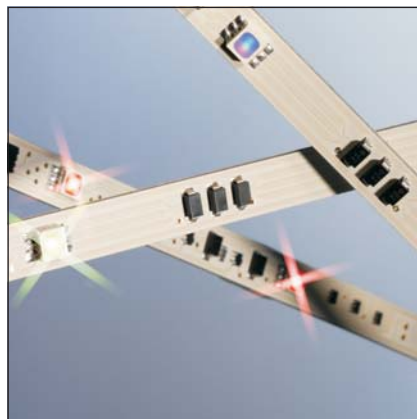




A New Lighting Experience



- simple colour mixing due to RGB functionality
- integrated RGB control
- simple control via push-button
- highly efficient SMD-RGB-LEDs

## LEDLine RGB Push

**WU-M-343-RGB (Master PCB)**  
**WU-M-344-RGB (Slave PCB)**

### Typical Applications

- Furniture lighting
- Shelf and display case accent lighting
- Border lighting
- Shop design
- Marking paths, stairs, etc.

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# LEDLine RGB Push

## Technical Characteristics

- WU-M-343: master PCB with  $\mu$ -controller and pre-assigned colour cycle
- WU-M-344: slave PCB, automatic synchronisation with the master PCB, Slave and master circuit boards are connected with a push terminal
- The solder pads provided on the master circuit board can be used to connect a push-button
- Module: L x W = 600x10 mm
- Max. 3 modules (1 x Master and 2 x Slave) connectable in rows, max. total length: 1.8 m
- 9 highly efficient SMD-RGB-LEDs per module
- LED-chips driven by constant current sources
- Voltage supply: 12 V DC

## Electrical Characteristics

at ambient temperature  $t_a = 25\text{ }^\circ\text{C}$

Type	Ref. No.	Colour	Number of LEDs	Current* mA	Voltage V	Power consumption* W
WU-M-343-RGB	<b>535749</b>	RGB	9	200	12	2.4
WU-M-344-RGB	<b>534454</b>	RGB	9	190	12	2.3

## Maximum Ratings

Exceeding the maximum ratings can lead to reduction of lifetime or destruction of the module.

Type	Voltage DC @ $t_a = 25\text{ }^\circ\text{C}$		Operation temperature at $t_c$ point		Storage temperature range		Reverse voltage/LED V
	V min.	V max.	$^\circ\text{C}$ min.	$^\circ\text{C}$ max.	$^\circ\text{C}$ min.	$^\circ\text{C}$ max.	
Alle Typen	11.6	13.2	-25	+70	-40	+85	5

## Optical Characteristics

at ambient temperature  $t_a = 25\text{ }^\circ\text{C}$

All data refer to a single module.

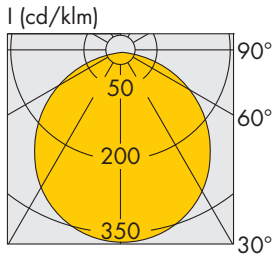
Type	Ref. No.	Colour	Typ. dom. wavelength* (nm)			Typ. luminous flux* (lm)			Radiation angle* $^\circ$
			red	green	blue	red	green	blue	
WU-M-343-RGB	<b>535749</b>	RGB	624	528	467	20	32	7.5	110
WU-M-344-RGB	<b>534454</b>	RGB	624	528	467	20	32	7.5	110

\* On account of the complex manufacturing process of the modules the above values only represent statistical variables.

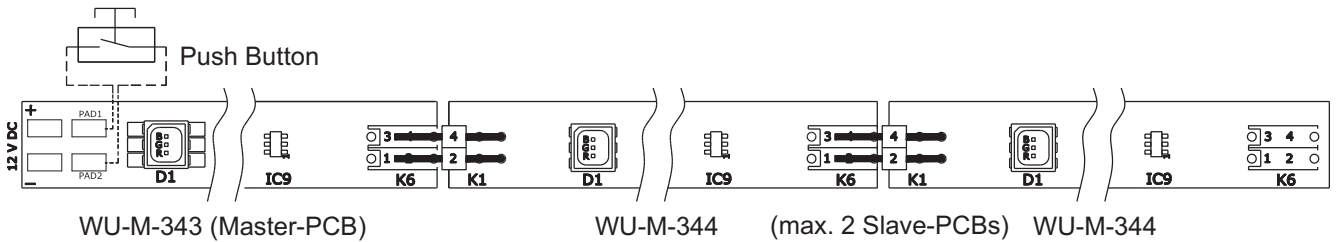
The values do not necessarily correspond exactly to the actual parameters of every single product which can vary from the typical specification.

# LEDLine RGB Push

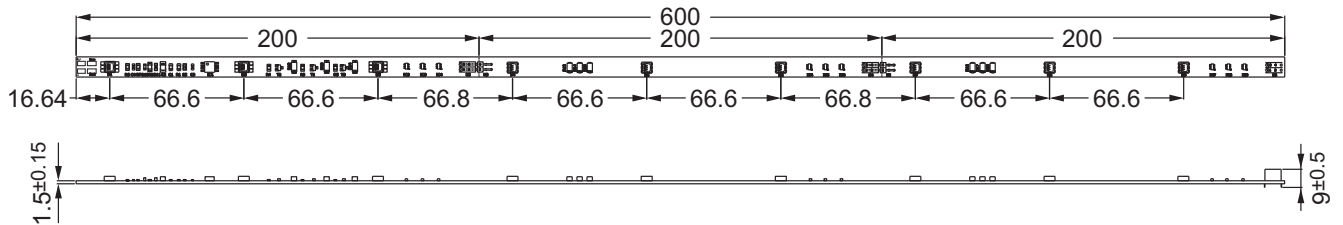
## Light Distribution Curve



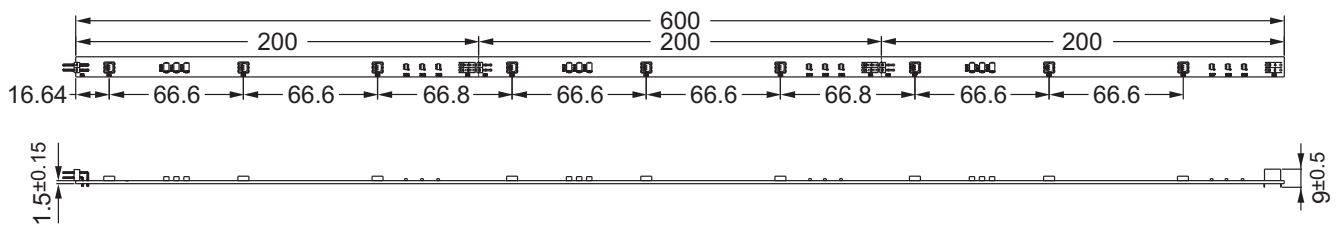
## Connecting Diagram



## Mechanical Dimensions



**WU-M-343-RGB**



**WU-M-344-RGB**

# LEDLine RGB Push

## Function Description

Upon connection to 12 V DC, the module runs through a brief self-test program and the three basic colours light up in sequence.

The following controller settings are then made automatically:

- the colour white is stored and
- the colour sequence is set to 40 seconds.

Push-button	Function
< 1 second	Starts the continuous lighting state of the last stored colour if the module is switched off
> 1 second	Starts the colour sequence; the order of the colours in the sequence contains the colours white, yellow, green, turquoise, blue, violet, red
> 1 < 4 seconds	Switches from continuous lighting to the colour sequence
< 1 second	Switches the module off from every program position and the current color is saved
> 4 seconds hold pressed	Controls the speed of the colour sequence: the module will start to blink. The blinking frequency of the LEDs signals the change in speed.
	Red blinking: decreasing blink frequency = lengthens the colour sequence
	Green blinking: increasing blink frequency = shortens the colour sequence
	The run time of the blink sequences is 20 seconds; 2 seconds are spent at the reversal point (red <-> green)
	The run-through speed can be set in eight steps from 10 seconds to 20 minutes. In combination with the blinking frequency, the following run-through times result: 10 seconds ▶ 15 Hz 20 seconds ▶ 13 Hz 40 seconds ▶ 11 Hz 80 seconds ▶ 9 Hz 160 seconds ▶ 7 Hz 320 seconds ▶ 5 Hz 640 seconds ▶ 3 Hz 1280 seconds ▶ 1 Hz

## Assembly and Safety Information

- An insulation layer has to be applied for prevention of short cuts when mounting on electrically conducting surfaces. Short cuts on the back side can destroy the modules. For safe installations Vossloh-Schwabe recommends to the VS installation clips (Ref. No. 50775).
- LED modules and all PCB components must not be subjected to undue mechanical stress:
  - LED modules must not be handled as bulk cargo
  - Shear and pressure stress must be avoided on the grouting material of LEDs during assembly and handling
- The circuit path must not be damaged or interrupted.
- LED modules are not protected against short-circuiting, overloading or overheating. The following 12 V DC VS converters are recommended: 186107 (30 W), 186112 (70 W, built-in), 186113 (70 W, independent) or 186114 (IP67).
- Please ensure standard ESD (electrostatic discharge) protection measures are employed when handling and installing LED modules. Electrostatic discharge can damage LEDs.

- The contacting is effected through the soldering of leads on the provided soldering pads:
  - Two soldering pads are provided for a 12 V connection. The + and – symbols must be observed (see connection diagram).
  - Two soldering pads are provided for connecting the key pad (see connection diagram).
 The soldering temperature must not exceed 260°C. The maximum soldering time is 10 seconds.
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- A maximum of three 600 mm modules may be connected to each other (a master circuit board and two slave circuit boards). The maximum combined module length that can be operated is therefore 1.8 m.
- The modules are not protected against dust or moisture. When LED modules are operated in unduly moist or dusty environments, care must be taken to ensure each module is built into a protective casing in compliance with the correct IP classification or provided with corrosion protection.

- Damage caused by moisture and/or corrosion will not be recognised as a material or manufacturing defect.
- The module operating temperature is not exceed the stipulated temperature at the  $t_c$  point (see maximum values).
- The LEDLine RGB Push is not available for the US market.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification. Please find further detailed information at [www.vs-optoelectronic.com](http://www.vs-optoelectronic.com).