# K50 Pro Touch Audible Button

## Features

*50 mm Programmable Multicolor RGB Indicator with Audible and Touch Button Output*



Standard Model



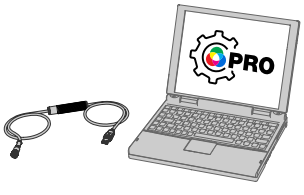
Compact Model

- Excellent immunity to false triggering by water spray, detergents, oils, and other foreign materials
- Programmable using Banner's Pro Editor software and Pro Converter Cable
- Integral audible can be used as standalone indicator or as an input to touch conditions
- 14 different tones available including intensity and input control
- 97 dB maximum sound intensity
- Rated IP67 and IP65
- Ergonomically designed to eliminate hand, wrist, and arm stresses associated with repeated switch operation; no physical force required to operate
- 12 V DC to 30 V DC operation
- Can be actuated with bare hands or gloves; adjustable sensitivity using Pro Editor software
- Compact models available for lower profile applications
- Configurable input/output with Pro Editor software

## Models

| Family | Style | Activation Method | Housing | Output State | Output Function | Color Control | Audible | Connector[1] |
|---|---|---|---|---|---|---|---|---|
| K50 | P | T | C | A | M | GRY3 | A | QP |
| | P = Pro | T = Touch | C = Compact<br>Blank = Standard Dome | A = Normally Open | M = Momentary<br>L = Latching | GRY3 = Programmable Multicolor (3 Colors, 5-pin)<br>RGB7 = Programmable Multicolor (7 colors, 8-pin) | A = Audible | Blank = 2 m (6.5 ft) integral PVC-jacketed cable<br>Q = Integral 5-pin or 8-pin M12 male quick-disconnect connector, depending on model<br>QP = 150 mm (6 in) PVC-jacketed cable with a 5-pin or 8-pin M12 male quick-disconnect connector, depending on model |

## 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.

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

Original Instructions
30-Jun-25

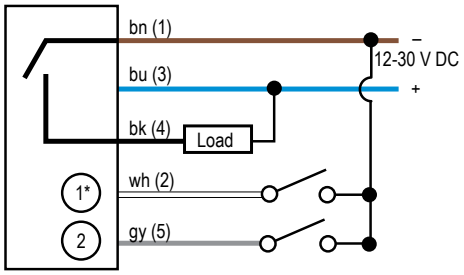
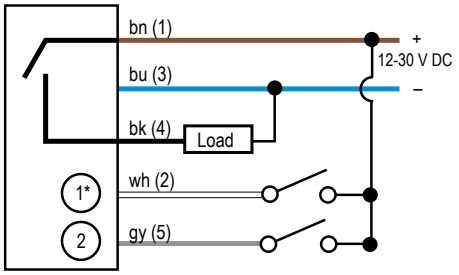
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225965
p/n: 225965 Rev. C

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

# Wiring

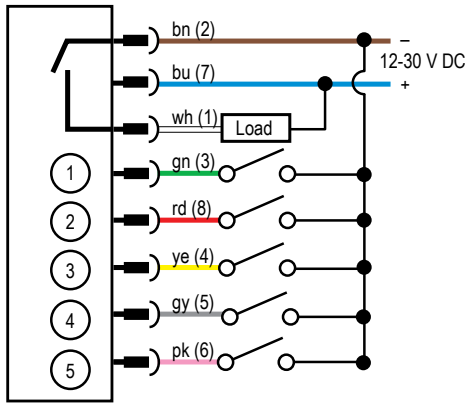
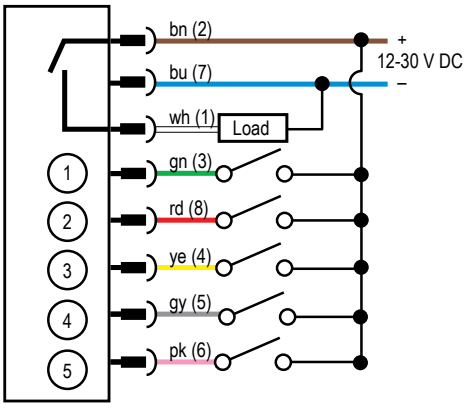
*GRY3 Models*

| NPN | PNP | Key |
|---|---|---|
|  |  | Pin 1 = Brown<br>Pin 2 = White*<br>Pin 3 = Blue<br>Pin 4 = Black<br>Pin 5 = Gray<br>Touch toggles output<br><br>*Can be configured as an output using Pro Editor software |

*GRY3 Multicolor Default Color/Function and Audible Definition*

| Audible | | | Continuous |
|---|---|---|---|
| **Color** | **Green** | **Yellow** | **Red** |
| Input 1 | X | X | |
| Input 2 | | X | X |

*RGB7 Models*

| NPN | PNP | Key |
|---|---|---|
|  |  | Pin 1 = White<br>Pin 2 = Brown<br>Pin 3 = Green<br>Pin 4 = Yellow<br>Pin 5 = Gray*<br>Pin 6 = Pink<br>Pin 7 = Blue<br>Pin 8 = Red<br>Touch toggles output<br><br>*Can be configured as an output using Pro Editor software |

*RGB7 Multicolor Default Color/Function and Audible Definition*

| Color | Red | Yellow | Green | Cyan | Blue | Magenta | White |
|---|---|---|---|---|---|---|---|
| Input 1 | X | X | | | | X | X |
| Input 2 | | X | X | X | | | X |
| Input 3 | | | | X | X | X | X |

| Audible | Continuous | Jingle | Wobble |
|---|---|---|---|
| Input 4 | X | X | |
| Input 5 | | X | X |

# Specifications

**Supply Voltage**

12 V DC to 30 V DC

**Supply Current**

135 mA maximum current at 12 V DC (exclusive of load)

108 mA maximum current at 24 V DC (exclusive of load)

105 mA maximum current at 30 V DC (exclusive of load)

**Supply Protection Circuitry**

Protected against reverse polarity and transient voltages

**Leakage Current Immunity**

400 µA

**Output Rating**

Maximum load: 150 mA

ON-state saturation voltage: < 2 V DC at 10 mA; <2.5 V DC at 150 mA

OFF-state leakage current: <10 µA at 30 V DC

**Audible Characteristics**

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

**Audible Intensity**

Maximum intensity at 2.9 kHz: 97 dB at 1 m

Minimum intensity at 2.9 KHz: 94 dB at 1 m

**Output Response Time**

Power-Up Delay: 500 milliseconds maximum

Input Response: 40 milliseconds maximum

Output Response: 300 milliseconds maximum



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**Touch Dwell Time**

If touch dwells for longer than 60 seconds, the output will revert to the untouched state

**Operating Conditions**

–40 °C to +50 °C (–40 °F to +122 °F)

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

**Environmental Rating**

IP67, IP65

**Mounting**

M30 × 1.5 threaded base, maximum torque 4.5 N·m (40 in·lbf)

**Construction**

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)

**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

**Connections**

2 m (6.5 ft) integral PVC-jacketed cable, integral 5-pin or 8-pin M12 male quick-disconnect connector, or 150 mm (6 in) PVC-jacketed cable with a 5-pin or 8-pin M12 male quick-disconnect connector, depending on model

Models with a quick disconnect require a mating cordset

**Storage**

–40 °C to +70 °C (–40 °F to +158 °F)

**Pro Editor Configuration**

Connection to Pro Editor software enables control of:

- **Animation:** Steady, 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
- **Output State:** Normally Open, Normally Closed, Momentary, Latching, On Delay, Off Delay, Remember Touch State on Power Loss
- **Touch Sensitivity:** Low, Standard, High
- **Logic Type:** Three State Advanced Control (F2 Mode), Seven State Advanced Control (F2 Mode), Four State Full Logic (Custom)
- **Audible Tones:** Pulse, Wobble, Strobe, Whoop, Staccato, Siren, Continuous 1, Continuous 2, Jingle, Melody 1, Melody 2, Melody 3
- **Audible Intensity:** Low, Medium, High
- One pin configurable as either an input or an output

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

**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[2] | | Lumen Output (Typical at 25 °C)[3] |
|---|---|---|---|---|
| | | x | y | |
| Green | 522 | 0.154 | 0.700 | 16.5 |
| Red | 620 | 0.689 | 0.309 | 8.3 |
| Yellow | 576 | 0.477 | 0.493 | 23.8 |
| Blue | 466 | 0.140 | 0.054 | 4.6 |
| White | 5700K | 0.328 | 0.337 | 25.1 |
| Cyan | 493 | 0.170 | 0.340 | 18.4 |
| Magenta | – | 0.379 | 0.172 | 11.1 |
| Amber | 589 | 0.556 | 0.420 | 15.7 |
| Rose | – | 0.515 | 0.220 | 9.1 |
| Lime Green | 562 | 0.388 | 0.561 | 21.4 |
| Sky Blue | 486 | 0.155 | 0.247 | 19.5 |
| Orange | 599 | 0.616 | 0.370 | 12.1 |
| Violet | – | 0.217 | 0.089 | 9.7 |
| Spring Green | 508 | 0.177 | 0.536 | 17.0 |

# 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.

[2] Refer to the CIE 1931 (x,y) Chromaticity Diagram to show equivalent color with indicated color coordinates. Actual coordinates may differ ± 5%.

[3] Values shown apply to dome models only. Compact models are 20% lower.


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(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)

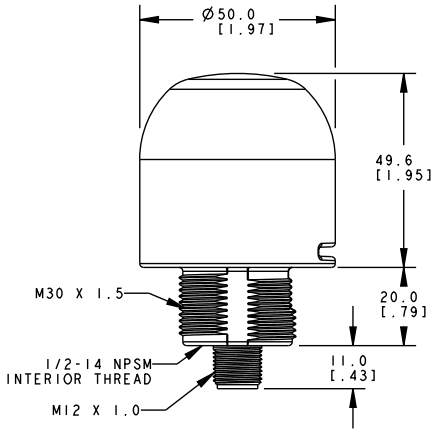
This device complies with CAN ICES-3 (B)/NMB-3(B). Operation is subject to the following two conditions: 1) This device may not cause harmful interference; and 2) This device must accept any interference received, including interference that may cause undesired operation.

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.

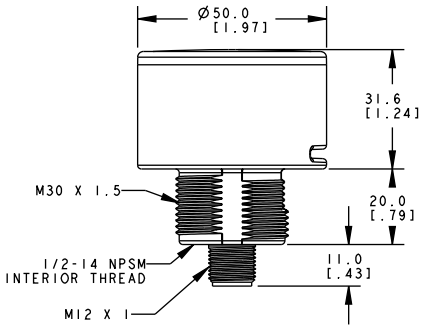
## Dimensions

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

**Standard Models**




**Compact Models**

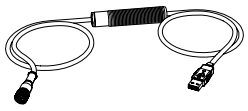



# Accessories

## Pro Editor Hardware

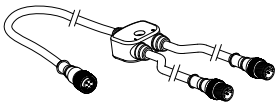
**MQDC-506-USB**

- 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



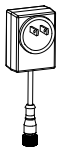
**CSB-M1251FM1251M**

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



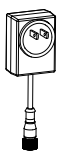
**PSW-24-1**

- 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



**PSW-24-2**

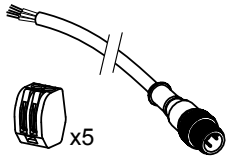
- 24 V DC, 2 A power supply
- 3.5 m (11.5 ft) PVC cable with M12 quick disconnect
- Provides external power with splitter cable, sold separately




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**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



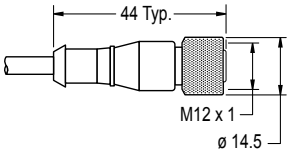
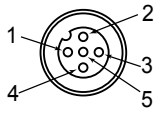
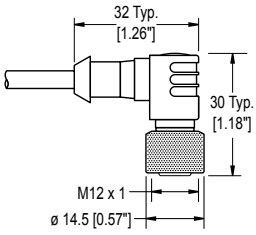

**MQDC-801-5M-PRO**

- 8-pin to 5-pin double-ended cordset
- 0.31 m (1 ft) PVC cable with M12 quick disconnects
- Required to connect 8-pin Pro Series-enabled devices to Pro Converter Cable (MQDC-506-USB), sold separately



## Cordsets

**5-Pin Single-Ended M12 Female Cordsets**

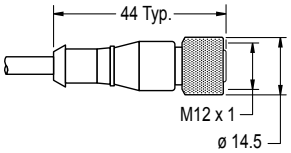
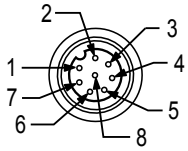
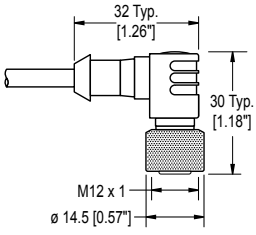
| Model | Length | Style | Dimensions | Pinout (Female) |
|---|---|---|---|---|
| MQDC1-501.5 | 0.5 m (1.5 ft) | Straight |  |  |
| MQDC1-503 | 0.9 m (2.9 ft) | | | |
| MQDC1-506 | 2 m (6.5 ft) | | | |
| MQDC1-515 | 5 m (16.4 ft) | | | |
| MQDC1-530 | 9 m (29.5 ft) | | | |
| MQDC1-560 | 18 m (59 ft) | | | |
| MQDC1-5100 | 31 m (101.7 ft) | | | |
| MQDC1-506RA | 2 m (6.5 ft) | Right-Angle |  | 1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black<br>5 = Gray |
| MQDC1-515RA | 5 m (16.4 ft) | | | |
| MQDC1-530RA | 9 m (29.5 ft) | | | |
| MQDC1-560RA | 19 m (62.3 ft) | | | |







**8-Pin Single-Ended M12 Female Open-Shielded Cordsets**

| Model | Length | Style | Dimensions | Pinout (Female) |
|---|---|---|---|---|
| MQDC2S-806 | 2.04 m (6.7 ft) | Straight |  |  |
| 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 |  | 1 = White<br>2 = Brown<br>3 = Green<br>4 = Yellow<br>5 = Gray<br>6 = Pink<br>7 = Blue<br>8 = Red |
| MQDC2S-815RA | 5 m (16.4 ft) | | | |
| MQDC2S-830RA | 10 m (32.81 ft) | | | |
| MQDC2S-850RA | 16 m (52.49 ft) | | | |







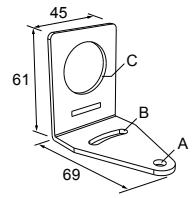

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# Brackets

**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

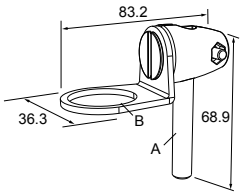
**Hole center spacing:** A to B=40
**Hole size:** A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5




**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

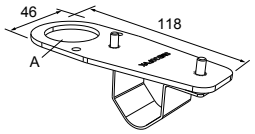
**Bolt thread:** SMB30FA, A= 3/8 - 16 × 2 in; SMB30FAM10, A= M10 - 1.5 × 50
**Hole size:** B= ø 30.1




**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

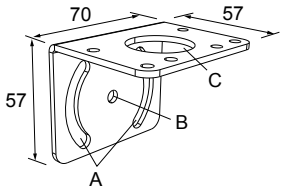
**Hole size:** A= ø 31




**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

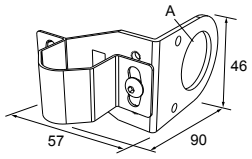
**Hole center spacing:** A = 51, A to B = 25.4
**Hole size:** A = 42.6 × 7, B = ø 6.4, C = ø 30.1




**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

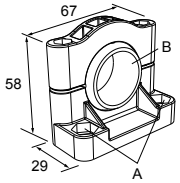
**Hole size:** A = ø 30.5




**SMB30SC**

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

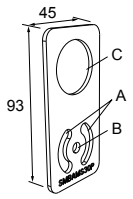
**Hole center spacing:** A=ø 50.8
**Hole size:** A=ø 7.0, B=ø 30.0




**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



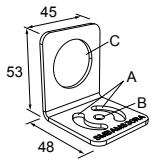


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**SMBAMS30RA**

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

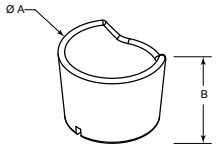
**Hole center spacing:** A=26.0, A to B=13.0
**Hole size:** A=26.8 × 7.0, B=ø 6.5, C=ø 31.0




**TC-K50-CL**

- Touch cover

**Diameter:** A = 67 mm
**Height:** B = 42.5 mm




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