

# Rail System LED

Pre-wired supporting profile + SD lighting module

Continuous-row system with pre-wired modular track. A single supporting track is the basis for installing both the three-phase binary and the specific lighting module, available with 7 different optics to meet most lighting needs in small and large scale retail, offices and industrial applications. The pre-wiring of the channel uses 7 poles: 3 phases – Neutral-Pet (earth) – Emergency lighting – DALI BUS. Every components is made of extruded aluminium with high-precision inserts and mechanical locking. Guaranteeing extremely quick installation, the range allows scope for every level of system complexity and any type of continuous-row routing.

The operation of the Opticom system requires a radio module and smart photosensor, which can work either in auto-dimming mode or directly commanded via a smartphone to adjust the brightness intensity with the exposed device. LED Rail System can also be controlled via WiFi, thanks to the optional domotic control unit that also enables all the operating modes envisaged by the Smart Driver (SD) protocol.

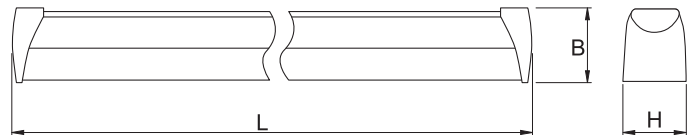


## GENERAL CHARACTERISTICS

- Equivalent Power\*** 2x 18, 2x 80 W
- Power supply** 93–265 V<sub>AC</sub> 50/60 Hz  
176–250 V<sub>DC</sub>
- Standard** EN 60598-1, EN 60598-2-1, EN 60598-2-22 (fundamental requirements), EN62471 (Photobiological hazard)
- Protection grade** IP40
- Working temp.** -20 °C ÷ +40 °C
- Mounting** suspension with steel cable, suspension with chain, ceiling-mounting with bracket rail on ceiling or bracket rail with special slats
- Body** extruded aluminium RAL 9010
- Optic** transparent polyamide PMMA
- Power supply** Electronic SD (cos φ ≥ 0.96)  
Electronic intelligent dimming system
- MTBF Control gear\*\*** 80 000 h
- Luminous flux maintenance\*\*** >60 000 (L80B20)
- Colour deviation** 3 SDCM

\* Equivalent power for comparison with fluorescent tube fixtures

\*\* At environmental reference temperature of 25 °C



W	L	• Dimensions (mm) •		Weight kg
		B	H	
2x 80	1 416	73	80	3.6
2x 18	568	73	80	1.7

INVERTER	EMERGENCY WITH LED INVERTER		TR	AT	LG	LGFM
	19358	INVERTER PLUG&LIGHT LED SE/SA 1H 20-60V	to be ordered separately			
	19359	INVERTER PLUG&LIGHT LED SE/SA 3H 20-60V	to be ordered separately			
	19355	INVERTER LED AT/LG 6W 55V 123H	to be ordered separately			
	19372	INVERTER LED AT/LG 8W 55V 123H	to be ordered separately			
	19390	INV EXT AT/LG 15W 55V 0,75-1-2-3-8H LTO	to be ordered separately			
	19391	INV EXT AT/LG 15W 55V 0,75-1-2-3-8H LiFe	to be ordered separately			

LG Inverters can be transformed in LGFM with the accessory code 19375

## Building automation to be ordered separately

Order code	Description
20102	BUILDING AUTOMATION CENTRAL UNIT
20124	BUILDING AUTOMATION CENTRAL UNIT WIFI
20104	2 INPUT INTERFACE – RADIO TRANSMITTER
15022	BUILDING AUTOMATION RADIO MODULE
15024	DALI MODULE
15034	1-10V MODULE
15035	OPTICOM AUTODIMMER SENSOR RAIL

**SPECIAL VARIANTS: COLOUR RENDERING ≥90, COLOUR TEMPERATURE ON REQUEST, IP54 VERSION ON REQUEST**  
Contact the Beghelli sales network

**DOMOTIC  
RADIO  
MODULE**

**1÷10V  
MODULE**

**DALI  
MODULE**

**PLUG&LIGHT  
MODULE**

OPTIONAL MODULES TO EXTEND BEGHELLI SD TO RADIO CONTROL OR DALI / 1-10V SYSTEMS AND EMERGENCY



**INTELLIGENT PHOTOSENSOR**

**1.**

Autodimmer  
Natural Light

**2.**

Autodimmer  
Dynamic Light

**3.**

**opticom**  
TECHNOLOGY

Smartphone Interface  
to control and set up system



CEILING AND SUSPENDED

### CEILING MOUNTING



**14537** RAIL CEILING BRACKET

*to be ordered separately*

### SUSPENDED MOUNTING



**14534** RAIL BRACKET SUSPENS WIRE 3M

*to be ordered separately*



**14535** RAIL BRACKET SUSPENS CHAIN 3M

*to be ordered separately*

### CLOSURE HEAD



**14532** RAIL HEAD

*to be ordered separately*

**14580** RAIL HEAD DOUBLE ARC

*to be ordered separately*

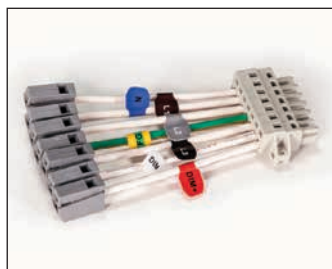
### CEILING MOUNTING



**14536** RAIL SURFACE BRACKET

*to be ordered separately*

### 7-POLE ASSEMBLY SYSTEM

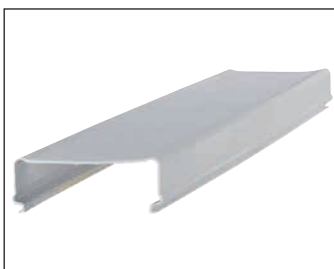


**14530** RAIL POWER 7 WIRE

*to be ordered separately*



### COVERS



**14533** RAIL COVER PC 1500

*to be ordered separately*

**14539** RAIL COVER PC 600

*to be ordered separately*


# Base components

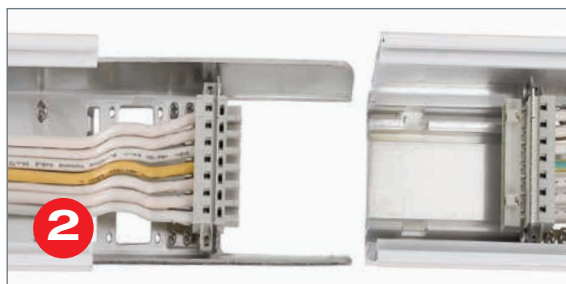
Rail System Led is an advanced track system with a host of possible variants that make it extremely versatile, suitable for all types of use



- 1 Electrified tri-phase rail**  
or recessed installation within the supporting profile, can accommodate floodlights of various power levels

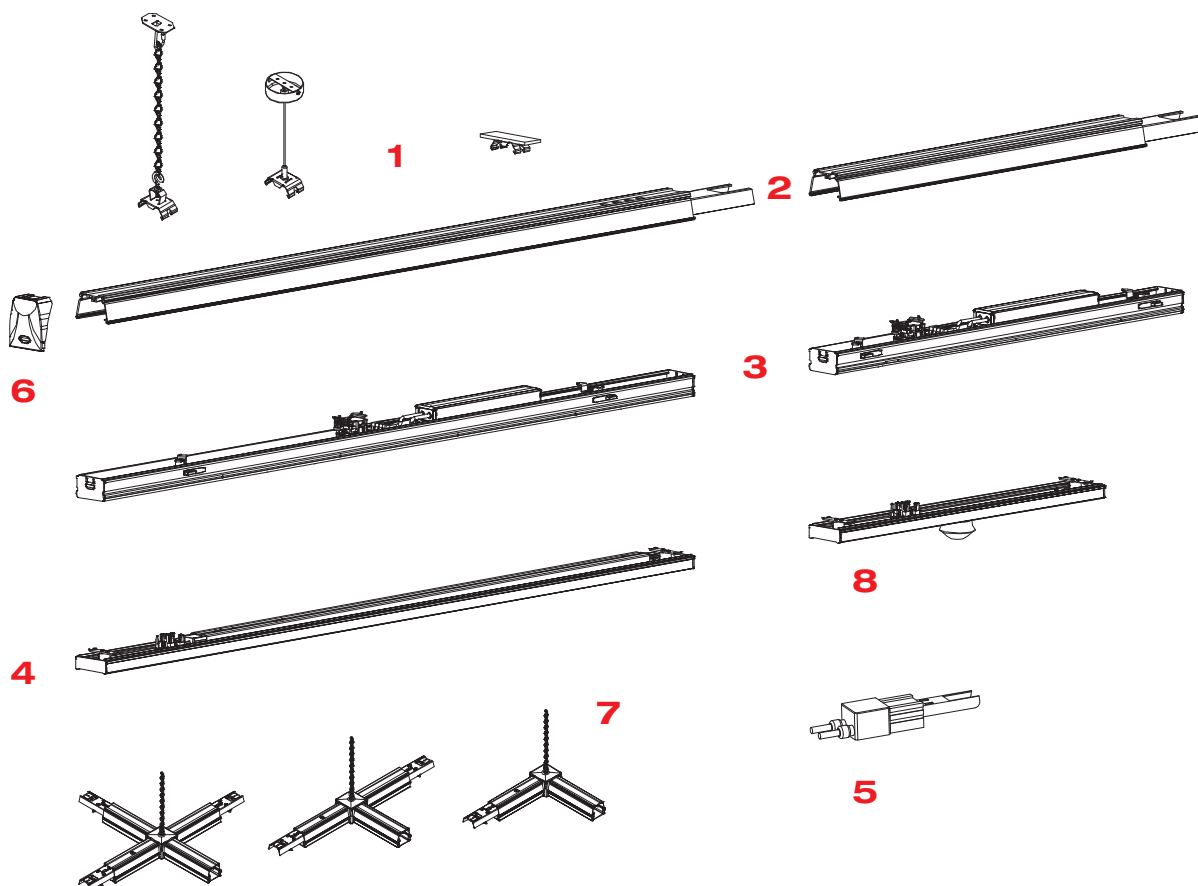
## Key elements of the system:

- 1** Suspension and ceiling mounting elements
- 2** Pre-wired supporting profile (0.6 m, 1.5 m)
- 3** LED SD lighting module (0.6 m, 1.5 m)
- 4** Electrified tri-phase rail (1.5 m)
- 5** Powered head
- 6** End head
- 7** Connection modules: 2, 3, 4 way joints
- 8**  Module (0.6 m)



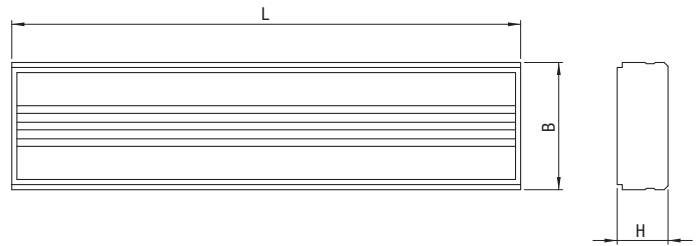
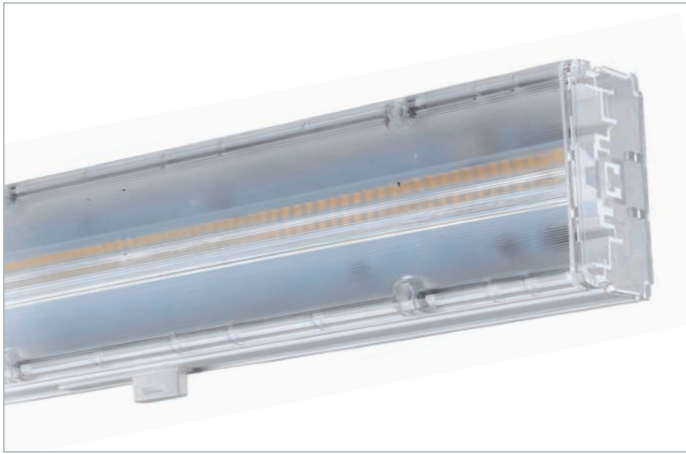
**2 Pre-wired supporting profile**  
 equipped with a quick-connect system for speedy installation. Mounted before the other components, comprises the supporting structure of the system

**3 Wired LED SD lighting module**  
 Available with 7 different optics, with a choice of concentrator, diffusor, asymmetrical and symmetrical options. The quick-locking system is also equipped with an electrical connection



# SD lighting module

SD wired LED device



Power W*	• Dimensions (mm) •			Weight kg
	L	B	H	
2x 80	1 416	68	37	1.7
2x 18	568	68	37	0.8

## SD lighting module

SmartDriver **SD**

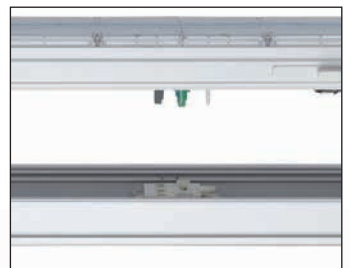
Power* W	Order code	Description	Optic	LED Power W	Colour Temp. K	Colour rendering	Power consumption max W	N° LED	Flux of LEDs lm (Tj=25°C)	Flux of fixture lm	lm/W	Energy Class	Packaging
2x 80	<b>14500</b>	RAIL LED 2x80 1500 WD SD 4K	Wide (90°)	59	4 000	>80	65 (56*)	288	10 000	9 000	139	A++	1/10
2x 80	<b>14501</b>	RAIL LED 2x80 1500 SP SD 4K	Sharp (25°)	59	4 000	>80	65 (56*)	288	10 000	9 000	139	A++	1/10
2x 80	<b>14502</b>	RAIL LED 2x80 1500 NR SD 4K	Narrow (60°)	59	4 000	>80	65 (56*)	288	10 000	9 000	139	A++	1/10
2x 80	<b>14503</b>	RAIL LED 2x80 1500 DS SD 4K	Double Asymm	59	4 000	>80	65 (56*)	288	10 000	9 000	139	A++	1/10
2x 80	<b>14504</b>	RAIL LED 2x80 1500 RS SD 4K	Right Asymm	59	4 000	>80	65 (56*)	288	10 000	9 000	139	A++	1/10
2x 80	<b>14505</b>	RAIL LED 2x80 1500 LS SD 4K	Left Asymm	59	4 000	>80	65 (56*)	288	10 000	9 000	139	A++	1/10
2x 80	<b>14568</b>	RAIL LED 2x80 1500 DA SD 4K	(120°)	59	4 000	>80	65 (56*)	288	10 000	9 000	139	A++	1/10
2x 18	<b>14540</b>	RAIL LED 2x18 600 WD SD 4K	Wide (90°)	23	4 000	>80	26	144	4 000	3 600	140	A++	1/10
2x 18	<b>14541</b>	RAIL LED 2x18 600 SP SD 4K	Sharp (25°)	23	4 000	>80	26	144	4 000	3 600	140	A++	1/10
2x 18	<b>14542</b>	RAIL LED 2x18 600 NR SD 4K	Narrow (60°)	23	4 000	>80	26	144	4 000	3 600	140	A++	1/10
2x 18	<b>14543</b>	RAIL LED 2x18 600 DS SD 4K	Double Asymm	23	4 000	>80	26	144	4 000	3 600	140	A++	1/10
2x 18	<b>14544</b>	RAIL LED 2x18 600 RS SD 4K	Right Asymm	23	4 000	>80	26	144	4 000	3 600	140	A++	1/10
2x 18	<b>14545</b>	RAIL LED 2x18 600 LS SD 4K	Left Asymm	23	4 000	>80	26	144	4 000	3 600	140	A++	1/10
2x 18	<b>14569</b>	RAIL LED 2x18 600 DA SD 4K	(120°)	23	4 000	>80	26	144	4 000	3 600	140	A++	1/10

\* The power consumption has an auto derating to the power indicated in parenthesis if the product is powered by voltage less than 110 V<sub>AC</sub>.

### SUSPENDED MOUNTING



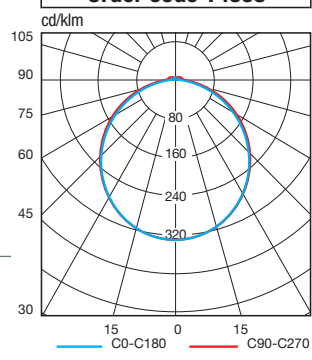
### FIXING SYSTEM



# 7 Optics, 7 different Polar diagrams

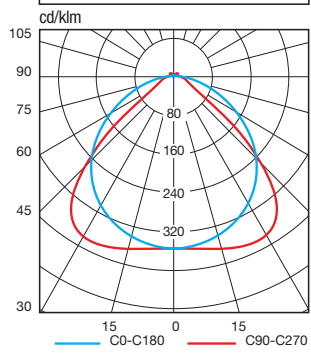
**Rail System**  
**80W – 120°**

**Order code 14568**



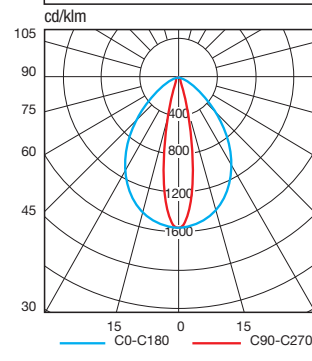
**Rail System**  
**80W – 90°**

**Order code 14500**



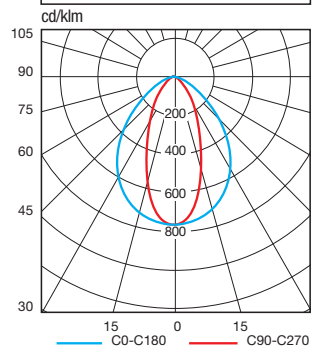
**Rail System**  
**80W – 25°**

**Order code 14501**



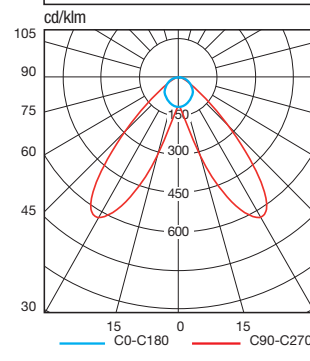
**Rail System**  
**80W – 60°**

**Order code 14502**



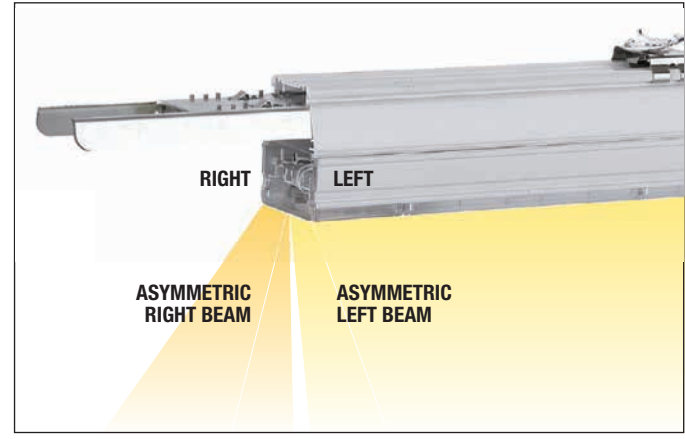
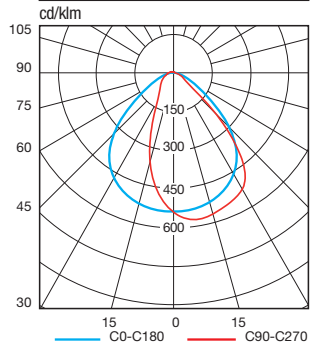
**Rail System**  
**80W – double asymm.**

**Order code 14503**



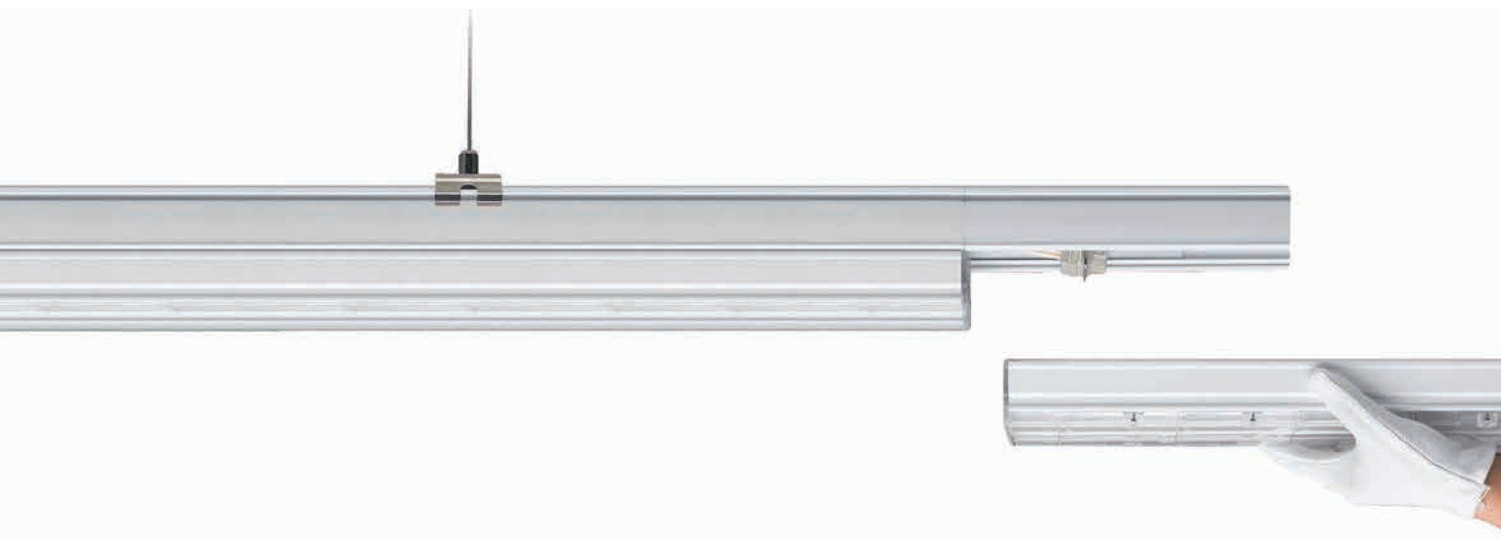
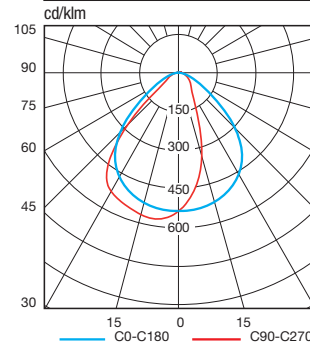
**Rail System**  
**80W – right asymmetric**

**Order code 14504**



**Rail System**  
**80W – left asymmetric**

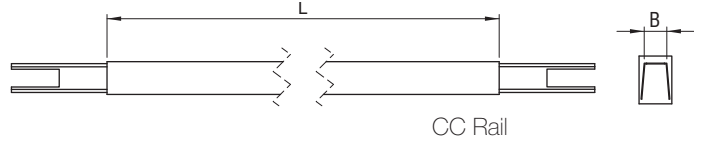
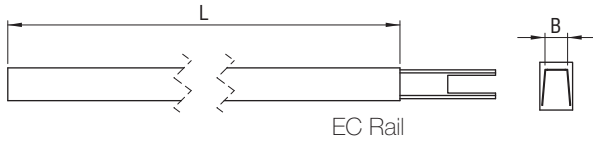
**Order code 14505**



# Pre-wired supporting profile

## Structure component

Equipped with a quick connection system for extremely fast installation. Mounted prior to the other components, it forms the supporting structure of the system. Continuous-row installation.



## EC rail – supporting profile with lateral power supply

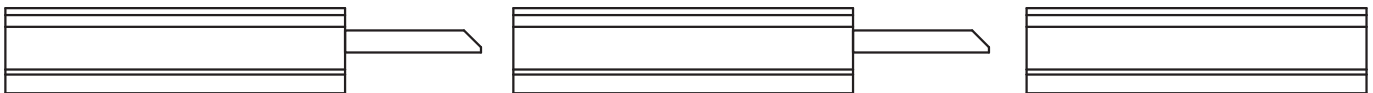
Model mm	Order code	Description	Cable section mm <sup>2</sup>	• Dimensions (mm) •		Weight kg	Packaging
				L	B		
600	<b>14516</b>	RAIL 600 7 WIRE EC	2.5	570	68.4	0.7	1/10
1 500	<b>14510</b>	RAIL 1500 7 WIRE EC	2.5	1 416	68.4	1.4	1/10
3 000	<b>14512</b>	RAIL 3000 7 WIRE EC	2.5	2 832	68.4	2.8	1/10
4 500	<b>14514</b>	RAIL 4500 7 WIRE EC	2.5	4 248	68.4	4.2	1/10

## CC rail – supporting profile with central power supply (from above)

Model mm	Order code	Description	Cable section mm <sup>2</sup>	• Dimensions (mm) •		Weight kg	Packaging
				L	B		
1 500	<b>14511</b>	RAIL 1500 7 WIRE CC	2.5	1 416	68.4	1.4	1/10
3 000	<b>14513</b>	RAIL 3000 7 WIRE CC	2.5	2 832	68.4	2.8	1/10
4 500	<b>14514</b>	RAIL 4500 7 WIRE CC	2.5	4 248	68.4	4.2	1/10

To power a continuous row system from above, only one DC rail is required, which will supply power to all the EC rails in both directions

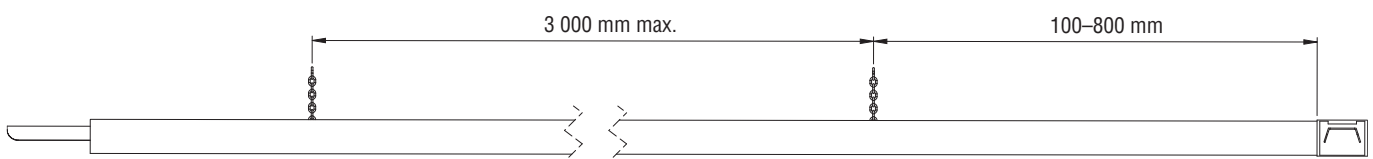
## Quantity of lamps in a continuous row per phase



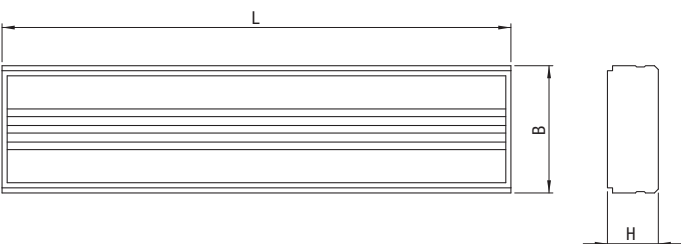
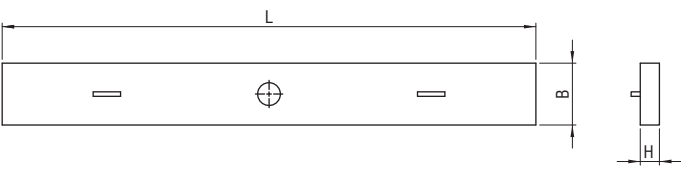
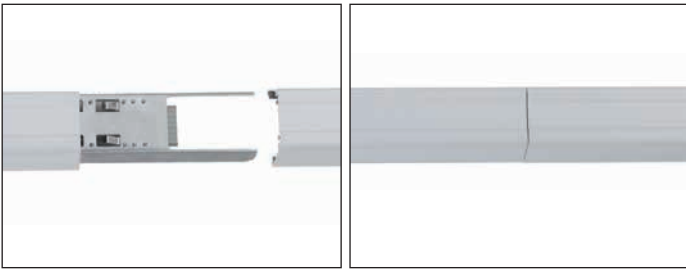
Power W	Length mm	Cable section mm <sup>2</sup>	Quantity of lamps	Quantity of lamps	Length of line (m)	Length of line (m)
			230 V <sub>AC</sub>	110 V <sub>AC</sub>	230 V <sub>AC</sub>	110 V <sub>AC</sub>
2× 18	570	2.5	135	67	75	37
2× 80	1 416	2.5	54	27	75	37

The electrified rail consists of 3 phases + 2 that can be used to power the emergency lighting system or a BUS (Dali or Logica)

## Spacing of fixing points



**CONTINUOUS ROW MOUNTING**



## Electrified binary module

Structure component

For assembling three-phase spotlights of the ZOOM LED or EXPO LED type

L	• Dimensions (mm) •		H	Weight kg
	B			
1 416	68		21	1.7

## Electrified binary module

Order code	Description	Packaging
14531	SPOT RAIL 1500 7 WIRE	1/10
14538	SPOT RAIL 600 7 WIRE	1/10

## Smart photosensor

Structure component

The smart photosensor module allows to use Opticom, Autodimmer Natural Light and Dynamic Light technologies on all the Rail modules associated with it. These modules must be combined with the domotic radio module (15022).

L	• Dimensions (mm) •		H	Weight kg
	B			
568	68		21	0.7

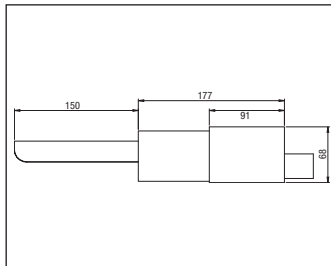
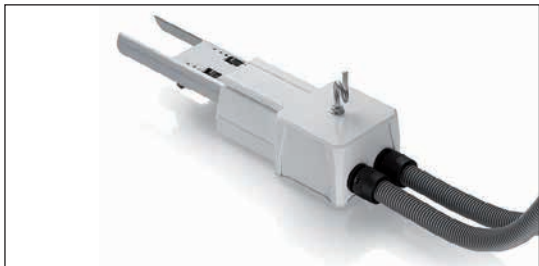
## Smart photosensor

Order code	Description	Packaging
15035	RAIL AUTODIMMER OPTICOM 600	1



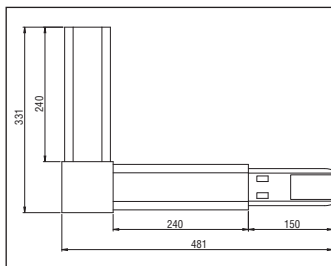
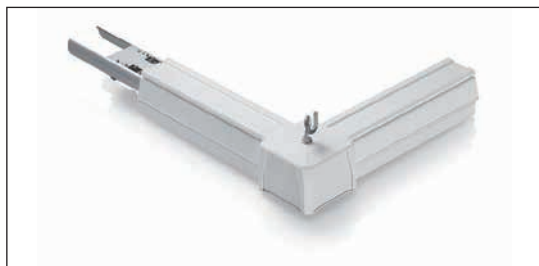
# Rail system head and joint connections

## RAIL SYSTEM HEAD

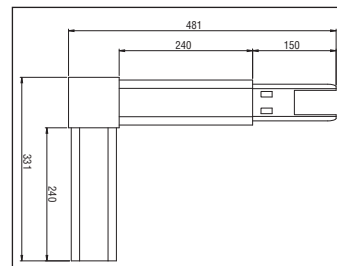


**14520** RAIL POWERED HEAD 7 WIRE

## L JOINT

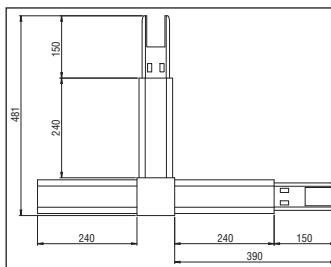
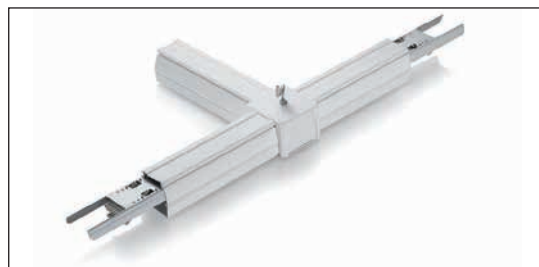


**14521** RAIL L INL OTR 7 WIRE

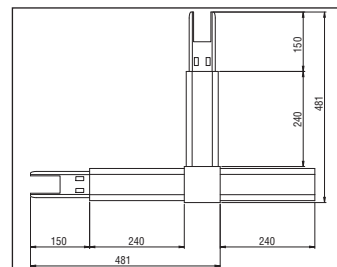


**14522** RAIL L INR OTR 7 WIRE

## T JOINT

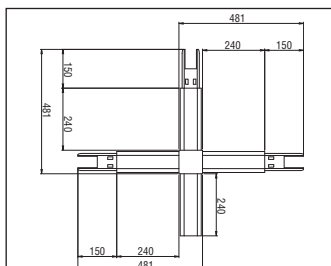
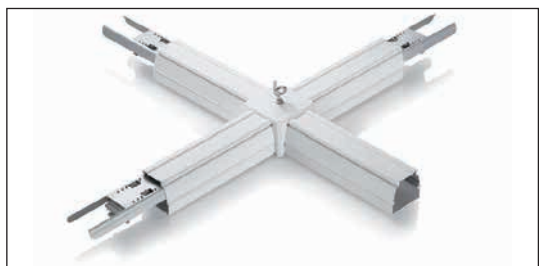


**14524** RAIL T 1INL 2OUTR 7 WIRE

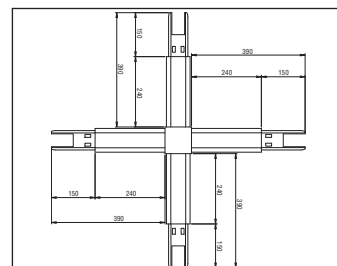


**14525** RAIL T 1INR 2OUTL 7 WIRE

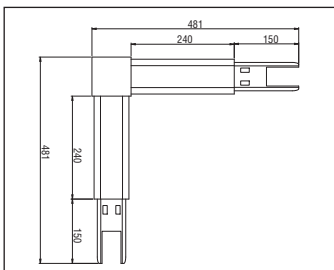
## X JOINT



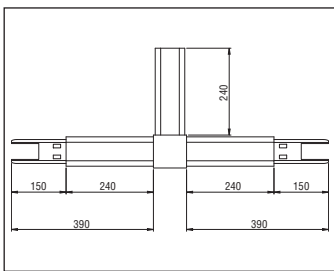
**14528** RAIL X 1 IN 3OUT 7 WIRE



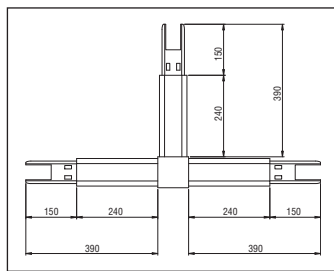
**14529** RAIL X POWER 4OUT 7 WIRE



**14523** RAIL L POWER 2OUT 7 WIRE



**14526** RAIL T 1INC 2OUTS 7 WIRE



**14527** RAIL T POWER 3OUT 7 WIRE