

# CL50 Column Light

Multi-Color General Purpose or Audible Indicators



- 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 or sealed audible element
- 18 to 30V dc operation
- Compact devices are completely self-contained - no controller needed
- Immune to EMI and RFI interference
- No assembly required
- Several audible tones to choose from

General-Purpose, Audible and Sealed Audible Models



### 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.

## Multi-Color General-Purpose 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
CL50RXRPQ		-	Red	-		PNP
CL50RXRNQ		-	Red	-		NPN
CL50GRXPQ	2	Green	Red	-		PNP
CL50GRXNQ		Green	Red	-		NPN
CL50GRYPQ	3	Green	Red	Yellow		PNP
CL50GRYNQ		Green	Red	Yellow		NPN

<sup>1</sup> Models with black housing are listed. For models with gray housing, add **C** at the end of model number (cabled models) or before the **Q** (QD models) (for example, **CL50GXXPC** or **CL50GXXPCQ**).

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

<sup>3</sup> Integral QD models only are listed.

- For 150 mm PVC pigtail with QD, replace **Q** with **QP** in model number (for example, **CL50GXXPQP**).
- For 2 m (6.5 ft) cable, omit suffix **Q** from model number (for example, **CL50GXXP**).
- A model with a QD requires a mating cable (see [Cordsets](#) on page 5).



## Multi-Color Audible Models

Table 1: Standard Audible

Models <sup>4</sup>	# of LED Colors <sup>5</sup>	LED Function Lights Independently Selected			Connection <sup>6</sup>	Inputs
		Color 1	Color 2	Color 3		
CL50GXXAPQ	1	Green	–	–	5-pin Euro integral QD connector	PNP
CL50GXXANQ		Green	–	–		NPN
CL50XRXAPQ		–	Red	–		PNP
CL50XRXANQ		–	Red	–		NPN
CL50GRXAPQ	2	Green	Red	–		PNP
CL50GRXANQ		Green	Red	–		NPN
CL50GRYAPQ	3	Green	Red	Yellow		PNP
CL50GRYANQ		Green	Red	Yellow		NPN

Table 2: 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
CL50GXXALSNQ	CL50GXXALS3NQ	CL50GXXALS4NQ		Green	–	–		NPN
CL50XRXALSPQ	CL50XRXALS3PQ	CL50XRXALS4PQ		–	Red	–		PNP
CL50XRXALSNQ	CL50XRXALS3NQ	CL50XRXALS4NQ		–	Red	–		NPN
CL50GRXALSPQ	CL50GRXALS3PQ	CL50GRXALS4PQ	2	Green	Red	–		PNP
CL50GRXALSNQ	CL50GRXALS3NQ	CL50GRXALS4NQ		Green	Red	–		NPN
CL50GRYALSPQ	CL50GRYALS3PQ	CL50GRYALS4PQ	3	Green	Red	Yellow		PNP
CL50GRYALSNQ	CL50GRYALS3NQ	CL50GRYALS4NQ		Green	Red	Yellow		NPN

### Selecting the Best Audible Option

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 version is recommended.

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

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

<sup>6</sup> Integral QD models only are listed.

- For 150 mm PVC pigtail with QD, replace **Q** with **QP** in model number (for example, **CL50GXXAPQP**).
- For 2 m (6.5 ft) cable, omit suffix **Q** from model number (for example, **CL50GXXAP**).
- A model with a QD requires a mating cable (see [Cordsets](#) on page 5).

## 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

### 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.)

### Construction:

**Bases and Covers:** ABS

**Light Segment:** Polycarbonate

### Environmental Rating

**General-Purpose and Sealed Audible:** IEC IP67

**Standard Audible:** IEC IP50

### 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

### Operating Conditions:

**General-Purpose:** -40° to +50° C (-40° to +122° F)

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

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

### 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.

### Audible Alarm

**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 (typical)

### Vibration and Mechanical Shock:

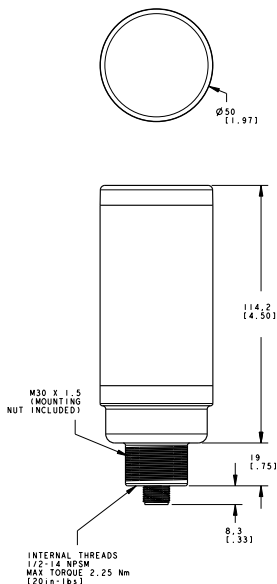
All models meet Mil. Std. 202F requirements method 201A (vibration: 10 to 60 Hz max., double amplitude 0.06 in, maximum acceleration 10G). Also meets IEC 947-5-2; 30G 11 ms duration, half sine wave.

### Certifications

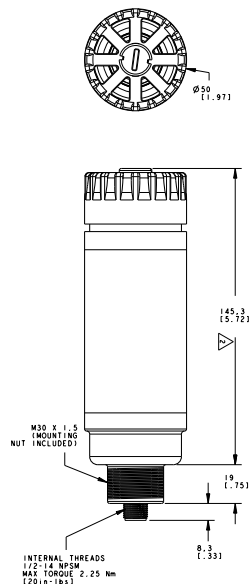


## Dimensions

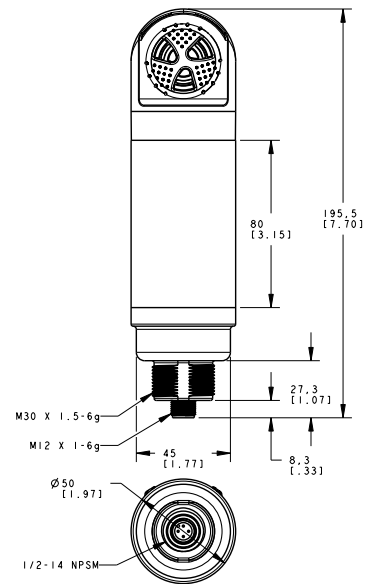
General-Purpose Models



Standard Audible Models<sup>7</sup>

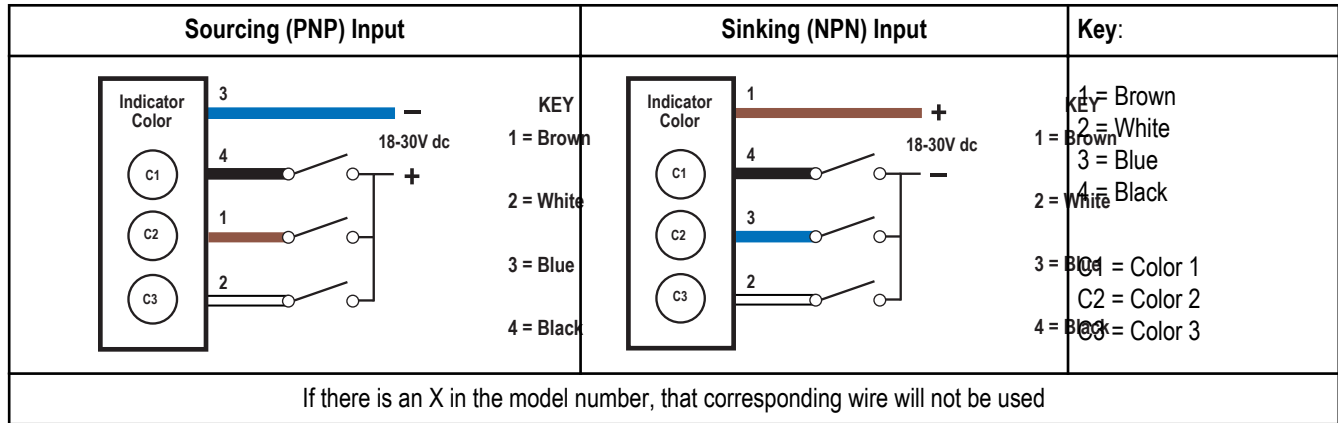


Sealed Audible Models

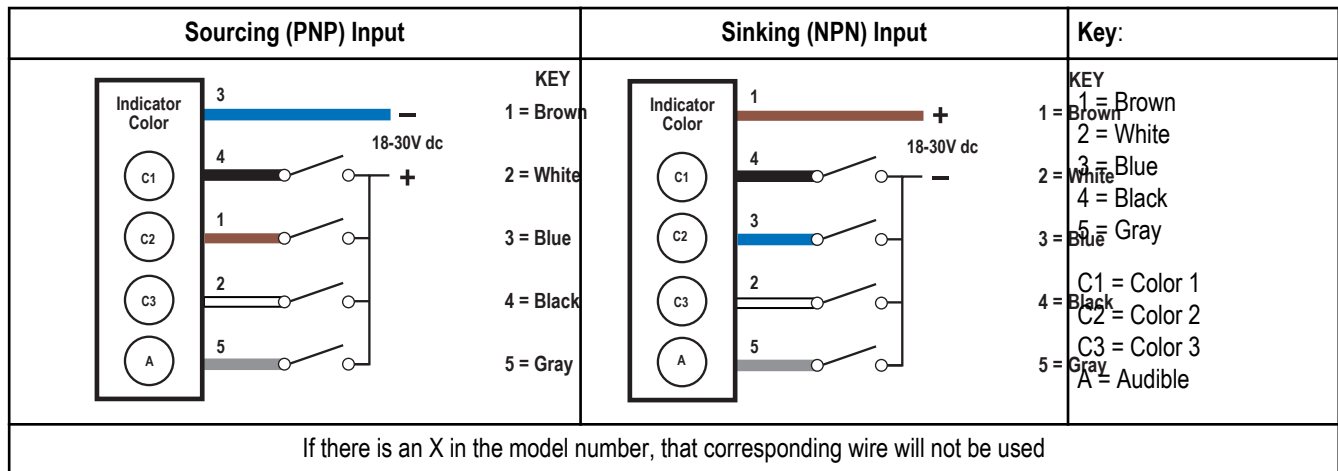


<sup>7</sup> Height with top unscrewed approximately 3.5 mm to allow sound to escape.

## Wiring – Multi-Color General-Purpose Models



## Wiring – Multi-Color Audible Models



## Functional Truth Table: PNP Models

LED Function	Pin 4 (Black Wire)	Pin 1 (Brown Wire)	Pin 2 (White Wire)
Color 1 ON	+Vdc		
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



**NOTE:**

- Pin 3 (blue wire) connected to ground (-)
- **Alarm models:** Alarm function is independent of light functions

## Functional Truth Table: NPN Models

LED Function	Pin 4 (Black Wire)	Pin 3 (Blue Wire)	Pin 2 (White Wire)
Color 1 ON	-Vdc		
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

**NOTE:**

- Pin 1 (brown wire) connected to +Vdc
- **Alarm models:** Alarm function is independent of light functions

## Accessories

## Cordsets

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

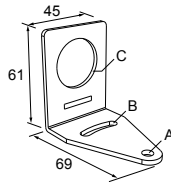
5-Pin Threaded M12/Euro-Style Cordsets				
Model	Length	Style	Dimensions	Pinout
MQDC1-501.5	0.50 m (1.5 ft)	Straight		<p>1 = Brown 2 = White</p>
MQDC1-506	1.83 m (6 ft)			
MQDC1-515	4.57 m (15 ft)			
MQDC1-530	9.14 m (30 ft)			
MQDC1-506RA	1.83 m (6 ft)	Right-Angle		

5-Pin Threaded M12/Euro-Style Cordsets				
Model	Length	Style	Dimensions	Pinout
MQDC1-515RA	4.57 m (15 ft)			3 = Blue 4 = Black 5 = Gray
MQDC1-530RA	9.14 m (30 ft)			

**Brackets**

**SMB30A**

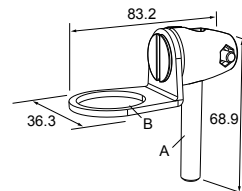
- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (1/4 in) hardware
- Mounting hole for 30 mm sensor
- 12-ga. stainless steel



**Hole center spacing:** A to B=40  
**Hole size:** A=ø 6.3, B= 27.1 x 6.3, C=ø 30.5

**SMB30FA**

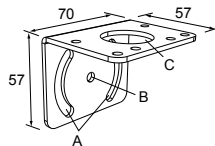
- Swivel bracket with tilt and pan movement for precise adjustment
- Mounting hole for 30 mm sensor
- 12-ga. 304 stainless steel
- Easy sensor mounting to extrude rail T-slot
- Metric and inch size bolt available



**Bolt thread:** SMB30FA, A= 3/8 - 16 x 2 in; SMB30FAM10, A= M10 - 1.5 x 50  
**Hole size:** B= ø 30.1

**SMB30MM**

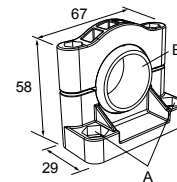
- 12-ga. stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (1/4 in) hardware
- Mounting hole for 30 mm sensor



**Hole center spacing:** A = 51, A to B = 25.4  
**Hole size:** A = 42.6 x 7, B = ø 6.4, C = ø 30.1

**SMB30SC**

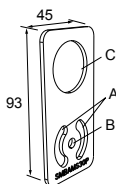
- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermo-plastic polyester
- Stainless steel mounting and swivel locking hardware included



**Hole center spacing:** A=ø 50.8  
**Hole size:** A=ø 7.0, B=ø 30.0

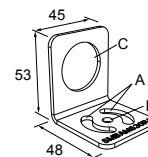
**SMBAMS30P**

- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors



**SMBAMS30RA**

- Right-angle SMBAMS series bracket
- 30 mm hole for mounting sensors






- Articulation slots for 90+° rotation
- 12-ga. 300 series stainless steel

**Hole center spacing:** A=26.0, A to B=13.0  
**Hole size:** A=26.8 x 7.0, B=∅ 6.5, C=∅ 31.0

- Articulation slots for 90+° rotation
- 12-ga. (2.6 mm) cold-rolled steel

**Hole center spacing:** A=26.0, A to B=13.0  
**Hole size:** A=26.8 x 7.0, B=∅ 6.5, C=∅ 31.0

## Elevated Mount System

Model			Features	Components
SA-M30TE12 - Black Acetal			<ul style="list-style-type: none"> <li>• Streamlined black acetal or white UHMW stand-off pipe adapter/cover</li> <li>• Connects between 30 mm light base and ½ in. NPSM/DN15 pipe</li> <li>• Mounting hardware included</li> </ul>	
SA-M30TE12C - White UHMW				
<b>Polished 304 Stainless Steel</b>	<b>Black Anodized Aluminum</b>	<b>Clear Anodized Aluminum</b>	<ul style="list-style-type: none"> <li>• Elevated-use stand-off pipe (½ in. NPSM/DN15)</li> <li>• Polished 304 stainless steel, black anodized aluminum, or clear anodized aluminum surface</li> <li>• ½ in. NPT thread at both ends</li> <li>• Compatible with most industrial environments</li> </ul>	
<b>SOP-E12-150SS</b> 150 mm (6 in) long	<b>SOP-E12-150A</b> 150 mm (6 in) long	<b>SOP-E12-150AC</b> 150 mm (6 in) long		
<b>SOP-E12-300SS</b> 300 mm (12 in) long	<b>SOP-E12-300A</b> 300 mm (12 in) long	<b>SOP-E12-300AC</b> 300 mm (12 in) long		
<b>SOP-E12-900SS</b> 900 mm (36 in) long	<b>SOP-E12-900A</b> 900 mm (36 in) long	<b>SOP-E12-900AC</b> 900 mm (36 in) long		
SA-E12M30 - Black Acetal			<ul style="list-style-type: none"> <li>• Streamlined black acetal or white UHMW mounting base adapter/cover</li> <li>• Connects between ½ in. NPSM/DN15 pipe and 30 mm (1-3/16 in) drilled hole</li> <li>• Mounting hardware included</li> </ul>	
SA-E12M30C - White UHMW				

## Banner Engineering Corp Limited Warranty

Banner Engineering Corp. warrants its products to be free from defects in material and workmanship for one year following the date of shipment. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture which, at the time it is returned to the factory, is found to have been defective during the warranty period. This warranty does not cover damage or liability for misuse, abuse, or the improper application or installation of the Banner product.

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