



Constant Current Dimmable Driver

Model: SC60W1100-1400CG-6X DALI



Model	Output Current	Input Current	Input Power	Output Power Range	PF	Efficiency (*Typical)	Output Voltage	No load Voltage
SC60W1100-1400CG-6W DALI	1100mA	0.29A	50.1W	27.5-44.0W	0.90	88%	25-40V	59V
	1150mA	0.30A	52.3W	28.7-46.0W	0.90	88%	25-40V	59V
	1200mA	0.31A	54.5W	30.0-48.0W	0.90	88%	25-40V	59V
SC60W1100-1400CG-6B DALI	1250mA	0.32A	56.9W	31.2-50.0W	0.92	88%	25-40V	59V
	1300mA	0.33A	59.2W	32.5-52.0W	0.92	88%	25-40V	59V
SC60W1100-1400CG-6G DALI	1350mA	0.34A	60.6W	33.7-54.0W	0.92	89%	25-40V	59V
	1400mA	0.35A	63.1W	35.0-56.0W	0.92	89%	25-40V	59V

* Test result @230V, 50Hz, Full Load.

1. Parameters

Category	Item	Technical Norm
Features	Output Type	Constant Current
	Dimming Type	DALI-2
	Output Features	Isolation
	IP Grade	IP20
	Insulation Class	IEC Class II
Input	Rated Input Voltage	220-240VAC
	Range of Input Voltage	198-264VAC or 180-280VDC
	Frequency	0/50/60Hz
	Input Current	≤0.37A (230VAC, full load)
	Input Power	≤65W (230VAC, full load)
	Power Factor	≥0.92 (230VAC, full load)
	THD	≤15% (230VAC, full load)
	No-load Power Consumption	≤0.5W Dim to off, 230VAC
	Inrush Current	≤60A/16us (230VAC, full load)
Output	Output Voltage Range	25-40VDC@1100-1400mA
	No Load Voltage	59VDC Max.
	Output Current	1100mA -1400mA
	Max. Output Power	58.8W
	Efficiency	≥89% (230VAC full load@max current)
	Current Ripple(< 120 Hz)	±5% (Imax-Imin)/(Imax+Imin)
	PstLM	≤1

	SVM	≤0.4
	Current Accuracy	±5%
	Line Regulation	±5%
	Load Regulation	±5%
	Started Delay Time	≤1S(230VAC, full load)
Control Method	Secondary PUSH dimming	Secondary PUSH dimming (Max. lead wire length : 20m,same port of DALI)
	PUSH dimming terminal	Max parallel connections qty for Push-dim 15 PCS
	DALI function	DALI dimming (Max. lead wire length: 300m) Logarithmic or linear dimming curves are available DALI-2 certified incl. Parts 251, 252, 253,CLO
	Dimming range	DALI dimming: 1%-100%,Dim to off .
Protection	Short Circuit Protection	Auto Recovery
	Overload Protection	Auto Recovery
	No-load Protection	Auto Recovery
	Insulation voltage	3000V 5mA 60S between P-S
	Insulation resistance	>100M ohm @ 500VDC
	Leakage current	I/P to O/P <0.7mA
Environment	Ta/Operation Temperature	-25...+35°C
	Ts/Storage Temperature	-25...+85°C
	Tc/Enclosure Temperature	80°C
	Humidity	10%....90%RH
	Atmosphere	86-108KPa
Construction	Connection Method	Push-in Terminal
	Installation	Independent
	SEC Wire preparation	0.5-1.5 ² / 8-9mm
	Dimension	238*31*43.7mm (L*W*H)
Standards	Certification	UKCA EAC CE
	Safety Standards	EN 61347-1:2015/A1:2021 EN 61347-2-13:2014/A1:2017 EN IEC 62384:2020 EN 62493:2015/A1:2022
	EMC Standards	EN IEC 55015:2019 EN IEC 55015:2019/A11:2020 EN IEC 61000-3-2:2019/A1:2021 EN 61000-3-3:2013/A2:2021 EN IEC 61547:2023
	Performance	EN 62384
	Surge	L-N/2KV DA-DA:0.5kV, 1.2/50us per IEC61000-4-5
	Others	
	RoHS	Complied to 2011/65/EU
	REACH	EU Regulation (EC) No 1907/2006
	Life Time	50000h @Tc
	Warranty	5years
	Noise	≤ 22dB @Background noise ≤18dB ,Interval≥20cm

Remark:

1. All Parameters, if not specified, are measured at 230VAC/50Hz and 25°C ambient temperature.

- 2. LED Driver is a component of the luminaires, Luminaires and wire layout will affect the EMC, please check the EMC with end products again.
- 3. During the PUSH DIM test, the number of parallel connections must be less than 15 PCS

2. Output Current Setting

Output Current	1	2	3
1100mA	-	-	-
1150mA		-	ON
1200mA	-	ON	-
1250mA		ON	ON
1300mA	ON	-	
1350mA	ON	ON	
1400mA	ON	ON	ON

3. Connected quantities of different current Breaker

SC60W1100-1400CG-6X DALI

TYPE	Connected quantities of different current Breaker						Input Voltage (V)	Inrush Current(A)	Time (µs)
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm ²	2.5mm ²	2.5mm ²	4mm ²	4mm ²			
TYPE B	10	13	16	20	25	@230VAC	60	16	
TYPE C	16	21	26	32	40				
TYPE D	26	33	41	51	64				

4. Label

KGP[®]
KGP Electronics GmbH
Hueckstraße 19
DE-58511 Lüdenscheid

LED Dimmable Driver
SC60W1100-1400CG-6W DALI
Constant Current Lighting track adaptors

SELV CE ENEC

PRI:220-240VAC 50/60Hz Max.0.35A
SEC:1100-1400mA 25-40V
No Load:59VDC Max.56W Fmax.50N↓
For LED modules only

UK CA ta: -20...+35°C tc: 80°C

0.5-1.5V 8-9mm

SEC 1 2 3

ON OFF

DALI 2

Pout [W]	Iout [mA]	In [A]	λ	1	2	3
44	1100	0.29	0.90C	-	-	-
46	1150	0.30	0.90C	-	-	ON
48	1200	0.31	0.90C	-	ON	-
50	1250	0.32	0.92C	-	ON	ON
52	1300	0.33	0.92C	ON	-	-
54	1350	0.34	0.92C	ON	ON	-
56	1400	0.35	0.92C	ON	ON	ON

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0.5-1.5V 8-9mm

SEC 1 2 3

ON OFF

DALI 2

Pout [W]	Iout [mA]	In [A]	λ	1	2	3
44	1100	0.29	0.90C	-	-	-
46	1150	0.30	0.90C	-	-	ON
48	1200	0.31	0.90C	-	ON	-
50	1250	0.32	0.92C	-	ON	ON
52	1300	0.33	0.92C	ON	-	-
54	1350	0.34	0.92C	ON	ON	-
56	1400	0.35	0.92C	ON	ON	ON

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LED Dimmable Driver
SC60W1100-1400CG-6GDALI
Constant Current Lighting track adaptors

SELV CE ENEC

PRI:220-240VAC 50/60Hz Max.0.35A
SEC:1100-1400mA 25-40V
No Load:59VDC Max.56W Fmax.50N↓
For LED modules only

UK CA ta: -20...+35°C tc: 80°C

0.5-1.5V 8-9mm

SEC 1 2 3

ON OFF

DALI 2

Pout [W]	Iout [mA]	In [A]	λ	1	2	3
44	1100	0.29	0.90C	-	-	-
46	1150	0.30	0.90C	-	-	ON
48	1200	0.31	0.90C	-	ON	-
50	1250	0.32	0.92C	-	ON	ON
52	1300	0.33	0.92C	ON	-	-
54	1350	0.34	0.92C	ON	ON	-
56	1400	0.35	0.92C	ON	ON	ON

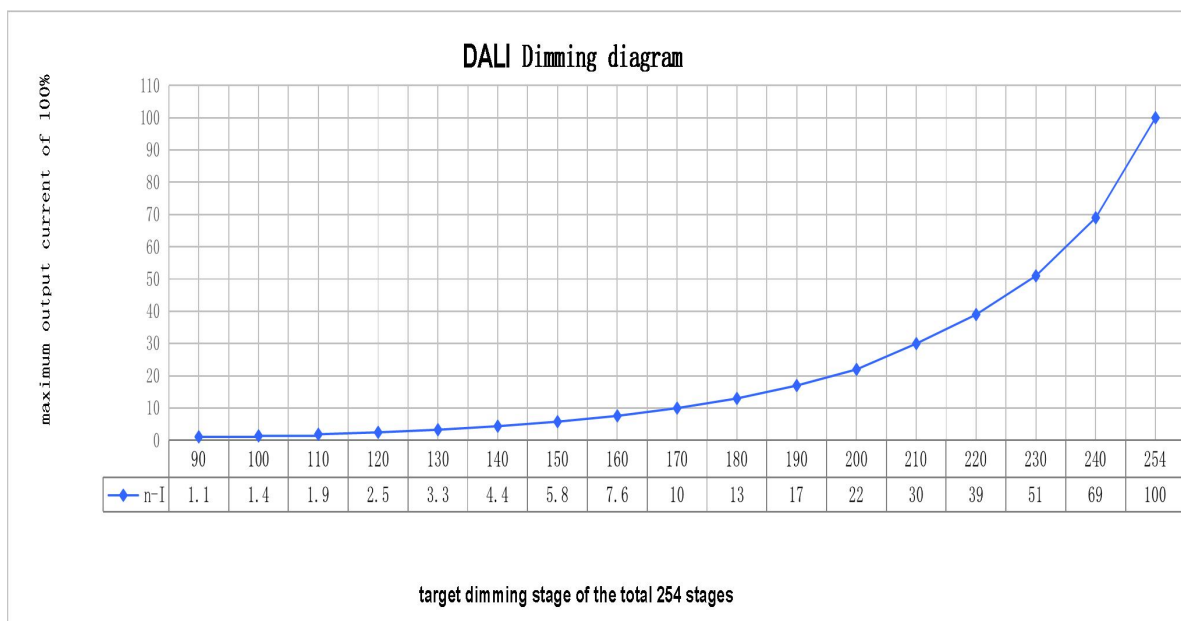
5. Dimming curve

formula for DALI dimming.

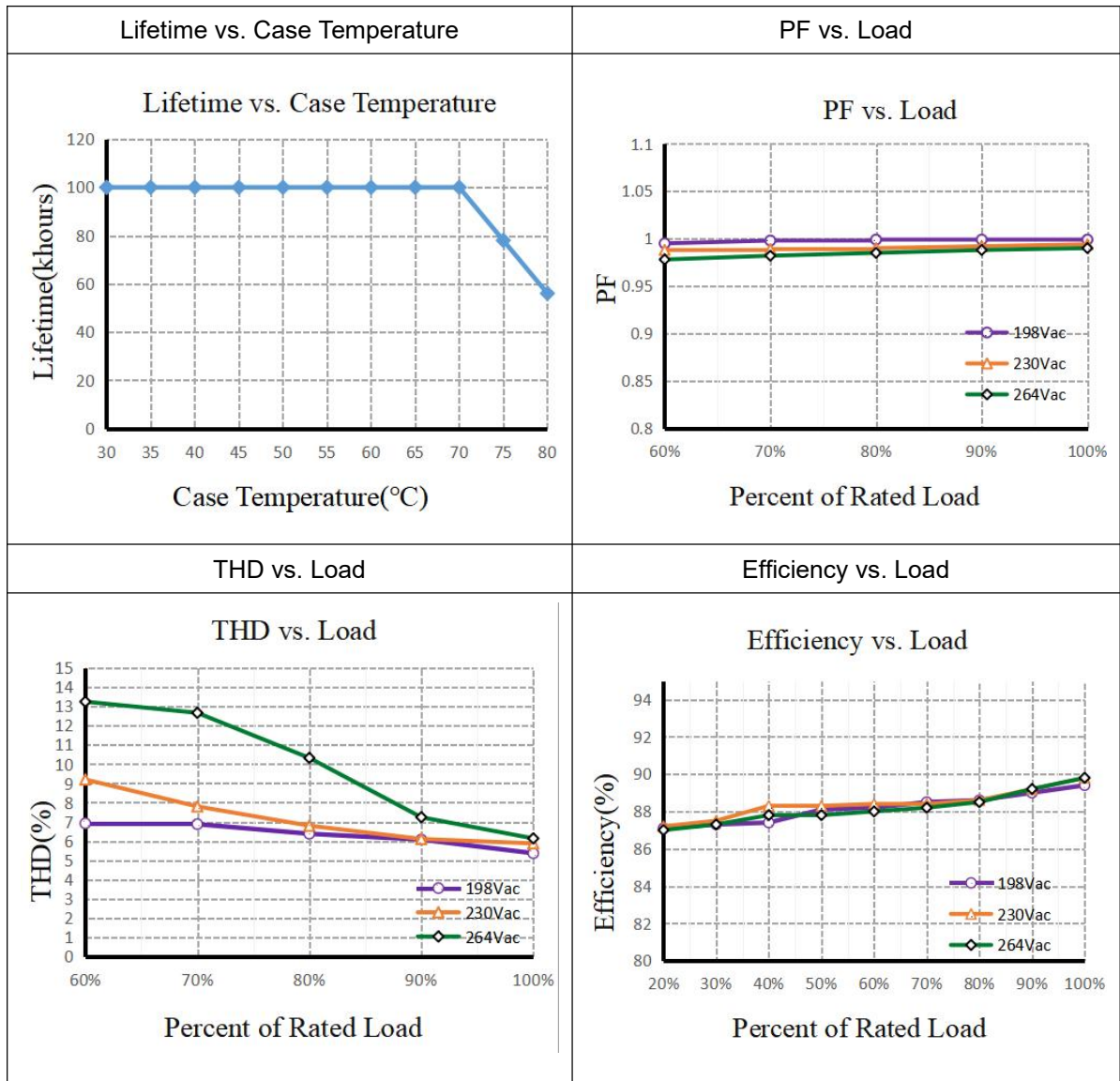
$$X(n) = 10^{\left\{ \left[\frac{(n-1)}{253/3} \right] - 1 \right\}}$$

Here, n means the target dimming stage of the total 254 stages.

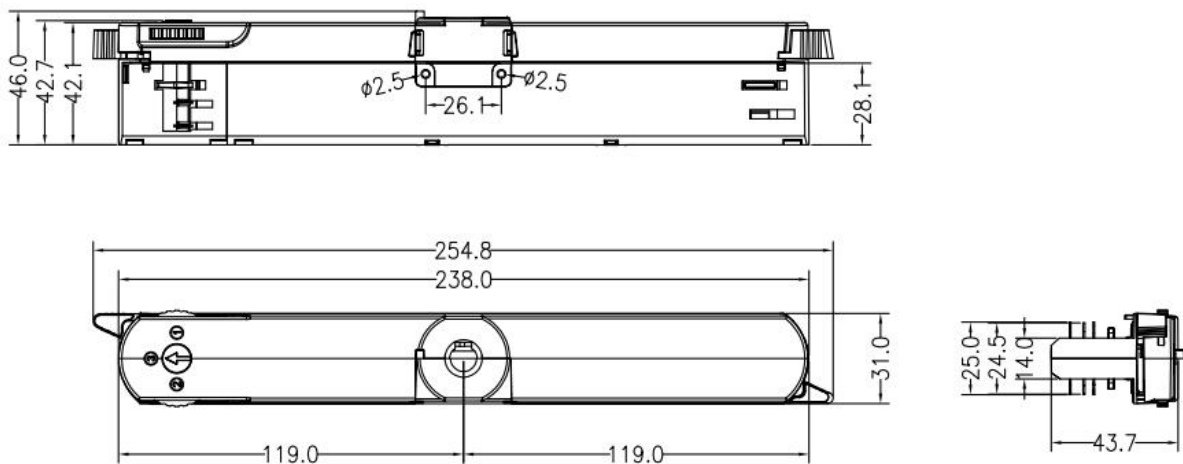
X(n) means the percent of the maximum output current



6. Electrical values



7. Dimension (Unit: mm)



8. Wiring Diagram

Fig. A: Dali Dimming

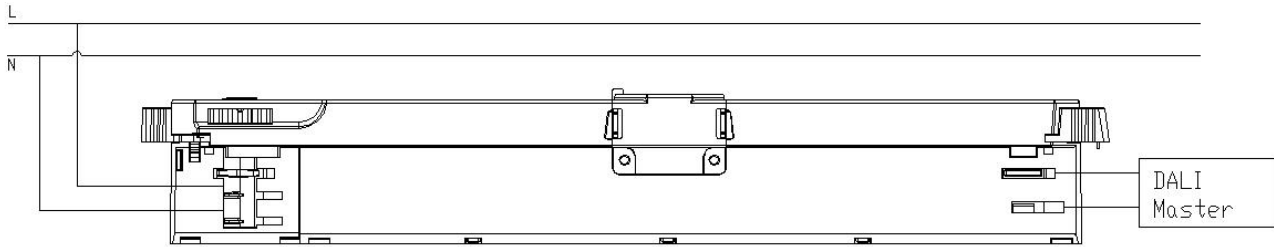
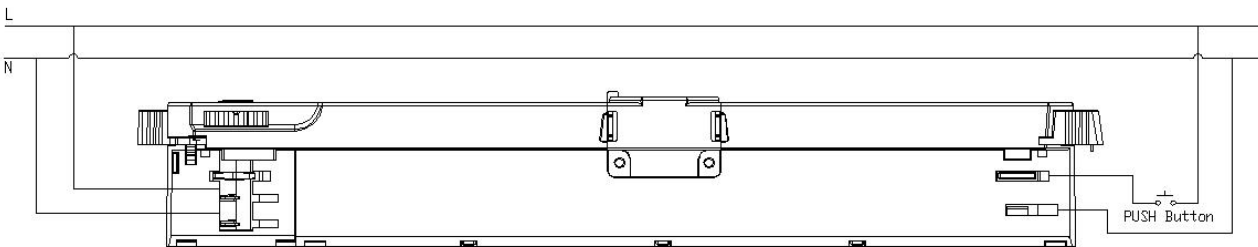


Fig. B: Push Dimming



1. The factory default brightness is at 100%.
2. Up to 15 drivers can perform the PUSH dimming at the same time when utilizing one common push button
3. The maximum length of the cable from the push button to the last driver is 200 meters

9. Packing information

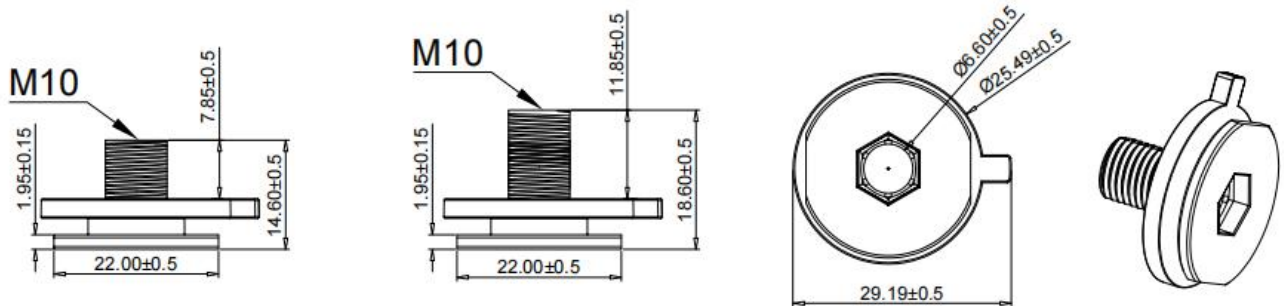
Packing way	Model	Colour	Carton L*W*H(mm)	Pcs/ Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight/ Carton(kg)
industrial	SC60W1100-1400C G-6W DALI	White	525*285*390MM	90PCS	0.159	15.07	15.93
	SC60W1100-1400C G-6B DALI	Black					
	SC60W1100-1400C G-6G DALI	Grey					

10. Lamp Screw Type

- Optional threaded sleeve for luminaire mounting
- Suitable for M10x1x8 threaded nut
- Additional mounting equipment, e.g. M10x1x12
- aluminium, black, white
- further on request

Ordering data

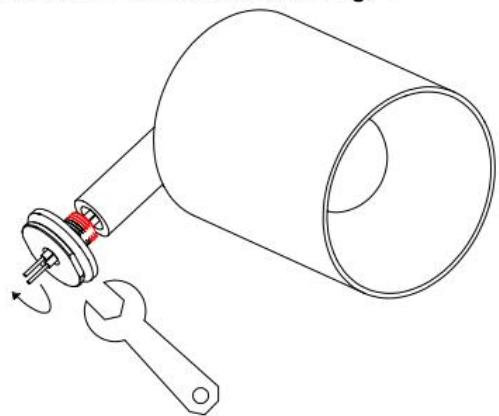
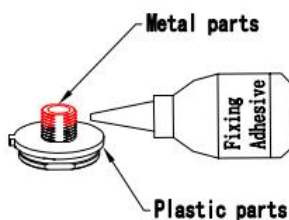
Type	Colour	Article number	Qty/ctn	Weight(g)/pcs
M10x8	White	ZN	PC	5.47
	Black	ZN	PC	5.47
	Gray	ZN	PC	5.47
M10x12	White	ZN	PC	6.13
	Black	ZN	PC	6.13
	Gray	ZN	PC	6.13



Wiring Diagram

Note: If the luminaire connector requires the use of fixing adhesive (ensure to use fixing adhesive that does not cause chemical reactions with PC material leading to cracking), the amount **should be limited to half of the thread length**. It must not drip or seep onto the plastic parts, as indicated in the red area of the diagram below.

① The wire passes through the nipple and is securely fastened to the fixture. (The connection must be firm and resistant to reverse loosening).



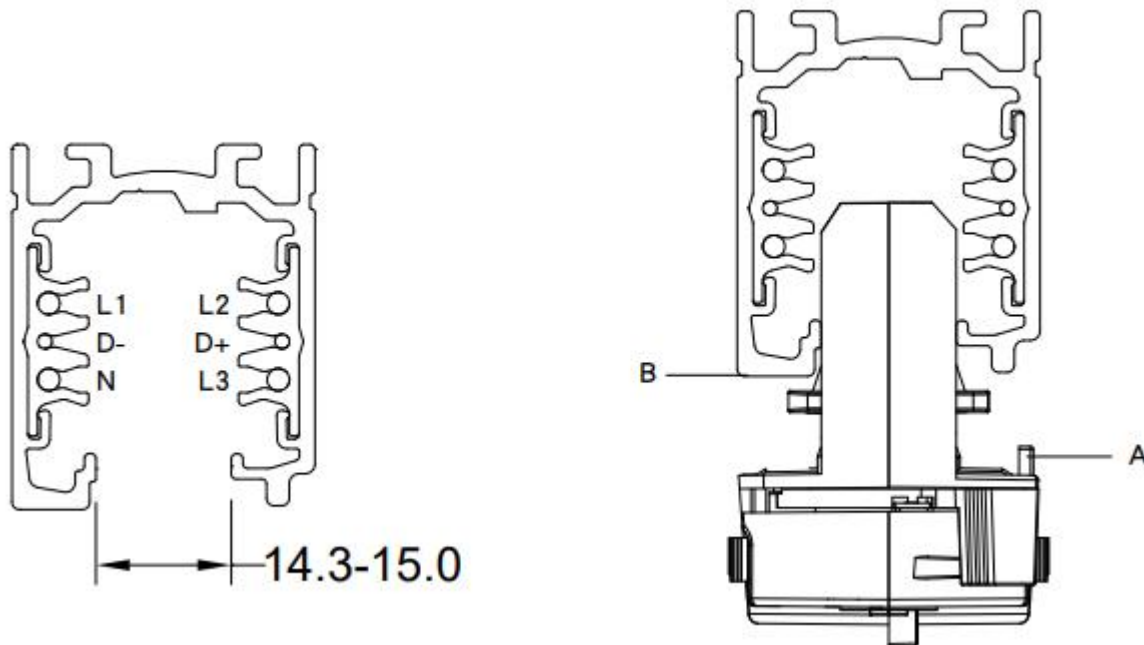
11. Suitable for following tracks:

Serial number	Brand	Track model	System
1	Global	XTSC611	3P
2	A.A.G STUCCHI	9000A-2-ST	3P
3	PowerGEAR	Pro-D631R	3P
4	UNIPRO	TC312W	3P

Remark:

1. The model name is XTSC611 tracks, and its brand is Global.
2. The model name used is the 9000A-2-ST track, and its brand is A.A.G STUCCHI.
3. The model name is Pro-D631R tracks, and its brand is PowerGEAR.
4. If other brands are suitable, please communicate and consult first
5. If other brands are suitable, please communicate and consult first

12. Phase track light rail specification:



13. Lighting track adapter and rail system installation diagram:



The adaptor shall be given that the use is limited to the track system specified.

14. Wiring instructions

- All connections must be kept as short as possible to ensure good EMI behaviour
- Mains leads should be kept apart from LED Driver and other leads (ideally 5 – 10 cm distance)
- Advice the maximum length of output wires is 3 m
- Secondary switching is not permitted (Except for constant voltage)
- Incorrect wiring can damage LED modules.
- The wiring must be protected against short circuits to earth (sharp edged metals parts, metal cable clips, louver, etc.)
- Hot plug-in is not supported due to residual output voltage of > 0 V up to mains voltage. Danger to life.
- When connecting an LED load, restart the device to activate the LED output.
- This can be done via mains reset or via interface (DALI, DSI, switch DIM).

15. Replace LED module

- Mains off
- Remove LED module
- Wait for 30 seconds
- Connect LED module again
- Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs

16. Functions

16.1 OEM Identification

The OEM (Original Equipment Manufacturer) can set his own identification number.

DALI Part 251: Memory bank 1 extension.

16.2 OEM GTIN

The Original Equipment Manufacturer (OEM) can set his own Global Trade Item Number (GTIN).

DALI Part 251: Memory bank 1 extension.

16.3 Luminaire data

This function provides the asset management with accurate data about the luminaire.

DALI Part 251: Memory bank 1 extension.

DALI Part 253: Luminaire maintenance data.

16.4 LED current

The LED output current must be adapted to the connected LED module.

The value is limited by the current range of the respective device.

The output current of the LED driver can be adjusted in a certain range.

More functions:

Action	Action duration	Function
Short push	<0.6s	Turn on/off
Short push five Times	<3s	Quit Corridor mode
Long push	0.6-3s	Dimming up or down
Long push	10s	Sync all LEDs to be 50% brightness, and the dimming rate is changed to 3S
Long push	20s	Dimming rate is changed to 6S
Long push	>2mins	Enter Corridor mode - LED keep 100% brightness for 2mins.

16.5 Switch DIM

Integrated Switch DIM function allows a direct connection of a push button for dimming and switching.

Brief push (< 0.6 s) switches LED driver ON and OFF. The dim level is saved at power-down and restored at power-up. When the push button is held, LED modules are dimmed. After repush the LED modules are dimmed in the opposite direction.

In installations with LED drivers with different dimming levels or opposite dimming directions (e.g. after a system extension), all LED drivers can be synchronized to 50 % dimming level by a 10 s push.

Use of push button with indicator lamp is not permitted.

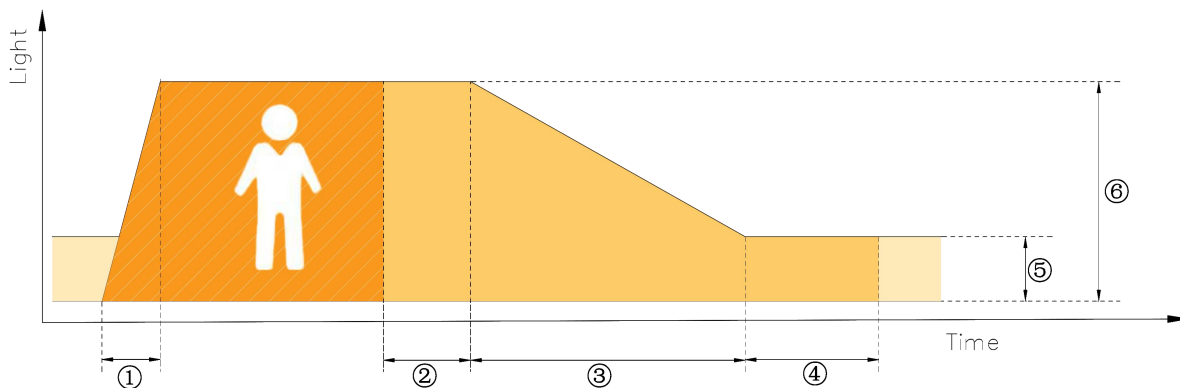
16.6 Corridor FUNCTION

With the Corridor FUNCTION and a commercially available motion detector, it is easy to adapt the lighting in one area to its use.

That is, when the area is entered by a person, the lighting dims instantly to the desired brightness and is available in full strength.

After the area is left by the person, the brightness dims slowly to a smaller value or switches off completely.

The individual parameters of the desired profile, such as brightness values or delay times, can be adjusted flexibly and individually.



- ① Fade-in time(1s): the time that starts as soon as the presence of a person is detected. During the fade-in time the luminous intensity is faded up to the presence value.
- ② Run-on time(120s): the time that starts as soon as the presence of a person is no longer detected. If the presence of a person is detected again during the run-on time the run-on time is restarted from zero. If no presence is detected during the run-on time the fade time is started as soon as the run-on time expires.
- ③ Fade time(32s): the time during which the luminous intensity is faded from the presence value to the absence value.
- ④ Switch-off delay (Never Off): the time during which the absence value is held before the lighting is switched off. Depending on the profile selected the switch-off delay may have different values or may not be defined.
- ⑤ Absence value(default: 10 %): the luminous intensity when there is no person present.
- ⑥ Presence value (default: 100 %): the luminous intensity when persons are present.

16.7 Constant Light Output (CLO)

With this function the light output of the LED module can be kept equal over the lifetime.

The light output of an LED module reduces over the course of its lifetime.

The Constant Light Output (CLO) function compensates for this natural decline by constantly increasing the output current of the LED driver throughout its lifetime.

CLO shall be achieved by limitation of the LED current at the commissioning of the LED driver and providing a linear interpolation of the current over the time, depending on the data points given by the user.

The user has to insert up to eight pairs of data (time, level).

The output curve is the result of connecting the user data points linear.

Detailed description for CLO see product manual.

The minimal CLO starting point is limited by the smallest output current of the LED driver.

16.8 Dimming curve

DALI: The desired dimming behaviour is selected via two different dimming curves (logarithmic or linear).

The default setting of the dimming behaviour is logarithmic.

17. REVISION HISTORY

DATE	REV	Modification details
2025-10-15	V1.0	Initial release.