### WLB32 LED Light Bar

<table>
<thead>
<tr>
<th>Family</th>
<th>Voltage</th>
<th>Cascadable</th>
<th>Lighted Length (mm)</th>
<th>Window</th>
<th>Control</th>
<th>Connector</th>
<th>Plug Type (AC Models)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLB32</td>
<td>Z</td>
<td>C</td>
<td>285</td>
<td></td>
<td>PB</td>
<td>QM</td>
<td>B</td>
</tr>
</tbody>
</table>

- Z = AC
- C = Cascadable
- Blank = Standard Diffuse
- PB = Hi/Lo
- QM = AC
- B = North & Central America, Japan, Taiwan
- D = India, Sri Lanka, Nepal, Namibia
- EF = France, Belgium, Slovakia, Tunisia, Germany, Austria, Netherlands, Spain, S. Korea
- G = UK, Ireland, Cyprus, Malta, Malaysia, Singapore, Hong Kong, Vietnam
- I = Australia, New Zealand, Papua New Guinea, Argentina, China
- N = Brazil, South Africa

### WLB92 Industrial Light Bar

#### AC Conduit Models

<table>
<thead>
<tr>
<th>Family</th>
<th>Voltage</th>
<th>Cascadable</th>
<th>Color</th>
<th>Lighted Length (mm)</th>
<th>Control</th>
<th>Connector</th>
<th>Plug Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLB92</td>
<td>Z</td>
<td>C</td>
<td></td>
<td>550</td>
<td>A</td>
<td>CT</td>
<td>B</td>
</tr>
</tbody>
</table>

- Z = AC
- C = Cascadable
- WW = Warm White
- PB = Switch, Dimming Knob
- CT = Conduit Entry
- CT = B: N. & C. America, Japan, Taiwan, D: India, Sri Lanka, Nepal, Namibia
- G: Mainland EU & S. Korea
- I: Australia, New Zealand, Papua New Guinea, Argentina, China
- N: Brazil, South Africa

#### AC Quick-Disconnect Models

<table>
<thead>
<tr>
<th>Family</th>
<th>Voltage</th>
<th>Cascadable</th>
<th>Color</th>
<th>Lighted Length (mm)</th>
<th>Control</th>
<th>Connector</th>
<th>Plug Type (1.8 m Cable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLB92</td>
<td>Z</td>
<td>C</td>
<td></td>
<td>550</td>
<td>PB</td>
<td>QM</td>
<td>B</td>
</tr>
</tbody>
</table>

- Z = AC
- C = Cascadable
- WW = Warm White
- PB = Switch, Dimming Knob
- QM = AC
- B = N. & C. America, Japan, Taiwan, D = India

#### DC Models

<table>
<thead>
<tr>
<th>Family</th>
<th>Cascadable</th>
<th>Color</th>
<th>Lighted Length (mm)</th>
<th>Control</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLB92</td>
<td>X</td>
<td></td>
<td>550</td>
<td>PB</td>
<td>Q</td>
</tr>
</tbody>
</table>

- X = Non-Cascadable
- WW = Warm White
- PB = Switch, Dimming Knob
- Q = Integral 4-pin M12 QD

**LED Dimming Controller**

LC65P1T
WLS27 LED Strip Lights

Non-sealed models: IP50
Sealed models: IP67, IP69K

Family | Cascadable | LED Colour | Lighted Length (mm) | Window | Construction | Control | Connector
--- | --- | --- | --- | --- | --- | --- | ---
WLS27 | C | W | 145 | D | S | PWM | Q

C = Cascadable
X = Non-Cascadable

- W = Cool White*
- WW = Warm White
- R = Red
- G = Green
- B = Blue
- Y = Yellow

145 = 710
265 = 850
430 = 990
570 = 1130

Blank = None
PWM* = Dimmable via Pulse Width Modulation
* Only for cool white models

WLS28-2 LED Strip Lights

Family | Cascadable | LED Colour | Lighted Length (mm) | Window | Construction | Control | Connector
--- | --- | --- | --- | --- | --- | --- | ---
WLS28-2 | C | W | 145 | D | X | PB | Q

C = Cascadable
X = Non-Cascadable

- W = Cool White (2)
- WW = Warm White
- R = Red
- G = Green
- B = Blue
- Y = Yellow

145 = 710
285 = 850
430 = 990
570 = 1130

Blank = Clear Plastic
D = Diffused Plastic
L25 = 25° Lensed Window

S = Sealed (3)
X = Not Sealed

Blank = None
M = Motion Switch
PB (3) = Hi/Low/OFF
PWM (2) = Dimmable via Pulse Width Modulation
* Only for cool white models

WLS28-2 Dual-Colour LED Strip Lights

Family | Cascadable | Colours (C) / Density (D) | Lighted Length (mm) | Window | Construction | Control | Connector
--- | --- | --- | --- | --- | --- | --- | ---
WLS28-2 | X | W | 285 | D | X | PB | Q

C = Cascadable
X = Non-Cascadable

- W = Daylight White
- B = Blue
- R = Red
- Y = Yellow
- G = Green

145 = 285
285 = 430
430 = 570
570 = 710
850 = 990
1130 = 1130

Blank = Clear Plastic
D = Diffused Plastic
L25 = 25° Lensed Window

S = Sealed*
X = Not Sealed

Blank = None
PB* = Colour 1/OFF/Colour 2

* Sealed models not available with ON/OFF Switch

(1) UV models also available, contact factory for more information

(2) Only for cool white models

(3) Sealed models not available with ON/OFF Switch

Blank = None
PB* = Colour 1/OFF/Colour 2

* Sealed models not available with ON/OFF Switch

Blank = 2 m Integral Cable
Q = Integral M12 QD

* Sealed models not available with ON/OFF Switch

Blank = None
PB* = Colour 1/OFF/Colour 2

* Sealed models not available with ON/OFF Switch

Blank = 2 m Integral Cable
Q = Integral M12 QD

* Sealed models not available with ON/OFF Switch
WLC60 Heavy-Duty LED Lights

WLC60 LED Light – Dimmable Models

WLC60 LED Light – Stainless Steel Models

WLC90 Heavy-Duty LED Lights
WLA LED Area Lights

Standard Models

<table>
<thead>
<tr>
<th>Family</th>
<th>LED Colour</th>
<th>Array Size (mm)</th>
<th>Window</th>
<th>Lensing</th>
<th>Control</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLA</td>
<td>W</td>
<td>105X180</td>
<td></td>
<td>Blank</td>
<td>PWM</td>
<td>Q</td>
</tr>
</tbody>
</table>

- **W = Cool White**
- **WW = Warm White**
- **R = Red**
- **G = Green**
- **B = Blue**
- **Y = Yellow**

**Lensing**
- **Blank = Clear Plastic**
- **D = Diffused Plastic**

**Control**
- **Blank = None**
- **PWM* = Dimmable via Pulse Width Modulation**
  - Only for cool white models

**Connector**
- **Blank = 2 m Integral Cable**
- **Q = Integral M12 QD**

Encapsulated Models

<table>
<thead>
<tr>
<th>Family</th>
<th>LED Colour</th>
<th>Array Size (mm)</th>
<th>Window</th>
<th>Control</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLA</td>
<td>W</td>
<td>105X180</td>
<td></td>
<td>E</td>
<td>PWM</td>
</tr>
</tbody>
</table>

**Window**
- **Blank = No Lenses**
- **E = Encapsulated in Polyurethane**

**Control**
- **Blank = None**
- **PWM = Dimmable via Pulse Width Modulation**
  - Only for white models

**Connector**
- **Blank = 2 m Integral Cable**
- **Q = Integral M12 QD**

WL50S LED Spot Lights

Black Anodized Aluminium Models

<table>
<thead>
<tr>
<th>Family</th>
<th>LED Colour</th>
<th>Lens Angle</th>
<th>Control</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>WL50S</td>
<td>W</td>
<td>L5 = ±5° (small)</td>
<td>L11 = ±11° (large)</td>
<td>Blank = None</td>
</tr>
</tbody>
</table>

**Window Material**
- **Blank = Acrylic**
- **G = Glass**

**Control**
- **Blank = None**
- **PWM = Dimmable via Pulse Width Modulation**
  - Only for white models

**Connector**
- **Blank = 2 m Integral Cable**
- **Q = Integral M12 QD**

Stainless Steel Models

<table>
<thead>
<tr>
<th>Family</th>
<th>LED Colour</th>
<th>Housing</th>
<th>Window Material</th>
<th>Lens Angle</th>
<th>Control</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>WL50S</td>
<td>W</td>
<td>SS</td>
<td>Blank = Acrylic</td>
<td>L5 = ±5° (small)</td>
<td>L11 = ±11° (large)</td>
<td>Blank = 2 m Integral Cable</td>
</tr>
</tbody>
</table>

**Window Material**
- **Blank = Acrylic**
- **G = Glass**

**Control**
- **Blank = None**
- **PWM = Dimmable via Pulse Width Modulation**
  - Only for white models

**Connector**
- **Q = Integral M12 QD**
WL50-2 LED Work Lights

Flex Arm

<table>
<thead>
<tr>
<th>Models</th>
<th>Base Connection</th>
<th>Light Connection</th>
<th>Brackets</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLX18-1212</td>
<td>1/2-14 NPSM</td>
<td>1/2-14 NPSM (Male)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use with: WL50, WL50PB, WL50-2,</td>
<td>SMB22A, SMBFLXMAP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WL50-2PB</td>
<td>LMBE12RA</td>
</tr>
<tr>
<td>FLX18-F12</td>
<td>3-Hole Flange</td>
<td></td>
<td>Direct Mount</td>
</tr>
<tr>
<td>FLX18-12M30</td>
<td>1/2-14 NPSM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use with: WL50, WL50PB, WL50-2,</td>
<td>SMB22A, SMBFLXMAP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WL50-2PB, WL50S</td>
<td>LMBE12RA</td>
</tr>
<tr>
<td>FLX18-DM30</td>
<td>2 x 1/4-20W, 1.375 spacing</td>
<td>M30 x 1.5 (Female)</td>
<td>SMBFLXCLAMPD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use with: WL50, WL50PB, WL50-2,</td>
<td>SMBFLXMAPD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WL50-2PB, WL50S</td>
<td>LMBE12RA</td>
</tr>
<tr>
<td>FLX18-FM30</td>
<td>3-Hole Flange</td>
<td></td>
<td>Direct Mount</td>
</tr>
</tbody>
</table>
Vision Lights

Linear Array Lights
Linear Array Lights effectively illuminate large areas over long distances while cutting through dust, mist and grime.

LED Area Lights
Area Lights provide even illumination with high-intensity lights for the highest levels of contrast to help vision sensors detect the presence or absence of a feature.

LED On-Axis Lights
Banner’s innovative On-Axis Lights use a beam splitter to focus light along a camera’s optical axis, providing even, diffused illumination.

LED Back Lights
Banner Backlights provide more optical contrast by creating an image that shows a silhouette of a part, allowing for inspection of size and shape.

LED Ring Lights
Ring Lights brightly illuminate the area directly in front of a camera and are especially useful for small parts and high-speed inspections.

Low-Angle Ring Lights
Low-Angle Ring Lights enhance the contrast of surface features, making them ideal for a number of quality, identification and verification applications.

LED Spot Lights
Banner’s Spot Lights are compact to fit into tight spaces, and when properly placed can effectively create shadows or highlights to boost optical contrast.

Supply Voltage & IP Rating

<table>
<thead>
<tr>
<th>Family</th>
<th>Supply Voltage DC Models</th>
<th>Supply Voltage AC Models</th>
<th>IP Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLB32</td>
<td>12-30 VDC</td>
<td>90-264 VAC</td>
<td>IP50 Dry location only</td>
</tr>
<tr>
<td>WLB92</td>
<td>24 VDC</td>
<td>100-277 VAC</td>
<td>IP50</td>
</tr>
<tr>
<td>WLS27</td>
<td>12-30 VDC</td>
<td>/</td>
<td>IP68, IP68G, IP69K</td>
</tr>
<tr>
<td>WLC80</td>
<td>12-30 VDC</td>
<td>/</td>
<td>IP68, IP68G, IP69K</td>
</tr>
<tr>
<td>WLC90</td>
<td>12-30 VDC</td>
<td>/</td>
<td>IP68, IP68G, IP69K</td>
</tr>
<tr>
<td>WLA</td>
<td>12-30 VDC</td>
<td>/</td>
<td>IP67, IP69K</td>
</tr>
<tr>
<td>WL50S</td>
<td>12-30 VDC</td>
<td>/</td>
<td>IP67, IP69K</td>
</tr>
</tbody>
</table>
Quick Start Guide
Laser displacement sensor with both analog and discrete (switched) outputs

This guide is designed to help you set up and install the L-GAGE® LE Laser Gauging Sensor. For complete information on programming, performance, troubleshooting, dimensions, and accessories, please refer to the Instruction Manual at www.bannerengineering.com. Search for p/n 175094 to view the manual. Use of this document assumes familiarity with pertinent industry standards and practices.

WARNING: Not To Be Used for Personnel Protection
Never use this device as a sensing device for personnel protection. Doing so could lead to serious injury or death.

This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition.

Features and Indicators

**Power LED**
- Solid Green = Normal operation, power On and laser On
- Flashing Green (1 Hz) = Power On and laser Off (laser enable mode)

**Analog Output LED Indicator**
- Solid Amber = Displayed distance is within the taught analog output window
- Off = Displayed distance is outside the taught analog output window

**Discrete Output LED Indicator**
- Solid Amber = Discrete Output is On
- Off = Discrete Output is Off

Laser Description and Safety Information

CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. Do not attempt to disassemble this sensor for repair. A defective unit must be returned to the manufacturer.

Class 2 Laser Models

CAUTION: Never stare directly into the sensor lens. Laser light can damage your eyes. Avoid placing any mirror-like object in the beam. Never use a mirror as a retroreflective target.

For Safe Laser Use - Class 2 Lasers
• Do not stare at the laser.
• Do not point the laser at a person's eye.
• Mount open laser beam paths either above or below eye level, where practical.
• Terminate the beam emitted by the laser product at the end of its useful path.

More Sensors, More Solutions

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Data Sheets
CAD, STP, DXF or PDF drawings

Additional Resources

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Sensors
Vision
Lighting & Indication
Wireless I/O