

FEATURES

- Control of constant current RGB LED loads or 3 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).

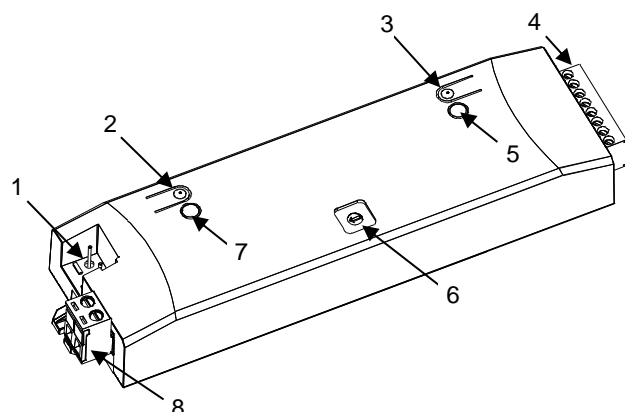


Figure 1: Lumento C3

1. KNX connector	2. Programming button	3. Test button	4. Output channels
5. Test LED	6. Current selector switch	7. Programming LED	8. External power supply

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 SPECIFICATIONS

CONCEPT			DESCRIPTION	
Type of device			Electric operation control device	
KNX supply	Voltage (typical)		29VDC SELV	
	Voltage range		21..31VDC	
	Maximum consumption	Voltage	mA	mW
		29VDC (typical)	8	232
		24VDC ¹	10	240
Connection type		Typical TP1 bus connector for 0.80mm Ø rigid cable		
External power supply			12-30VDC	
Operation temperature			0°C .. +55°C	
Storage temperature			-20°C .. +55°C	
Operation humidity			5 .. 95% (No condens.)	
Storage humidity			5 .. 95% (No condens.)	
Complementary characteristics			Class B	
Protection class			III	
Operation type			Continuous operation	
Device action type			Type 1	
Electrical stress period			Long	
Degree of protection			IP20, clean environment	
Installation			Independent device to be surface-mounted inside electrical panels or boxes. 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 clearances			Not required	
Response on KNX bus failure			Data saving according to parameterization	
Response on KNX bus restart			Data recovery according to parameterization	
Operation indicator			The programming LED indicates programming mode (red). The Test LED indicates the following events: red light on with test mode (red), green light on with test mode (green), blue light on with test mode (blue), power supply reverse polarity (orange), power supply error (blinking orange), inconsistency between parametrized current and switch position (blinking white), overheating error on level 1 (blinking red) and level 2 (red).	
Weight			96g	
PCB CTI index			175V	
Housing material			PC FR V0 halogen free	

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

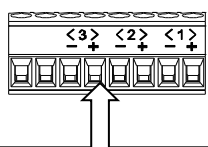
OUTPUTS SPECIFICATIONS AND CONNECTIONS

CONCEPT	DESCRIPTION
Number of outputs	3
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	1000mA
Connection method	Pluggable screw terminal block
Cable cross-section	0.5-2.5mm ² (IEC) / 28-12AWG (UL)

WIRING AND ASSEMBLY DIAGRAMS



External power supply:

+ and - terminals of external power supply (constant voltage) from 12 to 30VDC.

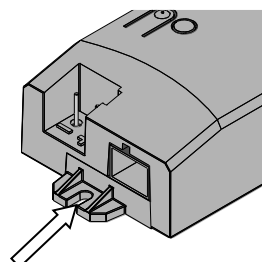
It is recommended to use the closest external power supply value to the load working voltage.

LED

Each LED load must be connected according to its positive and the negative terminals. Respect always the maximum current allowed by the loads.

Correspondence

1: Red 2: Green 3: Blue +: Positive terminal -: Negative terminal



Assembly:

Screw mounting, 2 holes of 3.5 mm diameter. Screws not included.

SEVERAL LOADS CONNECTED TO THE SAME OUTPUT

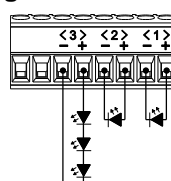


Power restriction: It is mandatory to fulfil the next restriction regarding the power connected to one output channel:

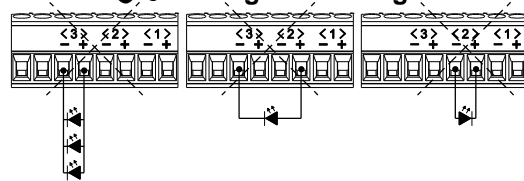
$$I_{out} \times 30Vdc \geq N_{loads} \times P_{Load}$$



Right load wiring



Wrong load wiring



Important warning: the following rules when not considered may result in load or device irreversible damages

OUTPUT CURRENT SELECTOR SWITCH

I Out*	Switch Position	I Out*
220 mA	0	630 mA
300 mA	1	700 mA
350 mA	2	750 mA
500 mA	3	900 mA
550 mA	4	1 A



*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



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>.