

4-channel constant current PWM dimmer for DC LED loads

ZDI-RGBCC4

FEATURES

- Control of constant current RGBW LED loads or 4 independent channels.
- Output currents: 220mA, 300mA, 350mA, 500mA, 550mA, 630mA, 700mA, 750mA, 900mA and 1000mA.
- External 12-30VDC power supply.
- LED test function.
- Integrated KNX BCU.
- Dimensions 165 x 44 x 23mm.
- Surface-mounted inside panels or boxes.
- Conformity with the CE directives (CE-mark on the back side).

1. KNX	2. Programming	3. Test button	 Output
connector	button		channels
5. Test LED	6. Current selector switch	7. Programming LED	8. External power supply

i de la figure 1: Lumento C4

Programming button: short press to set programming mode. If this button is held while plugging the device into the KNX bus, it enters the safe mode. Programming LED: programming mode indicator (red). When the device enters the safe mode, it blinks (red) every half second. During the start-up (reset or after KNX bus failure) and if the device is not in safe mode, it emits a red flash.

Test button: if this button is held for more than 3 seconds, the device enters the test mode.

Test LED: it indicates which channel (red=channel 1/R, green=channel 2/G, blue=channel 3/B) is being tested during test mode. In addition, it shows errors in the installation and/or parameterization (see section "test LED error identification").

GENERAL S	SPECIFICATIO	DNS				
CONCEPT		DESCRIPTION	DESCRIPTION			
Type of device		Electric operation control device	Electric operation control device			
Voltage (typical) Voltage range		29VDC SELV	29VDC SELV			
Voltage range	1	2131VDC				
	Maximum	Voltage	mA	mW		
KINA Supply	Maximum	29VDC (typical)	8	232		
	consumption	24VDC ¹	10	240		
	Connection ty	ре	Typical TP1 bus connector for	r 0.80mm Ø rigid cable		
External powe	er supply		12-30VDC			
Operation terr	nperature		0°C +55°C			
Storage temperature		-20°C +55°C				
Operation hur	nidity		5 95% (No condens.)			
Storage humic	dity		5 95% (No condens.)	5 95% (No condens.)		
Complementary characteristics		Class B	Class B			
Protection class Operation type						
Operation type		Continuous operation				
Device action type		Type 1	Туре 1			
Electrical stress period		Long				
Degree of protection		IP20, clean environment	IP20, clean environment			
		Independent device to be surface-mounted inside electrical panels or boxes.				
Installation			The installation is also possible in false ceiling. Connect the device as near			
		as possible to both, the load to dimmer and the external power supply.				
Minimum clea	rances		Not required			
Response on	KNX bus failure		Data saving according to para	meterization		
Response on	KNX bus restar	t	Data recovery according to pa	Data recovery according to parameterization		
Operation indicator		The programming LED indicat	The programming LED indicates programming mode (red). The Test LED			
		indicates the following events:	indicates the following events: red light on with test mode (red), green light			
		on with test mode (green), blue	on with test mode (green), blue light on with test mode (blue), white light on			
		with test mode (white), power s	with test mode (white), power supply reverse polarity (orange), power supply			
			error (blinking orange), incons	error (blinking orange), inconsistency between parametizered current and		
		switch position (blinking white	switch position (blinking white), overheating error on level 1 (blinking red)			
		and level 2 (red).	and level 2 (red).			
Weight		96g	96g			
PCB CTI inde	x		175V	175V		
Housing mate	rial		PC FR V0 halogen free	PC FR V0 halogen free		

¹ Maximum consumption in the worst case scenario (KNX Fan-In model)



TECHNICAL DOCUMENTATION

OUTPUTS SPECIFICATIONS AND CONNECTIONS		
CONCEPT	DESCRIPTION	
Number of outputs	4	
Output type	Solid state switching device	
Maximum load per output	1000mA	
Output currents	220mA, 300mA, 350mA, 500mA, 550mA, 630mA, 700mA, 750mA, 900mA or 1000mA.	
Load type	Constant Current LED load	
Short-circuit protection	YES	
Overload protection	NO	
Overheating protection	YES	
Connection method	Pluggable screw terminal block	
Cable cross-section	0.2-1.5mm ² (IEC) / 16-30AWG (UL)	

EXTERNAL POWER SUPPLY SPECIFICATIONS AND CONNECTIONS		
CONCEPT	DESCRIPTION	
Voltage	12-30VDC	
Current	4000mA	
Connection method	Pluggable screw terminal block	
Cable cross-section	0.5-2.5mm ² (IEC) / 28-12AWG (UL)	

WIRING AND ASSEMBLY DIAGRAMS



OUTPUT CURRENT SELECTOR SWITCH

I Out*:	Sw	itch Posil	tion	I Out*:
220 mA	0		5	630 mA
300 mA	1	235	6	700 mA
350 mA	2	о (— и	7	750 mA
500 mA	3	SRI9	8	900 mA
550 mA	4		9	1A

*it is mandatory that the output current chosen by ETS parameter and the current selected with the switch match. On the contrary, the load cannot be controlled and the test LED will blink in white.

TEST LED ERROR IDENTIFICATION

Depending on the color, the test LED indicates different errors:

Color	Error
Blinking white	Output current selection
Blinking orange	No auxiliary power supply detected
Continuous orange	Wrong auxiliary power supply polarization
Blinking red	Overheating level 1
Continuous red	Overheating level 2

A SAFETY INSTRUCTIONS

- Installation should only be performed by qualified professionals according to the laws and regulations applicable in each country.
- Do not connect the mains voltage nor any other external voltage to any point of the KNX bus; it would represent a risk for the entire KNX system. The facility must have enough insulation between the mains (or auxiliary) voltage and the KNX bus or the wires of other accessories, in case of being installed.
- The facility must be equipped with a device that ensures the omnipolar sectioning. Installation of a 10A mini-circuit-breaker is recommended. To prevent accidents, it must remain open in case of manipulation of the device.
- Once the device is installed (in the panel or box), it must not be accessible from outside.
- Keep the device away from water and do not cover it with clothes, paper or any other material while in use.
- The WEEE logo means that this device contains electronic parts and it must be properly disposed of by following the instructions at http://zennio.com/weee-regulation.

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