2. OUTPUT N

At the following table, the objects associated with the output n are described.

Object Name	Function	Туре	Flags	
Output A	Channel output	1 bit	CWU	
This object, is used to set the channel output with control ON/OFF.				
Output A Relative dimming(4 bit) 4 bit C W U				
This object, is used for relative dimming. When the "increase" telegram is received, the value will be increased. When the				

"decrease" telegram is received, the value will be decreased.

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Output A	Absolute dimming (8 bit)	1 Byte	CWU

This object, is used for absolute dimming. When the absolute dimming telegram is received, the lights will be dimmed according to the telegrams value.

4.3. RESPONSE STATE

At the following table, the objects associated with the response state are described.

Object Name	Function	Туре	Flags
Output A	Response state (1 bit)	1 bit	CRT

This object, is used for response the state, when response state is "1", the channel is ON. If the response state is "0", the channel is OFF.

Output A	Response state (1 byte)	1 Byte	CRT	
This chiest is used for the response state of the output channel brightness				

This object, is used for the response state of the output channel brightness.

4.4. STATISTIC ON TIME

At the following table, the objects associated with the statistic on time are described.

Object Name	Function	Туре	Flags		
Output A	R/W total ON time	2 Byte	CRWTU		
This object, is used if the initial	value is changed. The statistical	ON time will increase agair	every hour.		
Output A Alarm when total ON time out 1 bit C R T					
This object, is used to trigger a	n alarm, when statistical ON time	has reached the maximum	set value.		

4.5. STAIRCASE LIGHT

At the following table, the objects associated with the staircase light are described.

Object Name	Function	Туре	Flags
Output A	Staircase light	1 bit	CWU
This object, is used for staircas is received, the staircase lighti	se lighting. If telegram "1" is receiv ng will be deactivated.	ved, the staircase lighting w	ill be activated. If telegram "0"

Output A	Change staircase light time	2 Byte	CWU		
This object, is used to change the staircase lighting illumination time.					
Output A Alarm case light 1 bit C R T					
This object is used to set the alarm status lighting.					

4.6. FLASH

At the following table, the object associated with the flash are described.



Object Name	Function	Туре	Flags
Output A	Flashing	1 bit	CWU

This object, is used for flashing function. When the start value is received, the lighting channel will flash.

4.7. SCENE

At the following table, the objects associated with the scene are described.

Object Name	Function	Туре	Flags		
Output A	Scene(8 bit)	1 byte	CWU		
This object, is used to call or save the channel output scene.					
Output A Scene dimming(4 bit) 4 bit C W U					
This object, is used for scene of	dimming.	1	1		

4.8. THRESHOLD

At the following table, the objects associated with the threshold are described.

Object Name	Function	Туре	Flags		
Output A	Threshold input	1 Byte	CWU		
This object, is used for thresho	This object, is used for threshold input. The input value is compared with threshold 1 and threshold 2.				
Output A	Change threshold 1	1 Byte	CWU		
This object, is used to change threshold 1 via the bus network.					
Output A	Change threshold 2	1 Byte	CWU		
This object, is used to change	threshold 2 via the bus network.	1	1		

4.9. LOGIC

At the following table, the objects associated with the logic are described.

Object Name	Function	Туре	Flags
Output A	Logic connection 1	1 bit	CWU
This object, is used to set the l	ogic state 1.		
Output A	Logic connection 2	1 bit	CWU

4.10. HEATING

At the following table, the objects associated with the heating are described.

Object Name	Function	Туре	Flags
Output A	Heat with 1 bit control	1 bit	CWU
This object, is used for the hea PWM will stop.	ting actuator, if telegram "1" is rec	eived the PWM will start. If	telegram "0" is received the

Output A	Heat with 1 byte control	1 byte	CWU

This object, is used to modify the PWM value by receiving 1 byte data. If telegram "255" is received, the output will be on. If telegram "0" is received, the output will be OFF.

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