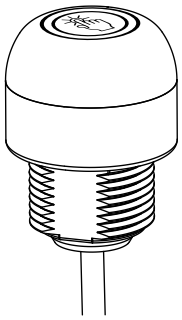
EZ-LIGHT® Touch Gen 2 K30 FDA-Grade Pick-to-Light

Datasheet

Compact, single-point devices for error-proofing of bin-picking operations



- 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 solutions for error-proofing and parts-verification applications
- Compact devices are completely self contained—No controller needed
- Illuminated dome provides an easy-to-see green job light: some models also light red for alternate operation
- Easy actuation—no force required
- 12 to 30 V dc operation
- Can be actuated with bare hands or in gloves

Models

Model[1]	Function	Output	Connection	Job Light
K30APT2FGXDQP	• Job light is ON at all times while job input is active • Touch activates output	PNP, NO	150 mm (6 in) pigtail PVC cable with a 4-pin M12/Euro-style male, stainless steel, quick disconnect (QD)	Green
K30RPT2FGXDQP		PNP, NC		
K30ANT2FGXDQP		NPN, NO		
K30RNT2FGXDQP		NPN, NC		
K30APT2FGRCQP	• Job light is Green while job input is active • Touch activates output and overrides job light (turns Red) for visual verification that action was sensed	PNP, NO		Green (Red)
K30RPT2FGRCQP		PNP, NC		
K30ANT2FGRCQP		NPN, NO		
K30RNT2FGRCQP		NPN, NC		
K30APT2FGREQP	• Job light is Green at all times while job input is active • Touch activates output • A touch while job input is inactive causes unit to light Red, providing visual verification that sensor is functioning properly	PNP, NO		Green (Red)
K30RPT2FGREQP		PNP, NC		
K30ANT2FGREQP		NPN, NO		
K30RNT2FGREQP		NPN, NC		

Specifications

Supply Voltage
12 to 30 V dc

Supply Current
55 mA max current (exclusive of load)

Supply Protection Circuitry
Protected against reverse polarity and transient voltages

Output Rating
Maximum Load: 150 mA
ON-state saturation voltage: < 2 V at 10 mA dc; < 2.5 V at 150 mA dc
OFF-state leakage current: <10 µA at 30 V dc

Output Response Time:
150 milliseconds On and Off

Power-Up Delay
300 milliseconds

Construction
Base, dome, and nut: FDA-grade polycarbonate

Indicators
Job ("Pick") Indicator: Green
Pick Sensed Indicator: Red or Off, depending on model

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

Connections
150 mm (6 in) pigtail PVC cable with a 4-pin M12/Euro-style male, stainless steel, quick disconnect (QD) or 2 m (6.5 ft) unterminated PVC-jacketed cable, depending on model

[1] To order the 2 m (6.5 ft) PVC cable models, omit suffix QP from model number (example, K30APT2FGXD). A model with a QD requires a mating cable (see Cordsets).

Vibration and Mechanical Shock
Vibration 10 Hz to 55 Hz 1.0 mm p-p amplitude per IEC 60068-2-6
Shock 30G 11 ms duration, half sine wave per IEC 60068-2-27

Environmental Rating
IEC IP67, IP69K per DIN 40050-9.

Storage
–40 °C to +70 °C (–40 °F to +158 °F)

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

Certifications

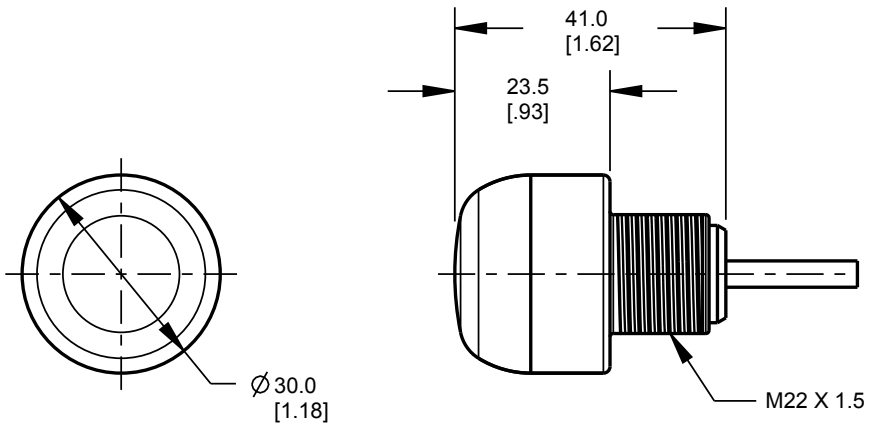
Required Overcurrent Protection

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 *http://www.bannerengineering.com*.

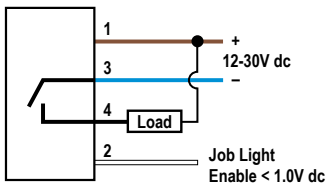
Supply Wiring (AWG)	Required Overcurrent Protection (Amps)
20	5.0
22	3.0
24	2.0
26	1.0
28	0.8
30	0.5

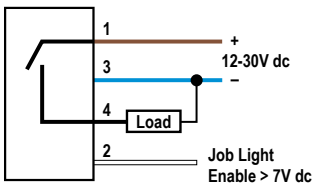
Dimensions



Wiring Diagrams

NPN	PNP	Color Key



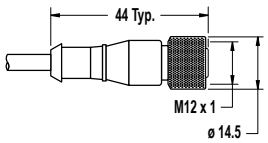
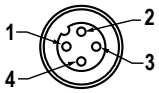
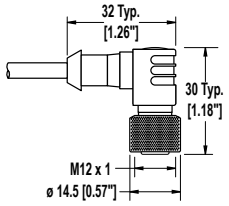


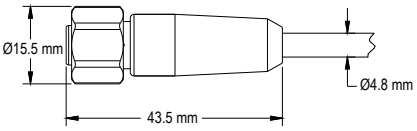
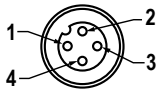
1 = Brown
2 = White
3 = Blue
4 = Black

Cabled wiring diagrams are shown. Quick disconnect (QD) wiring diagrams are functionally identical.

Accessories

Cordsets

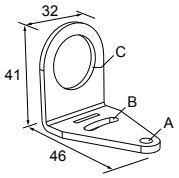
4-Pin Threaded M12/Euro-Style Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC-406	1.83 m (6 ft)	Straight		 1 = Brown 2 = White 3 = Blue 4 = Black
MQDC-415	4.57 m (15 ft)			
MQDC-430	9.14 m (30 ft)			
MQDC-450	15.2 m (50 ft)			
MQDC-406RA	1.83 m (6 ft)	Right-Angle		
MQDC-415RA	4.57 m (15 ft)			
MQDC-430RA	9.14 m (30 ft)			
MQDC-450RA	15.2 m (50 ft)			

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

Brackets

SMB22A

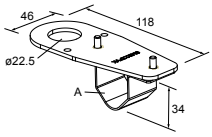
- Right-angle bracket with curved slot for versatile orientation
- 12-ga. stainless steel
- Mounting hole for 22 mm sensor



Hole center spacing: A to B = 26.0
Hole size: A = ø 4.6, B = 4.6 x 16.9, C = 22.2

SMB22FVK

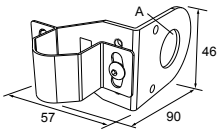
- V-clamp, flat bracket and fasteners for mounting to pipe or extensions
- Clamp accommodates 28 mm diameter tubing or 1 in. square extrusions
- 22 mm hole for mounting sensor



Hole size: A = ø 22.5

SMB22RAVK

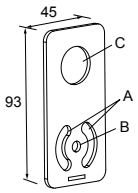
- V-clamp, right-angle bracket and fasteners for mounting to pipe or extensions
- Clamp accommodates 28 mm diameter tubing or 1 in. square extrusions
- 22 mm hole for mounting sensor



Hole size: A = ø 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

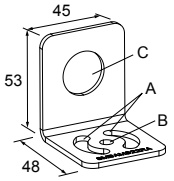


Hole center spacing: A = 26.0, A to B = 13.0

Hole size: A = 26.8 x 7.0, B = ø 6.5, C = ø 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

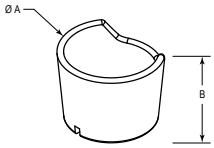


Hole center spacing: A = 26.0, A to B = 13.0

Hole size: A = 26.8 x 7.0, B = ø 6.5, C = ø 22.5

TC-K30-CL

- Touch cover



Diameter: A = 40.7
Height: B = 31

All measurements are listed in millimeters, unless noted otherwise.

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