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DATASHEET

VIOLET UVA NICHIA NCSU434B LED STRIP 330NM 12 LEDS 1200MW 28.1CM 1050MA 21W

SKU: 42948

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Article number (SKU)	**42948**	
Product name	Violet UVA LED Strip, Nichia NCSU434B, 330nm, 12 LEDs	
Classification	Professional	
Model identifier (equivalent models)	Violet UV LED Strip	
Optical data (reference conditions, ± 10%)		
Light color	UVA	
Binning	-	
Color temperature (**K**)	-	
Dominant wavelength (**nm**)	330 nm	
Luminous flux (lm)	-	
Radiant power (**mW**)	1200 mW (max. 1714 mW)	
CRI (**Ra**)	-	
Luminous efficacy (lm/W)	-	
Beam angle FWHM	110°	
Lifetime L80B10C1 (**h**)	12,000 h	
Photometric code	-	
Electrical data (reference settings)		
Operating mode	Constant current	
Voltage (**V**)	20 V	
Current (**mA**)	1050 mA (max. 1500 mA)	
Power (**W**)	21 W	
Standby power (W)	0 W	
Dimmable	Yes	
Dimensions / Mechanical data	**Metric units**	**Imperial units**
Length	281 mm	11.063 in
Width	19.2 mm	0.756 in
Height	4 mm	
Number of LEDs (pcs)	12 (+3 status LEDs)	
Weight (g)	18.4 g	
Heat dissipation	External heat sink required	
Temperatures		
Operating temperature at Tc	-40 °C to +65 °C	
Ambient temperature	-40 °C to +50 °C	
Storage temperature	-40 °C to +100 °C	
Approvals / Certifications		
CE / RoHS / Reach	Yes	
EN 62471 Risk group	RG3	
Energy efficiency class	-	
Radiant efficacy / mains efficacy	-	
Version		
Technical data date	28 November 2025	

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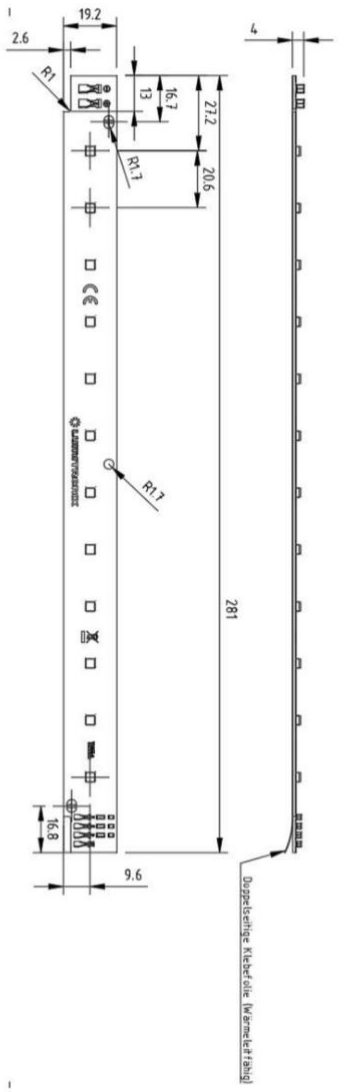

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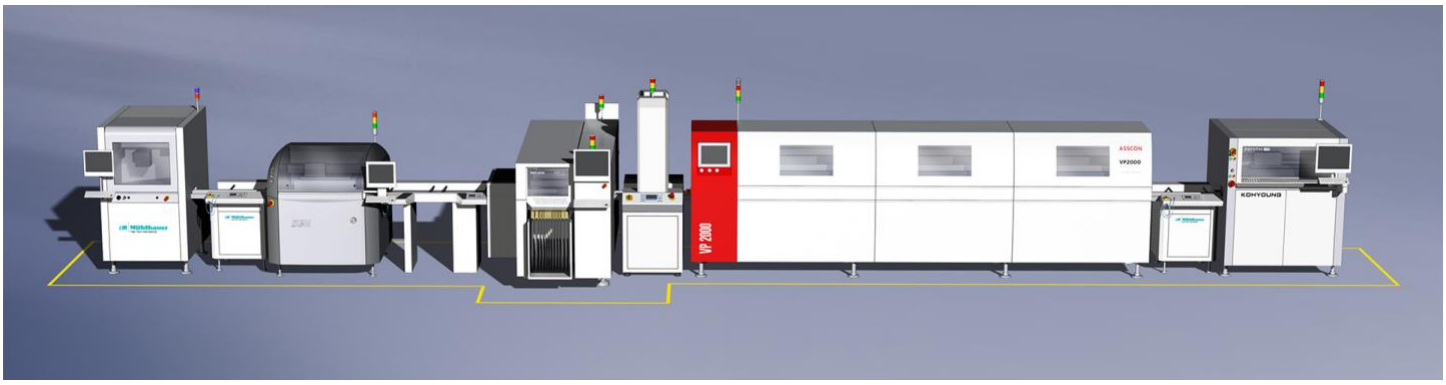
MANUFACTURING

This product carries a five-year commercial warranty. Refer to https://www.lumistrips.com/lumistrips-en-warranty for warranty terms.

We develop and manufacture LED modules and strips in Hechingen, Germany, drawing on more than 20 years of experience in LED technology.



Our capabilities cover rigid modules, flexible LED strips and custom assemblies, with support from development and prototyping through to series production.

CUSTOM DEVELOPMENT AND SUPPORT

- Custom options can include PCB dimensions, LED selection, optics and control electronics, subject to technical feasibility.
- Development support covers PCB layout, thermal design and system integration.
- Prototypes can be assembled and evaluated in our in-house lighting laboratory.
- Supply your optical targets, dimensions, supply and control requirements, operating environment and expected quantity when requesting a custom design.
- Technical enquiries: contactus@lumistrips.com | www.lumistrips.eu



Our manufacturing capabilities include surface-mount technology (SMT) assembly for rigid PCBs and reel-to-reel production for flexible LED substrates. The process is selected to suit the product design and production volume.

Production quality controls include:

- Laser marking for PCB identification and traceability
- Solder paste inspection before component placement
- Automated component placement
- Controlled reflow soldering
- Three-dimensional automated optical inspection

Manufacturing management systems: ISO 9001 for quality, ISO 14001 for environmental management and ISO 45001 for occupational health and safety. These certifications apply to the manufacturing centre; product approvals are listed separately in the technical data.

LED SELECTION AND PERFORMANCE

UV LED components are selected for each product's optical, electrical and thermal requirements. This SKU uses Nichia NCSU434B LEDs and is specified for 330 nm operation.

- Optical data: dominant or peak wavelength, radiant power and beam angle, where specified.
- Electrical data: supply type, operating current, voltage and power at the stated reference conditions.
- Thermal data: the case-temperature and ambient-temperature limits apply to the installed product.
- Performance values apply under the stated test conditions. Installed radiant output and lifetime depend on operating current, case temperature, cooling and the final system design.

ELECTRICAL CONNECTION AND CONTROL

CONNECTIONS OF THE UVC LED MODULE:

: [+] 48 V DC Power Supply Connection

: [-] GND Power Supply Connection

: [+] Motion Sensor DALI LS/PDD LI

: [-] Motion Sensor DALI LS/PDD LI

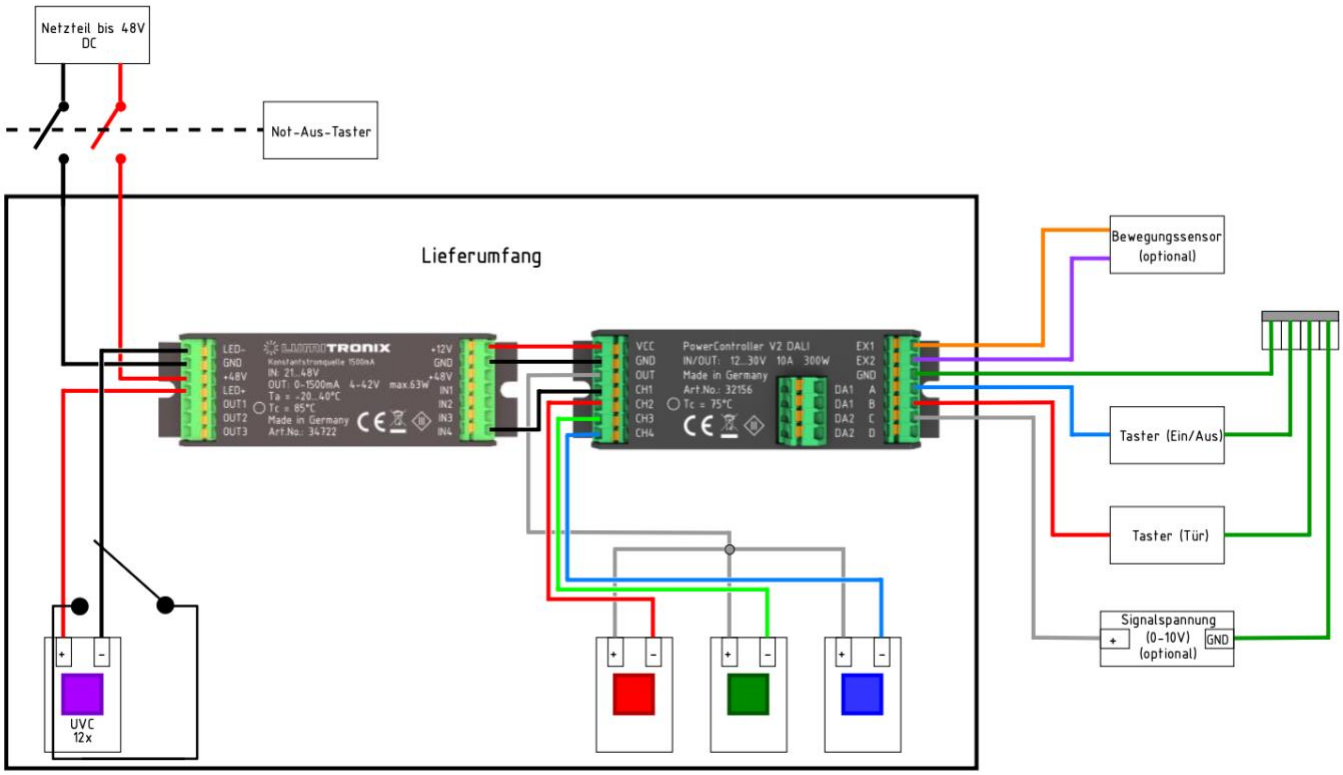
: GND

: Button (On/Off)

: Button (Door)

: Signal Voltage (0 – 10 V)

BLOCK DIAGRAM OF THE UVC LED MODULE:



This determines the status LED functionality:

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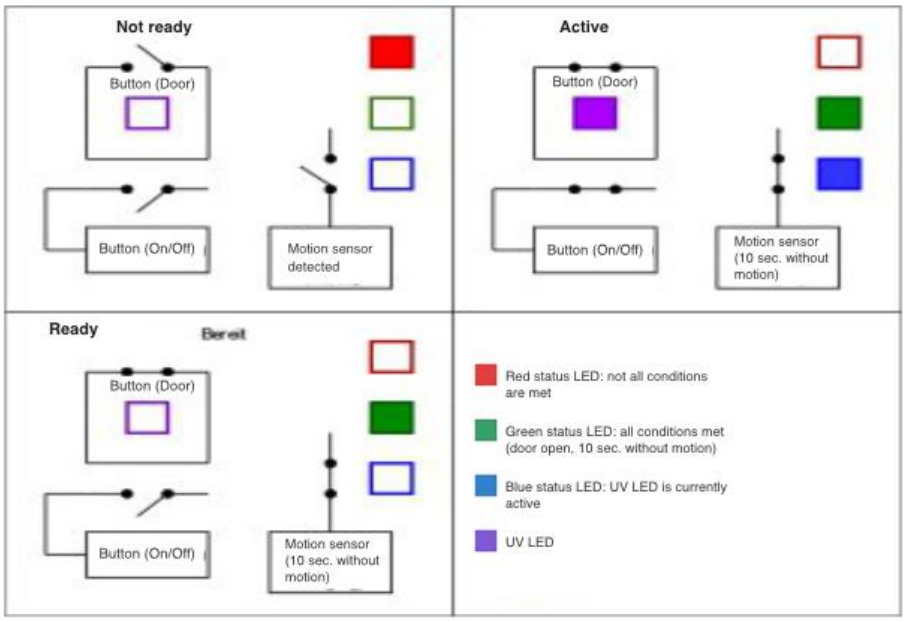

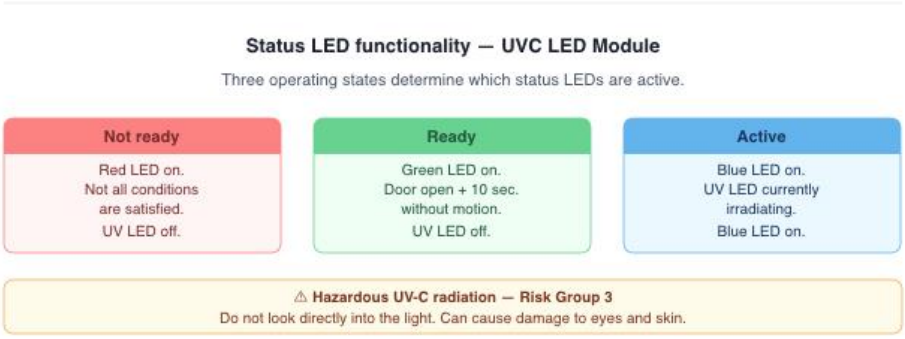

Note:

- Motion Sensor: OSRAM DALI LS/PDD LI
- Do not look directly into the light of the UVC LED module during operation. This can cause damage to the eyes or skin!
- Due to the special conditions in the manufacture of UVC LEDs, the specified values are statistical averages. Individual LEDs may deviate from these values.

Connect the Violet UV LED module only in accordance with the marked terminals and the control-system wiring. The UV LED string is operated from a constant-current driver. Observe polarity and all interlock connections.
The supplied English control scheme provides connections for a DC power supply, motion sensor, On/Off button, door input, signal voltage and status indication. Use the block diagram above as the wiring reference for the complete controlled system.

DRIVER SELECTION

This Violet UV LED module operates from a constant-current (CC) driver. Its reference operating point is 1050 mA (max. 1500 mA) at approximately 20 V and 21 W. Select a regulated driver whose output range accommodates the module over the intended operating conditions.

STATUS LED FUNCTIONALITY

The control system uses three status LEDs to indicate whether the UV source is permitted to operate.

Red: not ready - not all safety conditions are fulfilled. Green: ready - the interlock conditions are fulfilled. Blue: active - the UV LEDs are currently emitting. The motion sensor, door contact, emergency stop and other system interlocks must be validated as part of the complete application.

UV SAFETY

Do not look directly into the UV LED module during operation. Ultraviolet radiation can cause injury to eyes and skin. The complete product must provide the shielding, access control, interlocks, warning labels and procedures required for the intended wavelength and application.
Due to the special conditions involved in UV LED manufacture, specified optical values are statistical averages. Individual LEDs may deviate from these values.

STATUS AND SAFETY OVERVIEW

Refer to the SKU specifications and the control-system design for operating limits.

HANDLING, INSTALLATION AND UV SAFETY

Electrical isolation

Disconnect the supply before installation or wiring. Installation must be performed by an authorized electrician in accordance with applicable electrical and safety requirements.

Mechanical handling and ESD

Use electrostatic discharge (ESD) precautions. Handle the PCB by its edges; do not press on LEDs or other components. Avoid excessive bending, clamping forces and overtightened fixings. Do not damage conductive tracks.

Mounting and temperature

Support the PCB at the intended mounting points. Provide the heat dissipation required by the product and verify that case and ambient temperatures remain within the specified limits in the completed installation.

Storage and environment

Avoid contact with aggressive chemicals during storage and operation. The source documentation specifies a storage and operating humidity range of 10% to 60% for this UV module family.

Power supply protection

This module has no integrated overload, overtemperature or short-circuit protection. Use an electronically regulated driver or supply with these protective functions. Verify that the complete system remains within the module's electrical and thermal limits.

Checks before operation

Check polarity, driver settings, mounting, cooling and all safety interlocks before applying power. Confirm that no person can be exposed to hazardous UV radiation during operation.

DOCUMENT INFORMATION

ORDERING AND PRODUCT INFORMATION

www.ledrise.eu / www.lumistrips.com