EZ-LIGHT® CL50 Column Light

Datasheet

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, 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[1]	# of LED Colors	LED Function[2] - Lights Independently Selected			Connection[3]	Inputs
		Color 1	Color 2	Color 3		
CL50GXXPQ	1	Green	-	-	4-pin Euro integral QD connector	PNP
CL50GXXNQ		Green	-	-		NPN
CL50XRXPQ		-	Red	-		PNP
CL50XRXNQ		-	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[1]	# of LED Colors	LED Function[2]			Connection[3]	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

1 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, CL50GXXPC or CL50GXXPCQ.
2 Contact Banner Engineering for other colors and color combinations.
3 Integral QD models only are listed; mating cordset required (see *Cordsets* on page 5).
- For 150 mm (5.9 in) PVC pigtail with QD, replace Q with QP in the model number, for example, CL50GXXPQP.
- For 2 m (6.5 ft) cable, omit suffix Q from the model number, for example, CL50GXXP.

Sealed Audible Models[4]			# of LED Colors	LED Function[5]			Connection[6]	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

Omni-Directional Sealed Audible Models[4]			# of LED Colors	LED Function[5]			Connection[6]	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
CL50GXXAOSNQ	CL50GXXAOS3NQ	CL50GXXAOS4NQ		Green	-	-		NPN
CL50XRXAOSPQ	CL50XRXAOS3PQ	CL50XRXAOS4PQ		-	Red	-		PNP
CL50XRXAOSNQ	CL50XRXAOS3NQ	CL50XRXAOS4NQ		-	Red	-		NPN
CL50GRXAOSPQ	CL50GRXAOS3PQ	CL50GRXAOS4PQ	2	Green	Red	-		PNP
CL50GRXAOSNQ	CL50GRXAOS3NQ	CL50GRXAOS4NQ		Green	Red	-		NPN
CL50GRYAOSPQ	CL50GRYAOS3PQ	CL50GRYAOS4PQ	3	Green	Red	Yellow		PNP
CL50GRYAOSNQ	CL50GRYAOS3NQ	CL50GRYAOS4NQ		Green	Red	Yellow		NPN

Omni-Directional Sealed Audible Models with Intensity Adjustment[4]			# of LED Colors	LED Function[5]			Connection[6]	Inputs
Continuous	Pulsed at 1.6 Hz	Staccato		Color 1	Color 2	Color 3		
CL50GXXAOSIPQ	CL50GXXAOSI3PQ	CL50GXXAOSI4PQ	1	Green	-	-	5-pin Euro integral QD connector	PNP
CL50GXXAOSINQ	CL50GXXAOSI3NQ	CL50GXXAOSI4NQ		Green	-	-		NPN
CL50XRXAOSIPQ	CL50XRXAOSI3PQ	CL50XRXAOSI4PQ		-	Red	-		PNP
CL50XRXAOSINQ	CL50XRXAOSI3NQ	CL50XRXAOSI4NQ		-	Red	-		NPN
CL50GRXAOSIPQ	CL50GRXAOSI3PQ	CL50GRXAOSI4PQ	2	Green	Red	-		PNP
CL50GRXAOSINQ	CL50GRXAOSI3NQ	CL50GRXAOSI4NQ		Green	Red	-		NPN
CL50GRYAOSIPQ	CL50GRYAOSI3PQ	CL50GRYAOSI4PQ	3	Green	Red	Yellow		PNP
CL50GRYAOSINQ	CL50GRYAOSI3NQ	CL50GRYAOSI4NQ		Green	Red	Yellow		NPN

[4] 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.
[5] Contact Banner Engineering for other colors and color combinations.
[6] Integral QD models only are listed; mating cordset required (see *Cordsets* on page 5).
- 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.

Specifications

Supply Voltage and Current
18 to 30 V dc (10% max. ripple)
Indicators: at 100 mA max. current at 18 V 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 and Omni-Directional Sealed Audible Alarm with Intensity Adjustment: Rotate the front cover until the desired intensity is reached.
Omni-Directional Sealed Audible Alarm: No adjustment

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.

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)

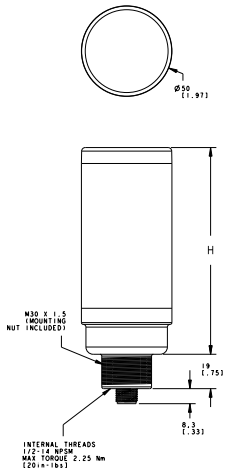
Audible Alarm
Standard Audible Alarm: 2.7 KHz ± 500 Hz oscillation frequency; max. intensity 92 db at 1 meter (typical)
Sealed Audible Alarm: 2.9 KHz ± 250 Hz oscillation frequency; max. intensity 94 db at 1 meter (3.3 ft) (typical)
Omni-Directional Sealed Audible Alarm: 2.1 KHz ± 250 Hz oscillation frequency; max intensity 99 db at 1m (3.3 ft) (typical)
Omni-Directional Sealed Audible Alarm with Intensity Adjustment: 2.1 KHz ± 250 Hz oscillation frequency; max intensity 95 dB at 1m (3.3 ft) (typical)

Construction:
Bases and Covers: ABS
Light Segment: Polycarbonate

Environmental Rating
Non-Audible and Sealed Audible: IEC IP67
Standard Audible: IEC IP50

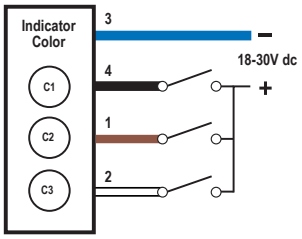
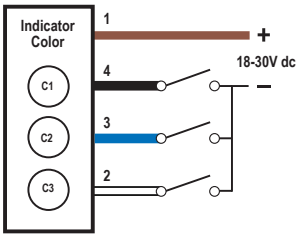
Certifications

Dimensions

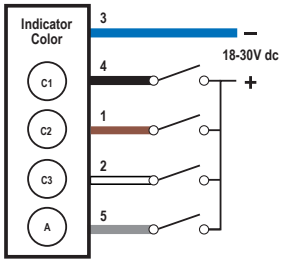
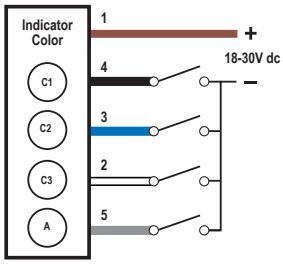


Column Light Height (H)			
Non-Audible	Standard Audible*	Sealed Audible	Omni-Directional Sealed Audible
114.2mm (4.5 in)	145.3mm (5.7 in)	168.2mm (6.6 in)	182.2mm (7.2 in)
*Column Light (H) with top unscrewed approximately 3.5 mm to allow sound to escape			

Wiring Diagram– Non-Audible Models

Sourcing (PNP) Input	Sinking (NPN) Input	Key[7]
		1 = Brown 2 = White 3 = Blue 4 = Black C1 = Color 1 C2 = Color 2 C3 = Color 3

Wiring Diagram – Audible Models

Sourcing (PNP) Input	Sinking (NPN) Input	Key[7]
		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	+V dc			Pin 3 (blue wire) connected to ground (–) . Alarm models: Alarm function is independent of light functions.
Color 2 On		+V dc		
Color 3 On			+V dc	
Color 3 On (color 3 inhibits color 1)	+V dc		+V dc	
Color 2 On (color 2 inhibits color 1)	+V dc	+V dc		
Color 3 On (color 3 inhibits color 2)		+V dc	+V dc	
Color 3 On (color 3 inhibits colors 1 & 2)	+V dc	+V dc	+V dc	

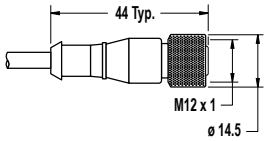
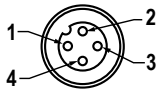
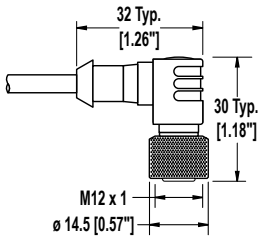
Functional Truth Table: NPN Models

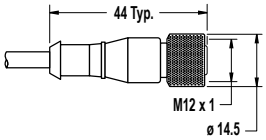
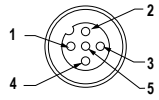
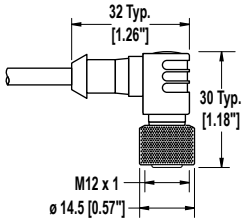
LED Function	Pin 4 (Black Wire)	Pin 3 (Blue Wire)	Pin 2 (White Wire)	
Color 1 On	–V dc			Pin 1 (brown wire) connected to +V dc. Alarm models: Alarm function is independent of light functions.
Color 2 On		–V dc		
Color 3 On			–V dc	
Color 3 On (color 3 inhibits color 1)	–V dc		–V dc	
Color 2 On (color 2 inhibits color 1)	–V dc	–V dc		
Color 3 On (color 3 inhibits color 2)		–V dc	–V dc	
Color 3 On (color 3 inhibits colors 1 & 2)	–V dc	–V dc	–V dc	

[7] If there is an X in the model number, that corresponding wire will not be used

Accessories

Cordsets

4-Pin Threaded M12/Euro-Style Cordsets				
Model	Length	Style	Dimensions	Pinout
MQDC-406	1.83 m (6 ft)	Straight		 1 = Brown 2 = White 3 = Blue 4 = Black
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)			

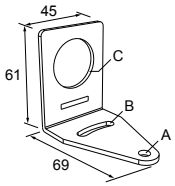
5-Pin Threaded M12/Euro-Style Cordsets (Single Ended)				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC1-501.5	0.50 m (1.5 ft)	Straight		 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray
MQDC1-506	1.83 m (6 ft)			
MQDC1-515	4.57 m (15 ft)			
MQDC1-530	9.14 m (30 ft)			
MQDC1-506RA	1.83 m (6 ft)	Right-Angle		
MQDC1-515RA	4.57 m (15 ft)			
MQDC1-530RA	9.14 m (30 ft)			

Mounting Brackets

All measurements are in mm

SMB30A

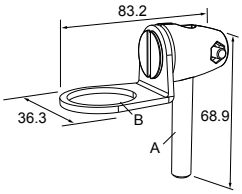
- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- 12-ga. stainless steel



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

SMB30FA

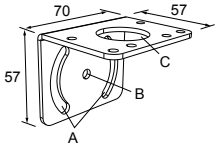
- Swivel bracket with tilt and pan movement for precise adjustment
- Mounting hole for 30 mm sensor
- 12-ga. 304 stainless steel
- Easy sensor mounting to extrude rail T-slot
- Metric and inch size bolt available



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

SMB30MM

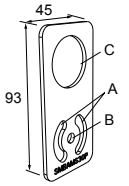
- 12-ga. stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor



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

SMBAMS30P

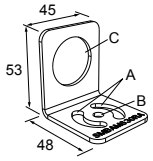
- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-ga. 300 series stainless steel



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

SMBAMS30RA

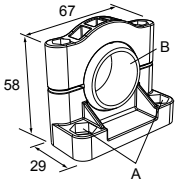
- Right-angle SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-ga. (2.6 mm) cold-rolled steel



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

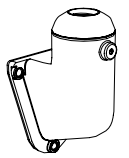
SMB30SC

- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic 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

LMB Sealed Right-Angle Bracket

Model	Description	Construction	
LMB30RA	Direct-Mount Models: Bracket kit with base, 30 mm adapter, set screw, fasteners, o-rings, and gaskets	Black polycarbonate	
LMB30RAC		Gray polycarbonate	
LMBE12RA	Pipe-Mount Models: Bracket kit with base, ½-14 pipe adapter, set screw, fasteners, o-rings, and gaskets. For use with stand-off pipe (listed and sold separately)	Black polycarbonate	
LMBE12RAC		Gray polycarbonate	

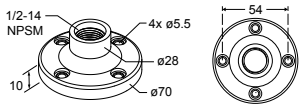
Elevated Mount System

<table>
<tr><th colspan="3">Model</th><th>Features</th><th>Components</th></tr>
<tr><td colspan="3">SA-M30TE12 - Black Acetal</td><td rowspan="2">• Streamlined black acetal or white UHMW stand-off pipe adapter/cover
• Connects between 30 mm light base and ½ in. NPSM/DN15 pipe
• Mounting hardware included</td><td rowspan="2"></td></tr>
<tr><td colspan="3">SA-M30TE12C - White UHMW</td></tr>
<tr><td>Polished 304 Stainless Steel</td><td>Black Anodized Aluminum</td><td>Clear Anodized Aluminum</td><td rowspan="4">• Elevated-use stand-off pipe (½ in. NPSM/DN15)
• Polished 304 stainless steel, black anodized aluminum, or clear anodized aluminum surface
• ½ in. NPT thread at both ends
• Compatible with most industrial environments</td><td rowspan="4"></td></tr>
<tr><td>SOP-E12-150SS
150 mm (6 in) long</td><td>SOP-E12-150A
150 mm (6 in) long</td><td>SOP-E12-150AC
150 mm (6 in) long</td></tr>
<tr><td>SOP-E12-300SS
300 mm (12 in) long</td><td>SOP-E12-300A
300 mm (12 in) long</td><td>SOP-E12-300AC
300 mm (12 in) long</td></tr>
<tr><td>SOP-E12-900SS
900 mm (36 in) long</td><td>SOP-E12-900A
900 mm (36 in) long</td><td>SOP-E12-900AC
900 mm (36 in) long</td></tr>
<tr><td colspan="3">SA-E12M30 - Black Acetal</td><td rowspan="2">• Streamlined black acetal or white UHMW mounting base adapter/cover
• Connects between ½ in. NPSM/DN15 pipe and 30 mm (1-3/16 in) drilled hole
• Mounting hardware included</td><td rowspan="2"></td></tr>
<tr><td colspan="3">SA-E12M30C - White UHMW</td></tr>
</table>

Pipe Mounting Flange

SA-F12

- Die-cast zinc base with black paint
- For use elevated stand-off pipes (½ in, NPSM/DN15)
- M5 mounting hardware and nitrile gasket included



Banner Engineering Corp Limited Warranty

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