

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		
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	

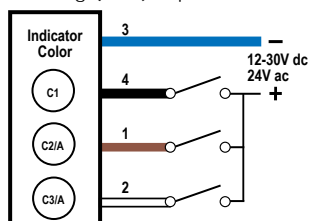
Omni-Directional Sealed Audible Model with Intensity Adjustment ¹			# of LED Colors	LED Colors ²	Connection ³	Inputs
Continuous	Pulsed at 1.6 Hz	Staccato				
TL50BLRAOSIQ	TL50BLRAOS3IQ	TL50BLRAOS4IQ	1	Red	4-pin Euro integral QD connector	Bimodal (NPN or PNP)
TL50BLGRAOSIQ	TL50BLGRAOS3IQ	TL50BLGRAOS4IQ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



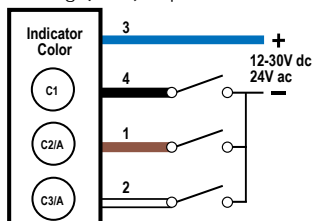
NOTE: See Banner Engineering catalog or <http://www.bannerengineering.com> for additional models and complete information.

Wiring Diagram — 4-Pin Models

Sourcing (PNP) Input



Sinking (NPN) Input



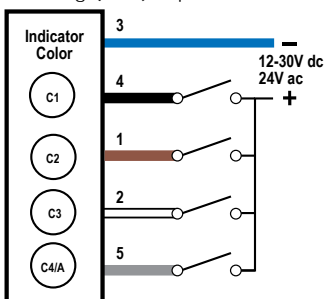
Key:

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

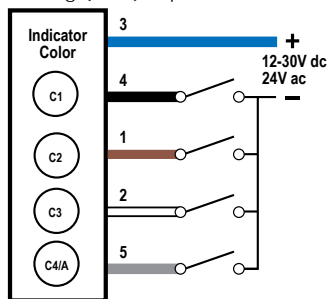
Pins 1 and 2 could activate the corresponding color or the audible function, if available.

Wiring Diagram — 5-Pin Models

Sourcing (PNP) Input



Sinking (NPN) Input



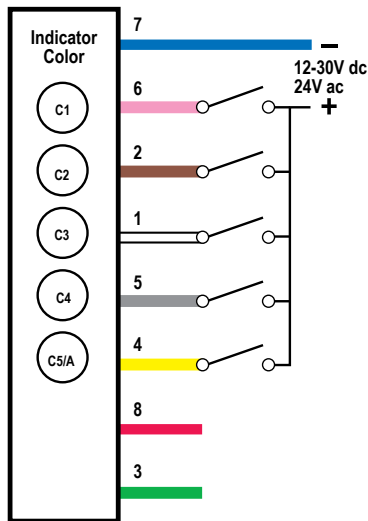
Key:

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

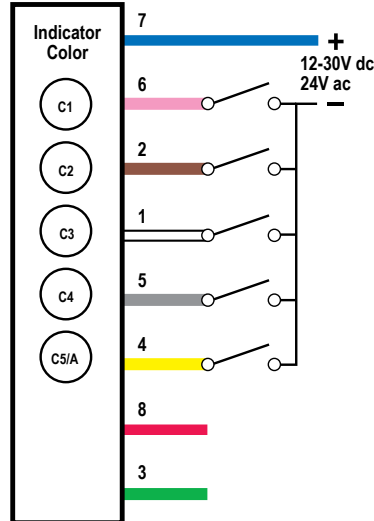
Pin 5 could activate the corresponding color or the audible function, if available.

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.

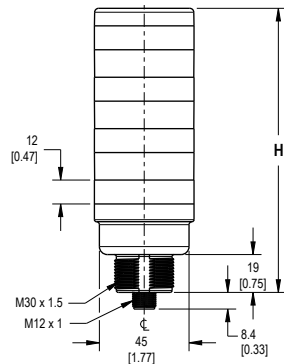
Overcurrent protection is required to be provided by end product application per the supplied table.

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)			