

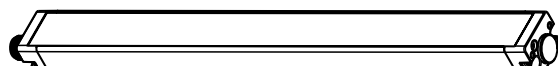
EZ-STATUS® WLS28-2 Multicolor LED Strip Light



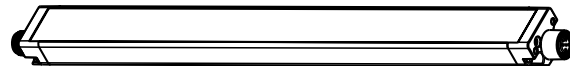
Datasheet

Banner's WLS28-2 Multicolor LED Strip Lights have sturdy aluminum housings, shatterproof windows, and environmental ratings that make it ideal for harsh indoor and outdoor applications.

- EZ-STATUS combines lighting and indication in one device to illuminate an area or machine, and show status change
- Models with 3 or 5 colors available, all with only 3 inputs
- Four available lengths from 285 mm to 1130 mm
- Daisy chain power to multiple lights



Stand-Alone Light or End Light in a Cascade



First or Middle of a Cascade

Available as stand-alone models, or as cascade models that can be daisy-chained together for a continuous length of lighting, with a minimum of wiring.

Stand-alone models have a male quick disconnect at one end for power connection and no connections at the opposite end. A stand-alone model may be used as the last model in the cascade series.

Cascade models have a male quick disconnect at one end for power connection, and a female quick disconnect at the opposite end for connecting to other lights in the cascade. A double-ended accessory cordset must be used between each pair of lights in a cascade.

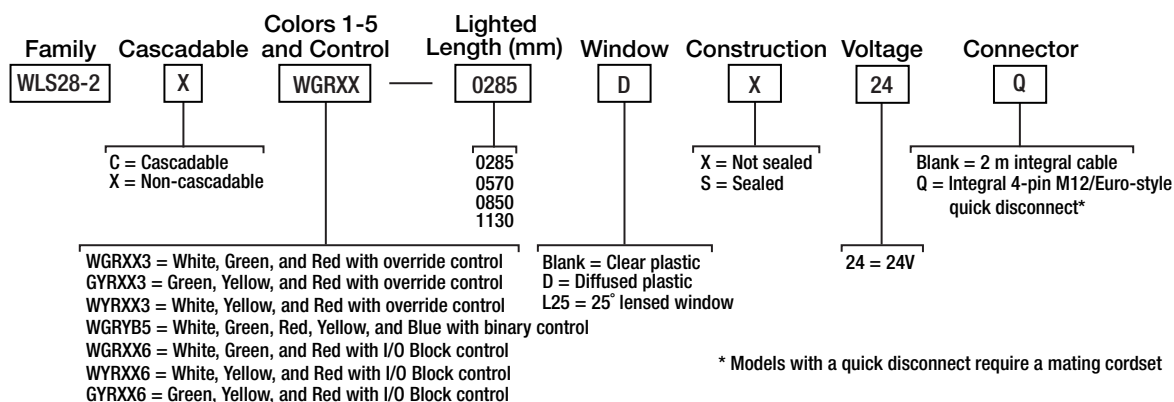


Important: Lea el siguiente instructivo antes de operar el luminario. Por favor descargue desde www.bannerengineering.com toda la documentación técnica de los EZ-STATUS® WLS28-2 Multicolor LED Strip Light, disponibles en múltiples idiomas, para detalles del uso adecuado, aplicaciones, advertencias, y las instrucciones de instalación de estos dispositivos.

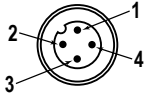
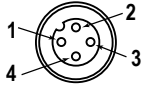


Important: Lisez les instructions suivantes avant d'utiliser le luminare. Veuillez télécharger la documentation technique complète des EZ-STATUS® WLS28-2 Multicolor LED Strip Light sur notre site www.bannerengineering.com pour les détails sur leur utilisation correcte, les applications, les notes de sécurité et les instructions de montage.

Models



Wiring Diagrams

| Male | Female | Pin | Wire Color | Description |
|---|---|-----|------------|-------------|
|  |  | 1 | Brown | Input 1 |
| | | 2 | White | Input 3 |
| | | 3 | Blue | dc common |
| | | 4 | Black | Input 2 |

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 |

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 |

3 Color I/O Block Control (Input 1 is always ON through the block)

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

Specifications

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Supply Voltage

24 V dc (+ 20% / - 10%)

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

See electrical characteristics on product label

| Lighted Length | Typical Current (A) at 25° C ¹ | Maximum Current (A) |
|----------------|---|---------------------|
| 285 mm | 0.315 | 0.400 |
| 570 mm | 0.630 | 0.800 |
| 850 mm | 0.945 | 1.200 |
| 1130 mm | 1.260 | 1.600 |

Leakage Current Immunity

400 µA

LED Lifetime

Lumen Maintenance - L₇₀

When operating within specifications, output decreases less than 30% after 50,000 hours

Mounting

2 SMBWLS28RA swivel brackets and 4 screws included

Connections

Integral 4-pin M12/Euro-style male quick disconnect

Construction

Clear anodized aluminum housing; painted zinc end caps; polycarbonate window on clear and diffuse plastic models; acrylic window on L25 models; zinc plated steel brackets

¹ Values shown at 25 °C - current and lumen values decrease 0.4% per 1 °C from ambient. For example, a 1130 mm unit will have a maximum current of 1.600 A at -40 °C and 1.134 A at +50 °C.

Light Characteristics

Daylight White Efficacy: 85 lumens/watt typical at 24 V dc at 25 °C (77 °F)
CRI: 80, minimum

| Color | Dominant Wavelength (nm) or Color Temperature | Lighted Length Lumens (Typical at 25 °C) ² | | | |
|----------------|---|---|--------|--------|---------|
| | | 285 mm | 570 mm | 850 mm | 1130 mm |
| Green | 525 nm | 400 | 800 | 1200 | 1600 |
| Red | 625 nm | 185 | 370 | 555 | 740 |
| Yellow | 580 nm | 570 | 1140 | 1710 | 2280 |
| Blue | 470 nm | 125 | 250 | 375 | 500 |
| Daylight White | 5000 K (±300 K) | 650 | 1300 | 1950 | 2600 |

Environmental Rating

Non-sealed models: IEC IP50

Sealed models: IEC IP65, IEC IP67, IP69K per DIN 40050-9

Vibration and Mechanical Shock

Vibration: 10 Hz to 55 Hz, 1.0 mm peak-to-peak amplitude per IEC 60068-2-6

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

Operating Temperature

-40 °C to +50 °C (-40 °F to +122 °F)

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

Application Notes

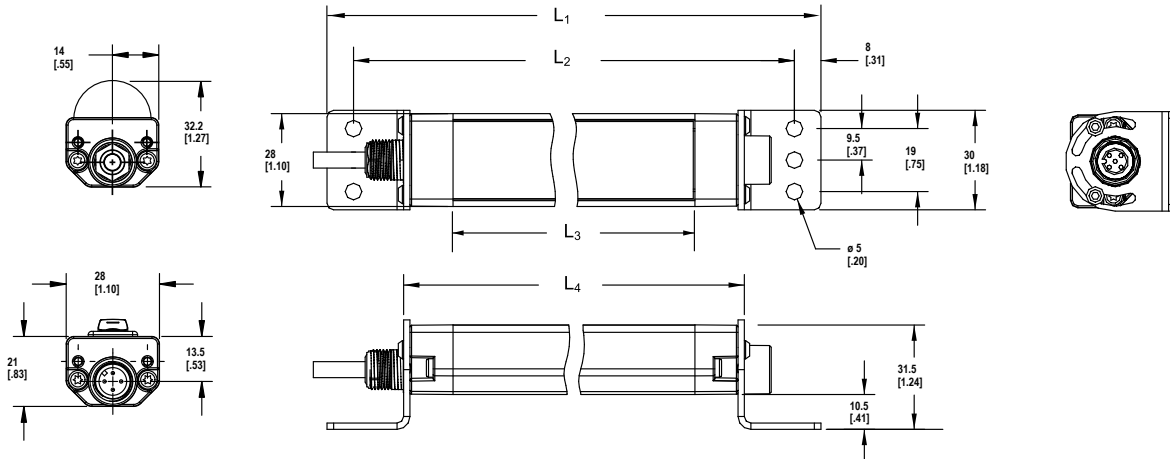
When connecting cascading lights in series it is important not to exceed maximum current limitations:

Maximum length of light at 24 V dc: 3.0 m (9.8 ft)

Do not spray cable with high-pressure sprayer, or cable damage will result

Certifications

Dimensions



Dimensions are shown with the included SMBWLS28RA brackets.

| IP50 Models | IP67/IP69K Models | L ₁ | L ₂ | L ₃ | L ₄ |
|----------------|-------------------|-------------------|-------------------|--------------------|-------------------|
| WLS28-2..0285 | WLS28-2..285S | 362 mm (14.3 in) | 346 mm (13.6 in) | 286 mm (11.26 in) | 316 mm (12.4 in) |
| WLS28-2..0570 | WLS28-2..570S | 644 mm (25.4 in) | 628 mm (24.7 in) | 568 mm (22.36 in) | 598 mm (23.5 in) |
| WLS28-2..0850 | WLS28-2..850S | 926 mm (36.5 in) | 910 mm (35.8 in) | 850 mm (33.46 in) | 880 mm (34.6 in) |
| WLS28-2..1130X | WLS28-2..1130S | 1208 mm (47.6 in) | 1192 mm (46.9 in) | 1132 mm (44.57 in) | 1162 mm (45.7 in) |

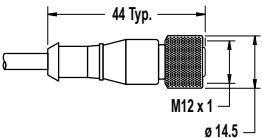
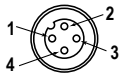
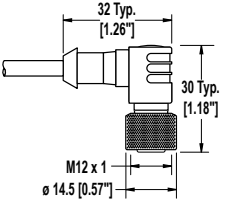
All measurements are listed in millimeters [inches], unless noted otherwise.

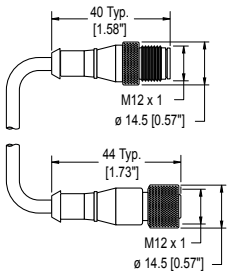
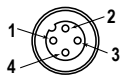
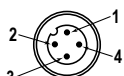
Accessories

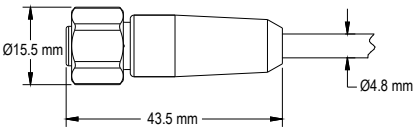

Cordsets

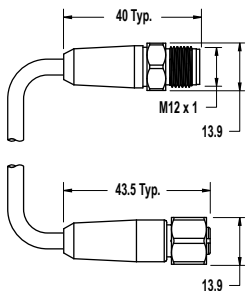
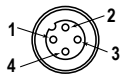
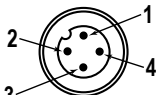
Use single-ended cordsets between the power source and the quick disconnect connection of a stand-alone light or the first light in a cascade. Use double-ended cordsets between lights in a cascade.

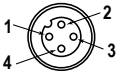
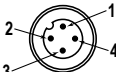
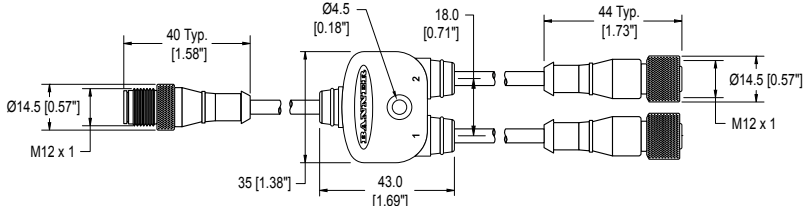
² Values shown at 25 °C - current and lumen values decrease 0.4% per 1 °C from ambient. For example, a 1130 mm unit will have a maximum current of 1.600 A at -40 °C and 1.134 A at +50 °C.

| 4-Pin Threaded M12/Euro-Style Cordsets—Single Ended | | | | |
|---|----------------|-------------|--|---|
| Model | Length | Style | Dimensions | Pinout (Female) |
| MQDC-406 | 1.83 m (6 ft) | Straight |  |  |
| MQDC-415 | 4.57 m (15 ft) | | | |
| MQDC-430 | 9.14 m (30 ft) | | | |
| MQDC-450 | 15.2 m (50 ft) | Right-Angle |  | <p>1 = Brown 2 = White 3 = Blue 4 = Black</p> |
| MQDC-406RA | 1.83 m (6 ft) | | | |
| MQDC-415RA | 4.57 m (15 ft) | | | |
| MQDC-430RA | 9.14 m (30 ft) | | | |
| MQDC-450RA | 15.2 m (50 ft) | | | |

| 4-Pin Threaded M12/Euro-Style Cordsets—Double Ended | | | | |
|---|----------------|-----------------------------------|---|---|
| Model | Length | Style | Dimensions | Pinout |
| MQDEC-401SS | 0.31 m (1 ft) | Male Straight/ Female Straight |  | Female |
| MQDEC-403SS | 0.91 m (3 ft) | | |  |
| MQDEC-406SS | 1.83 m (6 ft) | | | Male |
| MQDEC-412SS | 3.66 m (12 ft) | | |  |
| MQDEC-420SS | 6.10 m (20 ft) | | | <p>1 = Brown 2 = White 3 = Blue 4 = Black</p> |
| MQDEC-430SS | 9.14 m (30 ft) | | | |
| MQDEC-450SS | 15.2 m (50 ft) | | | |

| 4-Pin Threaded M12/Euro-Style Cordsets—Washdown, Stainless Steel, Single Ended | | | | |
|--|----------------|----------|--|---|
| Model | Length | Style | Dimensions | Pinout (Female) |
| MQDC-WDSS-0406 | 1.83 m (6 ft) | Straight |  |  |
| MQDC-WDSS-0415 | 4.57 m (15 ft) | | | |
| MQDC-WDSS-0430 | 9.14 m (30 ft) | | | |

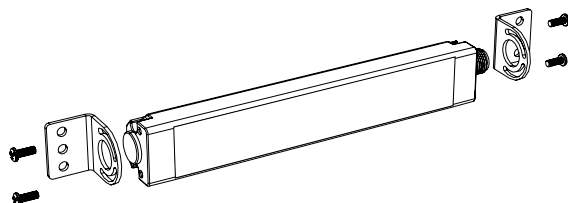
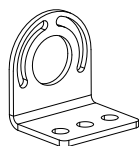
| 4-Pin Threaded M12/Euro-Style Cordsets—Double Ended, Washdown, Stainless Steel | | | | |
|--|----------------|-----------------------------------|--|---|
| Model | Length | Style | Dimensions | Pinout |
| MQDEC-WDSS-401SS | 0.3 m (1 ft) | Male Straight/ Female Straight |  | Female |
| MQDEC-WDSS-403SS | 0.91 m (3 ft) | | |  |
| MQDEC-WDSS-406SS | 1.83 m (6 ft) | | | Male |
| MQDEC-WDSS-412SS | 3.66 m (12 ft) | | |  <p>1 = Brown 2 = White 3 = Blue 4 = Black</p> |

| 4-Pin Threaded M12/Euro-Style Splitter Cordsets—Flat Junction | | | |
|---|-------------------|-----------------------------|---|
| Model | Branches (Female) | Trunk (Male) | Pinout |
| CSB-M1240M1240 | No branch | No trunk | <div>Female</div> <div></div> <div>Male</div> <div></div> <div>1 = Brown 2 = White 3 = Blue 4 = Black</div> |
| CSB-M1240M1241 | 2 x 0.30 m (1 ft) | No trunk | |
| CSB-M1241M1241 | | 0.30 m (1 ft) | |
| CSB-M1248M1241 | | 2.50 m (8 ft) | |
| CSB-M12415M1241 | | 4.57 m (15 ft) | |
| CSB-M12425M1241 | | 7.60 m (25 ft) | |
| CSB-UNT425M1241 | | 7.60 m (25 ft) Unterminated | |
| <div></div> | | | |

Brackets

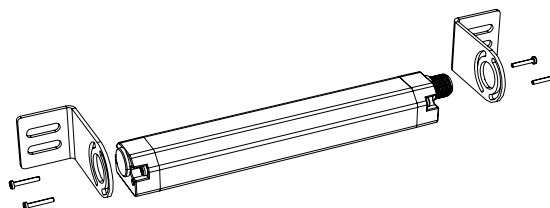
SMBWLS28RA

The bracket kit is available as a replacement for the one that comes with the light or switch. The kit contains two end brackets and four screws.



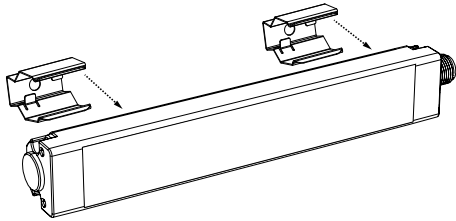
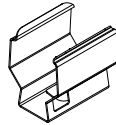
SMBWLS28SM

This kit allows the light or switch to be mounted at a right angle to the mounting surface. The kit contains two end brackets and four screws.



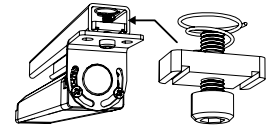
SMBWLS28SP

- Stainless steel snap bracket kit
- Includes two brackets

**SMH1316**

This kit allows the light or switch to be mounted to a 13/16-inch Unistrut channel. Light is shown. The kit includes:

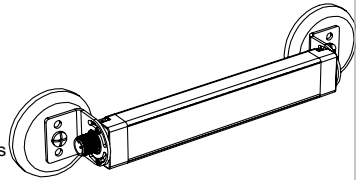
- #10-32 spring nuts (qty 2)
- #10-32 socket head cap screws (qty 2)
- #10 lock washers (qty 2)

**SMBWLSMAG**

Magnetic mounting bracket for easy attachment to steel surfaces

SMBWLSMAGR

Protective cover also available to prevent scratches to painted surfaces



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

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more sensors, more solutions