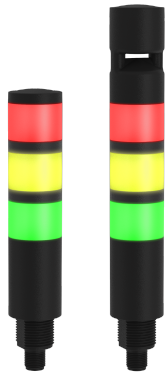
Features

30 mm Multi-Color General-Purpose or Audible Indicators



Standard Audible

- 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

Housing	Color Position					Audible Alarm	Housing Color	Connection[1]
	1	2	3	4	5			
TL30B	G	Y	R	X	X	N	X	QD
	G = Green Y = Yellow R = Red B = Blue W = White X = No segment (applies to color positions 3, 4, and 5 only)					N = None A = Audible	X = Black	C1 = Integral 1.2 m (3.9 ft) PVC-jacketed cable QD = Integral 5-pin or 8-pin M12 male quick disconnect connector

Wiring

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

[1] Models with a quick-disconnect connector require a mating cordset.

Original Instructions
21-Oct-25

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206089
p/n: 206089 Rev. D

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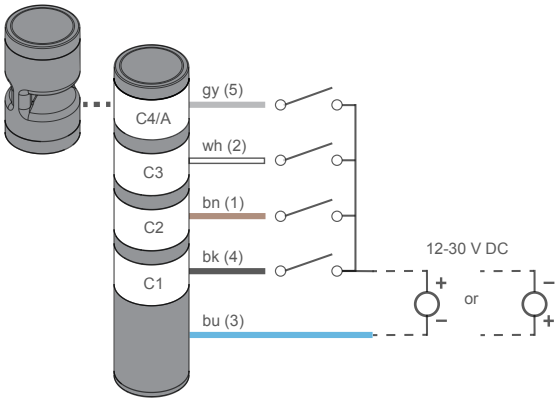
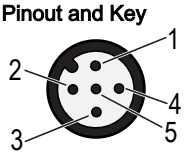
5-Pin/Wire Models



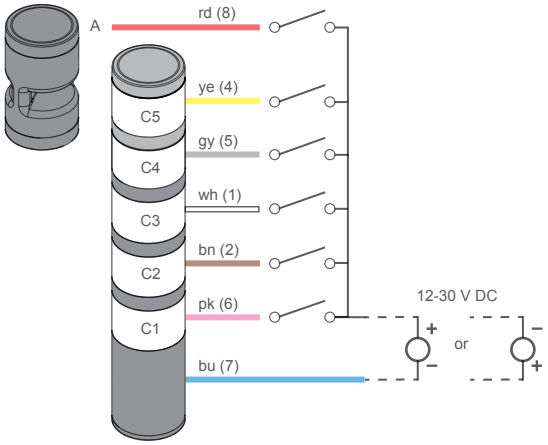
Pinout and Key



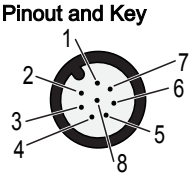
1 = Brown
2 = White
3 = Blue
4 = Black
5 = Gray
C1 = Color 1
C2 = Color 2
C3 = Color 3
C4 = Color 4
A = Audible

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



Pinout and 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 µA[(2)]

Audible Alarm
Omni-Directional Sealed Audible Alarm: 2.8 kHz ± 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)

[(2)] Any current above this value may activate the TL30.

Environmental Rating
All Models:
IP65
UL Type 4X when mounted in a UL Type 4X enclosure
Non-Audible: UL Type 13 when mounted in a UL Type 13 enclosure

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

Indicator Response Time
Indicator On/Off: 1 millisecond maximum

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Indicator Characteristics

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Color Coordinates[3]		Lumen Output (Typical at 25 °C)
		x	y	
Green	524 nm	0.16	0.708	7.5
Red	620 nm	0.69	0.308	2.5
Yellow	592 nm	0.582	0.413	6.5
Blue	468 nm	0.136	0.062	2
White	5500K	0.332	0.36	7.5

Construction

Base, Segments and Audible: UV stabilized polycarbonate

Grommet: TPV

Mounting Nut: PBT

Sealing Gasket: PVC/NBR/CR

Mounting

M22 × 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 male quick-disconnect connector, or integral 1.2 m (3.9 ft) PVC-jacketed cable, depending on model

Models with a quick-disconnect connector 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)

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

Certifications

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Park Lane, Culliganlaan 2F bus 3
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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.

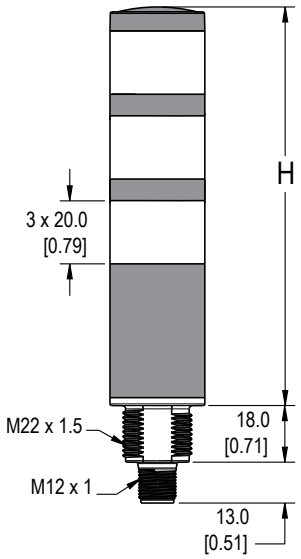
Supply wiring leads < 24 AWG shall not be spliced.

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	2.0	30	0.5

Dimensions

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



Number 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 in)	172.6 mm (6.8 in)
4	153.7 mm (6 in)	199.6 mm (7.9 in)
5	180.7 mm (7.1 in)	226.6 mm (8.9 in)

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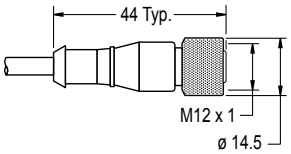
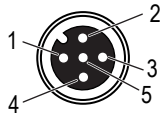
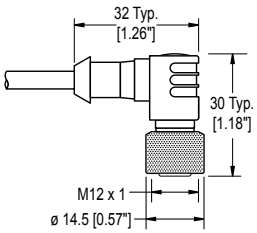
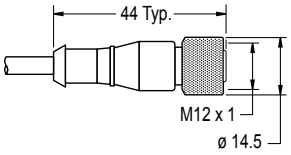
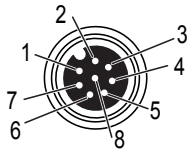
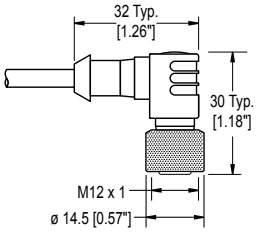
Accessories

Cordsets

5-Pin Single-Ended M12 Female Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MQDC1-501.5	0.5 m (1.5 ft)	Straight		 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray c UL us
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		
MQDC1-515RA	5 m (16.4 ft)			
MQDC1-530RA	9 m (29.5 ft)			
MQDC1-560RA	19 m (62.3 ft)			

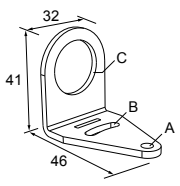
8-Pin Single-Ended M12 Female Open-Shielded Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MQDC2S-806	2.04 m (6.7 ft)	Straight		 1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red
MQDC2S-815	5.04 m (16.54 ft)			
MQDC2S-830	10.04 m (32.95 ft)			
MQDC2S-850	16 m (52.49 ft)			
MQDC2S-806RA	2 m (6.56 ft)	Right-Angle		
MQDC2S-815RA	5 m (16.4 ft)			
MQDC2S-830RA	10 m (32.81 ft)			
MQDC2S-850RA	16 m (52.49 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 = ø 4.6, B = 4.6 x 16.9, C = 22.2



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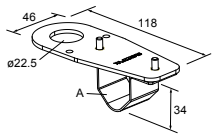
SMB22FVK

- 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

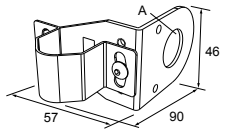
Hole size: A = ø 22.5



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

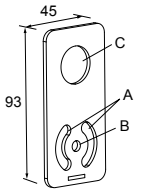
Hole size: A = ø 22.5



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

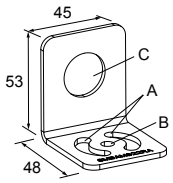
Hole center spacing: A = 26.0, A to B = 13.0
Hole size: A = 26.8 x 7.0, B = ø 6.5, C = ø 22.5



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

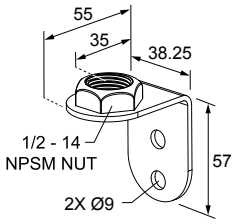
Hole center spacing: A = 26.0, A to B = 13.0
Hole size: A = 26.8 x 7.0, B = ø 6.5, C = ø 22.5



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

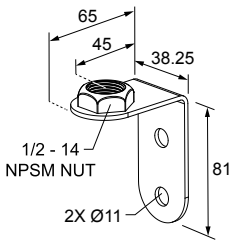
Hole center spacing: 20.0



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



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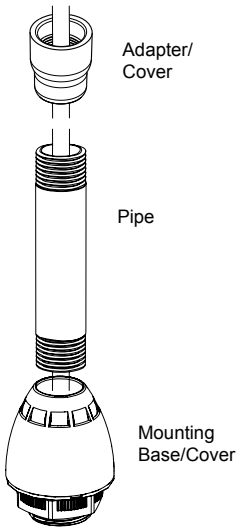
LMB Sealed Right-Angle Bracket

Model	Description	Construction	
LMBE12RA	**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).	Black polycarbonate	

Elevated Mount System

Example Assembly



This example uses:

1. Adapter/Cover
2. Pipe
3. Mounting Base (SA-E12M30 shown)

Other compatible parts are listed in the following tables.

Adapters/Covers



Adapter/Cover Model	Description
SA-M22E12	• Streamlined black polycarbonate stand-off pipe adapter/cover • Adapter from 22 mm light base to ½ in. NPSM/DN15 pipe

Pipes



Black Anodized Aluminum, ½ in. NPT Pipe Models	Clear Anodized Aluminum, ½ in. NPT Pipe Models	Description
SOP-E12-150A, 150 mm (6 in) long	**SOP-E12-150AC**, 150 mm (6 in) long	• Elevated-use stand-off pipe • Threaded at both ends • Compatible with most industrial environments
SOP-E12-300A, 300 mm (12 in) long	**SOP-E12-300AC**, 300 mm (12 in) long	
SOP-E12-600A, 600 mm (24 in) long	-	
SOP-E12-900A, 900 mm (36 in) long	**SOP-E12-900AC**, 900 mm (36 in) long	

304 Stainless Steel, ½ in. NPT Pipe Models	Description
SOP-E12-150SS, 150 mm (6 in) long	• Elevated-use stand-off pipe • Threaded at both ends • Compatible with most industrial environments
SOP-E12-300SS, 300 mm (12 in) long	
SOP-E12-600SS, 600 mm (24 in) long	
SOP-E12-900SS, 900 mm (36 in) long	

Bottom Covers and Mounting Bases

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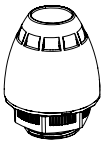
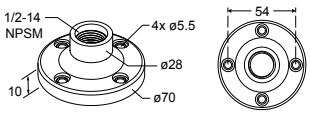
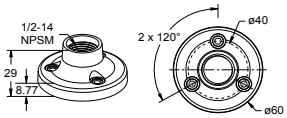


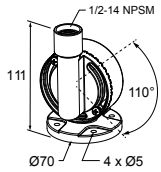
Base Adapter/Cover Model	Description
SA-E12M30 - Black acetal	• Streamlined black acetal or white UHMW mounting base adapter/cover • Adapter from ½ in. NPSM/DN15 pipe to 30 mm (1-3/16 in) drilled hole • Mounting hardware included
SA-E12M30C - White UHMW	



Mounting Base Model	Description
SA-F12	• Die-cast zinc base with black paint • Elevated-use stand-off pipes (½ in, NPSM/DN15) • M5 mounting hardware and nitrile gasket included



Mounting Base Model	Description
SA-F12-3	• Black polycarbonate • Elevated-use stand-off pipes (½ in, NPSM/DN15) • M4 mounting hardware and nitrile blend gasket included



Foldable Mounting Base Model	Description
SA-FFB12 - Black polycarbonate	• For use with ½ in. stand-off pipes • Stainless steel hardware
SA-FFB12C - Gray polycarbonate	

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