

C5271

Christie - TCP

Technical Submittal : General & Emergency Internal Lighting and Control

Document No. TCP-HES-XX-XX-TS-ME-50017

Revision : P02



Client

Main Contractor



Rev	Status	Date	Author	Checked	Approved	Summary of Changes
2	P	19/08/2021	RD	KS		



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Revision : P02

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Manufacturers Literature



C5271

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Document No. TCP-HES-XX-XX-TS-ME-50017

Revision : P02

Technical Submission Compliance Statement

Sub Contractor: N/A
 Package No : EM004 & EM007
 Equipment: Wiring Devices - Accessories
 Proposed Manufacturer: Thorlux, Hostwave and CP Electronics
 Catalogue No : N/A
 2 N/A
 Dimensions : N/A

Specification/Specification Clauses

Specification : Engineering Performance Specification 267472-ARUP-ZZ-SP-N-0001
 Page No's : 55
 Clauses : 3 - 3.5.6
 Schedule : N/A
 Page No's : N/A

Compliance Statement

Fully Compliant with Specification ☐

Not Compliant with Specification due to the following: ☒

Internal lighting to dim down during periods of inactivity - replaced with LR PIR's and 24 hour circuits controlled via key switch

Sign Off / Approval

Reviewed		Signed		Date	
Position					
Status					
A		B		C	
Comments					



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Revision : P02

Appendix 1

2

The Christie Tiered Car Park - Lighting Schedule

Lighting Control Philosophy

General Lighting Car park areas

Generally A type Fittings to be switched on, on detection of presence for the duration of 20mins then will turn off
Lighting noted as "24Hour" will be illuminated 24 hours to protect occupants being presented with darkness.
These circuits are also controlled via time clock.

General Lighting to Stair cores

Generally C type light fittings to be switched via surface mounted presence detector for duration of 20mins then automatically turn off

General Lighting to Plant/Comms/LV Switch room

Generally A type fittings switch via local manual light switch

General Lighting to Roof Areas

Generally D type fittings to be switch Via CP Electronics EBR-DIN-DALIG DIN rail DALI lighting control module and local photocell. An equal split of 50% of the lighting fittings will be dimmed to 50% brightness during the hours of 2.30 – 06.00 - Times to be confirmed by the trust - Lighting Columns at the perimeter of the roof will have post top shields installed to remove excess light spill

Emergency Lighting - Internal car park areas/plant/comms/LV

E type fittings self test surface mounted throughout all areas including final exits. All fittings report back to the Trusts existing Hostwave system

Exit type fittings to be located at each levels access to the stair cores these will also link back to the Trusts Hostwave system



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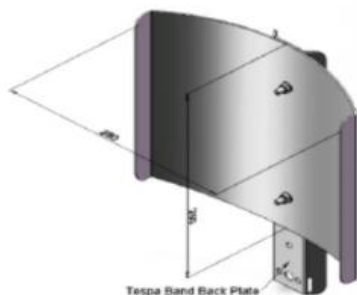
Revision : P02

Appendix 2

2

-  POST-TOP-LIGHT-SHIELD-PART-NUMBER-6115
-  REF-A thoroproof-eco 23watt
-  REF-C cobalt - Plain Face
-  REF-D starbeam
-  REF-E 19434 Formula65 LED Data Sheet
-  REF-E 19434 Formula65 LED Installation Sheet
-  REF-EXIT 37062 & 37065 Kubus65 LED Data Sheet
-  REF-EXIT 37062 & 37065 Kubus65 LED Installation Sheet
-  REF-LC WD583_EBR-DIN-DALIG64 A4
-  REF-LR GENB-IR Data Sheet Issue 1
-  REF-PC datasheet_1050150455_01
-  REF-SM EBD5M_Datasheet_Issue_1
-  TCP-HES-XX-XX-TS-ME-50015-P01 Internal Lighting

6155 Post Top column light shields



The Christie Tiered Car Park

Lighting Schedule



Document Information

Project Name:	The Christie Tiered Car Park		
Address:	The Christie NHS Foundation Trust Wilmslow Road Manchester M20 4BX		
Author:	Adam Carter	Date:	22/09/2021
Revision:	P02	Status:	S4

Document Revision History

[illegible]

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Internal Document Control

Document Title:	TCP Lighting Schedule		
File Name:	TCP-HES-XX-XX-SH-E-630001-P02_S4 -TCP LIGHTING SCHEDULE		
Subject:	Engineering		
Doc Ref No.:	M-----MCE-XX-XX-RP-M-50-01	Review Date:	30/06/2021
Category:	Schedule	Author:	James Knowles
Version:	V1.1	Position:	Commercial Director
Version Date:	30/06/2021	Approved By:	Mark Hodgkinson
Status:	A-Ready Approved by Director	Position:	Managing Director
Applies To:	All Staff & Contractors	Approved Date:	01/07/2021



Constructionline



PROCURE PARTNERSHIPS
FRAMEWORK



Design Suite 1
Unit 33, Meridian Business Village,
Hansby Drive, Liverpool, Merseyside
L24 9LG

0151 734 2006

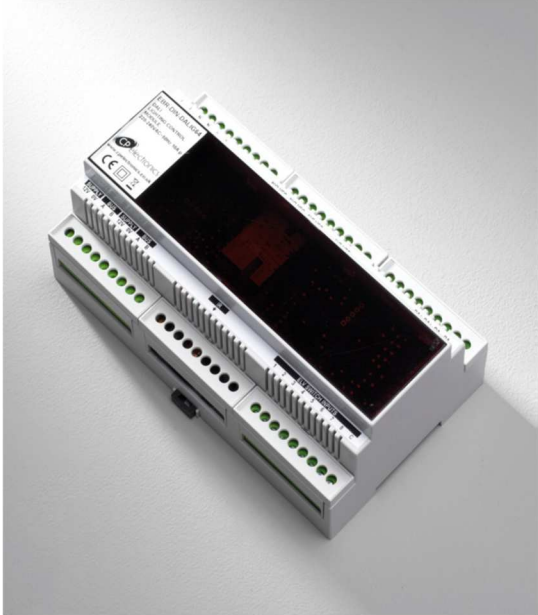
Enquiries@mercuryconsult.co.uk

www.mercuryconsult.co.uk

Lighting Schedule

Lighting Ref.:	Lighting Fixture	Description of Lighting Fixture
A		THORLUX 23W THOROPROOF 1500mm SURFACE MOUNTED LINEAR FITTING, REF: TP 19775
C		THORLUX 15W COBALT WALL MOUNTED FITTING REF: CT 19517
D		THORLUX 31W STARBEAM ECO:LED FLOODLIGHT FITTING ON 4M COLUMN WITH SHROUD CASING REF: SB19677LF
E		HOSTWAVE 24W FORUMLA65 LED LI-FE EMERGENCY SURFACE MOUNTED FITTING

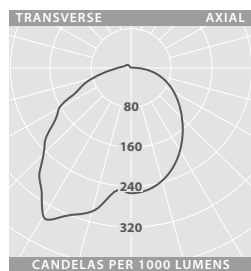
EXIT		HOSTWAVE KUBUS IP65 EMERGENCY EXIT FITTING WITH DIRECTIONAL ARROWS
F		THORLUX 62W STARBEAM AREA:2 FLOODLIGHT FITTING ON 6M COLUMN REF: SB062A2XL
G		THORLUX 20W LED REALTA WALL MOUNTED LUMINAIRE REF: RL 19116L
LR		CP Electronics, GENB-IR, Narrow beam, long range, adjustable head, ceiling PIR presence detector

SM		CP Electronics EBDSM-PRM Surface mounted PIR presence detector located in cores.
LC		CP Electronics DINrail DALI lighting control module.
PC		EXTERNAL WALL MOUNTED PHOTOCELL LOCATED ON CAR PARK ROOF

THOROPROOF ECO

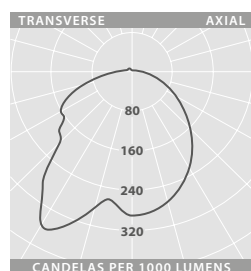


PHOTOMETRIC GUIDE



23W

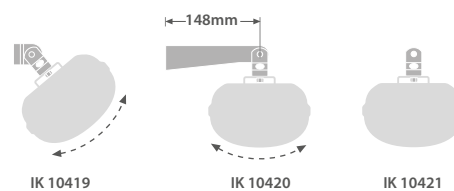
Luminaire Lumen Output: 3700 lm



46W

Luminaire Lumen Output: 6625 lm

ACCESSORIES



DESCRIPTION

IP65 20mm weatherproof compression gland kit with sealing washers
Stainless steel adjustable bracket (Short) - two per pack
Stainless steel adjustable bracket (148mm long) - two per pack
Stainless steel adjustable hook - two per pack
Stainless steel cover clip - ten required per luminaire

CAT. No.

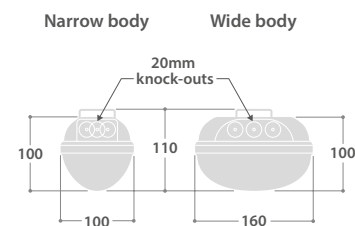
APPROX.
kg

IK 6389 0.02
IK 10419 0.13
IK 10420 0.24
IK 10421 0.05
TP 10541

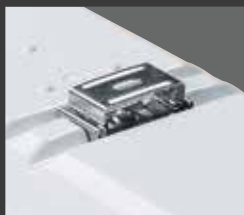


Smart version

DIMENSIONS



THOROPROOF ECO



DIRECT

Pair of stainless steel brackets supplied. Provides clearance for thermal expansion and fixing.



PENDANT

Pair of steel spring loops supplied

ANTI-CORROSIVE POLYCARBONATE LUMINAIRES



SPECIFICATION

- High-impact and corrosion-resistant light grey, injection moulded polycarbonate body
- Frosted prismatic polycarbonate cover
- Body and cover fire-retardant
- Smooth easy-clean lines
- Snug-fit polycarbonate cover clips (stainless steel option)
- Fast installation via external stainless-steel brackets preserves IP rating
- Complies with M.O.D. JSP482 Chapter 8 Document for 'Category C' areas
- Complies with food production standards IFS and HACCP
- SmartScan wireless technology removes the need for control cabling. Ideal for retro-fit
- Fitted with 4000K LEDs

LED CHARACTERISTICS

CRI	80+
COLOUR TEMPERATURE	4000K
RATED LIFE (HOURS)	100K - L70/B10
PROTECTION	-
DRIVER EFFICIENCY	>88%
REPLACEABLE	YES
POWER FACTOR	>0.95

LL/CW 125.0

For LED characteristics explanation see www.thorlux.com/led-guide

Wide body

Narrow body

RANGE

LENGTH (mm)	LED	CAT. No.	CIRCUIT	FIXINGS	APPROX. kg
1570	23W ■	TP 19775	SS/D/L	1150mm centres	2.4
	46W ▲	TP 19776	SS/D/L		3.2

FACTORY FITTED THROUGH WIRING - add 'TW' after catalogue number eg. **TP 19775LTW**

CIRCUIT TYPE - suffix catalogue number with:

SS - SmartScan / **D** - Smart / **L** - non-dimming (LED) e.g. **TP 19775SS** etc.
SmartScan and Smart add 0.1kg to weights listed.

EMERGENCY VERSION - prefix catalogue number with:

ETP - Emergency (Not available when selecting the 'SS' suffix)
TTP - AutoTest

WTP - SmartScan (Only available when selecting the 'SS' suffix)
e.g. **WTP 19775SS** etc.

Add 0.3kg to weights listed.

■ Narrow body

▲ Wide body

AMBIENT OPERATING TEMPERATURES

LED	STANDARD/SMART		EMERGENCY	
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
23W	-20°C	50°C	0°C	25°C
46W	-20°C	40°C	0°C	25°C

For ambient temperatures below the stated minimum contact the Thorlux Technical department

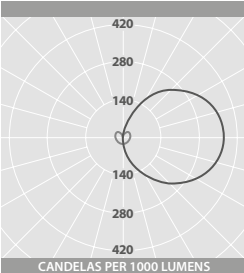
SmartScan Configurations



Find out more at www.thorlux.com/smartsan



PHOTOMETRIC GUIDE

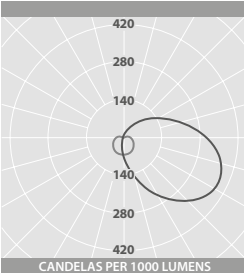


11/16W -
PLAIN VERSION

Luminaire Lumen Output:
11W = 1320lm
16W = 1795lm

11/16W -
PLAIN & GRILL VERSION

Luminaire Lumen Output:
11W = 1070lm
16W = 1455lm



15W -
HOOD VERSION

Luminaire Lumen Output:
15W = 1020lm

15W -
HOOD & GRILL VERSION

Luminaire Lumen Output:
15W = 855lm

OPTIONS

DESCRIPTION	SUFFIX	EXAMPLE
Photocell	PC	CT 19516LPC
Microwave presence detector †	MD	CT 19516MD

† Plain version only

ACCESSORIES

DESCRIPTION	CAT. No.
Tamper-resistant screw kit including key	CT 11699



Plain



Hood



Plain & Grill



Hood & Grill

IP66 CIRCULAR LUMINAIRES



SPECIFICATION

- Strong die-cast LM2 aluminium body and cover frame. Graphite, full polyester powder finish as standard
- Silver or white finish options
- High efficiency fire-retardant satin polycarbonate diffuser
- Choice of cover styles
- Complies with M.O.D. JSP482 Chapter 8 Document for 'Category C' areas
- Photocell option
- Microwave presence detector option with stand-by light level feature (plain version only)
- Fitted with 4000K LEDs

11W/16W LED CHARACTERISTICS

CRI	80+
COLOUR TEMPERATURE	4000K
RATED LIFE (HOURS)	100K - L70/B10
PROTECTION	LUX GUARD
DRIVER EFFICIENCY	>80%
REPLACEABLE	YES
POWER FACTOR	>0.95
LL/CW	95.0

15W HOOD LED CHARACTERISTICS

CRI	80
COLOUR TEMPERATURE	4000K
RATED LIFE (HOURS)	100K - L70/B10
PROTECTION	LUX GUARD
DRIVER EFFICIENCY	>90%
REPLACEABLE	YES
POWER FACTOR	>0.95
LL/CW	56.7

For LED characteristics explanation see www.thorlux.com/led-guide

RANGE

LED	PLAIN VERSION	HOOD VERSION	APPROX. kg	PLAIN & GRILL VERSION	HOOD & GRILL VERSION	APPROX. kg
11W	CT 19516L		3.0	CT 19518L		3.2
15W		CT 19015L	3.0		CT 19016L	3.2
16W	CT 19517L		3.0	CT 19519L		3.2

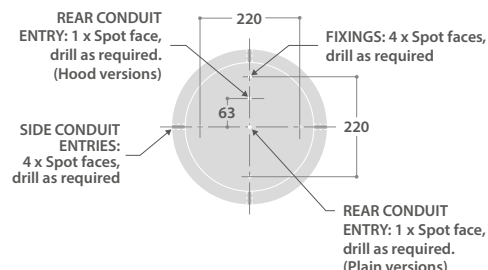
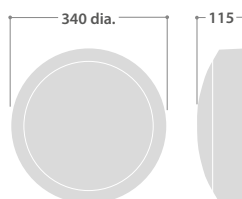
CIRCUIT TYPE - L - non-dimming (LED)

COLOUR OPTIONS - add suffix: **SV3** - Silver / **W9** - White e.g. **CT 19516LSV3** etc.

EMERGENCY VERSION - prefix catalogue number with:

ECT - Emergency / **TCT** - AutoTest / **WCT** - SmartScan (11W and 16W versions only) e.g. **ECT 19516L** etc.
Add 0.3kg to weights listed

DIMENSIONS



SmartScan Configurations



Find out more at www.thorlux.com/smartscan

STARBEAM



The Starbeam range of precision engineered LED area floodlights and streetlights takes external lighting to a new dimension in terms of efficiency (up to 148.2 luminaire lumens per circuit watt) and longevity (up to 100,000 hours). This is achieved through significant investment in high quality die-cast heat sinks and in house manufactured printed circuit boards positioning the very latest top brand LEDs within precise acrylic lenses. A range of power levels, two optical distribution types and two body sizes provides every option necessary for car park, general amenity and road lighting applications.

CONFIGURATOR

EMERGENCY TYPE ♦		PRODUCT CODE		WATTAGE		DISTRIBUTION		PHOTOCELL		CONTROL TYPE	
Small version											
W	SmartScan *	SB	Starbeam	031	31W	A2	Area	X	Without photocell	S	SmartScan
				062	62W	R5	Roadway	P	With photocell ***	L	Non-dimming
				088	88W						
				123	123W						
				161	161W						
Large version											
		SB	Starbeam	197	197W	A2	Area	X	Without photocell	S	SmartScan
						R5	Roadway	P	With photocell ***	L	Non-dimming
E.g. WSB031A2XS											
W	SmartScan	SB	Starbeam	031	31W	A2	Area	X	Without photocell	S	SmartScan

♦ Optional, leave blank if emergency is not required

* Only available with **S** Control Type on 31W, 62W & 88W versions

*** Only available with **L** Control Type

NOTE: - Emergency versions not suitable for high ambient temperatures
- Glass version available to special order

Zero Upward Light

Help reduce light pollution and protect the night sky by selecting zero upward light luminaires

(SMALL VERSION ONLY, LARGE VERSION <1% UPWARD LIGHT)

WEIGHTS

VERSION	APPROX. kg	SMARTSCAN
Small	8.0	Add 0.2kg to weight listed.
Large	9.2	SMARTSCAN EMERGENCY Add 0.3kg to weight listed.

ACCESSORIES

See page 5



LED AREA FLOODLIGHTS AND STREET LIGHTS

IP66 IP65 SMART
VERSION IK10 UK
CA CE

LED WINDAGE - small: 0.06m² large: 0.07m²

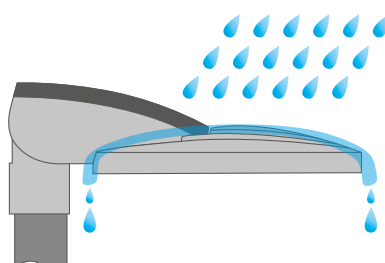
SPECIFICATION

- Die-cast aluminium body and gear compartment finished polyester silver RAL9006
- Die-cast aluminium, fast release gear compartment lid finished polyester graphite
- Polycarbonate cover and acrylic high efficiency LED lenses
- Area or roadway optical distributions
- Integral high efficiency driver
- Extremely efficient and long system life up to 100,000 hours
- Suitable for ambient temperatures up to 50°C
- Smart External versions with intelligent lighting control for use up to 12 metres mounting height
- SmartScan wireless technology removes the need for control cabling. Ideal for retro-fit
- Pole top 76mm as standard, adjustable through 90°
- Wall mounting bracket accessory
- Wide range of mounting options (see page 5 for details)
- Photocell option
- Fitted with 4000K LEDs

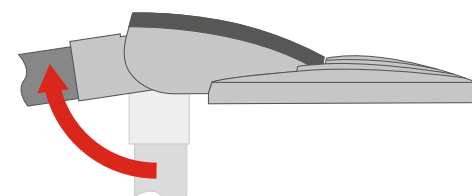
LED CHARACTERISTICS

CRI	70+
COLOUR TEMPERATURE	4000K
RATED LIFE (HOURS)	100K - L90/B10
PROTECTION	LED PROTECT
DRIVER EFFICIENCY	>90%
REPLACEABLE	YES
POWER FACTOR	>0.9
LL/CW	148.2

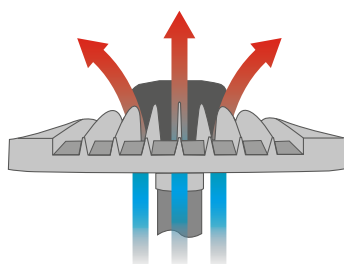
For LED characteristics explanation see
www.thorlux.com/led-guide



1. "Free draining" curved heat sink eliminates ponding of fluids



2. Integral adjustable mounting spigot allows easy retrofit on to a wide range of columns and brackets whilst maintaining 0° elevation



3. Heat dissipation fins combined with air flow between heat sink and gear compartment extends control gear lifetime



Smart External version

SmartScan Configurations

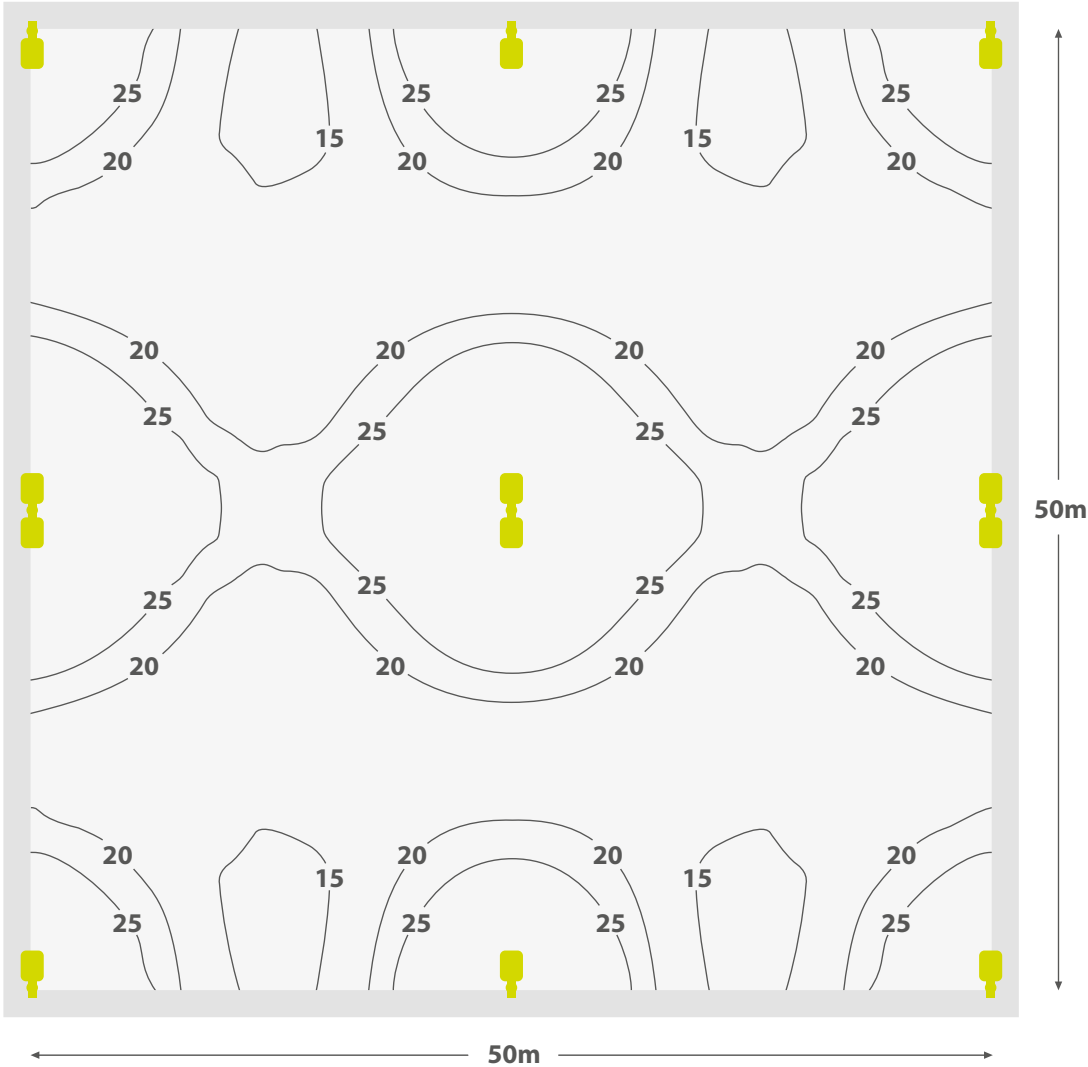


Find out more at www.thorlux.com/smartscan

TYPICAL SPACING GUIDE

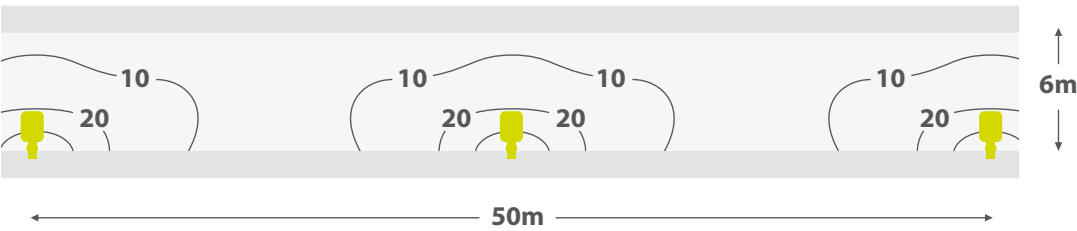
AREA DISTRIBUTION

62W LED / 6m mounting height / 25 x 25m spacing - Average illuminance = 24 lux / Uniformity = 0.525

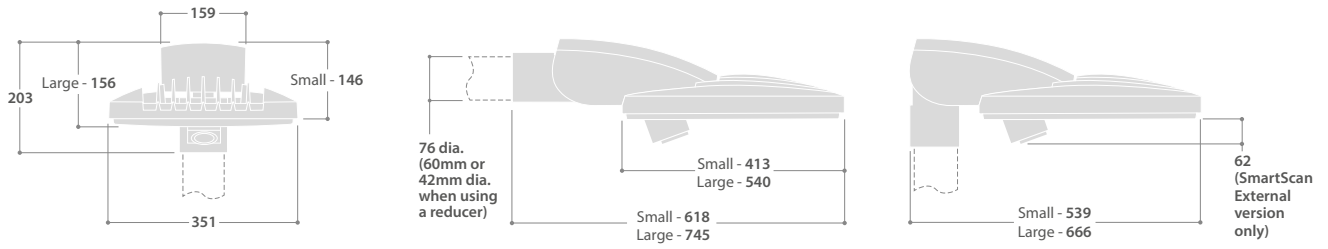


ROADWAY DISTRIBUTION

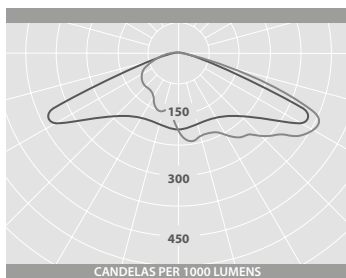
31W LED / 6m mounting height / 25m spacing - Average illuminance = 11 lux / Uniformity = 0.44



DIMENSIONS

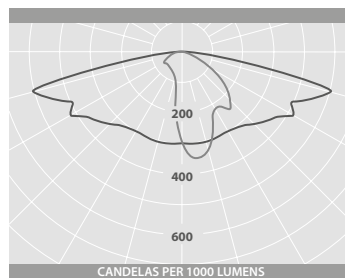


PHOTOMETRIC GUIDE



AREA DISTRIBUTION

Luminaire Lumen Output:
 31W = 3225lm
 62W = 8830lm
 88W = 12570lm
 123W = 17435lm
 161W = 21860lm
 197W = 27470lm

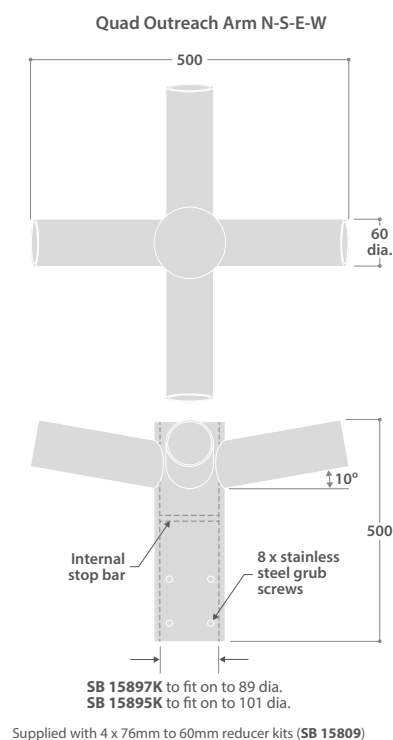
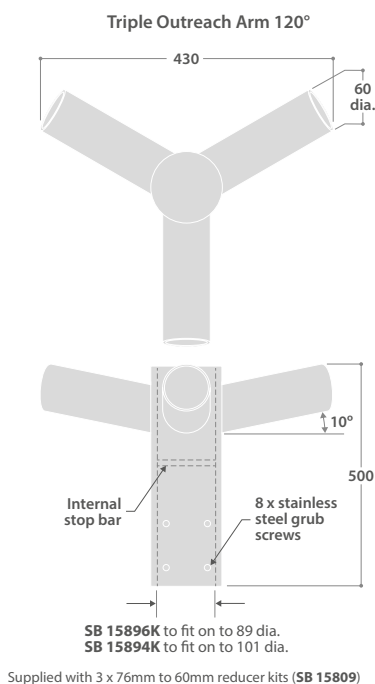
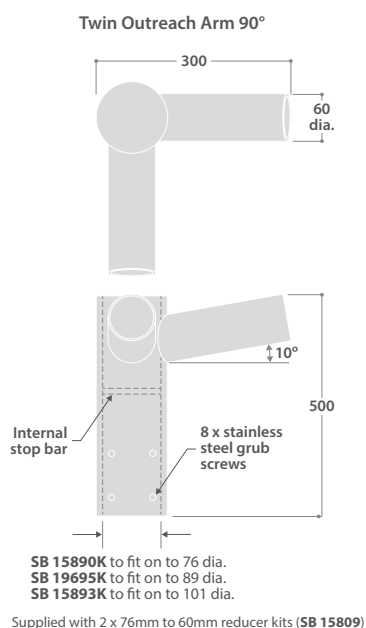
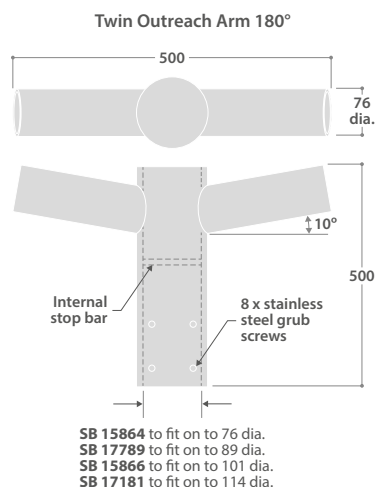
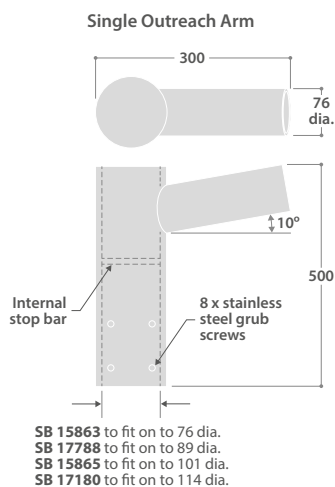


ROADWAY DISTRIBUTION

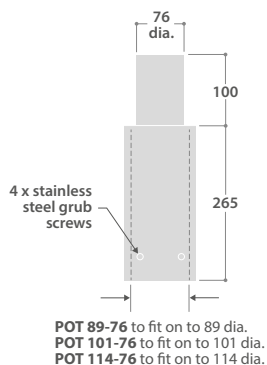
Luminaire Lumen Output:
 31W = 3340lm
 62W = 9640lm
 88W = 13725lm
 123W = 19035lm
 161W = 23865lm
 197W = 29995lm



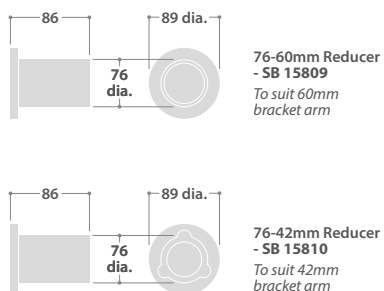
COLUMN MOUNTING OPTIONS



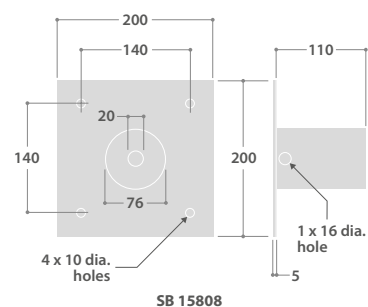
COLUMN ADAPTORS



BRACKET ARM REDUCERS



WALL MOUNTING BRACKET



For further mounting and bracket options please contact our Technical Department

STARBEAM COLUMNS

COLUMNS SPECIFICATION

- Stepped tubular galvanised steel columns, to BS EN 40-2:2004
- Mounting accessories are hot dip galvanised to BS EN ISO 1461:2009
- Supplied with wooden baseboard for mounting cable connection accessories
- Accessories are easily fixed with stainless steel grub screws and have an internal stop to ensure cable exit

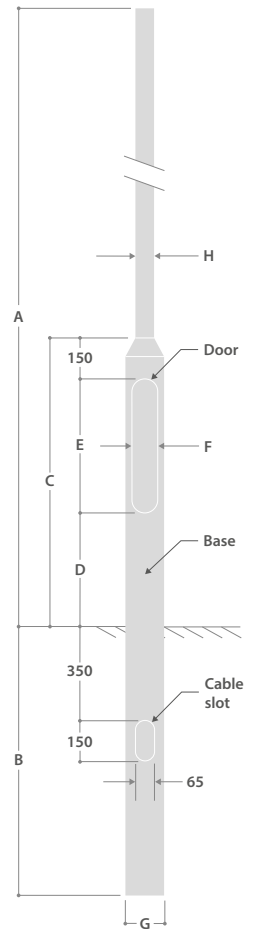
UK DELIVERY

Columns are delivered to site at a pre-arranged time. An off-loading service is not included and it is the responsibility of the client (or client's agent) for the safe undertaking of this requirement. A fork lift truck is recommended to minimise manual handling.

COLUMN RANGE

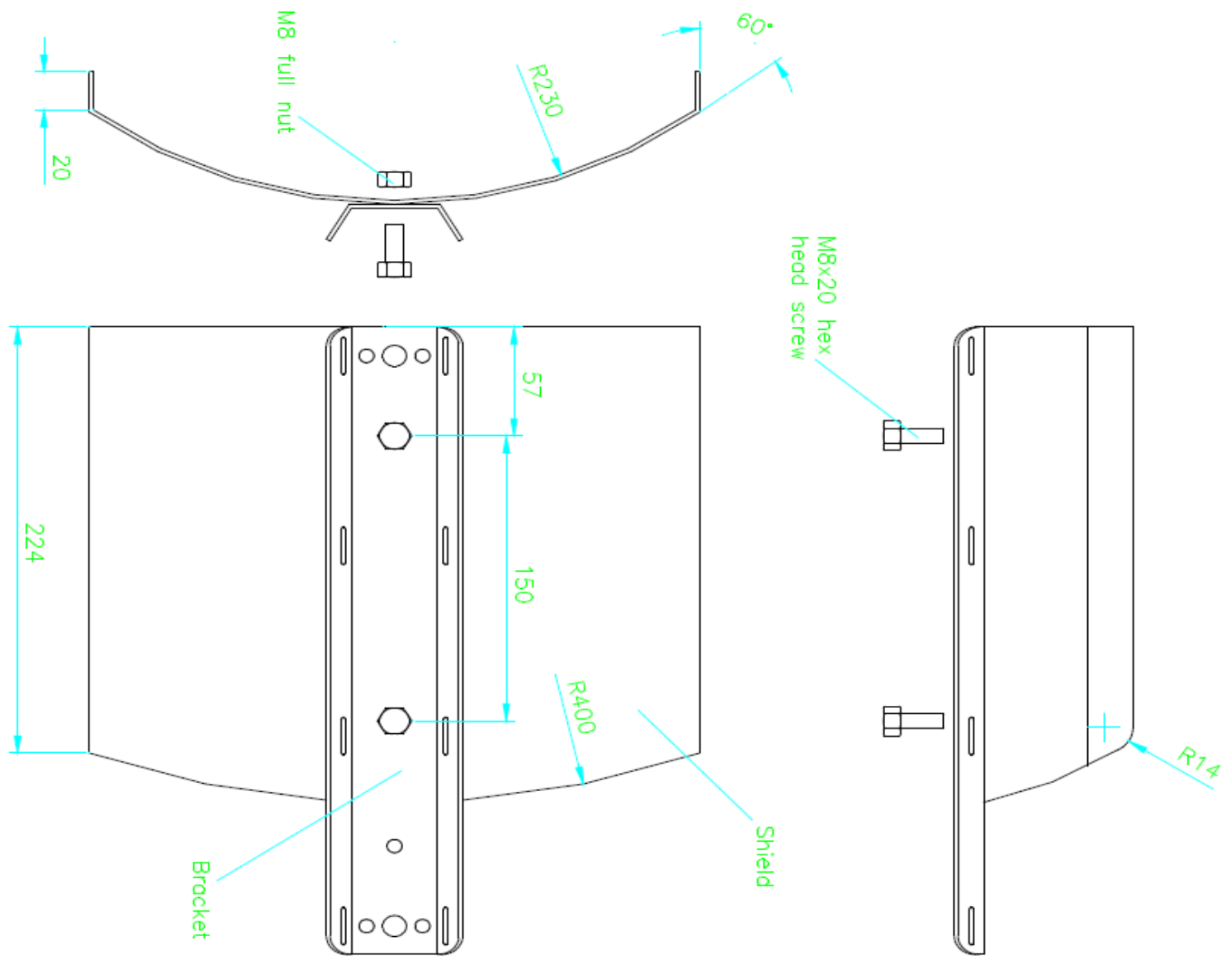
NOMINAL HEIGHT	CAT. No.	PLANTING DEPTH	BASE HEIGHT	DOOR HEIGHT	DOOR DIMENSIONS		BASE DIAMETER	SHAFT DIAMETER	APPROX. kg	BASEBOARD SIZE
A		B	C	D	E	F	G	H		
Single and Twin Starbeam Standard Columns										
4m	FC4	800	925	300	500	100	140	76	33	89 (w) x 500 (h)
5m	FC5	800	925	300	500	100	140	76	40	89 (w) x 500 (h)
6m	FC6	1000	925	300	500	100	140	76	44	89 (w) x 500 (h)
8m	FC8	1200	1200	400	600	115	168	114 ■	100	89 (w) x 600 (h)
10m	FC10	1500	1300	500	600	115	168	114 ■	142	89 (w) x 600 (h)
Triple and Quad Starbeam Medium Duty Columns										
4m	FC4/89	800	1280	300	600	115	168	89	60	89 (w) x 500 (h)
5m	FC5/89	800	1280	300	600	115	168	89	64	89 (w) x 500 (h)
6m	FC6/89	1000	1280	300	600	115	168	89	68	89 (w) x 500 (h)
8m	FC8	1200	1200	400	600	115	168	114 ■	100	89 (w) x 600 (h)
10m	FC10	1500	1300	500	600	115	168	114 ■	142	89 (w) x 600 (h)

■ Reduced at top to 101mm to accept accessories



ORDERING INFORMATION

	SINGLE COLUMN MOUNT	SINGLE OUTREACH ARM	TWIN OUTREACH ARM 180°	TWIN OUTREACH ARM 90°	TRIPLE OUTREACH ARM 120°	QUAD OUTREACH ARM N-S-E-W
Mounting Height	Column Adaptor	Column Bracket	Column Bracket	Column Bracket	Column Bracket	Column Bracket
4m	FC4	FC4 SB 15863	FC4 SB 15864	FC4 SB 15890K	FC4/89 SB 15896K	FC4/89 SB 15897K
5m	FC5	FC5 SB 15863	FC5 SB 15864	FC5 SB 15890K	FC5/89 SB 15896K	FC5/89 SB 15897K
6m	FC6	FC6 SB 15863	FC6 SB 15864	FC6 SB 15890K	FC6/89 SB 15896K	FC6/89 SB 15897K
8m	FC8 POT 101-76	FC8 SB 15865	FC8 SB 15866	FC8 SB 15893K	FC8 SB 15894K	FC8 SB 15895K
10m	FC10 POT 101-76	FC10 SB 15865	FC10 SB 15866	FC10 SB 15893K	FC10 SB 15894K	FC10 SB 15895K



Post Top Light Shield

Part No 6115

These light shields can be Tespa banded directly to the column shaft, providing a quick and universal solution to excess light spills primarily into houses and urban environments.

SHIELD SIZE: 250MM HIGH

SHIELD SIZE: 280MM WIDE

Features

2mm steel galvanized to BS EN ISO 1461:2009

Designed for column mounting

C&R Outdoor Lighting Ltd

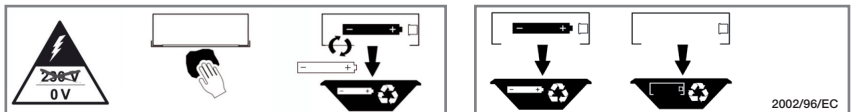
www.crlighting.co.uk

Formula 65 LED GRANLUCE LG AR BEGHELLI

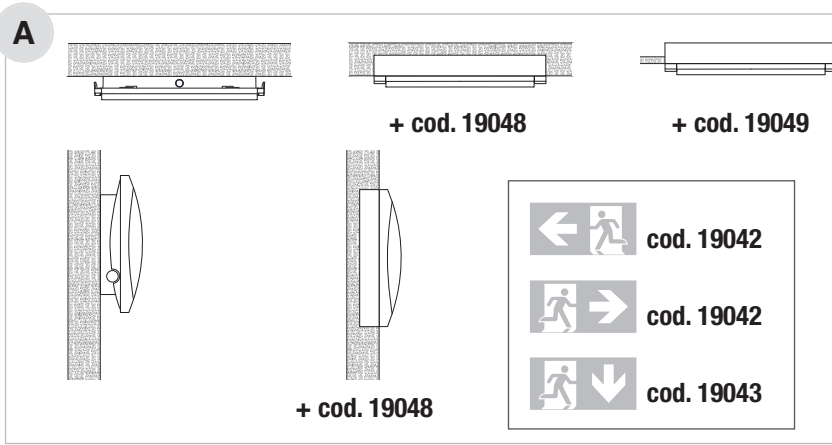
www.beghelli.com
BEGHELLI S.p.A. - Via Mozzeghine 13/15 - località Monteveglio 40053 Valsamoggia (BO) ITALY - Tel. +39 051 9660411 - Fax +39 051 9660444 - N° Verde 800 626626

X	0	*B**E	*60
X	0	*B**	*60

90 180



334.901.749 A

A


+ cod. 19048

+ cod. 19049

+ cod. 19048

cod. 19042

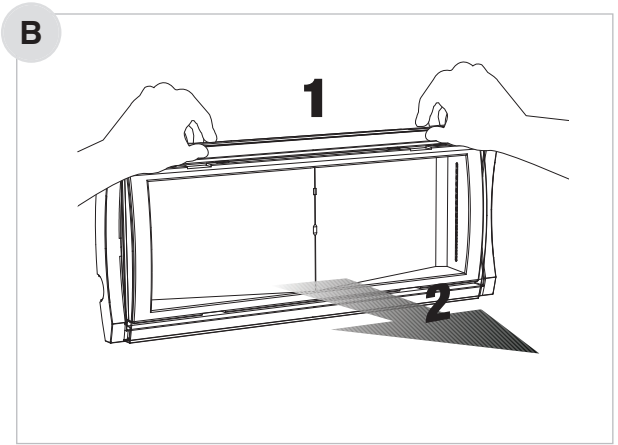
cod. 19042

cod. 19043

+ cod. 19042 -19043

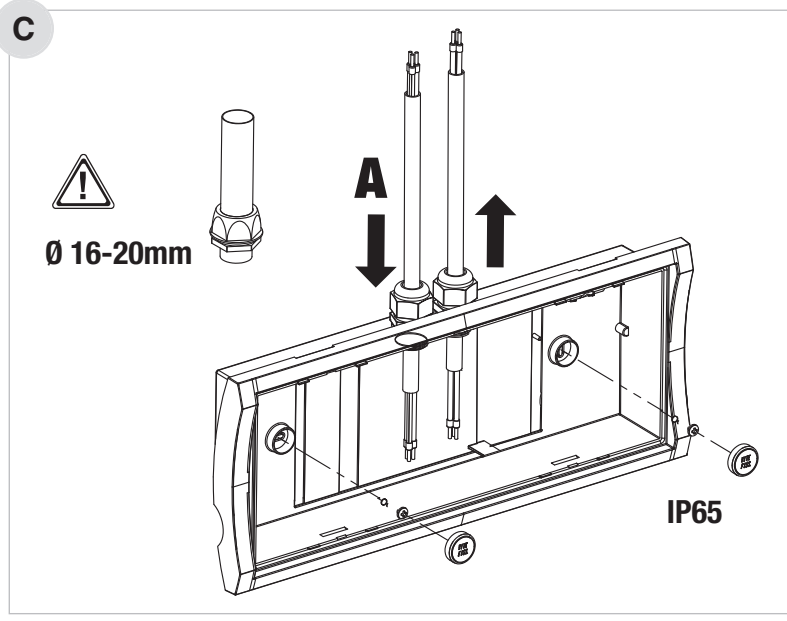
+ cod. 19045

+ cod. 19042 -19043

B


1

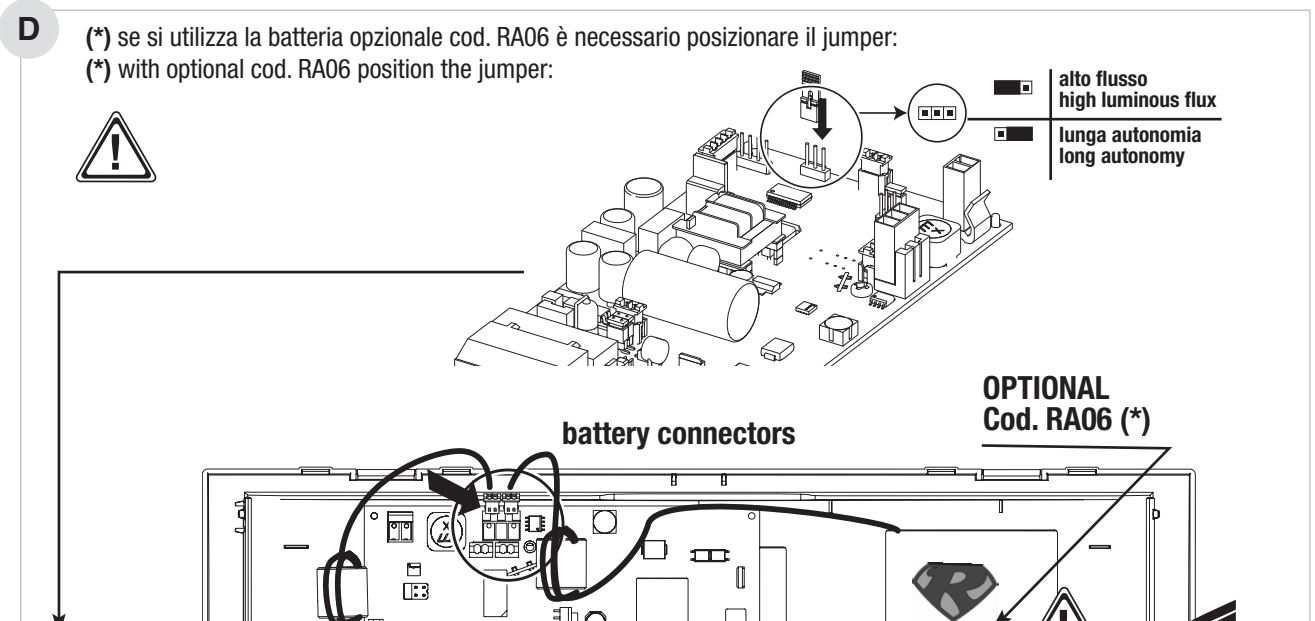
2

C


! Ø 16-20mm

A

IP65

D


(*) se si utilizza la batteria opzionale cod. RA06 è necessario posizionare il jumper:
(*) with optional cod. RA06 position the jumper:

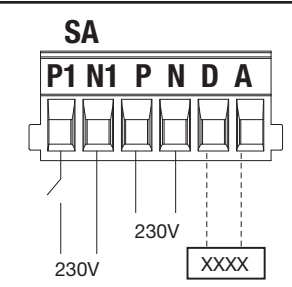
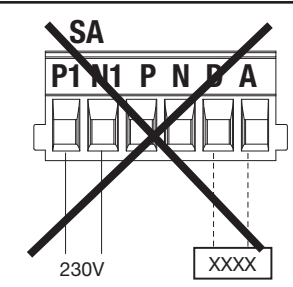
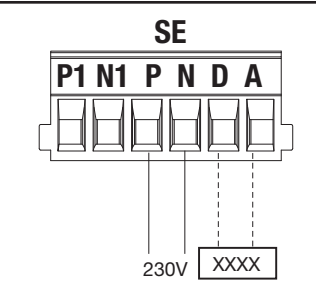
! alto flusso
high luminous flux
lunga autonomia
long autonomy

OPTIONAL
Cod. RA06 (*)

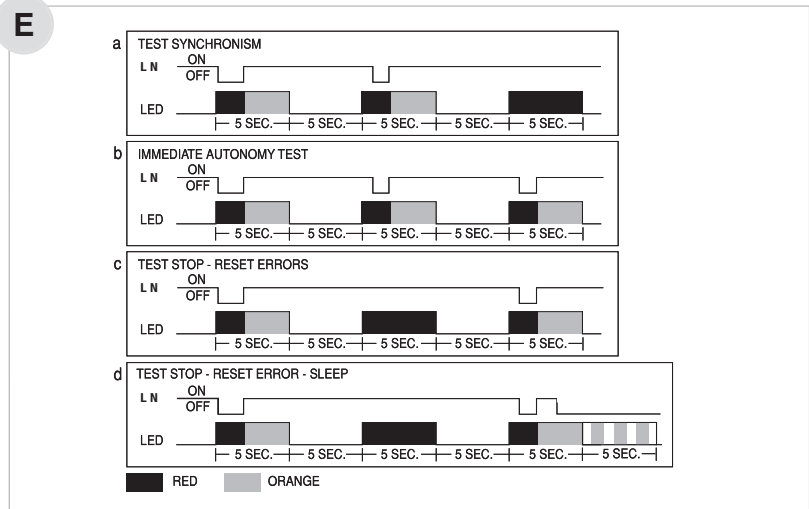
battery connectors

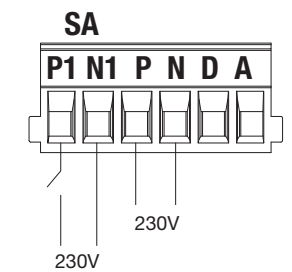
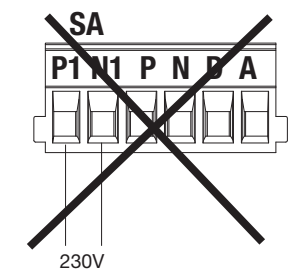
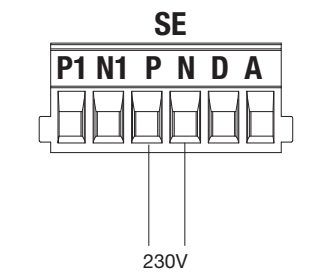
230V

	Duration- hours (1 battery or 2 batteries with jumper high luminous flux)	Duration- hours (2 batteries with jumper long autonomy)	Function
	1	2	SE
	1,5	3	SE
	3	6	SE
	1	2	SA
	1,5	3	SA
	3	6	SA
	1	2	PS
	1,5	3	PS
	3	6	PS

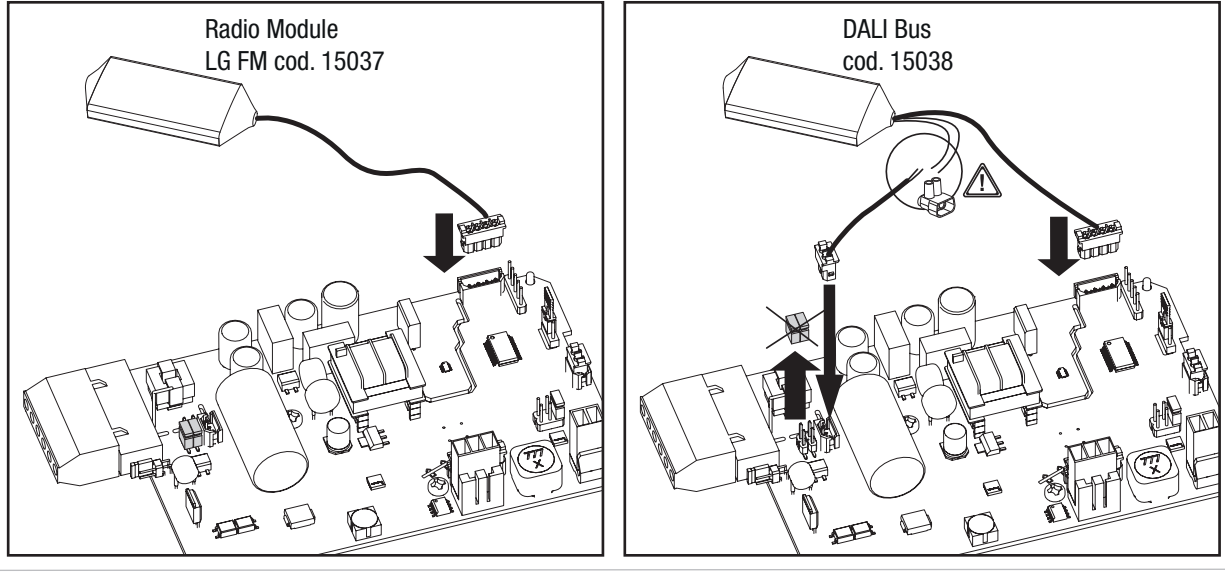
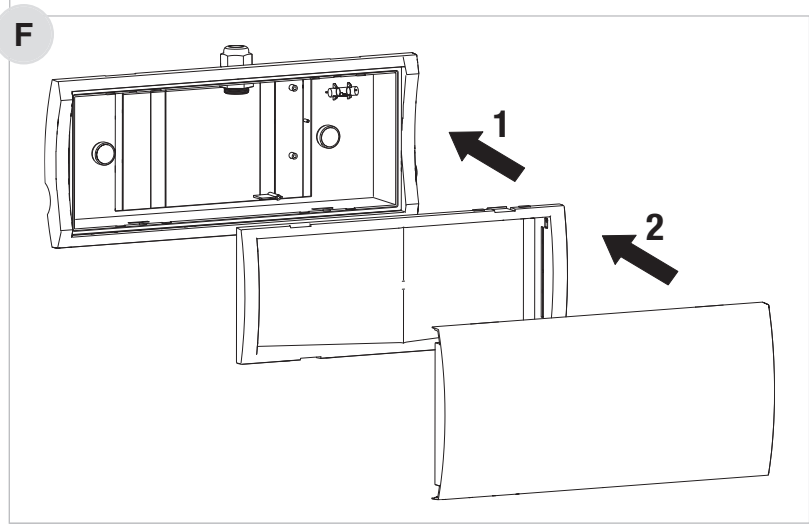
Logica - DALI	SA lamp	SE lamp
		

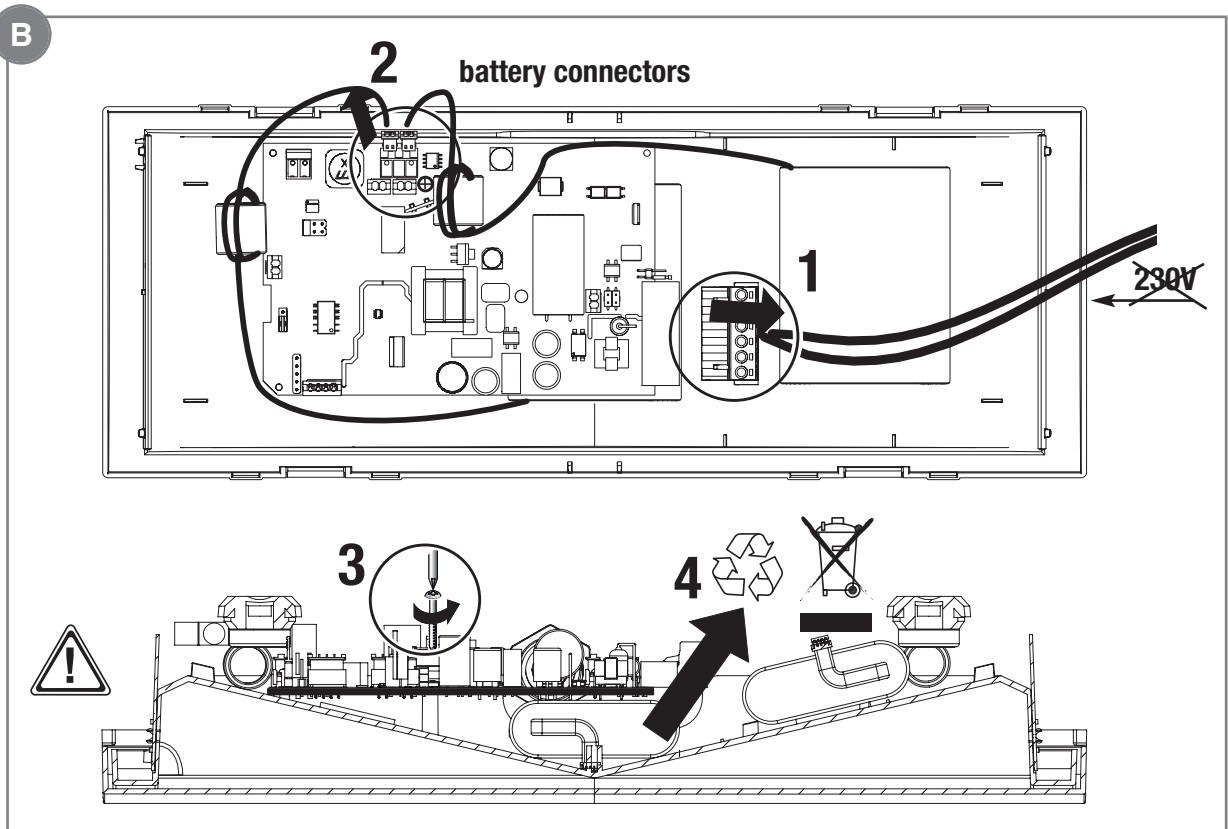
Control unit cod. 12100, Remote control cod. 12101 or DALI control



Logica FM	SA lamp	SE lamp
		

Control unit cod. 12128, 20102, 20124





PERIODICITA' DEI TEST AUTOMATICI:		AUTOMATIC TESTS PERIODICITY:	
TEST FUNZIONALE (30 sec)= ogni 28 giorni	UN LAMPEGGIO ROSSO	ERRORE BATTERIA AUTONOMIA	TWO RED FLASHES
TEST DI AUTONOMIA (1h)= ogni 26 settimane	DUE LAMPEGGI ROSSI	ERRORE LED DI ILLUMINAZIONE	LIGHTING LED ERROR
Le lampade pari eseguono il Test di autonomia 1 settimana dopo quelle dispari.	TRE LAMPEGGI ROSSI	BATTERIA SCOLLEGATA	THREE RED FLASHES
(0,2,....,8,A,C,E)= pari; (1,3,....,9,B,D,F)= dispari.	AVVERTENZE - GARANZIA		WARNINGS - GUARANTEE
Per eseguire le funzioni indicate dai grafici togliere e ridare la rete quando il LED è acceso rosso.	- Questo apparecchio dovrà essere destinato solo all'uso per il quale è stato costruito. Ogni altro uso è da considerarsi improprio e pericoloso. - Batteria Ricaricabile e sorgente LED sono di tipo non sostituibile. - Per eventuali riparazioni rivolgersi ad un centro di assistenza tecnica autorizzato e richiedere l'utilizzo di ricambi originali. Il mancato rispetto di quanto sopra può compromettere la sicurezza dell'apparecchio.		- This device shall be used exclusively for the purpose for which it has been designed. Any other use is considered improper and therefore dangerous. - Rechargeable battery and LED source are non-replaceable type. - Contact an authorised technical service centre for any repairs possibly required use only original spare parts. The lacked respect of the above conditions may compromise the safety of the device.
SEGNALAZIONI LED	LED SIGNALS		
VERDE FISSO	BATTERIA CARICA	FIXED GREEN	BATTERY CHARGED
VERDE LAMPEGGIANTE	BATTERIA IN RICARICA	FLASHING GREEN	BATTERY CHARGING
		ONE RED FLASH	BATTERY ERROR DURATION

PERIODICIDAD DE LOS TESTS AUTOMÁTICOS:		FREQUÊNCIA DOS TESTES AUTOMÁTICOS:	
TEST FUNCIONAL (30 seg)= cada 28 días	DOS PARPADEOS ROJOS	TESTE FUNCIONAL (30 seg.)= a cada 28 dias	DUAS INTERMITÊNCIAS VERMELHAS
TEST DE AUTONOMÍA (1h)= cada 26 semanas	TRES PARPADEOS ROJOS	TESTE DE AUTONOMIA (1h)= a cada 26 semanas	TRÊS INTERMITÊNCIAS VERMELHAS
Las lámparas pares efectúan el Test de autonomía una semana después de aquéllas impares. (0,2,...,8,A,C,E)= pares; (1,3,...,9,B,D,F)= impares. Para ejecutar las funciones indicadas por los gráficos, interrumpir y restablecer la alimentación de red cuando el LED está encendido con luz roja. SEÑALIZACIÓN LED VERDE FIJO BATERÍA CARGADA VERDE INTERMITENTE BATERÍA EN RECARGA UN PARPADEO ROJO ERROR BATERÍA AUTONOMÍA		As lâmpadas pares fazem o Teste de autonomia 1 semana depois das impares. (0,2,...,8,A,C,E)= pares; (1,3,...,9,B,D,F)= ímpares. Para executar as funções indicadas pelos gráficos, desligar e ligar da electricidade quando o LED vermelho estiver aceso. SINALIZAÇÕES DO INDICADOR LUMINOSO VERDE FIJO BATERIA CARREGADA VERDE INTERMITENTE BATERIA EM RECARGA UMA INTERMITÊNCIA VERMELHA ERRO DE BATERIA AUTONOMIA	
ADVERTENCIAS - GARANTÍA		ADVERTÊNCIAS - GARANTIA	
- Este equipo tiene que ser usado sólo para la utilización para la que ha sido construido. Cualquier otro uso se considera impropio y peligroso. - La batería recargable y la fuente de LED no son reemplazables. - Para posibles reparaciones, dirigirse a un centro de asistencia técnica autorizado y solicitar el utilizo de recambios originales. La falta de respeto de cuanto indicado anteriormente puede perjudicar la seguridad del aparato.		- Este aparelho deverá ser destinado somente ao uso para o qual foi construído. Qualquer outro tipo de uso será considerado impróprio e perigoso. - A bateria recarregável e a fonte LED não são substituíveis. - Para eventuais reparações dirigir-se a um centro de assistência técnica autorizado e pedir a utilização de peças sobressalentes e acessórios originais. O desrespeito das regras supra-citadas pode comprometer a segurança do aparelho.	

INTERVALLER FÖR AUTOMATISKA TEST:		EN RÖD BLINKNING		FEJL BATTERILEVETID		FREKVENFVS FÖR AUTOMATISKA TESTER:		ET RÖDT BLINK		FEIL PÅ AUTONOMIBATTERI	
FUNKTIONSTEST (30 sek)= var 28:e dag		TVÅ RÖDA BLINKNINGAR		FEL PÅ BELYSNINGSLAMPAN		FUNKSJONSTEST (30 sek)= hver 28. dag		TO RØDE BLINK		FEIL MED LED LYS	
AKTIONSRADIENTEST (1h)= var 26:e vecka		TRE RÖDA BLINKNINGAR		BATTERI URKOPPLAT		AUTONOMI TEST (1h)= hver 26. uke		TRE RØDE BLINK		BATTERI FRAKOBLET	
Lamporna med jämna nummer utför autonomitestet en vecka efter de med udda nummer.		VARNINGAR - GARANTI		Lamper med like tall utfører den Selvstendige Systemtesten 1 uke etter de med oddetall.		MERKNADER - GARANTI		Denne armaturen må kun benyttes til det formålet den er konstruert for. Enhver annen bruk er å regne som feilaktig og dermed farlig.		Det oppladbare batteriet og LED-kilden kan ikke byttes ut.	
(0,2,...,8,A,C,E)= jämna; (1,3,...,9,B,D,F)= udda.		- Den här apparaten får bara användas i avsett syfte. All annan användning är att anses som oriktig och därför farlig.		(0,2,...,8,A,C,E)= like tall; (1,3,...,9,B,D,F)= oddetall.		For å utføre funksjonene indikert av diagrammet, må nettet koples fra og til igjen når det røde lyset på LED er skrudd på.		- Ved eventuelle reparasjoner, ta kontakt med autorisert verksted eller installatør. Slike utskiffiger krever dessuten bruk av originale deler. Manglende etterfølgelse av det ovenfor beskrevne kan sette armaturens sikkerhet på spill.			
För att utföra de funktioner som anges i diagrammen, koppla från och därefter in nätet när kontrollampen lyser rött.		- Det laddningsbara batteriet och LED-källan är inte utbytbara.		For å utføre funksjonene indikert av diagrammet, må nettet koples fra og til igjen når det røde lyset på LED er skrudd på.		LED SIGNAL					
LAMPVISNINGAR		- För alla reparationer, kontakta auktoriserad teknisk service och beställ originaldelar från tillverkaren. Försummad hänsyn till ovanstående kan innebära risker för apparatens säkerhet.		FAST GRÖNT		BATTERI LADET					
LADDAT BATTERI		BATTERI I LADDNING		BLINKANDE GRÖNT		BATTERI LADES					

PERIODICITA AUTOMATICKÝCH TEST

TEST FUNKČNOSTI (30s) = každých 28 dnů

TEST AUTONOMIE (1h) = každých 26 týdnů

Sudé světelné zdroje vykonávají test autonomie 1 týden po lichých zdrojích.

(0,2,...,8,A,C,E) = sudé; (1,3,...,9,B,D,F) = liché

Chcete-li aktivovat funkce zázorněné na schématech, zapněte a vypněte napájení, svítí-li červená LED.

SIGNALIZACE LED

SVÍTÍCÍ ZELENÁ

BLIKAJÍCÍ ZELENÁ

JEDNA ČERVENĚ BLIKAJÍCÍ

BATERIE JE NABITA

DOBJENÍ BATERIE

VADNÁ BATERIE

DVĚ ČERVENĚ BLIKAJÍCÍ

TŘI ČERVENĚ BLIKAJÍCÍ

VADNÁ SVĚTELNÁ LED DIODA

BATERIE JE ODPOJENA

UPOZORNĚNÍ - ZÁRUKA

- Toto svítidlo může být použito pouze k účelu, pro něž bylo vyrobeno. Jakékoliv jiné použití bude považováno za nevhodné a tím také nebezpečné.

- Nabíjecí baterie a zdroj LED nejsou vyměnitelné.

- Pro případné opravy se obraťte na autorizované servisní středisko, které používá pouze originální náhradní díly. Nerespektování výše uvedených podmínek může ohrozit bezpečnost zařízení.

Formula 65

emergency



Adjustable autonomy and possibility of an additional battery to double the flux and safety (Autoripara battery).



Great flexibility thanks to multiple versions and accessories for all installation requirements.



Housing with numerous pre-drilled inlets and direct fixing on junction box.

Applications

Industry, services

Characteristics

Power supply* 230VAC±10%, 50÷60Hz

Mounting Wall, ceiling, recessed, false ceiling

Recharging time

12h with LTO and LiFe batteries

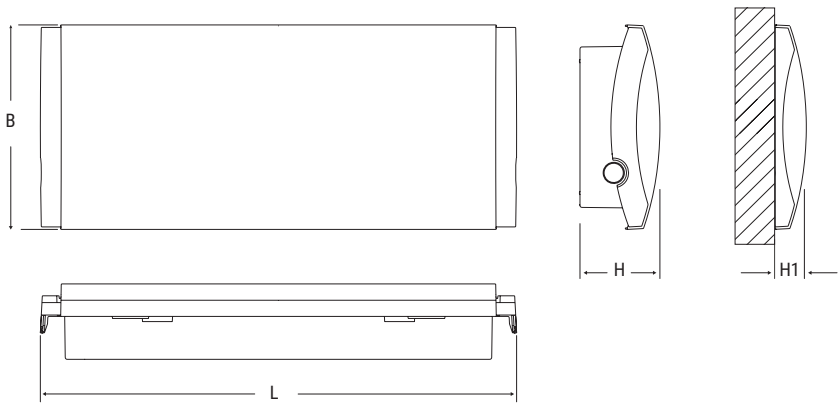
Housing Polycarbonate, white RAL 9003

Optics Symmetrical, white

Screen Clear polycarbonate

Compliance EN 60598-1, EN 60598-2-2, EN 60598-2-22, UNI EN 1838, UNI 11222, EN62034

* LG230, LG24, HT systems consider the parameters of the control unit used

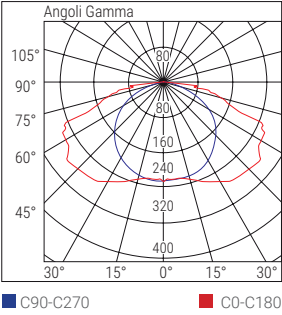


Dimensions mm				Distance of visibility (DV)	
L	B	H	H1	Wall	Edge mounting
VERSIONS LG230 - LG24 - HT230 AND WITH LiFe BATTERY					
354	152	63.4	26	25m	28m
LTO BATTERY VERSION					
354	152	48.5	26	25m	28m
NiMH-Cd BATTERY VERSION					
354	152	48.5	26	25m	28m

Performance according to EN 1838

Height (m) 	Centre distance (m) ESCAPE ROUTES 		Illuminated surface area (m) LARGE AREAS 	
	Wall	Ceiling	Wall	Ceiling
2.5	11	-	8x12	-
3	-	18	-	10x16
7	-	25	-	14x20
Lighting >1lx at floor level along the centre line without reflections Emax/Emin <40			Lighting >0.5lx at floor level without reflections Emax/Emin <40	
Performance with reference to luminaire Order Code 19430 1100 lm			Maintenance coefficient 0.8	

FORMULA 65



	Order Code	W eq.	Description	Version	Autonomy h	Battery	FLUX SE lm	AUTORIPARA Batt. OPTIONAL Flux SE lm	FLUX SA lm	Input power DC	AC	Weight Kg	Packaging Single/ Multi pack	Conform.
TR	19200N	6	F65 LED 6W IP65 SE 1/3 LIFE	SE	1/3	LiFe 3,2V 0,5Ah	150/70	-			0.8W	0.4	1/6	
	19202N	8	F65 LED 8W IP65 SE 1/3 LIFE	SE	1/3	LiFe 3,2V 0,5Ah	200/80	-			1.5W	0.4	1/6	
	19204N	8	F65 LED 8W IP65 SA 1/3 LIFE	SA/SE	1/3	LiFe 3,2V 0,5Ah	200/80	-	70		0.8W	0.4	1/6	
	19206N	11	F65 LED 11W IP65 SE 1/3 LIFE	SE	1/3	LiFe 3,2V 1,5Ah	450/160	-			1.5W	0.6	1/6	
	19208N	11	F65 LED 11W IP65 SA 1/3 LIFE	SA/SE	1/3	LiFe 3,2V 1,5Ah	450/160	-	70		1.4W	0.6	1/6	
	19210N	24	F65 LED 24W IP65 SE 1/3 LIFE	SE	1/3	LiFe 3,2V 3Ah	700/240	-			2.6W	0.8	1/6	
	19212N	24	F65 LED 24W IP65 SA 1/3 LIFE	SA/SE	1/3	LiFe 3,2V 3Ah	700/240	-	70		0.8W	0.8	1/6	
	19430	36	F65 LED LI-FE SE	SE	1	LiFe 9.6V 1.5Ah	1500	-			1.5W	0.8	1/6	
	19431	36	F65 LED LI-FE SA	SA/SE	1	LiFe 9.6V 1.5Ah	1500	-	70		1.6W	0.8	1/6	
AT	R0818	8	F65LED 8W IP65 AT AR SE123h RM	SE	1/2/3	NiCd 3.6V 0.75Ah	135/95/78	250/175/125			1.5W	0.4	1/12	
	R1124	11	F65LED11W IP65 AT AR SE123h RM	SE	1/2/3	NiCd 3.6V 0.75Ah	180/125/90	315/220/160			1.5W	0.4	1/12	
	R1124SA	11	F65LED11W IP65 AT AR SA123h RM	SA/SE	1/2/3	NiCd 3.6V 0.75Ah	180/125/90	315/220/160	250		4.5W	0.6	1/12	
	R2436	24	F65LED24W IP65 AT AR SE123h RM	SE	1/2/3	NiMH 3.6V 1.2Ah	315/220/160	550/385/275			1.5W	0.6	1/12	
	R2436SA	24	F65LED24W IP65 AT AR SA123h RM	SA/SE	1/2/3	NiMH 3.6V 1.2Ah	315/220/160	550/385/275	280		5.0W	0.6	1/12	
	19432	36	F65 LED LI-FE AT AR SE	SE	1/1.5/3*	LiFe 9.6V 1.5Ah	1200/830/450	2200/1650/900			7W	0.8	1/6	
	19433	36	F65 LED LI-FE AT AR SA	SA/SE/PS	1/1.5/3*	LiFe 9.6V 1.5Ah	1200/830/450	2200/1650/900	1000		13W	0.8	1/6	
AT- OPT	19290	8	F65LED 8W IP65 AT OPT SE8LTO	SE	1/1.5/2/3/8	LTO 4.8V 1.2Ah	250/170/130/85/35	-			7.5W	0.5	1/6	
	19291	11	F65LED 11W IP65 AT OPT SE8LTO	SE	1/1.5/2/3/8	LTO 4.8V 1.2Ah	315/210/160/110/45	-			7.5W	0.5	1/6	
	19292	24	F65LED 24W IP65 AT OPT SE8LTO	SE	1/1.5/2/3/8	2xLTO 4.8V 1.2Ah	550/370/280/190/80	-			7.5W	0.6	1/6	
	19293	24GL	F65LED 24GL IP65 AT OPT SE8LTO	SE	1/1.5/2/3/8	2xLTO 4.8V 1.2Ah	800/540/410/280/115	-			7.5W	0.6	1/6	
	19294	11	F65LED 11W IP65 AT OPT SA8LTO	SA/SE/PS	1/1.5/2/3/8	LTO 4.8V 1.2Ah	315/210/160/110/45	-	130		7.5W	0.5	1/6	
	19295	24	F65LED 24W IP65 AT OPT SA8LTO	SA/SE/PS	1/1.5/2/3/8	2xLTO 4.8V 1.2Ah	550/370/280/190/80	-	150		7.5W	0.6	1/6	
	19296	24GL	F65LED 24GL IP65 AT OPT SA8LTO	SA/SE/PS	1/1.5/2/3/8	2xLTO 4.8V 1.2Ah	800/54/410/280/115	-	200		7.5W	0.6	1/6	
	LG	Standalone luminaires with Centralised Diagnostics integrating the Module Order No. 15036												
	LGFM	Standalone luminaires with Centralised Radio Diagnostics integrating the Module Order Code 15037												
	DALI	Standalone luminaires with Dali Centralised Diagnostics integrating the Module Order Code 15038												

* The indicated autonomy doubles with the Autoripara battery, if the luminaire is set to LONG OPERATING TIME

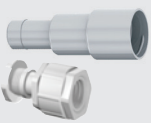
Formula 65

emergency

	Order Code	W eq.	Description	Version	Autonomy h	Battery	FLUX SE lm	Batt. AUTORIPARA OPTIONAL Flux SE lm	FLUX SA lm	Input power		Weight Kg	Packaging Single/Multi pack
LG	19434	36	F65 LED LI-FE LG AR SE	SE	1/1.5/3*	LiFe 9.6V 1.5Ah	1200/830/450	2200/1650/900			7W	0.8	1/6
	19435	36	F65 LED LI-FE LG AR SA	SA/SE/PS	1/1.5/3*	LiFe 9.6V 1.5Ah	1200/830/450	2200/1650/900	1000		13W	0.8	1/6
	LGFM	Standalone luminaires with Centralised Radio Diagnostics integrating the Module Order Code 15037											
	DALI	Standalone luminaires with Dali Centralised Diagnostics integrating the Module Order Code 15038											
LG230	31124	8	F65 LED 8W LG230						400	4.1W	8.5VA	0.6	1/6
	31125	11	F65 LED 11W LG230 LS-UV						600	6.4W	8.1VA	0.6	1/6
	31150	24	F65 LED 24W LG230 LS-UV						1000	10.4W	12VA	0.6	1/6
	31122	36	F65 LED 36W LG230 LS-UV						1600	15W	15.9VA	0.6	1/6
LG24	32094	8	F65 LED 8W LGS24				400			3.8W		0.6	1/6
	32091	36	LED 36W LGS24 LS-UV				400		1600	4.3W	15.2VA	0.6	1/6
HT230	17435	8	F65 LED 8W HT IP65						400	4.4W	8.9VA	0.6	1/6
	17436	11	F65 LED 11W HT IP65						600	6.1W	6.4VA	0.6	1/6
	17437	24	F65 LED 24W HT IP65						1000	10.2W	10.4VA	0.6	1/6
	17438	36	F65 LED 36W HT IP65						1600	14.3W	14.5VA	0.6	1/6

* The indicated autonomy doubles with the Autoripara battery, if the luminaire is set to LONG OPERATING TIME

ACCESSORIES - included



CONDUIT ADAPTER 16/20 mm WHITE
Mounting with a Ø16 or Ø20 mm conduit

CABLE CONDUIT GLAND M20



LH/RH/BOTTOM STICKERS
SA versions only

Order Code **19044**



RECESSED BOX + FRAMES
For recessed mounting

Order Code **19040** (Versions with LTO, NiMh, NiCd battery)

ACCESSORIES - to be ordered separately



AR - AUTORIPARA BATTERY
Compatible with Order Code **R0818 - R1124 - R1124SA R2436 - R2436SA**
Order Code **RA01** - NiMh 3.6V 1.2Ah

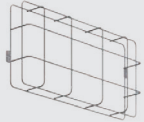


EDGE MOUNTING WALL BRACKET

Order Code **19045**

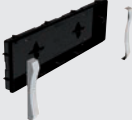


AR - AUTORIPARA BATTERY
Compatible with Order Code **19432 - 19433 - 19434 19435**
Order Code **RA06** - LIFE 9.6V 1.5Ah



PROTECTIVE GRILLE
Dimensions 440x215x99 mm

Order Code **3912**



RECESSED BOX + FRAMES
For recessed mounting
Order Code **19048** (Versions LG230, LG24, HT230 and LiFe battery)



LG - LGFM - DALI MODULE
LG - Order Code **15036** (with LTO battery only)
LGFM - Order Code **15037** (with LiFe and LTO battery only)
DALI - Order Code **15038** (with LiFe and LTO battery only)

LG

LGFM

DALI



EX FALSE CEILING BRACKET
Recessed mounting hole: 370 x 130 mm
Order Code **19041** (Vers. with LTO, NiMh, NiCd battery)
Order Code **19049** (Vers. LG230, LG24, HT230 and LiFe battery)



LG INIBIT REMOTE CONTROL
RM only for LG versions and Codes 19432 - 19433

Order Code **12101**

LG



EDGE MOUNTED SCREENS
Screen printing on clear polycarbonate
Order Code **19042** (LH/RH)
Order Code **19043** (DOWN)



RM INIBIT REMOTE CONTROL
RM only for Codes R0818 - R1124 - R1124SA R2436 - R2436SA
Order Code **2730**

RM

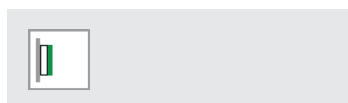


KUBUS65

High protection. Housing made of sheet steel or sheet stainless steel with frame cover and a clear insert. Lighting control is provided by a specular aluminium reflector. Single or double-sided escape route signage is provided thanks to self-adhesive films.

Versions for wall mounting or with equipment for ceiling mounting or wire or rod suspension mounting, or mounting on brackets

MOUNTING OPTIONS



MOUNTING OPTIONS WITH EQUIPMENT



TECHNICAL DATA

Housing: Sheet steel, white (RAL 9003)
Stainless steel, V2A

Display pane: Methacrylate, clear

Service life $L_{80B_{50}}$: 50.000 h

Color stability: 3 SDCM



SELF-CONTAINED SUPPLY

Mains supply: 198 V–254 V/50 Hz

Specification: Maintained or non-maintained mode

Ambient temperature: LTO: -20 °C to +50 °C
Classic: 0 °C to +40 °C

Protection class: I

DECENTRAL SUPPLY

Battery supply: 24 V +/- 20% DC

Mains supply: 24 V +/- 20% DC

Ambient temperature: -20 °C to +40 °C

Protection class: III

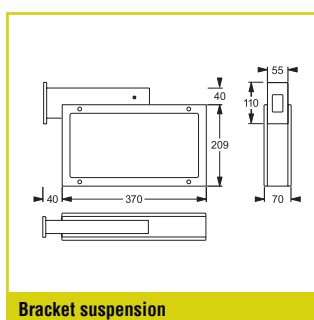
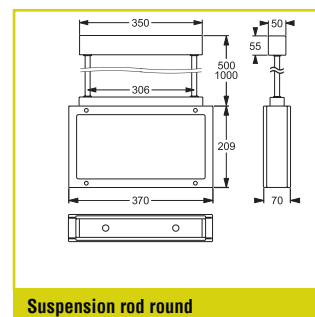
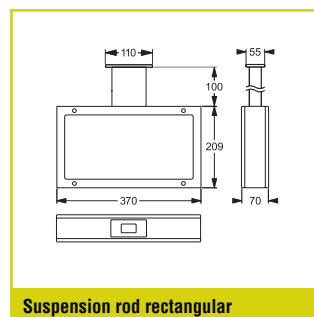
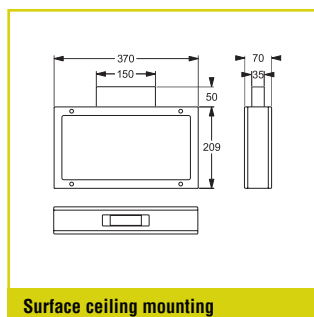
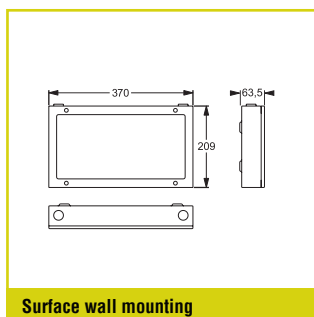
CENTRAL SUPPLY

Battery supply: 176 V–276 V

Mains supply: 198 V–254 V/50 Hz

Ambient temperature: -20 °C to +40 °C

Protection class: I





SELF-CONTAINED SUPPLY

Autotest Order code	Logica Order code	Logica FM Order code					
------------------------	----------------------	-------------------------	--	--	--	--	--

Surface wall mounting (single faced indication)

37060	37061	37062	32 m	48	1 h / 3 h / 8 h	2 x LTO 7.2 V / 0.5 Ah	4.85 VA
--------------	--------------	--------------	------	----	-----------------	------------------------	---------

Surface ceiling mounting, suspension, bracket suspension (double faced indication)¹

37063	37064	37065	32 m	48	1 h / 3 h / 8 h	2 x LTO 7.2 V / 0.5 Ah	4.85 VA
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Stainless steel V2A

surface wall mounting (single faced indication)¹

37066	37067	37068	32 m	48	1 h / 3 h / 8 h	2 x LTO 7.2 V / 0.5 Ah	4.85 VA
--------------	--------------	--------------	------	----	-----------------	------------------------	---------

Surface ceiling mounting, suspension, bracket suspension (double faced indication)¹

37069	37070	37071	32 m	48	1 h / 3 h / 8 h	2 x LTO 7.2 V / 0.5 Ah	4.85 VA
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CLASSIC SELF-CONTAINED SUPPLY

Autotest Order code	Logica Order code	Logica FM Order code					Autotest		Logica	
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Surface wall mounting (single faced indication)

36060	36061	36062	32 m	48	1 h / 3 h	NiMH 7.2 V / 06 Ah	NiMH 7.2 V / 1.2 Ah	10 VA
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Surface ceiling mounting, suspension, bracket suspension (double faced indication)¹

36066	36067	36068	32 m	48	1 h / 3 h	NiMH 7.2 V / 06 Ah	NiMH 7.2 V / 1.2 Ah	10 VA
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Stainless steel V2A

surface wall mounting (single faced indication)¹

36072	36073	36074	32 m	48	1 h / 3 h	NiMH 7.2 V / 06 Ah	NiMH 7.2 V / 1.2 Ah	10 VA
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Surface ceiling mounting, suspension, bracket suspension (double faced indication)¹

36078	36079	36080	32 m	48	1 h / 3 h	NiMH 7.2 V / 06 Ah	NiMH 7.2 V / 1.2 Ah	10 VA
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DECENTRAL SUPPLY

Sicuro24 Order code			
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Surface wall mounting (single faced indication)

32020	32 m	48	4.3 W
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Surface ceiling mounting, suspension, bracket suspension (double faced indication)¹

32021	32 m	48	4.3 W
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Stainless steel V2A

surface wall mounting (single faced indication)¹

32022	32 m	48	4.3 W
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Surface ceiling mounting, suspension, bracket suspension (double faced indication)¹

32023	32 m	48	4.3 W
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CENTRAL SUPPLY

Sicuro230 Order code				
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Surface wall mounting (single faced indication)

31020	32 m	48	9.4 VA / 4.7 W
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Surface ceiling mounting, suspension, bracket suspension (double faced indication)¹

31021	32 m	48	9.4 VA / 4.7 W
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Stainless steel V2A

surface wall mounting (single faced indication)¹

31022	32 m	48	9.4 VA / 4.7 W
--------------	------	----	----------------

Surface ceiling mounting, suspension, bracket suspension (double faced indication)¹

31023	32 m	48	9.4 VA / 4.7 W
--------------	------	----	----------------

¹ For surface wall mountin and all suspended versions, please order equipment separately

Please order additional equipment separately

Order code	Description
White	V2A
F95612	F95613 Adapter for ceiling mounting
F95603	F95608 Suspension rod, rectangular, 100 mm
F95604	F95609 Suspension rod, round, 500 mm
F95605	F95610 Suspension rod, round, 1.000 mm
F95606	F95611 Bracket suspension
F95607	F95607 Wire guard

Please order exit sign equipment separately

Order code	Description	
E16700M	Kit of exit sign films	
E16701M	Kit of exit sign films	

KUBUS IP65 ECO LED[®] BEGHELLI PRAEZISA



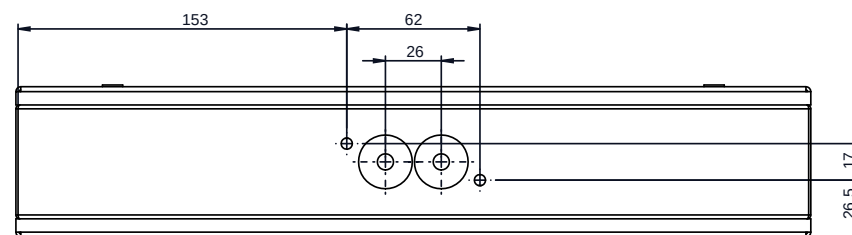
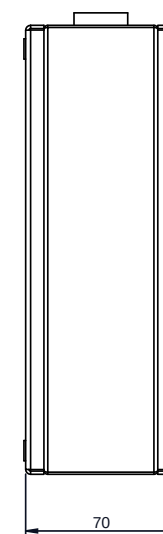
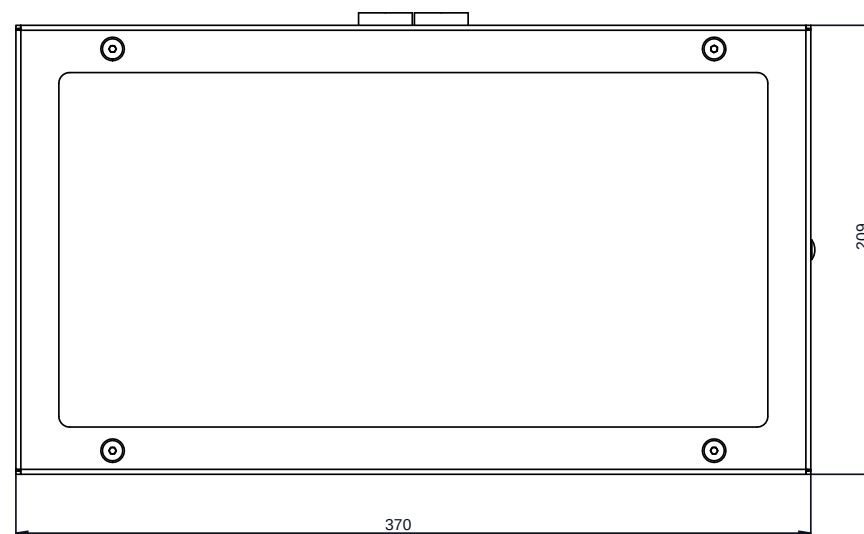
IP65



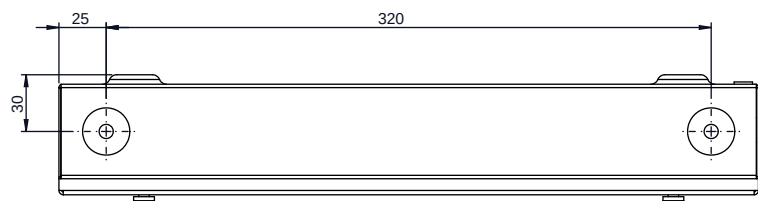
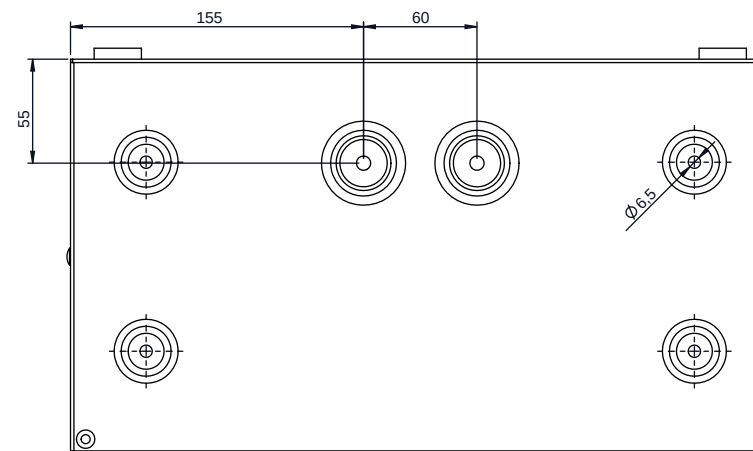
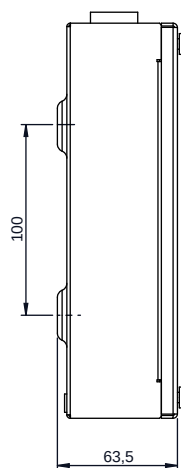
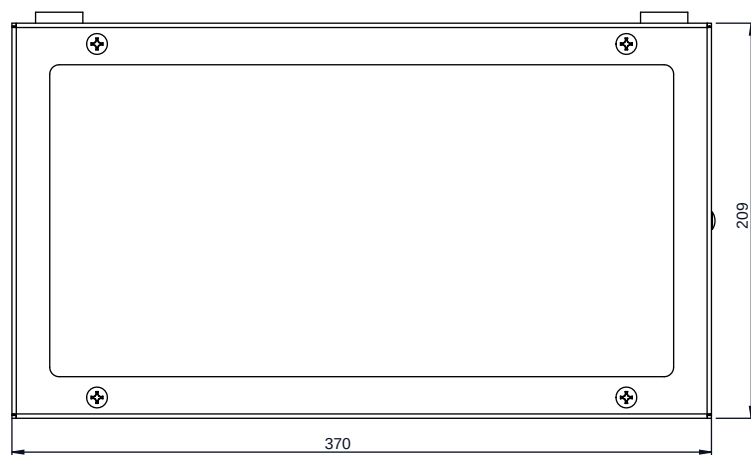
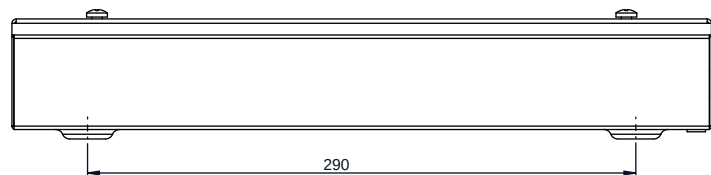
Beghelli
PRÄZISA

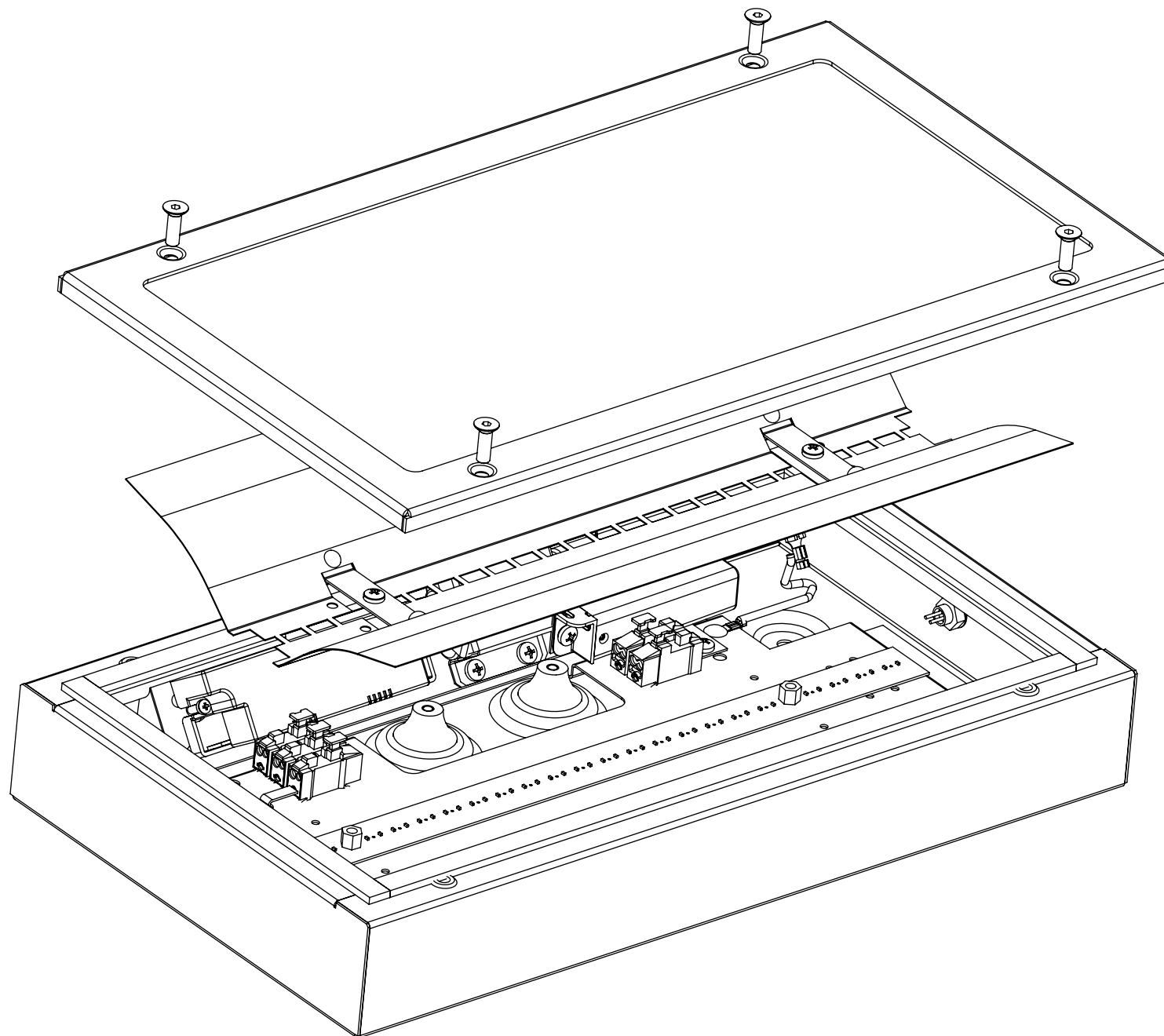
E-Mail: Kontakt@beghelli.de Internet: www.beghelli.de

Montáž na strop - rozměry
Ceiling mounting - dimensions
Deckenanbaumontage - Größe

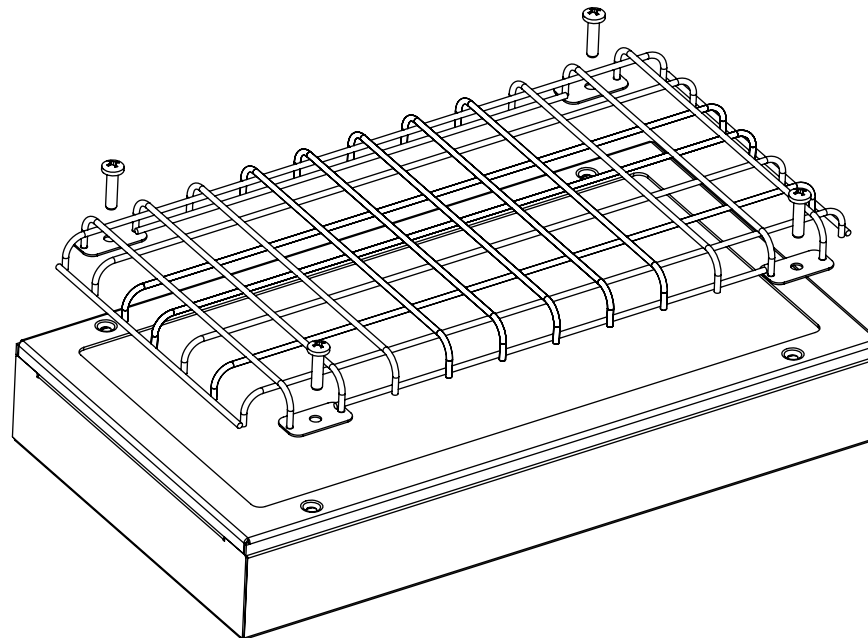
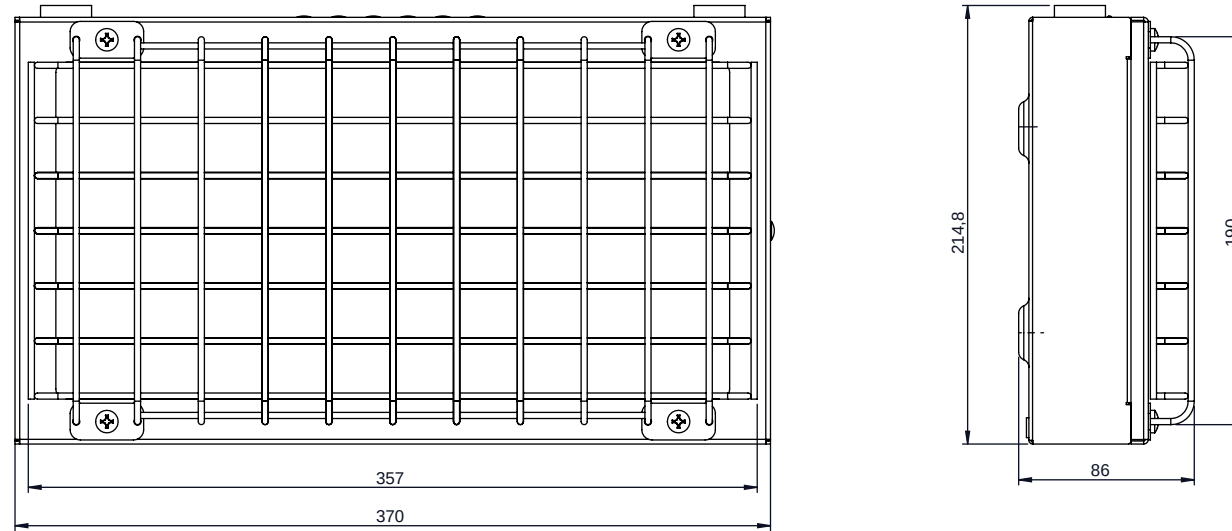


Montáž na stěnu - rozměry
Wall mounting - dimensions
Wandeinbaumontage - Größe





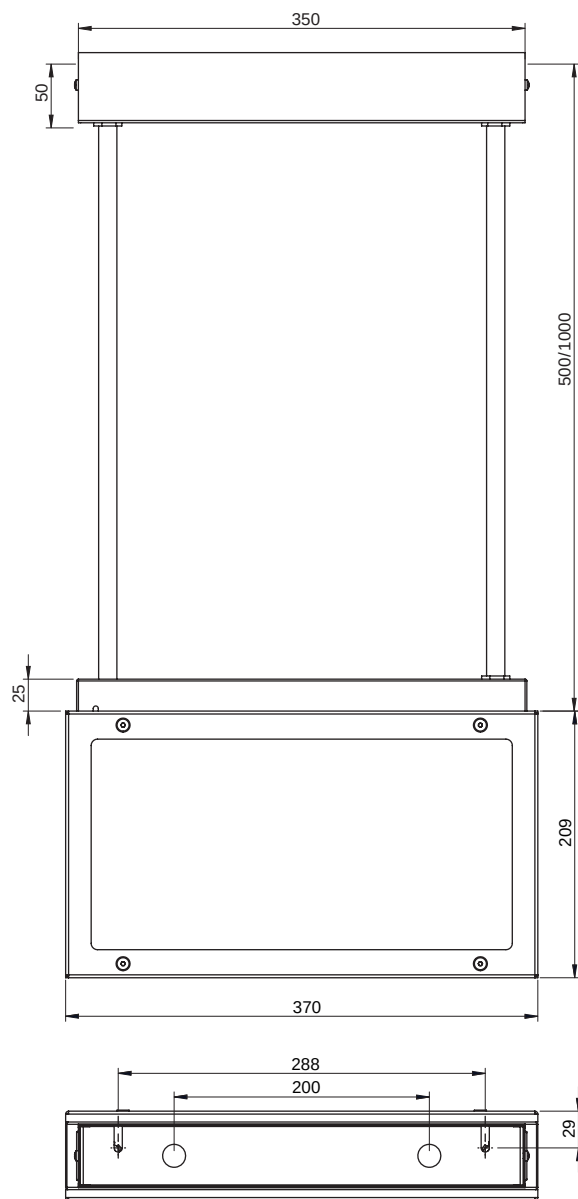
F95607



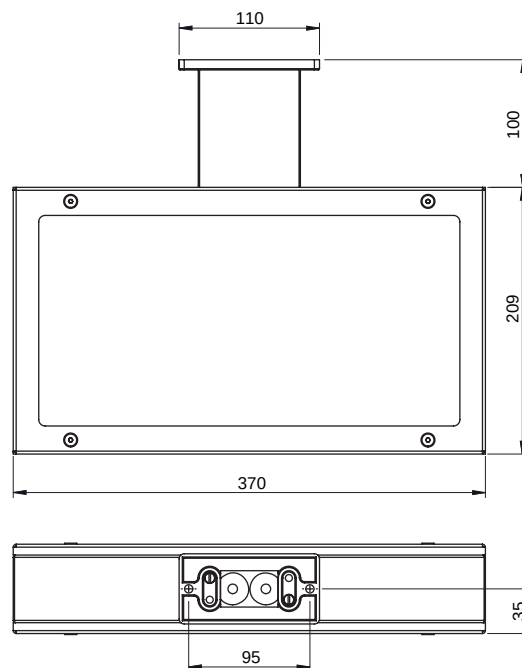
PŘÍSLUŠENSTVÍ - ACCESSORIES - ZUBEHÖR

F95604, F95609 - 500mm
- for cable diametr 7-10mm

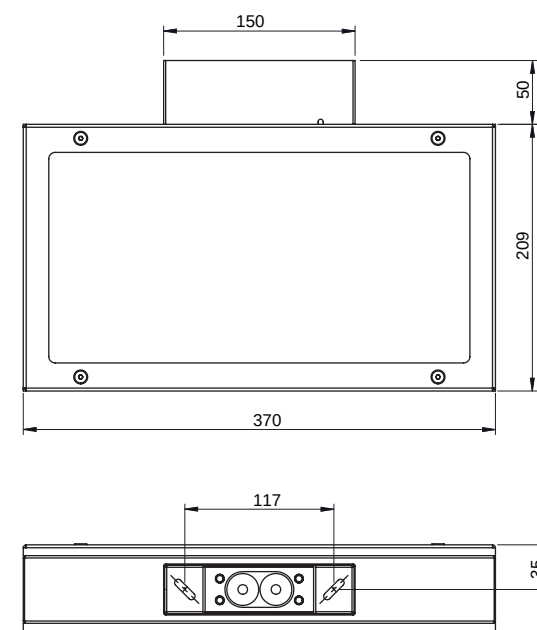
F95605, F95610 - 1000mm
- for cable diametr 7-10mm



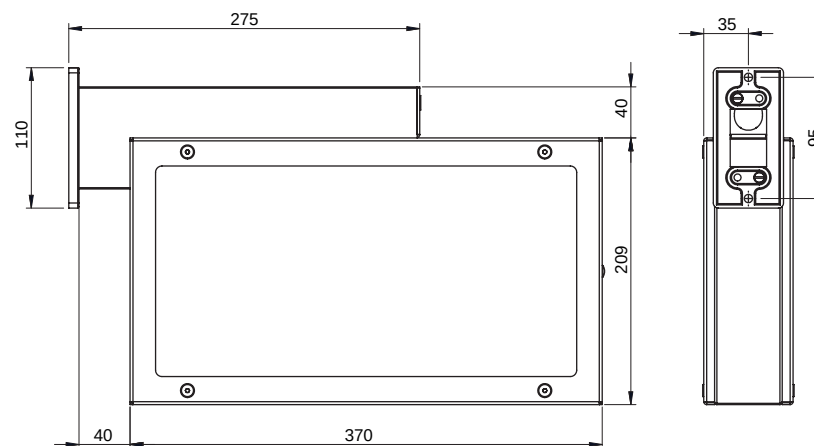
F95603, F95608
- for cable diametr 7-13mm



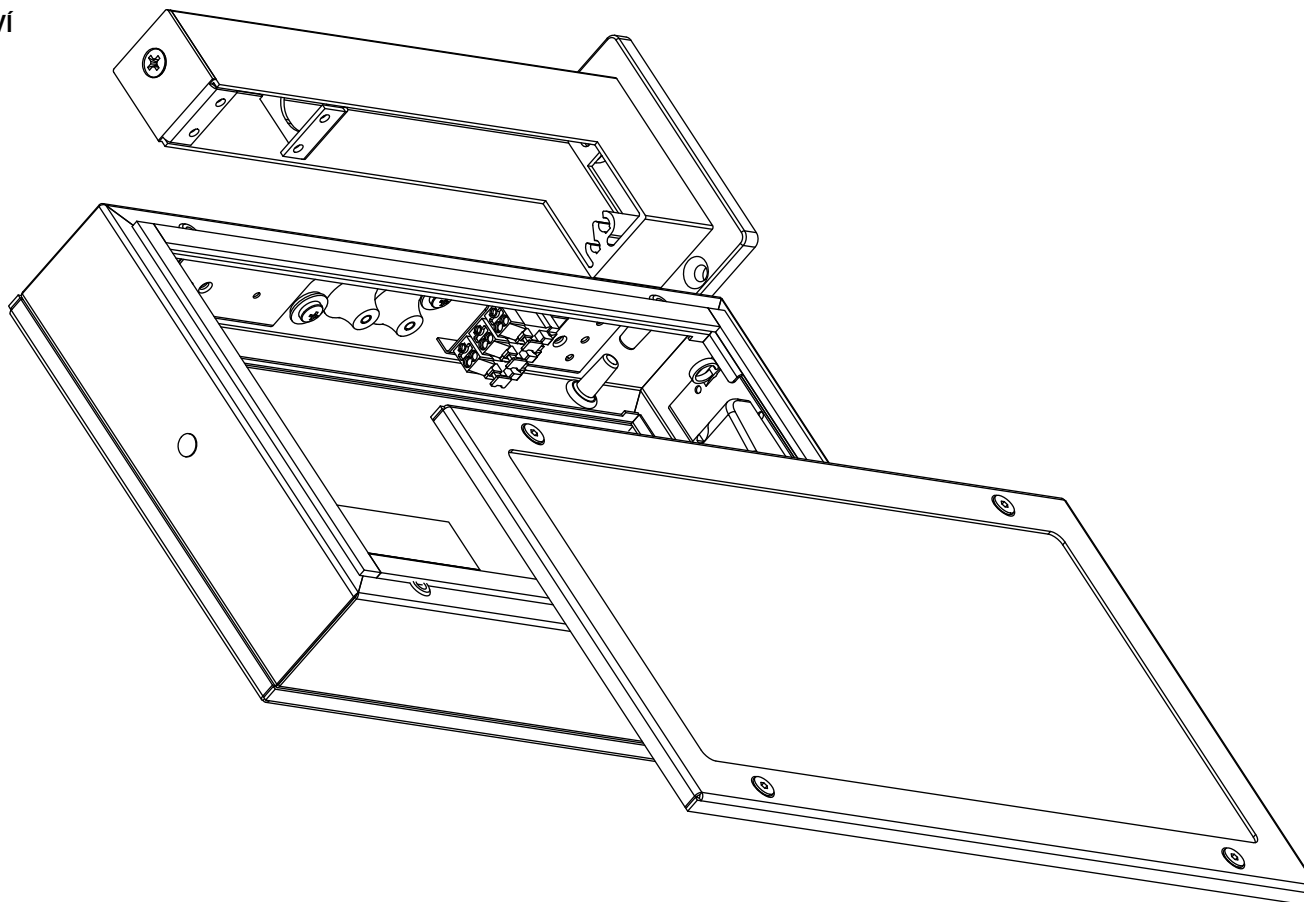
F95612, F95613
- for cable diametr 7-13mm



F95606, F95611
- for cable diametr 7-13mm



**PŘÍSLUŠENSTVÍ
ACCESSORIES
ZUBEHÖR**



UPOZORNĚNÍ – ZÁRUKA

Produkt je nakonfigurován spol. Beghelli Prázisa tak, aby poskytoval deklarovaný výkon. Žádné úpravy či jiné zásahy do konfigurace v nastavení nejsou povoleny. Záruka se nevztahuje na změny či úpravy produktu provedené ze strany zákazníka.

- Toto svítidlo může být použito pouze k účelu, pro nějž bylo vyrobeno. Jakékoliv jiné použití bude považováno za nevhodné a tím také nebezpečné.
- Pro výměnu zářivek, baterií, nebo opravy kontaktujte autorizované centrum zákaznického servisu a trvejte na použití autentických náhradních dílů.
- Nesplnění těchto instrukcí by mohlo vést ke snížení bezpečnosti svítidla nebo ke ztrátě záruky.

WARNHINWEISE – GARANTIE

Das Produkt wurde von Beghelli Prázisa so konfiguriert um die angegebenen Leistungsmerkmale bereitzustellen. Modifikationen oder andere Einstellungen sind nicht zugelassen oder vorgesehen. Die Garantie beinhaltet keinerlei Änderungen oder Modifikationen durch den Kunden.

- Das Gerät ist ausschließlich für den Zweck, für den er hergestellt wurde, zu verwenden. Jede davon abweichende Verwendung wird als nicht zweckentsprechend und somit als gefährlich angesehen.
- Für eventuelle Reparaturen kann ein autorisiertes Service-Center kontaktiert werden, um original Ersatzteile anzufordern.
- Das Nichteinhalten der oben genannten Bestimmungen kann die Gerätesicherheit gefährden.

WARNINGS – GUARANTEE

The product is configured by Beghelli Prázisa to providing the performance declared. No modification or other configurations settings are authorized or intended. The warranty does not cover any changes or modifications done by the client.

- This device shall be used exclusively for the purpose for which it has been designed. Any other use is considered improper and therefore dangerous.
- Contact an authorized technical service centre for any repairs possibly required use only original spare parts.
- The lacked respect of the above conditions may compromise the safety of the device.

AVVERTENZE – GARANZIA

Il prodotto è configurato da Beghelli Prázisa così da fornire le prestazioni dichiarate. Non sono autorizzate modifiche e variazioni alle programmazioni intese. Beghelli Prázisa non riconoscerà i termini di garanzia nel caso i prodotti fossero modificati senza espressa autorizzazione.

- Questo apparecchio dovrà essere destinato solo all'uso per il quale è stato costruito. Ogni altro uso è da considerarsi improprio e pericoloso.
- Per eventuali riparazioni rivolgersi ad un centro di assistenza tecnica autorizzato a richiedere l'utilizzo di ricambi originali.
- Il mancato rispetto di quanto sopra può compromettere la sicurezza dell'apparecchio.

Monitoring LEDs Driver LG FM BEGHELLI PRAEZISA

198-254VAC

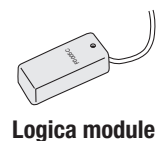


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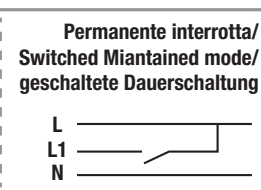
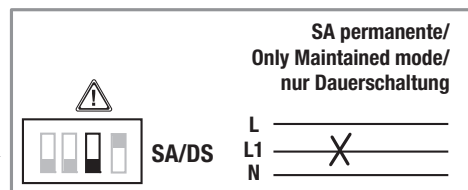
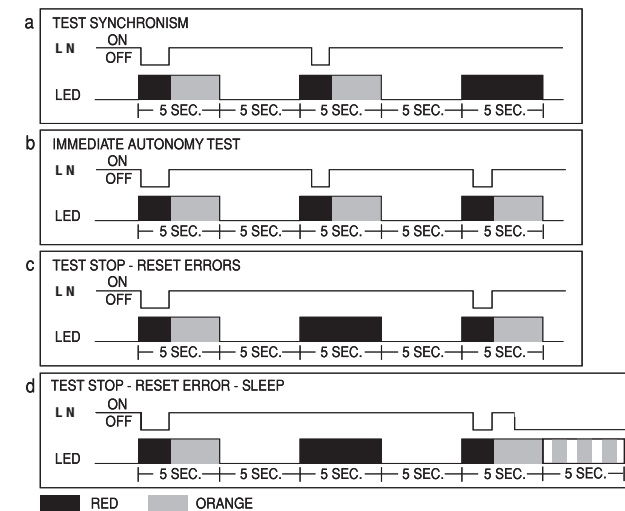
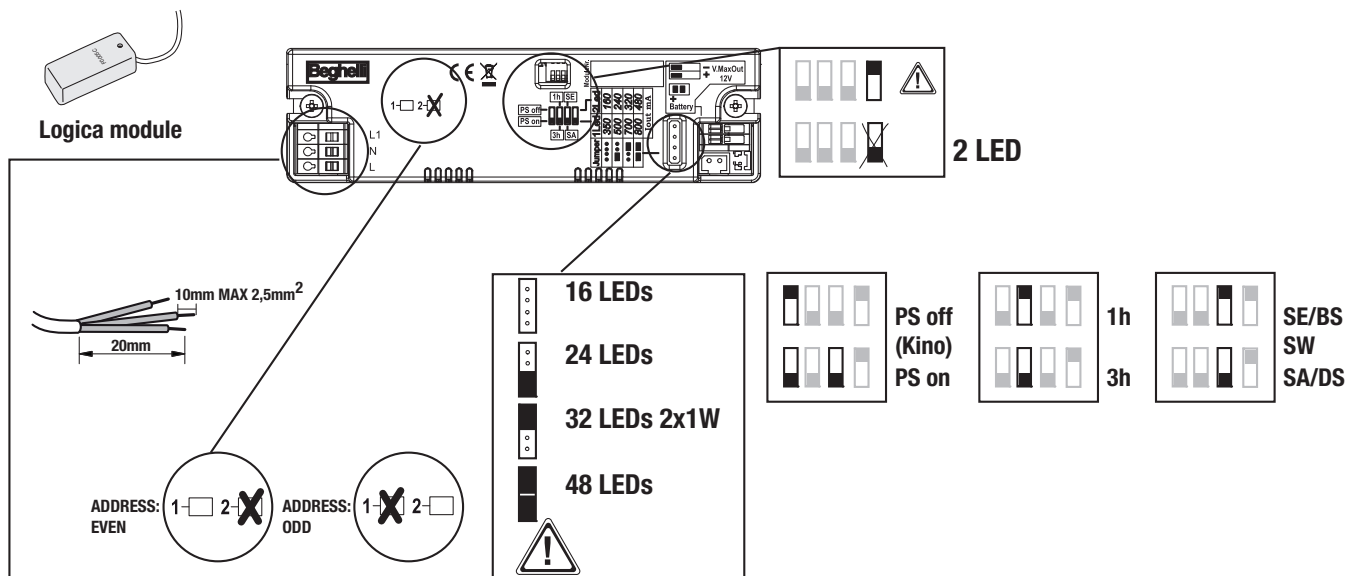
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PRAEZISA

E-Mail: Kontakt@beghelli.de - Internet: www.beghelli.de

334.900.943 C



Logica module



PERIODICITA' DEI TEST AUTOMATICI:

TEST FUNZIONALE (30 sec)= ogni 28 giorni
TEST DI AUTONOMIA (1h)= ogni 26 settimane

SEGNALAZIONI LED

VERDE FISSO	BATTERIA CARICA
VERDE LAMPEGGIANTE	BATTERIA IN RICARICA
UN LAMPEGGIO ROSSO	ERRORE BATTERIA AUTONOMIA
DUE LAMPEGGI ROSSI	ERRORE LED DI ILLUMINAZIONE
TRE LAMPEGGI ROSSI	BATTERIA SCOLLEGATA

AVVERTENZE - GARANZIA

- Questo apparecchio dovrà essere destinato solo all'uso per il quale è stato costruito. Ogni altro uso è da considerarsi improprio e pericoloso.
- Per eventuali riparazioni rivolgersi ad un centro di assistenza tecnica autorizzato e richiedere l'utilizzo di ricambi originali. Il mancato rispetto di quanto sopra può compromettere la sicurezza dell'apparecchio.
- Apparecchio con luce LED bianca: Classe di rischio 1 (acc. IEC62471).

AUTOMATIC TESTS PERIODICITY:

FUNCTIONAL TEST (30 sec)= every 28 days
AUTONOMY TEST (1h)= every 26 weeks

LED SIGNALS

FIXED GREEN	BATTERY CHARGED
FLASHING GREEN	BATTERY CHARGING
ONE RED FLASH	BATTERY ERROR DURATION
TWO RED FLASHES	LIGHTING LED ERROR
THREE RED FLASHES	BATTERY DISCONNECTED

WARNINGS - GUARANTEE

- This device shall be used exclusively for the purpose for which it has been designed.
- Any other use is considered improper and therefore dangerous.
- Contact an authorised technical service centre for any repairs possibly required use only original spare parts. The lacked respect of the above conditions may compromise the safety of the device.
- White LED device class 1 (IEC62471).

INTERVALLE DER AUTOMATISCHEN TESTS:

FUNKTIONSTEST (30 Sek.)= alle 28 Tage
BETRIEBSDAUERTEST (1h)= alle 26 Wochen

LED-ANZEIGEN

DAUERLICHT GRÜN	BATTERIE GELADEN
BLINKEN GRÜN	BATTERIE WIRD AUFGELADEN
EINMAL BLINKEN ROT	FEHLER BETRIEBSDAUER BATTERIE
ZWEIMAL BLINKEN ROT	FEHLER DER LEUCHT-LED
DREIMAL BLINKEN ROT	BATTERIE NICHT ANGESCHLOSSEN

WARNUNG - GARANTIE

- Das Gerät ist ausschließlich für den Zweck, für den es hergestellt wurde, zu verwenden. Jede davon abweichende Verwendung wird als nicht zweckentsprechend und somit als gefährlich angesehen.
- Für eventuelle Reparaturen kann ein autorisiertes Service-Center kontaktiert werden, um Original-Ersatzteile anzufordern. Das Nichteinhalten der oben genannten Bestimmungen kann die Gerätesicherheit gefährden.
- Leuchte mit weißem LED-Licht, Klasse 1 (IEC62471).

PERIODICITE DES TESTS AUTOMATIQUES:

TEST FONCTIONNEL (30 sec)= tous les 28 jours
TEST D'AUTONOMIE (1h)= toutes les 26 semaines

SIGNALISATIONS DEL

VERT FIXE	BATTERIE CHARGEE
VERT CLIGNOTANT	BATTERIE EN CHARGE
UN CLIGNOTEMENT ROUGE	ERREUR BATTERIE AUTONOMIE
DEUX CLIGNOTEMENTS ROUGES	ERREUR DEL D'ECLAIRAGE
TROIS CLIGNOTEMENT ROUGES	BATTERIE DEBRANCHEE

AVERTISSEMENTS - GARANTIE

- Cet appareil ne devra être destiné qu'à l'utilisation pour laquelle il a été construit. Tout autre utilisation est improprie et dangereuse.
- Pour éventuel réparations, s'adresser à un centre d'assistance technique agréé et demander l'utilisation de pièces de rechange originales. Le non respect des indications susmentionnées peut compromettre la sécurité de l'appareil.
- Appareil d'éclairage à LED blanche de classe 1 (IEC62471).

PERIODICIDAD DE LOS TESTS AUTOMÁTICOS:

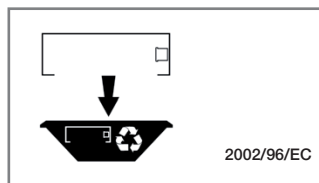
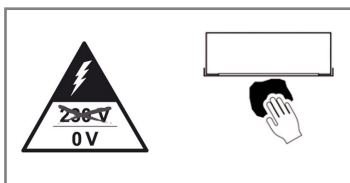
TEST FUNCIONAL (30 seg)= cada 28 días
TEST DE AUTONOMÍA (1h)= cada 26 semanas

SEÑALIZACIÓN LED

VERDE FIJO	BATERÍA CARGADA
VERDE INTERMITENTE	BATERÍA EN RECARGA
UN PARPADEO ROJO	ERROR BATERÍA AUTONOMÍA
DOS PARPADEOS ROJOS	ERROR LED DE ILUMINACIÓN
TRES PARPADEOS ROJOS	BATERÍA DESCONECTADA

ADVERTENCIAS - GARANTÍA

- Este equipo tiene que ser usado sólo para la utilización para la que ha sido construido. Cualquier otro uso se considera impropio y peligroso.
- Para posibles reparaciones, dirigirse a un centro de asistencia técnica autorizado y solicitar el utilizo de recambios originales.
- La falta de respeto de cuanto indicado anteriormente puede perjudicar la seguridad del aparato.
- Aparato con luz LED blanca de clase 1 (IEC62471).

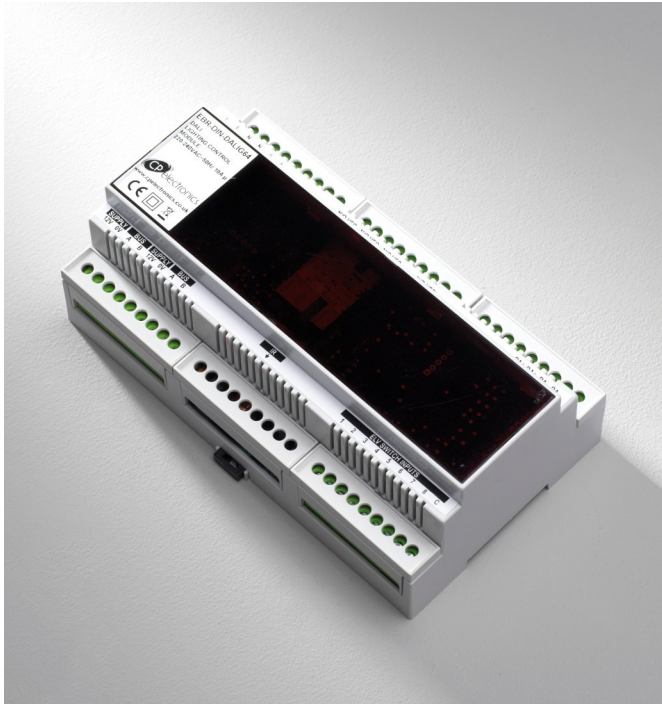


2002/96/EC

EBR-DIN-DALIG64

DINrail DALI lighting control module

Overview



The EBR-DIN-DALIG64 is a Rapid lighting control module designed for controlling 64 addressable DALI devices such as fluorescent or LED lighting ballasts. There are two relays providing a switched live output and a third relay for emergency test. Additionally there is a volt free contact to control external devices.

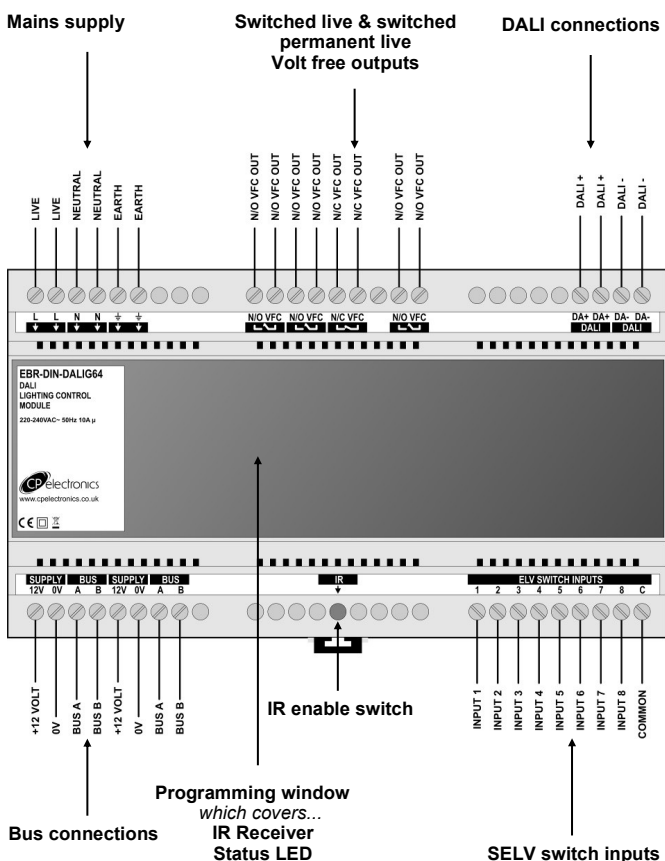
This LCM also has a total of 8 switch inputs and 2 DALI connections.

Used in conjunction with our range of DALI presence detectors a single DALI cable can be run to digitally control all the lighting and power the sensors. This saves time and money on additional specialist cable. It is ideal for chilled beam, continuous run lighting, and core areas.

Please speak to our technical team for further information.

Features

Front features



Mains connections

- Live, Earth, Neutral.

SELV switch inputs

- 8 SELV switch inputs.

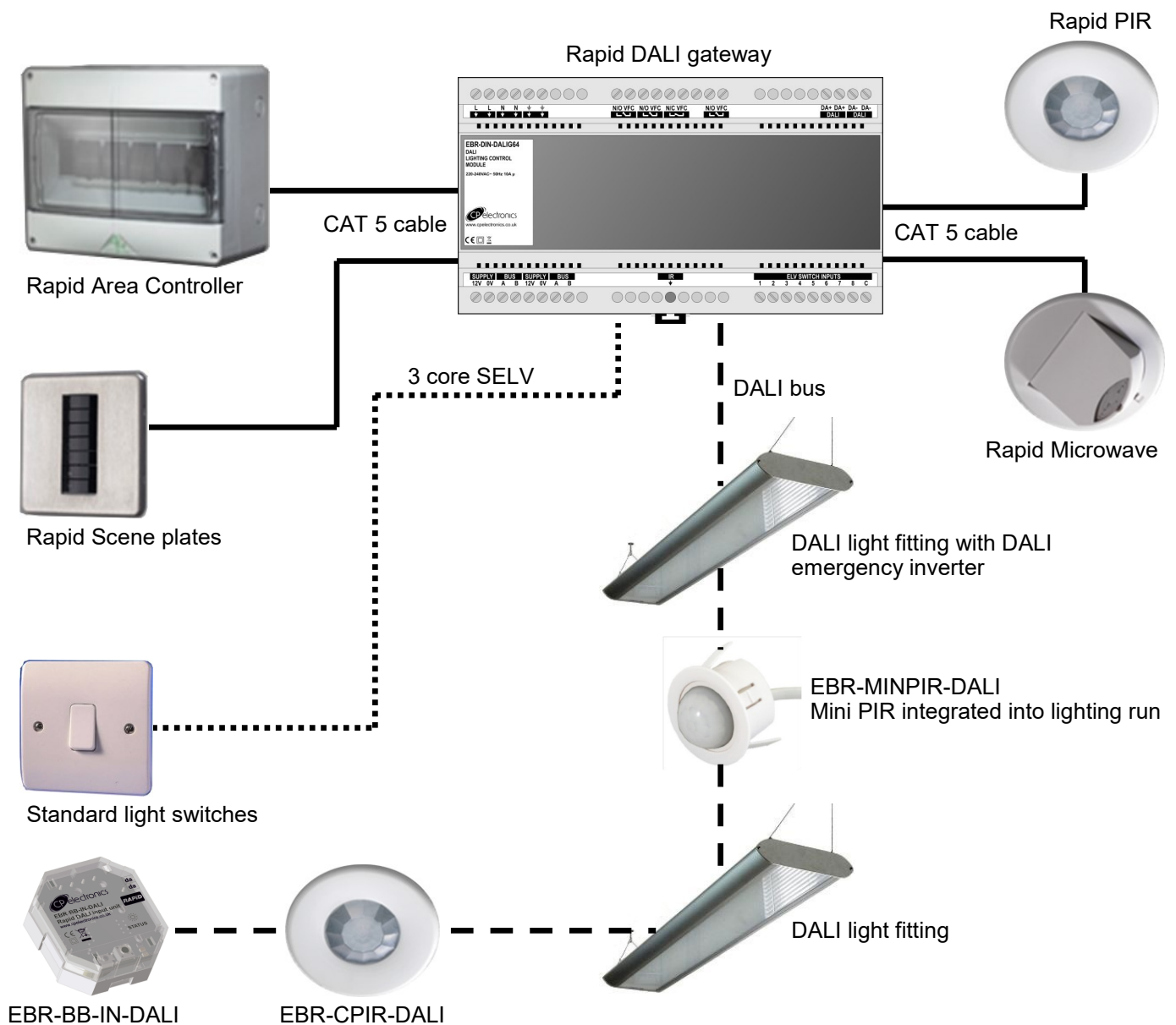
Volt free outputs

- 3 x normally open 10A 230VAC rated Voltage free relays. Used to switch external peripherals, such as HVAC and BMS systems.
- 1 x normally closed 6A 230VAC rated Voltage free relay. Suitable for emergency testing.

Communication ports

- 2 x power and Rapid network bus ports
- 2 x DALI connections

System wiring example



DALI bus loading

Devices (detectors / input units) and ballast combinations for 200mA supply.

This assumes that the sensor LEDs are all on, and the sensor is receiving IR communication.

- 4 devices and up to 64 ballasts
- 5 devices and up to 55 ballasts
- 6 devices and up to 44 ballasts
- 7 devices and up to 33 ballasts
- 8 devices and up to 22 ballasts
- 9 devices and up to 12 ballasts
- 10 devices and up to 2 ballasts

In most realistic scenarios, only one LED is on at a time and only one detector is receiving IR; guidance changes to.

- 10 devices up to 64 ballasts
- 11 devices up to 60 ballasts
- 12 devices up to 55 ballasts
- 13 devices up to 50 ballasts
- 14 devices up to 48 ballasts
- 15 devices up to 44 ballasts

Addressing limits of DG64

- 5 input units of 7 channels each
- 10 detectors

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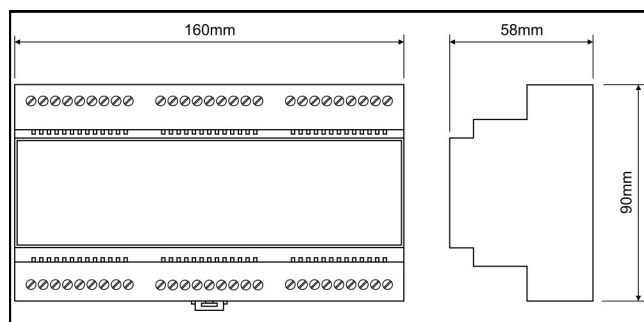
Technical data

Dimensions	See diagrams opposite	
Weight	0.40kg	
Supply Voltage	220 - 240VAC	
Frequency	50Hz	
Relay rating	Normally open relays	10A
	Normally closed relay	6A
	Volt free output	10A
Terminal Capacity	2.5mm ²	
Power consumption	On 2930mW, Off 2120mW	
DALI Voltage	16VDC via DALI	
DALI Output Current	250mA (maximum)	
DALI bus	Cannot be considered as SELV since DALI, ballasts only offer basic insulation, therefore all devices on the DALI bus must be wired as if carrying mains potential.	
Temperature	-10°C to 35°C	
Humidity	5 to 95% non-condensing	
Material (casing)	Flame retardant ABS and PC/ABS	
Classifications	Insulation	Class II
	Purpose	Operating control
	Construction	Incorporated control
	Type of action	Type 1.B action micro disconnection
	Software class	Class A
	Pollution	Degree 2

Compliance EMC-2014/30/EU
LVD-2014/35/EU



For further compliance information visit
www.cpelectronics.co.uk/compliance



Important

For lighting purposes only with suitable circuit protection. For fixed wiring only.
Must be mounted in a suitable enclosure such that terminals are not exposed.

Part numbers

	Part number	Description
Control module	EBR-DIN-DALIG64	DINrail DALI lighting control module
	EBR-DIN-DALIG64-EG	DINrail DALI lighting control module + energy measurement
Accessories	UNLCDHS	Universal LCD programming handset



CP Electronics - a business unit of
Legrand Electric Limited
Brent Crescent, London NW10 7XR UK
Tel: +44 (0)333 900 0671
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A brand of **legrand**
www.cpelectronics.co.uk
enquiry@cpelectronics.co.uk

GENB-IR | Narrow beam, long range, adjustable head, ceiling PIR presence detector



Key Product Features:

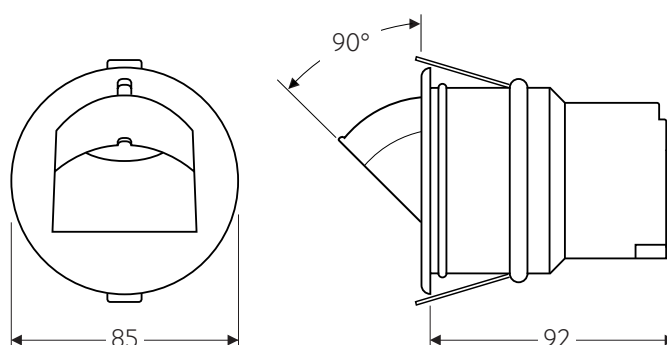
- Adjustable head
- 'Curtain' style lens for longer detection range – ideal for corridor/aisle lighting control
- Time delay and lux settings can be set with the GEFL-HS infrared handset (sold separately)
- IP40 rated
- Ideal for corridor applications

Applications

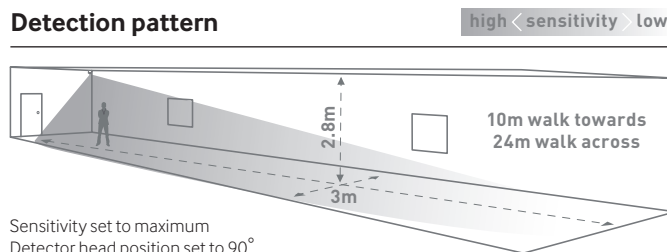
The GENB-IR is suitable for narrow and/or deep section spaces where a long, narrow beam is needed, e.g. educational institutions, hospitality, healthcare, residential apartments and offices.

The GENB-IR allows you to control the lighting in corridors or aisles with a smaller number of detectors, saving time and cost.

Dimensions (mm)



Detection pattern



Technical Data

Part Code	GENB-IR
Weight	0.100kg
Supply voltage AC	230 VAC +/- 10%
Supply Frequency (Hz)	50Hz
Terminal capacity	2.5mm ²
Max load:	
Incandescent lighting	8A
Fluorescent lighting	4A
Compact fluorescent lighting	3A
LED lighting	3A
Resistive heaters	8A
Fans and ventilation equipment	3A
Working temperature range °C	-10 to 30°C
Humidity	5 to 95% non-condensing
Material (casing)	Flame retardant ABS and PC/ABS
IP rating	40
Compliance	 EMC-2014/30/EU, LVD-2014/35/EU
Purpose of control	Sensing control
Construction of control	Independent flush mounted, electronic control
Type of action	Type 1.B action (micro disconnection)
Control pollution degree	Degree 2
Software	Class A
Rated impulse voltage	2500V

Accessories and Associated Products

Part Number	Description
 GEFL-HS	Green-i, compact, infrared user handset
 MWS3A-DBB	Surface mount back box
 MWS3A-DBB-EXT	Surface mount back box extender
 MWS3A-DBB-WBRKT	Wall mount bracket

	CP Electronics A Business unit of Legrand Electric Limited, Brent Crescent, London NW10 7XR, UK t. +44 (0)333 900 0671 info@cpelectronics.co.uk	Important notice: This device should be installed by a qualified electrician in accordance with the latest edition of the IEE Wiring Regulations and the applicable Building Regulations. Due to our policy of continual product improvement CP Electronics reserves the right to alter the specification of this product without prior notice.   
	connect with us    	

Surge Suppressed Photocell Kit



Brand: LED Solutions

Product type: Photocell Sensors

Mfr number: NL5605

Part number: 1050150455

Product description

A photocell is a light operated switch that switches the supply ON a luminaire when the light level falls under a pre-set value (usually Dusk) and switches the supply OFF when it rises above a pre-set level (usually Dawn). Photocells help to drive down costs and improve energy efficiencies by ensuring lights are not on when not needed.

Features and benefits

- Photocells provide dusk-dawn operation of external lights
- All UV stabilised polycarbonate construction
- Operating voltage 198V to 264V 50Hz
- 70/35 lux level (negative switching ratio to suit street lighting applications)
- Fully electronic circuit design with electromagnetic load switch
- Consumes less than 0.25W (Day and Night)
- Heavy duty load switching capacity
- Surge suppression extends life by protecting the circuit from high voltage transients
- 1500W (6A) max resistive load
- UK manufactured and product tested

EBDSM | Compact surface mounted detector



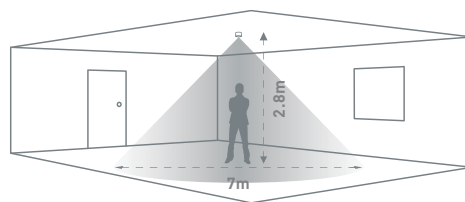
This range of surface mounted PIR presence detectors is perfect for simple attachment when flush mounting is not possible.

Key Product Features:

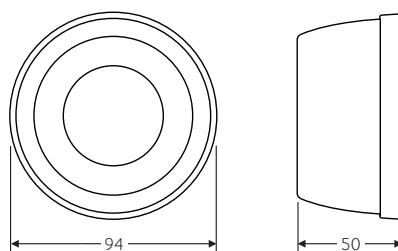
- Self contained unit
- Easy to install via back plate
- Infrared programmable via our UHS5 and UNLCDHS handsets
- IP40 (no gasket); IP54 when fitted with gasket.

Detection pattern

high < sensitivity > low



Dimensions (mm)



Part Code	EBDSM-PRM	EBDSM-DD	EBDSM-AD
Technical Data			
Control method	PRM switching	DALI/DSI digital dimming	1–10V analogue dimming
IP rating	IP40 without gasket; IP54 with gasket	IP40 without gasket; IP54 with gasket	IP40 without gasket; IP54 with gasket
Device/ballast control	–	up to 20 drivers/ballasts	up to 10 drivers/ballasts
Weight	0.15kg	0.15kg	0.15kg
Supply voltage AC	230VAC+/-10%	230VAC+/-10%	230VAC+/-10%
Supply frequency	50Hz	50Hz	50Hz
Power consumption parasitic	895mW	807mW	260mW
Terminal capacity	2.5mm ²	2.5mm ²	2.5mm ²
Working temperature range °C	-10 to 35	-10 to 35	-10 to 35
Humidity	5 to 95% non-condensing	5 to 95% non-condensing	5 to 95% non-condensing
Material (casing)	Flame retardant ABS and PC/ABS	Flame retardant ABS and PC/ABS	Flame retardant ABS and PC/ABS
Insulation class	Class 2	Class 2	Class 2
Compliance	EMC-2004/108/EC LVD-2006/95/EC	EMC-2004/108/EC LVD-2006/95/EC	EMC-2004/108/EC LVD-2006/95/EC
Time out range	10s–99m	10s–99m	10s–99m
Maximum loads			
Incandescent lighting	10A	10A	10A
Fluorescent lighting	10A	10A	10A
Compact fluorescent lighting	10A	10A	10A
LED lighting	10A	10A	10A
Resistive heaters	10A	10A	10A
Fans & ventilation equipment	10A	10A	10A

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