

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



## Features

Lighted touch button with bipolar outputs



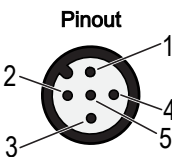
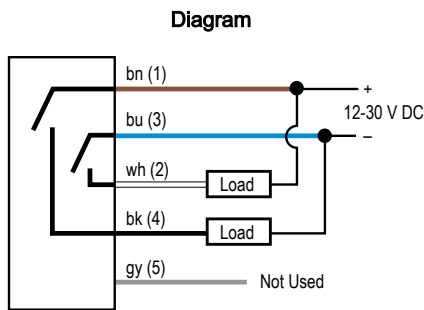
- FDA-grade materials; rated to IP67, IP68, and IP69K
- Laser-marked information withstands aggressive cleaning procedures
- Excellent immunity to false triggering by water spray, detergents, oils, and other foreign materials
- Rugged, cost-effective, and easy-to-install touch button with multicolor light
- Momentary versions remain activated as long as touch is present
- Latching versions start-up not activated and toggle between activated and not activated on successive touches
- Ergonomically designed to eliminate hand, wrist, and arm stresses associated with repeated switch operation; requires no physical force to operate
- Can be actuated with bare hands or gloves
- 12 V DC to 30 V DC operation

## Models

Model <sup>(1)</sup>	Function	Output	Light (not activated)	Light (activated)	Connection
K30ALBT2FXGHQP	Latching	Bipolar, N.O.	-	Green	150 mm (6 in) PVC-jacketed cable with a 5-pin M12 male, stainless steel quick-disconnect connector
K30RLBT2FXGHQP		Bipolar, N.C.			
K30ABT2FXGHQP	Momentary	Bipolar, N.O.			
K30RBT2FXGHQP		Bipolar, N.C.			
K30ALBT2FGGHQP	Latching	Bipolar, N.O.	Green	Green	
K30RLBT2FGGHQP		Bipolar, N.C.			
K30ABT2FGGHQP	Momentary	Bipolar, N.O.			
K30RBT2FGGHQP		Bipolar, N.C.			
K30ALBT2FRGHQP	Latching	Bipolar, N.O.	Red	Green	
K30RLBT2FRGHQP		Bipolar, N.C.			
K30ABT2FRGHQP	Momentary	Bipolar, N.O.			
K30RBT2FRGHQP		Bipolar, N.C.			

## Wiring

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 Protection Circuitry

Protected against reverse polarity and transient voltages

### Power-Up Delay

300 milliseconds

Latching models start up in a 'not activated' state

### Connections

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

### Environmental Rating

IP67, IP69K per ISO 20653

<sup>(1)</sup> To order the 2 m (6.5 ft) cable models, omit suffix **QP** from model number (example, **K30ALBT2FXGH**). A model with a quick-disconnect connector requires a mating cordset (see ).



Operating Conditions

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

Storage

–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 60068-2-6  
Shock: 30G 11 ms duration, half sine wave per IEC 60068-2-27

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

Output Response Time

150 milliseconds ON and OFF

Construction

Base, dome, and nut: FDA-grade polycarbonate

Mounting

M22 × 1.5 Threaded base, max torque 2.25 Nm (20 in-lbf)

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](http://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

Certifications

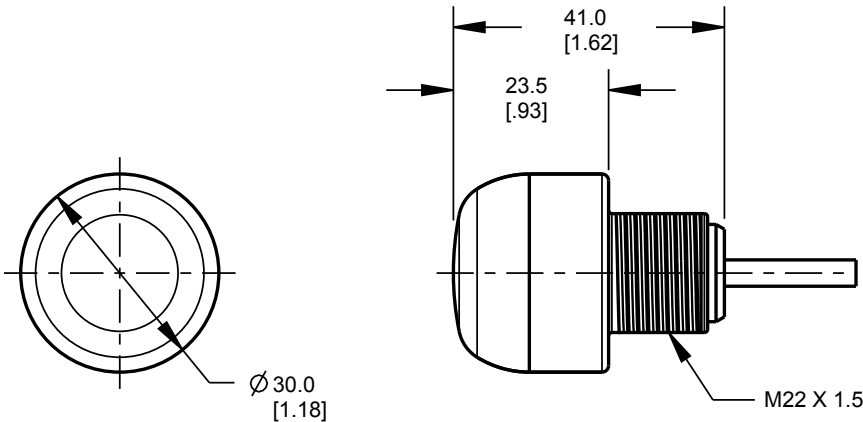


Banner Engineering BV  
Park Lane, Culliganlaan 2F bus 3  
1831 Diegem, BELGIUM



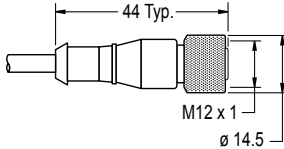
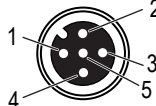
Dimensions

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



Accessories

Cordsets

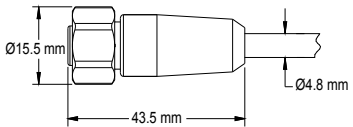
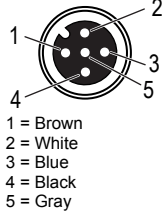
5-Pin Single-Ended M12 Female Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC1-501.5	0.5 m (1.5 ft)	Straight		 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray
MQDC1-503	0.9 m (2.9 ft)			
MQDC1-506	2 m (6.5 ft)			
MQDC1-515	5 m (16.4 ft)			
MQDC1-530	9 m (29.5 ft)			
MQDC1-560	18 m (59 ft)			
MQDC1-5100	31 m (101.7 ft)			

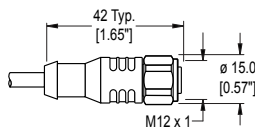
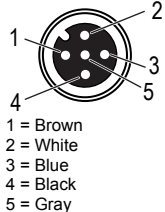
Continued on page 3



Continued from page 2

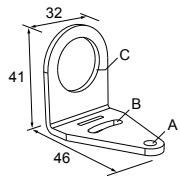
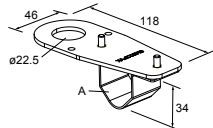
5-Pin Single-Ended M12 Female Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC1-506RA	2 m (6.5 ft)	Right-Angle		
MQDC1-515RA	5 m (16.4 ft)			
MQDC1-530RA	9 m (29.5 ft)			
MQDC1-560RA	19 m (62.3 ft)			

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		
MQDC-WDSS-0515	5 m (16.4 ft)			
MQDC-WDSS-0530	9 m (29.5 ft)			

5-Pin Single-Ended M12 Female Washdown, Shielded Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
MQDCWD-506	2 m (6.56 ft)	Straight		
MQDCWD-530	9 m (29.5 ft)			

## Brackets

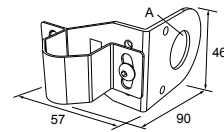
All measurements are listed in millimeters, unless noted otherwise. The measurements provided are subject to change.

<p><b>SMB22A</b></p> <ul style="list-style-type: none"> <li>Right-angle bracket with curved slot for versatile orientation</li> <li>12-ga. stainless steel</li> <li>Mounting hole for 22 mm sensor</li> </ul> <p><b>Hole center spacing:</b> A to B = 26.0  <b>Hole size:</b> A = <math>\varnothing</math> 4.6, B = 4.6 x 16.9, C = 22.2</p>	
<p><b>SMB22FVK</b></p> <ul style="list-style-type: none"> <li>V-clamp, flat bracket and fasteners for mounting to pipe or extensions</li> <li>Clamp accommodates 28 mm diameter tubing or 1 in. square extrusions</li> <li>22 mm hole for mounting sensor</li> </ul> <p><b>Hole size:</b> A = <math>\varnothing</math> 22.5</p>	

**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

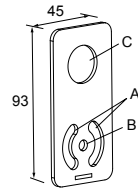
**Hole size:** A =  $\varnothing$  22.5

**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

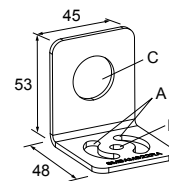
**Hole size:** A = 26.8 x 7.0, B =  $\varnothing$  6.5, C =  $\varnothing$  22.5

**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

**Hole center spacing:** A = 26.0, A to B = 13.0

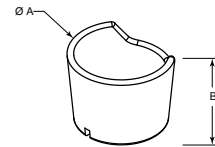
**Hole size:** A = 26.8 x 7.0, B =  $\varnothing$  6.5, C =  $\varnothing$  22.5

**TC-K30-CL**

- Touch cover

**Diameter:** A = 40.7 mm

**Height:** B = 31 mm



## Banner Engineering Corp Limited Warranty

Banner Engineering Corp. warrants its products to be free from defects in material and workmanship for one year following the date of shipment. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture which, at the time it is returned to the factory, is found to have been defective during the warranty period. This warranty does not cover damage or liability for misuse, abuse, or the improper application or installation of the Banner product.

**THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), AND WHETHER ARISING UNDER COURSE OF PERFORMANCE, COURSE OF DEALING OR TRADE USAGE.**

This Warranty is exclusive and limited to repair or, at the discretion of Banner Engineering Corp., replacement. **IN NO EVENT SHALL BANNER ENGINEERING CORP. BE LIABLE TO BUYER OR ANY OTHER PERSON OR ENTITY FOR ANY EXTRA COSTS, EXPENSES, LOSSES, LOSS OF PROFITS, OR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM ANY PRODUCT DEFECT OR FROM THE USE OR INABILITY TO USE THE PRODUCT, WHETHER ARISING IN CONTRACT OR WARRANTY, STATUTE, TORT, STRICT LIABILITY, NEGLIGENCE, OR OTHERWISE.**

Banner Engineering Corp. reserves the right to change, modify or improve the design of the product without assuming any obligations or liabilities relating to any product previously manufactured by Banner Engineering Corp. Any misuse, abuse, or improper application or installation of this product or use of the product for personal protection applications when the product is identified as not intended for such purposes will void the product warranty. Any modifications to this product without prior express approval by Banner Engineering Corp will void the product warranties. All specifications published in this document are subject to change; Banner reserves the right to modify product specifications or update documentation at any time. Specifications and product information in English supersede that which is provided in any other language. For the most recent version of any documentation, refer to:

[www.bannerengineering.com](http://www.bannerengineering.com).

For patent information, see [www.bannerengineering.com/patents](http://www.bannerengineering.com/patents).