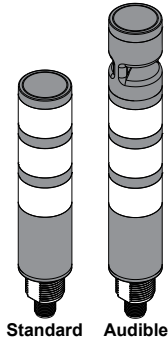


TL30 Basic Tower Light



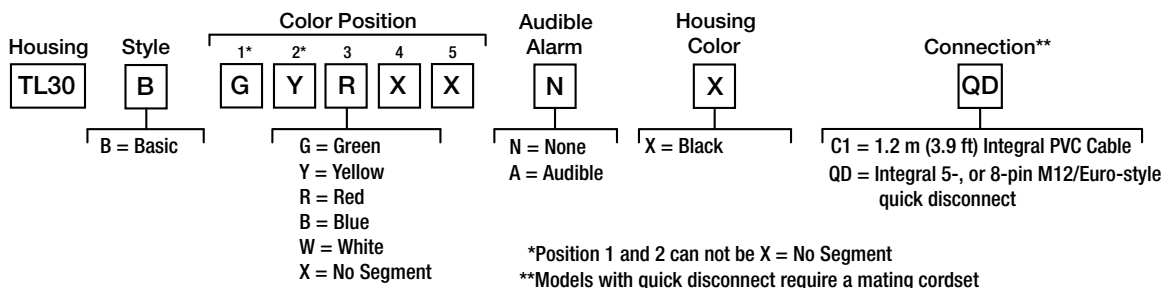
Datasheet

30 mm Multi-Color General-Purpose or Audible Indicators



- Rugged, affordable, and easy-to-install multi-segment indicators
- Compact 30 mm diameter
- Illuminated segments provide easy-to-see operator guidance and indication of equipment status
- Uniform indicator segments appear gray when off to eliminate false indication from ambient light
- Models with 2, 3, 4, and 5 color segments plus audible
- 12 V dc to 30 V dc operation
- No assembly required, mounting nut and gasket supplied

Models

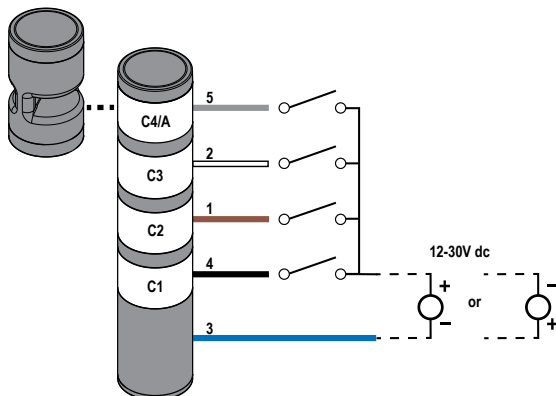


Wiring Diagrams



Note: All models are bimodal and can be wired as PNP or NPN devices.

5-Pin/Wire Models



Key

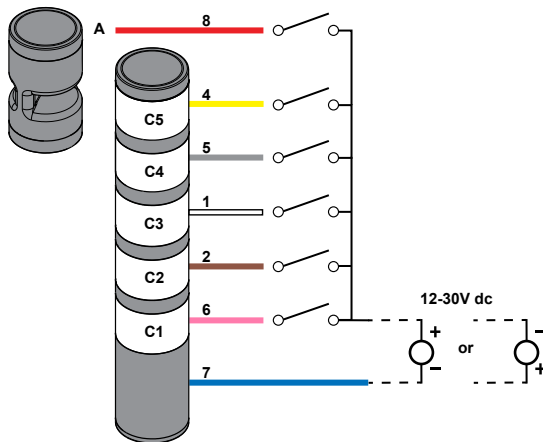
- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black
- 5 = Gray
- C1 = Color 1
- C2 = Color 2
- C3 = Color 3
- C4 = Color 4
- A = Audible

Pin 5 (Gray wire) activates the corresponding color or the audible function, if available.

2 and 3 segment models only require associated wires to be connected.



8-Pin / 7-Wire Models



Key

- 1 = White
 - 2 = Brown
 - 3 = Green (Not Used)
 - 4 = Yellow
 - 5 = Gray
 - 6 = Pink
 - 7 = Blue
 - 8 = Red
 - C1 = Color 1
 - C2 = Color 2
 - C3 = Color 3
 - C4 = Color 4
 - C5 = Color 5
 - A = Audible
- Green wire not used.

Specifications

Supply Voltage and Current

- 12 V dc to 30 V dc
- Maximum current per LED segment: 40 mA
- Omni-Directional Sealed Audible Alarm:** 20 mA maximum current

Supply Protection Circuitry

- Protected against transient voltages

Input Leakage Current Immunity

- 400 μ A¹

Audible Alarm

- Omni-Directional Sealed Audible Alarm:** 2.8 kHz \pm 500 Hz oscillation frequency, maximum intensity 90 dB at 1 m (3.3 ft) (typical)

Operating Conditions

- 40 °C to +50 °C (-40 °F to +122 °F)
- 90% maximum relative humidity (non-condensing)
- Storage Temperature: -40 °C to +70 °C (-40 °F to +158 °F)

Environmental Rating

- All Models:**
 - IEC IP65
 - UL Type 4X when mounted in a suitable enclosure
- Non-Audible:** UL Type 13 when mounted in a suitable enclosure

Construction

- Base, Segments and Audible:** UV stabilized polycarbonate
- Grommet:** TPV
- Mounting Nut:** PBT
- Sealing Gasket:** PVC/NBR/CR

Mounting

- M22 \times 1.5 threaded base, maximum torque 2.25 N-m (20 in-lbf)
- Mounting nut and sealing gasket included

Connections

- Integral 5-pin, or 8-pin M12/Euro-style quick disconnect, or 1.2 m (3.9 ft) integral PVC cable, depending on model
- Models with a quick disconnect require a mating cordset

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)
- IK07 (EN 60068-2-75 with SMBAMS22RA bracket)

Certifications



Indicators

- LEDS are independently selected; 2 to 5 colors depending on model

Indicator Response Time

- Indicator On/Off: 1 millisecond maximum

Indicator Characteristics

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Color Coordinates ²		Lumen Output (Typical at 25 °C)
		x	y	
Green	524 nm	0.160	0.708	7.5
Red	620 nm	0.690	0.308	2.5
Yellow	592 nm	0.582	0.413	6.5
Blue	468 nm	0.136	0.062	2.0
White	5500K	0.332	0.360	7.5

Required Overcurrent Protection



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

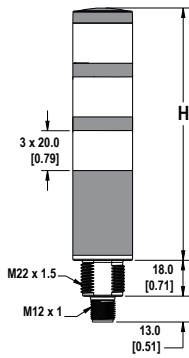
Overcurrent protection is required to be provided by end product application per the supplied table. Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply. Supply wiring leads < 24 AWG shall not be spliced. For additional product support, go to www.bannerengineering.com.

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

¹ Any current above this value may activate the TL30.

² Refer to CIE 1931 chromaticity diagram or color chart, to show equivalent color with indicated color coordinates.

Dimensions



# of colors	Tower Height (H)	
	Non-Audible	Omni-Directional Sealed Audible
2	99.7 mm (3.9 in)	145.6 mm (5.7 in)
3	126.7 mm (5.0 in)	172.6 mm (6.8 in)
4	153.7 mm (6.0 in)	199.6 mm (7.9 in)
5	180.7 mm (7.1 in)	226.6 mm (8.9 in)

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

Accessories

Cordsets

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		<p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>
MQDC1-506	1.83 m (6 ft)			
MQDC1-515	4.57 m (15 ft)			
MQDC1-530	9.14 m (30 ft)	Right-Angle		
MQDC1-506RA	1.83 m (6 ft)			
MQDC1-515RA	4.57 m (15 ft)			
MQDC1-530RA	9.14 m (30 ft)			

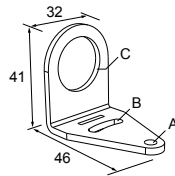
8-Pin Threaded M12/Euro-Style Cordsets with Open-Shield				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC2S-806	1.83 m (6 ft)	Straight		<p>1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red</p>
MQDC2S-815	4.57 m (15 ft)			
MQDC2S-830	9.14 m (30 ft)			
MQDC2S-850	15.2 m (50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

8-Pin Threaded M12/Euro-Style Cordsets with Open-Shield				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC2S-806RA	1.83 m (6 ft)	Right-Angle		
MQDC2S-815RA	4.57 m (15 ft)			
MQDC2S-830RA	9.14 m (30 ft)			
MQDC2S-850RA	15.2 m (50 ft)			

Brackets

SMB22A

- Right-angle bracket with curved slot for versatile orientation
- 12-ga. stainless steel
- Mounting hole for 22 mm sensor

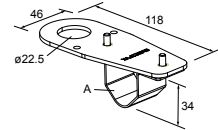


Hole center spacing: A to B = 26.0

Hole size: A = ϕ 4.6, B = 4.6 x 16.9, C = 22.2

SMB22FVK

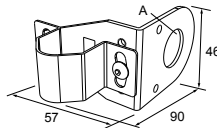
- V-clamp, flat bracket and fasteners for mounting to pipe or extensions
- Clamp accommodates 28 mm diameter tubing or 1 in. square extrusions
- 22 mm hole for mounting sensor



Hole size: A = ϕ 22.5

SMB22RAVK

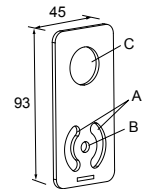
- V-clamp, right-angle bracket and fasteners for mounting to pipe or extensions
- Clamp accommodates 28 mm diameter tubing or 1 in. square extrusions
- 22 mm hole for mounting sensor



Hole size: A = ϕ 22.5

SMBAMS22P

- Flat SMBAMS series bracket with 22 mm hole for mounting sensors
- Articulation slots for 90+° rotation
- 12-ga. (2.6 mm) cold-rolled steel

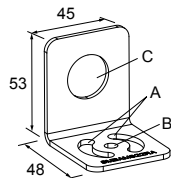


Hole center spacing: A = 26.0, A to B = 13.0

Hole size: A = 26.8 x 7.0, B = ϕ 6.5, C = ϕ 22.5

SMBAMS22RA

- Right-angle SMBAMS series bracket with 22 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 = ϕ 6.5, C = ϕ 22.5

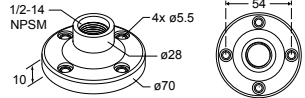
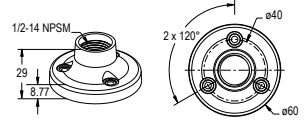
LMB Sealed Right-Angle Bracket

Model	Description	Construction	
LMBE12RA	Pipe-Mount Models: 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	

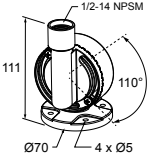
Elevated Mount System

Model			Features	Components
SA-M22E12 - Black Polycarbonate			<ul style="list-style-type: none"> Streamlined black polycarbonate stand-off pipe adapter/cover Connects between 22 mm light base and ½ in. NPSM/DN15 pipe 	
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 surface ½ in. NPT thread at both ends 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			<ul style="list-style-type: none"> Streamlined black acetal mounting base adapter/cover Connects between ½ in. NPSM/DN15 pipe and 30 mm (1-3/16 in) drilled hole Mounting hardware included 	

Pipe Mounting Flange

Pipe Mounting Flange			
Model	Features	Construction	
SA-F12	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Elevated-use stand-off pipes (½ in, NPSM/DN15) M4 mounting hardware and nitrile blend gasket included 	Black Polycarbonate	

Foldable Mounting Bracket

Foldable Mounting Brackets			
Model	Features	Construction	
SA-FFB12	<ul style="list-style-type: none"> For use with 1/2 inch stand-off pipes Stainless steel hardware 	Black polycarbonate	

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