EZ-LIGHT® TL50BL Beacon Tower Light with IO-Link®

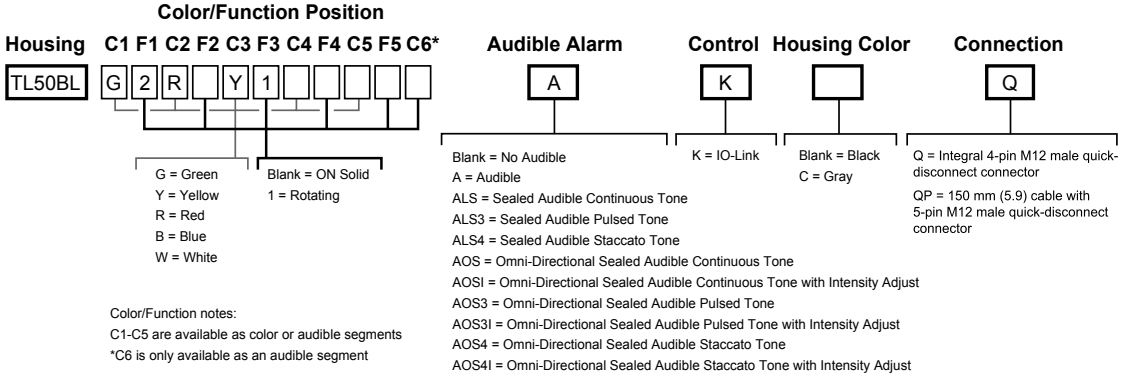
Features





- Rugged, cost-effective, and easy-to-install multi-segment indicators
- Illuminated segments provide easy-to-see operator guidance and indication of equipment status
- Up to five stacked colors available
- Available in black or light gray housing
- Audible models available with standard, sealed, or omni-directional audible element
- Compact devices are completely self-contained - no controller needed
- 12 V DC to 30 V DC operation with IO-Link control
- No assembly required

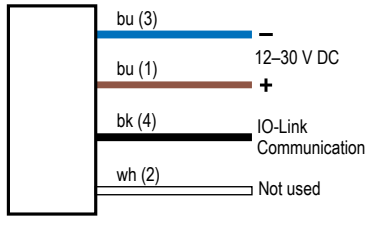
Models



Example models include: TL50BLWBGYRKQ or TL50BLGYRALSKQ.

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

Wiring



Key
1 = Brown
2 = White
3 = Blue
4 = Black

IO-Link Process In Data

IO-Link® is a point-to-point communication link between a master device and a sensor and/or light. It can be used to automatically parameterize sensors or lights and to transmit process data. For the latest IO-LINK protocol and specifications, please visit www.io-link.com.

Process Data is transmitted cyclically to the IO-Link device from the IO-Link master. These parameters are written to the TL50BL acyclically and are used to perform one of the following functions:

- Tower light turns off
- Tower light turns on or rotates (designated by model)
- Tower light flashes

IO-Link Process Data Out for the TL50BL

Subindex	Name	Light Segment	Audible Segment
1	Segment 1	Off/On/Flash	Off/On
2	Segment 2	Off/On/Flash	Off/On
3	Segment 3	Off/On/Flash	Off/On
4	Segment 4	Off/On/Flash	Off/On

Continued on page 2

Original Instructions
21-Jul-25

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p/n: 202471 Rev. C

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Continued from page 1

IO-Link Process Data Out for the TL50BL			
Subindex	**Name**	**Light Segment**	**Audible Segment**
5	Segment 5	Off/On/Flash	Off/On
6	Segment 6	N/A	Off/On

Specifications

Supply Voltage and Current

12 V DC to 30 V DC

Maximum current per LED color:
150 mA at 12 V DC
80 mA at 24 V DC
70 mA at 30 V DC

Maximum current for Standard Audible Alarm: 50 mA

Maximum current for Omni-Directional Sealed Audible: 70 mA

Maximum current for Sealed Audible Alarm: 60 mA

Supply Protection Circuitry

Protected against reverse polarity and 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 ± 500 Hz oscillation frequency; maximum intensity 92 dB at 1 m (3.3 ft) (typical)

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

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

Typical Reduction in Sound Intensity with Audible Adjustment (maximum to minimum)

- **Standard Audible:** 30 dB
- **Sealed Audible:** 20 dB
- **Omni-Directional Sealed Audible:** 12 dB

Construction

Bases and Covers: ABS

Light Segment: Polycarbonate

Operating Conditions

Non-Audible: –40 °C to +50 °C (–40 °F to +122 °F)

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

90% at +50 °C maximum relative humidity (non-condensing)

Environmental Rating

Non-Audible and Sealed Audible: IP67

Standard Audible: IP50

Vibration and Mechanical Shock

All models meet MIL-STD-202F, Method 201A (Vibration: 10 Hz to 60 Hz maximum, 0.06 inch (1.52 mm) double amplitude, 10G maximum acceleration) requirements. Also meets IEC 60947-5-2 (Shock: 30G 11 ms duration, half sine wave) requirements.

Input Response Time

Indicator On/Off: 10 ms (maximum)

Indicators

LEDS are independently selected; 1 to 6 segments depending on the model (lights and audible alarms are counted as segments, segment 6 available as audible only)

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Lumen Output (Typical at 25 °C)
Green	525 nm	46
Red	625 nm	22
Yellow	590 nm	14
Blue	470 nm	15
White	5000 K	50

Connections

Integral 4-pin M12 male quick-disconnect connector

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 www.bannerengineering.com.

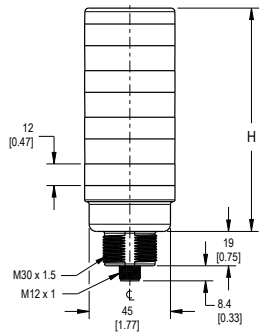
Supply Wiring (AWG)	Required Overcurrent Protection (A)	Supply Wiring (AWG)	Required Overcurrent Protection (A)
20	5.0	26	1.0
22	3.0	28	0.8
24	1.0	30	0.5

Certifications

Banner Engineering BV
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Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.

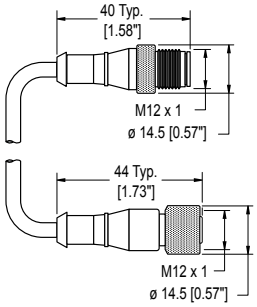
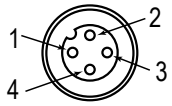
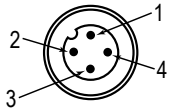
Dimensions	# of Colors	Tower Height (H)			
		Non-Audible	Standard Audible[1]	Sealed Audible	Omni-Directional Sealed Audible
	1	46.2 mm (1.8 in)	77.1 mm (3.1 in)	100.2 mm (4 in)	114.2 mm (4.5 in)
	2	72 mm (2.8 in)	102.9 mm (4.1 in)	126 mm (5 in)	140 mm (5.5 in)
	3	97.8 mm (3.8 in)	128.7 mm (5.1 in)	141.8 mm (6 in)	165.8 mm (6.5 in)
	4	123.6 mm (4.8 in)	154.5 mm (6.1 in)	177.6 mm (7 in)	191.6 mm (7.5 in)
	5	149.4 mm (5.8 in)	180.5 mm (7.1 in)	203.4 mm (8 in)	217.4 mm (8.5 in)
	6	-	206.1 mm (8.1 in)	229.2 mm (9 in)	243.2 mm (9.5 in)

[1] Tower height (H) with top unscrewed approximately 3.5 mm (0.18 in) to allow sound to escape

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Accessories

Cordsets

4-Pin Double-Ended M12 Female to M12 Male Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout**
MQDEC-401SS	0.31 m (1 ft)	Male Straight/Female Straight		Female  Male  1 = Brown 2 = White 3 = Blue 4 = Black
MQDEC-403SS	0.91 m (2.99 ft)			
MQDEC-406SS	1.83 m (6 ft)			
MQDEC-412SS	3.66 m (12 ft)			
MQDEC-415SS	4.58 m (15 ft)			
MQDEC-420SS	6.10 m (20 ft)			
MQDEC-430SS	9.14 m (30.2 ft)			
MQDEC-450SS	15.2 m (49.9 ft)			

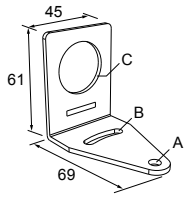
Mounting Brackets

All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.

SMB30A

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

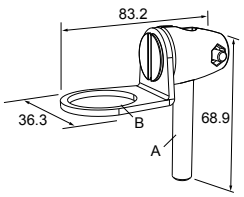
Hole center spacing: A to B=40
Hole size: A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5



SMB30FA

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

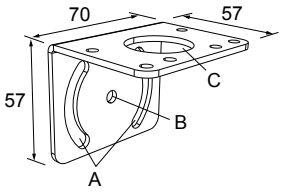
Bolt thread: SMB30FA, A= 3/8 - 16 × 2 in; SMB30FAM10, A= M10 - 1.5 × 50
Hole size: B= ø 30.1



SMB30MM

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

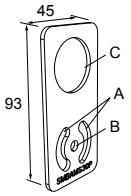
Hole center spacing: A = 51, A to B = 25.4
Hole size: A = 42.6 × 7, B = ø 6.4, C = ø 30.1



SMBAMS30P

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

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

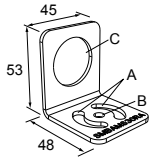


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SMBAMS30RA

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

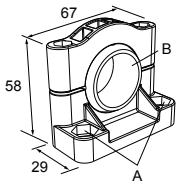
Hole center spacing: A=26.0, A to B=13.0
Hole size: A=26.8 × 7.0, B=ø 6.5, C=ø 31.0



SMB30SC

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

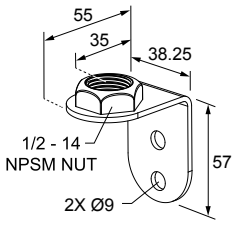
Hole center spacing: A=ø 50.8
Hole size: A=ø 7.0, B=ø 30.0



LMBE12RA35

- Direct mounting of stand-off pipe, with common bracket type
- Zinc-plated steel
- 1/2-14 NPSM nut
- Mounting distance from the wall to the center of the 1/2-14 NPSM nut is 35 mm

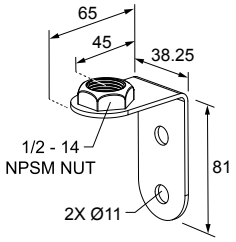
Hole center spacing: 20.0



LMBE12RA45

- Direct mounting of stand-off pipe, with common bracket type
- Zinc-plated steel
- 1/2-14 NPSM nut
- Mounting distance from the wall to the center of the 1/2-14 NPSM nut is 45 mm

Hole center spacing: 35.0



LMB Sealed Right-Angle Bracket

Model	Description	
LMB30RA - Black polycarbonate **LMB30RAC** - Gray polycarbonate	• **Direct-Mount Models** • Bracket kit with base, 30 mm adapter, set screw, fasteners, O-rings, and gaskets.	
LMBE12RA - Black polycarbonate **LMBE12RAC** - Gray polycarbonate	• **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)	

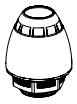
Elevated Mount System

Model	Description	Components
SA-M30TE12 - Black Acetal	• 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	
SA-M30TE12C - White UHMW		

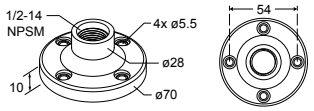
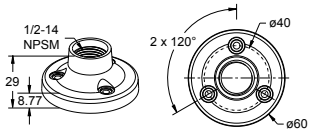
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Model			Description	Components
Polished 304 Stainless Steel	**Black Anodized Aluminum**	**Clear Anodized Aluminum**	• Elevated-use stand-off pipe (½ in. NPSM/DN15) • Polished 304 stainless steel, black anodized aluminum, or clear anodized aluminum surface • ½ in. NPT thread at both ends: one end screws into the internal threads of the light's base, and one end screws into the mounting base adapter/cover • Compatible 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			• 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	
SA-E12M30C - White UHMW				

Pipe Mounting Flange

Pipe Mounting Flange			
Model	**Description**	**Construction**	
SA-F12	• Elevated-use stand-off pipes (½ in, NPSM/DN15) • M5 mounting hardware and nitrile gasket included	Die-cast zinc base with black paint	
SA-F12-3	• Elevated-use stand-off pipes (½ in, NPSM/DN15) • M4 mounting hardware and nitrile blend gasket included	Black Polycarbonate	

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