

Features

DC-Operated Indicators with Steady or Pulsed Sound Indication

To view or download the latest technical information about this product, including specifications, dimensions, accessories, and wiring, go to www.bannerengineering.com.



- Rugged, cost-effective, and easy-to-install bright indicators with audible alarm
- Fully sealed and rated at IP67 or IP69K per ISO 20653, depending on model
- Compact devices are completely self-contained, no controller needed
- Immune to EMI and RFI interference
- Loud audible alarm with intensity adjustment (IEC IP67 models)
- 12 V DC to 30 V DC operation
- Available in continuous and staccato tones (IP67 models)

WARNING:



- **Do not use this device for personnel protection**
- Using this device for personnel protection could result in serious injury or death.
- This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A device failure or malfunction can cause either an energized (on) or de-energized (off) output condition.

Models

Model	LED Function ⁽¹⁾	Input	Audible Tone†	Connection ⁽²⁾
Fixed Audible Sealed Models				
K50LGXASXPQ	1 Color: Green	PNP	Fixed tone volume	Integral 5-pin M12 male quick-disconnect connector
K50LGRASXPQ	2 Color: Green, Red			
K50LGRASYPQ	3 Color: Green, Red, Yellow			
K50LGXASXNQ	1 Color: Green	NPN		
K50LGRASXNQ	2 Color: Green, Red			
K50LGRASYNQ	3 Color: Green, Red, Yellow			
Adjustable Loud Audible Sealed Models				
K50LGXALSXPQ	1 Color: Green	PNP	Continuous tone with volume adjustment	Integral 5-pin M12 male quick-disconnect connector
K50LGRALSXPQ	2 Color: Green, Red			
K50LGRALSYPQ	3 Color: Green, Red, Yellow			
K50LGXALSXNQ	1 Color: Green	NPN		
K50LGRALSXNQ	2 Color: Green, Red			
K50LGRALSYNQ	3 Color: Green, Red, Yellow			
K50LGXALS4XPQ	1 Color: Green	PNP	Staccato tone with volume adjustment	
K50LGRALS4XPQ	2 Color: Green, Red			
K50LGRALS4YPQ	3 Color: Green, Red, Yellow			
K50LGXALS4XNQ	1 Color: Green	NPN		
K50LGRALS4XNQ	2 Color: Green, Red			
K50LGRALS4YNQ	3 Color: Green, Red, Yellow			

⁽¹⁾ Contact Banner Engineering for other colors and color combinations.

⁽²⁾ Integral 5-pin M12 quick disconnect models are listed.

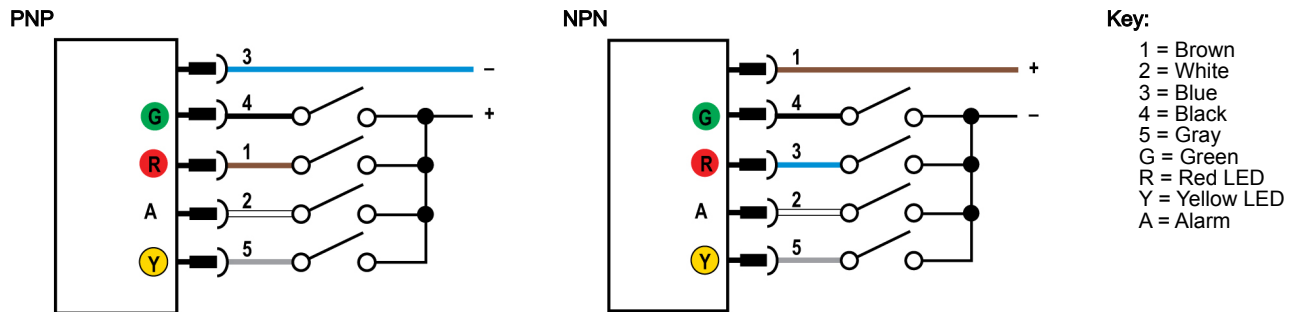
- To order the 150 mm (6 in) PVC cable model, replace the suffix "Q" with "QP" in the model number. For example, K50LGXASXPQP.
- To order the 2 m (6.5 ft) PVC cable model, omit the suffix "Q" in the model number. For example, K50LGXASXP.
- Models with a quick disconnect require a mating cordset.



Installation in Very Wet Environments

For best sound quality and volume when mounting an IP67 audible indicator model in an extremely wet environment, consider the mounting orientation. Mount the indicator horizontally or facing downward to allow water to drain easily. Upright mounting will allow water to collect in the alarm cavity, which will muffle the sound.

Wiring Diagrams



NOTE: When fewer than three LED colors are used, the corresponding wires are unused.

Specifications

Supply Voltage and Current

12 V DC to 30 V DC
 65 mA at 12 V DC; 35 mA at 30 V DC maximum current per LED
 Audible: 35 mA maximum current

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Input Response Time

Indicator ON/OFF: 1 ms maximum
 Audible ON/OFF: 10 ms maximum

Audible Alarm

IP67 Models: 2.9 kHz $\pm$ 250 Hz oscillation frequency; max. intensity 94 db at 1 m (3.3 ft) (typical)
IP69K Models: 2.9 kHz $\pm$ 250 Hz oscillation frequency; max. intensity 65 db at 1 m (3.3 ft) (typical)

Vibration and Mechanical Shock

All models meet MIL-STD-202F, Method 201A (Vibration: 10 Hz to 60 Hz maximum, 0.06 inch (1.52 mm) double amplitude, 10G maximum acceleration) requirements. Also meets IEC 60947-5-2 (Shock: 30G 11 ms duration, half sine wave) requirements.

Environmental Rating

Fixed Audible Sealed Models: IP67/IP69K per ISO 20653
Adjustable Loud Audible Sealed Models: IP67
 NEMA/UL Type 4X, 13

Operating Conditions

-20 °C to +50 °C (-4 °F to +122 °F)
 95% maximum relative humidity (non-condensing)

Certifications



Banner Engineering BV
 Park Lane, Culliganlaan 2F bus 3
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Audible Adjustment

Rotate the front cover until the desired intensity is achieved (IEC IP67 models only)

Connections

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

Construction

Fixed Audible Sealed Models: Polycarbonate housing and audible alarm

Adjustable Loud Audible Sealed Models: Polycarbonate housing and PPO audible alarm

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

FCC Part 15 Class B for Unintentional Radiators

(Part 15.105(b)) This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

(Part 15.21) Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Industry Canada ICES-003(B)

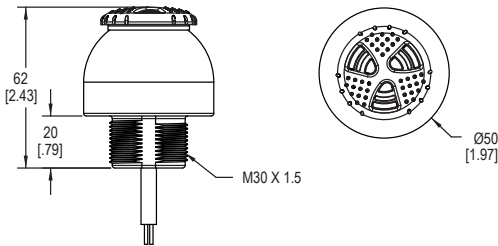
This device complies with CAN ICES-3 (B)/NMB-3(B). Operation is subject to the following two conditions: 1) This device may not cause harmful interference; and 2) This device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme à la norme NMB-3(B). Le fonctionnement est soumis aux deux conditions suivantes : (1) ce dispositif ne peut pas occasionner d'interférences, et (2) il doit tolérer toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité du dispositif.

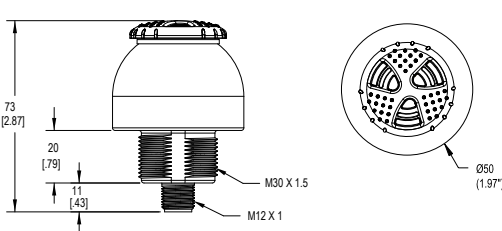
Dimensions

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

Cabled Dimensions



Quick-Disconnect Dimensions



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		
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)			

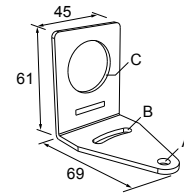
Mounting Brackets

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

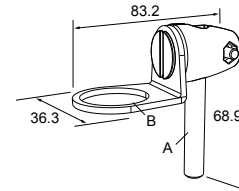


SMB30FA

- 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

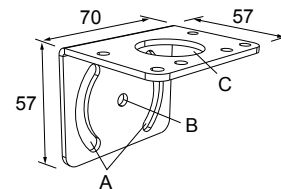


SMB30MM

- 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

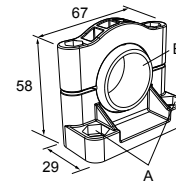


SMB30SC

- 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

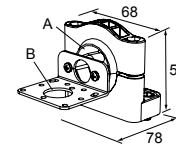


SMB30SK

- Flat-mount swivel bracket with extended range of motion
- Black reinforced thermoplastic polyester and 316 stainless steel
- Stainless steel swivel locking hardware included

Hole center spacing: A = 50.8

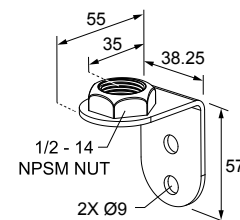
Hole size: A = ø 7, B = ø 18



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

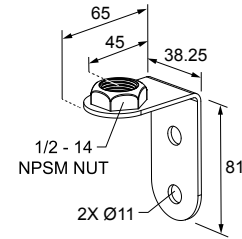
Hole center spacing: 20.0



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



Elevated Mount System

Model			Description	Components
SA-M30E12 - Black Acetal			• Streamlined black acetal stand-off pipe adapter/cover • Connects between 30 mm light base and ½ in. NPSM/DN15 pipe • Mounting hardware included	
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 mounting base adapter/cover • Connects between ½ in. NPSM/DN15 pipe and 30 mm (1-3/16 in) drilled hole • Mounting hardware included	

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