

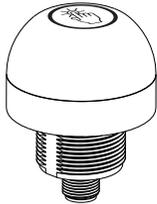
EZ-LIGHT® Touch K50 Specialty Pick to Light



Datasheet

Compact, Single-Point Devices for Error-Proofing of Bin-Picking Operations

For the latest technical information about this product, including specifications, dimensions, and wiring, see www.bannerengineering.com.



- 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 a big, easy-to-see green, red, or yellow job light
- Waterproof IP69K construction for washdown environments
- 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 ²	Connection	Indicators		
				Job	Mis-Pick	Sense
K50APTGRYC3Q	<ul style="list-style-type: none"> • Job light always On with job input until touched • Touch activates output and overrides job light with sense light • Touch with inactive job input activates mis-pick light and activates output 	PNP, N.O.	5-pin integral Euro QD	Green	Red	Yellow
K50RPTGRYC3Q		PNP, N.C.				
K50APTGRYC4Q	<ul style="list-style-type: none"> • Job light always On with job input until touched • Touch activates output and overrides job light with sense light until job input is removed • Touch with inactive job input activates mis-pick light for 5 seconds after touched and activates output 	PNP, N.O.		Green	Red	Yellow
K50RPTGRYC4Q		PNP, N.C.				

Indicator and Output Behavior



NOTE: "C3" and "C4" models as referenced in the table pertain to a part of the product model number, immediately preceding the Q designation.

Sensor Conditions		Indicator		Output Signal Status
		C3 Models	C4 Models	
Job input active	Hand/pick absent	On Green	On Green	Off
	Hand/pick present	On Yellow	On Yellow until job input is removed	On
No job input	Hand/pick absent	Off	Off	Off
	Hand/pick present	On Red	On Red for 5 seconds after hand/pick is removed	On

¹ 5-pin integral Euro-style QD models are listed. For 2 m (6.5 ft) PVC cable models, omit suffix Q from the model number (for example, K50APTGRYC3). A model with a QD requires a mating cable (see [Cordsets](#) on page 3).

- For 5-pin 150 mm (6 in) in Euro-style PUR pigtail QD models, replace suffix Q with QPMA, for example, K50APTGRYC3QPMA.
- For 150 mm (6 in) PVC pigtail with 5-pin Euro-style fitting, replace suffix Q with QP, for example, K50APTGRYC3QP.

² PNP models only are listed. For other output types, contact the Banner Engineering.



Specifications

Supply Voltage

12 to 30 V dc

Supply Current

< 75 mA max current at 12 V dc (exclusive of load)
< 50 mA max current at 30 V 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 30 V dc

Output Response Time

50 milliseconds On
500 milliseconds leading edge Off

Power-Up Output Delay Time

300 milliseconds

Connections

5-pin integral Euro-style QD, 2 m (6.5 ft) PVC integral cable, 5-pin 150 mm (5.9 in) Euro-style PUR pigtail QD, or 5-pin 150 mm (5.9 in) Euro-style PVC pigtail QD

Indicators

Job ("Pick") Indicator: Green
Mis-pick Indicator: Red
Sense Indicator: 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 °C to +50 °C (-40 °F to +122 °F)
Humidity: 90% at 50 °C max. relative humidity (non-condensing)

Storage

-40 °C to +70 °C (-40 °F 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)

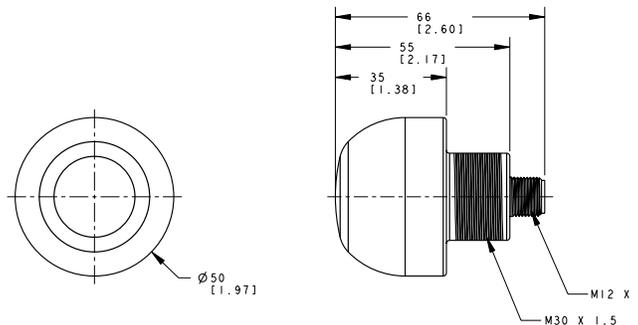
Vibration and Mechanical Shock

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



Dimensions



Wiring Diagram

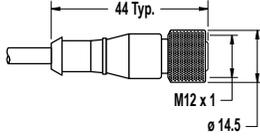
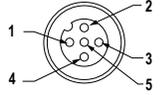
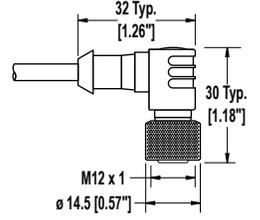


NOTE: Cabled hookups only are shown. Wiring is functionally identical for cabled and quick-disconnect models.

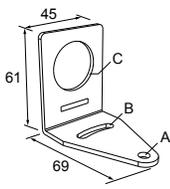
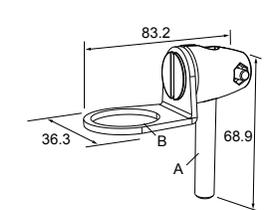
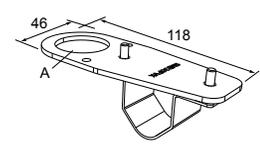
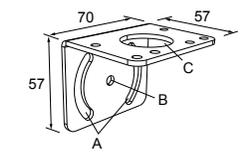
NPN (Sinking) Output Models	PNP (Sourcing) Output Models	Wiring Key	Pinout
		<p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>	

Accessories

Cordsets

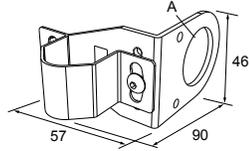
5-Pin Threaded M12/Euro-Style Cordsets (Single Ended)				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC1-501.5	0.50 m (1.5 ft)	Straight		 <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>
MQDC1-506	1.83 m (6 ft)			
MQDC1-515	4.57 m (15 ft)			
MQDC1-530	9.14 m (30 ft)			
MQDC1-506RA	1.83 m (6 ft)	Right-Angle		
MQDC1-515RA	4.57 m (15 ft)			
MQDC1-530RA	9.14 m (30 ft)			

Brackets

<p>SMB30A</p> <ul style="list-style-type: none"> 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 <p>Hole center spacing: A to B=40 Hole size: A=ø 6.3, B= 27.1 x 6.3, C=ø 30.5</p>		<p>SMB30FA</p> <ul style="list-style-type: none"> 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 <p>Bolt thread: SMB30FA, A= 3/8 - 16 x 2 in; SMB30FAM10, A= M10 - 1.5 x 50 Hole size: B= ø 30.1</p>	
<p>SMB30FVK</p> <ul style="list-style-type: none"> 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 <p>Hole size: A= ø 31</p>		<p>SMB30MM</p> <ul style="list-style-type: none"> 12-ga. stainless steel bracket with curved mounting slots for versatile orientation Clearance for M6 (¼ in) hardware Mounting hole for 30 mm sensor <p>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</p>	

SMB30RAVK

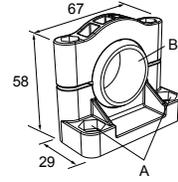
- V-clamp, right-angle bracket and fasteners for mounting sensors to pipe or extrusion
- Clamp accommodates 28 mm dia. tubing or 1 in. square extrusions
- 30 mm hole for mounting sensors



Hole size: A = \varnothing 30.5

SMB30SC

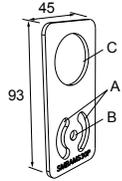
- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic polyester
- Stainless steel mounting and swivel locking hardware included



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

SMBAMS30P

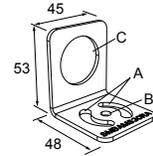
- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90° + rotation
- 12-ga. 300 series stainless steel



Hole center spacing: A=26.0, A to B=13.0
Hole size: A=26.8 x 7.0, B= \varnothing 6.5, C= \varnothing 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= \varnothing 6.5, C= \varnothing 31.0

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