EZ-LIGHT® TL50 Beacon Tower Light

Multi-Color General-Purpose or Audible Indicators

BANNER ®
more sensors, more solutions

The EZ-LIGHT® TL50 Beacon Tower Light is a cross between the TL50 tower light and the K50 beacon. This compact design is extremely intense and can even be used in outdoor applications.

- Rugged, cost-effective, and easy-to-install multi-segment indicators
- Illuminated segments provide easy-to-see operator guidance and indication of equipment status
- Displays up to 5 colors
- Audible models available with standard, sealed, or omni-directional audible element
- Available in black or light gray housing
- Continuous, pulsed, and staccato tones available
- 12 to 30V dc or 24V ac operation
- No assembly required

Standard Audible

Sealed Audible

Omni-Directional Sealed Audible

Standard

Audible Models

Standard Audible Models[1]	# of LED Colors	LED Function[2]	Connection[3]	Inputs
TL50BLRAQ	1	Red	4-pin Euro integral QD connector	Bimodal (NPN or PNP)
TL50BLGRAQ	2	Green, Red		
TL50BLGYRAQ	3	Green, Yellow, Red	5-pin Euro integral QD connector	
TL50BLBGYRAQ	4	Blue, Green, Yellow, Red	8-pin Euro integral QD connector	

Sealed Audible Models[1]			# of LED Colors	LED Function[2]	Connection[3]	Inputs
Continuous	Pulsed at 1.6 Hz	Staccato				
TL50BLRALSQ	TL50BLRALS3Q	TL50BLRALS4Q	1	Red	4-pin Euro integral QD connector	Bimodal (NPN or PNP)
TL50BLGRALSQ	TL50BLGRALS3Q	TL50BLGRALS4Q	2	Green, Red		
TL50BLGYRALSQ	TL50BLGYRALS3Q	TL50BLGYRALS4Q	3	Green, Yellow, Red	5-pin Euro integral QD connector	
TL50BLBGYRALSQ	TL50BLBGYRALS3Q	TL50BLBGYRALS4Q	4	Blue, Green, Yellow, Red	8-pin Euro integral QD connector	

Omni-Directional Sealed Audible Models (sound exits at 45°)[1]			# of LED Colors	LED Function[2]	Connection[3]	Inputs
Continuous	Pulsed at 1.6 Hz	Staccato				
TL50BLRAOSQ	TL50BLRAOS3Q	TL50BLRAOS4Q	1	Red	4-pin Euro integral QD connector	Bimodal (NPN or PNP)
TL50BLGRAOSQ	TL50BLGRAOS3Q	TL50BLGRAOS4Q	2	Green, Red		
TL50BLGYRAOSQ	TL50BLGYRAOS3Q	TL50BLGYRAOS4Q	3	Green, Yellow, Red	5-pin Euro integral QD connector	
TL50BLBGYRAOSQ	TL50BLBGYRAOS3Q	TL50BLBGYRAOS4Q	4	Blue, Green, Yellow, Red	8-pin Euro integral QD connector	

NOTE: Non-Audible Models are listed on the next page.

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[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, **TL50BLRAC** or **TL50BLRACQ.**
[2] The first color listed is the bottom color, going up in successive order. Contact the factory for other colors and color combinations
[3] Integral QD models only are listed; mating cordset required (see *Cordsets* on page 4).

- For 150 mm (5.9 in) PVC pigtail with QD, replace **Q** with **QP** in the model number, for example, **TL50BLRAQP.**
- For 2 m (6.5 ft) cable, omit suffix **Q** from the model number, for example, **TL50BLRA.**

Non-Audible Models

Model[4]	# of LED Colors	LED Function[5]	Connection[6]	Inputs
TL50BLRQ	1	Red	4-pin Euro integral QD connector	Bimodal (NPN or PNP)
TL50BLGRQ	2	Green, Red		
TL50BLGYRQ	3	Green, Yellow, Red		
TL50BLBGYRQ	4	Blue, Green, Yellow, Red	5-pin Euro integral QD connector	
TL50BLWBGYRQ	5	White, Blue, Green, Yellow, Red	8-pin Euro integral QD connector	

Specifications

Supply Voltage and Current
12 to 30V dc (10% max. ripple); or 21 to 27V ac
Indicators - Max. current per LED color:
· **at 12V dc**: 125 mA
· **at 30V dc**: 60 mA
· **at 21V ac**: 80 mA
· **at 27V ac**: 70 mA
Standard Audible Alarm: 25 mA max. current
Sealed Audible Alarm: 35 mA max. current
Omni-Directional Sealed Audible Alarm: 45 mA max. current
Use only with a suitable Class 2 power supply or transformer.

Indicators
1 to 5 colors depending on model; Green, Red, Yellow, Blue, and White LEDs are independently selected

Supply Protection Circuitry:
Protected against reverse polarity and transient voltages

Input Response Time
Indicator ON/OFF: 1 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.

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.

Connections
Integral 4-pin, 5-pin, or 8-pin M12/Euro-style QD, 150 mm (5.9 in) PVC pigtail with QD, or 2 m (6.5 ft) integral cable, depending on model

Operating Conditions:
Non-Audible:−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 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 m (3.3 ft) (typical)
Sealed Audible Alarm: 2.9 KHz ± 250 Hz oscillation frequency; max. intensity 94 db at 1 m (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
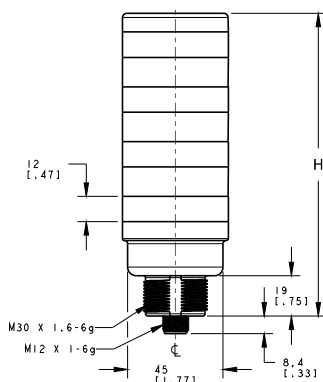**Light Segment:** Polycarbonate

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

Certifications
CE UL LISTED **Omni-Directional models:** pending

# of Colors	Tower Height (H)			
	Non-Audible	Standard Audible*	Sealed Audible	Omni-Directional Sealed Audible
1	46.2 mm (1.8 in)	77.1 mm (3.1 in)	100.2 mm (4.0 in)	114.2 mm (4.5 in)
2	72.0 mm (2.8 in)	102.9 mm (4.1 in)	126.0 mm (5.0 in)	140.0 mm (5.5 in)
3	97.8 mm (3.8 in)	128.7 mm (5.1 in)	151.8 mm (6.0 in)	165.8 mm (6.5 in)
4	123.6 mm (4.8 in)	154.5 mm (6.1 in)	177.6 mm (7.0 in)	191.6 mm (7.5 in)
5	149.4 mm (5.8 in)	-	-	-
*Tower height (H) with top unscrewed approximately 3.5 mm to allow sound to escape				

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[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, **TL50BLRC** or **TL50BLRCQ**.
[5] The first color listed is the bottom color, going up in successive order. Contact the factory for other colors and color combinations
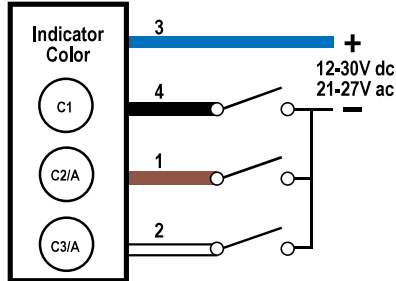[6] Integral QD models only are listed; mating cordset required (see *Cordsets* on page 4).

· For 150 mm (5.9 in) PVC pigtail with QD, replace **Q** with **QP** in the model number, for example, **TL50BLRQP**.
· For 2 m (6.5 ft) cable, omit suffix **Q** from the model number, for example, **TL50BLR**.

Hookups – 4-Pin Models

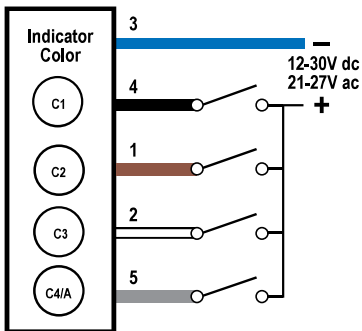**Sourcing (PNP) Input**

Sinking (NPN) Input

Key:
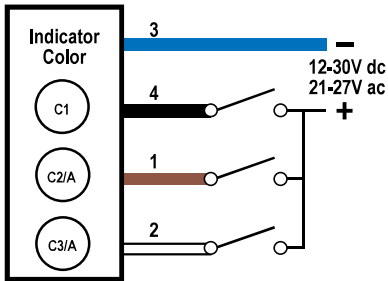
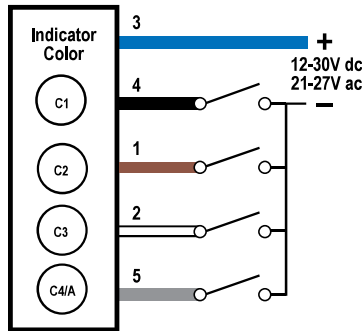|	
1 = Brown	C1 = Color 1
2 = White	C2 = Color 2
3 = Blue	C3 = Color 3
4 = Black	A = Audible

Pins 1 and 2 could activate the corresponding color or the audible function, if available.

Hookups – 5-Pin Models
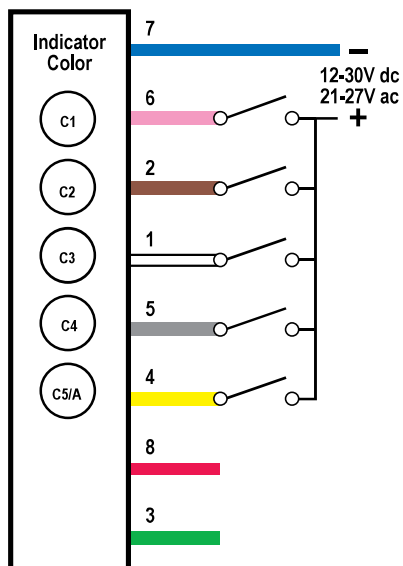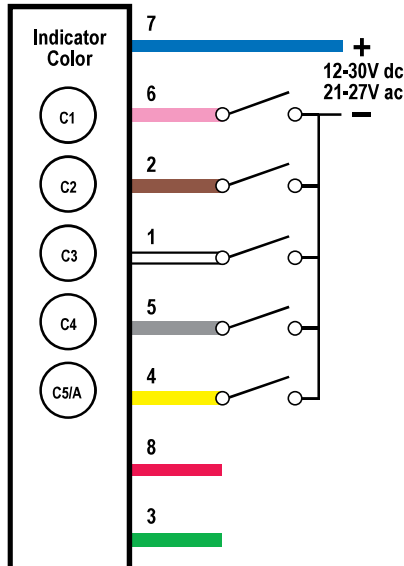
Sourcing (PNP) Input
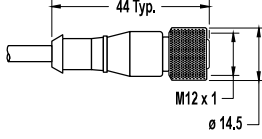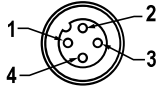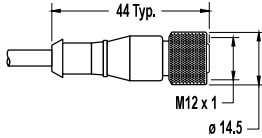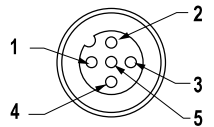

Sinking (NPN) Input

Key:

1 = Brown	C1 = Color 1
2 = White	C2 = Color 2
3 = Blue	C3 = Color 3
4 = Black	C4 = Color 4
5 = Gray	A = Audible

Pin 5 could activate the corresponding color or the audible function, if available.

Hookups – 8-Pin Models

Sourcing (PNP) Input

Sinking (NPN) Input
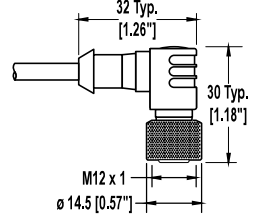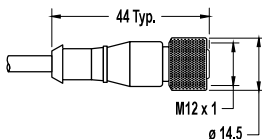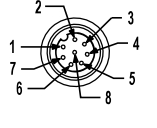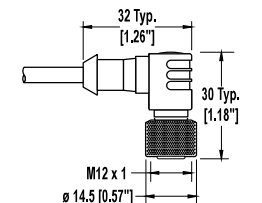
Key:

1 = White	C1 = Color 1
2 = Brown	C2 = Color 2
3 = Green	C3 = Color 3
4 = Yellow	C4 = Color 4
5 = Gray	C5 = Color 5
6 = Pink	A = Audible
7 = Blue	
8 = Red	

Pin 4 could activate the corresponding color or the audible function, if available. Pins 3 and 8 are not used.
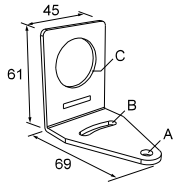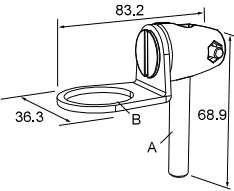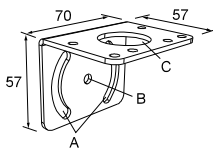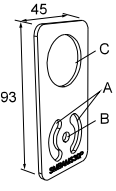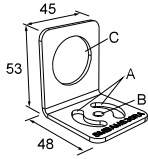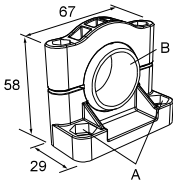
Accessories

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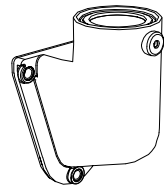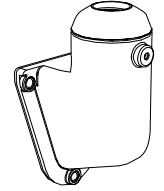
4-Pin Threaded M12/Euro-Style Cordsets				
Model	Length	Style	Dimensions	Pinout
MQDC-406	1.83 m (6 ft)	Straight		1 = Brown 2 = White 3 = Blue 4 = Black
MQDC-415	4.57 m (15 ft)			
MQDC-430	9.14 m (30 ft)			
MQDC-450	15.2 m (50 ft)			

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)			

| 8-Pin Threaded M12/Euro-Style Cordsets with Open-Shield				
Model	Length	Style	Dimensions	Pinout
MQDC2S-806	1.83 m (6 ft)	Straight		1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red
MQDC2S-815	4.57 m (15 ft)			
MQDC2S-830	9.14 m (30 ft)			
MQDC2S-850	15.2 m (50 ft)			
MQDC2S-806RA	1.83 m (6 ft)	Right-Angle		
MQDC2S-815RA	4.57 m (15 ft)			
MQDC2S-830RA	9.14 m (30 ft)			
MQDC2S-850RA	15.2 m (50 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		Black polycarbonate	
LMB30RAC	**Direct-Mount Models:** Bracket kit with base, 30 mm adapter, set screw, fasteners, o-rings, and gaskets	Gray polycarbonate	
LMBE12RA		Black polycarbonate	
LMBE12RAC	**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)	Gray polycarbonate	

Elevated Mount System

Model	Features	Components
SA-M30TE12 - Black Acetal **SA-M30TE12C** - White UHMW	• 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	

Polished 304 Stainless Steel	Black Anodized Aluminum	Clear Anodized Aluminum		
SOP-E12-150SS 150 mm (6 in) long	SOP-E12-150A 150 mm (6 in) long	SOP-E12-150AC 150 mm (6 in) long	• 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	
SOP-E12-300SS 300 mm (12 in) long	SOP-E12-300A 300 mm (12 in) long	SOP-E12-300AC 300 mm (12 in) long		
SOP-E12-900SS 900 mm (36 in) long	SOP-E12-900A 900 mm (36 in) long	SOP-E12-900AC 900 mm (36 in) long		

Model	Features	Components
SA-E12M30 - Black Acetal **SA-E12M30C** - White UHMW	• 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	

Banner Engineering Corp Limited Warranty