

## Features

Multi-Color General-Purpose or Audible Indicators

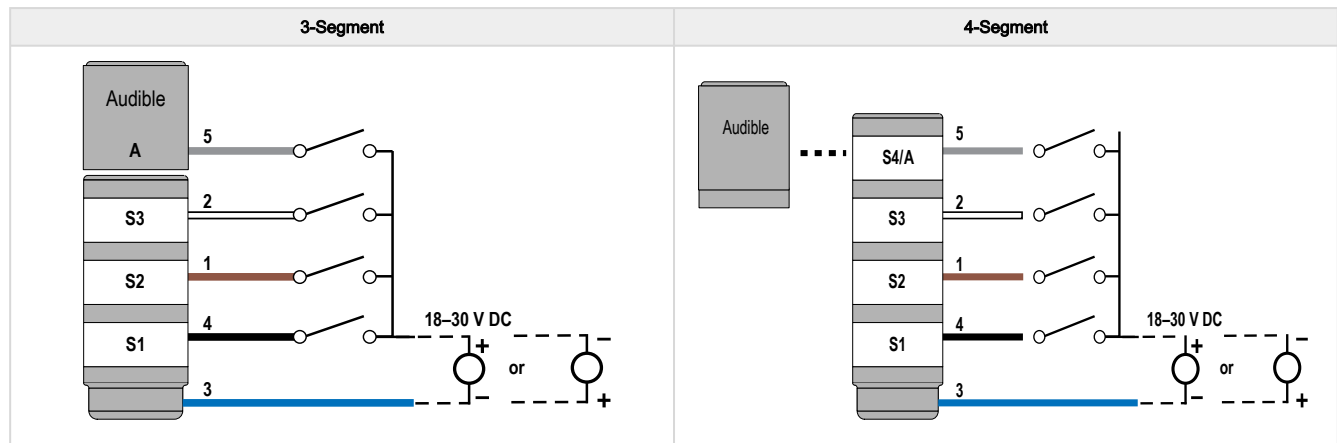
- Rugged, cost-effective, and easy-to-install multi-segment indicators
- Illuminated segments provide easy-to-see operator guidance and indication of equipment status
- Audible models available with omni-directional audible element
- Compact devices are completely self-contained, no controller needed
- 18 V DC to 30 V DC
- No assembly required

## Models

Model	Audible	LED Colors <sup>(1)</sup>	Connection <sup>(2)</sup>	Inputs
TL50B-GYR	No	Green, Yellow, Red, Blue	1 m (3.3 ft) integral PVC-jacketed cable	Bimodal (NPN or PNP)
TL50B-GYRA	Yes			
TL50B-GYRQ	No		Integral 4-pin M12 male quick-disconnect connector	
TL50B-GYRAQ	Yes		Integral 5-pin M12 male quick-disconnect connector	
TL50B-BGYRQ	No		Integral 8-pin M12 male quick-disconnect connector	
TL50B-BGYRAQ	Yes			

## Wiring Diagram

4-Pin and 5-Pin Models

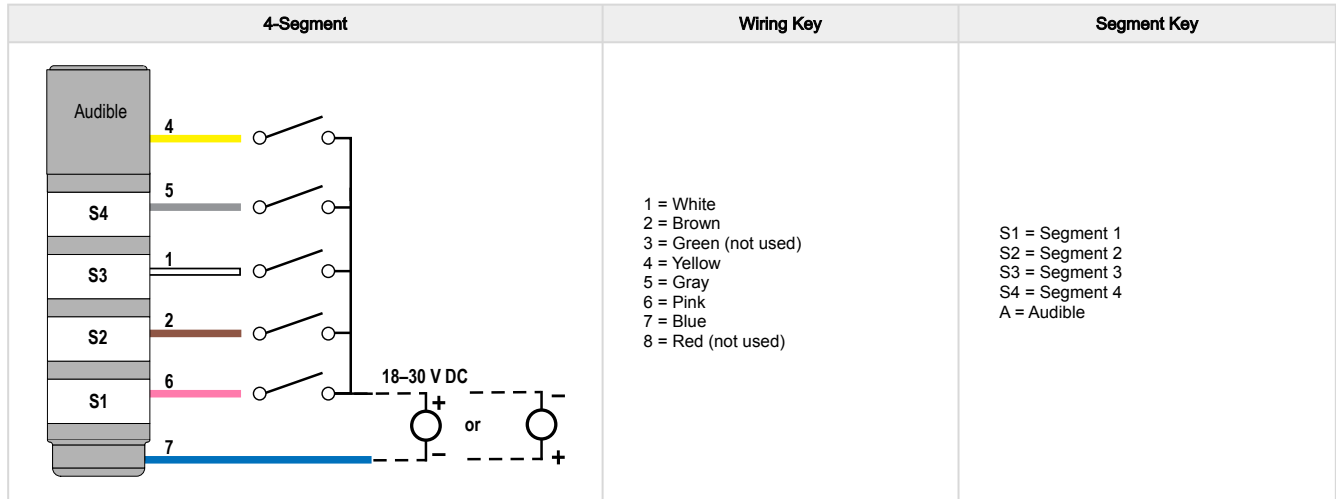


Wiring Key	Segment Key
1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray	S1 = Segment 1 S2 = Segment 2 S3 = Segment 3 S4 = Segment 4 A = Audible (optional)

<sup>(1)</sup> The first color listed is the bottom color, going up in successive order.

<sup>(2)</sup> Models with a quick-disconnect connector require a mating cordset.

8-Pin Models (4-Segment Models Only)



### Audible Adjustment

1. Remove the top cover by turning counterclockwise.
2. Toggle the switch up for high setting, and down for low setting.
3. To reassemble, align the inner arrows on the audible cover and top segment. Push down gently and turn clockwise.

**NOTE:** Do not pinch the wires when reassembling.

### Specifications

**Supply Voltage and Current**

18 V DC to 30 V DC  
 Segments—maximum current per LED segment: 26 mA at 18 V DC to 30 V DC  
**Omni-Directional Audible Alarm:** 20 mA maximum current

**Supply Protection Circuitry**

Protected against transient voltages

**Input Response Time**

Indicator On/Off: 1 milliseconds maximum

**Operating Frequency**

3.1 kHz ± 500 Hz oscillation frequency

**Intensity:**

- High Setting: 93 dB at 1 m (typical)
- Low Setting: 10 dB typical reduction in sound intensity with audible adjustment (maximum to minimum)

**Connections**

Integral 4-pin or 5-pin M12 quick-disconnect connector, or 1 m (3.3 ft) integral PVC-jacketed cable, depending on model  
 Models with a quick-disconnect connector require a mating cordset

**Construction**

**Bases and Covers:** Polycarbonate  
**Light Segment:** Polycarbonate

**Vibration and Mechanical Shock**

Meets IEC 60068-2-6 requirements (Vibration: 10 Hz to 55 Hz, 0.5 mm amplitude, 5 minutes sweep, 30 minutes dwell)  
 Meets IEC 60068-2-27 requirements (Shock: 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)

**Input Leakage Current Immunity**

400 µA<sup>(1)</sup>

**Environmental Rating**

IP65, UL Type 4X

**Included Accessories**

M30 knurl nut and gasket

**Indicators**

LEDs are independently selected

<sup>(1)</sup> Any current above this value may activate the TL50.

**Indicator Characteristics**

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Lumen Output (Typical at 25 °C)
Green	525 nm	17
Red	625 nm	8
Yellow	590 nm	16
Blue	465 nm	4

**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](http://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.

**Certifications**

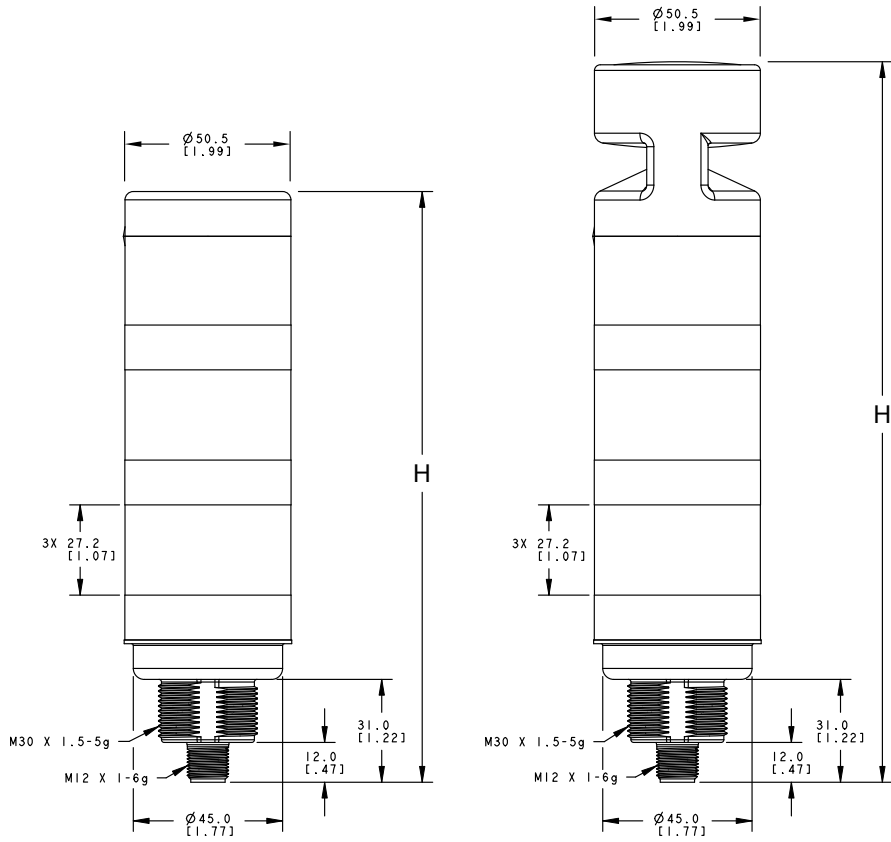


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 GREAT BRITAIN





Standard Models

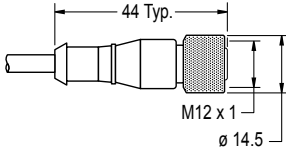
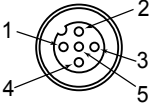
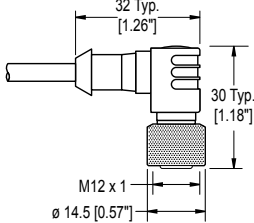
Audible Models

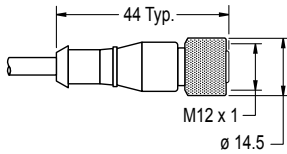
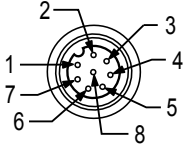
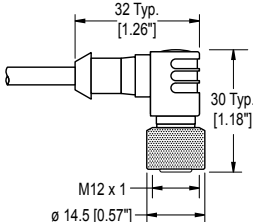
# of Segments	Standard Models	Audible Models
3	178.1 mm (7.01 in)	217.2 mm (8.55 in)
4	218.8 mm (8.61 in)	256.9 mm (10.11 in)

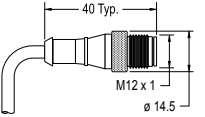

## Accessories

### Cordsets

4-Pin Threaded M12 Cordsets—Single Ended				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC-403	1 m (3.28 ft)	Straight		
MQDC-406	2 m (6.56 ft)			
MQDC-410	3 m (9.8 ft)			
MQDC-415	5 m (16.4 ft)			
MQDC-430	9 m (29.5 ft)			
MQDC-450	15 m (49.2 ft)			
MQDC-460	18.3 m (60 ft)			
MQDC-470	21 m (68.9 ft)			
MQDC-4100	30 m (98.43 ft)			

5-Pin Threaded M12 Cordsets—Single Ended				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC1-501.5	0.5 m (1.5 ft)	Straight		 <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>
MQDC1-503	0.9 m (2.9 ft)			
MQDC1-506	2 m (6.5 ft)			
MQDC1-515	5 m (16.4 ft)			
MQDC1-530	9 m (29.5 ft)			
MQDC1-560	18 m (59 ft)			
MQDC1-5100	31 m (101.7 ft)			
MQDC1-506RA	2 m (6.5 ft)	Right-Angle		<p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>
MQDC1-515RA	5 m (16.4 ft)			
MQDC1-530RA	9 m (29.5 ft)			
MQDC1-560RA	19 m (62.3 ft)			

8-Pin Threaded M12 Cordsets—Single Ended				
Model	Length	Style	Dimension	Pinout (Female)
MQDC1-803	1 m (3.2 ft)	Straight		
MQDC1-806	2 m (6.5 ft)			
MQDC1-815	5 m (16.4 ft)			
MQDC1-830	9 m (29.5 ft)			
MQDC1-850	15 m (49.2 ft)			
MQDC1-806RA	2 m (6.5 ft)	Right-Angle		<p>1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red</p>
MQDC1-815RA	5 m (16.4 ft)			
MQDC1-830RA	9 m (29.5 ft)			
MQDC1-850RA	15 m (49.2 ft)			

8-Pin Threaded M12 Cordsets—Double Ended				
Model	Length	Style	Dimensions	Pinout
MQDEC1-803SS	1 m (3.28 ft)	Male Straight / Female Straight		<p>1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red</p>
MQDEC1-806SS	2 m (6.56 ft)			
MQDEC1-810SS	3 m (9.84 ft)			
MQDEC1-815SS	5 m (16.4 ft)			
MQDEC1-830SS	9 m (29.5 ft)			
MQDEC1-850SS	15 m (49.2 ft)			
MQDEC1-8100SS	30.5 m (100 ft)			
MQDEC1-8200SS	61 m (200 ft)			
				

## Mounting Brackets

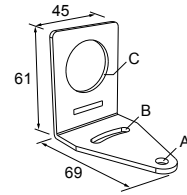
All measurements are listed in millimeters [inches], unless noted otherwise.

### 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=∅ 6.3, B= 27.1 × 6.3, C=∅ 30.5

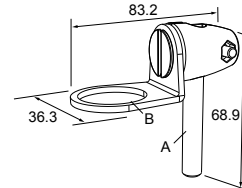


### SMB30FA

- 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= ∅ 30.1

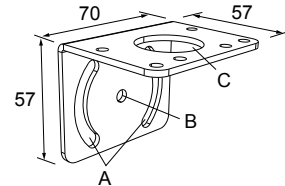


### SMB30MM

- 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 = ∅ 6.4, C = ∅ 30.1

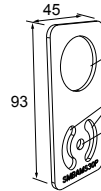


### SMBAMS30P

- 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=∅ 6.5, C=∅ 31.0

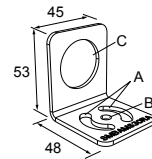


### SMBAMS30RA

- 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=∅ 6.5, C=∅ 31.0

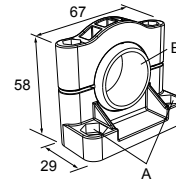


### SMB30SC

- 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=∅ 50.8

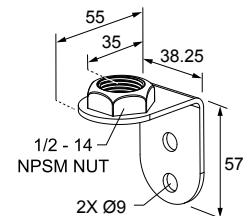
**Hole size:** A=∅ 7.0, B=∅ 30.0



### 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



<p><b>LMBE12RA45</b></p> <ul style="list-style-type: none"> <li>• Direct mounting of stand-off pipe, with common bracket type</li> <li>• Zinc-plated steel</li> <li>• 1/2-14 NPSM nut</li> <li>• Mounting distance from the wall to the center of the 1/2-14 NPSM nut is 45 mm</li> </ul> <p><b>Hole center spacing:</b> 35.0</p>	
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## LMB Sealed Right Angle Bracket

Model	Description	Construction	
<b>LMB30RA</b>	<b>Direct-Mount Models:</b> Bracket kit with base, 30 mm adapter, set screw, fasteners, O-rings, and gaskets.	Black polycarbonate	
<b>LMBE12RA</b>	<b>Pipe-Mount Models:</b> Bracket kit with base, 1/2-14 pipe adapter, set screw, fasteners, O-rings, and gaskets. For use with stand-off pipe (listed and sold separately).	Black polycarbonate	

## Elevated Mount System

Model			Description	Components
<b>SA-M30TE12</b> - Black Acetal			<ul style="list-style-type: none"> <li>• Streamlined black acetal stand-off pipe adapter/cover</li> <li>• Connects between 30 mm light base and 1/2 in. NPSM/DN15 pipe</li> <li>• Mounting hardware included</li> </ul>	
<b>Polished 304 Stainless Steel</b>	<b>Black Anodized Aluminum</b>	<b>Clear Anodized Aluminum</b>	<ul style="list-style-type: none"> <li>• Elevated-use stand-off pipe (1/2 in. NPSM/DN15)</li> <li>• Polished 304 stainless steel, black anodized aluminum, or clear anodized aluminum surface</li> <li>• 1/2 in. NPT thread at both ends</li> <li>• Compatible with most industrial environments</li> </ul>	
<b>SOP-E12-150SS</b>	<b>SOP-E12-150A</b>	<b>SOP-E12-150AC</b>		
150 mm (6 in) long	150 mm (6 in) long	150 mm (6 in) long		
<b>SOP-E12-300SS</b>	<b>SOP-E12-300A</b>	<b>SOP-E12-300AC</b>		
300 mm (12 in) long	300 mm (12 in) long	300 mm (12 in) long		
<b>SOP-E12-900SS</b>	<b>SOP-E12-900A</b>	<b>SOP-E12-900AC</b>		
900 mm (36 in) long	900 mm (36 in) long	900 mm (36 in) long		
<b>SA-E12M30</b> - Black Acetal			<ul style="list-style-type: none"> <li>• Streamlined black acetal mounting base adapter/cover</li> <li>• Connects between 1/2 in. NPSM/DN15 pipe and 30 mm (1-3/16 in) drilled hole</li> <li>• Mounting hardware included</li> </ul>	
<b>SOK-TL50-150A</b> <b>SOK-TL50-300A</b>			Includes: <ul style="list-style-type: none"> <li>• SA-M30TE12</li> <li>• SA-E12M30</li> <li>• SOP-E12-150/300A</li> </ul>	

## Pipe Mounting Flange

Pipe Mounting Flange			
Model	Description	Construction	
SA-F12	<ul style="list-style-type: none"> <li>Elevated-use stand-off pipes (½ in, NPSM/ DN15)</li> <li>M5 mounting hardware and nitrile gasket included</li> </ul>	Die-cast zinc base with black paint	
SA-F12-3	<ul style="list-style-type: none"> <li>Elevated-use stand-off pipes (½ in, NPSM/ DN15)</li> <li>M4 mounting hardware and nitrile blend gasket included</li> </ul>	Black Polycarbonate	

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Document title: TL50 Basic Tower Light Datasheet

Part number: 214732

Revision: B

Original Instructions

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