

CONSTANT CURRENT	FLIKER FREE	MULTIFUNCTION BUS	0% DIM	WIDE OUTPUT RANGE	PROTECTION	SW TOOL
100% 500mA SW configurable	Ripple and Flicker free IEEE1789 Analog Modulation I > 100mA PWM Modulation I < 100mA	MULTISTANDARD With External Insulated interface - DALI - BLUETOOTH  With or Without External Insulated interface - 0-10V - 1-10V - PWM - Push-Dim	Deep & Smooth to 0%	Wide output range for flexible led selection	Overheating; Short-circuits; Voltage spikes; Overloads; Polarity inversion;	DEVELED SUITE - Iout setting; - Max Power Setting; - Dimming Curve Linear/Logarithm setting - Thermal Protection Threshold setting - Read Diagnostic info



## DESCRIPTION

DC-DC track driver is an electronic driver for track lighting, featuring constant current output.

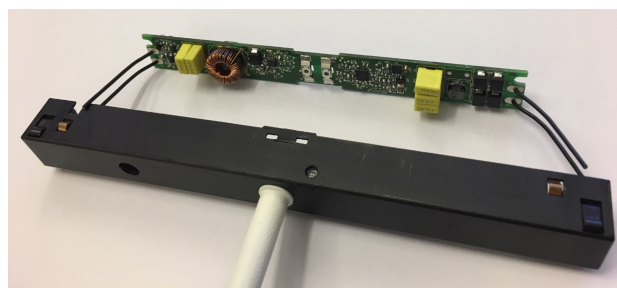
Driver for built in use, ultra compact size, compatible with 48V Stucchi Track Adapter series 9500. It can be used for lighting equipment protection class-2.

## APPLICATION

It is suitable for 48V (Low Voltage) Track installation.

## FEATURES

- Constant Current mode output;
- 20W Output power
- Class-2 power unit;
- Ripple Free;
- Flicker Free IEEE 1789;
- Smooth dimming from 100% to 0.1%;
- High efficiency: 95% at full load;
- Protection against output short circuits, input polarity inversion;
- Wise Programming with SW **DEVELED SUITE**;
- Dimensions (L x W x H): 125 x 14.5 x 11 mm; (inch:4.92 x 5.7 x 0.43)
- Standard safety: UL 8750 - EN 61347-1 - EN 61347-2-13;
- Standard EMC: EN 55015 - FCC part 15, EN 61547;
- Typical lifetime > 50.000 hours;
- 5 years warranty;
- Emergency function; (*pending*);

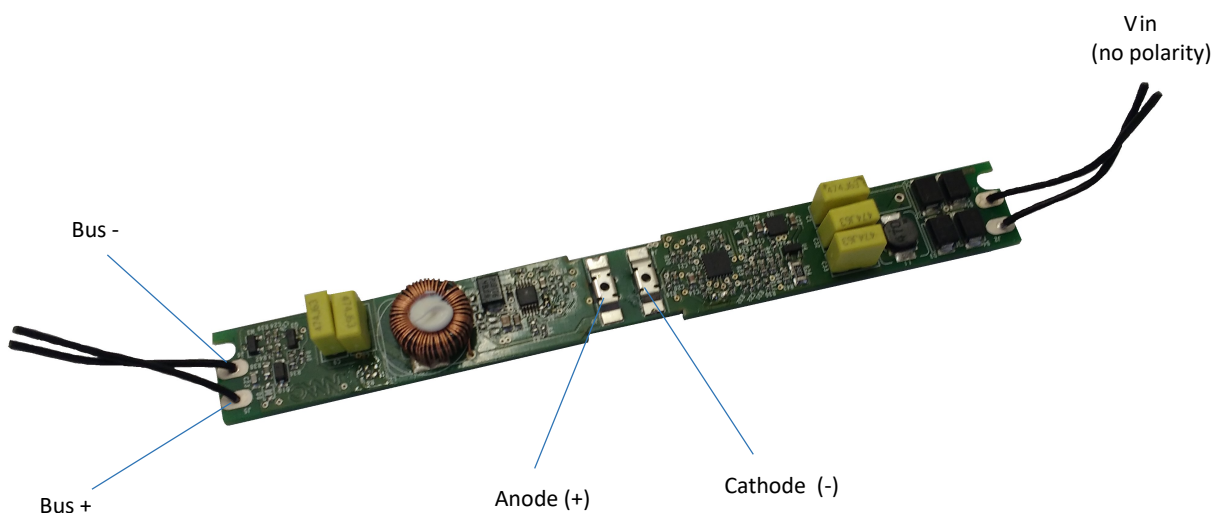




## TRACK 20 - DATASHEET

<b>Electrical</b>	
Vin voltage range	48V ±5%
Efficiency	> 90% @ full load
Output Power	0 ÷ 20W
Output Current	5mA- 500mA SW configurable
Output voltage range	9 ÷ 40V (@ Pout max)
Channel Output	N° 1
Maximum output current ripple	< 3%
Current regulation	I < 100mA Digital; I > 100mA Analogic; (I value SW configurable)
Current regulation range:	±3% including temperature variations
Start-Up Time	< 100ms
Stand Alone Dimming (not isolated)	- 0-10V - 1-10V - PWM (*) - DIGITAL CONTROL
External interface Dimming (isolated)	- 0-10V/1-10V/PWM - DALI - BLUETOOTH Mesh (Bluetooth Low Energy v4.2, IEEE 802.15.4) - CASAMBI; XICATO GalaXI; Silvair; others on request - DMX (on development) - Compatible with Emergency module compact controller for Emergency light function (pending)
<b>Protection</b>	
Over Current	-
Short Circuit	On Output Port. Recovers automatically after fault condition is removed. Restarting after 10sec with slow fade time.
Over Voltage	-
Over Temperature	No
Against mains voltage spikes	On Input Port.
Against Polarity inversion	On Input and Dimming Port.
<b>Environment</b>	
Working temperature	-25° ÷ +50°C
Max temperature	110°C on Tc point
Storage Temperature/Humidity	-40° ÷ +80°C; 10 ÷ 95%RH
<b>Standard</b>	
Safety	UL 8750 - EN 61347-1 - EN 61347-2-13
EMC Emission	FCC part 15 - EN 55015
EMC Immunity	EN 61547
<b>Mechanical</b>	
Dimensions	125 (L) x 14.5 (W) x 11 (H) mm; (inch:4.92 x 5.7 x 0.43)
IP degree	IP20
<b>DIAGNOSTIC and PERFORMANCE FUNCTION</b>	
DeveLed Suite	<ul style="list-style-type: none"> <li>- Tool SW for programming and configuration;</li> <li>- Setting every constant Iout value from the Nominal Range;</li> <li>- Selecting Linear or Logarithmic dimming curve;</li> <li>- Selecting min I out level;</li> <li>- Setting current modulation mode (example full Analogic mode);</li> <li>- Enabling special algorithm: CLO, led temperature protection, etc;</li> <li>- It is possible to create and download custom configuration profile;</li> <li>- Reading Diagnostic information from connected Led Driver: FW Version, temperature, over temperature events count, failures, lifetime;</li> <li>- FW upgrade</li> </ul>

(\*) Minimum voltage value for logical high level: 14V

**REQUIREMENTS****CONNECTIONS****POWER SUPPLY**

An European class I & II or US NEC class 2 constant voltage supply, with isolated output of 48 V dc  $\pm$  5 % must be used to power the Led Driver TRACK 20. Maximum voltage output should not exceed 55 Vdc. Input signal needs to be applied to wires Bus + and Bus -.

**DIMMING FUNCTION**

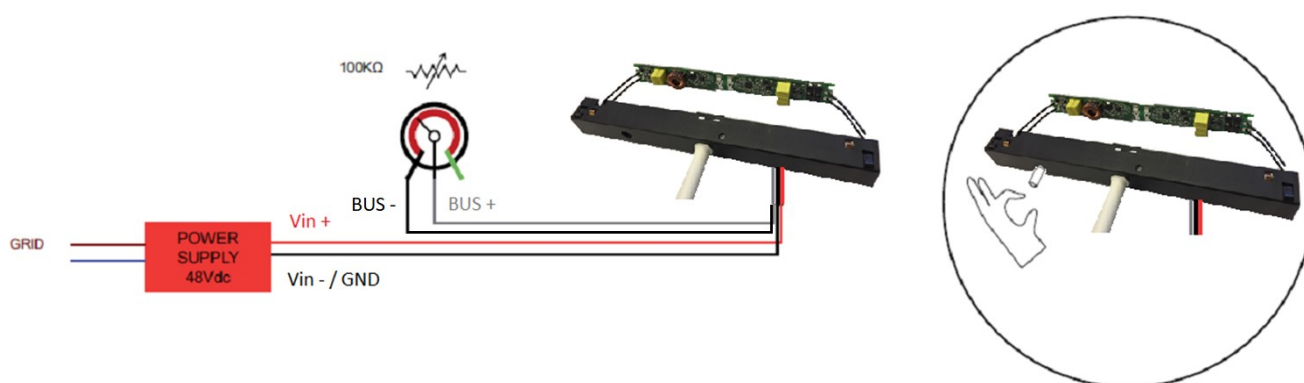
To regulate the LED light intensity, a signal needs to be applied to wires Bus + and bus -. If no signal is applied to BUS, the output current is at maximum level.

### STAND ALONE

#### STAND ALONE SOLUTION - POTENTIOMETER

- 0-10V ANSI E1.3, Entertainment Technology;
- 1-10V IEC60929 (Annex E) (100k $\Omega$ );
- PWM Standard;

*Example of TRACK 20 Application with 100k $\Omega$  Trimmer Potentiometer;*

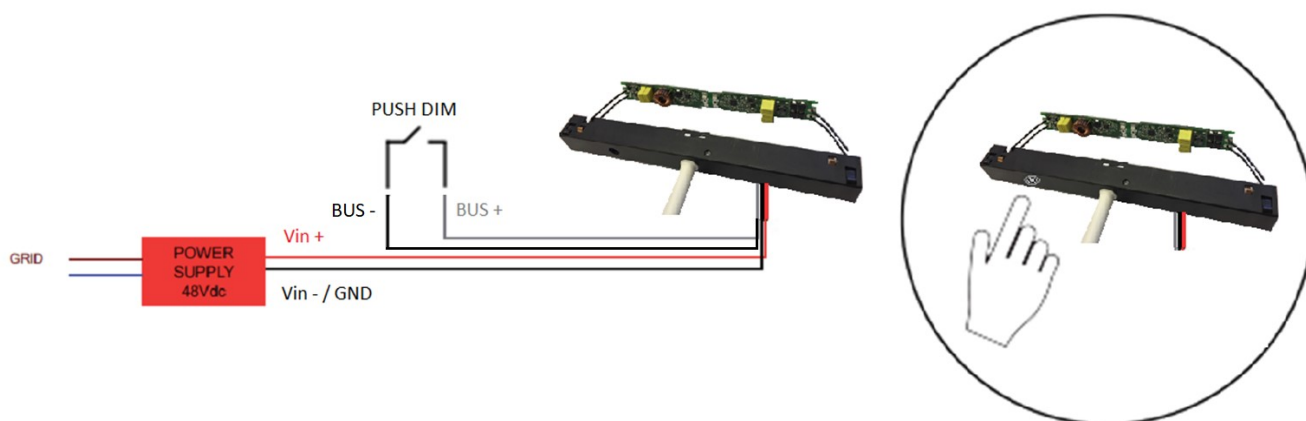


#### STAND ALONE SOLUTION - PUSH DIM

LED DRIVER built in lamp with PUSH DIM.

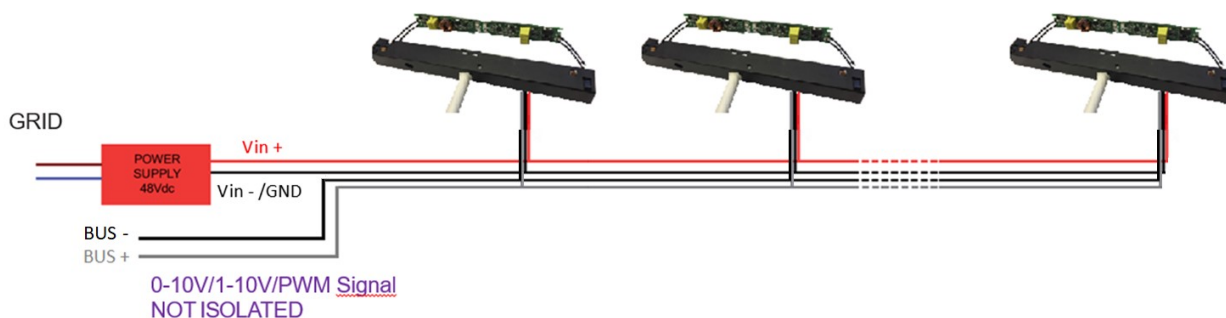
- Push for on/off;
- Keep pushed for dimming up and down;

Example of TRACK 20 Application:

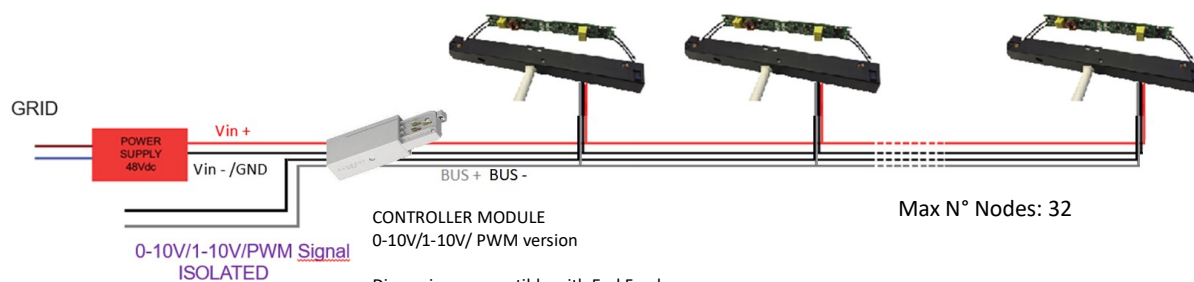


### SYSTEM ARCHITECTURE

#### 0-10V/1-10V/PWM ARCHITECTURE (NOT ISOLATED)



#### 0-10V/1-10V/PWM ARCHITECTURE WITH EXTERNAL ISOLATED INTERFACE



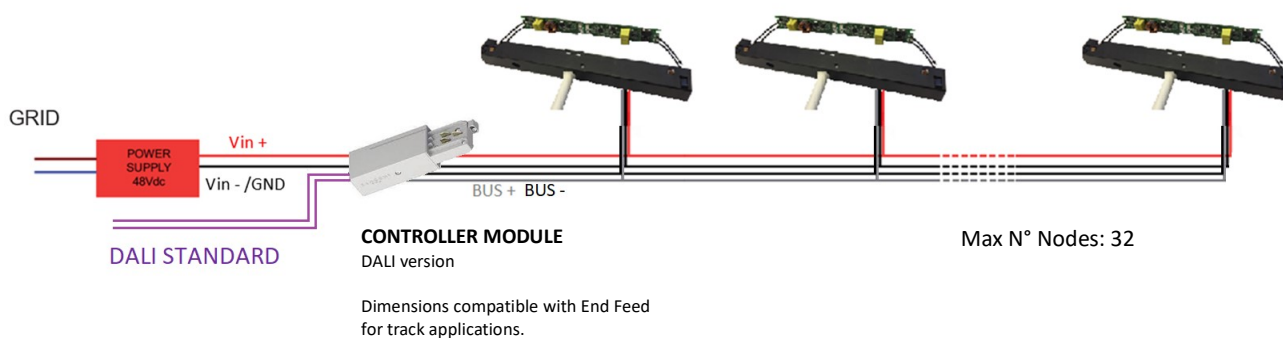
Dimensions compatible with End Feed for track applications

**ISOLATED**

Compliance with New Edition of UL 8750 and Supplement SF- Led Equipment with wired control circuits

#### DALI ARCHITECTURE

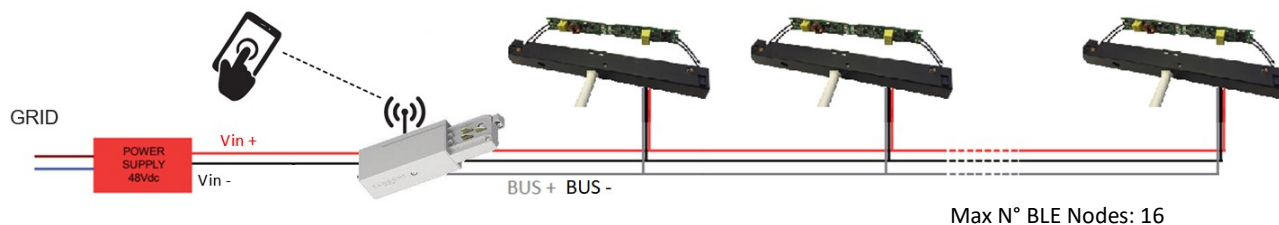
- DALI low voltage is a Low Voltage BUS using a DALI STANDARD protocol.
- Throw controller, it is possible manage every single Led Driver TRACK 20 as an independent address.



Dimensions compatible with End Feed for track applications.

### BLUETOOTH ARCHITECTURE

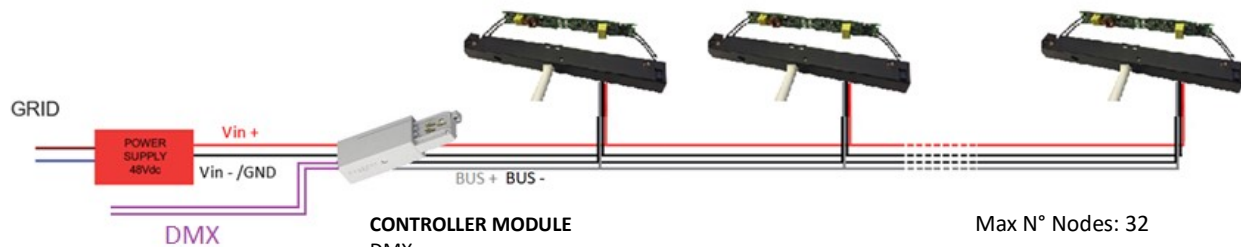
- Throw controller, it is possible manage every single Led Driver TRACK 20 as an independent address.



**CONTROLLER MODULE**  
 BLUETOOTH Mesh (Bluetooth Low Energy v4.2, IEEE 802.15.4)  
 CASAMBI  
 Xicato GalaXi  
 other on request

Dimensions compatible with End Feed  
 for track applications.

### DMX COMPACT CONTROLLER Version on development.



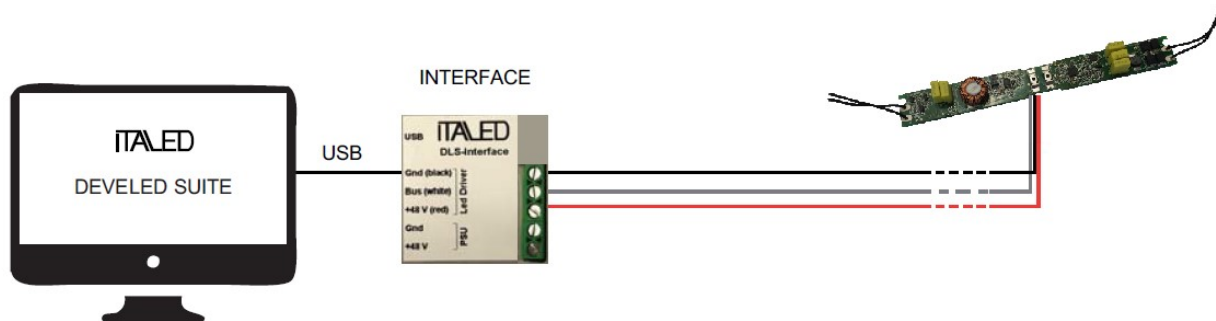
**CONTROLLER MODULE**  
 DMX

Dimensions compatible with End Feed  
 for track applications.

(\*) speed equal to Dali speed as architectural lighting systems

### PROGRAM TOOL SW

Full Program and Configuration using PC and Interface:



#### SW DEVELED SUITE

- Tool SW for programming and configuration;
- Set any constant lout value from the Nominal Range;
- Select Linear or Logarithm dimming curve;
- Select Dimming Protocol
- Set Fade Time value
- Set Minimum Dimming lout Value;
- Set Thermal Thresholds of Thermal Protection Algorithm;
- Read tc Realtime Temperature;
- Read SN, FW/HW version, OEM;
- Read Diagnostic: temperature, protection events count, failres, lifetime (pending);
- Enabling special algorithm: CLO, led temperature protection, etc (pending);
- It is possible to create and download custom configuration

#### DLS INTERFACE:

Dimensions: 15mm x 43mm x 43mm  
(inch: 0,59 x 1,69 x1,69)

