TL50C Compact Tower Light

Features

Multi-Color General-Purpose or Audible Indicators



- Bright, uniform lighted segments at only half the height of the standard TL50 models
- 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 7 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 or 24 V AC operation
- No assembly required

Models

Non-Audible Models

Models[1]	# of LED Colors	LED Colors[2]	Connection[3]
TL50CRQ	1	Red	Integral 4-pin M12 male quick-disconnect connector
TL50CGRQ	2	Green, Red	
TL50CGYRQ	3	Green, Yellow, Red	
TL50CBGYRQ	4	Blue, Green, Yellow, Red	Integral 5-pin M12 male quick-disconnect connector
TL50CWBGYRQ	5	White, Blue, Green, Yellow, Red	Integral 8-pin M12 male quick-disconnect connector

Standard Audible Models

Models[1]	# of LED Colors	LED Colors[2]	Connection[3]
TL50CRAQ	1	Red	Integral 4-pin M12 male quick-disconnect connector
TL50CGRAQ	2	Green, Red	
TL50CGYRAQ	3	Green, Yellow, Red	Integral 5-pin M12 male quick-disconnect connector
TL50CBGYRAQ	4	Blue, Green, Yellow, Red	Integral 8-pin M12 male quick-disconnect connector
TL50CWBGYRAQ	5	White, Blue, Green, Yellow, Red	

Sealed Audible Models

Models[1]			# of LED Colors	LED Colors[2]	Connection [3]
Continuous	Pulsed at 1.6 Hz	Staccato			
TL50CRALSQ	TL50CRALS3Q	TL50CRALS4Q	1	Red	Integral 4-pin M12 male quick-disconnect connector
TL50CGRALSQ	TL50CGRALS3Q	TL50CGRALS4Q	2	Green, Red	
TL50CGYRALSQ	TL50CGYRALS3Q	TL50CGYRALS4Q	3	Green, Yellow, Red	Integral 5-pin M12 male quick-disconnect connector
TL50CBGYRALSQ	TL50CBGYRALS3Q	TL50CBGYRALS4Q	4	Blue, Green, Yellow, Red	Integral 8-pin M12 male quick-disconnect connector
TL50CWBGYRALSQ	TL50CWBGYRALS3Q	TL50CWBGYRALS4Q	5	White, Blue, Green, Yellow, Red	

(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 "Q" in quick disconnect model numbers. For example, TL50CRAC or TL50CRACQ.
- All models have Bimodal (NPN or PNP) inputs.

(2)

- The first color listed is the bottom color, going up in successive order.
- Available colors include: Green (G), Red (R), Yellow (Y), Blue (B), Orange (O), White (W), Turquoise (T), Violet (V), Magenta (M) and Sky Blue (S).
- Contact Banner Engineering for other colors and color combinations.

(3)

- To order the 150 mm (6 in) PVC cable model with an M12 quick-disconnect connector, replace the suffix "Q" with "QP" in the model number. For example, TL50CRAQP.
- To order the 2 m (6.5 ft) PVC cable model, omit the suffix "Q" in the model number. For example, TL50CRA.
- Models with a quick-disconnect connector require a mating cordset.

Original Instructions
14-Jul-25

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179186
p/n: 179186 Rev. I

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Omni-Directional Sealed Audible Models

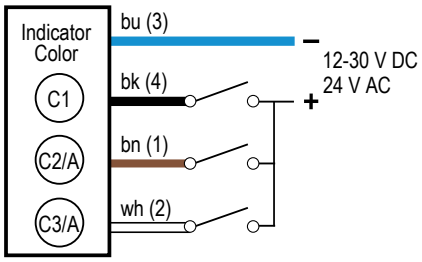
Models[1]			# of LED Colors	LED Colors[2]	Connection[3]
Continuous	Pulsed at 1.6 Hz	Staccato			
TL50CRAOSQ	TL50CRAOS3Q	TL50CRAOS4Q	1	Red	Integral 4-pin M12 male quick-disconnect connector
TL50CGRAOSQ	TL50CGRAOS3Q	TL50CGRAOS4Q	2	Green, Red	
TL50CGYRAOSQ	TL50CGYRAOS3Q	TL50CGYRAOS4Q	3	Green, Yellow, Red	Integral 5-pin M12 male quick-disconnect connector
TL50CBGYRAOSQ	TL50CBGYRAOS3Q	TL50CBGYRAOS4Q	4	Blue, Green, Yellow, Red	Integral 8-pin M12 male quick-disconnect connector
TL50CWBGYRAOSQ	TL50CWBGYRAOS3Q	TL50CWBGYRAOS4Q	5	White, Blue, Green, Yellow, Red	

Omni-Directional Sealed Audible Models with Intensity Adjustment

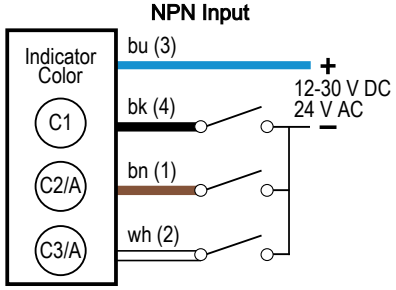
Models[1]			# of LED Colors	LED Colors[2]	Connection[3]
Continuous	Pulsed at 1.6 Hz	Staccato			
TL50CRAOSIQ	TL50CRAOS3IQ	TL50CRAOS4IQ	1	Red	Integral 4-pin M12 male quick-disconnect connector
TL50CGRAOSIQ	TL50CGRAOS3IQ	TL50CGRAOS4IQ	2	Green, Red	
TL50CGYRAOSIQ	TL50CGYRAOS3IQ	TL50CGYRAOS4IQ	3	Green, Yellow, Red	Integral 5-pin M12 male quick-disconnect connector
TL50CBGYRAOSIQ	TL50CBGYRAOS3IQ	TL50CBGYRAOS4IQ	4	Blue, Green, Yellow, Red	Integral 8-pin M12 male quick-disconnect connector
TL50CWBGYRAOSIQ	TL50CWBGYRAOS3IQ	TL50CWBGYRAOS4IQ	5	White, Blue, Green, Yellow, Red	

Wiring Diagrams — 4-Pin Models with 1 to 3 Segments

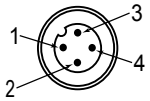
PNP Input



NPN Input



4-pin M12 Male Pinout

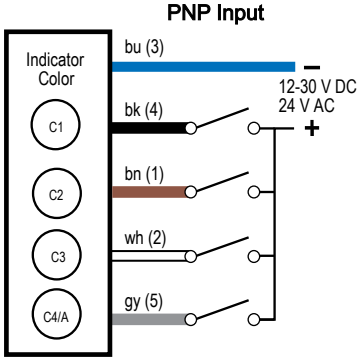


1 = Brown
2 = White
3 = Blue
4 = Black
C1 = Color 1
C2 = Color 2
C3 = Color 3
A = Audible

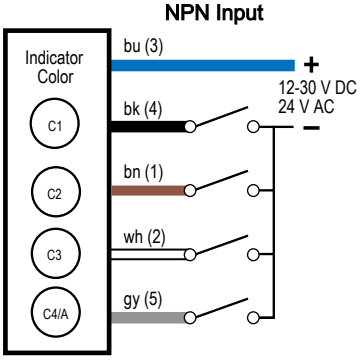
Pins 1 and 2 can activate the corresponding color or the audible function, if available.

Wiring Diagrams — 5-Pin Models with 4 Segments

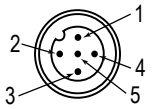
PNP Input



NPN Input



5-pin M12 Male Pinout



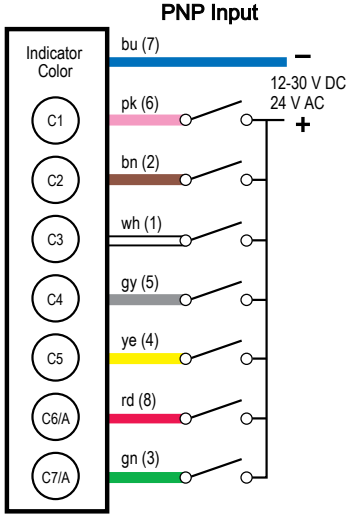
1 = Brown
2 = White
3 = Blue
4 = Black
5 = Gray
C1 = Color 1
C2 = Color 2
C3 = Color 3
C4 = Color 4
A = Audible

Pin 5 can activate the corresponding color or the audible function, if available.

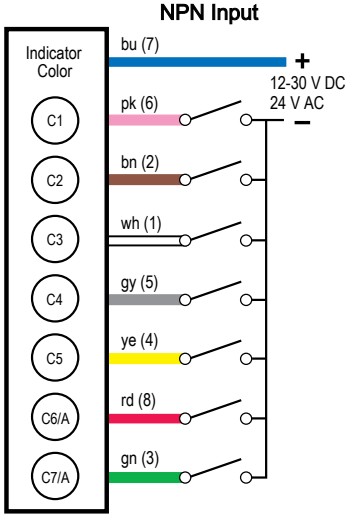
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Wiring Diagrams — 8-Pin Models with 5 to 7 Segments

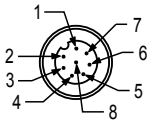
PNP Input



NPN Input



8-pin M12 Male Pinout



1 = White
2 = Brown
3 = Green
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
C6 = Color 6
C7 = Color 7
A = Audible

Pins 3 and 8 can activate the corresponding color or the audible function, if available.

Specifications

Supply Voltage and Current

12 V DC to 30 V DC; or 24 V AC (± 3 V) at 50 Hz to 60 Hz

Indicators—maximum current per LED color:

- 135 mA at 12 V DC
- 45 mA at 30 V DC
- 60 mA at 24 V AC

Standard Audible Alarm: 25 mA maximum current

Sealed Audible Alarm: 35 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: 10 milliseconds maximum

Audible Alarm

Standard Audible Alarm: 2.7 kHz ± 500 Hz oscillation frequency; maximum intensity 92 dB at 1 m (3.3ft) (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)

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.

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

Indicators

LEDs are independently selected; 1 to 7 colors depending on model

Indicator Characteristics

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Color Coordinates[4]		Lumen Output (Typical at 25 °C)
		x	y	
Green	528 nm	–	–	27
Red	625 nm	–	–	9
Yellow	590 nm	–	–	6
Blue	470 nm	–	–	4.5
Orange	608 nm	–	–	18.5
White	6000 K	–	–	25
Turquoise	–	0.19	0.37	6.5
Violet	–	0.2	0.08	3
Magenta	–	0.35	0.15	3.5
Sky Blue	–	0.19	0.26	14.5

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

Connections

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

Models with a quick-disconnect connector require a mating cordset

Construction

Bases and Covers: ABS

Light Segment: Polycarbonate

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

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)

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.

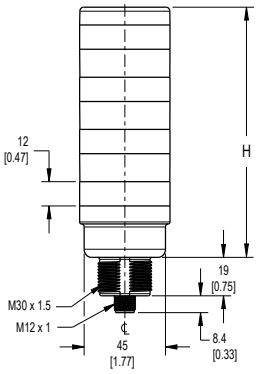
For additional product support, go to www.bannerengineering.com.

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

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Dimensions

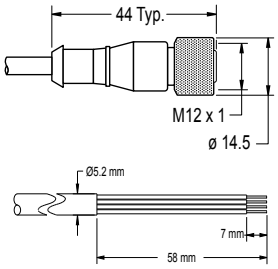
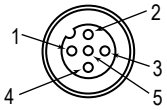
All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.

Dimensions	# of Segments	Tower Height (H)			
		Non-Audible	Standard Audible[5]	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 (4.48 in)
	2	72 mm (2.83 in)	102.9 mm (4.1 in)	126 mm (5 in)	140 mm (5.5 in)
	3	97.8 mm (3.85 in)	128.7 mm (5.1 in)	151.8 mm (6 in)	165.8 mm (6.5 in)
	4	123.6 mm (4.9 in)	154.5 mm (6.1 in)	177.6 mm (7 in)	191.6 mm (7.54 in)
	5	149.4 mm (5.9 in)	180.3 mm (7.1 in)	203.4 mm (8 in)	217.4 mm (8.56 in)
	6	175.2 mm (6.9 in)	206.1 mm (8.1 in)	229.2 mm (9 in)	243.4 mm (9.58 in)
	7	201 mm (7.9 in)	-	-	-

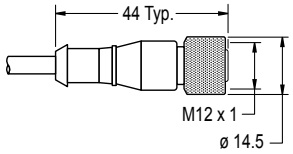
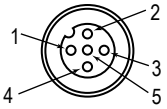
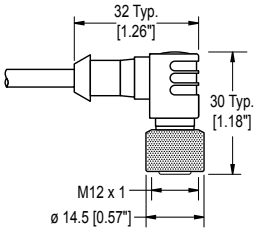
Accessories

Cordsets

4-Pin Single-Ended M12 Female Cordsets

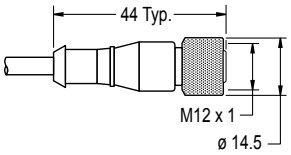
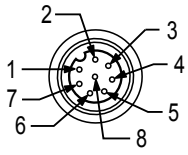
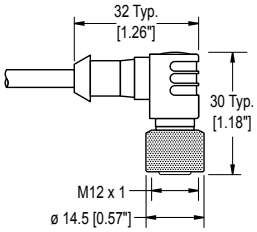
Model	Length	Style	Dimensions	Pinout (Female)	
MQDC-403	1 m (3.28 ft)	Straight			1 = Brown 2 = White 3 = Blue 4 = Black 5 = Not used
MQDC-406	2 m (6.56 ft)				
MQDC-410	3 m (9.8 ft)				
MQDC-415	5 m (16.4 ft)				
MQDC-430	9 m (29.5 ft)				
MQDC-450	15 m (49.2 ft)				
MQDC-460	18.3 m (60 ft)				
MQDC-470	21 m (68.9 ft)				
MQDC-4100	30 m (98.43 ft)				

5-Pin Single-Ended M12 Female Cordsets

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

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

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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)			

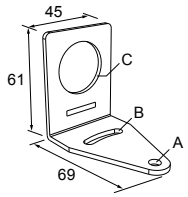
Mounting Brackets

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

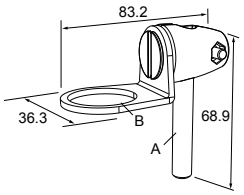
Hole center spacing: A to B=40
Hole size: A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5



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

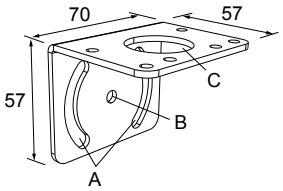
Bolt thread: SMB30FA, A= 3/8 - 16 × 2 in; SMB30FAM10, A= M10 - 1.5 × 50
Hole size: B= ø 30.1



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

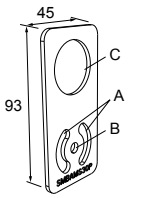
Hole center spacing: A = 51, A to B = 25.4
Hole size: A = 42.6 × 7, B = ø 6.4, C = ø 30.1



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

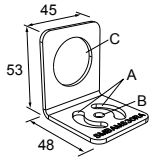


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SMBAMS30RA

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

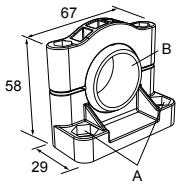
Hole center spacing: A=26.0, A to B=13.0
Hole size: A=26.8 × 7.0, B=ø 6.5, C=ø 31.0



SMB30SC

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

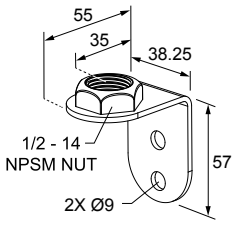
Hole center spacing: A=ø 50.8
Hole size: A=ø 7.0, B=ø 30.0



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

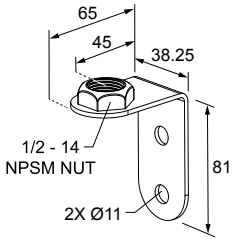
Hole center spacing: 20.0



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)	

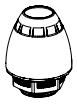
Elevated Mount System

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		

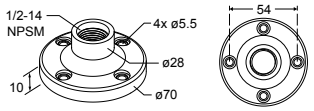
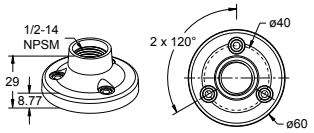
Continued on page 7

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Continued from page 6

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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