Features

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



- 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 is 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 V DC to 30 V DC operation
- Can be actuated with bare hands or gloves

WARNING:

- **Do not use this device for personnel protection**
- Using this device for personnel protection could result in serious injury or death.
- This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A device failure or malfunction can cause either an energized (on) or de-energized (off) output condition.

Models

Model	Function	Output	Connection[1]	Job Light
K70APT2GRC	• 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, N.O.	2 m (6.5 ft) integral PVC-jacketed cable	Green (Red)
K70APT2GRCQ			Integral 4-pin M12 male quick-disconnect connector	
K70APT2GXDQ	• Job light is ON at all times while job input is active • Touch activates output			Green

The following models are no longer available for order but are still covered by the information in this document.

Model[2]	Function	Output	Connection	Job Light
K70RPT2GXDQ	• Job light is ON at all times while job input is active • Touch activates output	PNP, N.C.	Integral 4-pin M12 male quick-disconnect connector	Green
K70ANT2GXDQ		NPN, N.O.		
K70RNT2GXDQ		NPN, N.C.		
K70RPT2GRCQ	• 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, N.C.		Green (Red)
K70ANT2GRCQ		NPN, N.O.		
K70RNT2GRCQ		NPN, N.C.		
K70APT2GREQ	• 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, N.O.		Green (Red)
K70RPT2GREQ		PNP, N.C.		
K70ANT2GREQ		NPN, N.O.		
K70RNT2GREQ		NPN, N.C.		

[1] Models with a quick-disconnect connector require a mating cordset.
[2] Integral quick-disconnect connector models are listed.
- To order the 2 m (6.5 ft) PVC cable model, omit the suffix "Q" in the model number. For example, K70APT2GXD.
- Models with a quick-disconnect connector require a mating cordset.

Original Instructions
04-May-26

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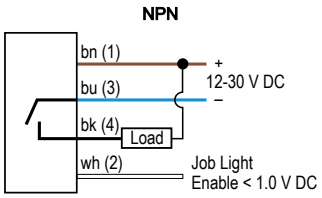
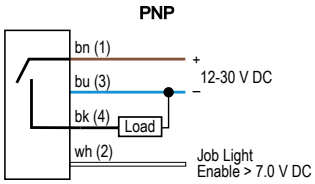
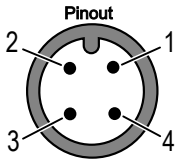
189839
p/n: 189839 Rev. D

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Wiring







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
< 220 mA maximum current at 12 V DC (exclusive of load)
< 110 mA maximum 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: < 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:
50 ms ON and OFF

Environmental Rating
IP65

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

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

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

Construction
Housing and dome: Polycarbonate
Mounting nut: PBT

Power-Up Delay
300 ms

Mounting
M30 × 1.5 threaded base; maximum torque 4.5 N·m (40 in·lbf)

Certifications

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

Turck Banner LTD Blenheim House
Blenheim Court
Wickford, Essex SS11 8YT
GREAT BRITAIN

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 (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

Dimensions

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

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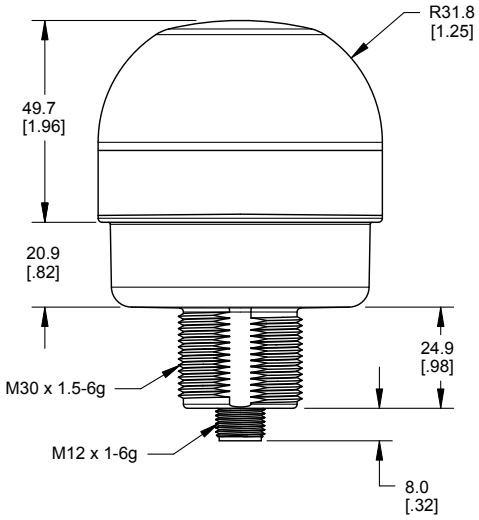
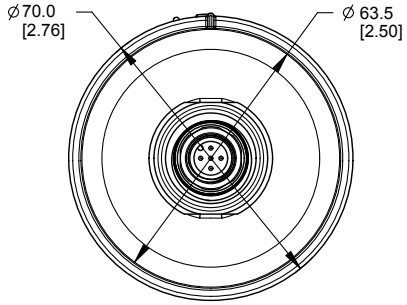
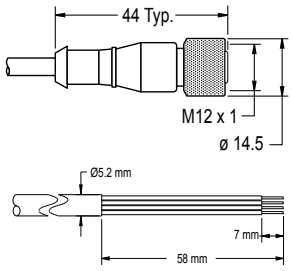
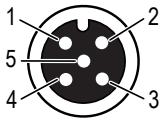
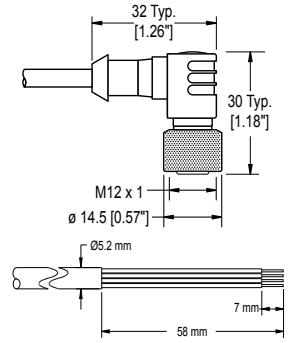
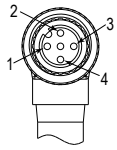




Accessories

Cordsets

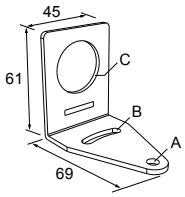
4-Pin Single-Ended M12 Female Cordsets					
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**	
MQDC-406	2 m (6.56 ft)	Straight			1 = Brown 2 = White 3 = Blue 4 = Black 5 = Not used cULus
MQDC-415	5 m (16.4 ft)				
MQDC-430	9 m (29.5 ft)				
MQDC-450	15 m (49.2 ft)				
MQDC-406RA	2 m (6.56 ft)	Right-Angle			
MQDC-415RA	5 m (16.4 ft)				
MQDC-430RA	9 m (29.5 ft)				
MQDC-450RA	15 m (49.2 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-gauge stainless steel
- CAD Files: DXF, PDF, IGS, STP

Hole center spacing: A to B=40
Hole size: A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5



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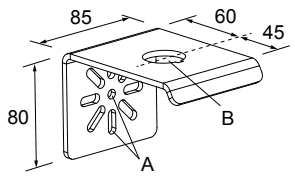
SSA-MBK-EEC1

- Single 30 mm hole
- 8 gauge steel, black finish (powder coat)
- Front surface for customer-applied labels
- CAD Files: DXF, PDF, IGS, STP

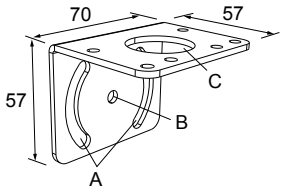
Hole size: A = ø 7 , B = ø 30



SMB30MM

- 12-gauge stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- CAD Files: DXF, PDF, IGS, STP

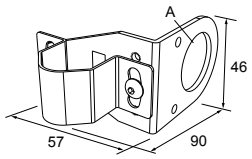
Hole center spacing: A=51, A to B=25.4
Hole size: A=42.6 × 7, B=ø 6.4, C=ø 30.1



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
- CAD Files: DXF, PDF, IGS, STP

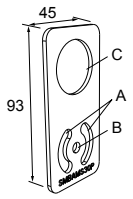
Hole size: A=ø 30.5



SMBAMS30P

- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge 300 series stainless steel
- CAD Files: DXF, PDF, IGS, STP

Hole center spacing: A=26.0, A to B=13.0
Hole size: A=26.8 × 7.0, B=ø 6.5, C=ø 31.0



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