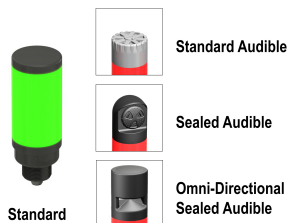


CL50 Column Light



Datasheet

Multi-Color General Purpose or Audible Indicators



- Rugged, cost-effective, and easy-to-install multi-color indicators
- Illumination provides easy-to-see operator guidance and equipment status indication
- 1-, 2-, or 3-color models available
- Available in black or light gray housing
- Audible models available with standard, sealed, or omni-directional audible element
- Continuous, pulsed, and staccato tones available
- 18 V to 30 V dc operation
- Compact devices are completely self-contained, no controller needed
- No assembly required

Non-Audible Models

| Models ¹ | # of LED Colors | LED Colors ² | | | Connection ³ | Inputs |
|---------------------|-----------------|-------------------------|---------|---------|--|--------|
| | | Color 1 | Color 2 | Color 3 | | |
| CL50GXXPQ | 1 | Green | - | - | Integral 4-pin M12/Euro-style quick disconnect | PNP |
| CL50GXXNQ | | Green | - | - | | NPN |
| CL50RXXPQ | | - | Red | - | | PNP |
| CL50RXNQ | | - | Red | - | | NPN |
| CL50GRXPQ | 2 | Green | Red | - | | PNP |
| CL50GRXNQ | | Green | Red | - | | NPN |
| CL50GRYPQ | 3 | Green | Red | Yellow | | PNP |
| CL50GRYNQ | | Green | Red | Yellow | | NPN |

Audible Models

| Standard Audible Models ¹ | # of LED Colors | LED Colors ² | | | Connection ³ | Inputs |
|--------------------------------------|-----------------|-------------------------|---------|---------|--|--------|
| | | Color 1 | Color 2 | Color 3 | | |
| CL50GXXAPQ | 1 | Green | - | - | Integral 5-pin M12/Euro-style quick disconnect | PNP |
| CL50GXXANQ | | Green | - | - | | NPN |
| CL50RXAPQ | | - | Red | - | | PNP |
| CL50RXANQ | | - | Red | - | | NPN |
| CL50GRXAPQ | 2 | Green | Red | - | | PNP |
| CL50GRXANQ | | Green | Red | - | | NPN |
| CL50GRYAPQ | 3 | Green | Red | Yellow | | PNP |
| CL50GRYANQ | | Green | Red | Yellow | | NPN |

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" of quick disconnect model numbers. For example, CL50GXXAPC or CL50GXXAPCQ.

² Available colors include: Green (G), Red (R), Yellow (Y), Blue (B), and White (W). Contact Banner Engineering for other colors and color combinations.

³

- To order the 150 mm (6 in) PVC cable model with a M12/Euro-style quick disconnect, replace the suffix "Q" with "QP" in the model number. For example, CL50GXXAPQP.
- To order the 2 m (6.5 ft) PVC cable model, omit the suffix "Q" in the model number. For example, CL50GXXAP.
- Models with a quick disconnect require a mating cordset.

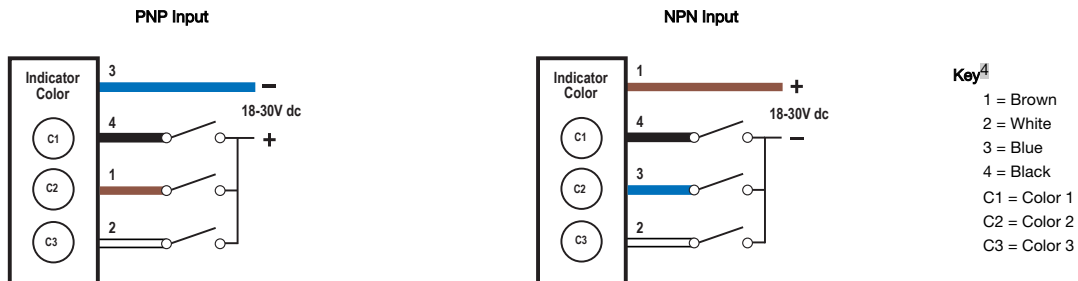


| Sealed Audible Models ¹ | | | # of LED Colors | LED Colors ² | | | Connection ³ | Inputs |
|------------------------------------|------------------|---------------|-----------------|-------------------------|---------|---------|--|--------|
| Continuous | Pulsed at 1.6 Hz | Staccato | | Color 1 | Color 2 | Color 3 | | |
| CL50GXXALSPQ | CL50GXXALS3PQ | CL50GXXALS4PQ | 1 | Green | - | - | Integral 5-pin M12/Euro-style quick disconnect | PNP |
| CL50GXXALS3PQ | CL50GXXALS3NQ | CL50GXXALS4NQ | | Green | - | - | | NPN |
| CL50RXALSPQ | CL50RXALS3PQ | CL50RXALS4PQ | | - | Red | - | | PNP |
| CL50RXALS3PQ | CL50RXALS3NQ | CL50RXALS4NQ | | - | Red | - | | NPN |
| CL50GRXALSPQ | CL50GRXALS3PQ | CL50GRXALS4PQ | 2 | Green | Red | - | | PNP |
| CL50GRXALS3PQ | CL50GRXALS3NQ | CL50GRXALS4NQ | | Green | Red | - | | NPN |
| CL50GRYALSPQ | CL50GRYALS3PQ | CL50GRYALS4PQ | 3 | Green | Red | Yellow | | PNP |
| CL50GRYALS3PQ | CL50GRYALS3NQ | CL50GRYALS4NQ | | Green | Red | Yellow | | NPN |

| Omni-Directional Sealed Audible Models ¹ | | | # of LED Colors | LED Colors ² | | | Connection ³ | Inputs |
|---|------------------|---------------|-----------------|-------------------------|---------|---------|--|--------|
| Continuous | Pulsed at 1.6 Hz | Staccato | | Color 1 | Color 2 | Color 3 | | |
| CL50GXXAOSPQ | CL50GXXAOS3PQ | CL50GXXAOS4PQ | 1 | Green | - | - | Integral 5-pin M12/Euro-style quick disconnect | PNP |
| CL50GXXAOS3PQ | CL50GXXAOS3NQ | CL50GXXAOS4NQ | | Green | - | - | | NPN |
| CL50RXAOSPQ | CL50RXAOS3PQ | CL50RXAOS4PQ | | - | Red | - | | PNP |
| CL50RXAOS3PQ | CL50RXAOS3NQ | CL50RXAOS4NQ | | - | Red | - | | NPN |
| CL50GRXAOSPQ | CL50GRXAOS3PQ | CL50GRXAOS4PQ | 2 | Green | Red | - | | PNP |
| CL50GRXAOS3PQ | CL50GRXAOS3NQ | CL50GRXAOS4NQ | | Green | Red | - | | NPN |
| CL50GRYAOSPQ | CL50GRYAOS3PQ | CL50GRYAOS4PQ | 3 | Green | Red | Yellow | | PNP |
| CL50GRYAOS3PQ | CL50GRYAOS3NQ | CL50GRYAOS4NQ | | Green | Red | Yellow | | NPN |

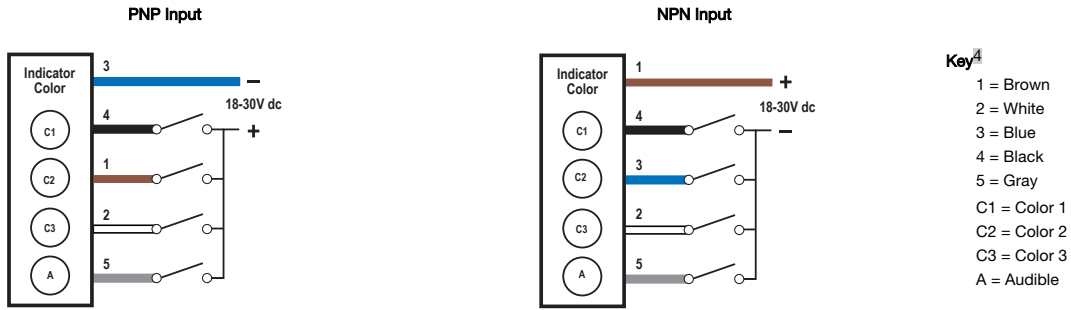
| Omni-Directional Sealed Audible Models with Intensity Adjustment ¹ | | | # of LED Colors | LED Colors ² | | | Connection ³ | Inputs |
|---|------------------|----------------|-----------------|-------------------------|---------|---------|--|--------|
| Continuous | Pulsed at 1.6 Hz | Staccato | | Color 1 | Color 2 | Color 3 | | |
| CL50GXXAOSIPQ | CL50GXXAOS3IPQ | CL50GXXAOS4IPQ | 1 | Green | - | - | Integral 5-pin M12/Euro-style quick disconnect | PNP |
| CL50GXXAOS3IPQ | CL50GXXAOS3INQ | CL50GXXAOS4INQ | | Green | - | - | | NPN |
| CL50RXAOSIPQ | CL50RXAOS3IPQ | CL50RXAOS4IPQ | | - | Red | - | | PNP |
| CL50RXAOS3IPQ | CL50RXAOS3INQ | CL50RXAOS4INQ | | - | Red | - | | NPN |
| CL50GRXAOSIPQ | CL50GRXAOS3IPQ | CL50GRXAOS4IPQ | 2 | Green | Red | - | | PNP |
| CL50GRXAOS3IPQ | CL50GRXAOS3INQ | CL50GRXAOS4INQ | | Green | Red | - | | NPN |
| CL50GRYAOSIPQ | CL50GRYAOS3IPQ | CL50GRYAOS4IPQ | 3 | Green | Red | Yellow | | PNP |
| CL50GRYAOS3IPQ | CL50GRYAOS3INQ | CL50GRYAOS4INQ | | Green | Red | Yellow | | NPN |

Wiring Diagrams — Non-Audible Models



⁴ If there is an "X" in the model number, the corresponding wire will not be used.

Wiring Diagrams — Audible Models



Functional Truth Table: PNP Models

| LED Function | Pin 4 (Black Wire) | Pin 1 (Brown Wire) | Pin 2 (White Wire) | |
|--|--------------------|--------------------|--------------------|--|
| Color 1 On | +V dc | | | Pin 3 (blue wire) connected to ground (-). Alarm models: Alarm function is independent of light functions. |
| Color 2 On | | +V dc | | |
| Color 3 On | | | +V dc | |
| Color 3 On (color 3 inhibits color 1) | +V dc | | +V dc | |
| Color 2 On (color 2 inhibits color 1) | +V dc | +V dc | | |
| Color 3 On (color 3 inhibits color 2) | | +V dc | +V dc | |
| Color 3 On (color 3 inhibits colors 1 & 2) | +V dc | +V dc | +V dc | |

Functional Truth Table: NPN Models

| LED Function | Pin 4 (Black Wire) | Pin 3 (Blue Wire) | Pin 2 (White Wire) | |
|--|--------------------|-------------------|--------------------|--|
| Color 1 On | -V dc | | | Pin 1 (brown wire) connected to +V dc. Alarm models: Alarm function is independent of light functions. |
| Color 2 On | | -V dc | | |
| Color 3 On | | | -V dc | |
| Color 3 On (color 3 inhibits color 1) | -V dc | | -V dc | |
| Color 2 On (color 2 inhibits color 1) | -V dc | -V dc | | |
| Color 3 On (color 3 inhibits color 2) | | -V dc | -V dc | |
| Color 3 On (color 3 inhibits colors 1 & 2) | -V dc | -V dc | -V dc | |

Specifications

Supply Voltage and Current

18 V dc to 30 V dc

Indicators—maximum current per LED color:

- 100 mA at 18 V dc
- 70 mA at 30 V dc

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 reverse polarity and transient voltages

Indicator 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 meter (3.3 ft) (typical)

Sealed Audible Alarm: 2.9 KHz ± 250 Hz oscillation frequency; maximum intensity 94 db at 1 meter (3.3 ft) (typical)

Omni-Directional Sealed Audible Alarm: 2.1 KHz ± 250 Hz oscillation frequency; maximum intensity 99 db at 1m (3.3 ft) (typical)

Omni-Directional Sealed Audible Alarm with Intensity Adjustment: 2.1 KHz ± 250 Hz oscillation frequency; maximum intensity 95 dB at 1m (3.3 ft) (typical)

Indicators

LEDs or audible are independently selected

Indicator Characteristics

| Color | Dominant Wavelength (nm) or Color Temperature (CCT) | Lumen Output (Typical at 25 °C) |
|--------|---|---------------------------------|
| Green | 525 nm | 72 |
| Red | 625 nm | 38 |
| Yellow | 590 nm | 30 |
| Blue | 475 nm | 28 |
| White | 5000 K | 85 |

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

Construction

Bases and Covers: ABS
Light Segment: Polycarbonate

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)

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

NEMA/UL Type 13, 4X Indoor
Non-Audible and Sealed Audible: IEC IP67
Standard Audible: IEC IP50

Certifications



Connections

Integral 4-pin or 5-pin M12/Euro-style quick disconnect, 150 mm (6 in) PVC cable with a M12/Euro-style quick disconnect, or 2 m (6.5 ft) integral PVC cable, depending on model
 Models with a quick disconnect require a mating cordset

Required Overcurrent Protection

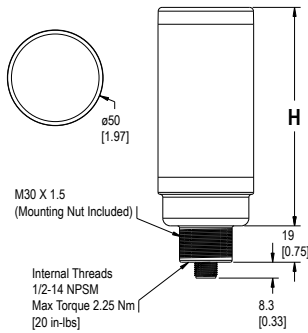


WARNING: Electrical connections must be made by qualified personnel in accordance with local and national electrical codes and regulations.

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 |

Dimensions



| Column Light Height (H) | |
|--|------------------|
| Non-Audible | 114.2mm (4.5 in) |
| Standard Audible* | 145.3mm (5.7 in) |
| Sealed Audible | 168.2mm (6.6 in) |
| Omni-Directional Sealed Audible | 182.2mm (7.2 in) |

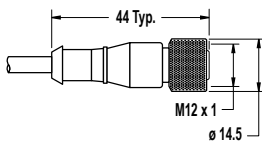
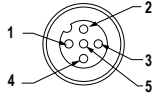
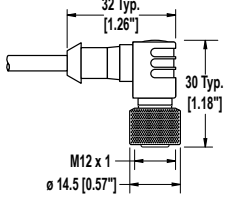
*Column Light (H) with top unscrewed approximately 3.5 mm to allow sound to escape

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

Accessories

Cordsets

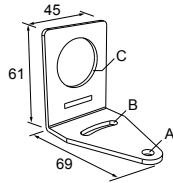
| 4-Pin Threaded M12/Euro-Style Cordsets | | | | |
|--|----------------|-------------|------------|-----------------|
| Model | Length | Style | Dimensions | Pinout (Female) |
| MQDC-406 | 1.83 m (6 ft) | Straight | | |
| MQDC-415 | 4.57 m (15 ft) | | | |
| MQDC-430 | 9.14 m (30 ft) | | | |
| MQDC-450 | 15.2 m (50 ft) | | | |
| MQDC-406RA | 1.83 m (6 ft) | Right-Angle | | |
| MQDC-415RA | 4.57 m (15 ft) | | | |
| MQDC-430RA | 9.14 m (30 ft) | | | |
| MQDC-450RA | 15.2 m (50 ft) | | | |

| 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) | | | |

Mounting Brackets

SMB30A

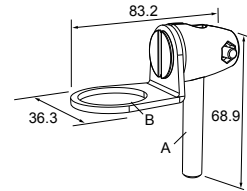
- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (1/4 in) hardware
- Mounting hole for 30 mm sensor
- 12-ga. stainless steel



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

SMB30FA

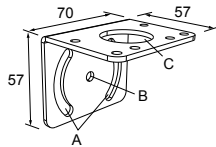
- Swivel bracket with tilt and pan movement for precise adjustment
- Mounting hole for 30 mm sensor
- 12-ga. 304 stainless steel
- Easy sensor mounting to extrude rail T-slot
- Metric and inch size bolt available



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

SMB30MM

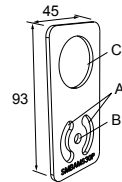
- 12-ga. stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (1/4 in) hardware
- Mounting hole for 30 mm sensor



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

SMBAMS30P

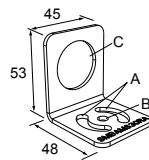
- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-ga. 300 series stainless steel



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 31.0

SMBAMS30RA

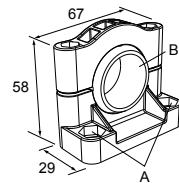
- Right-angle SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-ga. (2.6 mm) cold-rolled steel



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 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

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

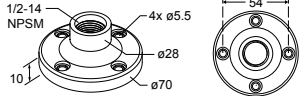
LMB Sealed Right-Angle Bracket

| Model | Description | Construction | |
|-----------|---|---------------------|---|
| LMB30RA | Direct-Mount Models: Bracket kit with base, 30 mm adapter, set screw, fasteners, O-rings, and gaskets. | Black polycarbonate |  |
| LMB30RAC | | Gray polycarbonate | |
| 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 |  |
| LMBE12RAC | | Gray polycarbonate | |

Elevated Mount System

| Model | Features | | | Components | | | | | | | | | | | | |
|--|--|--------------------------------------|-------------------------|--|------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|---|--|--|---|
| SA-M30TE12 - Black Acetal | <ul style="list-style-type: none"> Streamlined black acetal or white UHMW stand-off pipe adapter/cover Connects between 30 mm light base and 1/2 in. NPSM/DN15 pipe Mounting hardware included | | |  | | | | | | | | | | | | |
| SA-M30TE12C - White UHMW | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Polished 304 Stainless Steel</th> <th>Black Anodized Aluminum</th> <th>Clear Anodized Aluminum</th> </tr> </thead> <tbody> <tr> <td>SOP-E12-150SS 150 mm (6 in) long</td> <td>SOP-E12-150A 150 mm (6 in) long</td> <td>SOP-E12-150AC 150 mm (6 in) long</td> </tr> <tr> <td>SOP-E12-300SS 300 mm (12 in) long</td> <td>SOP-E12-300A 300 mm (12 in) long</td> <td>SOP-E12-300AC 300 mm (12 in) long</td> </tr> <tr> <td>SOP-E12-900SS 900 mm (36 in) long</td> <td>SOP-E12-900A 900 mm (36 in) long</td> <td>SOP-E12-900AC 900 mm (36 in) long</td> </tr> </tbody> </table> | Polished 304 Stainless Steel | Black Anodized Aluminum | Clear Anodized Aluminum | 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 | <ul style="list-style-type: none"> Elevated-use stand-off pipe (1/2 in. NPSM/DN15) Polished 304 stainless steel, black anodized aluminum, or clear anodized aluminum surface 1/2 in. NPT thread at both ends Compatible with most industrial environments | | |  |
| Polished 304 Stainless Steel | Black Anodized Aluminum | Clear Anodized Aluminum | | | | | | | | | | | | | | |
| 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 or white UHMW mounting base adapter/cover Connects between 1/2 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 | Features | Construction | |
| SA-F12 | <ul style="list-style-type: none"> For use elevated stand-off pipes (1/2 in, NPSM/DN15) M5 mounting hardware and nitrile gasket included | Die-cast zinc base with black paint |  |

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