

# RLS27 Rugged LED Strip Light



## Datasheet

This guide is designed to help you set up and install the RLS27 Rugged LED Strip Light. For complete information on programming, performance, troubleshooting, dimensions, and accessories, please refer to the Instruction Manual at [www.bannerengineering.com](http://www.bannerengineering.com). Search for p/n 225441 to view the Instruction Manual. Use of this document assumes familiarity with pertinent industry standards and practices.



**Important:** Read the following instructions before operating the light. Please download the complete RLS27 Rugged LED Strip Light technical documentation, available in multiple languages, from [www.bannerengineering.com](http://www.bannerengineering.com) for details on the proper use, applications, Warnings, and installation instructions of this device.



**Important:** Lea el siguiente instructivo antes de operar el luminario. Por favor descargue desde [www.bannerengineering.com](http://www.bannerengineering.com) toda la documentación técnica de los RLS27 Rugged LED Strip Light, disponibles en múltiples idiomas, para detalles del uso adecuado, aplicaciones, advertencias, y las instrucciones de instalación de estos dispositivos.



**Important:** Lisez les instructions suivantes avant d'utiliser le luminaire. Veuillez télécharger la documentation technique complète des RLS27 Rugged LED Strip Light sur notre site [www.bannerengineering.com](http://www.bannerengineering.com) pour les détails sur leur utilisation correcte, les applications, les notes de sécurité et les instructions de montage.

## Models

All models require a mating cordset.

Family	Cascadeable	Color	Lighted Length (mm)	Window	Construction	Control*	Connection
RLS27	X	W	1130	L35	S		QP
	X = Non-Cascadeable	W = Daylight White (5000K) WGRXX3- = White, Green, Red with Override Control WGRYB5- = White, Green, Red, Yellow, Blue with Binary Control	285 570 850 1130 1700 2270	Blank = Clear L35 = 35 degree lensed window	S = Sealed	Blank = High/Low/Off PWM = Pulse Width Modulation	QP = 150 mm (5.9 in.) PVC Cable with 4-pin M12 QD

\*Only available on single color models

## Wiring

Diagram	Wire	Single Color Models	Multicolor Models	Pinout (Male)	Pinout (Female)
	1 - Brown	12 V DC to 30 V DC	Input 1		
	2 - White	Not used	Input 3		
	3 - Blue	DC common	DC Common		
	4 - Black	Connect to 12 V DC to 30 V DC for 50% maximum intensity. For maximum intensity, leave the black wire floating or connected to common.	Input 2		

1 = Brown  
2 = White  
3 = Blue  
4 = Black

3 Color Override Control (Color 3 overrides Colors 1 and 2, Color 2 overrides Color 1)				5 Color Binary Control (Binary input state controls color)			
Input 1: Pin 1 Brown Wire	Input 2: Pin 4 Black Wire	Input 3: Pin 2 White Wire	LED Color	Input 1: Pin 1 Brown Wire	Input 2: Pin 4 Black Wire	Input 3: Pin 2 White Wire	LED Color
—	—	—	Light OFF	—	—	—	Light OFF
+24 V DC	—	—	Color 1 ON	+24 V DC	—	—	Color 1 ON
—	+24 V DC	—	Color 2 ON	—	+24 V DC	—	Color 2 ON
+24 V DC	+24 V DC	—	Color 2 ON	—	—	+24 V DC	Color 3 ON
—	—	+24 V DC	Color 3 ON	+24 V DC	+24 V DC	—	Color 4 ON
+24 V DC	—	+24 V DC	Color 3 ON	+24 V DC	—	+24 V DC	Color 5 ON
—	+24 V DC	+24 V DC	Color 3 ON	—	+24 V DC	+24 V DC	Light OFF
+24 V DC	+24 V DC	+24 V DC	Color 3 ON	+24 V DC	+24 V DC	+24 V DC	Light OFF



## Specifications

### Supply Voltage

**Single Color:** 12 V DC to 30 V DC

**Multicolor:** 24 V DC (+20% / -10%)

Use only with suitable Class 2 power supply (UL) or a SELV power supply (CE)

### Supply Current

**Single Color:**

Lighted Length (mm)	Max. Current Draw (A) at 10 V DC	Typical Current Draw (A)		
		12 V DC	24 V DC	30 V DC
285	0.8	0.66	0.30	0.24
570	1.6	1.36	0.61	0.48
850	2.4	2.13	0.92	0.73
1130	3.2	3.04	1.24	0.97
1700	4.0	3.78	1.55	1.22
2270	4.8	4.57	1.86	1.46

### Multicolor:

Lighted Length (mm)	Max. Current Draw (A) at 22 V DC	Typical Current Draw (A) at 24 V DC
285	0.315	0.4
570	0.630	0.8
850	0.945	1.2
1130	1.260	1.6
1700	1.575	2.0
2270	1.890	2.4

### Supply Protection Circuitry

Protected against reverse polarity and transient voltages

### Mounting

Bracket kit LMBHLS27S included

Optional bracket kits available

### Dimming and Control

**Single Color:** Pulse Width Modulation (PWM)

Frequency: Up to 1000 Hz

Voltage: 8 V DC to 30 V DC

Current: 4 mA max. per foot

**Multicolor:** On/off, no dimming

### LED Lifetime

Lumen Maintenance - L<sub>70</sub>

When operating within specifications, output will decrease less than 30% after 50,000 hours.

### Construction

Clear anodized aluminum housing

UV-stabilized polycarbonate outer housing with vent

Nickel-plated QD connector

### Connections

150 mm (6 in) PVC-jacketed cable with a 4-pin M12 male quick-disconnect connector



**Note:** Do not spray cable or vent with high-pressure sprayer or damage will result

### Environmental Rating

Rated IP67, IP69K per DIN 40050-9

### Vibration and Mechanical Shock

Impact: IK10 (IEC 60068-2-75)

Vibration: 10 Hz to 55 Hz, 1.0 mm peak-to-peak amplitude per IEC 60068-2-6 (5 minute sweep, 30 minute dwell)

Shock: 15G 11 ms duration, half sine wave per IEC 60068-2-27

### Operating Temperature

**Single Color:** -40 °C to +70 °C (-40 °F to +158 °F)

**Multicolor:** -40 °C to +50 °C (-40 °F to +122 °F)

**All models:** Light output begins to decrease above 50 °C (122 °F) and will be approximately 65% of max intensity at 60 °C (140 °F) and 30% of max intensity at 70 °C (158 °F)

### Storage Temperature

-40 °C to +70 °C (-40 °F to +158 °F)

### Required Overcurrent Protection



**WARNING:** Electrical connections must be made by qualified personnel in accordance with local and national electrical codes and regulations.

Overcurrent protection is required to be provided by end product application per the supplied table.

Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.

Supply wiring leads < 24 AWG shall not be spliced.

For additional product support, go to [www.bannerengineering.com](http://www.bannerengineering.com).

Supply Wiring (AWG)	Required Overcurrent Protection (Amps)
20	5.0
22	3.0
24	2.0
26	1.0
28	0.8
30	0.5

### Certifications and Approvals



**Banner Engineering BV** Park Lane,  
Culliganlaan 2F bus 3, 1831 Diegem,  
BELGIUM

**Turck Banner LTD** Blenheim House,  
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UL/cULus E338626

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For patent information, see [www.bannerengineering.com/patents](http://www.bannerengineering.com/patents).

## Mexican Importer

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