

FEATURES

- 4 constant voltage configurable channels (combinable independent channels, RGBW channel, RGB+W channels and combinable TW channels)
- 1 relay to control the LEDs power supply or for independent use
- Supports KNX Data Secure
- Master Light control
- External 12-40 VDC power supply
- Manual output operation with push button and LED status indicator
- Total data saving on KNX bus failure
- Integrated KNX BCU (TP1-256)
- Dimensions 67 x 90 x 79 mm (4.5 DIN units)
- DIN rail mounting according to IEC 60715 TH35, with fixing clamp
- Conformity with the CE, RCM directives (marks on the right side)

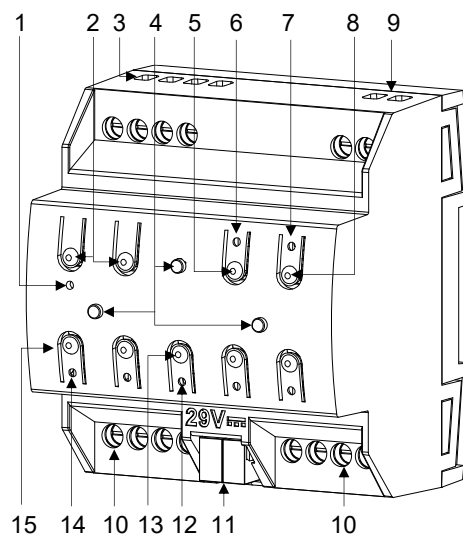


Figure 1: Lumento DX4 v2

1. Power Supply LED	2. Colour shift control buttons	3. External power supply	4. Colour output LEDs	5. TW selection button
6. (not used)	7. Relay status LED	8. Relay control button	9. Power Supply Relay	10. Output channels
11. KNX connector	12. Programming/Test LED	13. Programming/Test button	14. Channel status LED	15. Channel control button

Programming/Test 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. If this button is held for more than 3 seconds, the device enters the test mode. In order to perform a KNX Secure factory reset, while the device is in safe mode, press the button for 10 seconds until the programming LED changes its state.

Programming/Test LED: programming mode indicator (red). When the device enters the safe mode, it blinks (red) every half second. The test mode is indicated by the green color. During the start-up (reset or after KNX bus failure) and if the device is not in safe mode, it emits a red flash.

GENERAL SPECIFICATIONS

CONCEPT			DESCRIPTION	
Type of device			Electric operation control device	
KNX supply	Voltage (typical)		29 VDC SELV	
	Voltage range		21-31 VDC	
	Maximum consumption	Voltage	mA	mW
		29 VDC (typical)	6.2	179.2
		24 VDC ¹	10	240
Connection type		Typical TP1 bus connector for 0.8 mm Ø rigid cable		
External power supply			12-40 VDC	
Operation temperature			0 .. +55 °C	
Storage temperature			-20 .. +55 °C	
Operation humidity			5 .. 95%	
Storage humidity			5 .. 95%	
Complementary characteristics			Class B	
Protection class / Overvoltage category			II / III (4000 V)	
Operation type			Continuous operation	
Device action type			Type 1	
Electrical stress period			Long	
Degree of protection			IP20, clean environment	
Installation			Independent device to be mounted inside electrical panels with DIN rail (IEC 60715)	
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) and test mode (green). Color shift LEDs show the current color. Each output LED indicates its status.	
Weight			200 g	
PCB CTI index			175 V	
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	4
Output type / Disconnection type	Solid state switching device
Maximum load per output	10 A
Total maximum current in device	24 A
Load type	LED strip (monochrome, RGB, RGBW or TW) with common anode (+)
Short-circuit protection	YES
Overheating protection	YES
Connection method	Screw terminal block (0.5 Nm max.)
Cable cross-section	1.5-4 mm ² (IEC) / 26-10 AWG (UL)

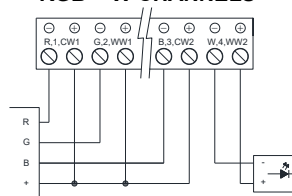
EXTERNAL POWER SUPPLY SPECIFICATIONS AND CONNECTIONS	
CONCEPT	DESCRIPTION
Voltage	12-40 VDC (voltage in concordance with voltage LED strips to be connected)
Current	Depending upon the load to be controlled up to a maximum of 24 A
Connection method	Screw terminal block (0.5 Nm max.)
Cable cross-section	1.5-4 mm ² (IEC) / 26-10 AWG (UL)

RELAY SPECIFICATIONS AND CONNECTIONS	
CONCEPT	DESCRIPTION
Number of outputs	1
Output type / Disconnection type	Potential-free outputs through bistable relays with tungsten pre-contact / micro-interruption
Relay rated current	AC 16(6) A @ 250 VAC (4000 VA) DC 7 A @ 30 VDC (210 W)
Maximum load per output	Resistive 4000 W Inductive 1500 VA
Maximum inrush current	800 A/200 µs 165 A/20 ms
Short-circuit protection	NO
Overload protection	NO
Connection method	Screw terminal block (0.5 Nm max.)
Cable cross-section	1.5-4 mm ² (IEC) / 26-10 AWG (UL)
Maximum response time	10 ms
Mechanical lifetime (min. cycles)	3 000 000
Electrical lifetime (min. cycles)	100000 @ 8 A / 25000 @ 16 A (VAC)

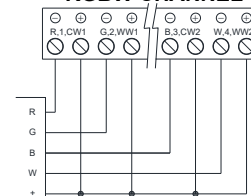
* If you parameterize channels in parallel, those parameterized channels in this way should be connected together through a bridge.

WIRING DIAGRAMS

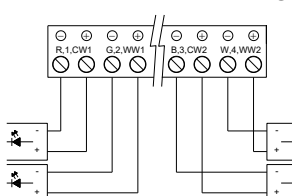
RGB + W CHANNELS



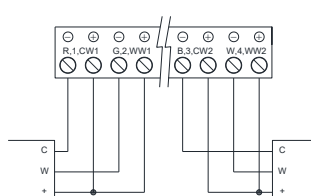
RGBW CHANNEL



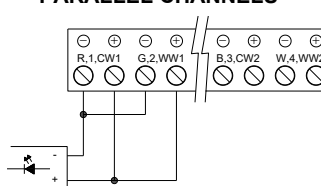
INDEPENDENT CHANNELS



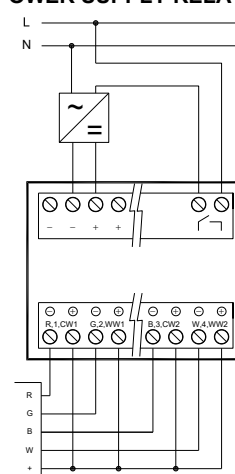
TW CHANNELS



*PARALLEL CHANNELS

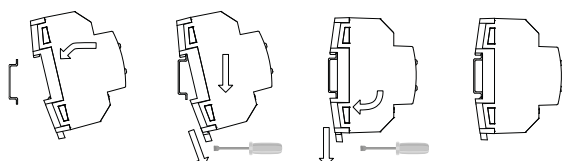


POWER SUPPLY RELAY

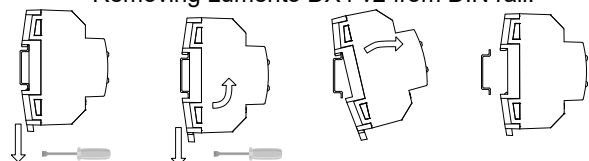


NOTE: The ⊕ pole of each channel in use must be mandatorily connected.

Attaching Lumento DX4 v2 to DIN rail:



Removing Lumento DX4 v2 from DIN rail:



Power supply failure Overheating Short-circuit

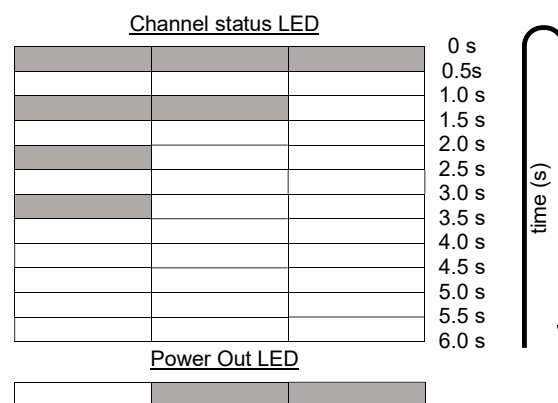


Figure 2: Error notification LED codes

SAFETY INSTRUCTIONS AND ADDITIONAL NOTES

- 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 home automation facility must be equipped with a device that ensures the omnipolar sectioning. Installation of a 10 A 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 (condensation over the device included) 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 <https://www.zennio.com/en/legal/weee-regulation>. This device contains software subject to specific licences. For details, please refer to <https://zennio.com/licenses>.