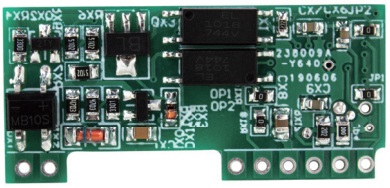
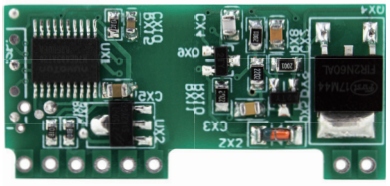
DALI 2.0 Dimming Module KMD01

Based on latest series of standards of IEC62386, KMD01 converts the DALI signal to PWM signal. Ideal for integrated in DT6 LED driver and DT8 LED driver.

Updated software together with improved firmware making it completely compatible with other brands such as Tridonic, Osram and Philips control system.



Front



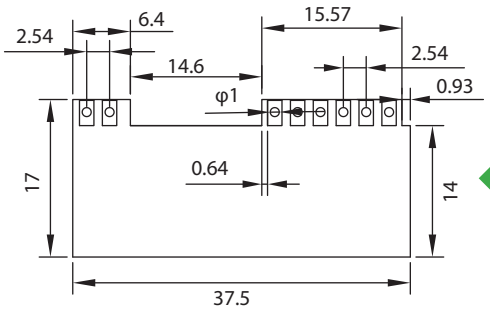
Back

Product Features

- Comply with IEC62386-101/102/207/209 standards
- Programmable switching output for operations
- With 300Vac protection against overvoltages
- Idea for integrated in DT8 or DT6 LED driver
- Compact size with reliable performance

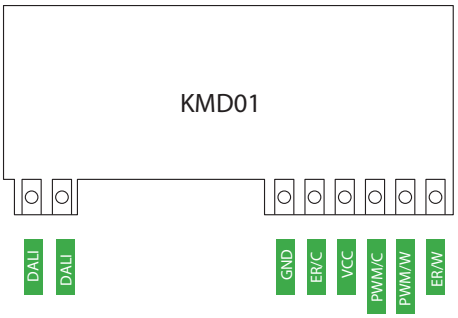
Standards
IEC62386-101:2018
IEC62386-102:2018
IEC62386-207:2018(LED module)
IEC 62386-209:2011(colour control)
Compatible with DT6/DT8 protocol

Mechanical Specifications(mm)



Standard driver PRE
21mm height

Pin Assignment



KMD01-DT6 (Signal device for DALI device type 6)

Name	Description	Parameters
DALI/N	DALI interface	9.5V-22.5V
DALI /Switch	DALI interface	9.5V-22.5V
GND	Ground interface	Ground
ER	LED fault detection	Short circuit below 0.3V, open circuit above 2.5V Input voltage:0.3~2.5Vdc (normal mode)
VCC	Positive power supply interface	DC 8.5-12V
PWM	PWM dimming output	1KHz (can be customized); 5V/5mA; active high level
PWM	PWM dimming output	1KHz (can be customized); 5V/5mA; active low level
ER	Reserved interface	N/A; (1-10V and over heat protection for options)

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KMD01-DT8 (Multi device for DALI device type 6 and type 8)

Name	Description	Parameters
DALI/N	DALI interface	9.5V-22.5V
DALI /Switch	DALI interface	9.5V-22.5V
GND	Ground interface	Ground
ER/C	LED fault detection for cool color	Short circuit below 0.3V, open circuit above 2.5V Input voltage:0.3~2.5Vdc (normal mode) can not be disconnect
VCC	Positive power supply interface	DC 8.5-12V
PWM/C	PWM dimming output / cool color	1KHz (can be customized), 5V/5mA
PWM/W	PWM dimming output / warm color	1KHz (can be customized), 5V/5mA
ER/W	LED fault detection for warm color	Short circuit below 0.3V, open circuit above 2.5V Input voltage:0.3~2.5Vdc (normal mode), can not be disconnect

Technical Data

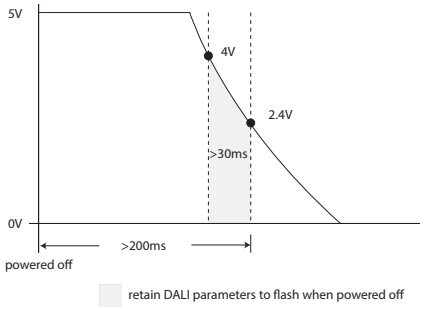
General information

Conformity	IEC62386-101:2018; IEC62386-102:2018; IEC62386-207:2018; IEC62386-209:2011
Operating conditions	-20°C ~ +60°C; 8% ~ 70% RH
Dimensions	37.5 x 17 x 7mm (L x W x H)

Electrical Data

Power source supply	DC 8.5-12V
Current supply	< 20mA (±5mA)

Important: to retain parameters, VCC should be over 200ms when powered off



Interface

Voltage supply	9.5V ~ 22.5V (DALI interface)
Current sink	1.2mA (DALI interface)
Input	DALI signal
Output	One channel PWM(1KHz, 5mA), dimming level:1%~100%
Physical colour temperature range	2000K-7500K (can be customized)
Isolation	Optocoupler isolation for DALI signal and power supply
Protection	With 300V protection against over voltages(DALI interface)

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Functions

"DALI" is the acronym for "Digital Addressable Lighting Interface", a protocol for control of lighting devices and equipment in building automation, such as switched-mode power supply units ("electronic transformers"), electronic control gear (ECG) or electronic dimmers. Specific definitions are elucidated in the IEC 62386 series of standards.

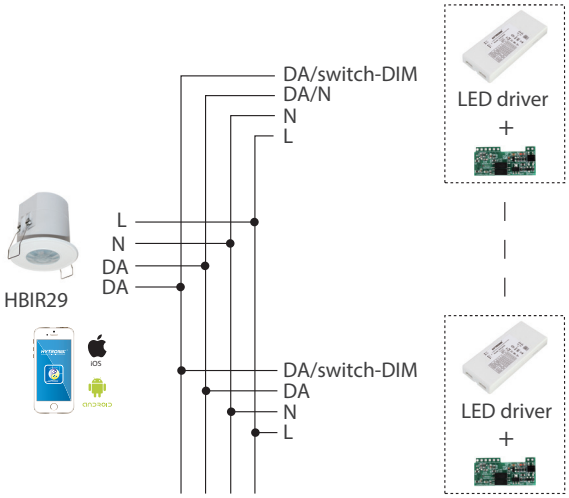
The standardized digital device interface includes powerful functionalities such as complete and grouping dimming, addressable dimming and query for status of lighting fixtures. Compared with 0/1-10V, DALI is an advanced intelligent lighting control technology, with the advantage of flexible installation, precision dimming, addressable network and stable performance.

DALI

Based on IEC 62386 series of standards, KMD01 concludes complete DALI interface, can be work with other device which comply with DALI protocol. By input the standard DALI signal, KMD01 enables the device to achieve on/off, dimming, scenes, grouping and addressing functionalities.

With the maximum 5mA source current, KMD01 delivers 1KHz PWM dimming signal, it enables the module can be able to withstand 10mA sink current.

Typical wiring diagram



Switch-Dim

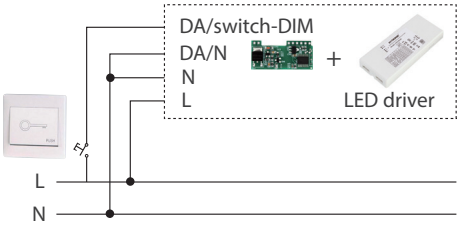
As a alternative function, KMD01 reserves the access to Push function. By means of different actions for brief and long depress time, fixtures can be switched on/off, or adjust the brightness level via push button. The procedures as below:

* Short Push (<0.5s): on/off;

* Long Push (>0.5s): adjust the brightness level between 1% and 100%.

(>15s): Synchronized the connected device to minimum level output. The brightness will step up when push dimming again.

Typical wiring diagram



Note: end-user can choose either DALI function or Switch-Dim function.

Order information

Item Number	Conformity
KMD01-DT6	IEC62386-102:2018; IEC62386-207:2018
KMD01-DT8	IEC62386-101:2018; IEC62386-102:2018; IEC62386-207:2018; IEC62386-209:2011

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