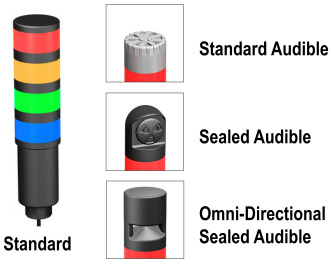
TL50HZ High Brightness Universal AC Voltage Tower Light

Features

Multi-Color General-Purpose or Audible Indicators



- Similar in design and construction to standard TL50 Tower Lights, but more than 4 times brighter, improving visibility in areas with high levels of ambient light
- 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
- 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
- 100 V AC to 240 V AC operation
- No assembly required

Non-Audible Models

Model[1]	# of LED Colors	LED Colors[2]	Connection[3]	Inputs
TL50HZR	1	Red	4-wire PVC cable	100 V AC to 240 V AC
TL50HZGR	2	Green, Red		
TL50HZGYR	3	Green, Yellow, Red		
TL50HZBGYR	4	Blue, Green, Yellow, Red	5-wire PVC cable	
TL50HZWBGYR	5	White, Blue, Green, Yellow, Red	6-wire PVC cable	

Audible Models

Standard Audible Models

Models[1]	# of LED Colors	LED Colors[2]	Connection[3]	Inputs
TL50HZRA	1	Red	4-wire PVC cable	100 V AC to 240 V AC
TL50HZGRA	2	Green, Red		
TL50HZGYRA	3	Green, Yellow, Red	5-wire PVC cable	
TL50HZBGYRA	4	Blue, Green, Yellow, Red	6-wire PVC cable	

Sealed Audible Models

Models[1]			# of LED Colors	LED Colors[2]	Connection[3]	Inputs
Continuous	Pulsed at 1.6 Hz	Staccato				
TL50HZRALS	TL50HZRALS3	TL50HZRALS4	1	Red	4-wire PVC cable	100 V AC to 240 V AC
TL50HZGRALS	TL50HZGRALS3	TL50HZGRALS4	2	Green, Red		
TL50HZGYRALS	TL50HZGYRALS3	TL50HZGYRALS4	3	Green, Yellow, Red	5-wire PVC cable	
TL50HZBGYRALS	TL50HZBGYRALS3	TL50HZBGYRALS4	4	Blue, Green, Yellow, Red	6-wire PVC cable	

Omni-Directional Sealed Audible Models

Models[1]			# of LED Colors	LED Colors[2]	Connection[3]	Inputs
Continuous	Pulsed at 1.6 Hz	Staccato				
TL50HZRAOS	TL50HZRAOS3	TL50HZRAOS4	1	Red	4-wire PVC cable	100 V AC to 240 V AC
TL50HZGRAOS	TL50HZGRAOS3	TL50HZGRAOS4	2	Green, Red		
TL50HZGYRAOS	TL50HZGYRAOS3	TL50HZGYRAOS4	3	Green, Yellow, Red	5-wire PVC cable	
TL50HZBGYRAOS	TL50HZBGYRAOS3	TL50HZBGYRAOS4	4	Blue, Green, Yellow, Red	6-wire PVC cable	

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(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 "QP" in 150 mm (6 in) PVC cable model numbers. For example, TL50HZRC or TL50HZRCQP.
(2) The first color listed is the bottom color, going up in successive order. Four color options are only available in audible cabled models. Five color options are only available in non-audible cabled models.
(3)

- To order the 150 mm (6 in) PVC cable model, add the suffix "QP" to the model number. For example, TL50HZRQP.
- Models with a quick-disconnect connector require a mating cordset.

Original Instructions
14-Jul-25

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169422
p/n: 169422 Rev. K

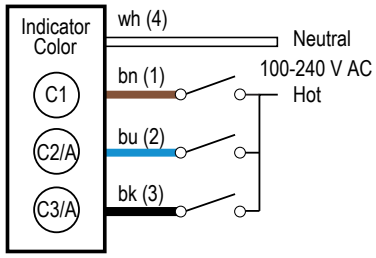
ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Omni-Directional Sealed Audible Models with Intensity Adjustment

Models[1]			# of LED Colors	LED Colors[2]	Connection[3]	Inputs
Continuous	Pulsed at 1.6 Hz	Staccato				
TL50HZRAOSI	TL50HZRAOS3I	TL50HZRAOS4I	1	Red	4-wire PVC cable	100 V AC to 240 V AC
TL50HZGRAOSI	TL50HZGRAOS3I	TL50HZGRAOS4I	2	Green, Red		
TL50HZGYRAOSI	TL50HZGYRAOS3I	TL50HZGYRAOS4I	3	Green, Yellow, Red	5-wire PVC cable	
TL50HZBGYRAOSI	TL50HZBGYRAOS3I	TL50HZBGYRAOS4I	4	Blue, Green, Yellow, Red	6-wire PVC cable	

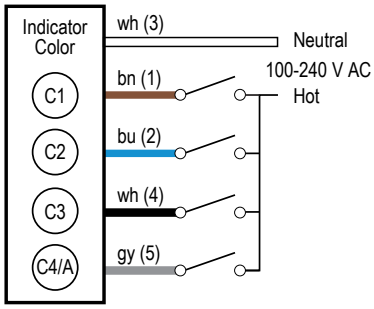
Wiring

Models with 1 to 3 Segments: 4-Wire



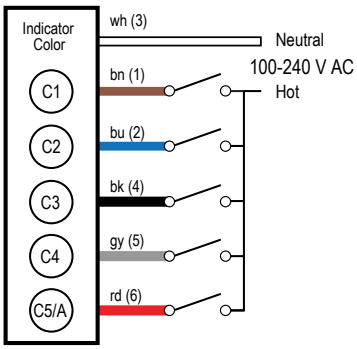
4-Wire Key:
C1 = Color 1
C2 = Color 2
C3 = Color 3
A = Audible

Models with 4 Segments: 5-Wire



5-Wire Key:
C1 = Color 1
C2 = Color 2
C3 = Color 3
C4 = Color 4
C5 = Color 5
A = Audible

Models with 5 Segments: 6-Wire



6-Wire Key:
C1 = Color 1
C2 = Color 2
C3 = Color 3
C4 = Color 4
C5 = Color 5
A = Audible

Specifications

Supply Voltage and Current

100 V AC to 240 V AC at 50 Hz or 60 Hz

Indicators—maximum current per LED color:

- 60 mA at 100 V AC
- 55 mA at 120 V AC
- 40 mA at 240 V AC

Standard Audible Alarm: 30 mA maximum current

Sealed Audible Alarm: 25 mA maximum current

Omni-Directional Sealed Audible Alarm: 45 mA maximum current

Supply Protection Circuitry

Protected against transient voltages

Input Response Time

Indicator On/Off: 500 milliseconds maximum

Leakage Current Immunity

500 µA

Application Note: The use of relay output PLC is recommended since there is no leakage current. Solid state output PLCs often have leakage current above 1 mA and, therefore, turn the light on in the off state. To counteract the leakage current, a shunt resistor must be used. A resistor must be applied from the neutral wire of the device to the hot wire of each channel of the device.

Indicators

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

Indicator Characteristics

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Lumen Output (Typical at 25 °C)
Green	525 nm	60
Red	625 nm	32
Yellow	590 nm	23
Blue	475 nm	23
White	5000 K	50

Connections

Integral 4-pin, 5-pin, or 8-pin M12 male quick-disconnect connector, or 2 m (6.5 ft) integral PVC-jacketed cable, depending on model

Models with a quick-disconnect connector require a mating cordset

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

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.

Construction

Bases and Covers: ABS

Light Segment: Polycarbonate

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

UL Type 4X Indoor and UL Type 13

Non-Audible and Sealed Audible: IP67

Standard Audible: IP50

Vibration and Mechanical Shock

Meets IEC 60068-2-6 requirements (Vibration: 10 Hz to 55 Hz, 1.0 mm amplitude, 5 minutes sweep, 30 minutes dwell)

Meets IEC 60068-2-27 requirements (Shock: 30G 11 ms duration, half sine wave)

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Certifications

Banner Engineering BV
Park Lane, Culliganlaan 2F bus 3
1831 Diegem, BELGIUM

Required Overcurrent Protection

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

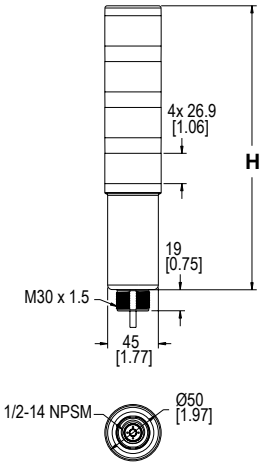
Overcurrent protection is required to be provided by end product application per the supplied table.

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

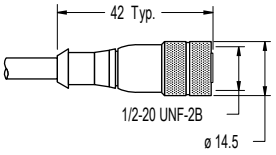
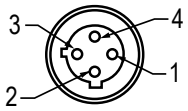
Dimensions

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

Dimensions	# of Segments	Tower Height (H)			
		Non-Audible	Standard Audible[4]	Sealed Audible	Omni-Directional Sealed Audible
	1	130.2 mm (5.1 in)	161 mm (6.3 in)	184.1 mm (7.2 in)	198.1 mm (7.8 in)
	2	170.9 mm (6.7 in)	201.7 mm (7.9 in)	224.8 mm (8.9 in)	238.8 mm (9.4 in)
	3	211.6 mm (8.3 in)	242.4 mm (9.5 in)	265.5 mm (10.5 in)	279.5 mm (11 in)
	4	252.3 mm (9.9 in)	283.1 mm (11.1 in)	306.2 mm (12.1 in)	320.2 mm (12.6 in)
	5	293 mm (11.5 in)	-	-	-

Accessories

Cordsets

4-Pin Single-Ended 1/2-in Dual Key Female Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MQAC2-406	2 m (6.56 ft)	Straight		 1 = Brown 2 = Blue 3 = Black 4 = White
MQAC2-415	5 m (16.4 ft)			
MQAC2-430	9.14 m (30 ft)			

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

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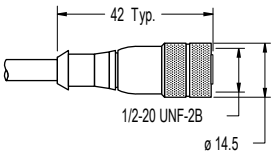
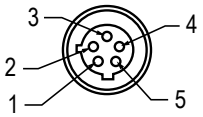
5-Pin Single-Ended 1/2-in Dual Key Female Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MQAC2-506	2 m (6.56 ft)	Straight		 1 = Brown 2 = Blue 3 = White 4 = Black 5 = Gray
MQAC2-515	5 m (16.4 ft)			
MQAC2-530	9.14 m (30 ft)			

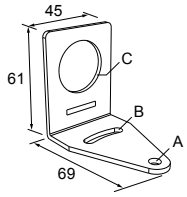
Mounting Brackets

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

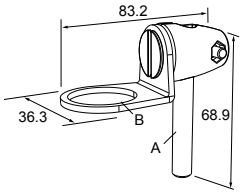
Hole center spacing: A to B=40
Hole size: A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5



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

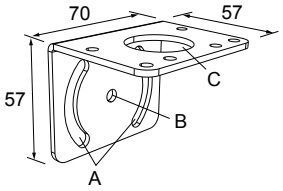
Bolt thread: SMB30FA, A= 3/8 - 16 × 2 in; SMB30FAM10, A= M10 - 1.5 × 50
Hole size: B= ø 30.1



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

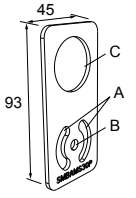
Hole center spacing: A = 51, A to B = 25.4
Hole size: A = 42.6 × 7, B = ø 6.4, C = ø 30.1



SMBAMS30P

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

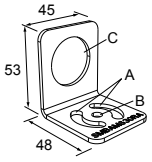
Hole center spacing: A=26.0, A to B=13.0
Hole size: A=26.8 × 7.0, B=ø 6.5, C=ø 31.0



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

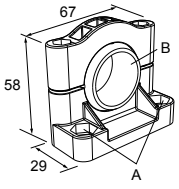
Hole center spacing: A=26.0, A to B=13.0
Hole size: A=26.8 × 7.0, B=ø 6.5, C=ø 31.0



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



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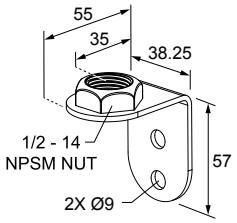
LMBE12RA35

- 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

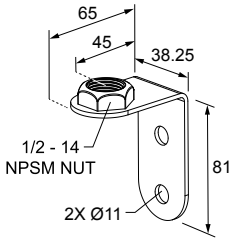
Hole center spacing: 20.0



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

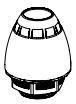
Hole center spacing: 35.0



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				
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				

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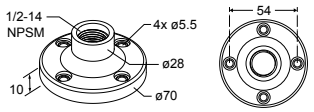
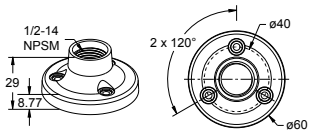
Pipe Mounting Flange

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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