

# DALI Converter DA-020

DALI to 0/1-10V Converter

## PRODUCT FEATURE

The DA-020 is a non-isolated signal converter translating the DALI Type 8 command into 0/1-10V dimming signal for LED driver with 0/1-10V dimming control.

This design complies to IEC 62386-101, 102, 209 DALI standard protocol. It is a perfect solution to convert standard fixture to be controlled in DALI control environment.

## WARRANTY

• See [Limited Warranty Policy](#) for more additional information.

## ELECTRICAL CHARACTERISTIC



Dimension: 50mm x 45mm x 20mm (L x W x H)

MODEL: DA-020		SPECIFICATIONS
OUTPUT	Output Voltage	0/1-10Vdc x 2 CH
	Output 0-10 SINK Current	≤ 2mA
	Voltage Tolerance	±5%
INPUT	Input Voltage	12-22.5Vdc
	Input Current	≤ 2mA (0-10Vdc no load)
	DALI Input Current	< 2.5mA
ENVIRONMENT DESCRIPTION	Working Temperature	-25°C - +60°C
	Working Humidity	20 – 90RH (No Condensation)
	Storage Temperature & Humidity	-30°C - + 60°C (Six months under Class I environment); 10 – 90%RH (No Condensation)
SAFETY AND ELECTROMAGNETIC COMPATIBILITY	Certification	CE Compliant
	Electromagnetic Emission	Conform to EN55015
OTHER	IP Rating	IP20
	RoHS	Fully Compliant
	Warranty	2 Years
	Implementation Standard of DALI	IEC 62386-101, 102, 209 (DT8 LED)

# DAI Converter DA-020

DAI to 0/1-10V Converter

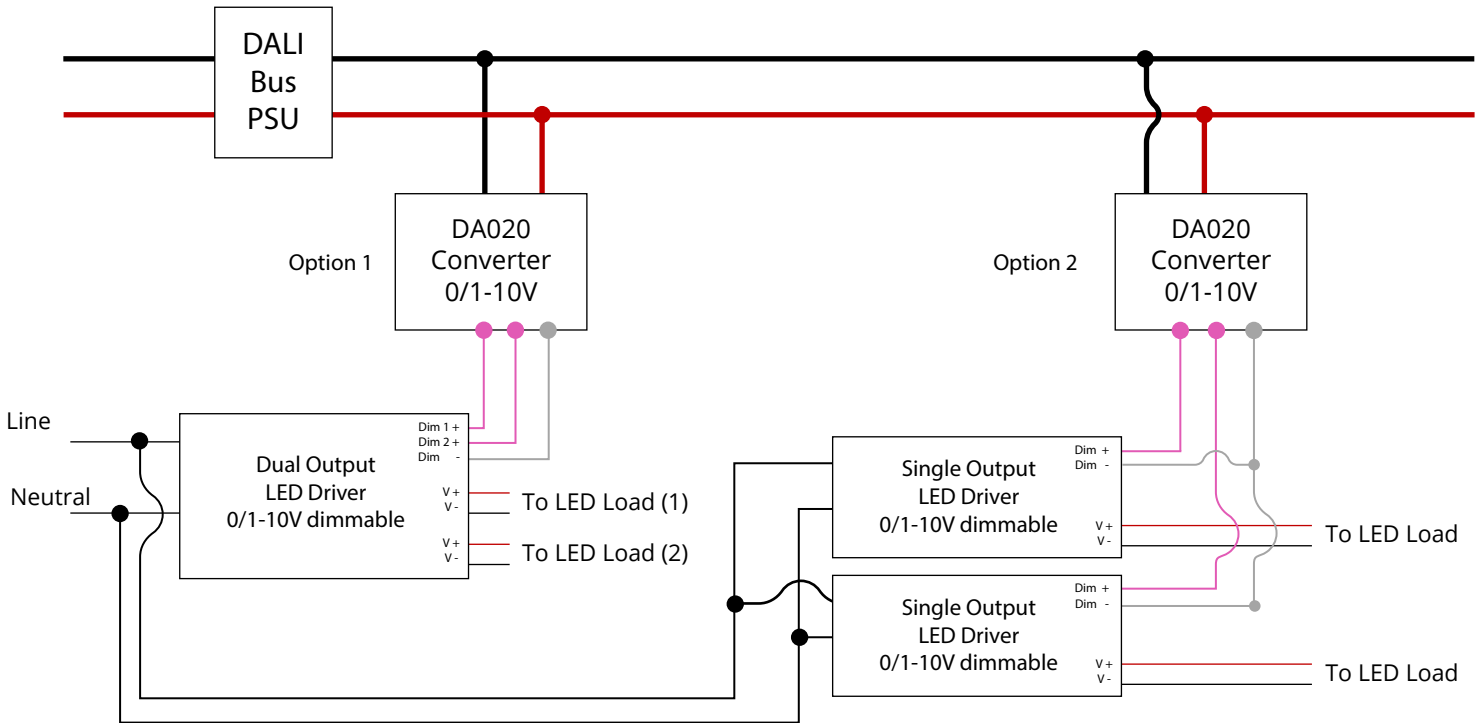
## DIMMING INSTRUCTION

Description of Terminals

INPUT	
DA1 (-)	DA1 Signal
DA2 (+)	DA2 Signal

OUTPUT	
Dim1 +	0-10V signal output terminal +
Dim2 +	0/1-10V signal output terminal +
D -	RTN wire

## WIRING DIAGRAM



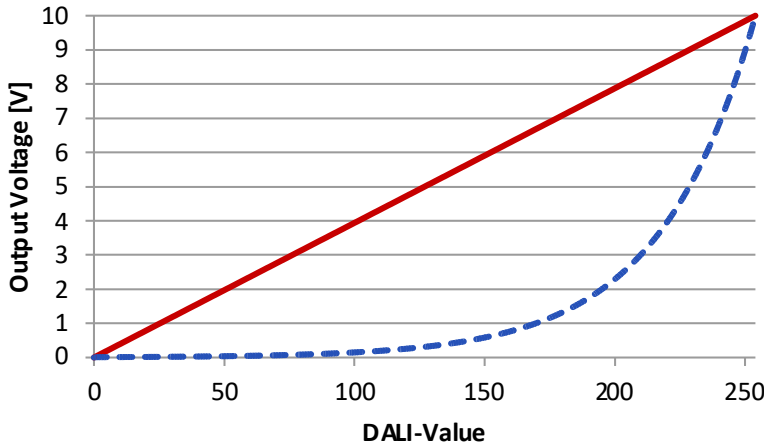
### NOTES:

1. Please keep attention on the connection to the DALI line: It is Polarized.
2. The LED driver needs to be EMC compliant.
3. The LED driver dimming wires need to be isolated from Primary leads.

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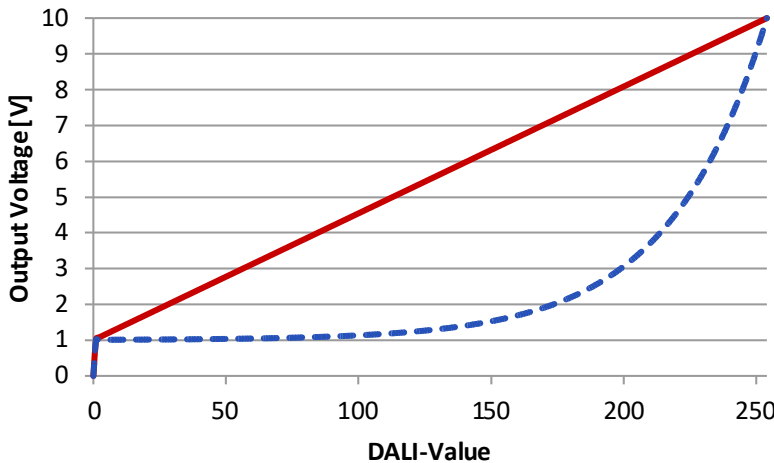
## 0-10V DIMMING CURVE CHART



### OUTPUT RANGE 0-10V

**Control Characteristic:**  
DALI 0-254 is transformed to 0-100% output voltage

- Linear, 0-10V
- - - Logarithmic, 0-10V  
Linear, 0-10V



### OUTPUT RANGE 1-10V

**Control Characteristic:**

DALI 0 correlates with a voltage below 0.4v with clear gap to <5%

DALI 1-254 is transformed to 10% - 100% Output voltage

- Linear, 0-10V
- - - Logarithmic, 0-10V  
Linear, 0-10V

## MECHANICAL DIMENSIONS

Dimension: 50mm x 45mm x 20mm (L x W x H)

