

XC-800 SERIES XPERIENCE CONTROLLER

XC range

The Nexmosphere XC range offers Xperience Controllers in a compact form factor while offering various onboard functionalities. Choose the right controller series based on the functionality needed, whether this is controlling multiple RGBW LED strips, pixel LED strips or (optical) audio switching. Combine this with Elements connected onto the X-talk channels to build your own unique experience.



XC-800 series

The 800 series are equipped with fully dimmable RGBW LED outputs which allow connecting 12/24V LED strips. Transition smoothly between different colors and create just the right atmosphere with subtle lighting use in tailored RGBW LED colors.

Features

- Dimmable RGBW LED output
- X-talk interface for easy sensor connection
- LightMark interface for Pixel LED strips

	XC-820	XC-841	XC-847	XC-860
X-talk interfaces	4	8	4	4
RGBW LED outputs	2	4	4	6
LightMark interfaces	-	-	2	-

X-talk interface

Connect a wide range of sensors, buttons, LEDs, or any other of the Nexmosphere Elements to create your unique shopper experience. Due to auto-configuration, no additional setup is required for seamless operation.

- Plug and smile interface
- Compatible with any of the Nexmosphere Elements
- Providing power to the connected Elements for easy system wiring

Dimmable RGBW LED output

The RGBW LED output allows connection and control of any standard 12-24V RGB(W) LED strip to illuminate large surfaces. All outputs are fully dimmable and allow smooth fading between the different intensities and colors.

- 12/24 VDC, 3A max per channel (comb. total output 4A max)
- Individually dimmable LED output (PWM/4096steps)
- JST connectors for easy "click-in"

USB interface

The industry standard USB interface allows 3rd party product interfacing. The Xperience controller manifests itself as a USB-to-Serial converter and is compatible with all mainstream operating systems and Digital Signage players.

- Reliable high-speed USB serial communication
- Easy interfacing with 3rd party products
- No special drivers needed*

** occasionally Windows devices need a VCP driver*

X-Script API

The X-Script API runs on the controller by default. All connected Elements and system behavior can be controlled with our standardized API commands.

Benefits

- Auto start-up and configuration for highly reliable applications (24/7 operability)
- Compact form factor for easy installation in or behind displays
- Control multiple RGBW LED strips from one single controller
- Compatible with all Nexmosphere Elements

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Thermal specifications

Operating temperature: +10°C...+40°C/ +50°F ... +104°F
 Storage temperature: -20°C...+50°C/ -4°F ... +122°F
 Cooling: Passive cooling (no moving parts)

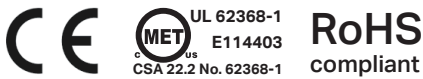
Electrical specifications

Operating voltage: 12-24VDC
LPS power adapter
 Max. system current: 4.0A
 Power consumption: 0.2A
 Max. output per X-Wave interface: 2.0A @5V (= ±1.0A @12V = ±0.5A @24V)
 Max. output per X-talk interface: 500mA @5V (= ±0.3A @12V = ±0.2A @24V)
 Max. output per RGBW output: 3.0A @ 12-24VDC

Serial communication specifications

Baudrate: 115200
 Data bits: 8
 Parity: None
 Stop bits: 1
 Flow control: None
 Protocol: ASCII
 EOL: CR+LF

Standards and Certifications



Miscellaneous

- Robust compact housing with screw brackets for secure fixing
- Built-in magnets for easy mounting on metal surfaces
- Both horizontal and vertical mounting allowed
- Diagnostic LED indicating potential issues
- Status LED indicating power & input/output operations
- 1-year warranty (optional 3-year extended warranty available)

Packaging

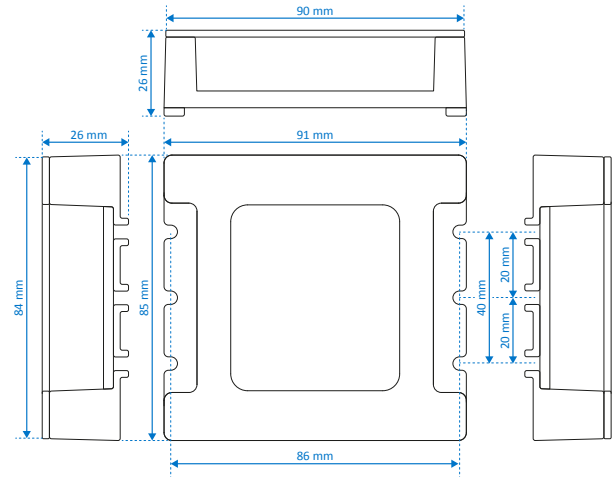
Netto weight: 120g
 Items per carton 1 or 10 pcs

Ordering information

Product ID	Description	Quantity
XC-820	Xperience controller, 2x RGBW LED output, 4x X-talk, USB	1 pc
XC-841	Xperience controller, 4x RGBW LED output, 8x X-talk, USB	1 pc
XC-847	Xperience controller, 4x RGBW LED output, 2x LightMark interface, 4x X-talk, USB	1 pc
XC-860	Xperience controller, 2x RGBW LED output, 6x RGBW LED output, 4x X-talk, USB	1 pc

Mechanical dimensions

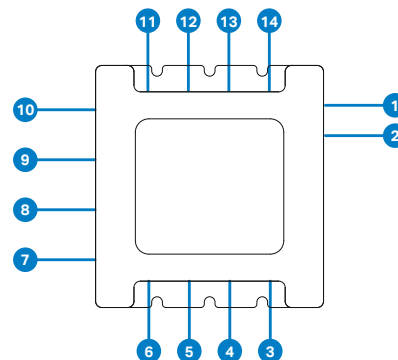
LxWxH: 91 x 86 x 26 mm
 Screw fixation: 20 / 40 x 85 mm

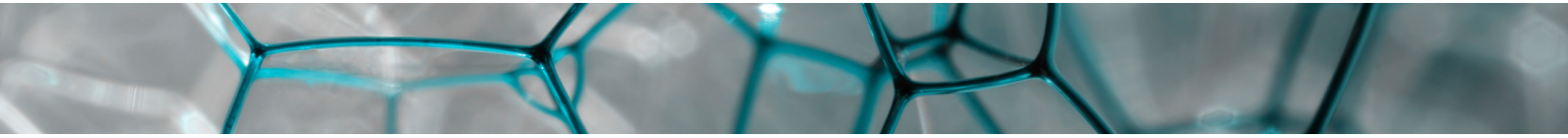


Hardware interfaces

	XC-820	XC-841	XC-847	XC-860
1.	12-24VDC Power input, 2.1mm DC socket			
2.	API interface, Micro-USB			
3-6	X-talk interface, address 001-004			
7-10	RGBW Channel* A-D, Generic address 111			
11.	RGBW* ch. A Generic address 005	X-talk address 005	LightMark addr. 005	RGBW* ch. A Generic address 005
12.		X-talk address 006	-	-
13.	-	X-talk address 007	-	-
14.	RGBW* ch. B Generic address 006	X-talk address 008	LightMark addr. 006	RGBW* ch. B Generic address 006

* see next page for the pinout specifications of the RGBW output





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Specifications RGBW connector

Connector type: JST-PHR-5

Pinout:

Pin 1 - White channel	- orange wire on picture below
Pin 2 - Blue channel	- blue wire on picture below
Pin 3 - Red channel	- red wire on picture below
Pin 4 - Green channel	- green wire on picture below
Pin 5 - Supply voltage (12V or 24V)	- white wire on picture below

Compatible cables are available:

CA5-S1C	15cm
CA5-S3C	30cm
CA5-S4C	60cm
CA5-S5C	120cm
CA5-S6C	180cm

