

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. Search for part number 225441 to view the Instruction Manual. Use of this document assumes familiarity with pertinent industry standards and practices.

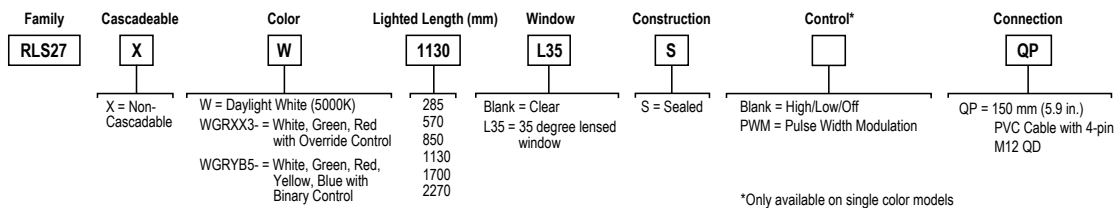
IMPORTANT: Read the following instructions before operating the light. Please download the complete RLS27 Rugged LED Strip Light technical documentation, available in multiple languages, from www.bannerengineering.com for details on the proper use, applications, Warnings, and installation instructions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

IMPORTANT: Lea el siguiente instructivo antes de operar el luminario. Por favor descargue desde www.bannerengineering.com 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 luminare. Veuillez télécharger la documentation technique complète des RLS27 Rugged LED Strip Light sur notre site 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.



Wiring

Diagram	Wire	Single Color Models	Multicolor Models	PWM Models	Pinout (Male)
	1 - Brown	12 V DC to 30 V DC	Input 1: 24 V DC	12 V DC to 30 V DC	<p>1 = Brown 2 = White 3 = Blue 4 = Black</p>
	2 - White	Not used	Input 3: 24 V DC	Not used	
	3 - Blue	DC common	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: 24 V DC	Pulse width modulation (PWM) input. For maximum intensity, leave the black wire floating or connected to common. Connecting to 12 V DC to 30 V DC causes the LEDs to shut off.	

Control for Multicolor Models: 3-Color Override Control (Color 3 overrides Colors 1 and 2, Color 2 overrides Color 1)

Input 1: Pin 1 Brown Wire	Input 2: Pin 4 Black Wire	Input 3: Pin 2 White Wire	LED Color
—	—	—	Light OFF
+24 V DC	—	—	Color 1 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	—	+24 V DC	Color 3 ON
—	+24 V DC	+24 V DC	Color 3 ON
+24 V DC	+24 V DC	+24 V DC	Color 3 ON

Control for Multicolor Models: 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
—	—	—	Light OFF
+24 V DC	—	—	Color 1 ON
—	+24 V DC	—	Color 2 ON
—	—	+24 V DC	Color 3 ON
+24 V DC	+24 V DC	—	Color 4 ON
+24 V DC	—	+24 V DC	Color 5 ON
—	+24 V DC	+24 V DC	Light OFF
+24 V DC	+24 V DC	+24 V DC	Light OFF

Specifications

Supply Voltage

Single Color, 285 mm to 1130 mm models: 12 V DC to 30 V DC

Single Color, 1700 mm and 2270 mm models: 24 V DC (+25% / -10%)

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

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

Supply Current

Single Color models:

Lighted Length (mm)	Max. Current Draw (A) at 12 V DC	Typical Current Draw (A)		
		12 V DC	24 V DC	30 V DC
285	0.8	0.66	0.3	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

Lighted Length (mm)	Max. Current Draw (A) at 24 V	Typical Current Draw (A) at 24 V DC
1700	2.4	1.86
2270	3.2	2.48

Multicolor models:

Lighted Length (mm)	Typical Current (A) at 25 °C ⁽¹⁾	Maximum Current (A) at -40 °C
285	0.315	0.4
570	0.63	0.8
850	0.945	1.2
1130	1.26	1.6
1700	1.89	2.4
2270	2.52	3.2

⁽¹⁾ Multicolor values shown at 25 °C. Current and lumen values decrease 0.4% per 1 °C from ambient. For example, an 1130 mm unit will have a maximum current of 1.6 A at -40 °C and 1.134 A at +50 °C.

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Mounting

Bracket kit LMBHLS27S included

Optional bracket kits available

Dimming and Control

Single Color, High/Low/Off models:

High Setting: 100% intensity
Low Setting: 50% intensity

Single Color, Pulse Width Modulation (PWM) models:

Frequency: Up to 1000 Hz
Voltage: 8 V DC to 30 V DC
Current: 4 mA max. per foot

Multicolor models: On/off. See the two Control for Multicolor Models tables in "Wiring" on page 1

LED Lifetime

Lumen Maintenance - L₇₀

When operating within specifications, output will decrease less than 30% after 70,000 hours.

Construction

Clear anodized aluminum housing

UV-stabilized polycarbonate outer housing with vent

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 models: -40 °C to +70 °C (-40 °F to +158 °F)

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)

Multicolor models:⁽¹⁾ -40 °C to +50 °C (-40 °F to +122 °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.

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

Certifications and Approvals



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1831 Diegem, BELGIUM



Turck Banner LTD Blenheim House
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Wickford, Essex SS11 8YT
GREAT BRITAIN



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For patent information, see www.bannerengineering.com/patents.

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