EZ-LIGHT® Touch Gen 2 K30 FDA-Grade Series Illuminated Multipurpose Buttons



Datasheet

General Purpose Multicolor Indicator with Independent Momentary Touch Button Output



- FDA-grade materials; rated to IEC IP67, IP68, and IP69K
- Laser marked information withstands aggressive cleaning procedures
- Excellent immunity to false triggering by water spray, detergents, oils, and other foreign materials
- Rugged, cost-effective, and easy-to-install multicolor indicator with touch button
- Two or 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 gloves
- 12 V dc to 30 V dc operation

Models

2 Color Models

Model ¹	I/O Type	Output State	Light Color 1 (Power Applied)	Light Color 2 (Input Active)	Connection
K30APT2FXRF2QP		N.O.	-	Red	2 m (6.5 ft) unterminated PVC- jacketed cable or 150 mm (6 in) PVC cable with a 5-pin M12/ Euro-style, stainless steel quick disconnect
K30APT2FXGF2QP	PNP		-	Green	
K30APT2FGRF2QP			Green	Red	
K30APT2FRGF2QP			Red	Green	
K30ANT2FXRF2QP	NPN		-	Red	
K30ANT2FXGF2QP			-	Green	
K30ANT2FGRF2QP			Green	Red	
K30ANT2FRGF2QP			Red	Green	

3 Color Model

Model ¹	I/O Type	Output State	Color 1	Color 2	Color 3	Connection
K30APT2FGRYF2QP	PNP	N.O.	Green	Red	Yellow	2 m (6.5 ft) unterminated PVC- jacketed cable or 150 mm 8-pin M12/Euro-style male, stainless steel, quick disconnect (QD)



Original Document 189832 Rev. E

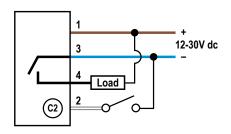
[•] To order the 2 m (6.5 ft) PVC cable model, omit the suffix "QP" in the model number. For example, K30APT2FXRF2.

[•] Models with a quick disconnect require a mating cordset.

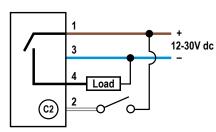
Wiring

2 Color Models

NPN (Sinking) Output Models



PNP (Sourcing) Output Models

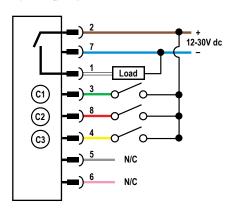


Wiring Key

- 1 = Brown 2 = White
- 3 = Blue
- 4 = Black

3 Color Model

PNP (Sourcing) Output Models



Wiring Key

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

Note:

Cabled wiring diagrams are shown. Quick disconnect wiring diagrams are functionally identical.

Specifications

Supply Voltage

12 V dc to 30 V dc

Supply Current

55 mA max current (exclusive of load)

Supply/Output Protection Circuitry

Protected against reverse polarity and transient voltages

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 μ A at 30 V dc

Output Response Time

150 milliseconds On and Off

Power-Up Delay

300 milliseconds

Connections

2 m (6.5 ft) PVC integral cable or 150 mm (6 inch) pigtail PVC cable with a 5-pin or 8-pin M12/Euro-style male, stainless steel, quick disconnect (QD)

Base, dome, and nut: FDA-grade copolyester

Mounting

M22 × 1.5 Threaded base, max torque 2.25 N·m (20 in-lbf)

Environmental Rating

IEC IP67, IP69K per DIN 40050-9.

Operating Conditions

Temperature: -40 °C to +50 °C (-40 °F to +122 °F)
Humidity: 90% at +50 °C maximum relative humidity (non-condensing)

Storage Temperature

-40 °C to +70 °C (-40 °F to +158 °F)

Vibration and Mechanical Shock

Vibration: 10 Hz to 55 Hz, 1.0 mm peak-to-peak amplitude per IEC $60068\hbox{-}2\hbox{-}6$

Shock: 30G 11 ms duration, half sine wave per IEC 60068-2-27

Certifications





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.

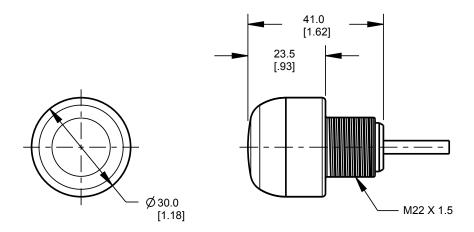
Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.

Supply wiring leads < 24 AWG shall not be spliced.

For additional product support, go to www.bannerengineering.com.

Supply Wiring (AWG)	Required Overcurrent Protection (Amps)		
20	5.0		
22	3.0		
24	2.0		
26	1.0		
28	0.8		
30	0.5		

Dimensions



Accessories

Cordsets

Model Length		Style	Dimensions	Pinout (Female)
MQDC-406	1.83 m (6 ft)		 44 Typ 	
MQDC-415	4.57 m (15 ft)	Straight		
MQDC-430	9.14 m (30 ft)			
MQDC-450	15.2 m (50 ft)		M12 x 1 ø 14.5	1-00-2
MQDC-406RA	1.83 m (6 ft)		, 32 Тур.	4-03-3
MQDC-415RA	4.57 m (15 ft)	Right-Angle	[1.26"]	
MQDC-430RA	9.14 m (30 ft)			1 = Brown
MQDC-450RA	15.2 m (50 ft)		30 Typ. [1.18"] M12 x 1 ø 14.5 [0.57"]	2 = White 3 = Blue 4 = Black

4-Pin Threaded M12/Euro-Style Cordsets—Washdown, Stainless Steel					
Model	Length	Style	Dimensions	Pinout (Female)	
MQDC-WDSS-0406	1.83 m (6 ft)				
MQDC-WDSS-0415	4.57 m (15 ft)			2	
MQDC-WDSS-0430	9.14 m (30 ft)	Straight	Ø15.5 mm	4 6 3 3	
	3.14 III (30 II)		43.5 mm —	1 = Brown	
				2 = White 3 = Blue	
				4 = Black	

Cordsets

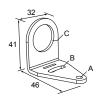
Model	Length	Style	Dimensions	Pinout (Female)
MQDC2S-806	1.83 m (6 ft)		44 Typ. ————————————————————————————————————	1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red
MQDC2S-815	4.57 m (15 ft)			
MQDC2S-830	9.14 m (30 ft)			
MQDC2S-850	15.2 m (50 ft)	Straight	M12 x 1 - Ø 14.5 -	
MQDC2S-806RA	1.83 m (6 ft)		32 Typ. [1.26"] 30 Typ. [1.18"] 0 14.5 [0.57"]	
MQDC2S-815RA	4.57 m (15 ft)			
MQDC2S-830RA	9.14 m (30 ft)			
MQDC2S-850RA	15.2 m (50 ft)	Right-Angle		

8-Pin Threaded M12/Euro-Style Cordsets with Open-Shield—Washdown, Stainless Steel					
Model	Length	Style	Dimensions	Pinout (Female)	
MQDC-WDSS-0806	1.83 m (6 ft)			2	
MQDC-WDSS-0815	4.57 m (15 ft)	Straight	44 Typ. ————————————————————————————————————	1 - 4 7 - 5 6 - 8	
MQDC-WDSS-0830	9.14 m (30 ft)		ø 14.5 _	1 = White 5 = Gray 2 = Brown 6 = Pink 3 = Green 7 = Blue 4 = Yellow 8 = Red	

Brackets

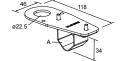
SMB22A

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



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

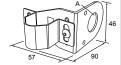


Hole center spacing: A to B = 26.0Hole size: A = \emptyset 4.6, B = 4.6×16.9 , C = 22.2

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: $A = \emptyset 22.5$



SMBAMS22P

Hole size: $A = \emptyset 22.5$

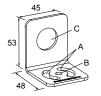
- Flat SMBAMS series bracket with 22 mm hole for mounting sensors
- Articulation slots for 90+° rotation
- 12-ga. (2.6 mm) cold-rolled steel



Hole center spacing: A = 26.0, A to B = 13.0**Hole size:** $A = 26.8 \times 7.0$, $B = \emptyset 6.5$, $C = \emptyset 22.5$

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



TC-K30-CL

Touch cover



Diameter: A = 40.7 Height: B = 31

Hole center spacing: A = 26.0, A to B = 13.0**Hole size:** $A = 26.8 \times 7.0$, $B = \emptyset 6.5$, $C = \emptyset 22.5$

All measurements are listed in millimeters, unless noted otherwise.

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K30APPBGREQP K30APT2FGRYF2QP K30LGRXPPB2Q K30LGRYPPB2Q K30APT2RGF2 K30APTXRF2 K30APTXWF2

K30PTALRGB7 K30PTAMGRY3QP K30PTALGRY3Q K30PTAMGRY3Q K30PTALRGB7Q K30PTAMRGB7Q K50APPBGRYF2Q8

K50BCLXRXPQ K50BCLS1XYXPQ K50BCLGRBP K50BCLXGXP K50BCLS1XRXPQ K50BLGRXPQ K50LGRYPPB2

K50LGXXPPB2Q K50LGRXPPB2Q K50LBXXPPB2Q K50LGYXPPB2Q K50PBLSQ K50PBLRGB7Q K50PFF100AMGRY3Q

K50PTAMGRY3 K50PTAMGRY3AQP K50PTKAQ K50PTAMGRY3AQ K50PTAMRGB7AQ K50PTCAMGRY3AQ

K50PTCAMGRY3Q-812166 K50PTCAMGRY3Q