Versatile LED Strip Lights

- Compact design with countless options for intensity control, colors, connections, windows, lengths and motion detection
- Single-, dual-, or multicolored models for custom illumination, indication and more
- Ideal for use in indoor, outdoor, machine, assembly, washdown and other environments

WLS28-2
Versatile, All-Purpose LED Strip Lights

Compact, space-saving design available in eight lengths from 145 to 1130 mm

Optional switch for local intensity or color control

IP69K sealed model options available

Lensed models or choice of clear or diffuse window

Integral High/Low/Off switch; also available as standalone accessory

Integral Motion Detection; also available as standalone accessory

Cascade models for connecting multiple lights end-to-end, minimizing wiring
Banner’s Complete Lineup of Industrial LED Lighting

Robust, vibration-resistant housings and sleek designs make Banner Engineering’s LED lighting ideal for a wide range of industrial applications, including machine lighting, enclosure lighting, visual inspection illumination and work cell lighting.
Single-Color

- Options for intensity control, colors, connections, windows, lengths and motion detection give full solution flexibility
- Low overall power consumption plus intensity control reduce energy expenses
- Bracket and snap clip options simplify installation and allow fast repositioning
- UV 365 nm and 395 nm wavelength models available for UV fluorescent and non-fluorescent applications

### Single-Color

<table>
<thead>
<tr>
<th>Family</th>
<th>Cascadable</th>
<th>LED Color</th>
<th>Lighted Length (mm)</th>
<th>Window</th>
<th>Construction</th>
<th>Control</th>
<th>Connector</th>
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<tbody>
<tr>
<td>WLS28-2</td>
<td>C</td>
<td>W</td>
<td>145</td>
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<td>X</td>
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<td>1130</td>
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</tbody>
</table>

**Window**
- Blank = Clear Plastic
- Diffused Plastic

**Lighted Length (mm)**
- L25 = 25° Lensed Window

**Construction**
- S = Sealed
- X = Not Sealed

**Control**
- Blank = None
- M = Motion Switch
- PB = Hi/Lo/OFF Switch
- PWM = Pulse width Modulation Dimming

**Connector**
- Blank = 2 m Integral Cable
- Q = Integral Euro QD

*Sealed models not available with ON/OFF Switch (PB) or Motion Switch (M)

### UV Models

<table>
<thead>
<tr>
<th>Family</th>
<th>Cascadable</th>
<th>Wavelength</th>
<th>Lighted Length (mm)</th>
<th>Window</th>
<th>Construction</th>
<th>Control</th>
<th>Connector</th>
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</tbody>
</table>

**Window**
- Blank = Clear Acrylic (UV395 models)
- G = Clear Glass (UV365 models)

**Lighted Length (mm)**
- L25 = 25° Lensed Window (UV395 models)

**Construction**
- S = Sealed
- X = Not Sealed

**Control**
- Blank = None
- M = Motion Switch
- PB = Hi/Lo/OFF Switch
- PWM = Pulse width Modulation Dimming

**Connector**
- Blank = 2 m Integral Cable
- Q = Integral Euro QD

*Not available in UV365 models
*Sealed models not available with ON/OFF Switch (PB)

<table>
<thead>
<tr>
<th>Length (mm)</th>
<th>Cool &amp; Warm White</th>
<th>Green</th>
<th>Red</th>
<th>Yellow</th>
<th>Blue</th>
<th>Typical Wattage* (Watts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>145</td>
<td>400</td>
<td>180</td>
<td>55</td>
<td>50</td>
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<td>150</td>
<td>120</td>
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<td>330</td>
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<td>1260</td>
<td>395</td>
<td>350</td>
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<tr>
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<td>3200</td>
<td>1440</td>
<td>440</td>
<td>400</td>
<td>320</td>
<td>30</td>
</tr>
</tbody>
</table>

*Typical operating wattage is measured at 24 V dc
### Dual-Color

- Dual color models expand solution capabilities within the same compact housing and no additional wiring or controls required.
- Direct or remote color control options allow for manual or automatic control.
- Intensity can be customized for each color to provide application flexibility and maintain simple installation.

<table>
<thead>
<tr>
<th>Lighted Length (mm)</th>
<th>Lumens* (Typical @ 25 °C)</th>
<th>Typical Wattage** (Watts)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cool &amp; Warm White</td>
<td>Green</td>
</tr>
<tr>
<td>145</td>
<td>400</td>
<td>180</td>
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<td>2800</td>
<td>1260</td>
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<tr>
<td>1130</td>
<td>3200</td>
<td>1440</td>
</tr>
</tbody>
</table>

*Typical operating wattage is measured at 24 V dc.
### Multicolor with EZ-STATUS™

- Three and five color models cover all standard indication states with only four wires to connect
- Combine illumination and multiple indication capabilities in a single device to simplify installation and improve ergonomics
- EZ-STATUS™ promotes faster response to status changes and reduces the risk of costly mistakes and accidents

### Colors 1-5 and Control

<table>
<thead>
<tr>
<th>Family</th>
<th>Cascadable</th>
<th>Colors 1-5 and Control</th>
<th>Lighted Length (mm)</th>
<th>Window</th>
<th>Construction</th>
<th>Voltage</th>
<th>Connector</th>
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</thead>
<tbody>
<tr>
<td>WLS28-2</td>
<td>X</td>
<td>WGRXX3</td>
<td>0285</td>
<td>0285</td>
<td>X</td>
<td>24 24V</td>
<td>Q</td>
</tr>
</tbody>
</table>

- **WGRXX3** = White, Green, and Red with override control
- **WYRXS3** = White, Yellow, and Red with override control
- **GYRXX3** = Green, Yellow, and Red with override control
- **WGRYBS** = White, Green, Red, Yellow, and Blue with binary control
- **WGRXX6** = White, Green, Red and I/O Block control
- **WYRXS6** = White, Yellow, and Red with I/O Block control
- **GYRXS6** = Green, Yellow, and Red with I/O Block control

### Lumens (Typical @ 25 °C)

<table>
<thead>
<tr>
<th>Length (mm)</th>
<th>Daylight</th>
<th>White</th>
<th>Green</th>
<th>Red</th>
<th>Yellow</th>
<th>Blue</th>
<th>Typical Wattage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>285</td>
<td>850</td>
<td>570</td>
<td>1300</td>
<td>250</td>
<td>1450</td>
<td>370</td>
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<td>570</td>
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<td>1200</td>
<td>555</td>
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<td>2280</td>
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<td>30</td>
</tr>
</tbody>
</table>

*Typical operating wattage is measured at 24 V dc

<table>
<thead>
<tr>
<th>Connector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td>Blank = 2 m integral cable Q = Integral 4-pin M12/Euro-style quick disconnect</td>
</tr>
</tbody>
</table>

**Legend:**
- **C** = Cascadable
- **X** = Non-Cascadable
- **D** = Diffused Plastic
- **S** = Sealed
- **L25** = 25° Lensed Window
- **QD** = not available
Challenge
- Collaborative robots and operators must improve the production speed at an assembly cell
- Robots and operators need clear, non-verbal communication that doesn’t obstruct the work area or interfere with the inspection system

Solutions
- WLS28 EZ-STATUS™ models with the L25 lens option illuminate the floor area to guide operators to the correct assembly step
- A single light can display three or five colors, expanding signaling opportunities beyond simple ON/OFF logic
- The bright light from a slim housing doesn’t obstruct the work area or disrupt the vision systems
WLS28 LED Strip Lights

Supply Voltage
Single- or Dual-color: 12 to 30 V dc
Multicolor: 24 V dc

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

Operating/Storage Temperature
Models without motion detection: -40 to +70 °C (-40 to +158 °F)
Models with motion detection: -20 to +60 °C (-4 to +140 °F)

Environmental Rating
Non-sealed models: IEC IP50
Sealed models: IEC IP65, IEC IP67, IEC IP69K per DIN 40050

Vibration and Mechanical Shock
Vibration 10-55 Hz 1.0 mm p-p amplitude per IEC 60068-2-6
Shock 15G 11 ms duration, half sine wave per IEC 60068-2-27

Certifications

Accessories

Top Mount
- SMBWLS28RA (included with light)

Side Mount
- SMBWLS28SM

Magnetic Mount
- Shown with SMBWLS28RA

Snap Mount
- SMBWLS28SP

Showed with SMBWLS28RA Snap Mount
- Protective cover for magnet sold separately

PSD-24-4 Class 2 Power Supply
- Input: 90-264 V ac 1.5A
- Output: 24 V dc 3.9A
- 2 m (6.5’) 4-Pin Euro Connector

4-Pin M12/Euro-Style
- MQDC-406 2 m (6.5’)
- MQDC-415 5 m (15’)
- MQDC-430 9 m (30’)

4-Pin M12/Euro-Style Splitter
- MQDEC-401SS 0.3 m (1’)
- MQDEC-403SS 1 m (3’)
- MQDEC-406SS 2 m (6.5’)

4-Pin M12/Euro-Style Double-Ended (straight male/straight female connectors)
- Cut length

4-Pin M12/Euro-Style
- CSB-M1241M1241 0.3 m (1’) male trunk;
- 2 x 0.3 m (1’) female branches

- 2 m (6.5’) 4-Pin Euro Connector

WLS28-2MQ In-Line Motion Detection Switch with M12 Connectors

WLS28-2PBQ In-Line Switch with M12 Connectors

More Sensors, More Solutions