

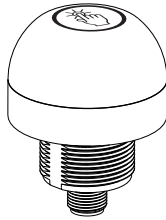
EZ-LIGHT® Touch K50 Series Illuminated Multipurpose Buttons



more sensors, more solutions

General Purpose Multicolor Indicator with Independent Momentary Touch Button Output

For the latest technical information about this product, including specifications, dimensions, and wiring, see <http://www.bannerengineering.com>



- Rugged, cost-effective, and easy-to-install multicolor indicator with touch button
- Waterproof IP69K construction for washdown environments
- Three independent colors in one unit - Color 3 overrides Colors 1 and 2, Color 2 overrides Color 1
- Available with PNP and NPN inputs/outputs, depending on model
- Ergonomically designed to eliminate hand, wrist, and arm stresses associated with repeated switch operation; require no physical force to operate
- Can be actuated with bare hands or in gloves
- 12 to 30V dc operation

Models

Model ¹	I/O Type	Output State	Color 1	Color 2	Color 3	Connection
K50APTGRYF2Q	PNP	N.O.	Green	Red	Yellow	Integral 8-pin Euro QD
K50RPTGRYF2Q		N.C.				
K50ANTGRYF2Q	NPN	N.O.				
K50RNTGRYF2Q		N.C.				



WARNING: Not To Be Used for Personnel Protection

Never use this device as a sensing device for personnel protection. Doing so could lead to serious injury or death. This device does NOT include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition.

Indicator and Output Behavior

Table 1: PNP Models

Input Actions				Touch Button Actions		
Input #1: Pin 3 Green Wire	Input #2: Pin 8 Red Wire	Input #3: Pin 4 Yellow Wire	LED Color	Output Type	Touch	Output: Pin 1 White Wire
Open or -Vdc	Open or -Vdc	Open or -Vdc	Light OFF	N.O.	Not touched	PNP Output Off
+Vdc	Open or -Vdc	Open or -Vdc	Color #1 ON		Touched	PNP Output On
+Vdc	+Vdc	Open or -Vdc	Color #2 ON	N.C.	Not touched	PNP Output On
+Vdc	+Vdc	+Vdc	Color #3 ON		Touched	PNP Output Off
Open or -Vdc	+Vdc	Open or -Vdc	Color #2 ON			
Open or -Vdc	+Vdc	+Vdc	Color #3 ON			
Open or -Vdc	Open or -Vdc	+Vdc	Color #3 ON			
+Vdc	Open or -Vdc	+Vdc	Color #3 ON			

¹ Integral QD models only are listed.

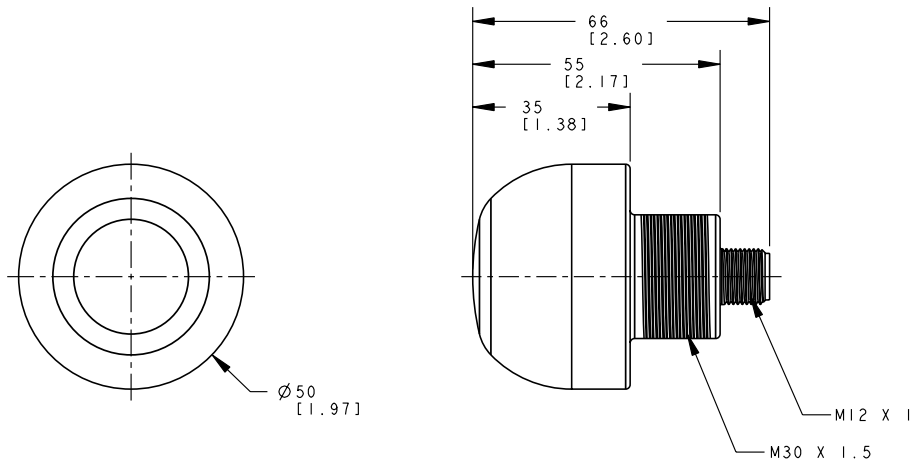
- For 8-pin 150 mm (5.9 in) Euro-style PVC pigtail, replace suffix Q with QP in model number (example, K50APTGRYF2QP).
- For 2 m (6.5 ft) cable, omit suffix Q from model number (example, K50APTGRYF2).
- A model with a QD requires a mating cable (see [Cordsets](#) on page 3).



Table 2: NPN Models

Input Actions				Touch Button Actions		
Input #1: Pin 3 Green Wire	Input #2: Pin 8 Red Wire	Input #3: Pin 4 Yellow Wire	LED Function	Output Type	Touch	Output: Pin 1 White Wire
Open or +Vdc	Open or +Vdc	Open or +Vdc	Light OFF	N.O.	Not touched	NPN Output Off
-Vdc	Open or +Vdc	Open or +Vdc	Color #1 ON		Touched	NPN Output On
-Vdc	-Vdc	Open or +Vdc	Color #2 ON	N.C.	Not touched	NPN Output On
-Vdc	-Vdc	-Vdc	Color #3 ON		Touched	NPN Output Off
Open or +Vdc	-Vdc	Open or +Vdc	Color #2 ON			
Open or +Vdc	-Vdc	-Vdc	Color #3 ON			
Open or +Vdc	Open or +Vdc	-Vdc	Color #3 ON			
-Vdc	Open or +Vdc	-Vdc	Color #3 ON			

Dimensions



Hookups

NPN (Sinking) Output Models	PNP (Sourcing) Output Models	Wiring Key	Pinout
		<p>1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red</p>	

Specifications

Supply Voltage

12 to 30V dc

Supply Current

< 75 mA max current at 12V dc (exclusive of load)

< 50 mA max current at 30V dc (exclusive of load)

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Output Rating

Maximum Load: 150 mA

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

OFF-state leakage current < 10 µA at 30V dc

Output Response Time

50 milliseconds ON and OFF

Power-Up Output Delay Time

300 milliseconds

Connections

8-pin integral Euro-style QD, 2 m (6.5 ft) PVC integral cable, or 8-pin

150 mm (5.9 in) Euro-style PVC pigtail QD

Indicators

Color 1: Green

Color 2: Red

Color 3: Yellow

Environmental Rating

IEC IP67, IP69K per DIN 40050-9. Cabled models also meet IP69K if the cable and cable entrance are protected from high-pressure spray.

Operating Conditions

Temperature: -40° to +50° C (-40° to +122° F)

Humidity: 90% at 50° C max. relative humidity (non-condensing)

Storage

-40° to +70° C (-40° to +158° F)

Construction

Housing: polycarbonate

Translucent dome: polycarbonate

Mounting Nut: PBT

Mounting

M30 x 1.5 Threaded base Max torque 4.5 Nm (40in lb f)

Vibration and Mechanical Shock

All models meet Mil. Std. 202F requirements method 201A (vibration: 10 to 60 Hz max., double amplitude 0.06 in. maximum acceleration 10G). Also meets IEC 947-5-2; 30G 11 ms duration, half sine wave.

Certifications



Accessories

Cordsets

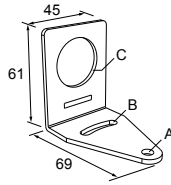
Table 3: 8-Pin Threaded M12/Euro-Style Cordsets with Open-Shield

Model	Length	Style	Dimensions	Pinout
MQDC2S-806	1.83 m (6 ft)	Straight		
MQDC2S-815	4.57 m (15 ft)			
MQDC2S-830	9.14 m (30 ft)			
MQDC2S-850	15.2 m (50 ft)			
MQDC2S-806RA	1.83 m (6 ft)	Right-Angle		<p>1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red</p>
MQDC2S-815RA	4.57 m (15 ft)			
MQDC2S-830RA	9.14 m (30 ft)			
MQDC2S-850RA	15.2 m (50 ft)			

Brackets

SMB30A

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

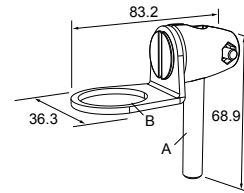


Hole center spacing: A to B=40

Hole size: A=ø 6.3, B= 27.1 x 6.3, C=ø 30.5

SMB30FA

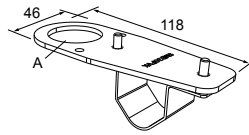
- Swivel bracket with tilt and pan movement for precise adjustment
- Mounting hole for 30 mm sensor
- 12-ga. 304 stainless steel
- Easy sensor mounting to extrude rail T-slot
- Metric and inch size bolt available



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

SMB30FVK

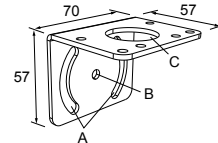
- V-clamp, flat bracket and fasteners for mounting to pipe or extrusions
- Clamp accommodates 28 mm dia. tubing or 1 in. square extrusions
- 30 mm hole for mounting sensors



Hole size: A= ø 31

SMB30MM

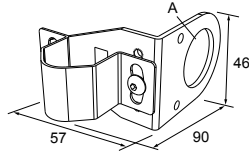
- 12-ga. stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor



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

SMB30RAVK

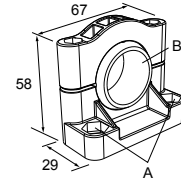
- V-clamp, right-angle bracket and fasteners for mounting sensors to pipe or extrusion
- Clamp accommodates 28 mm dia. tubing or 1 in. square extrusions
- 30 mm hole for mounting sensors



Hole size: A = ø 30.5

SMB30SC

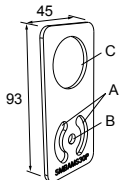
- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic polyester
- Stainless steel mounting and swivel locking hardware included



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

SMBAMS30P

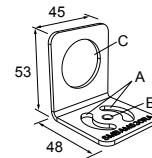
- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90+° rotation
- 12-ga. 300 series stainless steel



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 31.0

SMBAMS30RA

- Right-angle SMBAMS series bracket
- 30 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 31.0

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