K70 Pro Touch Audible Button

Features

70 mm Programmable Multicolor RGB Indicator with Audible and Touch Button Output

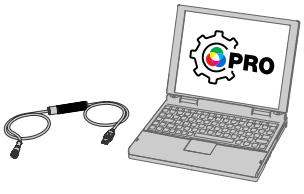


- Excellent immunity to false triggering by water spray, detergents, oils, and other foreign materials
- Programmable using Banner's Pro Editor software and Pro Converter Cable
- Integral audible can be used as a stand-alone indicator or as an input to touch conditions
- 12 different tones available including intensity and input control
- 103 dB maximum sound intensity
- Rated 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
- Configurable input/output with Pro Editor software

Models

Family	Style	Activation Method	Output State	Output Function	Color / Control	Audible	Connector[1]
K70	P	T	A	M	GRY3	A	QP
	P = Pro	T = Touch	A = Normally open	M = Momentary L = Latching	GRY3 = Programmable multicolor (3 colors, 5-pin) RGB7 = Programmable multicolor (7 colors, 8-pin)	A = Audible	Blank = 2 m (6.5 ft) integral PVC-jacketed cable Q = Integral 5-pin or 8-pin M12 male quick-disconnect connector, depending on model 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

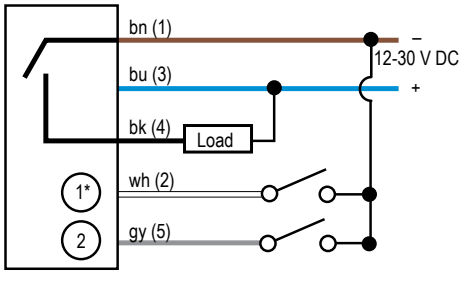


Use Banner's Pro Editor software and Pro Converter Cable to create custom configurations by selecting different colors, flash patterns, and animations.
For more information visit www.bannerengineering.com/proeditor.

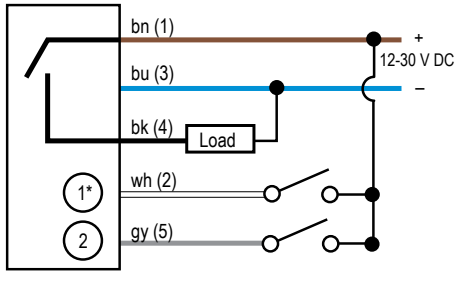
Wiring

GRY3 Models

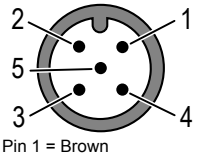
NPN



PNP



Key



Pin 1 = Brown
Pin 2 = White*
Pin 3 = Blue
Pin 4 = Black
Pin 5 = Gray
Touch toggles output
*Can be configured as an output using Pro Editor software

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

Original Instructions
07-Apr-26

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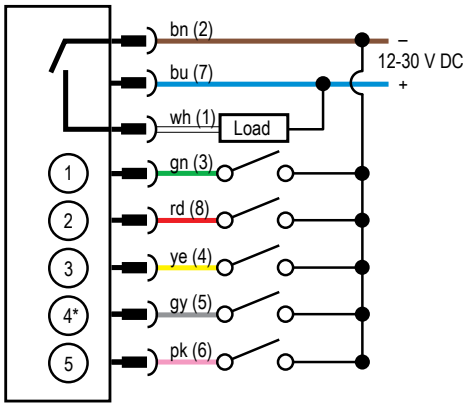
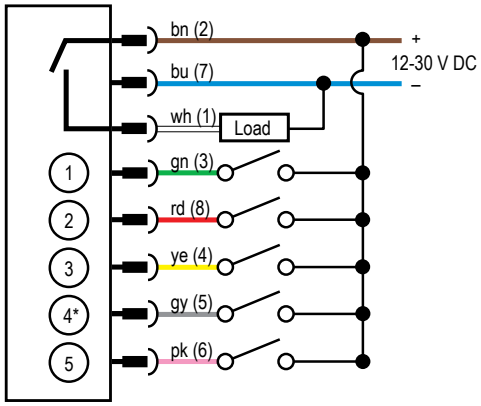
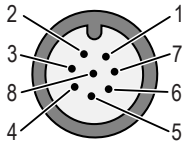
229894
p/n: 229894 Rev. A

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

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
Pin 2 = Brown
Pin 3 = Green
Pin 4 = Yellow
Pin 5 = Gray*
Pin 6 = Pink
Pin 7 = Blue
Pin 8 = Red
Touch toggles output
*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

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

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

75 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: 100 mA

ON-state saturation voltage: < 2 V DC at 10 mA; < 2.5 V DC at 100 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.

Oscillation Frequency: 2.5 KHz ± 250 Hz

Audible Intensity

High Intensity: 103 dB at 1 m
Medium Intensity: 98 dB at 1 m
Low Intensity: 95 dB at 1 m

Output Response Time

Power-Up Delay: 500 milliseconds maximum

Input Response: 40 milliseconds maximum

Output Response: 300 milliseconds maximum

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

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)

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

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

Storage

–40 °C to +70 °C (–40 °F to +158 °F)

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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
- **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	2.0	30	0.5

Default Indicator Characteristics

Color	Dominant Wavelength (nm)or Color Temperature (CCT)	Color Coordinates[2]		Lumen Output (Typical at 25 °C)
		x	y	
Green	532	0.181	0.735	46.6
Red	621	0.691	0.308	26
Yellow	578	0.473	0.474	36.4
Blue	467	0.137	0.056	9
White	5700K	0.328	0.337	30.9
Cyan	492	0.15	0.334	31.8
Magenta	-	0.379	0.177	19.1
Amber	590	0.552	0.414	32.4
Rose	-	0.508	0.23	22.3
Lime Green	565	0.393	0.535	40.5
Sky Blue	485	0.146	0.241	26.3
Orange	600	0.611	0.37	29.1
Violet	-	0.212	0.091	13.3
Spring Green	509	0.157	0.553	39.7

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.

[2] Refer to the CIE 1931 (x,y) Chromaticity Diagram to show equivalent color with indicated color coordinates. Actual coordinates may differ ± 10%.

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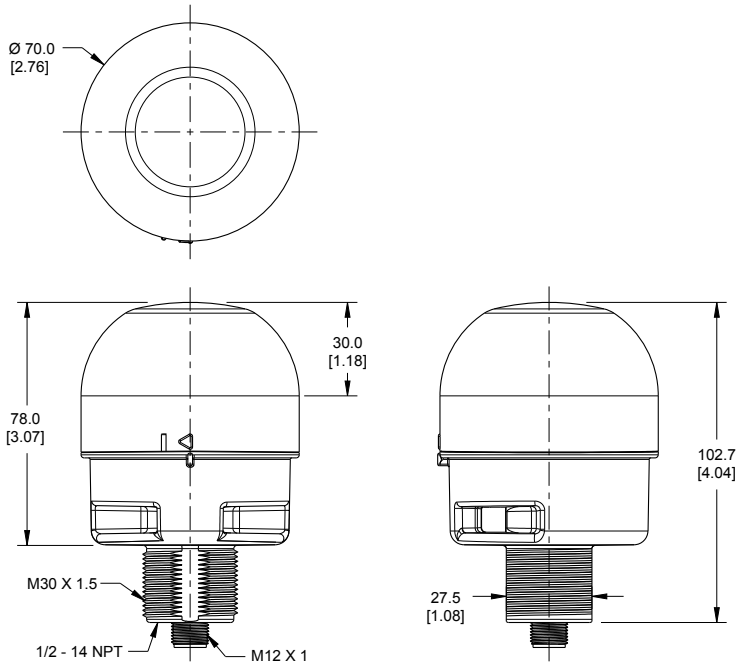
Dimensions

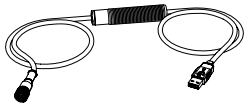
All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.



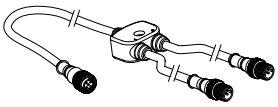
Accessories

Pro Editor Hardware

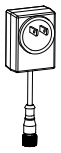
MQDC-506-USB
- Pro Converter Cable
- 1.83 m (6 ft) length 5-pin M12 quick disconnect to Device and USB to PC
- Required for connection to the configuration software



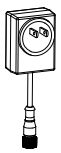
CSB-M1251FM1251M
- 5-pin parallel Y splitter (Male-Male-Female)
- For full Pro Editor preview capability
- Requires external power supply, sold separately



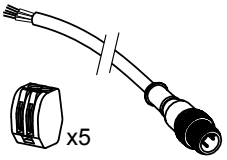
PSW-24-1
- 24 V DC, 1 A power supply
- 2 m (6.5 ft) PVC cable with M12 quick disconnect
- Provides external power with splitter cable, sold separately



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



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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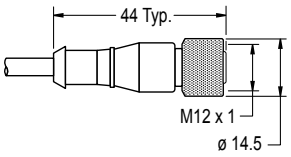
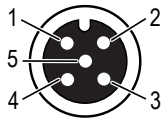
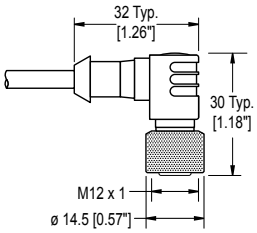
MQDC-801-5M-PRO

- 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



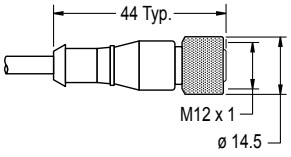
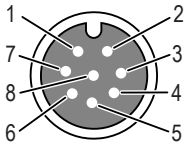
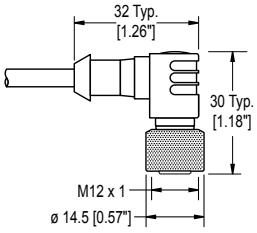
Cordsets

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		
MQDC1-515RA	5 m (16.4 ft)			
MQDC1-530RA	9 m (29.5 ft)			
MQDC1-560RA	19 m (62.3 ft)			

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

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

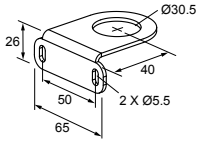
Model	Length	Style	Dimensions	Pinout (Female)
MQDC2S-806	2.04 m (6.7 ft)	Straight		
MQDC2S-815	5.04 m (16.54 ft)			
MQDC2S-830	10.04 m (32.95 ft)			
MQDC2S-850	16 m (52.49 ft)			
MQDC2S-806RA	2 m (6.56 ft)	Right-Angle		
MQDC2S-815RA	5 m (16.4 ft)			
MQDC2S-830RA	10 m (32.81 ft)			
MQDC2S-850RA	16 m (52.49 ft)			

1 = White
2 = Brown
3 = Green
4 = Yellow
5 = Gray
6 = Pink
7 = Blue
8 = Red

Brackets

LMB30LP

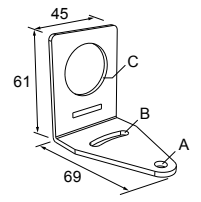
- Low profile
- 30 mm mounting hole
- 300 series stainless steel
- CAD Files: DXF, PDF, IGS, STP



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
- CAD Files: DXF, PDF, IGS, STP

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



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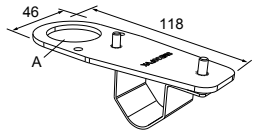
SMB30FVK

- 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
- CAD Files: DXF, PDF, IGS, STP

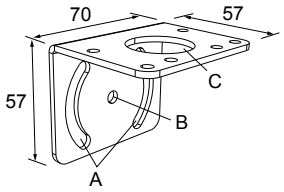
Hole size: A=ø 31



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
- CAD Files: DXF, PDF, IGS, STP

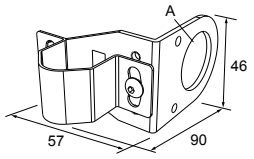
Hole center spacing: A=51, A to B=25.4
Hole size: A=42.6 × 7, B=ø 6.4, C=ø 30.1



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
- CAD Files: DXF, PDF, IGS, STP

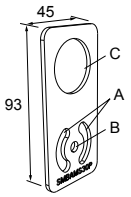
Hole size: A=ø 30.5



SMBAMS30P

- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge 300 series stainless steel
- CAD Files: DXF, PDF, IGS, STP

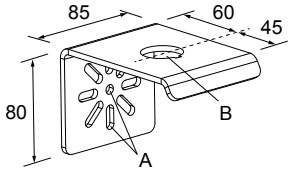
Hole center spacing: A=26.0, A to B=13.0
Hole size: A=26.8 × 7.0, B=ø 6.5, C=ø 31.0



SSA-MBK-EEC1

- Single 30 mm hole
- 8 gauge steel, black finish (powder coat)
- Front surface for customer-applied labels
- CAD Files: DXF, PDF, IGS, STP

Hole size: A = ø 7 , B = ø 30



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