#### **FUOCOFREDDO**

Via Licinio Ferretti 5/A 43126 Parma (PR) C.F. / P.IVA 02669720340 Tel. 0521.1404565 info@fuocofreddo.it www.fuocofreddo.it

# CONVERTITORE UV-C 9L191X



### **Descrizione**

Convertitore Tensione Corrente Monocanale Rail to Rail Step Down con uscita in Corrente PWM o Uscita in Corrente DC. Uscita PWM corrente con alimentazione dimmerata PWM Tensione, Uscita corrente costante con ingresso tensione costante. Range di alimentazione: 10-26V DC. Uscita in corrente da 0.35A a 0.7A (17.5W a 25V DC) (Vedi codici d'ordine). Compatibile con tutti i dimmer FuocoFreddo con uscita in tensione e con i dimmer di terze parti con uscita PWM..

## Caratteristiche tecniche

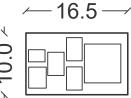
- Convertitore Tensione Corrente Monocanale Rail to Rail Step Down con uscita in Corrente PWM o Uscita in Corrente DC.
- Uscita PWM corrente con alimentazione dimmerata PWM Tensione, uscita corrente costante con ingresso tensione costante
- Range di alimentazione: 10-26VDC
- Uscita in corrente da 0.35A a 0.7A (17.5W a 25VDC) (Vedi codici)
- Tensione di uscita compresa tra 2.6V e 25V DC (Vin 26V DC)
- Frequenza max PWM tensione ingresso: 500 Hz.
- Circuito Stampato UL
- Classe di protezione: IP20

- Protezione da inversione di polarità
- Protezione circuito aperto
- Protezione corto circuito
- Fornibile come modulo OEM (solo scheda) oppure con connettore plastico
- Compatibile con tutti i dimmer FuocoFreddo con uscita in tensione e con idimmer di terze parti con uscita PWM (attenzione, alcune condizioni di dimming e accoppiamento meccanico possono portare ad avere ronziiudibili, ciò non pregiudica il funzionamento del prodotto)
- Fornibile con cavo AWG24 in PVC 105°C Nero/Rosso (Ingresso) Nero/ Bianco (Uscita) Lunghezza 250mm

# Spessore 4mm







Versioni disponibili a catalogo									
cod.prodotto	tensione di ingresso	corrente in uscita	potenza in uscita	cablaggio	guaina	dimensioni			
9L191MA00C1A00X	10-26VDC	350mA	3.05W @ 24VAC	no	no	16,5 x 10 mm (sp. 4mm)			
9L191MA10C1A00X	10-26VDC	350mA	3.05W @ 24VAC	si	no				
9L191MB0C1A00X	10-26VDC	500mA	11.50W @ 24VAC	no	no				
9L191MB10C1A00X	10-26VDC	500mA	11.50W @ 24VAC	si	no				
9L191MC0C1A00X	10-26VDC	700mA	16.10W @ 24VAC	no	no				
9L191MC10C1A00X	10-26VDC	700mA	16.10W @ 24VAC	si	no				
9L191MA17C1A00X	10-26VDC	350mA	3.05W @ 24VAC	si	si	20 x 12 mm (sp. 5mm)			
9L191MB17C1A00X	10-26VDC	500mA	11.50W @ 24VAC	si	si				
9L191MC17C1A00X	10-26VDC	700mA	16.10W @ 24VAC	si	si				

## Possibili applicazioni

- Sanificazione e disinfezione
- · Sanificazione e disinfezione di strumenti o oggetti
- Sanificazione e disinfezione dell'acqua (tramite opportuna resinatura)
- Sanificazione e disinfezione delle superfici



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Installation must be carried out under observation of the relevant regulations and standards. The LED modules are designed for operation within a casing or luminaire. Installation must be carried out in a voltage-free state (i.e. disconnection from the mains).

The following advice must be observed; non-observance can result in the destruction of the LED assembly modules, fire and/or other hazards.

- Consider safety regulations acc. EN 60598 in the luminaire design, especially when the operating LED driver is not galvanic isolated.
- In mode of operation regard to sufficient isolation.
- Live parts must not be touched in operation mode. Danger in life!!!
- ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules. See VS's application notes on ESD protection.
- Adequate anti-static electricity measures, including the use of conductive shoes, ionizers, work bench grounding, wrist straps, flooring and stools should be used.
- LED assembly modules must not be subjected to any undue mechanical stress, e. g.:
- do not treat as bulk cargo
- avoid shear and compressive forces during handling and installation
- do not damage circuit paths
- avoid any pressure on the light emitting surface
- Safe operation only possible by the use of external constant current sources (Imax. see table "Electrical Characteristics").
- Operation only with power supply units that feature the following protection:
- Short-circuit protection
- Overload protection
- Overheating protection
- The module can be fixed with M3 screws. Fixation only with flat or cylinder head screws (M3) (no countersank screws) Max. torque: 1.2 Nm (M3)
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- For interconnection the LED modules is equipped with push-in terminals (WAGO 2060).
- Safety regulations acc. to EN 60598 (or further standards) has to be observed if the maximum output voltage exceed the permitted touchable value.
- The following points must be observed when connecting LED modules in parallel:
- All LED strings that are wired in parallel must contain the same number of LEDs (symmetrical loading).
- Owing to differing forward biases, there can be a difference of up to 10% in brightness between modules connected in parallel.
- To ensure problem-free operation, the specified maximum temperature at the tp point (see "Operating Life") must be observed (and measured in accordance with EN 60598-I). To satisfy this point, it may be necessary to put measures in place to ensure any heat is dissipated from the PCB to the environment.
- In the event of outdoor applications or applications in damp locations, care must be taken to protect LED assembly modules against humidity, splashes and jets of water. Any corrosion damage resulting from humidity or contact with condensation will not be recognized as a defect or manufacturing fault. LED assembly modules are not specially protected against foreign bodies or dust. Depending on the type of application, further protection must be ensured to prevent dust and foreign bodies from entering.
- Due to the manufacturing process, the PCBs of the LED assembly modules can have sharp edges and corners. Care must therefore be taken during handling and installation to avoid injury.
- For optimal load of used constant current driver the modules can only be connected in series. The quantity of LED modules is limited by the sum of forward voltage and the capacity of used constant current driver. Safety regulations acc. to EN 60598 has to be observed if the sum of forward voltage exceed the permitted touchable value.
- Operating LED modules in the presence of certain chemical substances or in chemically enriched (aggressive) environments can impair module functionality or even cause total module failure.
- The photobiological safety of the LED modules must be classified into risk groups in accordance with IEC / TR 62778: risk group 1 (except HB, 6500 K, > 500 mA: risk group 2)

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## **Description**

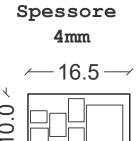
Rail to Rail Step Down Monochannel Voltage Current Converter with PWM Current Output or DC Current Output. PWM current output with PWM dimmed power supply Voltage, Constant current output with constant voltage input. Power supply range: 10-26V DC. Current output from 0.35A to 0.7A (17.5W at 25V DC) (See order codes). Compatible with all FuocoFreddo dimmers with voltage output and with third-party dimmers with PWM output.

## Technical features

- Rail to Rail Step Down Monochannel Voltage Current Converter with PWM Current Output or DC Current Output.
- PWM current output with PWM dimmed voltage supply, constant current output with constant voltage input
- Power supply range: 10-26VDC
- Current output from 0.35A to 0.7A (17.5W at 25VDC) (See codes)
- Output voltage between 2.6V and 25V DC (Vin 26V DC)
- Max PWM frequency input voltage: 500 Hz.
- UL Printed Circuit
- Protection class: IP20

- Reverse polarity protection
- Open circuit protection
- Short circuit protection
- Available as OEM module (board only) or with plastic connector
- Compatible with all FuocoFreddo dimmers with voltage output and with third-party idimmers with PWM output (attention, some dimming and mechanical coupling conditions can lead to buzzing, this does not affect the operation of the product)
- Available with AWG24 cable in PVC 105 ° C Black / Red (Input) Black / White (Output) Length 250mm





Versions available in the catalog									
product code	input voltage	output current	power output	wiring	sheath	size			
9L191MA00C1A00X	10-26VDC	350mA	3.05W @ 24VAC	no	no	16,5 x 10 mm (sp. 4mm)			
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## Possible applications

- · Sanitation and disinfection
- · Sanitization and disinfection of tools or objects
- Sanitation and disinfection of water (through appropriate resin coating)
- Surface sanitation and disinfection



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