nexmosphere

PRODUCT CATALOG
2025 Q1

XPERIENCE

The definition of an experience is something that **happens to you** that **affects how you feel**. A true experience is an event that addresses the senses, creates emotion and in doing so, is **memorized.**

Nexmosphere's products are used to create beautiful **interactive experiences** using exciting technology. We develop and manufacture **sensors** and **controls**, offering a robust **platform solution** for interactive components in Digital Signage installations. Utilizing our API, Nexmosphere's sensor platform is easy to use with almost any digital hardware platform such as BrightSign, Intel, Android or Samsung and runs with many CMS systems.

Watch our online videos for in-depth product explanation and project inspiration by capturing the QR code below (YouTube):
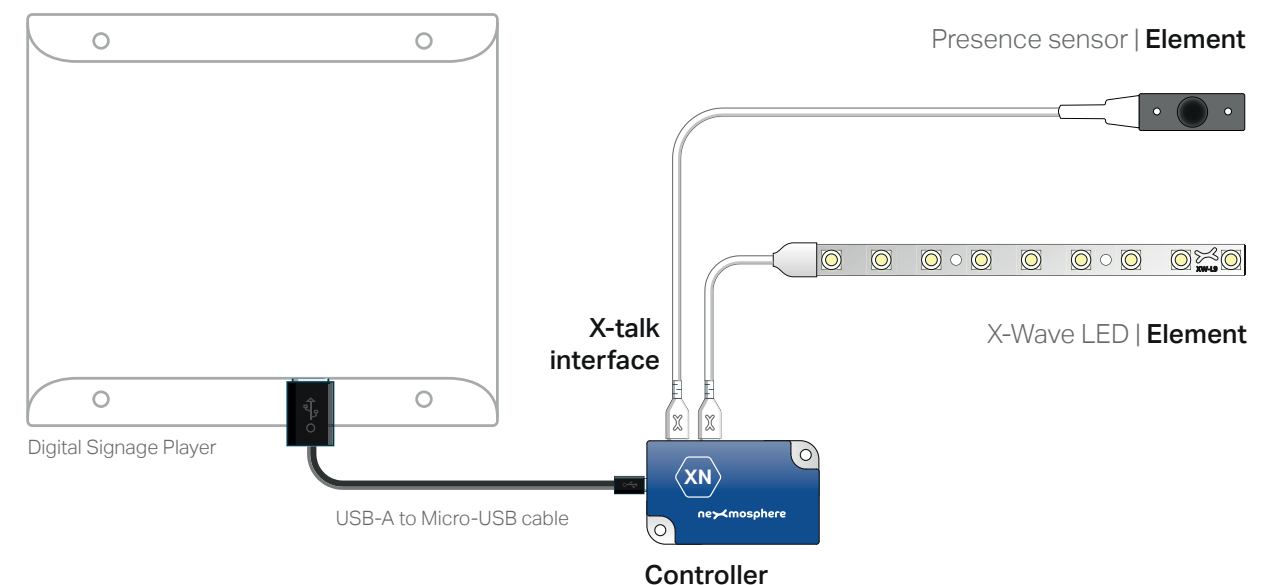
ELEMENTS

Nexmosphere Elements are our collection of sensors and interfaces, such as pick-up sensors, presence sensors or LED. By combining different Elements on our Xperience controllers, interactive experiences can be created.

CONTROLLERS

Xperience controllers are used to combine Elements and connect them to any Digital Signage player or PC. The controller is the part of the system that translates the communication coming from the Elements to the connected device and vice versa. Some of the Controllers have additional functionalities embedded into them such as LED control or audio switching.
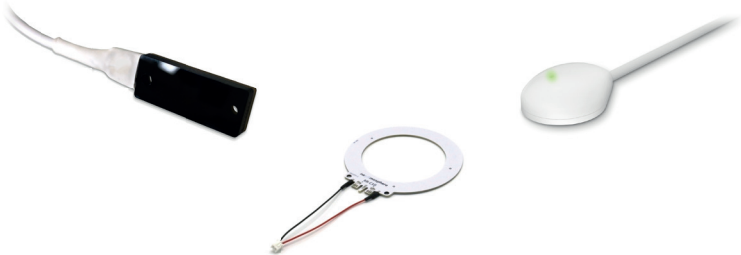
X-TALK

The connection method between Nexmosphere's Elements and Controllers is called X-talk. Calculate the number of X-talk channels needed by adding up the number of Elements used and pick the right Controller model for the job.

Presence sensor | **Element**

Digital Signage Player

X-talk interface

X-Wave LED | **Element**

USB-A to Micro-USB cable

Controller

ELEMENTS | sensors and actuators

CONTROLLERS | connecting Elements

ELEMENTS
sensors and interfaces

The Nexmosphere XY range offers a variety of sensors that detect and analyze presence, distance and demographics of the people in front of your digital signage installation. Whether you want to increase the impact by triggering the right content at the right time, or want to collect valuable data, the XY range has a sensor which provides the input to do so.

X-EYE PRESENCE & PROXIMITY

The X-Eye Presence sensors are narrow-beam IR proximity sensors that detect if an object or person is present and indicate the distance to the person from the sensor.

IR proximity technology

XY-11x	05cm - 80cm
XY-14x	15cm - 150cm
XY-17x	50cm - 500cm
	5.5° beam

X-EYE PRESENCE & AIRBUTTON

The X-Eye Presence & AirButton sensor is an IR Time-of-Flight sensor that detects if an object or person is present and accurately indicates the distance to the person from the sensor. They have a small form factor, making them easy to integrate in fixtures and furniture.

IR Time-of-Flight

Fixed side feed cable
No casing

XY-240	0-250cm
XY-241	0-170cm
	15 - 27° FoV

Back feed connector
No casing

XY-230	0-250cm
XY-231	0-170cm
	15 - 27° FoV
	new product

Selected modules have an aluminum casing allowing easy add-on installation to any display. These offer a sleek and finished design look to complement the look and feel of the installation.

IR Time-of-Flight

Back feed connector
Black aluminum casing

XY-250B	0-250cm
XY-251B	0-170cm
	15 - 27° FoV

Back feed connector
Grey aluminum casing

XY-250G	0-250cm
XY-251G	0-170cm
	15 - 27° FoV

X-EYE MOTION
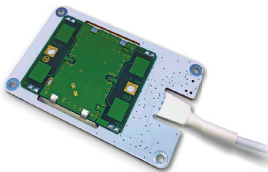
The X-Eye Motion sensor detects the amount of motion in its detection field. It can be installed behind any non-metal surface, resulting in an invisible embedded sensor solution.

Doppler radar

XY-320	1.2m - 10m
	10.525 Ghz

X-EYE GENDER

The X-Eye Gender sensor detects the gender and age range of a person, enabling content triggering and data collection. It does not require network connectivity and doesn't store video data, making it 100% GDPR-compliant.

Gender recognition
Age estimation

XY-510	15cm - 120cm
XY-520	35cm - 250cm

XF RANGE | wireless pick-up sensors

The Nexmosphere XF range offers an innovative way to use wireless pick-up sensors without requiring hardware installation in your store furniture or shelving. The battery-powered sensors can be placed in or on your merchandize to trigger content when the merchandize is interacted with by the shopper. Easily transform existing store setups into interactive experiences with minimal effort using this technology.

P3 WIRELESS PICK-UP SENSOR

The P3 sensor is a battery-powered pick-up sensor placed in or -under merchandise or other objects related to the digital signage installation. This sensor detects any change in positioning when someone interacts with it. This is instantly communicated to the controller which can be installed out of sight, and up to a 10-meter distance from the sensor itself.

Pick-up detection (accelerom.)
Wireless comm. 2.4Ghz ANT+

XF-P3W	white housing
XF-P3B	black housing
XF-P3N	no housing
all	2 years avg. battery life
	8-10m range
	32mm diameter

The P3 sensors pair with controllers which have Wireless X-talk channels.
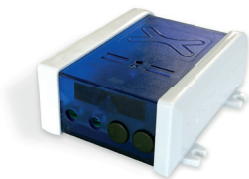
XC controller
more info page 27

XC-171	4x wireless X-talk, 8x X-talk
XC-181	8x wireless X-talk, 8x X-talk
	USB API interface
XC-181U	8x wireless X-talk, 8x X-talk
	UDP API interface

EM module for XM-350 controller
more info page 31

EM-F1	1x wireless X-talk channels
EM-F4	4x wireless X-talk channels
EM-F8	8x wireless X-talk channels

new product

XR RANGE | RFID pick-up sensors

The Nexmosphere XR range provides products for pick-up sensing and NFC applications using RFID technology. The antenna driver detects a tag close by, sending trigger messages and tag information to the Xperience controller. Affix tags under merchandise to trigger screen content upon pick-up or placement. Drivers are compatible with any Nexmosphere antenna and controller model.

XR ANTENNAS
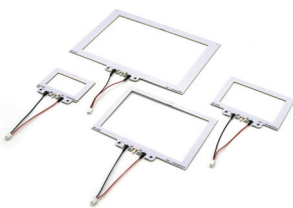
The XR antenna is a slim, easy to built-in RFID antenna. It can be hidden behind a variety of non-metallic design materials such as acrylics, wood, glass and stone. Define your detection surface area and match it with the right shape and size antenna for your product and application.

RFID antennas

XR-C05	circular, 50mm
XR-C10	circular, 100mm
XR-A45	rect., 297x148mm
XR-A50	rect., 210x148mm
XR-A55	rect., 210x74mm
XR-A60	rect., 148x106mm
XR-A65	rect., 148x52mm
XR-A70	rect., 105x74mm
XR-A80	rect., 74x52mm
	100mm cable

XR-DR1 ANTENNA DRIVER

The XR-DR1 antenna driver detects and processes "tag pick-ups" and "tag placement" coming from the connected antenna and tag. It is the ideal solution for easy-to-implement Lift & Learn or Place & Learn applications, containing up to 250 products. It can be used in combination with any of the XR antennas.

RFID technology

XR-DR1	13.56 Mhz RFID
	Multi-Tag detect

XR-2 ANTENNA DRIVERS

The XR-2 driver detects "tag placement" and "tag removals" and processes additional tag information from NTAG213 tags such as the UID or text fields. It can also write a Tag number and Custom text labels on the NFC tag. Providing the ideal solution for complex or large-scale NFC applications in which tags need to be dynamically (over)written.

NFC technology

XR-DR2	Read-only
	NFC NTAG213
XR-DW2	Read and Write
	NFC NTAG213

RFID TAGS

The standard tags for use with this product range, are industry standard tags that can be ordered already programmed with their respective numbers, or as empty tags that still require programming and labelling.

MiFare tags *use with XR-DR1*

XNR tag	26mm, programmed
XNB tag	26mm, unprogrammed

NTAG213 tags *use with XR-2*

XNN tag	26mm, unprogrammed

XZ RANGE | object detection

The Nexmosphere XZ range presents a diverse selection of sensors that detect the status and characteristics of the objects to which they are applied. This allows for the logging and seamless communication of these acquired values and for the system to actively respond to predefined critical threshold values. With this, the XZ range provides a robust solution for object analysis and programming responsive actions, enhancing its utility across a spectrum of applications.

COLOR SENSOR

The XZ-Color sensor can detect the color of objects that are held against or placed upon the sensor. Any color can be detected and communicated back to any Xperience controller.

Color sensing

XZ-H60	Hue
	Saturation
	Brightness

LIGHT SENSOR

The XZ-Light sensor can detect the amount of light that falls in the sensor. This information can be used to determine whether merchandize is placed on top of the sensor or not, to create Lift & Learn or Place & Learn applications whenever RFID or battery-powered sensors can't be applied.

Object Pick-up detection
Light sensor

XZ-L20	adj. trigger values
	X-Dot form factor

ANGLE SENSOR

The XZ-Angle sensor can detect the orientation of the sensor at any given moment, by calculating its angle as opposed to its default relative position that was previously set.

Angle orientation detection

XZ-A40	3-axis orientation
	adj. trigger positions

WEIGHT SENSOR - SHELF TYPE

The shelf-type weight sensor is designed for installation in shelves commonly found in FMCG retail environments. With precision, it detects shelf weight, triggering API messages upon lifting or placing a product, thereby facilitating the seamless implementation of Lift & Learn applications.

Additionally, the sensor features built-in smart control and analytics, enabling real-time tracking of shelf stock. This functionality empowers the implementation of automated stock alerts and facilitates the monitoring of product sell-through rates.

Half bridge weight sensor
Including mounts

XZ-S41M	40Kg,10cm cable
XZ-S46M	40Kg, 60cm cable
XZ-S82M	200Kg, 20cm cable
XZ-S86M	200Kg, 60cm cable

Excluding mounts, bare sensor

XZ-S41B	40Kg,10cm cable
XZ-S46B	40Kg, 60cm cable
XZ-S82B	200Kg, 20cm cable
XZ-S86B	200Kg, 60cm cable

WEIGHT SENSOR - BAR TYPE

The bar-type weight sensor is designed for easy installation in product displays across various retail environments. With high accuracy, this sensor detects shelf weight, promptly triggering API messages when a product is lifted or placed back.

In scenarios where multiple distinct products populate the shelf, the sensor distinguishes the lifted product by analyzing detected weight differences, even in cases of subtle variations between items.

Full bridge weight sensor
Single type - for small shelves

XZ-W11	10Kg, 180cm cable
XZ-W21	20Kg, 180cm cable
XZ-W51	50Kg, 180cm cable

For medium and large shelves, the dual and quad type sensor offer a robust solution with either 2 or 4 weight-bearing fixations.

new product

Full bridge weight sensor
Dual type - for medium shelves

XZ-D46	40Kg, 60cm cable
XZ-D76	100Kg, 60cm cable

Quad type - for large shelves

XZ-Q66	80Kg, 60cm cable
XZ-Q86	200Kg, 60cm cable

XS RANGE | wired pick-up sensors

The Nexmosphere X-Snapper range offers magnetic pick-up sensors that can also be used as active security devices. Merchandize is mounted onto the sensor and when lifted or placed back, the X-Snapper sends a trigger to the connected Xperience controller, facilitating content triggering and measurement of pick-up durations. The security function sends triggers whenever merchandize is removed, the wire is cut or pulled out. This sensor is specially designed to attach to handheld devices of different sizes and shapes.

XS SERIES

The XS-Snapper detects either release from, or connection with, its passive counter block and sends triggers to the connected Xperience controller accordingly, both registering pick-ups and place downs. Use the XS-Snapper for presenting smaller, handheld devices such as shavers, toothbrushes or phones.

Wired pick-up sensor (HALL)
Active security

white housing:

XSW-X36	pick-up and security
XSW-N0S	counter block

black housing:

XSB-X36	pick-up and security
XSB-N0S	counter block

all	coiled cable

XL SERIES

The XL-Snapper detects either release from, or connection with, its passive counter block and sends triggers to the connected Xperience controller accordingly, both registering pick-ups and place downs. Use the flat XL-Snapper for presenting larger devices such as tablets and the curved model for hair stylers.

Wired pick-up sensor (HALL)
Active security

white housing, flat cover

XLFW-X36	pick-up and security
XLFW-N0S	counter block

black housing, flat cover

XLFB-X36	pick-up and security
XLFB-N0S	counter block

all options also available with curved cover. E.g.:

XLCW-X36	pick-up and security
XLCB-X36	pick-up and security

XS ACCESSORIES | pedestals, holders & spares

The Nexmosphere X-snapper range is complemented by accessories and spare parts specifically designed for instore use. This makes completion and installation of POS designs fast and easy while providing a professional finish.

X-SNAPPER DOUBLE

The X-Snapper double consists of two magnetic X-snapper blocks attached to a single continuous spiral cable. This double snapper is not attached to an Xperience controller and does not send triggers. It can be used to securely display products and make sure they are not misplaced after use.

Passive merchandize security

XSW-X1S	100mm cable
XSW-X2S	200mm cable
XSW-X3S	300mm cable
XLFW-X1S	100mm cable, XL
XLFW-X2S	200mm cable, XL

XL versions also available with curved cover

X-SNAPPER STAND

The X-Snapper stand is a pedestal designed for use with the X-Snappers. The stand is bolt fixed in the POS furniture and the X-Snappers are installed on top of its surface. It allows placement of the merchandize at an angle facing the shopper, giving a 'floating' appearance while the stand itself remains visually hidden behind the merchandize.

Merchandize placement

XAT-HL2	25°, low height
XAT-HL4	45°, low height
XAT-HM2	25°, medium height
XAT-HM4	45°, medium height
XAT-HH2	25°, high height
XAT-HH4	45°, high height
all	transparent

X-SNAPPER SPARE TAPE

The X-Snapper spare tapes can be used when merchandize is replaced on the POS because of maintenance reasons or the renewal of merchandize during seasonal rotation.

Double-sided tape

XAS-TS1	10-pack
XAS-TS5	50-pack
XAS-TS9	1365 roll
all	double-sided industrial standard

The Nexmosphere X-Dot range offers a variety of functions divided into two subdivisions: easy interfacing and wired pick-up sensors. They share their ultra-small form factor and the cable design that offers the flexibility of both bottom and side feed installation. Giving the option to use the Elements directly on a surface or to hide the cable from sight. They're easy to install, use and maintain due to the non-marking double-sided installation tape and high-quality finishing.

X-DOT SERIAL INTERFACE

The X-Dot Serial interface connects a USB or serial port from a 3rd party device -such as a screen-, to any Nexmosphere controller. This enables bi-directional communication between the connected 3rd party device and the Nexmosphere Controller.

Serial interfacing

XDW-S30	serial over USB
XDW-S40	RS-232 serial
XDW-S50	TTL serial

X-DOT I/O INTERFACE

The X-Dot I/O interfaces generic I/O devices such as pushbuttons, pressure mats, switches, keylocks, and relays. Additionally, the onboard LED controller offers full control over LED behavior for pushbuttons equipped with an LED ring.

I/O interfacing

XDW-I36	3.3V I/O
XDW-I56	5.0V I/O

X-DOT I/O INTERFACE ACCESSORIES

Pressure mat

S-PM6017S	595x170mm
S-PM7239S	720x390mm
S-PM7256S	720x560mm

Relais

S-RL05231	230VAC/10A

X-DOT BUZZER INTERFACE

The X-Dot Buzzer is a dual interface for 5V buzzer/tweeter devices that can be implemented whenever triggering confirmation sounds is required in an installation. I.e. alarm functionality, beep confirmation of an executed action, or attention requested.

Buzzer interfacing

XDW-B06	interface only
XDW-B46	interface incl. beeper

X-DOT ANALOG INTERFACE

The X-Dot Analog is a versatile interface that connects 5V analog output devices, such as ultrasonic sensors, rotary button, sliders, and PIR motion sensors, to interactive installations.

Analog sensor interfacing

XDW-A50	5V in / output

ANALOG ACCESSORIES

Ultrasonic sensors

S-ULS21	indoor 2.5m
S-ULS22	indoor 1.5m
S-ULS41	outdoor 5m
S-ULS42	outdoor 10m

Rotary button

S-RB011	22mm

X-DOT ENCODER INTERFACE

The X-Dot Encoder interface connects encoders to your interactive installation to facilitate smooth and tactile control of media content via endless rotating and pressing.

Encoder interfacing

XDW-E60	Encoder interf.

ENCODER ACCESSORIES

Mechanical encoders

S-RE121	No dents, no push, 22mm black knob
S-RE171	24 dents, with push, 60mm black knob 15mm cable

Spare knob

S-RK22B	22mm, black
S-RK60B	60mm, black
S-RK22S	22mm, silver
S-RK60S	60mm, silver

Optical encoders

S-RE541	32 dents, no push, 22mm black knob
S-RE571	16 dents, with push, 60mm black knob 15mm cable

XD RANGE | wired pick-up sensors

The Nexmosphere X-Dot range offers a variety of functions divided into two subdivisions: easy interfacing and wired pick-up sensors. They share their ultra-small form factor and the cable design that offers the flexibility of both bottom and side feed installation. Giving the option to use the Elements directly on a surface or to hide the cable from sight. They're easy to install, use and maintain due to the non-marking double-sided installation tape and high-quality finishing.

X-DOT X

The X-Dot X is a wired pick-up sensor that can also be used as an active security device. The sensor is mounted onto the merchandize using double-sided tape. When a product is lifted or placed back, the X-Dot sends a trigger to the connected Xperience controller. The security function sends triggers whenever merchandize is removed, the wire is cut or pulled out.

Wired pick-up sensor (accelerom.)
Active security

white housing:

XDW-X36	pick-up and security
XDW-X36C	pick-up and security
	coiled cable

black housing:

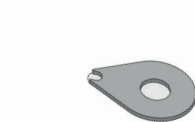|	
XDB-X36	pick-up and security
XDB-X36C	pick-up & security
	coiled cable

X-DOT X SPARE TAPES

The X-Dot spare tapes can be used when merchandize is replaced on the POS because of maintenance reasons or the renewal of merchandize during seasonal rotation.

Double-sided tape

XAS-TX1	10-pack
XAS-TX5	50-pack
XAS-TX9	2750 roll
all	double sided industrial standard

XE RANGE | environmental sensing

The Nexmosphere XE range offers sensors that analyze and communicate environmental conditions. By detecting the surrounding circumstances, we enable the possibility to log and communicate these values, as well as actively respond to certain critical threshold levels such as high temperature.

AMBIENT LIGHT SENSOR

The XE- Ambient light sensor detects the amount of light in its surroundings and communicates the amount of lux back to the Xperience controller, facilitating adjustment of lighting levels based on environmental light conditions.

Ambient light sensor (lux)

XE-A20	1 - 120.000 lux

TEMPERATURE SENSOR

The XE-Temperature sensor detects temperature and humidity levels and can be adhered to heat sensitive objects. Triggers can be used to build a log file for warranty evaluation and to send messages to centralized systems to help protect installations. This simplifies compliance to a growing body of regulations within the digital signage industry.

Temperature detection
Humidity detection

XE-T50	-25°C	+75°C temp
	1 - 99% Humidity

XQ RANGE | interactive surfaces

The Nexmosphere XQ range utilizes advanced technologies to offer sensors that can create interactive planes. This enables you to build immersive environments in which any surface can be made interactive and become part of the experience you create. Whether you want to make an interactive fruit & vegetable section in a supermaket, or make projected content on a wall interactive, the XQ range has the sensor to achieve your goals.

LIDAR SENSOR

The Lidar sensor generates a 360° virtual detection surface around itself. Within this area, activation zones can be defined to trigger when an object crosses the detection surface within the specified zone.

The sensor is versatile and can be mounted in any orientation, allowing for the creation of vertical, horizontal, or diagonal surfaces. As such, it can transform anything from shelving units, walls, display racks, floors or tables into interactive experiences.

Typical use cases are lift and learn, multi-zone people detection and interactive video walls.

Lidar sensor 360°

XQ-L2	5m radius range
	10K hours lifetime
XQ-L5	10m radius range
	45K hours lifetime

XV RANGE | vision-based sensors

The Nexmosphere XV range offers intelligent vision-based sensors with powerful embedded AI engines to analyze what is happening in front of your display. Use this sensor-generated input to create engaging Uls for your audience. No driver, cloud connection, or recurring subscription is required; just connect the sensor and controller to a digital signage player and start designing your experience.

XV HANDGESTURE SENSOR (NON-TOUCH INPUT)

The XV HandGesture sensor facilitates touchless user input by detecting hand gestures such as swiping, pointing, and thumbs-up. The sensor works through glass, allowing customers to interact with onscreen content playing on digital signage in store windows.

Next to gesture detection, the sensor can also track the position of a person's hand and send a command to the connected digital signage player when their hand enters one of the predefined and customizable Trigger Zones. This feature lets you create fun and easy-to-use digital interfaces in public spaces.

Motion Gestures AI

XV-H40	Hand gestures
	Trigger zones

XV CAMERA MODULE
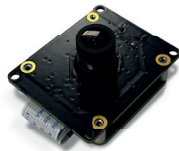
The XV Camera module connects to the XV sensor to provide the visual camera feed. The camera specification determines the Field-Of-View of the complete XV sensor solution.

Manual focus camera lens

S-CLA05	90° FoV
	1.5 meter range

XT RANGE | capacitive touch & mechanical buttons

The Nexmosphere X-Touch range applies when integrating capacitive touch or push buttons with a digital signage setup. Implementing buttons converts static digital signage into interactive and responding presentations by giving the user control over input choices and selection options.
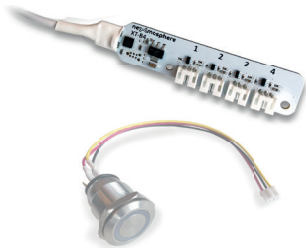
TOUCH BUTTONS

The X-Touch capacitive buttons detect a person's touch on the button or an overlying material. The technology works with multiple non-metal overlay materials, such as acrylic, glass, cardboard, and wood. They can be integrated into furniture without visually drawing away from the design.

Capactive touch
LED control

XT-4FW6	4 small butons, linear
XT-4GW6	4 small butons, rect.
XT-1EW6	1 small button
XT-1GW6	1 large button
all	fitted with button LEDs

PUSH-BUTTON INTERFACE

The X-Touch button interface is a 4-channel push-button interface with LED control and can be used in combination with industry-standard push buttons. It allows the connection of up to four buttons onto a single interface. This results in the connection possibility of up to 9 push buttons even on the smallest Xperience controller. Programmable LED output options are on, off, slow and fast blink.

Push-button interface
LED control

XT-B4N6	4 interfaces
	3.3V LED contr.
	easy click-in

Push buttons
(accessory item)

S-B90xxx	19mm standard

XT-EF SERIES | airgesture & airbutton sensors

The Nexmosphere XT-EF Series offers sensors in various sizes that can detect touchless input from users. The sensors can be installed behind any non-metal material, offering an entirely invisible and touchless button solution.
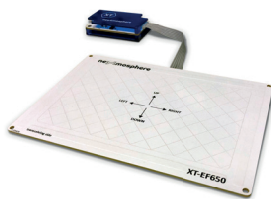
XT-EF AIRBUTTON (NON-TOUCH INPUT)

The AirButton feature detects whenever a person's hand enters and leaves the sensor's detection field and can also register and respond to physical Touch input.

E-Field Gesture tracking
Non-touch input

XT-EF30	90x70mm
	AirButton only

XT-EF AIRGESTURE (NON-TOUCH INPUT)

The XT-EF AirGesture sensors registers left, right, up, and -down swipes within the sensor's detection field. AirWheel detection processes circle tracing by the user's fingers above the sensor. The AirButton feature detects whenever a person's hand enters and leaves the sensor's detection field and can also register and respond to physical Touch input.

E-Field Gesture tracking
Non-touch input

XT-EF680	180x140mm
XT-EF650	140x90mm
XT-EF630	90x70mm
	AirButton, AirGesture, AirWheel

The Nexmosphere X-Wave range consists of a variety of animated LED lighting products. They allow incorporating creative lighting effects in your installations that enhance interactivity. Use animated lighting to attract, highlight, contrast, indicate and guide.

X-WAVE

The X-Wave is a rigid linear LED board fitted with RGB LEDs. Set any RGB color to match or contrast merchandize or brand style. Settings as dimming speed, light output and sinus repetition can be adjusted to match the required lighting behavior and effect.

Linear wave lighting

XW-L56	5 LEDs
XW-L96	9 LEDs

X-WAVE COLOR

The X-Wave Color LED is an X-Dot housed product fitted with one RGB pixel LED. It can be programmed in any color and fade from one color to another. Use it as a visual indicator to mark a certain spot or product of interest.

RGB indication LED

XW-C56	RGB LED
	Glow animations

X-WAVE LINEAR INTERFACE

The X-Wave Linear interface enables Wave LED control over flexible pixel LED strips. Each interface allows connection to one LED strip. Strips can be divided into segments over which the X-Wave animations can be executed.

Pixel LED strip interface
Wave animation control

XW-DL6	max. control 120 LEDs
	max. 12 LEDs / segment

also available as MicroModule, assembled on XN-135 (XN-138M8L)

X-WAVE SELECTION INTERFACE

The X-Wave Selection interface enables Selection LED control over flexible pixel LED strips. Each interface allows connection to one LED strip. It allows splitting up LED strips into segments that can be illuminated to indicate products that correspond to selection inputs given by the user.

Pixel LED strip interface
Selection animation control

XW-DS6	max. control 120 LEDs
	max. 26 segments
	max 15 LEDs /segment

also available as MicroModule, assembled on XN-135 (XN-138M8S)

CONTROLLERS Xperience controllers are used to combine Elements and connect them to any Digital Signage player or PC. The controller is the part of the system that facilitates communication between the Elements and the connected device, both ways. Some controllers also have additional functionalities embedded in them, such as LED control or audio switching.

API Each controller operates using Nexmosphere's API, which provides complete control over all connected Elements to the Digital Signage player it is linked to.

Whenever a sensor is triggered, the Xperience controller automatically sends an API command to the Digital Signage player. Similarly, actuators, such as LED and audio switches, can be effortlessly controlled by sending API commands from the Digital Signage player to the Xperience controller.

API commands are transmitted via Serial-over-USB, Serial, or UDP.

The Nexmosphere XN range offers Xperience controllers in a small form factor, making them ideal for use in limited spaces. Connect your Elements of choice and build a unique user experience with your digital signage. For instance, display a touch menu when someone approaches or show on-screen product information when merchandise is picked up. Whatever interactivity best suits your customer's wishes, leave a lasting impression using the XN Xperience controller.

XN-100 SERIES

The connection method to Nexmosphere's Elements is called X-talk. Calculate the number of X-talk channels needed by adding up the number of Elements used and pick the controller model accordingly. Nano controller models fitted with onboard interfacing offer an additional connection possibility for specific Elements. The Controllers are equipped with a USB or RS232 interface to integrate the sensor Elements with your connected device.
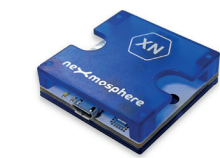
Connecting 1 or 2 sensors

Smallest form factor - no mounting magnet

USB interface
X-talk only

XN-115	1x X-talk
XN-125	2x X-talk

Connecting 2 to 8 sensors

Standard form factor – with mounting magnet

USB interface   **RS-232 interface**
X-talk only   **X-talk only**

XN-135	2x X-talk	**XN-180**	8x X-talk
XN-145	4x X-talk		
XN-185	8x X-talk		
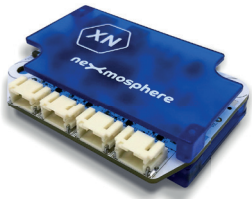
Connecting 1 or 2 sensors, and Push Buttons or Pixel LEDs

Standard form factor – with mounting magnet

USB interface   **USB interface**
Push button interfacing   **Pixel LED interfacing**

XN-165	2x X-talk	**XN-135M8L**	2x X-talk
	4x Push button		1x X-Wave
		XN-135M8S	2x X-talk
			1x Selection LED

XN-RANGE ACCESSORIES

The Nexmosphere Nano range is complemented with the cables needed for communication and power supply. When using XN models with a USB interface, the USB port of the connected device also provides power to the Nexmosphere controller. Most USB ports supply enough power to the Elements without the need for additional power, except when connecting LEDs. When using LEDs consider the use of a USB split cable together with a power supply to provide enough power or consult us for advice. When using the XN models with a serial connection, the use of a power supply is always required.

USB cables

CA-UM4B	Micro-USB to USB-A, 60cm
CA-UM6B	Micro-USB to USB-A, 180cm
CA-UMBB	Micro-USB to USB-A, 500cm
CA-CM6B	Micro-USB to USB-C, 180cm

Power supplies (USB)

PU-0520EU	EU, 5VDC/2A, USB
PU-0520US	US, 5VDC/2A, USB

USB split cables (power/data)

CA-US5B	Micro-USB split cable
	USB-A / USB-A
CA-UD5B	Micro-USB split cable
	2.5mm DC / USB-A

Power supplies (DC, grounded)

PU-0530EU	EU, 5VDC/3A, 2.5mm
PU-0530US	US, 5VDC/3A, 2.5mm

Serial cables

CA-JJ9B	Jack 3.5 to Jack 3.5
CA-CJ9B	Jack 3.5 to Jack 3.5 crossed
CA-JD9B	Jack 3.5 to D-sub 9

XC-RANGE | compact Xperience controllers

The Nexmosphere XC range provides compact Xperience controllers with diverse onboard functionalities. Select the appropriate controller series based on required functionality, be it for controlling 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-100 SERIES - X-TALK INTERFACING

The 100 series features X-talk interfaces for sensor integration. The DC power input supports additional power for both the controller and sensors, catering to applications requiring more power than an XN controller with USB power can provide.

X-Talk interface
USB API interface

| XC-101 | 8x X-talk |
| XC-102 | 12x X-talk |

Wireless X-talk
USB API interface

| XC-171 | 4x wireless X-talk, 8x X-talk |
| XC-181 | 8x wireless X-talk, 8x X-talk |

new product

XC-700 SERIES - LIGHTMARK PIXEL LED CONTROL

The 700 series is equipped with LightMark interfaces which allow connecting flexible pixel LED strips. LightMark LED technology allows the user to select one of the numerous pre-programmed animation patterns and modify its parameters to fit the exact application, whether it's a gentle soft glow or a complex running light.

LightMark pixel LED control
X-Talk interface
USB API interface

XC-720	2x LightMark interface, 4x X-talk
XC-741	4x LightMark interface, 8x X-talk
XC-748	4x LightMark interface, 4x X-talk, 2x RGBW LED output
XC-760	6x LightMark interface, 4x X-talk

XC-800 SERIES - RGBW LED CONTROL

The 800 series is equipped with full 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 and tailored RGBW LED colors.

RGBW LED output
X-Talk interface
USB API interface

XC-820	2x RGBW LED output, 4x X-talk
XC-841	4x RGBW LED output, 8x X-talk
XC-847	4x RGBW LED output, 4x X-talk, 2x LightMark interface
XC-860	6x RGBW LED output, 4x X-talk

XC-RANGE | compact Xperience controllers

XC-900 SERIES - AUDIO SWITCHING

The 900 series is equipped with audio switches to facilitate easy and seamless switching of an incoming audio stream from one speaker, soundbar or headphone to another. Both analog switches (3.5mm jack plug) and optical switches (Mini-Toslink) are available.

Optical Audio switching
X-Talk interface
USB API interface

XC-931	4x optical switch, 8x X-talk
XC-937	4x optical switch, 4x X-talk, 2x X-Wave interface
XC-938	4x optical switch, 4x X-talk, 2x RGBW LED output

Analog Audio switching
X-Talk interface
USB API interface

XC-941	4x analog switch, 8x X-talk
XC-947	4x optical switch, 4x X-talk, 2x X-Wave interface
XC-948	4x analog switch, 4x X-talk, 2x RGBW LED output

XC CONTROLLERS - WITH UDP COMMUNICATION

In addition to API communication via USB, the XC range also provides controllers with UDP communication. These XC controllers can be connected directly to your local network using a UTP network cable and communicate with your Digital Signage player through UDP commands. This simplifies covering large distances between the sensors and the player, and expands the options of 3rd party hardware the controller can communicate with.

UDP API interface
X-Talk interface

XC-101U	8x X-talk
XC-101UP	8x X-talk, PoE
XC-102U	12x X-talk

UDP API interface
X-Talk interface
LED control

| XC-741U | 4x LightMark interface, 8x X-talk |
| XC-841U | 4x RGBW LED output, 8x X-talk |

UDP API interface
Wireless X-Talk interface

| XC-181U | 8x wireless X-talk, 8x X-talk |

new product

UDP API interface
**X-Talk interface**
Audio Switching

| XC-931U | 4x optical switch, 8x X-talk |
| XC-941U | 4x analog switch, 4x X-talk |

LED BOARDS

The LED boards come in various shapes and are fitted with either Pixel or RGBW LEDs. They connect directly to the XC controllers and can be daisy-chained, making them easy, and flexible to install. They're especially suitable for highlighting sections on a translucent panel.
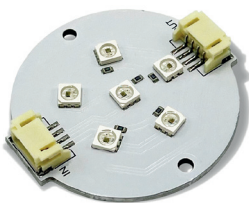
Pixel LED boards *for XC-700 series*

LB-P206C	6 LEDs, circular 50mm
LB-P212R	12 LEDs, 90x100mm
LB-P219C	19 LEDs, circular 100mm
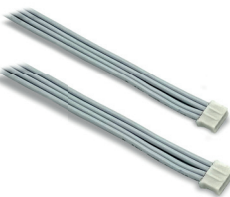
CAW-NxW | connection cable
Pixel LED boards
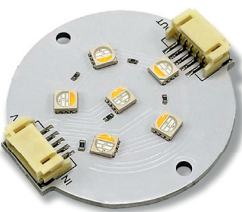
RGBW LED boards *for XC-800 series*

LB-X506C	6 LEDs, circular 50mm
LB-X512R	12 LEDs, 90x100mm
LB-X518C	18 LEDs, circular 100mm

CA5-NxW | connection cable
RGBW LED boards

XC-RANGE ACCESSORIES

The Nexmosphere XC range is complemented with essential accessories for communication, power and LED. Compact controllers need a USB or UTP cable for communication. Calculate the system's power consumption or consult us for advice on selecting the right power supply.

Power supplies 24V

PS-2425EU	EU, 24VDC/2.5A, 2.1mm
PS-2438EU	EU, 24VDC/3.75A, 2.1mm
PS-2438US	US, 24VDC/3.75A, 2.1mm

Power supplies 12V

PS-1220EU	EU, 12VDC/2A, 2.1mm
PS-1220US	US, 12VDC/2A, 2.1mm
PS-1250EU	EU, 12VDC/5A, 2.1mm
PS-1250US	US, 12VDC/5A, 2.1mm

USB cables

CA-UM4B	Micro-USB to USB-A, 60cm
CA-UM6B	Micro-USB to USB-A, 180cm
CA-UMBB	Micro-USB to USB-A, 500cm
CA-CM6B	Micro-USB to USB-C, 180cm

Pixel LED strips *for XC-700 series*

L-P1xxxxxW	Pixel LED strip 30 LEDs/m
L-P2xxxxxW	Pixel LED strip 60 LEDs/m
L-P3xxxxxW	Pixel LED strip 144 LEDs/m

RGBW LED strips *for XC-800 series*

L-X5xxxxxL	RGBW LED strip 24V 60 LEDs/m

COB LED strips *for XC-800 series*

L-C5xxxxxL	Cold white LED strip 24V

The Nexmosphere XM range offers Xperience controllers in an configurable and extendable form factor making it ideal to use when functionality combinations which aren't available in the smaller ranges are required. This series consists of XM controllers and EM extension units, which are mounted together at our production facilities in order to offer you just the right set of functionalities for your project.

XM CONTROLLERS

The Modular controllers are fitted with 1 X-talk channel on the unit itself and can support up to 5 Extension Modules and 8 Shop Modules. The Controllers are equipped with a USB or RS232 interface to integrate the sensor Elements with your connected device via our API.

Modular architecture
API interfacing

XM-350	RS-232 API interfacing

EXTENSION MODULES

The EM modules define the exact specification of the complete XM Xperience controller. Combine any of the modules into one system to make it fit the application requirements. Different functionalities such as LED control, audio switching or large numbers of Element connections through X-talk channels can all be combined on a single XM controller. The EM modules are pre-assembled onto the XM controllers at our production facilities.

Modular architecture
Audio switching

EM-1	1x audio input
EM-4	4x audio switching
EM-30	1x optical input
EM-34	4x optical switching

Modular architecture
LED control

EM-5	5x mono LED output
EM-6	5x RGB LED output

Modular architecture
Wireless X-talk

EM-F1	1x wireless X-talk
EM-F4	4x wireless X-talk
EM-F8	8x wireless X-talk

Modular architecture
X-talk

EM-7	4x X-talk
EM-8	8x X-talk
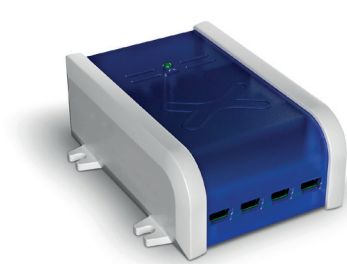
SHOP MODULES

Shopbus Modules are specifically designed for two reasons; firstly, creating large systems where more interfaces are needed than one XM controller with connected EM modules can provide. And secondly; allowing large interspacing between several control units, when Elements are needed far apart from each other. The Shopbus architecture enables connecting multiple XM-like controller units together, with the possibility of using long cable lengths between the units. All the while, the interfacing towards the connected device can still take place through one serial communication connection.

X-talk

SM-100	8x X-talk
SM-200	16x X-talk
SM-300	24x X-talk
SM-400	32x X-talk

X-talk
LED control

SM-110	8x X-talk, 5x mono LED output
SM-115	8x X-talk, 5x RGB LED
SM-120	8x X-talk, 10x mono LED output
SM-125	8x X-talk, 10x RGB LED

XM-RANGE ACCESSORIES

The Nexmosphere Modular range is complemented with the cables needed for communication and power supply. The XM controllers require a serial connection cable and a power supply. Depending on the Elements connected to the EM modules, additional power supplies might be required on individual EM modules. When using Shopbus modules, Shopbus cables are required between the units. Calculate the power consumption of the complete system or consult us for advice to pick the right power supply for your project.

Serial cables

CA-9J9B	RJ-9 to Jack 3.5mm
CA-9D9B	RJ-9 to Sub-D9
CA-9U9B	RJ-9 to USB

ShopBus cables

CAS-N9R	200cm, red (power)
CAS-N8B	100cm, black
CAS-N9B	200cm, black
CAS-NDB	10m, black
CAS-NHB	25m, black

RGB LED strips *for EM-6*

L-X5xxxxxS	RGBW LED strip 24V
	60 LEDs/m

Power supplies (12V, LED modules)

PS-1220EU	EU, 12VDC/2A, 2.1mm
PS-1220US	US, 12VDC/2A, 2.1mm
PS-1250EU	EU, 12VDC/5A, 2.1mm
PS-1250US	US, 12VDC/5A, 2.1mm

Power supplies (24V, LED modules)

PS-2425EU	EU, 24VDC/2.5A, 2.1mm
PS-2438EU	EU, 24VDC/3.75A, 2.1mm
PS-2438US	US, 24VDC/3.75A, 2.1mm

Power supplies (5V, XM controller)

PS-0520EU	EU, 5VDC/2A, 2.5mm
PS-0520US	US, 5VDC/2A, 2.5mm
PS-0530EU	EU, 5VDC/3A, 2.5mm
PS-0530US	US, 5VDC/3A, 2.5mm

NEO is a power management device that measures and controls all the components in your digital signage installation. It empowers System Integrators to measure and control each device's power consumption individually, offering insights and management, leading to significant savings on energy costs.

NEO can connect to your digital signage player via USB, be configured for stand-alone usage, or be connected to a network over wired UTP or Wi-Fi. When connected, pre-built online dashboards provide information and decision-making power. Nexmosphere provides a complimentary basic dashboard for all NEO users, with advanced packages available for those seeking enhanced features and comprehensive logging capabilities.

NEO - MEASURE

new product

NEO devices with power measuring capabilities offer detailed insights into the power consumption and characteristics of each individual system component, such as a display, player or router.

The highly accurate data on power parameters such as Voltage, Current, Power and Usage is available via a USB connection, utilizing Nexmosphere' s easy-to-implement Serial API.

Measure power *on individual outputs*
USB API interfacing

NEO320   2 outputs, 110-230VAC
NEO340   4 outputs, 110-230VAC

NEO - MEASURE & CONTROL

new product

NEO devices with power measuring capabilities offer detailed insights into the power consumption and characteristics of each individual system component, such as a display, player or router. Additionally, NEO models with power control allow you to remotely switch individual devices On or Off, and schedule start-up and shut-down sequences.

Next to utilizing Nexmosphere' s standard API via a USB connection, selected models offer Network connectivity with ready-to-use dashboards for real-time data and remote control.

Measure power *on individual outputs*
Control *individual outputs (On/Off)*
USB API interfacing

NEO520   2 outputs, 110-230VAC
NEO540   4 outputs, 110-230VAC

Measure power *on individual outputs*
Control *individual outputs (On/Off)*
USB API interfacing
Network connectivity

NEO620   2 outputs, 110-230VAC
NEO640   4 outputs, 110-230VAC

NEO POWER CONNECTION CABLES

The NEO product range is complemented with power cables to connect almost any product or plug type to the NEO controller.

The power input on the NEO device is a C14 socket, onto which a C13 connector fits. The power outputs are C13 sockets, onto which a C14 or C18 connector fits.

Output / Input cable C14/C13
CB-CE1B	C14 to C13, 15cm
CB-CE3B	C14 to C13, 60cm
CB-CE6B	C14 to C13, 180cm

Output cable C7
CB-C71B	C18 to C7, 15cm
CB-C73B	C18 to C7, 60cm
CB-C76B	C18 to C7, 180cm

Output cable C5
CB-C51B	C14 to C5, 15cm
CB-C53B	C14 to C5, 60cm
CB-C56B	C14 to C5, 180cm

Output cable EU socket (incl earth)
CB-EU1B	C14 to EU (Type F), 15cm
CB-EU3B	C14 to EU (Type F), 60cm

Output cable EU socket (no earth)
CB-E21B	C18 to EU (Type C), 15cm
CB-E23B	C18 to EU (Type C), 60cm

Output cable US socket (incl earth)
CB-US1B	C14 to US (Type B), 15cm
CB-US3B	C14 to US (Type B), 60cm

Output cable UK socket (incl earth)
CB-UK1B	C14 to UK (Type G), 15cm
CB-UK3B	C14 to UK (Type G), 60cm

Input cable for power supply
CA-EU6B	EU plug (Type F) to C13, 180cm
CA-US6B	US plug (Type B) to C13, 180cm
CA-UK6B	UK plug (Type G) to C13, 180cm