

# EZ-LIGHT® CL50 Column Light

Multi-Color General Purpose or Audible Indicators



For complete technical information about this product, including dimensions, accessories, and specifications, see [www.bannerengineering.com](http://www.bannerengineering.com) and search 145315\_web.



- Rugged, cost-effective, and easy-to-install multi-color indicators
- Illumination provides easy-to-see operator guidance and equipment status indication
- 1-, 2-, or 3-color models available
- Available in black or light gray housing
- Audible models available with standard, sealed, or omni-directional audible element
- Continuous, pulsed, and staccato tones available
- 18 to 30V dc operation
- Compact devices are completely self-contained - no controller needed
- Immune to EMI and RFI interference
- No assembly required

## Non-Audible Models

Models <sup>1</sup>	# of LED Colors	LED Function <sup>2</sup> - Lights Independently Selected			Connection <sup>3</sup>	Inputs
		Color 1	Color 2	Color 3		
CL50GXXPQ	1	Green	-	-	4-pin Euro integral QD connector	PNP
CL50GXXNQ		Green	-	-		NPN
CL50RXXPQ		-	Red	-		PNP
CL50RXNQ		-	Red	-		NPN
CL50GRXPQ	2	Green	Red	-		PNP
CL50GRXNQ		Green	Red	-		NPN
CL50GRYPQ	3	Green	Red	Yellow		PNP
CL50GRYNQ		Green	Red	Yellow		NPN

## Audible Models

Standard Audible Models <sup>1</sup>	# of LED Colors	LED Function <sup>2</sup> - Lights Independently Selected			Connection <sup>3</sup>	Inputs
		Color 1	Color 2	Color 3		
CL50GXXAPQ	1	Green	-	-	5-pin Euro integral QD connector	PNP
CL50GXXANQ		Green	-	-		NPN
CL50RXAPQ		-	Red	-		PNP
CL50RXANQ		-	Red	-		NPN
CL50GRXAPQ	2	Green	Red	-		PNP
CL50GRXANQ		Green	Red	-		NPN
CL50GRYAPQ	3	Green	Red	Yellow		PNP
CL50GRYANQ		Green	Red	Yellow		NPN



**NOTE:** Sealed Audible and Omni-Directional models are listed on the next page.

<sup>1</sup> Models with black housing are listed. For gray housing, add suffix **C** at the end of the model number (cabled models) or before the **Q** (QD models), for example, **CL50GXXPCQ** or **CL50GXXPCQ**.

<sup>2</sup> Contact Banner Engineering for other colors and color combinations.

<sup>3</sup> Integral QD models only are listed; mating cordset required. For additional information and a complete list of accessories, please refer to [www.bannerengineering.com](http://www.bannerengineering.com).

• For 150 mm (5.9 in) PVC pigtail with QD, replace **Q** with **QP** in the model number, for example, **CL50GXXQP**.

• For 2 m (6.5 ft) cable, omit suffix **Q** from the model number, for example, **CL50GXXP**.



Sealed Audible Models <sup>4</sup>			# of LED Colors	LED Function <sup>5</sup> - Lights Independently Selected			Connection <sup>6</sup>	Inputs
Continuous	Pulsed at 1.6 Hz	Staccato		Color 1	Color 2	Color 3		
CL50GXXALSPQ	CL50GXXALS3PQ	CL50GXXALS4PQ	1	Green	-	-	5-pin Euro integral QD connector	PNP
CL50GXXALS3PQ	CL50GXXALS3NQ	CL50GXXALS4NQ		Green	-	-		NPN
CL50XRXALSPQ	CL50XRXALS3PQ	CL50XRXALS4PQ		-	Red	-		PNP
CL50XRXALS3PQ	CL50XRXALS3NQ	CL50XRXALS4NQ		-	Red	-		NPN
CL50GRXALSPQ	CL50GRXALS3PQ	CL50GRXALS4PQ	2	Green	Red	-		PNP
CL50GRXALS3PQ	CL50GRXALS3NQ	CL50GRXALS4NQ		Green	Red	-		NPN
CL50GRYALSPQ	CL50GRYALS3PQ	CL50GRYALS4PQ	3	Green	Red	Yellow		PNP
CL50GRYALS3PQ	CL50GRYALS3NQ	CL50GRYALS4NQ		Green	Red	Yellow		NPN

Omni-Directional Sealed Audible Models <sup>4</sup>			# of LED Colors	LED Function <sup>5</sup> - Lights Independently Selected			Connection <sup>6</sup>	Inputs
Continuous	Pulsed at 1.6 Hz	Staccato		Color 1	Color 2	Color 3		
CL50GXXAOSPQ	CL50GXXAOS3PQ	CL50GXXAOS4PQ	1	Green	-	-	5-pin Euro integral QD connector	PNP
CL50GXXAOS3PQ	CL50GXXAOS3NQ	CL50GXXAOS4NQ		Green	-	-		NPN
CL50XRXAOSPQ	CL50XRXAOS3PQ	CL50XRXAOS4PQ		-	Red	-		PNP
CL50XRXAOS3PQ	CL50XRXAOS3NQ	CL50XRXAOS4NQ		-	Red	-		NPN
CL50GRXAOSPQ	CL50GRXAOS3PQ	CL50GRXAOS4PQ	2	Green	Red	-		PNP
CL50GRXAOS3PQ	CL50GRXAOS3NQ	CL50GRXAOS4NQ		Green	Red	-		NPN
CL50GRYAOSPQ	CL50GRYAOS3PQ	CL50GRYAOS4PQ	3	Green	Red	Yellow		PNP
CL50GRYAOS3PQ	CL50GRYAOS3NQ	CL50GRYAOS4NQ		Green	Red	Yellow		NPN

## Specifications

### Supply Voltage and Current

18 to 30V dc (10% max. ripple)

Indicators: at 100 mA max. current at 18V dc; 70 mA max. current at 30V dc

Standard Audible Alarm: 25 mA max. current

Sealed Audible Alarm: 35 mA max. current

Omni-Directional Sealed Audible Alarm: 45 mA max. current

### Indicators

Green, Red, Yellow; 1-3 colors, depending on model

LEDs or audible alarm are independently selected

### Supply Protection Circuitry:

Protected against reverse polarity and transient voltage

### Input Response Time

Indicator ON/OFF: 10 ms (max.)

### Audible Adjustment

**Standard Audible Alarm:** Unscrew the cover (up to 1.5 turns max.) to adjust the audible intensity. Do not exceed 1.5 turns or the cover may detach during operation. For max. intensity, rotate the center plug 180° counterclockwise to remove it

**Sealed Audible Alarm:** Rotate the front cover until the desired intensity is reached

**Omni-Directional Sealed Audible Alarm:** No adjustment

### Operating Conditions:

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

**Standard and Sealed Audible:** -20 °C to +50 °C (-4 °F to +122 °F)

**Max. Rel. Humidity:** 95% at +50 °C (non-condensing)

### Audible Alarm

Audible measurements are made in the direction sound exits the device. For standard audible models, this is the top of the unit (when mounted vertically, sound is directed toward the ceiling). For sealed audible models, sound exits the vented openings in the side of the unit, which should be oriented so that the sound is directed toward the machine operator(s). In environments with high ambient noise levels or high ceilings that absorb sound, the sealed or omni-directional models are recommended.

**Standard Audible Alarm:** 2.7 KHz ± 500 Hz oscillation frequency; max. intensity 92 db at 1 meter (typical)

**Sealed Audible Alarm:** 2.9 KHz ± 250 Hz oscillation frequency; max. intensity 94 db at 1 meter (3.3 ft) (typical)

**Omni-Directional Sealed Audible Alarm:** 2.1 KHz ± 250 Hz oscillation frequency; max intensity 99 db at 1m (3.3 ft) (typical)

### Construction:

**Bases and Covers:** ABS

**Light Segment:** Polycarbonate

<sup>4</sup> Models with black housing are listed. For gray housing, add **C** at the end of the model number (cabled models) or before the **Q** (QD models), for example, **CL50GXXAPC** or **CL50GXXAPCQ**.

<sup>5</sup> Contact Banner Engineering for other colors and color combinations.

<sup>6</sup> Integral QD models only are listed; mating cordset required. For additional information and a complete list of accessories, please refer to [www.bannerengineering.com](http://www.bannerengineering.com).

- For 150 mm (5.9 in) PVC pigtail with QD, replace **Q** with **QP** in the model number, for example, **CL50GXXAPQP**.
- For 2 m (6.5 ft) cable, omit suffix **Q** from the model number, for example, **CL50GXXAP**.

**Connections**

Integral 4-pin or 5-pin M12/Euro-style QD, 150 mm PVC pigtail with QD, or 2 m (6.5 ft) integral cable, depending on model

**Vibration and Mechanical Shock:**

All models meet Mil. Std. 202F requirements method 201A (vibration: 10 to 60 Hz max., double amplitude 0.06 in, maximum acceleration 10G). Also meets IEC 947-5-2; 30G 11 ms duration, half sine wave.

**Environmental Rating**

**Non-Audible and Sealed Audible:** IEC IP67  
**Standard Audible:** IEC IP50

**Certifications**



**Wiring – Non-Audible Models**

Sourcing (PNP) Input	Sinking (NPN) Input	Key <sup>7</sup>
		1 = Brown 2 = White 3 = Blue 4 = Black  C1 = Color 1 C2 = Color 2 C3 = Color 3

**Wiring – Audible Models**

Sourcing (PNP) Input	Sinking (NPN) Input	Key <sup>7</sup>
		1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray  C1 = Color 1 C2 = Color 2 C3 = Color 3 A = Audible

**Functional Truth Table: PNP Models**

LED Function	Pin 4 (Black Wire)	Pin 1 (Brown Wire)	Pin 2 (White Wire)	
Color 1 ON	+Vdc			<ul style="list-style-type: none"> <li>Pin 3 (blue wire) connected to ground (-)</li> <li><b>Alarm models:</b> Alarm function is independent of light functions</li> </ul>
Color 2 ON		+Vdc		
Color 3 ON			+Vdc	
Color 3 ON (color 3 inhibits color 1)	+Vdc		+Vdc	
Color 2 ON (color 2 inhibits color 1)	+Vdc	+Vdc		
Color 3 ON (color 3 inhibits color 2)		+Vdc	+Vdc	
Color 3 ON (color 3 inhibits colors 1 & 2)	+Vdc	+Vdc	+Vdc	

<sup>7</sup> If there is an X in the model number, that corresponding wire will not be used

**Functional Truth Table: NPN Models**

LED Function	Pin 4 (Black Wire)	Pin 3 (Blue Wire)	Pin 2 (White Wire)	
Color 1 ON	-Vdc			<ul style="list-style-type: none"> <li>• Pin 1 (brown wire) connected to +Vdc</li> <li>• <b>Alarm models:</b> Alarm function is independent of light functions</li> </ul>
Color 2 ON		-Vdc		
Color 3 ON			-Vdc	
Color 3 ON (color 3 inhibits color 1)	-Vdc		-Vdc	
Color 2 ON (color 2 inhibits color 1)	-Vdc	-Vdc		
Color 3 ON (color 3 inhibits color 2)		-Vdc	-Vdc	
Color 3 ON (color 3 inhibits colors 1 & 2)	-Vdc	-Vdc	-Vdc	

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