# TITAN X <br> Corrosion Proof LED Battens 



## Corrosion Proof

## Corrosion Proof LED Battens

## Product information

The next generation of Titan fittings, the Titan X , has been designed to be even tougher and pack in more features than before. Standard features include: 3 colour selection, multiple power settings, giant terminal blocks, marine grade external hardware, multiple side and rear entry points, and a wide mounting footprint. Sensor models feature 0-10V dimmable drivers with the sensor being tuneable for sensitivity, time, luminance, and a variety of holding patterns. Our innovative Yellow / Green version can switch between yellow or green by the user with an internal switch. Emergency version available on the standard, sensor, and yellow/green models. DALI drivers available as an accessory kit. All of this packed inside an IK10 IP65 housing with 316 stainless steel clips and backed by our 5 year warranty (1 year for EM batteries).


TECHNICAL INFORMATION STANDARD MODELS

|  | ML-TN60-X-M | ML-TN60-X-M-EM | ML-TN60-X-M-SN | ML-TN60-X-M-SE | ML-TN120-X-M | ML-TN120-X-M-EM | ML-TN120-X-M-SN | ML-TN120-X-M-SE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Power: | MAX 20W* | MAX 23 W * | MAX 20W* |  | MAX 40W* | MAX 43W* | MAX 40W* |  |
| Power selection: | 11W/14W/ 17W/20W | 13W/16W/ <br> 20W/23W | 16W/20W |  | 20W/27W/ <br> 34W/40W | $\begin{aligned} & \text { 23W/30W/ } \\ & 37 \mathrm{~W} / 43 \mathrm{~W} \end{aligned}$ | 25W/40W |  |
| MAX Lumen Output: | WW 22151 m NW 25301m W 24301m | WW 2000lm NW 2200lm W 21001m |  | WW 2114Im NW 2274Im W 21201 m | WW 45151 m NW 48001m W 4600lm | WW 4515Im NW 49001 m W 47301m | WW 42001m NW 48001 m W 44001m | WW 4000Im NW 46001m W 42001m |
| Colour Temp: | WW 3000K NW 4000K W 6500K |  |  |  | WW 3000K NW 4000K w 6500K |  |  |  |
| IP Rating: | IP65 |  |  |  | IP65 |  |  |  |
| Efficacy: | WW $110 \mathrm{~lm} / \mathrm{w}$ NW $125 \mathrm{~lm} / \mathrm{w}$ W $121 \mathrm{Im} / \mathrm{w}$ | WW $86 \mathrm{Im} / \mathrm{w}$ NW 95 Im/w W $91 \mathrm{~lm} / \mathrm{w}$ | WW 100 Im/w NW $110 \mathrm{~lm} / \mathrm{w}$ W $105 \mathrm{Im} / \mathrm{w}$ | WW 105 Im/w NW $113 \mathrm{~lm} / \mathrm{w}$ W 106 Im/w | WW 112 Im/w NW $120 \mathrm{~lm} / \mathrm{w}$ W $115 \mathrm{Im} / \mathrm{w}$ | WW $105 \mathrm{Im} / \mathrm{w}$ NW $114 \mathrm{~lm} / \mathrm{w}$ W $110 \mathrm{~lm} / \mathrm{w}$ | WW $105 \mathrm{Im} / \mathrm{w}$ NW $120 \mathrm{~lm} / \mathrm{w}$ W 110 Im/w | WW $100 \mathrm{Im} / \mathrm{w}$ NW 115 Im/w W $105 \mathrm{~lm} / \mathrm{w}$ |
| CRI: | 80 |  |  |  | 80 |  |  |  |
| Beam Angle: | $120^{\circ}$ |  |  |  | $120^{\circ}$ |  |  |  |
| Temp Range: | $-20^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $0^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $-20^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $0^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $-20^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $0^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $-20^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $0^{\circ}$ to $+50^{\circ} \mathrm{C}$ |
| Dimmable: | NO |  | YES (1-10V) |  | NO |  | YES (1-10V) |  |
| Power Supply: | Osram driver, 220-240V AC 50/60Hz |  | Boke driver, $220-240 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz}$ |  | Osram driver, 220-240V AC 50/60Hz |  | Boke driver, 220-240V AC 50/60Hz |  |
| Average Life: | 50,000 hrs** |  |  |  | 50,000 hrs** |  |  |  |
| Input / Inrush | 0.085/35A | 0.096/35A | 0.09/3.25A | 0.1/3.25A | $0.17 / 50 \mathrm{~A}$ | $0.18 / 50 \mathrm{~A}$ | 0.17/3.3A | $0.18 \mathrm{~A} / 3.3 \mathrm{~A}$ |
| Power Factor: | >0.9 |  |  |  | >0.9 |  |  |  |
| IK Rating | IK10 |  |  |  | IK10 |  |  |  |
| Dimensions: | 655*130*88mm |  |  |  | 1265*130*88mm |  |  |  |
| Weight: | 1.1KG | 1.3KG | 1.2KG | 1.4KG | 1.9KG | 2.2KG | 2.1KG | 2.3KG |
| Warranty: | 5 years (1 year for EM batteries) |  |  |  | 5 years (1 year for EM batteries) |  |  |  |

TITAN X 60


TITAN X 120


[^0]** Average life is calculated on expected average lifespan, Emergency and Sensor Model 30,000 hrs

|  | ML-TN60-X-YG | ML-TN60-X-YG-EM | ML-TN60-X-YG-SN | ML-TN60-X-YG-SE | ML-TN120-X-YG | ML-TN120-X-YG-EM | ML-TN120-X-YG-SN | ML-TN120-X-YG-SE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Power: | MAX20W* | MAX $23 W$ * | MAX20W* |  | MAX 40W* | MAX 43W* | MAX 40W* |  |
| Power selection: | 11W/14W/ <br> 17W/20W | 13W/16W/ <br> 20W/23W | 16W/20W |  | 20W/27W/ <br> 34W/40W | 23W/30W/ <br> 37W/43W | 25W/40W |  |
| MAX Lumen Output: | G 17431m Y 1683Im |  |  |  | G 35901m Y 3476Im |  |  |  |
| IP Rating: | IP65 |  |  |  | IP65 |  |  |  |
| Efficacy: | G 941m/w Y 911m/w |  |  |  | G 83lm/w Y 80Im/w |  |  |  |
| Beam Angle: | $120^{\circ}$ |  |  |  | $120^{\circ}$ |  |  |  |
| Temp Range: | $-20^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $0^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $-20^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $0^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $-20^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $0^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $-20^{\circ}$ to $+50^{\circ} \mathrm{C}$ | $0^{\circ}$ to $+50^{\circ} \mathrm{C}$ |
| Dimmable: | NO |  | YES (1-10V) |  | NO |  | YES (1-10V) |  |
| Power Supply: | Osram driver, 220-240V AC 50/60Hz |  | Boke driver, 220-240V DC 50/60Hz |  | Osram driver, 220-240V AC 50/60Hz |  | Boke driver, 220-240V DC 50/60Hz |  |
| Average Life: | 50,000 hrs** |  |  |  | 50,000 hrs** |  |  |  |
| Input / Inrush | 0.085/35A | 0.096/35A | 0.09/3.25A | 0.1/3.25A | $0.17 / 50 \mathrm{~A}$ | $0.18 / 50 \mathrm{~A}$ | $0.17 / 3.3 \mathrm{~A}$ | 0.18/3.3A |
| Power Factor: | >0.9 |  |  |  | >0.9 |  |  |  |
| IK Rating | IK10 |  |  |  | IK10 |  |  |  |
| Dimensions: | 655*130*88mm |  |  |  | 1265*130*88mm |  |  |  |
| Weight: | 1.1KG | 1.3KG | 1.2KG | 1.4KG | 1.9KG | 2.2KG | 2.1KG | 2.3KG |
| Warranty: | 5 years (1 year for EM batteries) |  |  |  | 5 years (1 year for EM batteries) |  |  |  |

*Total power consumed including driver
** Average life is calculated on expected average lifespan, Emergency and Sensor Model 30,000 hrs

## TECHNICAL INFORMATION DALI MODELS


*Total power consumed including driver
** Average life is calculated on expected average lifespan, Emergency and Sensor Model 30,000 hrs
*** Comprehensive output current list is found on the power selection charts

|  | ML-TN60-X-M-SE |
| :---: | :---: |
| C0 | D50 |
| C90 | D40 |


|  | ML-TN120-X-M-SE |
| :---: | :---: |
| C0 | D63 |
| C90 | D40 |


| ML-TN120-X-M-EM |  |
| :---: | :---: |
| C0 | D50 |
| C90 | D32 |


| ML-TN120-X-YG-SE |  |
| :---: | :---: |
| C0 | D50 |
| C90 | D32 |

## TITAN X Battens

## PLEASE NOTE!

## MUST BE INSTALLED BY LICENSED ELECTRICIAN

Do not extend low voltage cables from the output of the power supply.

All components must not be mechanically stressed.
-
Be careful not to damage or destroy conducting paths on the circuit board.
-
Follow all relevant electrical and safety standards

- (Including AS3000) - only qualified personnel should be allowed to perform installations.
- Damage by corrosion will not be honored as a material defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture, condensation and other harmful elements.
- If these regulations are not followed warranty will be void and all issues are the responsibility of the installer.

For further information please visit www.melec.com.au

## WIRING DIAGRAM

L: Emergency power (Permanent Active) Must be connected for EM to operate
L1: Switched / Light input (swiched active), loop with L for permanently on. Must be on same phase as $L$

If this fitting has an EM module installed it will require 24 hrs for the battery to fully charge. This fitting will run for up to 3 hrs at $3 W$ of power if emergency mode is engaged.

1. Turn power off before commencing installation.
2. Always use suitable fixings for your type of installation.
3. Fix TITAN directly through the back of the unit but be sure to seal all penetrations to prevent water ingress, install the fixing clamp on the location where the TITAN is to be installed (surface mounted or suspended).
4. When running cables into the fitting ensure you use a suitable sealant to prevent any future water penetration.


## SURFACE MOUNT


5. Wire TITAN according to the labels on the terminal.
6. Install gear tray onto internal clips.
7. Install cover onto base and ensure there is an even seal and install security screws to latches.
8. Test and commission.

Suggested installation height (for sensor models): Wall installation: 1-2m


SUSPENDED





| Time setting: | $5 \mathrm{Sec} \pm 3 \mathrm{Sec}$ |
| :--- | :--- |
|  | $30 \mathrm{Sec} \pm 10 \mathrm{Sec}$ |
|  | $1 \mathrm{Min} \pm 30 \mathrm{Sec}$ |
|  | $10 \mathrm{Min} \pm 1 \mathrm{Min}$ |
|  | (ADJUSTABLE) |
|  | 2 Lux $\mid 10 \mathrm{Lux}$ |
| Light Control: | $50 \mathrm{Lux} \mid$ DISABLED |
|  | (ADJUSTABLE) |
| Stand-by period: | $0 \mathrm{Sec} \mid 30 \mathrm{Sec}$ |
|  | $20 \mathrm{Min} \mid+\infty$ |
| Sytand-by dimming level: $:$ | $10 \%\|20 \%\| 30 \% \mid 50 \%$ |
|  | (ADJUSTABLE) |

## SENSOR INFORMATION



## PARAMETER SETTING

There are 4 adjustments available to this sensor:

1. Sensitivity for the detection range of the sensor (S1).
2. On time of the light $(\mathrm{S} 2+\mathrm{S} 3)$.
3. Light level settings ( $\mathrm{S} 4+\mathrm{S} 5$ ).
4. Stand-by period (S6 + S7)
5. Stand-by dimming level (S8 + S9)

When WHITE DOT is listed on the instructions below it means the dip switch is OFF (down toward the number). When BLACK DOT is listed it means the dip switch is ON (up toward ON).


## PLEASE NOTE!

The high- frequency output of this sensor is $<0.2 \mathrm{~mW}$ that is just one 5000th of the transmission power of a mobile phone or the output of a microwave oven.


## DETECTION RANGE (SENSITIVITY)

Detection range is the term used to describe the detection zone produced on the ground after mounting the sensor light. This range listed below is given as a guide and assumes the mounting height is 2.5 m from ground level.

| S1 | Detection range |
| :---: | :---: |
| $\bullet$ | 5 m |
| $\circ$ | 10 m |

When using this product please adjust the sensitivity to an appropriate position you need. The following may prevent the motion detection from working normally: blowing leaves, curtains, small animals or even power grid \& electrical equipment. If this should happen, simply try to lower the sensitivity appropriately and then test it.

## LIGHT LEVEL SETTINGS (LUX)

Lux settings can be adjusted so that the sensor will only operate the light when minimum light settings are reached. Alternatively you can set the sensor to 'DISABLE' allowing the sensor to operate continuously.

Adjust the dip switches according to the desired time settings shown in the chart below:

| S4 | S5 | LUX |
| :---: | :---: | :---: |
| $\bullet$ | $\bullet$ | DISABLE |
| $\bullet$ | $\circ$ | 50 LUX |
| $\circ$ | $\bullet$ | 10 LUX |
| $\circ$ | $\circ$ | 2 LUX |

## STAND - BY DIMMING LEVEL

Dim level can be adjusted during standby period.
Adjust the dip switches according to the desired dim level settings shown in the chart below:

| S8 | S9 | DIM LEVEL |
| :---: | :---: | :---: |
| $\bullet$ | $\bullet$ | $10 \%$ |
| $\bullet$ | $\circ$ | $20 \%$ |
| $\circ$ | $\bullet$ | $30 \%$ |
| $\circ$ | $\circ$ | $50 \%$ |

## TIME SETTING (ON TIME)

The light can be set to stay ON for periods of time between 5 seconds to 10 minutes. Any movements detected before this time elapses will result in the timer being restarted. Adjust the dip switches according to the desired time settings shown in the chart below.

## PLEASE NOTE!

After the light switches OFF it takes approximately 4 sec before it is able to start detecting movement again.
The light will only switch ON in response to movement detected once this period has elapsed.

| S2 | S3 | Time |
| :---: | :---: | :---: |
| $\bullet$ | $\bullet$ | 5 sec |
| $\bullet$ | $\circ$ | 30 sec |
| $\circ$ | $\bullet$ | 1 min |
| $\circ$ | $\circ$ | 10 min |

## STAND - BY PERIOD

Stand - by period is a time setting, that keeps the light at preset dimmed level before switching it completely off. Setting it to $\infty$, the light will be dimmed to a preset dimming level indefinitely (or until movement is detected).

| S6 | S7 | TIME |
| :---: | :---: | :---: |
| $\bullet$ | $\bullet$ | 0 sec |
| $\bullet$ | $\circ$ | 30 sec |
| $\circ$ | $\bullet$ | 20 min |
| $\circ$ | $\circ$ | $\infty$ |

## WARNING The following installation situation will lead to nuisance operation!

1. Being installed unevenly or prone to movement (such as loose suspension in a windy area).
2. Moving objects such as curtains.
3. Frequent traffic (people, cars or other objects).
4. Sparks or moving electrical equipment.

## PLEASE READ INSTRUCTIONS BEFORE COMMENCING INSTALLATION AND RETAIN FOR FUTURE REFERENCE.

## TESTING

The emergency lighting must be inspected and tested regularly in accordance with regulations and laws. We suggest the following as a minimum.

## PLEASE NOTE!

After initial installation please allow 24 hours to ensure the battery is fully charged before commencing tests.

1. Daily check that charge indicator LED is working.
2. Monthly, interrupt mains for a short period and check LED lights.
3. Annual 12 month check, full duration test (longer then 2 hours). Batteries or the fitting should be replaced if they fail to last the 2 hours.
4. Complete record sheet on installation and retain in maintenance file.
5. Update file with ongoing test records for inspection by fire officer or other duly authorised person.


## PLEASE NOTE!

- Take note of the requirement to dispose of Waste Electrical \& Electronic Equipment separately from household waste (WEEE marked with a crossed out wheelie bin symbol).
- Product technical information and specification may change over time without prior notification. For the latest technical information please visit our web site www.melec.com.au


## POWER SELECTION



## Default 45W:



Sensor 30W:

## 350mAh



Switch 1=OFF Switch $2=0 \mathrm{~N}$ Switch 3=ON Switch $4=O N$

## 500mAh



Switch 1=OFF Switch $2=0 \mathrm{~N}$
Switch 3=OFF
Switch $4=O N$

## 650mAh



Switch 1=OFF Switch 2 =OFF Switch 3=ON Switch 4 =OFF

## 400mAh



Switch 1=ON
Switch $2=$ OFF
Switch 3=ON
Switch $4=O N$


Switch 1=OFF Switch 2 =OFF Switch 3=OFF Switch $4=O N$

## 700mAh



Switch 1=OFF Switch $2=\mathrm{ON}$
Switch 3=OFF
Switch 4 =OFF

## 450mAh



Switch 1=OFF
Switch 2 =OFF
Switch 3=ON
Switch 4 $=$ ON

600mAh


Switch 1=ON
Switch $2=O N$
Switch 3=ON
Switch 4 =OFF

750mAh


Switch 1=ON
Switch 2 =OFF
Switch 3=OFF
Switch 4 =OFF

| OUTPUT <br> CURRENT | MAX <br> POWER |
| :---: | :---: |
| 350 mA | 15 W |
| 400 mA | 17 W |
| 450 mA | 19 W |
| 500 mA | 21 W |
| 550 mA | 23 W |
| 600 mA | 25 W |
| 650 mA | 27 W |
| 700 mA | 29 W |
| 750 mA | 30 W |
| 800 mA | 31 W |

800mAh


Switch 1=OFF
Switch 2 =OFF
Switch 3=OFF
Switch 4 =OFF

## Sensor 40W:

600mAh


Switch 1=OFF
Switch 2 $=$ ON
Switch 3=ON
Switch $4=O N$

750mAh


Switch 1=OFF
Switch $2=\mathrm{ON}$
Switch 3=OFF
Switch $4=O N$

## 900mAh



Switch 1=OFF Switch 2 =OFF Switch 3=ON
Switch $4=$ OFF

650mAh


Switch 1=ON
Switch $2=$ OFF
Switch 3=ON
Switch 4 $=$ ON

## 700mAh



Switch 1=OFF
Switch 2 =OFF
Switch 3=ON
Switch $4=O N$

850mAh


Switch 1=ON
Switch $2=O N$
Switch 3=ON
Switch 4 =OFF

1000mAh


Switch 1=ON
Switch 2 =OFF
Switch 3=OFF
Switch 4 =OFF

| OUTPUT <br> CURRENT | MAX <br> POWER |
| :---: | :---: |
| 600 mA | 25 W |
| 650 mA | 27 W |
| 700 mA | 29 W |
| 750 mA | 32 W |
| 800 mA | 34 W |
| 850 mA | 36 W |
| 900 mA | 38 W |
| 950 mA | 40 W |
| 1000 mA | 40 W |
| 1050 mA | 40 W |

## 1050mAh



Switch 1=OFF
Switch 2 =OFF
Switch 3=OFF
Switch 4 =OFF

DALI 30W:

## 200mA



Switch 1=ON
Switch 2 $=$ ON
Switch 3=ON
Switch $4=O N$

275 mA


Switch 1=OFF
Switch $2=$ OFF
Switch 3=ON
Switch $4=O N$

## 225mA



Switch 1=OFF
Switch 2 $=0 \mathrm{~N}$
Switch 3=ON
Switch $4=O N$

300 mA


Switch 1=ON
Switch $2=0 \mathrm{~N}$
Switch 3=OFF
Switch $4=O N$

## 375mA



Switch 1=OFF Switch 2 =OFF
Switch 3=OFF
Switch $4=O N$

## 450mA



Switch 1=OFF
Switch $2=O N$
Switch 3=ON
Switch $4=$ OFF

500mA


Switch 1=ON
Switch 2 =OFF
Switch 3=ON
Switch 4 =OFF

## 650mA



Switch 1=OFF
Switch 2 $=$ ON
Switch 3=OFF
Switch 4 =OFF

750mA


Switch 1=OFF
Switch 2 =OFF
Switch 3=OFF
Switch 4 =OFF

## DALI 40W:

## 350 mAh



Switch 1=ON
Switch $2=O N$
Switch 3=ON
Switch $4=O N$

## 500mAh



Switch 1=OFF
Switch 2 =OFF
Switch 3=ON
Switch $4=O N$

## 650mAh



Switch 1=ON
Switch 2 =OFF
Switch 3=OFF
Switch $4=O N$

## 400mAh



Switch 1=OFF Switch 2 $=0 \mathrm{ON}$ Switch 3=ON Switch $4=O N$

## 550mAh



Switch 1=ON Switch $2=O N$
Switch 3=OFF
Switch $4=O N$

## 700mAh



## 450mAh



Switch $1=O N$
Switch $2=O F F$
Switch $3=O N$
Switch $4=O N$
600mAh


Switch 1=OFF
Switch $2=\mathrm{ON}$
Switch 3=OFF
Switch $4=O N$

## 750mAh

Switch 1=ON
Switch 2 $=\mathrm{ON}$
Switch 3=ON
Switch 4 =OFF
$\longrightarrow$


## 250mA



325mA


Switch 1=OFF
Switch $2=O N$
Switch 3=OFF
Switch $4=O N$

400mA


Switch 1=ON
Switch $2=\mathrm{ON}$
Switch 3=ON
Switch 4 =OFF

## 550 mA



Switch 1=OFF
Switch $2=$ OFF
Switch 3=ON
Switch 4 =OFF

## 700mA



Switch 1=ON
Switch 2 =OFF
Switch 3=OFF
Switch 4 =OFF

| OUTPUT <br> CURRENT | MAX <br> POWER |
| :---: | :---: |
| 200 mA | 12.8 W |
| 225 mA | 14.3 W |
| 250 mA | 15.9 W |
| 275 mA | 17.3 W |
| 300 mA | 18.7 W |
| 325 mA | 20.3 W |
| 350 mA | 21.7 W |
| 375 mA | 23.3 W |
| 400 mA | 24.8 W |
| 450 mA | 27.9 W |
| 500 mA | 31.0 W |
| 550 mA | 34.1 W |
| 600 mA | 35.9 W |
| 650 mA | 35.9 W |
| 700 mA | 36.2 W |
| 750 mA | 36.2 W |


| OUTPUT <br> CURRENT | MAX <br> POWER |
| :---: | :---: |
| 350 mA | 21.5 W |
| 400 mA | 24.5 W |
| 450 mA | 27.5 W |
| 500 mA | 30.5 W |
| 550 mA | 33.5 W |
| 600 mA | 36.5 W |
| 650 mA | 39.5 W |
| 700 mA | 42.5 W |
| 750 mA | 45.5 W |
| 800 mA | 48.5 W |
| 850 mA | 49.5 W |
| 900 mA | 49.5 W |
| 950 mA | 49.5 W |
| 1000 mA | 49.5 W |
| 1050 mA | 49.5 W |
| 1100 mA | 49.5 W |


| 800mAh |  | 850mAh |  | 900 mA |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{O N}{\square_{1}} \square_{2}^{\mathrm{ON}} \boldsymbol{\square}_{3} \underset{4}{\square}$ | Switch 1=OFF <br> Switch $2=\mathrm{ON}$ <br> Switch 3=ON <br> Switch 4 =OFF |  | Switch 1=ON <br> Switch 2 =OFF <br> Switch 3=OFF <br> Switch 4 =OFF | $$ | Switch 1=OFF <br> Switch 2 =OFF <br> Switch 3=ON <br> Switch 4 =OFF |
| 950mA |  | 1000 mA |  | 1050mA |  |
|  | Switch 1=OFF <br> Switch 2 =OFF <br> Switch 3=ON <br> Switch $4=O N$ |  | Switch 1=OFF <br> Switch 2 $=$ ON <br> Switch 3=OFF <br> Switch 4 =OFF |  | Switch 1=ON <br> Switch 2 =OFF <br> Switch 3=OFF <br> Switch $4=$ OFF |

1100 mA


Switch 1=OFF
Switch 2 =OFF
Switch 3=OFF
Switch 4 =OFF

## dimming Connections (Applicable only to sensor models)

1-10V/10V PWM dimming application


NOTES:

- Dimming interface characteristics : 0.9 V and below are closed, 1 V is the darkest, 10 V is the brightest, $1-10 \mathrm{~V}$ is the dimming range .
- The dimming interface distinguishes between positive and negative , DIM is positive , GND is negative , please do not reverse .
- Dimming interface does not support voltage higher than 15 V , otherwise it will damage internal components .
- When the dimming interface is open , the driver outputs the maximum current. When the interface is short-circuited , the current output is closed.
- When multiple synchronous dimming is required, the positive poles of the dimming interface of each driver are connected together, and the negative poles are connected together
- Supports passive dimmer or isolated active dimmer . Dimming does not support non-isolated active dimmer dimming .
- It is recommended that the dimming wires should not be lower than 22AWG wire
- Do not connect the dimming wires alongside high voltage or interference sources. If it is unavoidable , please use shielded wires .


## DALI dimming application



## NOTES:

Activating DALI dimming mode :

- After installation according to the above wiring diagram the driver will automatically switch to the DALI control mode after receiving any DALI command.


## Remarks:

- Standard DALI control line voltage range: 9.5V to 22.5 V , type 16 V .
- The two DALI control lines polarity - reversible .
- Max. 64 DALI dirver per DALI control line .
- The maximum distance length of the DALI control line is 300 m at $2 \times 1.5 \mathrm{~mm}^{2}$.
- The DALI bus can be wired together with any mains voltage cables, but separate wiring is recommended .
- The configuration parameters of the driver can be set through the DALI configuration tool or DALI application controller during installation , such as setting device address, group address, power-on level, bus-failure level, scene leel, fade time, dimming curve, etc .

Power-on level :
When the driver is in DALI-2 dimming mode, the factory default level after each power - on is the brightest .

The power - on level can be set through the DALI configuration tool or DALI application controller during installation, and can be set to memory or fixed any brightness (such as off, darkest, 50\%, etc . ) .

Note : The recommeneded setting for the default factory power - on level of the DALI-2 driver is the brightest in the DALI- 2 standard .

## ONSITE WARRANTY


[^0]:    *Total power consumed including driver

