# Features

*22 mm Flush Mount Programmable Multicolor RGB Indicator with Seven Color Flashing Input Control and up to Fourteen Color Options*

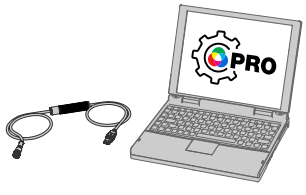


- Bright, uniform indicator light
- Programmable using Banner Pro Editor software and Pro Converter Cable
- Up to fourteen colors in one device (Green, Red, Yellow, Blue, White, Cyan, Magenta, Orange, Amber, Lime Green, Spring Green, Sky Blue, Violet, and Rose)
- 22 mm threaded polycarbonate base
- Translucent polycarbonate window
- Rugged IP66, IP67, and IP69K per ISO 20653 design
- Bimodal inputs (PNP/NPN), depending on source wiring
- Seven color models have flashing input control
- Variety of connector options
- Models constructed from FDA-grade materials available
- Terminal connection models available for panel wiring applications

# Models

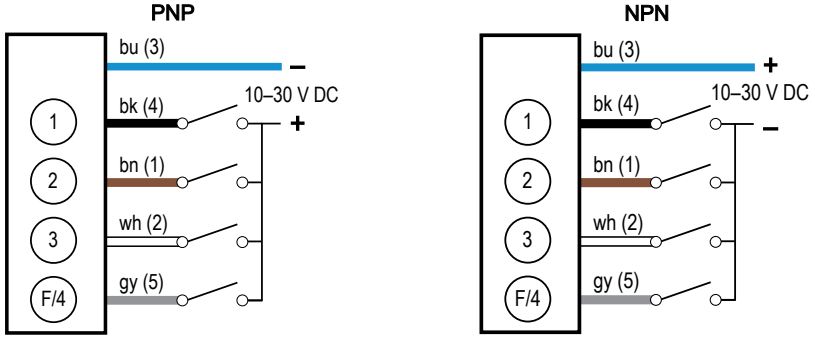
| Family | Material | Color | Connection[1] |
|---|---|---|---|
| **S22L2** | **S** | **RGB7** | **Q** |
| | S = Standard<br>F = FDA-grade | RGB7 = RGB Multicolor (7 colors)[2]<br>RGB14 = RGB Multicolor (14 colors)[3] | Blank = 2 m (6.5 ft) integral PVC-jacketed cable<br>Q = Integral 5-pin M12 male quick-disconnect connector<br>QP = 150 mm (6 in) PVC-jacketed cable with a 5-pin M12 male quick-disconnect connector<br>T = 5-screw terminal |

# 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.

# Wiring




**Key**

1 = Brown
2 = White
3 = Blue
4 = Black
5 = Gray

Gray wire (flashing input on seven color models)

(1) Models with a quick-disconnect connector require a mating cordset.
(2) 7 Colors = Green, Red, Yellow, Blue, White, Cyan, Magenta with flash input.
(3) 14 Colors = Above colors, plus Orange, Amber, Lime Green,Spring Green,Sky Blue, Violet, and Rose.

Original Instructions
25-Aug-25

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205496
p/n: 205496 Rev. C

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

*Color Definition*

| | Red | Yellow | Green | Cyan | Blue | Magenta | White | Amber | Rose | Lime Green | Orange | Sky Blue | Violet | Spring Green |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Input 1 | X | X | | | | X | X | | X | | X | | X | |
| Input 2 | | X | X | X | | | X | | | X | X | | | X |
| Input 3 | | | | X | X | X | X | | | | | X | X | X |
| Input 4 | | | | | | | | X | X | X | X | X | X | X |

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

Input 4 is only available on fourteen color models.

# Specifications

**Supply Voltage**
10 V DC to 30 V DC

**Supply Current**
70 mA maximum current at 10 V DC (exclusive of load)
60 mA maximum current at 12 V DC (exclusive of load)
40 mA maximum current at 24 V DC (exclusive of load)
35 mA maximum current at 30 V DC (exclusive of load)

**Supply Protection**
Protected against reverse polarity and transient voltages

**Leakage Current Immunity**
400 µA

**Input Response Time**
250 milliseconds maximum

**Flash**
Default 1.5 Hz flash rate through flash input wire

**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 connector require a mating cordset

**Construction**
**Standard Model Base, Dome, and Nut:** polycarbonate
**FDA Model Base, Dome, and Nut:** FDA-grade copolyester

**Mounting**
M22 by 1.5 threaded base, maximum torque 2.25 N·m (20 inch·lbf)
Mounting nut included

**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)

**Environmental Rating**
**Standard Models:** IP66, IP67, IP69K per ISO 20653
Cabled models also meet IP69K per ISO 20653 if the cable and cable entrance are protected from high-pressure spray
Indicator side of terminal models meet IP69K per ISO 20653 when installed in an enclosure
Screw connection points meet IP00
**FDA Models:** IP66, IP67, and IP69K per ISO 20653

**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)

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

**Pro Editor Configuration**
Connection to Pro Editor software enables control of:
- **Animation:** Steady, Flash, Two Color Flash, 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

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

**Indicators**
7 colors or 14 colors, depending on model
Only one color can be on at a time

**Default Indicator Characteristics**

| Color | Dominant Wavelength (nm)or Color Temperature (CCT) | Color Coordinates[4] | | Lumen Output (Typical at 25 °C) |
|---|---|---|---|---|
| | | x | y | |
| Green | 527 | 0.178 | 0.7 | 1.9 |
| Red | 625 | 0.699 | 0.298 | 0.8 |
| Yellow | 571 | 0.424 | 0.511 | 2.5 |
| Blue | 465 | 0.139 | 0.052 | 0.3 |
| White | 5700K | 0.328 | 0.337 | 2.5 |
| Cyan | 492 | 0.158 | 0.34 | 2 |
| Magenta | – | 0.345 | 0.161 | 1.2 |
| Amber | 585 | 0.517 | 0.438 | 1.8 |
| Rose | – | 0.491 | 0.215 | 0.9 |
| Lime Green | 557 | 0.347 | 0.571 | 2.2 |
| Sky Blue | 485 | 0.151 | 0.248 | 1.9 |
| Orange | 596 | 0.585 | 0.386 | 1.4 |
| Violet | 435 | 0.204 | 0.082 | 0.5 |
| Spring Green | 507 | 0.169 | 0.524 | 1.9 |

[4] Refer to the CIE 1930 (x,y) Chromaticity Diagram, to show equivalent color with indicated color coordinates.


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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 |

## 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)

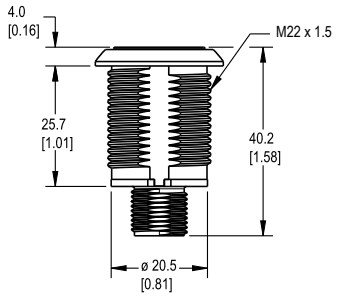
This device complies with CAN ICES-3 (B)/NMB-3(B). Operation is subject to the following two conditions: 1) This device may not cause harmful interference; and 2) This device must accept any interference received, including interference that may cause undesired operation.

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.

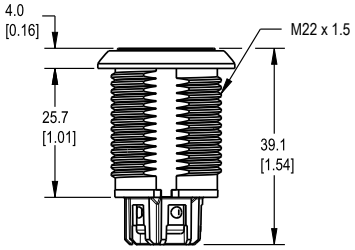
## Dimensions

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

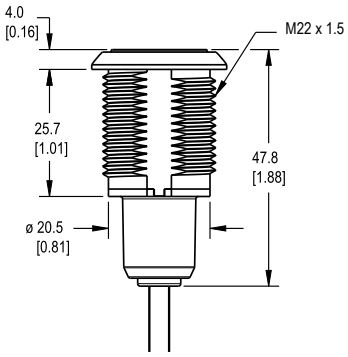
**Quick-Disconnect Models**




**Terminal Models**




**Cabled Models**

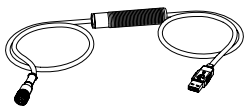



# Accessories

## Pro Editor Hardware

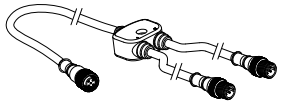
**MQDC-506-USB**

- 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

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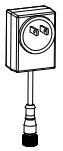
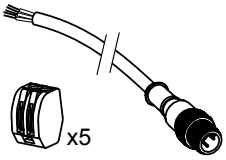
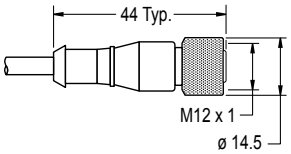
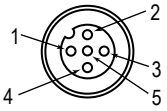
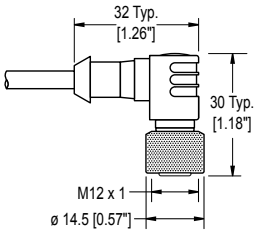
**PSW-24-1**
- 24 V DC, 1 A power supply
- 2 m (6.5 ft) PVC cable with M12 quick disconnect
- Provides external power with splitter cable, sold separately

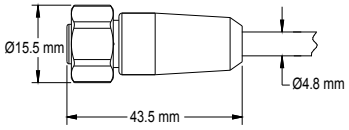
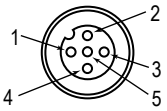


**ACC-PRO-CABLE5**
- Mating accessory for cabled and terminal models
- 150 mm (6 inch) PVC cable with M12 quick disconnect
- Lever wire nuts included (qty 5)
- Required to connect cabled models and screw terminal models to Pro Converter Cable, sold separately




# 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 |
| 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 |   |   1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray |
| MQDC-WDSS-0515 | 5 m (16.4 ft) | | | |
| MQDC-WDSS-0530 | 9 m (29.5 ft) | | | |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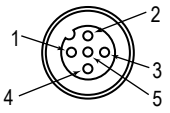
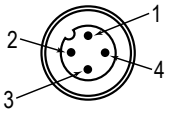
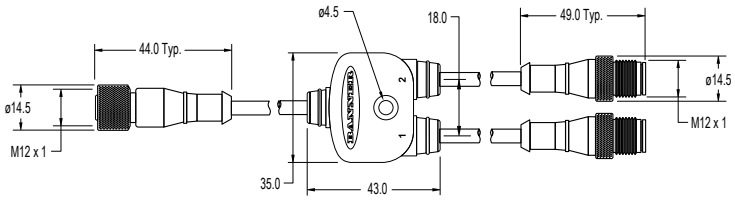
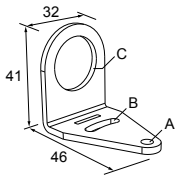
# Splitter Cables for Use with IO-Blocks

| 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   Male   1 = brown (trunk); no connection (branches 1 and 2) 2 = white (trunk); brown (branch 1); gray (branch 2) 3 = blue (trunk; branches 1 and 2) 4 = black (trunk); black (branch 1); white (branch 2) 5 = gray (trunk only) |
|   | | | |

# Brackets

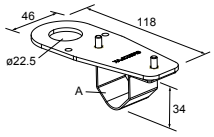
**SMB22A**
- Right-angle bracket with curved slot for versatile orientation
- 12-ga. stainless steel
- Mounting hole for 22 mm sensor

**Hole center spacing:** A to B = 26.0
**Hole size:** A = ø 4.6, B = 4.6 x 16.9, C = 22.2



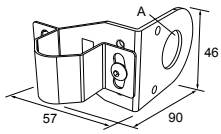

**SMB22FVK**
- V-clamp, flat bracket and fasteners for mounting to pipe or extensions
- Clamp accommodates 28 mm diameter tubing or 1 in. square extrusions
- 22 mm hole for mounting sensor

**Hole size:** A = ø 22.5



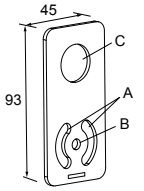

**SMB22RAVK**
- V-clamp, right-angle bracket and fasteners for mounting to pipe or extensions
- Clamp accommodates 28 mm diameter tubing or 1 in. square extrusions
- 22 mm hole for mounting sensor

**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





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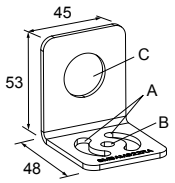
**SMBAMS22RA**

- 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

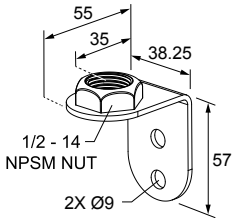
**Hole center spacing:** A = 26.0, A to B = 13.0
**Hole size:** A = 26.8 x 7.0, B = ø 6.5, C = ø 22.5




**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

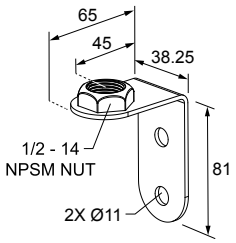
**Hole center spacing:** 20.0




**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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