USER MANUAL 2AMDI511VPVRDS-1UL

SUBJECT INDEX:

SINGLE CHANNEL MULTIPROTOCOL DIMMER C.V. IoT Light

CARATTERISTICHE TECNICHE
TECHNICAL NOTES

- Mono channel Dimmers with Output Voltage PWM.
- Input Range: 12-48V DC.
- Power 216W @ 48V.
- The device is not equipped with earth connection
Protection against accidental contact is garantied by the enclosure.
- Power Connector Cross-section of conductors 14-30 AWG (0.05-2.08 mmq).
- Interface Connector Cross-section of conductors 15-30 AWG (0.05-1.65 mmq). - In
order to supply the device you have to use a SELV power supply in order to maintain the
required elettrical security level
All connections must be made with non-live devices
and carried out by specialized personnel.
- Output Voltage PWM 12-48V DC with current from 0A to 4,5A (216W at 48V DC).
- Input Controls: Not insulated Push button x1, DALI x1, Linear Potentiometer 100K
   x1, For 0-10V/1-10V wired control circuit, Notice : This control circuit is not
   isolated - see installation instructions
- Output Sync: PWM x1.
- PWM Frequency: 390 Hz.
- Storage Temperature Min: -40 Max: 60 C. Degrees.
- Working Temperature Min: -20 Max: 50 C. Degrees.
- Printed Circuit UL.
- Protection Class: IP20.
- Peso: 44 gr.
- Standard Dimension 40x80x24.45 mm.
- Dimension with accessories 40x100x24.45 mm.
- Reverse polarity protection.
- Open circuit protection.
- Surge voltage protection.
- Use only in dry conditions
- CAUTION: More than one power supply present. Plus d'un bloc d'alimentation est
présent.

INGRESSI DI CONTROLLO - *CONTROL INPUTS*			
DALI	0-10V;1-10V PASSIVE	NOT INSULATED PUSH bUTTON	POTENZIOMETRO LINEARE 100K *LINEAR POTENTIOMETER*
x1	x1	x1	x1

| USCITA SYNCRO *OUTPUT SYNCRO*	CORRENTE MAX IN USCITA (*) *MAX OUTPUT CURRENT*
PWM	4,5A

Mono channel Dimmers with Output Voltage PWM.
Input Range: 12-48V DC.
Output Voltage PWM 12-48V DC with current from 0A to 4,5A (216W at 48V DC).

40   24,45

80
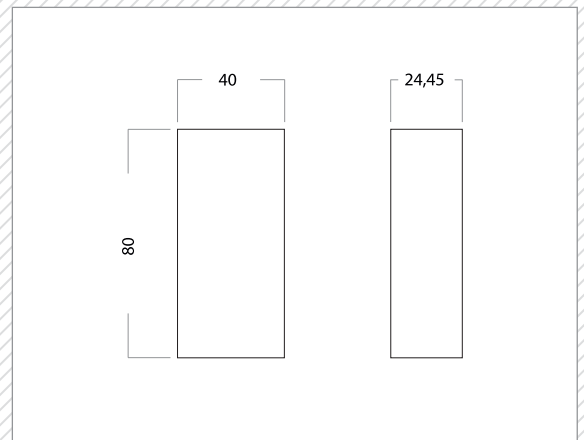
CODICE *CODE*	TENSIONE IN INGRESSO *INPUT VOLTAGE*	CORRENTE USCITA (MAX) *(MAX) OUTPUT CURRENT*	n. CANALI IN USCITA *n. OUTPUT CHANNELS*	POTENZA MAX IN USCITA *MAX OUTPUT POWER*	INGRESSI DI CONTROLLO *CONTROL INPUTS*	SCATOLA *CASE*	DIM. *DIM.*
2AMDI511VPVRDS-1UL	12-48V DC	4,5**A**	1	216**W A 48V DC**	NOT INSULATED PUSH bUTTON x1 DALI x1 LINEAR POTENTIOMETER 100K x1 0-10V PASSIVE x1 1-10V PASSIVE x1	SI	40x80 mm h 24,45 mm

# DEVICE POWER SUPPLY AND CONNECTION TO THE LED MODULE
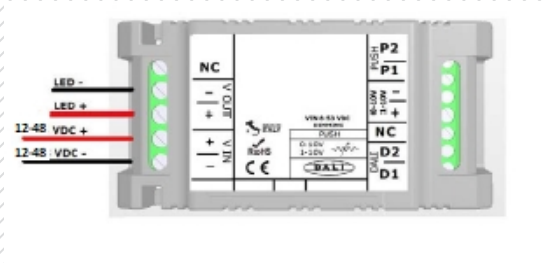
POWER SUPPLY CONNECTION DIAGRAM AND LED 2AMDI511VPVRDS-1UL - FIGURE N. 1

The 2AMDI511VPVRDS-1UL dimmer has to be powered according to the polarity showed in FIG. 1
through the V IN (+ and -) terminals.

In case the power supply polarity is inverted no damage will be caused to the device .

The LED load connection has to be made by using the V OUT (+ and -) terminals.

MODE 0-10V/1-10V PASSIVE
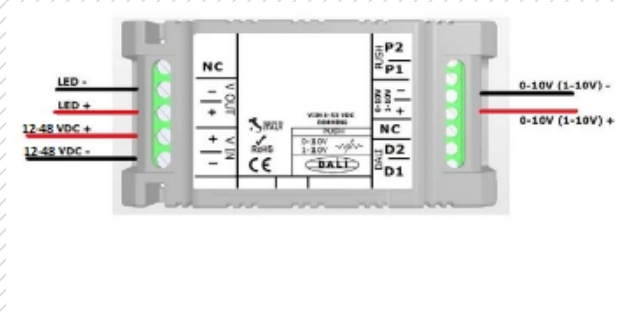
WIRING 0-10V 2AMDI511VPVRDS-1UL - FIGURE N. 2

In order to activate this mode of control/operation just connect the active control signal of 0-10V/1-10V between
the 0-10V 1-10V (+ and -) inputs (being careful to observe the correct polarity) and disconnect the remaining control signals.

The maximum current absorbed by 0-10V dimmer interface is 0,1 mA.

by default, the dimming curve follows trend proportionally to the control voltage. A voltage value of less than 1V is interpreted as load off.
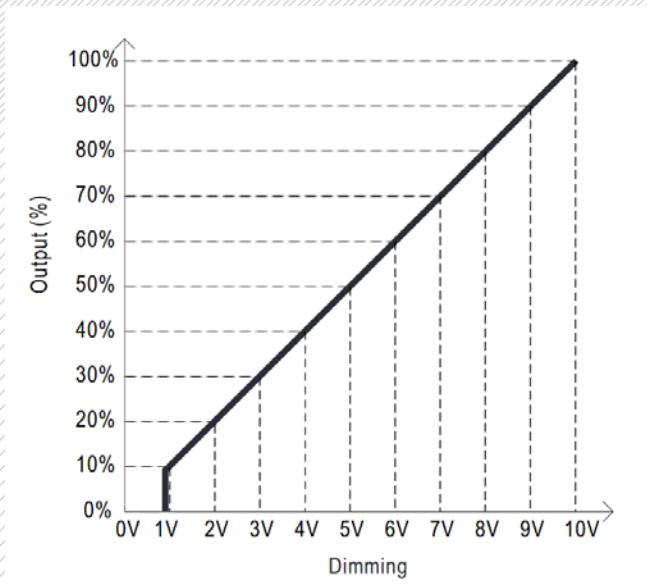

In case the 0-10V/1-10V signal is disconnected, the dimmer sets the output to the saved level (see preset level
change). The preset value is zero by default.

On the first run in this mode it could be necessary to set the input to a value greater than 50% (5V or higher on
0-10V 1-10V + and -) in order to configure the dimmer to the 0-10V/1-10V mode.

In order to maintain SELV Class it's mandatory to use a Master 0-10V / 1-10V with SELV Class

PUSH MODE
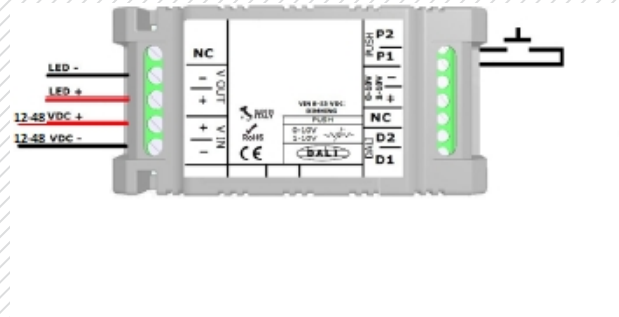
WIRING BUTTON 2AMDI511VPVRDS-1UL - FIGURE N. 4

In order to activate this mode of control/operation it is necessary to remove any control signals from the 0-10V
1-10V + and - inputs and connect between the P1 and P2 inputs, a normally open button (N.O.).
No polarization is needed for the input signal.

The maximum current absorbed by the PUSH interface is about 2mA.

The dimmer saves the output position in order to restore the set level in case of power failure (preset).

PUSH INTERFACE OPERATION

Single Click (rapid press (<1sec))

Starting from Load Off
- First click turn on load at maximum level
- Second click turn on load at 50% level
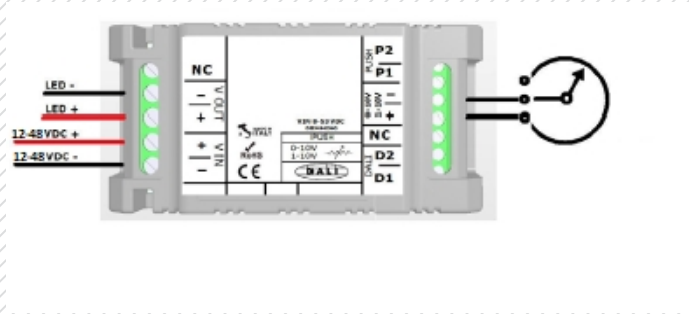- Third click turn off load

Long Press (long press (>1sec))

Starting from Load On
- Long press dimmer load up or down, any button release will change the dimming direction

After dimming with long press, a rapid press will turn off load

OPERATION MODES

LINEAR POTENTIOMETER MODE 100KOHM

POTENTIOMETER WIRING 2AMDI511VPVRDS-1UL - FIGURE N. 5

In order to activate this mode of control/operation just connect a linear potentiometer of 100 Kohm between the D+
and D- inputs and disconnect the remaining inputs.

A resistance value of less than 5 Kohm is interpreted as load off.
The maximum brightness value is reached by exceeding the value of 95 Kohm.

In case the potentiometer is disconnected, the dimmer sets the output to the saved level (see preset level
change).
The preset value is zero by default.

On the first run in this mode it could be necessary to set the input to a value greater than 50% (55K or higher on DD
+ input) in order to configure the dimmer to the potentiometer mode.

DALI MODE
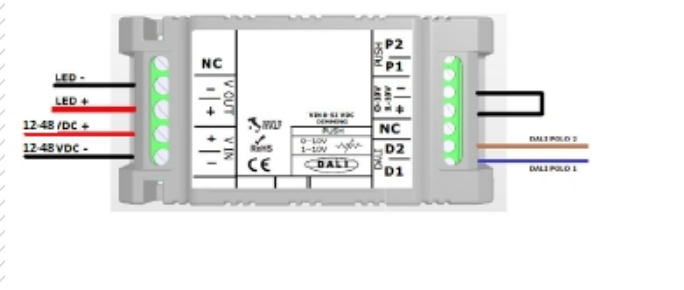
DALI 2AMDI511VPVRDS-1UL WIRING - FIGURE N. 6

In order to activate this mode of control/operation it is necessary to shortcircuit the 0-10V 1-10V + and - inputs and connect the DALI bus between the DALI/D1 and DALI/D2 inputs.

On the first reception of a properly formatted DALI package the dimmer is configured in DALI mode. Once configured in DALI mode and disconnected from the DALI bus the dimmer switches to the POWER ON LEVEL mode set through DALI bus.

The maximum current absorbed by the DALI bus is about 2mA.

Below you can find the implemented standard commands:

DIRECT ARC POWER
OFF
UP
DOWN
STEP UP
STEP DOWN
RECALL MAx LEVEL
RECALL MIN LEVEL
STEP DOWN AND OFF
ON AND STEP UP
GO TO SCENE (0-15)
RESET
STORE ACTUAL LEVEL IN THE DTR
STORE THE DTR AS MAx LEVEL
STORE THE DTR AS MIN LEVEL
STORE THE DTR AS SYSTEM FAILURE LEVEL
STORE THE DTR AS POWER ON LEVEL
STORE THE DTR AS FADE TIME
STORE THE DTR AS FADE RATE
STORE THE DTR AS SCENE (0-15)
REMOVE FROM SCENE (0-15)

ADD TO GROUP (0-15)
REMOVE FROM GROUP (0-15)
STORE DTR AS SHORT ADDRESS
QUERY STATUS
QUERY bALLAST
QUERY LAMP POWER ON
QUERY LIMIT ERROR
QUERY RESET STATE
QUERY MISSING SHORT ADDRESS
QUERY VERSION NUMbER
QUERY DEVICE TYPE
QUERY PHISICAL MINIMUM LEVEL
QUERY POWER FAILURE
QUERY CONTENT DTR1
QUERY CONTENT DTR2
QUERY ACTUAL LEVEL
QUERY MAx LEVEL
QUERY MIN LEVEL
QUERY POWER ON LEVEL
QUERY SYSTEM FAILURE LEVEL
QUERY FADE TIME/FADE RATE
QUERY SCENE LEVEL (0-15)
QUERY GROUPS (0-7)
QUERY GROUPS (8-15)
QUERY RANDOM ADDRESS H
QUERY RANDOM ADDRESS M
QUERY RANDOM ADDRESS L

Manual update 11/04/2018