

EZ-LIGHT® TL50BL Beacon Tower Light



Datasheet



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
- Steady on, flashing, and rotating models available
- 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 V dc to 30 V dc or 24 V ac operation
- No assembly required

Non-Audible Models

Model ¹	# of LED Colors	LED Colors ²	Connection ³	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	

Audible Models

Standard Audible Model ¹			# of LED Colors	LED Colors 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 Model ¹			# of LED Colors	LED Colors 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	

¹ Models with black housing are listed. For gray housing, add the suffix "C" at the end of the cabled model number or before the "Q" in quick disconnect model numbers. For example, TL50BLRC or TL50BLRCQ.

² The first color listed is the bottom color, going up in successive order.

³

- To order the 150 mm (6 in) PVC cable model, replace the suffix "Q" with "QP" in the model number. For example, TL50BLRQP.
- To order the 2 m (6.5 ft) PVC cable model, omit the suffix "Q" in the model number. For example, TL50BLR.
- Models with a quick disconnect require a mating cordset.



Omni-Directional Sealed Audible Model ¹			# of LED Colors	LED Colors 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	4-pin Euro integral QD connector	
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	

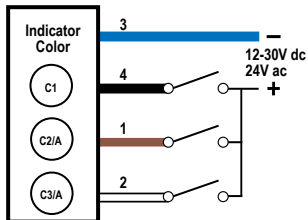
Omni-Directional Sealed Audible Model with Intensity Adjustment ¹			# of LED Colors	LED Colors ²	Connection ³	Inputs
Continuous	Pulsed at 1.6 Hz	Staccato				
TL50BLRAOSIQ	TL50BLRAOS3IQ	TL50BLRAOS4IQ	1	Red	4-pin Euro integral QD connector	Bimodal (NPN or PNP)
TL50BLGRAOSIQ	TL50BLGRAOS3IQ	TL50BLGRAOS4IQ	2	Green, Red	4-pin Euro integral QD connector	
TL50BLGYRAOSIQ	TL50BLGYRAOS3IQ	TL50BLGYRAOS4IQ	3	Green, Yellow, Red	5-pin Euro integral QD connector	
TL50BLBGYRAOSIQ	TL50BLBGYRAOS3IQ	TL50BLBGYRAOS4IQ	4	Blue, Green, Yellow, Red	8-pin Euro integral QD connector	



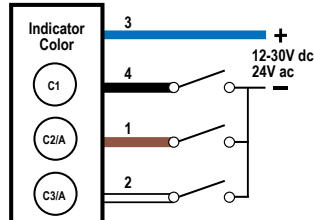
NOTE: See Banner Engineering catalog or <http://www.bannerengineering.com> for additional models and complete information.

Wiring Diagram — 4-Pin Models

Sourcing (PNP) Input



Sinking (NPN) Input



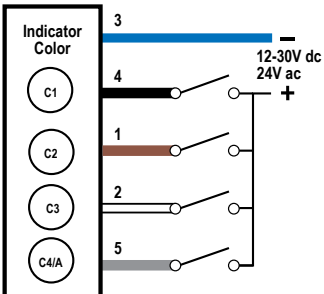
Key:

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

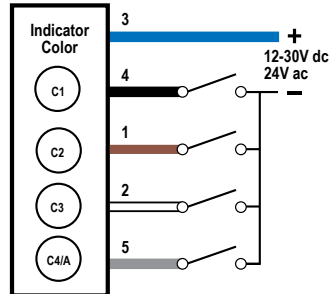
Pins 1 and 2 could activate the corresponding color or the audible function, if available.

Wiring Diagram — 5-Pin Models

Sourcing (PNP) Input



Sinking (NPN) Input



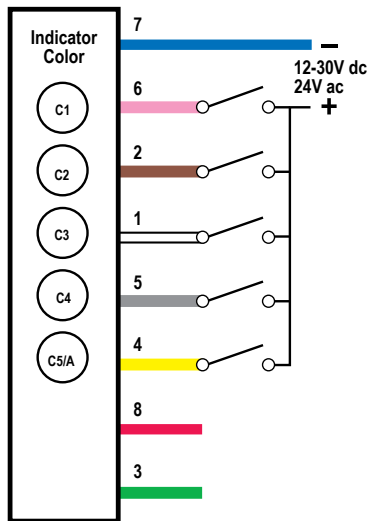
Key:

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

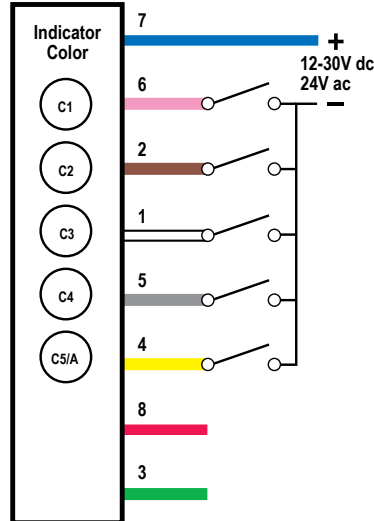
Pin 5 could activate the corresponding color or the audible function, if available.

Wiring Diagram — 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.

Specifications

Supply Voltage and Current

12 V dc to 30 V dc; or 24 V ac (± 3 V) at 50 Hz to 60 Hz

Indicators—maximum current per LED color:

125 mA at 12 V dc

60 mA at 30 V dc

75 mA at 24 V ac

Standard Audible Alarm: 25 mA maximum current

Sealed Audible Alarm: 35 mA maximum current

Omni-Directional Sealed Audible Alarm: 45 mA maximum current

Use only with a suitable Class 2 power supply or transformer.

Supply Protection Circuitry

Protected against transient voltages

Audible Adjustment

Standard Audible Alarm: Unscrew the cover (up to 1.5 turns maximum) to adjust the audible intensity. (Do not exceed 1.5 turns or the cover may detach during operation.) For maximum 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.

Audible Alarm

Standard Audible Alarm: 2.7 kHz \pm 500 Hz oscillation frequency; maximum intensity 92 dB at 1 m (3.3 ft) (typical)

Sealed Audible Alarm: 2.9 kHz \pm 250 Hz oscillation frequency; maximum intensity 94 dB at 1 m (3.3 ft) (typical)

Omni-Directional Sealed Audible Alarm: 2.1 kHz \pm 250 Hz oscillation frequency; maximum intensity 99 dB at 1 m (3.3 ft) (typical)

Omni-Directional Sealed Audible Alarm with Intensity Adjustment: 2.1 kHz \pm 250 Hz oscillation frequency; maximum intensity 95 dB at 1 m (3.3 ft) (typical)

Indicators

LEDs are independently selected; 1 to 5 colors depending on model

Indicator Functions

A color designation followed by an LED option number, indicates the LED status. For example: TL50BLR2Q or TL50BLG1AQ.

LED Option	LED Status	Rotation or Flash Rate
Blank	Steady On	—
1	Rotating	200 RPM \pm 15%
2	Flashing	1.6 Hz rate \pm 15%

Indicator Characteristics

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Lumen Output (Typical at 25 °C)
Green	525 nm	52
Red	626 nm	24
Yellow	590 nm	15
Blue	470 nm	16
White	5000 K	56

Input Response Time

Indicator On/Off: 1 ms (maximum)

Connections

Integral 4-pin, 5-pin, or 8-pin M12/Euro-style QD, 150 mm (6 in) PVC cable with QD, or 2 m (6.5 ft) integral cable, depending on model

Construction

Bases and Covers: ABS

Light Segment: Polycarbonate

Vibration and Mechanical Shock

All models meet Mil Std. 202F requirements. Method 201A (vibration: 10 Hz to 60 Hz max., double amplitude 0.06 inch, maximum acceleration 10G). Also meets IEC 947-5-2 requirements: 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)

95% at +50 °C maximum relative humidity (non-condensing)

Environmental Rating

Non-Audible and Sealed Audible: IEC IP67

Standard Audible: IEC IP50

Certifications**Required Overcurrent Protection**

WARNING: Electrical connections must be made by qualified personnel in accordance with local and national electrical codes and regulations.

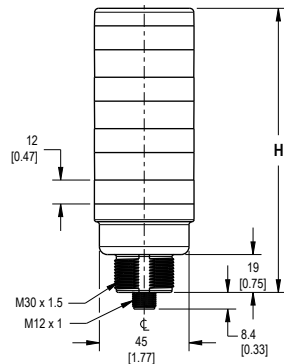
Overcurrent protection is required to be provided by end product application per the supplied table.

Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.

Supply wiring leads < 24 AWG shall not be spliced.

For additional product support, go to <http://www.bannerengineering.com>.

Supply Wiring (AWG)	Required Overcurrent Protection (Amps)
20	5.0
22	3.0
24	2.0
26	1.0
28	0.8
30	0.5

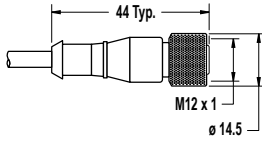
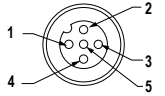
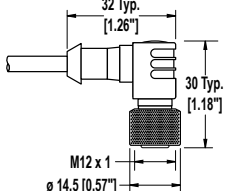
Dimensions

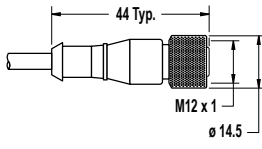
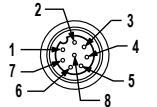
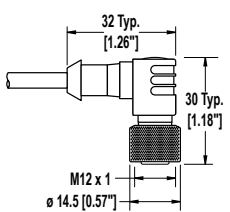
# of Colors	Tower Height (H)			
	Non-Audible	Standard Audible*	Sealed Audible	Omni-Directional Sealed Audible
1	46.2 mm (1.8 in)	77.1 mm (3.1 in)	100.2 mm (4.0 in)	114.2 mm (4.5 in)
2	72.0 mm (2.8 in)	102.9 mm (4.1 in)	126.0 mm (5.0 in)	140.0 mm (5.5 in)
3	97.8 mm (3.8 in)	128.7 mm (5.1 in)	151.8 mm (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

Accessories**Cordsets**

4-Pin Threaded M12/Euro-Style Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
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)			

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		
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		1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray
MQDC1-515RA	4.57 m (15 ft)			
MQDC1-530RA	9.14 m (30 ft)			

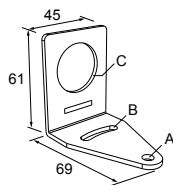
8-Pin Threaded M12/Euro-Style Cordsets with Open-Shield				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC2S-806	1.83 m (6 ft)	Straight		
MQDC2S-815	4.57 m (15 ft)			
MQDC2S-830	9.14 m (30 ft)			
MQDC2S-850	15.2 m (50 ft)	Right-Angle		1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red
MQDC2S-806RA	1.83 m (6 ft)			
MQDC2S-815RA	4.57 m (15 ft)			
MQDC2S-830RA	9.14 m (30 ft)			
MQDC2S-850RA	15.2 m (50 ft)			

Mounting Brackets

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

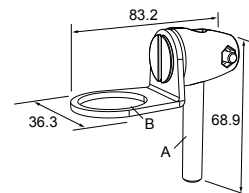
Hole center spacing: A to B=40
 Hole size: A=ø 6.3, B= 27.1 x 6.3, C=ø 30.5



SMB30FA

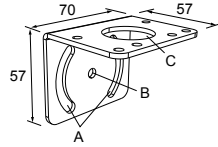
- Swivel bracket with tilt and pan movement for precise adjustment
- Mounting hole for 30 mm sensor
- 12-ga. 304 stainless steel
- Easy sensor mounting to extrude rail T-slot
- Metric and inch size bolt available

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



SMB30MM

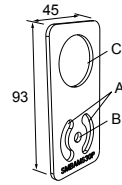
- 12-ga. stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor



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

SMBAMS30P

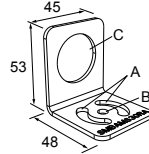
- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90° + rotation
- 12-ga. 300 series stainless steel



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

SMBAMS30RA

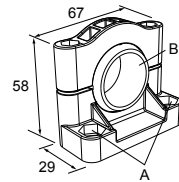
- Right-angle SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90° + rotation
- 12-ga. (2.6 mm) cold-rolled steel



Hole center spacing: A=26.0, A to B=13.0
 Hole size: A=26.8 x 7.0, B= \varnothing 6.5, C= \varnothing 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= \varnothing 50.8
 Hole size: A= \varnothing 7.0, B= \varnothing 30.0

All measurements are listed in millimeters [inches], unless noted otherwise.

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

Model			Features	Components
SA-M30TE12 - Black Acetal			<ul style="list-style-type: none">Streamlined black acetal or white UHMW stand-off pipe adapter/coverConnects between 30 mm light base and ½ in. NPSM/DN15 pipeMounting hardware included	
SA-M30TE12C - White UHMW				
Polished 304 Stainless Steel	Black Anodized Aluminum	Clear Anodized Aluminum	<ul style="list-style-type: none">Elevated-use stand-off pipe (½ in. NPSM/DN15)Polished 304 stainless steel, black anodized aluminum, or clear anodized aluminum surface½ in. NPT thread at both endsCompatible with most industrial environments	
SOP-E12-150SS 150 mm (6 in) long	SOP-E12-150A 150 mm (6 in) long	SOP-E12-150AC 150 mm (6 in) long		
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		
SA-E12M30 - Black Acetal				
SA-E12M30C - White UHMW			<ul style="list-style-type: none">Streamlined black acetal or white UHMW mounting base adapter/coverConnects between ½ in. NPSM/DN15 pipe and 30 mm (1-3/16 in) drilled holeMounting hardware included	

Pipe Mounting Flange

Pipe Mounting Flange			
Model	Features	Construction	
SA-F12	<ul style="list-style-type: none"> For use elevated stand-off pipes (½ in, NPSM/DN15) M5 mounting hardware and nitrile gasket included 	Die-cast zinc base with black paint	

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