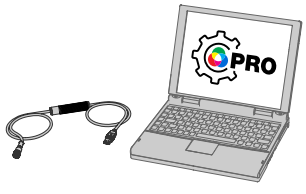
# Features

*50 mm Compact Programmable Multicolor RGB Audible Indicator*



- Bright, uniform indicator light
- Designed with integrated audible alarm
- Available for lower profile applications
- Seven default colors in one device (Green, Red, Yellow, Blue, White, Cyan, Magenta)
- Programmable using Banner's Pro Editor software and Pro Converter Cable
- 30 mm threaded polycarbonate base
- Translucent polycarbonate cover
- Rugged IP67, IP69K per ISO 20653 and UL Type 4X and UL Type 13 design
- Bimodal inputs (PNP/NPN), depending on source wiring
- Variety of connector options
- 14 different tones available including intensity and input control
- Two model options - with or without RGB indication

# Pro Editor

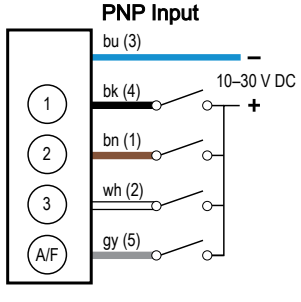


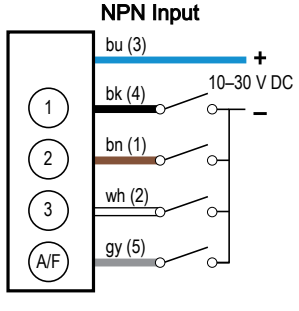

Use Banner's Pro Editor software and Pro Converter Cable to create custom configurations by selecting different colors, flash patterns, and animations.
For more information visit www.bannerengineering.com/proeditor.

# Models

| Family | Color and Input | Audible Alarm | Connector[1] |
|---|---|---|---|
| **K50PCL** | | **A** | **Q** |
| K50PCL = Compact with Audible | Blank = No color indication<br>RGB7 = RGB Multicolor (7 colors) | A = Audible | Blank = 2 m (6.5 ft) integral PVC-jacketed cable<br>Q = Integral 5-pin M12 male quick-disconnect connector<br>QP = 150 mm (6 in) PVC-jacketed cable with a 5-pin M12 male quick-disconnect connector |

# Wiring Diagrams




*RGB with Audible Indicator Default Values*

| Color | Red | Green | Yellow | Blue | Magenta | Cyan | White | Audible (No color) |
|---|---|---|---|---|---|---|---|---|
| Input 1 | X | | X | | X | | X | |

Continued on page 2

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

Original Instructions
10-Jun-25

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227785
p/n: 227785 Rev. C

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Continued from page 1

| Color | Red | Green | Yellow | Blue | Magenta | Cyan | White | Audible (No color) |
|---|---|---|---|---|---|---|---|---|
| Input 2 | | X | X | | | X | X | |
| Input 3 | | | | X | X | X | X | |
| Input 4[2] | | | | | | | | X |

*Audible Indicator Only – Default Values for Low-Intensity Tones*

| Audible | Continuous 2 | Whoop | Pulse | Staccato | Siren | Jingle | Melody 1 |
|---|---|---|---|---|---|---|---|
| Input 1 | X | | | X | X | | X |
| Input 2 | | X | | X | | X | X |
| Input 3 | | | X | | X | X | X |
| Input 4[3] | | | | | | | |

An "X" denotes an active input, for example when Input 1 and Input 3 are active, the indicator will show Magenta.

# Specifications

### Supply Voltage and Current

12 V DC to 30 V DC

**Standard Models:** 210 mA maximum

- 199 mA at 12 V DC
- 83 mA at 24 V DC
- 69 mA at 30 V DC

**Audible-Only Models:** 25 mA maximum

- 22 mA at 12 V DC
- 14 mA at 24 V DC
- 13 mA at 30 V DC

### Supply Protection Circuitry

Protected against reverse polarity and transient voltages

### Leakage Current Immunity

400 µA

### Input Response Time

250 milliseconds maximum

### Audible Characteristics

Values shown apply to continuous tone. Frequency and intensity response vary depending on the Audible Tone selected.

2.9 KHz ± 250 Hz

Audible Intensity:

Low intensity at 2.9 KHz: 83 dB at 1 m
Medium intensity at 2.9 KHz: 88 dB at 1 m
High intensity at 2.9 KHz: 92 dB at 1 m

### Connections

Integral 5-pin M12 male quick-disconnect connector, 150 mm (6 in) PVC-jacketed cable with an M12 quick disconnect, or 2 m (6.5 ft) integral PVC-jacketed cable, depending on model

Models with a quick disconnect require a mating cordset

### Mounting

M30 by 1.5 threaded base, maximum torque 4.5 N·m (40 inch-lbf)

Mounting nut included

### Construction

Model Base, Dome, and Nut: 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

–40 °C to +50 °C (–40 °F to +122 °F)

90% at +50 °C maximum relative humidity (non-condensing)

Storage Temperature: –40 °C to +70 °C (–40 °F to +158 °F)

### Environmental Rating

IP67, IP69K per ISO 20653

Meets UL Type 4X, and UL Type 12 or UL Type 13 when mounted in a UL Type 12 or Type 13 enclosure

All cabled models also meet IP69K per ISO 20653 if the cable and cable entrance are protected from high-pressure spray

### Certifications

Banner Engineering BV
Park Lane, Culliganlaan 2F bus 3
1831 Diegem, BELGIUM

Turck Banner LTD Blenheim House
Blenheim Court
Wickford, Essex SS11 8YT
GREAT BRITAIN

### Pro Editor Configuration

Connection to Pro Editor software enables control of:

- Animation: On, Flash, Two Color Flash, 50/50, 50/50 Rotate, Chase, Intensity Sweep, Demo
- Color: Green, Red, Yellow, Blue, White, Cyan, Magenta, Amber, Rose, Lime Green, Orange, Sky Blue, Violet, Spring Green
- Intensity: Low, Medium, High
- Speed: Slow, Standard, Fast
- Audible Tones: Pulse, Wobble, Strobe, Whoop, Staccato, Siren, Continuous 1, Continuous 2, Jingle, Melody 1, Melody 2, Melody 3
- Audible Intensity: Low, Medium, High

Pro Converter Cable required to interface between PC and indicator, see accessories

[2] Input 4 controls audible functionality. Apply 12 V DC to 30 V DC to add audible to the color indication, or leave floating for color indication only.
[3] Input 4 controls audible intensity. Apply 12 V DC to 30 V DC for high intensity, or leave floating for low intensity.


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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 | 1.0 | 30 | 0.5 |

### Default Indicator Characteristics

| Color | Dominant Wavelength (nm) or Color Temperature (CCT) | Color Coordinates[4] | | Lumen Output (Typical at 25 °C) |
|---|---|---|---|---|
| | | x | y | |
| Green | 532 | 0.181 | 0.735 | 8.9 |
| Red | 621 | 0.691 | 0.308 | 3.9 |
| Yellow | 578 | 0.473 | 0.474 | 11.6 |
| Blue | 467 | 0.137 | 0.056 | 1.6 |
| Magenta | - | 0.379 | 0.177 | 5.7 |
| Cyan | 492 | 0.15 | 0.334 | 10.1 |
| Amber | 590 | 0.552 | 0.414 | 7.8 |
| Rose | - | 0.508 | 0.23 | 4.7 |
| Lime Green | 565 | 0.393 | 0.535 | 11.5 |
| Orange | 600 | 0.611 | 0.37 | 6 |
| Sky Blue | 485 | 0.146 | 0.241 | 10.6 |
| Violet | - | 0.212 | 0.091 | 3.4 |
| Spring Green | 509 | 0.157 | 0.553 | 9.3 |
| White | 5700K | 0.328 | 0.337 | 13.7 |

## 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.

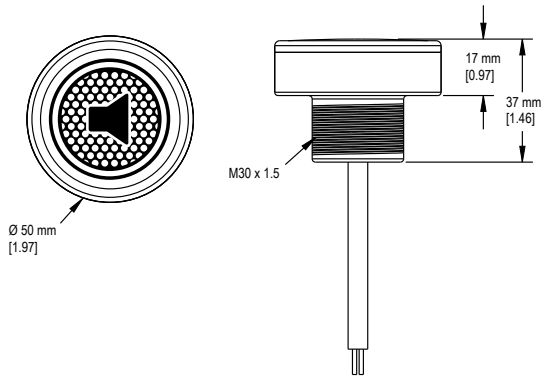
[4] Refer to CIE 1931 chromaticity diagram or color chart, to show equivalent color with indicated color coordinates. Actual coordinates may differ by 10%.


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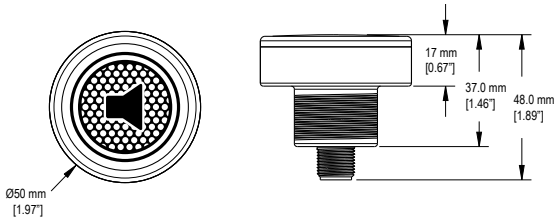
## Dimensions

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

**Cabled Models**




**Quick Disconnect Models**

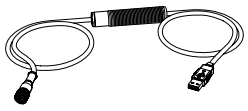



# Accessories

## Pro Editor Hardware

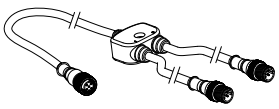
**MQDC-506-USB**

- Pro Converter Cable
- 1.83 m (6 ft) length 5-pin M12 quick disconnect to Device and USB to PC
- Required for connection to the configuration software



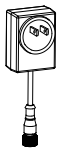
**CSB-M1251FM1251M**

- 5-pin parallel Y splitter (Male-Male-Female)
- For full Pro Editor preview capability
- Requires external power supply, sold separately



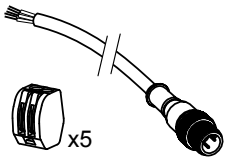
**PSW-24-1**

- 24 V DC, 1 A power supply
- 2 m (6.5 ft) PVC cable with M12 quick disconnect
- Provides external power with splitter cable, sold separately



**ACC-PRO-CABLE5**

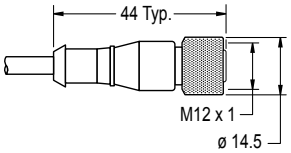
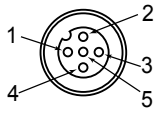
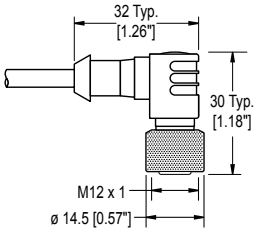
- Mating accessory for cabled and terminal models
- 150 mm (6 inch) PVC cable with M12 quick disconnect
- Lever wire nuts included (qty 5)
- Required to connect cabled models and screw terminal models to Pro Converter Cable, sold separately

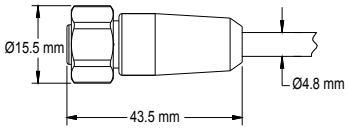
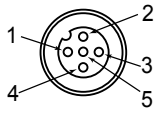




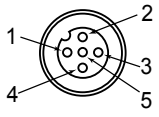
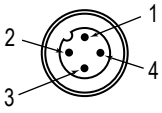
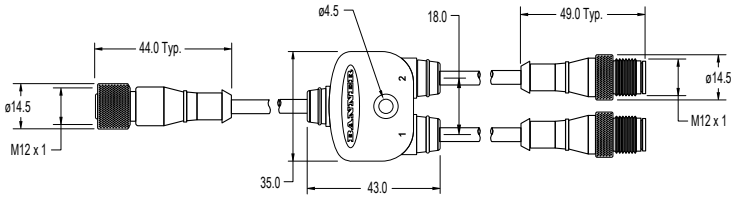
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# Cordsets

| 5-Pin Single-Ended M12 Female Cordsets | | | | |
|---|---|---|---|---|
| **Model** | **Length** | **Style** | **Dimensions** | **Pinout (Female)** |
| MQDC1-501.5 | 0.5 m (1.5 ft) | Straight |  | <br>1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black<br>5 = Gray |
| 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) | | | |

| 5-Pin Single-Ended M12 Female Stainless Steel Washdown Cordsets | | | | |
|---|---|---|---|---|
| **Model** | **Length** | **Style** | **Dimensions** | **Pinout (Female)** |
| MQDC-WDSS-0506 | 2 m (6.56 ft) | Straight |  | <br>1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black<br>5 = Gray |
| MQDC-WDSS-0515 | 5 m (16.4 ft) | | | |
| MQDC-WDSS-0530 | 9 m (29.5 ft) | | | |

# Splitter Cables for Use with IO-Blocks

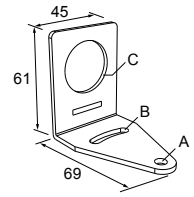
| 5-Pin M12 to 4-Pin M12 Combiner Cordset with Flat Junction | | | |
|---|---|---|---|
| **Model** | **Branches (Male)** | **Trunk (Female)** | **Pinout** |
| CSF-M12F51M12M41 | 4-pin Quick Disconnect, 2 × 0.31 m (1.02 ft) | 5-pin Quick Disconnect, 0.31 m (1.02 ft) | Female <br>Male <br>1 = brown (trunk); no connection (branches 1 and 2)<br>2 = white (trunk); brown (branch 1); gray (branch 2)<br>3 = blue (trunk; branches 1 and 2)<br>4 = black (trunk); black (branch 1); white (branch 2)<br>5 = gray (trunk only) |
|  | | | |


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# Brackets

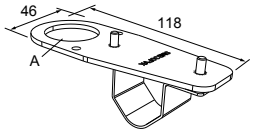
**SMB30A**
- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- 12-gauge stainless steel

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



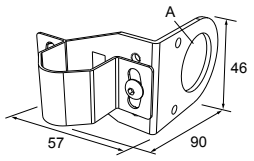

**SMB30FVK**
- V-clamp, flat bracket and fasteners for mounting to pipe or extensions
- Clamp accommodates 28 mm dia. tubing or 1 in. square extrusions
- 30 mm hole for mounting sensors

**Hole size:** A= ø 31



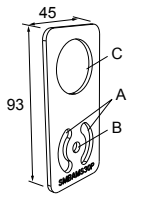

**SMB30RAVK**
- V-clamp, right-angle bracket and fasteners for mounting sensors to pipe or extrusion
- Clamp accommodates 28 mm dia. tubing or 1 in. square extrusions
- 30 mm hole for mounting sensors

**Hole size:** A = ø 30.5



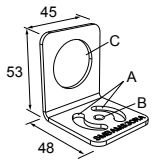

**SMBAMS30P**
- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge 300 series stainless steel

**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



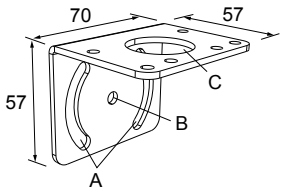

**SMBAMS30RA**
- Right-angle SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge (2.6 mm) cold-rolled steel

**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



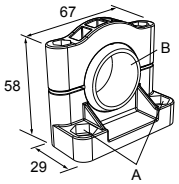

**SMB30MM**
- 12-gauge stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor

**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



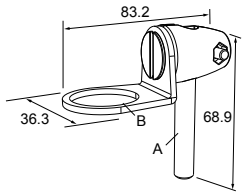


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**SMB30FA**

- 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

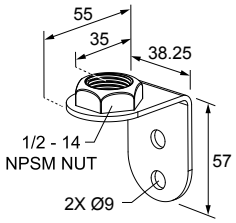
**Bolt thread:** SMB30FA, A= 3/8 - 16 × 2 in; SMB30FAM10, A= M10 - 1.5 × 50
**Hole size:** B= ø 30.1




**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

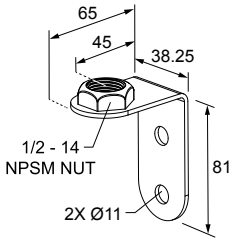
**Hole center spacing:** 20.0




**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




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

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