Pavilion M, by Kettal Studio

Many companies have adapted to the increasingly unpredictable market by creating agile organizational structures. To be agile, they also need office structures that can be easily reconfigured to suit ever-changing requirements. Pavilion M is the ideal structure solution for these new work environments.

The principal function of our Pavilion M is to provide a flexible way of dividing offices into zones while offering enclosed workspaces. It consists of an aluminum structure that can be built out with a variety of materials: glass, wood, and fabric, as well as practical fittings: shelving, TV unit, whiteboards, and bulletin boards. Each panel in the Pavilion M system measures 1 meter, allowing for precision in planning and seamless scalability. Our Pavilion M also allows for the integration of electrical cables and functional accessories that can be tailored to your company's specific needs.

Pavilion M facilitates the creation of countless office and workspace layouts that can be rapidly adapted to accommodate changes to your headcount or department functions. Thanks to its modular nature, the Pavilion M system gives you the power to respond quickly to the constantly changing modern world of work.













Standard sizes



Standard sizes



Side panels

Side panels







Glass (1m)



Curved Glass (1m)

Ceiling & accessories

Side accessories





Light and plug





Grid



Aluminum or wooden slats with LED track



Aluminum / Wooden slats



Acoustic electrified ceiling / Acoustic ceiling



Canopy aluminum slats / Wooden slats

Curved canopy structure



Find out more



Dots pendant open

Magnetic and adjustable hanging lamp (48V) or ceiling-recessed lamp (24V). With its two open and closed diffusers, it directs most of the light downwards. By directing most of the light downwards, the shade is molded to illuminate spaces while protecting peoples' eyes from any direct glare. The matte white interior of the elliptical shade helps create a uniform light that is ideal for both directed and general ambient lighting needs.











Dot pendant open

UL 1598 compliance certificate all internal electrical components.

Maintenance

Clean the surface with a damp cotton cloth. Avoid direct contact with solvents and oxides. (text to be agreed)

Technical specifications

Codes	KS34-002-00 / KS34-001-00 / etc.
Variant	35 K
Maximum power (W)	8 W
Input voltage	100-240 V ~50/60 Hz
Nominal voltage (V)	24 Vdc
Weight (kg)	1.5 kg/m - 3.3 lbs/m
Light source	Integrated power supply
No. LEDs	8 LEDs
Protection type (IP)	IP 65
Dimmable	Casambi
Colour temperature (K)	3500 K
Luminous flux (lm)	900 lm
Luminous efficiency (lm/W)	115 lm/w
CRI	90 CRI
Service life (h)	IES TM21 L70 > 50,000 h
Applicable standards	UNE-EN 60598 / UNE-EN 55015 / UNE- EN 60529
Material	Aluminium / PMMA
Packaging (unit/volume)	1 u box (0.1 m3 / 2.2 cu ft)
Energy efficiency class	A++
Power factor	0.90
Cable length	5 m
Indoor/outdoor use	Suitable for indoor and outdoor use
Guarantee	2 years



Dots pendant closed

Magnetic and adjustable hanging lamp (48V) or ceiling-recessed lamp (24V). With its two open and closed diffusers, it directs most of the light downwards. By directing most of the light downwards, the shade is molded to illuminate spaces while protecting peoples' eyes from any direct glare. The matte white interior of the elliptical shade helps create a uniform light that is ideal for both directed and general ambient lighting needs.





cm/Inches





Dot pendant closed

UL 1598 compliance certificate all internal electrical components.

Maintenance

Clean the surface with a damp cotton cloth. Avoid direct contact with solvents and oxides. (text to be agreed)

Technical specifications

Codes	KS34-002-00 / KS34-001-00 / etc.
Variant	35 K
Maximum power (W)	8 W
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Material	Aluminium / PMMA
Packaging (unit/volume)	1 u box (0.1 m3 / 2.2 cu ft)
Energy efficiency class	A++
Power factor	0.90
Cable length	5 m
Indoor/outdoor use	Suitable for indoor and outdoor use
Guarantee	2 years



Dots Articulated

Magnetic and adjustable hanging lamp (48V). These LED light modules are combined with adjustable 360° Dots spotlights.









Dots Articulated

UL 1598 compliance certificate all internal electrical components.

Maintenance

Clean the surface with a damp cotton cloth. Avoid direct contact with solvents and oxides. (text to be agreed)

Technical specifications

Codes	A3DIL-T02-10 / A3DIT-T02-10 / etc.
Variant	35 K
Maximum power (W)	8 W/u
Input voltage	100-240 V ~50/60 Hz
Nominal voltage (V)	24 Vdc
Weight (kg)	2.5 kg/m - 5.5 lbs/m
Light source	Integrated power supply
No. LEDs	8 LEDs
Protection type (IP)	IP 65
Dimmable	Casambi
Colour temperature (K)	3500 K
Luminous flux (lm)	900 lm
Luminous efficiency (Im/W)	115 lm/w
CRI	90 CRI
Service life (h)	IES TM21 L70 > 50,000 h
Applicable standards	UNE-EN 60598 / UNE-EN 55015 / UNE- EN 60529
Material	Aluminium / PMMA
Packaging (unit/volume)	1 u box (0.1 m3 / 2.2 cu ft)
Energy efficiency class	A++
Power factor	0.90
Cable length	1m
Indoor/outdoor use	Suitable for indoor and outdoor use
Guarantee	2 years



Dots light down / up & down

The Dots wall luminaires feature LED light sources and project light above or below the horizontal plane for an authentic washlighting effect, ideal for selectively illuminating corners, specific spaces, facility corridors, as well as walkways, access routes, signs and so on.









Dots light down / up & down

UL 1598 compliance certificate all internal electrical components.

Maintenance

Clean the surface with a damp cotton cloth. Avoid direct contact with solvents and oxides. (text to be agreed)

Technical specifications

KS34-006-00 / KS34-003-00 / etc.
35 K
5 W
100-240 V ~50/60 Hz
24 Vdc
1.5 kg/m - 3.3 lbs/m
Integrated power supply
14 LEDs
IP 65
Casambi
3500 K
650 lm
98 lm/w
90 CRI
IES TM21 L70 > 50,000 h
UNE-EN 60598 / UNE-EN 55015 / UNE- EN 60529
Aluminium / PMMA
1 u box (0.1 m3 / 2.2 cu ft)
A++
0.90
5 m
Suitable for indoor and outdoor use
2 years



LED Track

Magnetic and adjustable with 48V rail integration. An integrated LED lighting system that offers solutions suited to any type of installation. It provides pleasant and efficient visual comfort, combined with high-quality performance and aesthetics.









LED Track

UL 1598 compliance certificate all internal electrical components.

Maintenance

Clean the surface with a damp cotton cloth. Avoid direct contact with solvents and oxides. (text to be agreed)

Technical specifications

Codes	A3CIL-TO2-10 / A3CIT-TO2-10 / etc.
Variant	35 K
Maximum power (W)	22 W/m
Input voltage	100-240 V ~50/60 Hz
Nominal voltage (V)	24 Vdc
Weight (kg)	2.5 kg/m - 5.5 lbs/m
Light source	Integrated power supply
No. LEDs	240 LEDs/m
Protection type (IP)	IP 65
Dimmable	Casambi
Colour temperature (K)	3500 K
Luminous flux (lm)	2800 lm/m
Luminous efficiency (Im/W)	136 lm/w
CRI	90 CRI
Service life (h)	IES TM21 L70 > 50,000 h
Applicable standards	UNE-EN 60598 / UNE-EN 55015 / UNE- EN 60529
Material	Aluminium / PMMA
Packaging (unit/volume)	1 u box (0.1 m3 / 2.2 cu ft)
Energy efficiency class	A++
Power factor	0.90
Cable length	1m
Indoor/outdoor use	Suitable for indoor and outdoor use
Guarantee	2 years



LED Track Curtain

This linear, homogeneous LED lighting is integrated with the low-voltage track for the side panels.







4,7/1,8 ____

Cm/Inches





Dots light ball up & globe shade

The Dots wall luminaires feature LED light sources and project light above or below the horizontal plane for an authentic washlighting effect, ideal for selectively illuminating corners, specific spaces, facility corridors, as well as walkways, access routes, signs and so on.









Dots light ball up & globe shade

UL 1598 compliance certificate all internal electrical components.

Maintenance

Clean the surface with a damp cotton cloth. Avoid direct contact with solvents and oxides. (text to be agreed)

Technical specifications

Codes	KS34-006-00 / KS34-003-00 / etc.		
Variant	35 K		
Maximum power (W)	5 W		
Input voltage	100-240 V ~50/60 Hz		
Nominal voltage (V)	24 Vdc		
Weight (kg)	1.5 kg/m - 3.3 lbs/m		
Light source	Integrated power supply		
No. LEDs	14 LEDs		
Protection type (IP)	IP 65		
Dimmable	Casambi		
Colour temperature (K)	3500 K		
Luminous flux (lm)	650 lm		
Luminous efficiency (lm/W)	98 lm/w		
CRI	90 CRI		
Service life (h)	IES TM21 L70 > 50,000 h		
Applicable standards	UNE-EN 60598 / UNE-EN 55015 / UNE- EN 60529		
Material	Aluminium / PMMA		
Packaging (unit/volume)	1 u box (0.1 m3 / 2.2 cu ft)		
Energy efficiency class	A++		
Power factor	0.90		
Cable length	5 m		
Indoor/outdoor use	Suitable for indoor and outdoor use		
Guarantee	2 years		



Microdots

The Microdot Lighting System for the Pavilion M by Kettal is an integrated, discreet lighting solution designed to blend seamlessly within the structure's canopy. These subtle micro-lights provide ambient illumination without disrupting the pavilion's clean lines, creating a refined atmosphere. Engineered for both functionality and aesthetics, the Microdots enhance the Pavilion M's versatility, delivering soft, even lighting ideal for evening use while maintaining a minimalist appearance.





cm/Inches



Control management

A smart technology fully integrated. It's a fully integrated business space solutions that streamline workflows and resource management for smarter, more efficient workplaces. We work with the platforms that enables you to perform all your daily activities (calls, presentations, collaboration) in every one of your workspaces and manage them securely online.

Partners

CRESTRON CRESTRON SAMSUNG

Personal



Creston Booking screen

Kern Screen (air ventialtion & lights)



Lutron technology

Description

- Compatible with Android and iOS mobile and tablet devices
- Domotic system can also be controlled by PC

Key functions

- Audiovisual hardware
- Mirroring
- Videocalls
- Booking

Control management

The Pavilion system allows 2 project layers depending on what the client prefers:

	Stand Alone	Hub Bacnet
Control from pres- ence sensor and push buttons	\checkmark	\checkmark
Control / Dimming from app and mobile device	×	\checkmark
Status / Ocupation	×	\checkmark
Location map Statis / Ocupation	×	\checkmark
Usage hours	×	\checkmark
Air renewal control	\checkmark	\checkmark
Room booking with schedule	×	\checkmark
Notification 10 minutes before the end of the reservation	×	\checkmark
Equipment failure warning	×	\checkmark
Sensor CO ₂ Bacnet	×	\checkmark
Warranty	2 years	5 years
Remote support	×	\checkmark
Scenes & schedules programming	×	\checkmark

Extra information:

*In case of not selecting any Hub option, all the material only has a 2-year war

Control management

The Pavilion system allows 4 project layers depending on what the client prefers:

A. Standard



Phone Booth STD (with Sensor or Sensor + Dimmer). It is not connected to any control / management system.

B. Hub Basic — Control



Allows the connection of each Phone Booth and Pavilion M to a Management Software for the client.

This is achieved through a HUB (which is installed in the customer's building), which must be connected to the network and which interconnects all rooms and Phone Booths.



Energy saving and space utilization



Response to electricity demand



Timelines



Scene control



Lighting control



Alerts

Control management

How to determine the number of Hubs per project

The number of Hubs per project should be studied based on the layout of the rooms and the project based on the following product specifications.

It is necessary to connect to the customer's network through the RJ45 connection provided by the Hub.

All wireless devices to be associated with the wireless hub must be within 22 m (71 ft) of the wireless hub and must be on the same floor as the hub.



C. Hub Server Pro — Control + Management



Allows the connection of each Phone Booth and Pavilion M to a Management Software for the client.

This is achieved through a HUB (which is installed in the customer's building), which must be connected to the network and which interconnects all rooms and Phone Booths. In addition, a server must be installed to be able to manage all the data and activate the system's functionalities:

Intuitive control: See status, control lights and optimize your building quickly and efficiently with a graphical plan.

Space optimization: Improve building layout based on actual occupancy and usage information.

Save energy with a specific goal thanks to energy reports.

This project layer allows for much greater control and visualization of data.

D. Hub Bacnet — Bacnet Integration





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Allows the connection of each Phone Booth and Pavilion M to the building's BMS (Building Management System) system through the Bacnet IP protocol.

This is achieved through a Bacnet licensed Hub (which is installed in the customer's building), which must be connected to the network and which interconnects all rooms and Phone Booths.

Control management

System's basic information

Operation through presence sensor: When the user enters, the lighting and ventilation are turned on. When the user leaves, after 15 minutes, both the lighting and the ventilation are turned off.



- · Remote controls
- · Presence and daylight sensors
- Lighting controllers
- · Home appliance charge controllers
- · Integrated luminaire sensors and control



Response to demand

Bacnet integration

API integration

Wireless hub

Easy to use Software



Communication protocols



Communicate by RF with control components



Communicate over WiFi with smart devices



Communicate via Ethernet cable to the hub

Security system

Safety by design

- 1. Isolated wired or wireless architecture that strictly limits the ability of the hub's Wi-Fi to be used to access the corporate network to obtain confidential information.
- 2. Distributed security architecture: each hub has its own keys.
- 3. NIST-recommended best practices for password security, including tampering with and using Scrypt.
- 4. AES 128 bit encryption for network communications.
- 5. HTTPS protocol (TLS 1.2) to secure connections ;to the hub in the wired network.
- 6. WPA2 technology to ensure connections to the hub in the Wi-Fi network.

Third party validation

- 1. Various external experts involved during the design process.
- 2. Penetration tests carried out by third parties to identify and correct potential vulnerabilities before installation.

Monitoring and continuous improvements

A dedicated security team is used to constantly monitor potential threats and, when required, submit security patches to update installed systems.

Permanent support

- 1. IT implementation guidelines
- 2. Guidance from our world-class 24/7 technical support organization with IT expertise, throughout the product lifecycle

Monitor & audiovisuals



Monitor & audiovisuals

Monitor key functions

- Slim video monitor
- Plug & Play system
- 3 different Sizes
- Samsung monitor
- Incredible 4K picture quality
- Intelligent UHD upscaling
- Dynamic crystal color
- Clean cable management
- Wi-Fi and Bluetooth built-in

Technical Specifications - Monitor

Model	QB43R	QB55R	QB75R
Туре	43	55	75
Resolution	Edge LED BLU	Edge LED BLU	Edge LED BLU
Power Supply	UHD (3840 x 2160	0) UHD (3840 x 2160	0) UHD (3840 x 2160)



cm/Inches



cm/Inches

Key features

- Secure
- Can be managed remotely
- Fast connection
- Data connection between Wireless
- Mirroring

BARCO bar

- 4K camera with 150° viewing
- Surrounding audiosystem
- Full set of configurable
- ClickShare integrated

Kern screen

Key functions

- Intuitive Touchscreen Control: Kern features an intuitive touchscreen interface that simplifies the control of various office functions.
- Lighting Control: Effortlessly manage lighting within your office space, adjusting brightness and ambiance to suit different tasks and preferences.
- Scene Customization: Create and save custom scenes to set the perfect mood or functionality for meetings, presentations, or everyday work.
- Ventilation Management: Take charge of indoor air quality and comfort by controlling the ventilation system, ensuring a conducive working environment.





Safety

Key funtions

Smoke detection & Sprinklers

(*) Kettal only provides roof adaptation for customer's sprinkler installation



Wall mounted outlets

Key funtions

Data Port · Configurable HDMI · Shatter-proof

• Flat design line

HDMIPower Out

•

Power OutletUSB

The outlets are mounted 325cm from floor to center and centered to the panel.

There are different combinations:

- Double plug
- Plug + Net
- Plug + USB A + USB C





cm/Inches



Table mounted outlets

Hardware

- Simple design
- Power Connections
- USB
- Plug and outlet types (UK, FRA, US, SUI, AUS,...)



cm/Inches



Pavilion M Acoustics

Acoustic side panels 42dB

Description

All our panels are tested to ensure they meet the required acoustic levels. We have tested some of the wall combinations to provide guidelines with regard to acoustic levels. Acoustic performance varies depending on the material selection for each wall.

The M glass version offers excellent acoustic performance, creating a comfortable and efficient working environment. It is based on 6+6 laminates with a soundproofing membrane to provide an impressive acoustic performance of up to 44dB. We also offer a range of solid wall options in fabric and wood. Many of these alternative wall options offer excellent acoustic performance properties. Our laminated panels not only provide additional acoustic performance, but also come in a range of colors. As a result, you can customize your Pavilion M to reflect your brand image or simply to create a bright office space. In addition, the eco-friendly panels reduce and control reverberated noise within the Pavilion, further enhancing the overall soundproofing performance.

Key functions

- · All materials are fire retardant M1
- Memory acoustic foam
- Easy clean material
- Odor free and antimicrobial

Fabric			×	
Geo panel				-0
Super panel		0		
Soundproofing membrane		0		
Compact Wood	o			

Acoustic panels & Ceiling

Acoustic Panel (42 dB)



Acoustic Glass (38 dB)



Nuvola / PET Acoustic Ceiling



Felt Soundproofing Membrane, 3,5 mm, 7 kg/m2

Super Panel 10mm 704 Kg/m3 PET 9 mm

Acoustic panels & Ceiling

Ceiling Panel Nuvola



Pavilion M Aesthetics & materiality

Extruded and hollow profiles of this alloy will be used to build up the structures of each booth.

This is a light and ductile alloy, with great strength and magnificent finishing characteristics. It is ideal for works that require high quality and perfect finishes.

It has excellent corrosion resistance, similar to that of stainless steel. Follows the UN-EN-AW 10204 3-1 regulation.

KETTAL uses 80% recycled aluminum in the extrusion of its profiles in order to reduce greenhouse

80%

gases, thus contributing to a more sustainable production of our customers' products.





Recyclable

Local supplier recycled

Chemical composition (UN-EN 10204 3-1 Regulation)

Min. Máx.
0.30 0.60
0.10 0.30
- 0.10
- 0.10
0.35 0.60
- 0.05
- 0.15
- 0.10



Terrain Paints

Terrain Paints are designed for aluminum profile coatings used in architecture and for other substrates where maximum outdoor resistance is needed.

It is a powder coating formulated with polyester resins and free of TGIC, pigments and additives. They offer excellent exterior durability with very good gloss retention and color stability. Certificates









Class A2

Polymerization Local supplier at 160°



Terrain Paints

Characteristics	Min.	Max.	Method
Baking time / temperature	24 to 150 °C / 75,2 to 302 °F	26 to 150 °C / 78,8 to 302 °F	Total time
Gloss at 60° angle	6	9	ISO 2813
Direct impact 12.5 mm	30		ISO 2813
Indirect impact 12.5 mm	30		ISO 2813
Cross-cut adhesion	0	0	ISO 2813
Erichsen Cupping test	5	11	ISO 2813
Bend test (Cylindrical Mandrel)		6	ISO 2813
Avg. Particle size	50	55	MALVERN
Particle size % < 100 MICRONS	80	95	MALVERN
Particle size % < 50 MICRONS	50	65	MALVERN
Particle size % < 10 MICRONS	4	8	MALVERN
Delta E colour		VISUAL	CIELAB
General appearance	Textured		NIZI-001



kettal

Manganese

32C

Technical wood

The technical wood is one of the main components to create the acoustic lateral panel and ceiling. 10mm fire-fighter. Complies with E1 regulation

The environmental product declaration is in accordance with ISO 14025 and EN 15804.

Comply with standards EN 622- 1, EN 622-5 and EN 14322. They are considered reliable products used as raw material for the construction and furniture industry.

Characteristics	Test	Units
Density	EN 323	kg/m3
Flexural strength	EN 310	N/mm2
Formaldehyde emission	EN 717-1	ppm
Reaction to fire	EN 13501-1	Euroclase
Absorption acoustic coefficient	UNE EN 13986:2006+A 1 :2015	۵
Acoustic insulation	UNE EN 13986:2006+A 1 :2015	db
Biological durability	UNE EN 335	Clase de uso



Local supplier



Type 2 From cradle to gate with options

Formaldehyde free



Soundproof Safety Glass

6 mm / 1 PVB / 6 mm

Soundproof safety glass, consists of two or more glass sheets joined by one or more Polyvinyl Butiral (PVB) films,

Direct acoustic isolation 39 dB.

If a laminated glass is broken, the PVB film retains a large part of the glass fragments, that is, the residual strength and the maintenance of the glazing are kept in the same place until they are replaced.

These glasses filter 99% of the UV rays and contribute to extend the life of curtains, rugs, fabrics, objects, etc., which are exposed daily to natural light.

It offers protection against a need for security and complies with the requirements of current norms and regulations, both for homes, shops or offices.

In case of breakage, the fragments remain attached to the sheet.

Chemical composition

SiO ₂	69 - 74 %
Na ₂ O	10 - 16 %
CaO	5 - 14 %
MgO	0 - 6 %
Al ₂ O ₃	0 - 3 %
Others	0 - 5 %











Kvadrat Relate Fabrics

Relate is a sophisticated twill weave upholstery textile designed by Patricia Urquiola made from Trevira CS, which has a soft hand resembling natural fibres.

The versatile palette for Relate comprises 35 colourways and expresses confident colour combinations by combining warm notes with closely related nuances.

Relate is suitable for contract and private use.



Suitable for indoor use only

Care instructions



Regular care

Regular cleaning is important in order to keep the upholstery textile looking its best and to prolong its life. Dust and dirt wear down the textile and also reduce its re-retardant properties.

Vacuum frequently, ideally every week, at half power where appropriate. Wipe upholstery fabrics made from polyurethane with a dry or moist cloth. May also be vacuum cleaned with a soft brush.



Technical specifications

Composition	100% Trevira
Width	Approx. 140 cm
Weight per m ²	Approx. 328/m²
Fire test	AS/NZS 3837 class 2, BS 5852 Crib 5, BS 5852 part 1 with treatment, DIN 4102 B1, EN 1021- 1/2, IMO FTP Code 2010 Part 8, NF D 60 013, NF P 92 503 M1, NFPA 701, SN 198 898 5.2, UNI 9177 Classe 1, US 1 Cal. Bull. 117-2013, ÖNORM B1/Q1
Lightfastness	5-7 (ISO 1-8)
Shrinking	Арр 2%
Abrasion Martindale	80.000 Martindale
Wash load	Half
Pilling	4-5 (ISO 1-5)
Colour	Slight differences may occur
Produced in environment	Greenguard Certification www.greenguard.org

Colors



Nuvola

Nuvola is a soft material used exclusively on Pavilion O's side and roof panels. This material has excellent acoustic properties, and its soft texture, along with a wide range of colors, offers versatility, creating a welcoming space.



Suitable for indoor use only

Technical specifications

Composition	100% Polyester made from recycled water/ soda bottles without use of adhesives or other bolding agents
Thickness (mm)	12 (+/-1)
Weight (kg)	9mm: 1220 * 2240 mm sheet = 5.40 kg
	12mm: 1220 * 2240 mm sheet = 6.60 kg
Density (kg/m3)	9mm: 200
	12mm: 185
Fire testing	ASTM Class A
Environmental	Low-VOC, min 40% recycled PET
	100 recyclable
Sound absorption	NRC 0.85 (20mm airgap)
	NRC 0.45 (direct surface mounting)

Colour Options



Andina Grey

PF1







Baja Dunes PF4



lron Ore PF5



Clary Sage PF6



Compact Wood

Compact wood imitates the appearance of natural wood but offers superior mechanical properties. This material is used for the Pavilion O panels.

1,___

Suitable for indoor use only

Technical specifications

Resistance to surface wear (N) Resistance to scratching

Thickness (mm) Resistance to water vapour Resistance to staining Lightfastness (Xenon arc lamp) Reaction to fire

≥ 150 EN 438-2 Smooth finishes: 2 Texture finishes: 3 6,5 4 EN 438-2 5 EN 438-2 4 to 5 EN 438-2 D-s2, d0 Class EN 13501-1

Colour Options



MLO







Soft White

Waked Oak ML1



Soft Black ML3



Recycled Cotton Wool

1. Ecological Product. Bio-sustainable. 80% recycled and 100% recyclable.

Safe in its installation: It does not cause discomfort or itching as it is based on natural fibers.
Elastic product. Does not break when folding. Its modulus of elasticity compared to rock wool is: 7 times better.

It does not promote combustion. Fire classification: M1 Certified 09/32300075 and 76 + according to UNE 23721-90, EN 13501-1.





Type 2 From cradle to gate with options

Local supplier Recyclable

R

Frequency	Rockwool 4cm	Cotton 3cm
100	40,7	43,8
200	43,8	42
250	46,8	33,2
400	47,2	46,8
500	47,8	53,3
1000	54,4	54
1250	55,6	56,8
1600	56,6	57,5
2000	59,3	60,1
2500	61	61,2
3150	64,3	66
4000	66,1	68
GLOBAL	53 dBA	54,6 dBA



Soundproofing Membrane

High-density, polymer-based, asphalt-free synthetic soundproofing membrane.

Restricted Substances (REACH Annex 17)"

The item(s) stated within section "2" of this declaration satisfy the requirements that are defined in Tille VIII of Regulation (EC) No. 1907/2006 (REACH regulation }, including the restrictions listed in Annex 17 of REACH.

Link: htt12s://echa.euro12a.eu/substances-restricted-under-reach

No substances including in the LIST OF PROHIBITED SUBSTANCES in CRADLE TO CRADLE CERTIFIED PRODUCTS PROGRAM are used in the manufacturing of the product range Soundproofing Membrane so those substances are not expected to be on the final product.



Note



Soundproofing Membrane

Characteristics	Testing method	Tecsoundsy	Units
Density	-	2.010	kg/m³
Tensile strength	NT-67	>30	N/50mm
Elongation	NT-67	>500	%
Fold	EN 1109	-20	°C
Fire classification	UNE-EN 13501-1	Bs2d0	-
Resistance factor to water steam	UNE-EN 1931 met B	µ>1806	-
Water absorption (24h at 23°C)	1S062 met 1 NT74	0,003	%
Shore A hardness	NT74	30±10	

Regulation or protocol	Conclusion	Version of regulation of protocol	
French VOC Regulation		Regulation of March and April 2011 (DEVL1101903D and DEVL1104875A)	
French CMR components	Pass	Regulation of March and April 2011 (DEVL1101903D and DEVL1104875A)	
AgBB/ABG	Pass	Anforderungen an bauliche Anlagen bezüglich des Gesundheitsschutzes (ABG), Entwurf 31.08.2017	
Belgian Regulation	Pass	Royal decree of May 2015 (C-2014/24239)	
Indoor Air Comfort®	Pass	Indoor Air Comfort 6.0 of February 2017	
Indoor Air Comfort GOLD®	Pass	Indoor Air Comfort GOLD 6.0 of February 2017	
Blue Angel (RAL UZ 132)	Fail	Low-Emission Thermal Insulation Material and Suspended Ceilings for Use in Buildings, October 2010	
BREEAM International	Compliant	GN22 v2.2 (August 2017): BREEAM Recognised Schemes for VOC Emissions from Building Products	
LEED v4 (outside U.S.)	Compliant	LEED v4 for Building Design and Construction (April 2015)	

Pavilion M Technical data

General data

Power

Voltage Input: 100-240VAC (single-phase) Frecuency Input: 50-60Hz Avaliable system power: 16A (The electrical system is designed to support up to the right power) NETWORK line – RJ45 POE+

Power protection

Each Pavilion M must be protected with:

- Differential magnet (30mA)
- Magnetotherm (16A)

It is the costumer's responsibility to provide protection for the power lines.

Power connection

Pavilion M has two power and network connection systems:

1. Connection through the base of the column



Illustration 1 - Power and data connection through column base

When:

If the client has a raised floor and prefers the room's power supply connection to be hidden.

How:

At the room base labelled "power supply and data input", Kettal will provide 5 metres of multicore cable (3G 2.5mm2) to connect the room to the power supply line provided by the client. The end of the above-stated multicore cable will be fitted with a (male) GST18i3 connector. For safe, quick connection, Kettal provides a female connector to attach to the client's cable that is of the same type as the connector in the room.

A 5 meter RJ45 (male) CAT6A network cable is also supplied to connect the pavilion data system.

2. Connection through one side of a column



Illustration 2 - Power and data connection through column side

When:

If the client does not have a raised floor and needs a surfacelaid connection to the pavilion, the client must select this type of connection for the room.

How:

The column selected as "power supply and data input" will have a (male) GST18i3 surface connector and a RJ45 CAT6A connector. The client must provide a power line up to that point. To make the connection, Kettal provides a (female) GST18i3 connector which the client must attach to their power cable to enable simple, quick connection to the pavilion. The customer must also reach that point with an RJ45 cable (male) to connect to the pavilion

Technical data, Connector

General data

Nominal current	20 A
Nominal voltage	250 V
Short-circuit voltage	4 kV
Canopy	Yes
Pollution degree	2
Mechanical coding	Code 1
Lockable	Self-locking (tool release)
Colour code	Black
Pin marking	L, N, PE
Canopy colour	Black

Material

Casing material	Polyamide
Halogen-free	Yes
Contact material	Cu-Zn
Heat load	0.089 kWh
Insulation components, continuous temperature	100°C



Illustration 3 - (female) GST18i3 connector for the client's power line

Connection data

10.5 mm
6.5 mm
2.5 mm2
0.75 mm2
2.5 mm2
0.75 mm2
1
38.5 mm
7 mm



PIR Sensor

Using the established settings, the presence sensor (PIR) enables automatic control of lighting and ventilation.

Operation:

Entry – When a person enters the room in OFF state, all luminaires switch on 100% (ON state).

Exit – When the person leaves the room, the lighting and ventilation will switch to the OFF state after 15 minutes.

Room in Use – While the room is in use, the user can regulate the lighting from the button panel or the App (Only with HUB).





Smartphone

Tablet



4-channel Casambi button panel (dimensions)

A system for controlling room lighting using Wireless.

Pavilion M provides 2 ways of controlling lighting:

1. 4-Channel button panel: Each room has at least one 4-channel button panel. This accessory enables interaction with all luminaires.

Location: This item operates through the scenes pre-configurated. Among other benefits, it does not need any wiring, so it can be placed anywhere in the room, even inside a piece of furniture (it can be fastened with an adhesive strip). The standard location will be at the column on the door side.

These configurations will come std from the Kettal's factory. in case of having a HUB, the client can modify them

2. APP: Each room and project has a standard setting that enables interaction with all luminaire groups (on, off and adjust)

The settings programmed by Kettal enable the user to have an Administrator account.

Administrator

Overall control of all the project's rooms from a central point. Possibility of modifying, deleting or adding scenes, routines, equipment, etc.

User

Limited control of the rooms' functions. Possibility of turning on, turning off and adjusting separately the different lines in the room.



4-channel Casambi button panel (button description)

Luminaire groups

Luminaires

The luminaires will be grouped in a standard layout for control by Kettal if no instructions are given otherwise.

As a general rule, groups will be created consisting of: LED Track, Dot Track and Pendant.

There will be one or more luminaire groups of this type, depending on room size. Each group will be identified by a generic photograph to show which type it belongs to.

If the client thinks it necessary, the images, names and luminaire groups can be modified with the Administrator account.

LED Track





Dot Track



Pendant





* cambiar render

Videoconferences and presentations

All Pavilions M can be equipped with videoconferencing and presentation equipment for performing any activity to professional standards.

All systems available in the Pavilion M are based on a BYOD (Bring Your Own Device) system. This means that users can use their own devices (laptops, tablets, smartphones ...) to benefit easily, securely and professionally from the room's amenities.

The equipment can be used with any operating system (Windows, iOS, etc.).

Samsung monitor

Smart 4K monitor for professional use for presentations from an external device.



Charging and data accesories on TV Panel:

All TV panels will be equipped with 4 accessories, which will be hidden once the monitor has been installed. These will consist of the following: 2 Power + Double Network (RJ45 CAT6A) + USB/HDMI



Installation: Installation will be carried out on the Screen or Screen + SoundBar panel

Smart Soundbar & Camera Crestron



Illustration 5 - Soundbar & Camera

Connects the user's computer to the room's loudspeakers and camera via USB.

Installation: Installation will be carried out on the Screen + SoundBar panel.

Wiring: The equipment has enough cable length to power the equipment and enough USB cable to reach the central table, where the user's personal device will be located. The necessary cables are provided by Kettal.



This wiring, shown in the image above, must be installed from the TV+SoundBar panel, through the client's raised floor, to where the equipment for controlling the peripheral devices must be located. Our pavilion does not have a raised access floor for routing cables.

If a raised floor is not available for routing the cables and the client wishes to have this equipment in the room, another solution must be found with the client for installing the cables or, alternatively, the Wireless system can be purchased.

Videoconferences and presentations

Wireless system CX-20



Clickshare CX-20 device

If the client prefers to make wireless connections with the room monitor and the soundbar and camera, they must buy this equipment.

Professional, quickly set-up presentation and videoconferencing system.

With this system, you can connect to the room's peripheral equipment (monitor, soundbar and camera, etc.)

remotely, quickly and securely from your personal device (PC, MAC, smartphone or tablet), using any videoconferencing system.

In case the customer has only TV in their living room (without SoundBar), they can select the Barco C-5 equipment. This is best suited for presentation applications.



Charging and data accessories

The panels can be equipped with:

Simple plug

- Voltage: 230 VAC 50 Hz (110VAC 60 Hz USA version)
- Settings adapted to country



- Maximum power consumption per pavilion must not exceed 16 A
- The socket can take up to 10 A
- Located on the panels

Double Network socket

- Double RJ45 connection
- 10 A maximum
- Located on the panels

USB A + USB C

- USB type A
- USB type C
- Max 25W
- Located on the panels











3x2 Pavilion



Base	12m ²
Reflexion	Roof: 70% Walls: 61,4% Floor: 20%
Degradation	0,80 (Global)
Interior high	2,31 m
Installation high	2,31 m
Work plane	0,8 m
Marginal zone	0,2 m

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Results

		Calculation	Nominal	Checked	Index	
Work plane	E perpendicular	578 lx	≥ 500 lx		WP2	
	U ₀ (g ₁)	0,32	≥ 0,60		WP2	_
	Power/surface	13,49 W/m ²	-			
		2,33 W/m²/100 lx	-			_
Glare evaluation	R _{UG,MAX}	29	≥ 19			
Power absorption	Energy	313 kWh/y	max. 450 kW/y			_
Room	Specific power	10,52 W/m ²	-			
		1,82 W/m²/100 lx	-			_
Units	Description	R _{ug}	Ρ	0	Lighting performance	
3	Dot articulated	13	13,3W	1229 lm	92,4 lm/W	
6	LED Track	28	14,4W	730 lm	50,7 lm/W	_
Working plane	E	E _{min}	E _{max}	U _o (g₁)	g_2	Index
Working plane 3x2	578 lx (≥ 500 lx)	187 lx	1738 lx	0,32 (≥ 0,6)	0,11	WP2
Calculation surface	E	E _{min}	E _{max}	U ₀ (g ₁)	g ₂	Index
Calculation surface	974 lx	478 lx	1523 lx	0,49	0,31	CG1
	-					

4x3 Pavilion



Base	12m ²
Reflexion	Roof: 70% Walls: 61,4% Floor: 20%
Degradation	0,80 (Global)
Interior high	2,31 m
Installation high	2,31 m
Work plane	0,8 m
Marginal zone	0,2 m



Results

		Calculation	Nominal	Checked	Index	_
Work plane	E perpendicular	578 lx	≥ 500 lx	\checkmark	WP2	_
	U ₀ (g,)	0,32	≥ 0,60	X	WP2	_
	Power/surface	13,49 W/m ²	-			
		2,33 W/m²/100 lx	-			
Glare evaluation	R _{UG,MAX}	29	≥ 19	Х		
Power absorption	Energy	313 kWh/y	max. 450 kW/y	\checkmark		_
Room	Specific power	10,52 W/m ²	-			
		1,82 W/m²/100 lx	-			_
Units	Description	R _{ug}	Ρ	0	Lighting performance	_
3	Dot articulated	13	13,3W	1229 lm	92,4 lm/W	_
6	LED Track	28	14,4W	730 lm	50,7 lm/W	_
Working plane	E	E _{min}	E _{max}	U ₀ (g ₁)	g ₂	Index
Working plane 4x3	578 lx (≥ 500 lx)	187 lx	1738 lx	0,32 (≥ 0,6)	0,11	WP2
Calculation surface	E	E _{min}	E _{max}	U ₀ (g ₁)	g ₂	Index
Calculation surface	974 lx	478 lx	1523 lx	0,49	0,31	CG1

4x2 Pavilion



Base	8m²
Reflexion	Roof: 70% Walls: 33,5% Floor: 20%
Degradation	0,80 (Global)
Interior high	2,31 m
Installation high	2,31 m
Work plane	0,8 m
Marginal zone	0,2 m



Results

		Calculation	Nominal	Checked	Index	
Work plane	E perpendicular	446 lx	≥ 500 lx	X	WP3	
	U ₀ (g ₁)	0,29	≥ 0,60	X	WP3	
	Power/surface	14,62 W/m ²	-			
		3,28 W/m²/100 lx	-			
Glare evaluation	R _{UG,MAX}	30	≥ 19	×		
Power absorption	Energy	208 kWh/y	max. 300 kW/y	\checkmark		
Room	Specific power	10,52 W/m ²	-			
		2,36 W/m²/100 lx	-			
Units	Description	R _{ug}	Ρ	0	Lighting performance	;
3	Dot articulated	13	13,3W	1229 lm	92,4 lm/W	
6	LED Track	28	14,4W	730 lm	50,7 lm/W	_
Working plane	E	E _{min}	E _{max}	U ₀ (g ₁)	9 ₂	Ir
Working plane 4x2	446 lx (≥ 500 lx)	131 lx	1549 lx	0,29 (≥ 0,6)	0,085	V
Calculation surface	E	E _{min}	E _{max}	U ₀ (g₁)	g ₂	Ir
Calculation surface	1125 lx	774 lx	1512 lx	0,69	0,51	С

3x3 Pavilion



Base	9m²
Reflexion	Roof: 70% Walls: 74,5% Floor: 20%
Degradation	0,80 (Global)
Interior high	2,31 m
Installation high	2,31 m
Work plane	0,8 m
Marginal zone	0,2 m



Results

		Calculation	Nominal	Checked	Index	
Work plane	E perpendicular	791 lx	≥ 500 lx	\checkmark	WP3	
	U ₀ (g ₁)	0,42	≥ 0,60	Х	WP3	_
	Power/surface	25,62 W/m ²	-			
		3,24 W/m²/100 lx	-			_
Glare evaluation	R _{UG,MAX}	28	≥ 19	X		
Power absorption	Energy	280 kWh/y	max. 350 kW/y	\checkmark		_
Room	Specific power	12,55 W/m ²	-			
		1,59 W/m²/100 lx	-			_
Units	Description	R _{ug}	Р	0	Lighting performance	 !
2	Dot articulated	13	13,3W	1229 lm	92,4 lm/W	_
6	LED Track	28	14,4W	730 lm	50,7 lm/W	_
Working plane	E	E _{min}	E _{max}	U ₀ (g ₁)	9 ₂	Index
Working plane 3x3	791 lx (≥ 500 lx)	330 lx	1831 lx	0,42 (≥ 0,6)	0,18	WP4
Calculation surface	E	E _{min}	E _{max}	U ₀ (g ₁)	g ₂	Index
Calculation surface	940 lx	370 lx	1620 lx	0,39	0,23	CG3

kettal

5x4 Pavilion



Base	20m ²
Reflexion	Roof: 70% Walls: 28,7% Floor: 20%
Degradation	0,80 (Global)
Interior high	2,31 m
Installation high	2,31 m
Work plane	0,8 m
Marginal zone	0,2 m



Results

		Calculation	Nominal	Checked	Index	
Work plane	E perpendicular	608 lx	≥ 500 lx	\checkmark	WP8	_
	U ₀ (g,)	0,16	≥ 0,60	Х	WP8	_
	Power/surface	13,38 W/m ²	-			_
		2,20 W/m²/100 lx	-			_
Glare evaluation	R _{UG,MAX}	31	≥ 19	Х		
Power absorption	Energy	548 kWh/y	max. 750 kW/y	\checkmark		_
Room	Specific power	11,08 W/m ²	-			
		1,82 W/m²/100 lx	-			_
						_
Units	Description	R _{ug}	Р	0	Lighting performance	
8	Dot articulated	13	13,3W	1229 lm	92,4 lm/W	_
8	LED Track	28	14,4W	730 lm	50,7 lm/W	_
Working plane	E	E _{min}	E _{max}	U ₀ (g ₁)	g ₂	Index
Working plane 5x4	608 lx (≥ 500 lx)	98,1 lx	1636 lx	0,16 (≥ 0,6)	0,06	WP8
Calculation surface	E	E _{min}	E _{max}	U ₀ (g ₁)	g ₂	Index
Calculation surface	1201 lx	578 lx	1575 lx	0,48	0,37	CG4

5x3 Pavilion



Base	15m ²
Reflexion	Roof: 70% Walls: 26% Floor: 20%
Degradation	0,80 (Global)
Interior high	2,31 m
Installation high	2,31 m
Work plane	0,8 m
Marginal zone	0,2 m

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Results

		Calculation	Nominal	Checked	Index	
Work plane	E perpendicular	437 lx	≥ 500 lx	\checkmark	WP5	_
	U ₀ (g ₁)	0,18	≥ 0,60	X	WP5	_
	Power/surface	11,67 W/m ²	-			
		2,67 W/m²/100 lx	-			_
Glare evaluation	R _{UG,MAX}	30	≥ 19	Х		
Power absorption	Energy	346 kWh/y	max. 750 kW/y	\checkmark		
Room	Specific power	9,31 W/m ²	-			
		2,13 W/m²/100 lx	-			
Units	Description	R _{ug}	Р	0	Lighting performance	
4	Dot articulated	13	13,3W	1229 lm	92,4 lm/W	
6	LED Track	28	14,4W	730 lm	50,7 lm/W	
Working plane	E	E _{min}	E _{max}	U ₀ (g ₁)	9 ₂	
Working plane 5x3	437 lx (≥ 500 lx)	79,5 lx	1593 lx	0,18 (≥ 0,6)	0,05	
Calculation surface	E	E _{min}	E _{max}	U ₀ (g ₁)	g ₂	
Calculation surface	758 lx	212 lx	1414 lx	0,28	0,15	(
						-

4x4 Pavilion



Base	16m ²
Reflexion	Roof: 70% Walls: 26% Floor: 20%
Degradation	0,80 (Global)
Interior high	2,31 m
Installation high	2,31 m
Work plane	0,8 m
Marginal zone	0,2 m



Results

		Calculation	Nominal	Checked	Index	
Work plane	E perpendicular	607 lx	≥ 500 lx	\checkmark	WP5	_
	U ₀ (g ₁)	0,19	≥ 0,60	X	WP5	_
	Power/surface	15,04 W/m ²	-			_
		2,48 W/m²/100 lx	-			_
Glare evaluation	R _{UG,MAX}	31	≥ 19	X		_
Power absorption	Energy	483 kWh/y	max. 600 kW/y	\checkmark		-
Room	Specific power	12,19 W/m ²	-			_
		2,01 W/m²/100 lx	-			-
						_
Units	Description	R _{ug}	Ρ	0	Lighting performance	- !
6	Dot articulated	13	13,3W	1229 lm	92,4 lm/W	-
8	LED Track	28	14,4W	730 lm	50,7 lm/W	_
Working plane	E	E _{min}	E _{max}	U _o (g ₁)	g ₂	Index
Working plane 4x4	607 lx (≥ 500 lx)	118 lx	1641 lx	0,19 (≥ 0,6)	0,072	WP6
 Calculation surface	E	E	E	U. (a.)	q.	Index
Calculation surface	- 1113 /v	-min 521 ly	-max 1533 ly	-0 (91)	0.3/	066
	113 K	J211A	1000 1	0,,	0,04	000

5x5 Pavilion



Base	25m ²		
Reflexion	Roof: 70% Walls: 73,5% Floor: 20%		
Degradation	0,80 (Global)		
Interior high	2,31 m		
Installation high	2,31 m		
Work plane	0,8 m		
Marginal zone	0,2 m		



Results

		Calculation	Nominal	Checked	Index	
Work plane	E perpendicular	633 lx	≥ 500 lx	\checkmark	WP5	_
	U ₀ (g ₁)	0,25	≥ 0,60	X	WP5	_
	Power/surface	11,83 W/m ²	-			_
		1,87 W/m²/100 lx	-			_
Glare evaluation	R _{UG,MAX}	30	≥ 19	X		_
Power absorption	Energy	620 kWh/y	max. 900 kW/y	\checkmark		_
Room	Specific power	10,02 W/m ²	-			_
		1,58 W/m²/100 lx	-			_
Units	Description	R _{ug}	Р	0	Lighting performance	•
8	Dot articulated	13	13,3W	1229 lm	92,4 lm/W	_
10	LED Track	28	14,4W	730 lm	50,7 lm/W	_
Working plane						Index
working plane	E	E _{min}	E _{max}	0 ₀ (g ₁)	9 ₂	Index
Working plane 5x5	633 lx (≥ 500 lx)	157 lx	1703 lx	0,25 (≥ 0,6)	0,088	WP7
Calculation surface	E	E _{min}	E _{max}	U _o (g ₁)	g ₂	Index
Calculation surface	1142 lx	708 lx	1703 lx	0,62	0,42	CG7