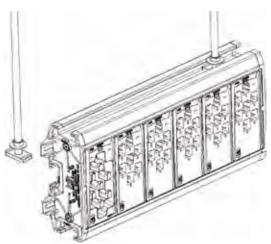


Product Description	Klik Product identification	BS number	Description
Klik 7 pin Marshalling Boxes	KLMB*W	BS 5733:2010	General Requirements for Electrical Accessories.
Occupancy Sensor	EEK*	IEC 60669-1, IEC 60669-2-1	Switches for household & similar fixed electrical installations Part 2-1 for Electronic switches.
Conduit Box / Surface Connector	KLPCR/7	BS 5733:2010	General requirements for Luminaire supporting couplers for domestic, light industrial & commercial use.
Luminaire Leads	KLB*, KLJ*, KLP*, KLT*	BS 5733:2010 BS EN 61535	General Requirements for Electrical Accessories. Installation couplers intended for permanent connection in fixed installations.
LSZH Flexible Cord	Supplied with luminaire lead	BS 6500:2000 BS 7211:1998	Flexible cords rated to 300/350V for use with appliances & equipment intended for domestic, office & similar environments.
Klik Lighting Control Module	KLCM	BS 5733:2010	General Requirements for Electrical Accessories.
		F <sub>pr</sub> EN 60669-2-5	Switches for household and similar fixed electrical installations - Part 2-5: Particular requirements - Switches for related accessories for use in home and building electronic systems
		BS EN 61335:2009	Installation couplers intended for permanent connection in fixed installations. Excluding classes 10.1 & 10.3 are to aluminium enclosures

#### **Mounting Options for Drop Rod**

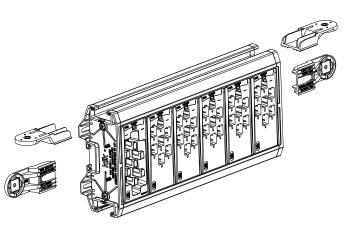
#### Option 1.

Klik 7 Pin LMB features open ends to allow you to slide the box into position before tightening for easier installation, or push the box up on to the nut and rotate to locate and tighten to secure.



#### Mounting Options for Wall & Ceiling

Klik 7 Pin LMB includes the Klik mounting accessory, this makes it much easier to mount LMB with Nail Guns or traditional fixings. 2 accessories are included with each LMB. Mounting Accessory can be clipped into the rear or top channel slot. It can be easily removed by inserting a screwdriver in the RELEASE slot. Note: Double sided LMB can only be mounted on top channel slot.

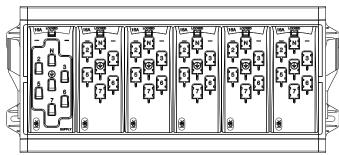


#### Option 2

Single sided LMB can be mounted from the top as option 1 or from the rear as shown. Note: Double sided LMBs can only be mounted with option 1.



# Screw mounting tabs (x4)

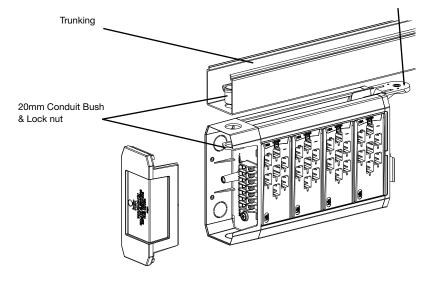


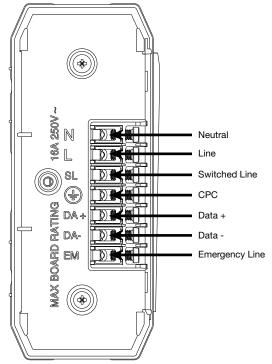
# :hager

# **Mounting Options for Trunking**

Mounting Accessory can be clipped into the rear or top channel slot. It can be easily removed by inserting a screwdriver in the RELEASE slot.

Use a machine screw and nut to secure to trunking using Mounting Accessory



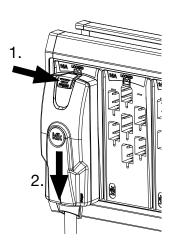


# **Fixed Wiring Connection**

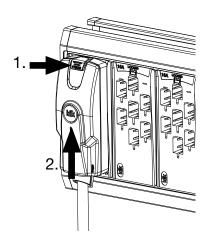
Klik 7 Pin LMB has seven screw terminals available to the installer and are arranged in the end cap as per diagram. DA+/DA- connections can be used for DALI/DSI control.

### **Making a Connection**

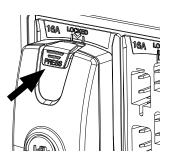
To connect, locate plug in socket and push down to connect and lock



To disconnect, press button to unlock and push up to remove.



Plug type is identifiable by the colour of the button

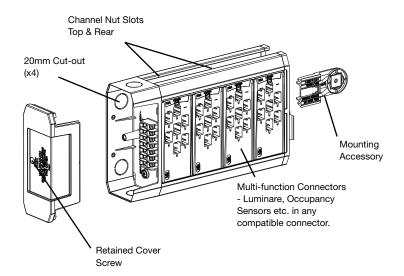


White: Luminaire Lead Red: Luminaire + Emergency Black: Link Lead Blue: Switching (OS, Wall)

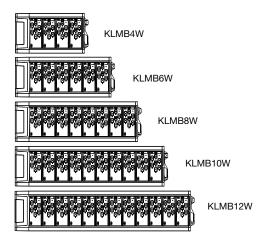
# .....

# Lighting Marshalling Boxes (LMB) - Fixed Wiring

16A Rated LMB Complying to BS 5733:2010

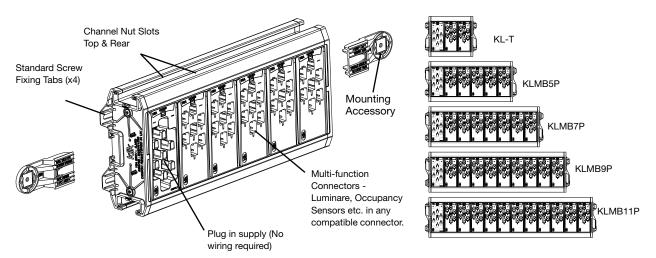


# Hard Wire LMB Range

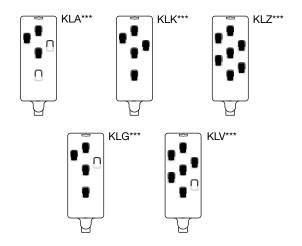


# Lighting Marshalling Boxes (LMB) - Pluggable

16A Rated LMB Complying to BS 5733:2010



# Link leads



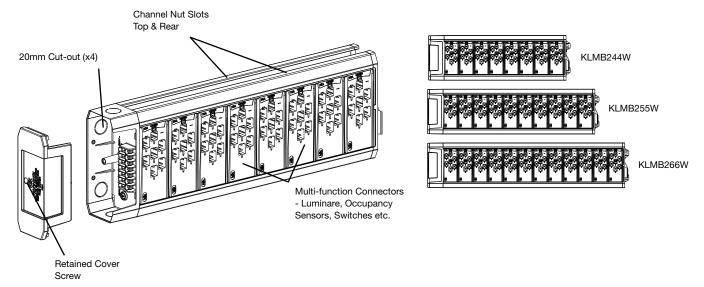
KLA***	L. N. CPC
	, ,
KLG***	L, N, E, CPC
KLK***	L, N, S, E, CPC
KLV***	L, N, S, E, DA+, CPC
KLZ***	L, N, S, E, DA+, DA-, CPC

Key	
N	Neutral
L	Permanent Line
S	Switched Line
CPC	Circuit Protective Conductor
+	DA+
-	DA-
E	Emergency Line

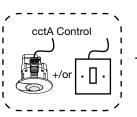


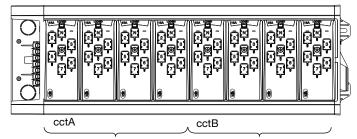
# **Dual Channel Lighting Marshalling Boxes (LMB) - Fixed Wiring**

16A Rated LMB complying to BS 5733:2010

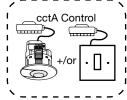


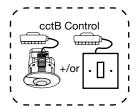
#### Control





1. cctA can be controlled by using pluggable sensors and/or pluggable switch. Alternatively hard wired sensors and/or switches can be used. 2. cctB must use pluggable sensors and/or switches for control.





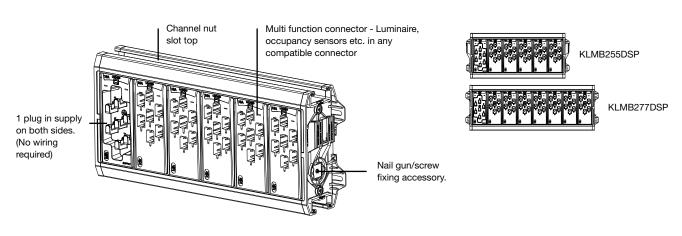
# Dual Supply Lighting Marshalling Boxes (LMB) - Pluggable.

2 x 16A Rated LMB Complying to BS 5733:2010

Designed for use with dual supply where independent control of each supply is required.

- Dual supply Essential & Non-essential from one box.
- Independent control of each supply
- Wall switch\* override & dimming

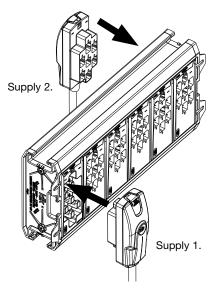
\*When wall switch is used it must be connected on the same side as the sensor.



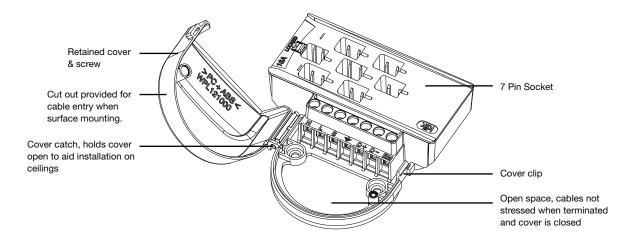


# **Dual Channel Lighting Marshalling Boxes (LMB) - Fixed Wiring**

16A Rated LMB Complying to BS 5733:2010



#### **KLPCR Surface Mount Connector**



PCR can be mounted in two ways, firstly on to conduit box or secondly direct on to a surface.



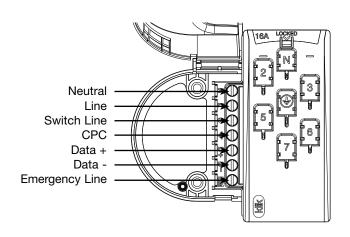
### KLPCR/7

Terminating cables.

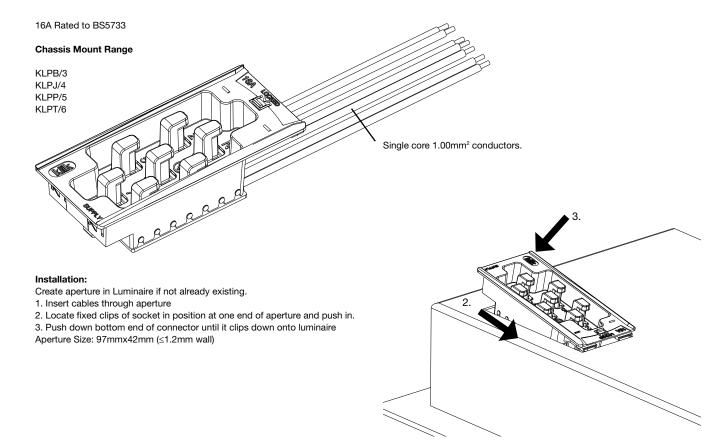
Terminal screws are retained in pockets.

Max Terminal Capacity 2x4mm²

Conductor strip length: 10mm.







# Terminating Cables:

# KLPB/3 (Standard)

Brown - Switched line Blue - Natural Green/Yellow - CPC

# KLPP/5 (Digital)

Brown - Line
Blue - Neutral
Green/Yellow - CPC
Orange - DA+
White - DA-

# KLPT/6 (Digital + Emergency)

Brown - Line
Blue - Neutral
Green/Yellow - CPC
Orange - DA+
White - DABlack - Emergency Line

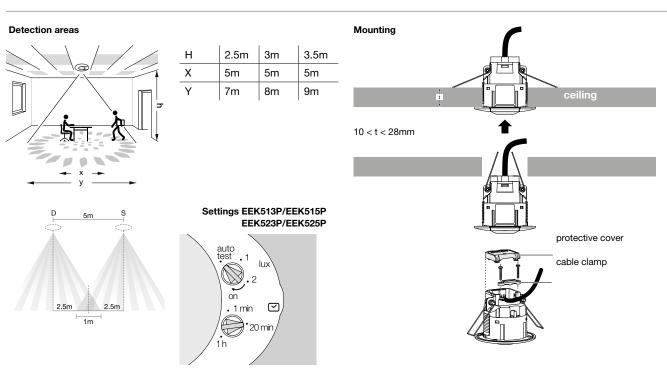
# KLPJ/4 (Standard + Emergency)

Brown - Switched Line Blue - Neutral Green/Yellow - CPC Black - Emergency Line



# **Technical Characteristics**

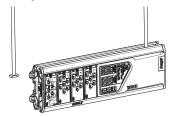
	EEK513P / EEK515P	EEK523P / EEK525P	
Detection range	Motion area: diameter 7m (product installed at 2½m height) Presence area: diameter 5m (product installed at 2½m height)		
Supply voltage	230 V AC + 10% -15%		
Frequency	50/60 Hz		
Local lux threshold setting	5 to 1000 lux	3 modes available	
Local time setting	1 min to 1hr		
Commissioning via installer remote control	EEK001 for power up, absence / presence mode, timer active / passive cell		
Control with IR user remote control	EEK002 for ON / OFF override	EEK002 for ON / OFF override and dimming up / down	
Output	16A AC1 relay output (cut live): - 2300W incandescent or 230V halogen: > 26000 cycles - 1500W VLV halogen lamps with ferromagnetic or electronic transformer: > 35000 cycles - 1000W / 130 μF parallel compensated fluo tube: > 50000 cycles -23 x 23W fluo-compact with electronic ballast: > 20000 cycles	14V / 50mA (for a DALI bus with 24 ballasts) - No isolation between the mains and the DALI bus	
Push button input	Phase input for absence / presence detection (semi-automatic / automatic mode) same phase as power supply.	To dim up / down and absence / presence detection (semi- automatic / automatic mode) same phase as power supply.	
Terminals	for 1.5mm² rigid / flexable wires		
Power dissipation	300mW	60mW	
Isolation class	П		
Protection	IP41 / IK03		
Operating temperature	-10°C to +45°C		
Storage temperature	-20°C to +60°C		
Standards	IEC 60669-1, IEC 60669-2-1		

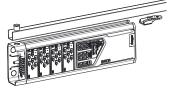


For programming and control see page 3.24.



# Fixing Methods







Drop Rods

Trunking (Not possible for plug-in **KLCM412P**)

Direct: e.g. nail gun or screw fixing (not possible for hard-wire **KLCM413W**)

# Switch inputs - 1 to 4 (retractive wall switch ref: WMGS13R)

Orange/White	Scene 1
Orange	Scene 2
Green/White	Scene 3
Blue	Scene 4 O
Brown/White	On/Dim Up
Blue/White	Off/Dim Down
Brown	0V (Common)
Green	12V (Not Used, must not be connected.)

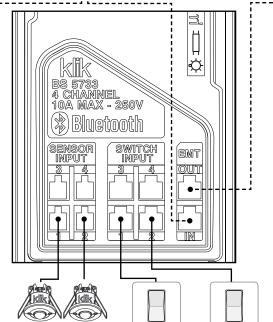
# Emergency test in & out

Orange/White Override - All Outputs On Orange Override - All Outputs Off Green/White Corridor Hold Line Blue Emergency Test (Timer 1) Blue/White Emergency Test (Timer 2) Green Emergency Test (Timer 3) Brown Common Brown/White Not Used.

# **Occupancy Sensor Technical Characteristics**

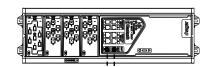
Technical Characteristics	KLCM-OS	KLCM-3OS	KLCM-50S
Supply Voltage	12V DC	SELV (12VDC)	SELV (12VDC)
Detection Area	Motion area: diameter 6m (product installed at 2½m height) presence area: diameter 6m (product installed at 2½m height)	360° 5m to 15m	360° 15m
Receiver Class	2	2	2
Parasitic Power		.672mW	1.044mW
Duration of lighting output operation	Via KlikLink App & LCM	Via KlikLink App & LCM	Via KlikLink App & LCM
Luminocity threshold	Via KlikLink App & LCM	Via KlikLink App & LCM	Via KlikLink App & LCM
Recommended installation height	2.5m	2.5m	2.5m
Operating temperature	-20C to +60C	-20°C to +50°C	-20°C to +50°C
Storage temperature	-2-C to +70C	-35°C to +70°C	-35°C to +70°C
Insulation class	II	II	II
Protection rating	IP41	IP41	IP41
Standards	BS EN 55015:2013	BS EN55015:2013, BS EN61547:2009	BS EN55015:2013, BS EN61547:2009
Maximum installation altitude	2000m	2000m	2000m
Polution degree	2	2	2
Connection	RJ11	RJ11 6P4C	RJ11 6P4C
Dimensions		High: 70mm, Diameter: 101mm	High: 70mm, Diameter: 101mm
Weight		110 grams	110 grams
Mounting hole diameter		85mm	85mm





Up to 4 switch inputs

per LCM



- Plug-in sensor and switch control
- Any port can be configured via the KlikLink App.
- Grouping LCMs via RJ45 leads for corridor hold and groups for emergency test
- Programmed via the KlikLink app. Download from the App Store.

#### Wiring accessories from the Sollysta Grid range

Centre off retractive switch module	WMGS13R
White moulded Grid Plates	<b>WMGPx</b> (1,2,3,4,6 & 8) G
Grid Frames	<b>WMGFx</b> (1,2 & 3/4) G

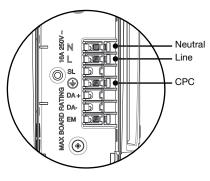
# **Technical Characteristics**

Up to 4 sensor inputs per LCM (part ref: **KLCM-OS**)

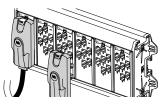
Number of channels	4	
Number of outputs per channel	3 (hard wired LCM has 4 outputs on channel A)	
Number of sensor inputs	4 (KLCM-OS)	
Number of switch inputs	4	
Supply Voltage	230V AC 50Hz	
Rated current	10A (total load)	
Rated current each connector	10A	
Complies with	BS 5733:2010, BS EN 60669-2-5 BS EN 61535:2009 - (Excluding clauses 10.1 and 10.3 due to Aluminium enclosure)	
IP protection	IP20	
Connection for programming	Bluetooth Smart (Bluetooth 4) (only available on Apple iPad)	
Dimensions	Height 145mm Width 440mm Depth 58mm Weight 1.9kg	

# **Supply input connection**

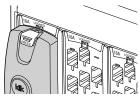
# Hard wired



# Pluggable



- Connecting the supply lead: plug in and push down
- Disconnecting the supply lead: press button and push up.



# Plug colour coding

White: Luminaire Lead Red: Luminaire & Emergency

Black: Link Lead



### LCM Functions (via the KlikLink App)

#### Lighting Configuration Profiles.

The KLCM KlikLink App is pre-loaded with the most common room type configuration profiles. These are selected in the File Manager section of the KlikLink App and are provided to speed up the LCM set-up.

#### Switching - On/Off.

Each channel is capable of being switched via one of four switch inputs. This is an on/ off state utilised for standard luminaires.

#### Presence and Absence Sensing.

Each output channel can be set to Absence or Presence and can be different on each channel. Absence detection will give the best energy efficiencies by minimising unwanted activations, whilst Presence gives an immediate response to occupation in an area.

#### Sensor with integral lux sensor

This allows daylight dimming and switch utilising any natural light available

#### Dimming - DSI, DALI (Broadcast).

The LCM takes information from the sensor and broadcasts a signal on the required channel to all connected luminaires and can be controlled via a retractive wall switch or utilising the daylight dimming function. The protocol for this broadcast is selected during programming.

#### Scene Setting.

Four lighting scenes are possible (plus global Up/Down-On/Off) and can be achieved with via centre off two pole retractive grid switch modules (three grid modules to control all inputs) The LCM can be configured during programming to have two separate scene profiles.

#### Partition Switch Function.

This allows the control of a room with a partition and switch fitted. If a partitioned room has individual wall switches controlling each section, when the partition is removed, both sets of switches could control the whole area. This can be used in conjunction with profiles.

#### Corridor Hold Function

This is achieved by linking a series of LCMs together with an RJ45 lead and assigning certain channels with the attributes of a corridor. If there is any area occupied, the associated corridor lighting will be held ON.

#### Variable burn in up to 250 hrs.

Allows dimmable luminaires to be set at 100% output for the required burn in time period (Dimming is disabled during this period) This may be beneficial to the life of the lamps. After the burn in time, the LCM will return to any programmes set (e.g. dimming)

# Integral Emergency Test Timers.

This allows the emergency test to be carried out via an emergency test switch. The timers can be set for up to five hours within the App. Whilst on test the other luminaires will dim to a pre-set value.

#### Light Level Offset between Channels.

This function allows the levels from different channels to set as a percentage of the lead channel. For example when a number of different dimming levels are set within an area as a scene set, the lighting levels can be adjusted universally across all channels, whilst maintaining the relationship between channels.

#### 3 Level Timeout.

Allows the lighting to turn Off or Down in three stages. When no presence has been detected for the timeout period, the lighting can be turned down to the first set level. After a further period the lighting can be reduced further and after the final time period the luminaires can be turned off or driven to a minimum value set during programming.