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EZ-LIGHT® One-Color General-Purpose Indicators Datasheet

Technical Information

To view or download the latest technical information about this product, including specifications, dimensions, accessories, and wiring, go to www.bannerengineering.com.

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

Models		LED Color
	**M18GXXPQ**	Color 1: Green
	M18XRXPQ	Color 2: Red
	M18XXYPQ	Color 3: Yellow
	• Nickel-plated brass housing, thermoplastic diffuser. • Fully encapsulated IP67	
	**K30LGXXPQ**	Color 1: Green
	K30LXRXPQ	Color 2: Red
	K30LXXYPQ	Color 3: Yellow
	• 22 mm threaded polycarbonate base, translucent polycarbonate dome. • Fully encapsulated IP67, IP69K per DIN 40050-9	
	**K50LGXXPQ**	Color 1: Green
	K50LXRXPQ	Color 2: Red
	K50LXXYPQ	Color 3: Yellow
	• 30 mm threaded polycarbonate base, translucent polycarbonate dome. • Fully encapsulated IP67, IP69K per DIN 40050-9	
	**K50FLGXXPQ**	Color 1: Green
	K50FLXRXPQ	Color 2: Red
	K50FLXXYPQ	Color 3: Yellow
	• ABS base, translucent polycarbonate dome. • Fully encapsulated IP67, IP69K per DIN 40050-9	
	**K80LGXXPQ**	Color 1: Green
	K80LXRXPQ	Color 2: Red
	K80LXXYPQ	Color 3: Yellow
	• Polycarbonate base, translucent polycarbonate dome. • Fully encapsulated IP67	

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

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Models		LED Color
	**T18GXXPQ**	Color 1: Green
	T18XRXPQ	Color 2: Red
	T18XXYPQ	Color 3: Yellow
	• Thermoplastic polyester housing, thermoplastic diffuser. • Fully encapsulated IP67	
	**T30GXXPQ**	Color 1: Green
	T30XRXPQ	Color 2: Red
	T30XXYPQ	Color 3: Yellow
	• Thermoplastic polyester housing, thermoplastic diffuser. • Fully encapsulated IP67	
	**T8LGXXPQP**	Color 1: Green
	T8LXRXPQP	Color 2: Red
	T8LXXYPQP	Color 3: Yellow
	• Polycarbonate/ABS alloy housing, thermoplastic diffuser. • IP67	

Models with a quick disconnect require a mating cordset.

T8L Models: Standard quick-disconnect models are listed. To order the integral 4-wire cabled model, omit the suffix **QP** (for example, **T8LGXXP**).

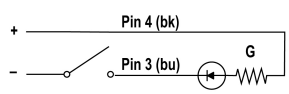
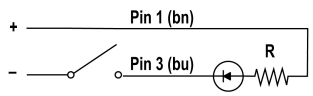
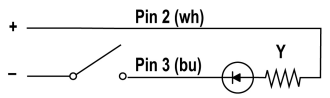
K30FL Models: Standard integral 4-pin M12 quick-disconnect connector models are listed. For 2 m (6.5 ft) integral 4-wire cabled model, omit suffix **Q** (for example, **K30LGRXP**). For 150 mm (6 inch) PVC-jacketed cable with 4-pin M12 quick-disconnect connector, replace suffix **Q** with **QP** (for example, **K30LGRXPQP**). For terminal models, replace suffix **Q** with **T** (for example, **K30LGRXPT**).

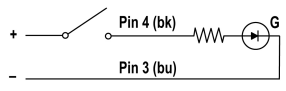
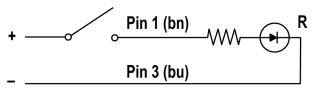
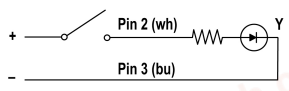
K80L Models: Standard integral 4-pin M12 quick-disconnect connector models are listed. To order the terminal-wired model, omit suffix **Q** (for example, **K80LGXXP**).

Other Models: Standard integral 4-pin M12 quick-disconnect connector models are listed. To order the 2 m (6.5 ft) integral 4-wire cable model, omit suffix **Q** (for example, **M18GXXP**). To order the 150 mm (6 inch) PVC-jacketed cable with 4-pin M12 quick-disconnect connector, replace suffix **Q** with **QP** (for example, **M18GXXPQP**).

Contact Banner Engineering for other colors and color combinations.

Wiring

For NPN Operation		
Color 1	**Color 2**	**Color 3**
		
Pin 1 and Pin 2 not used	Pin 4 and Pin 2 not used	Pin 1 and Pin 4 not used

For PNP Operation		
Color 1	**Color 2**	**Color 3**
		
Pin 1 and Pin 2 not used	Pin 4 and Pin 2 not used	Pin 1 and Pin 4 not used

Wiring Key

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1. Brown (bn) 2. White (wh)	3. Blue (bu) 4. Black (bk)

Specifications

Supply Voltage and Current

T8L models: 10 V DC to 30 V DC at 20 mA maximum

T18, M18, and K30L models: 10 V DC to 30 V DC at 25 mA maximum per LED color

T30 models: 10 V DC to 30 V DC at 40 mA maximum per LED color

K50L, K50FL, and K80L models: 18 V DC to 30 V DC at 40 mA maximum per LED color

Indicators

Entire translucent diffuser or dome provides indication. Green and yellow, when connected to discrete output of 3-wire or 4-wire sensors. For other colors, contact factory for availability.

Input Response Time

Indicator ON/OFF: 1 ms max.

Operating Conditions

Temperature: –40 °C to +50 °C (–40 °F to +122 °F)

Environmental Rating

Rated IP67. T8L not encapsulated; K80L has encapsulated electronics only; other models fully encapsulated.

K30L, K50L, and K50FL QD models meet IP69K per DIN 40050-9.

Cabled models also meet IP69K if the cable and cable entrance are protected from high-pressure spray.

Connections

T8L models: 150 mm (6 in) PVC-jacketed cable with a 4-pin M12 male quick-disconnect connector (QP) or 2 m (6.5 ft) unterminated 4-wire integral cable, depending on model

K30L models: Integral 4-pin M12 male quick-disconnect connector (Q), 150 mm (6 in) PVC-jacketed cable with a 4-pin M12 male quick-disconnect connector (QP), 2 m (6.5 ft) unterminated 4-wire integral cable, or 5 color-coded screw terminal for up to 16 AWG wire, depending on model. Screw terminal max torque: 0.11 N·m (1.0 lbf·in).

K80L models: Integral 4-pin M12 male quick-disconnect connector (Q) standard; terminal-wired models available for use with bulk cable; compression fitting optional. Contact Factory for cable information.

Other models: Integral 4-pin M12 male quick-disconnect connector (Q), 150 mm (6 in) PVC-jacketed cable with a 4-pin M12 male quick-disconnect connector (QP), or 2 m (6.5 ft) unterminated 4-wire integral cable, depending on model

Construction

See Models lists

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	1.0	30	0.5

Certifications

All models:

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

K50L, K50FL, T18, and T30 models only:

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

K30L and K50L models only:

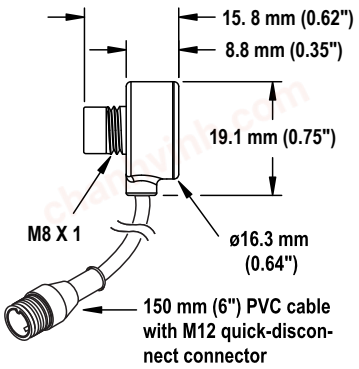
Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise.

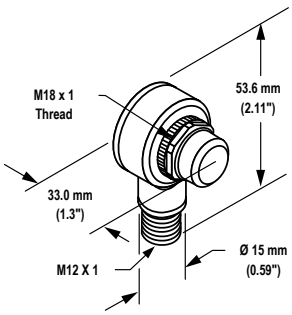
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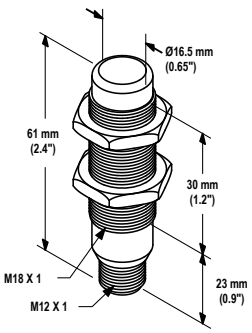
T8L Models



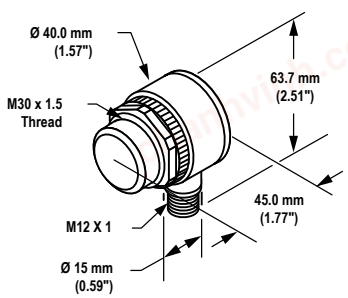
T18 Models



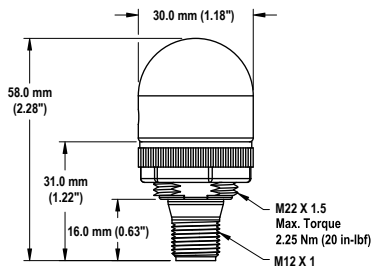
M18 Models



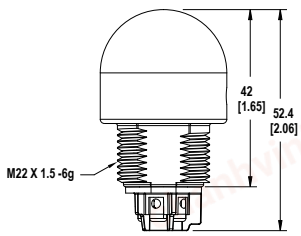
T30 Models



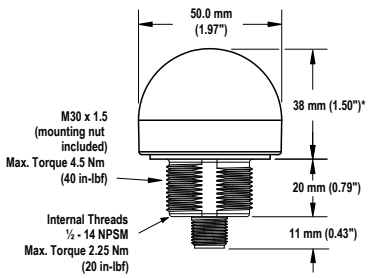
K30L Models



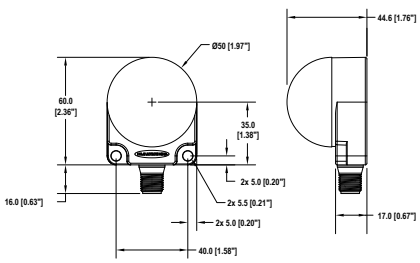
K30 Terminal Models



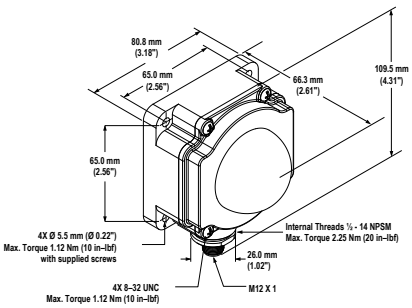
K50L Models



K50FL Models



K80L Models

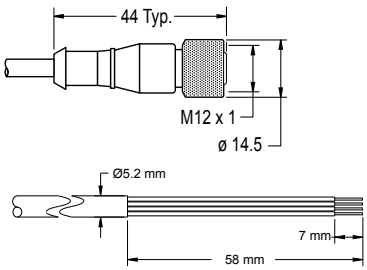
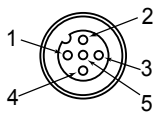
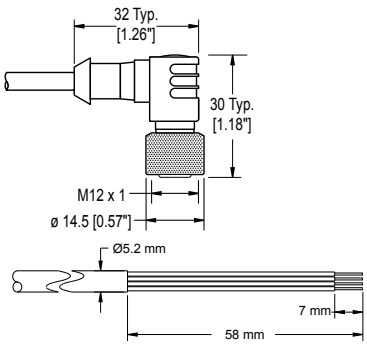
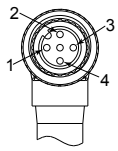


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Accessories

Cordsets

4-Pin Threaded M12 Cordsets—Single Ended					
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**	
MQDC-406	2 m (6.56 ft)	Straight			1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused
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

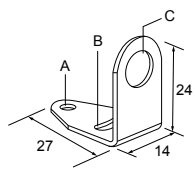
For more information about these and other available brackets, visit www.bannerengineering.com.

K50FL models include a 48 mm (1.9 in) circular hook-and-loop mounting kit for easy mounting with no additional hardware required.

For use with T8L models

SMB8MM
- Right-angle bracket
- 300 series stainless steel

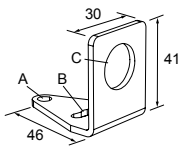
Hole size: A = ø 3.5, B = 4.9 × 3.6, C = ø 8.4



For use with M18 and T18 models or base-mount T30 models

SMB18A
- Right-angle mounting bracket with a curved slot for versatile orientation
- 12-ga. stainless steel
- 18 mm sensor mounting hole
- Clearance for M4 (#8) hardware

Hole center spacing: A to B = 24.2
Hole size: A = ø 4.6, B = 17.0 × 4.6, C = ø 18.5



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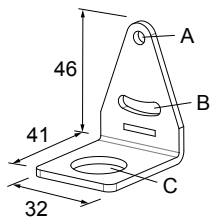
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SMB312PD

- Right-angle mounting bracket with a curved slot for versatile orientation
- 12-ga. stainless steel
- 18 mm sensor mounting hole
- Clearance for M4 (#8) hardware

Hole center spacing: A to B = 24.2
Hole size: A = ø 4.6, B = 17 × 4.6, C = ø 18.5

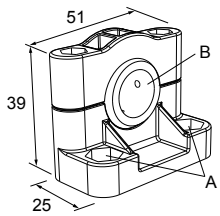
NOTE: Not for use with plastic fiber optic sensors



SMB1815SF

- Swivel with set screws for mounting sensors by the cable hub
- Black reinforced thermoplastic polyester
- Stainless steel swivel locking hardware and hex wrench included

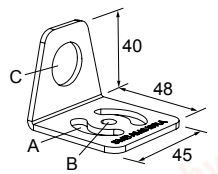
Hole center spacing: A = 36.0
Hole size: A = ø 5.0, B = ø 15.0



SMBAMS18RA

- Right-angle SMBAMS series bracket with 18 mm hole
- Articulation slots for 90+° rotation
- 12-ga. (2.6 mm) cold-rolled steel

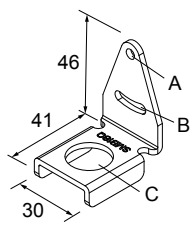
Hole center spacing: A = 26.0, A to B = 13.0
Hole size: A = 26.8 × 7.0, B = ø 6.5, C = ø 19.0



SMB18Q

- Right-angle flanged bracket
- 18 mm sensor mounting hole
- 12-ga. stainless steel

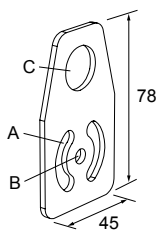
Hole center spacing: A to B = 24.2
Hole size: A = ø 4.6, B = 17.0 × 4.6, C = ø 19.0



SMBAMS18P

- Flat SMBAMS series bracket with 18 mm hole
- Articulation slots for 90+° rotation
- 12-ga. (2.6 mm) cold-rolled steel

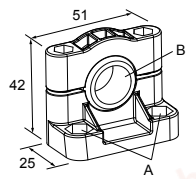
Hole center spacing: A = 26.0, A to B = 13.0
Hole size: A = 26.8 × 7.0, B = ø 6.5, C = ø 19.0



SMB18SF

- 18 mm swivel bracket with M18 × 1 internal thread
- Black thermoplastic polyester
- Stainless steel swivel locking hardware included

Hole center spacing: A = 36.0
Hole size: A = ø 5.3, B = ø 18.0



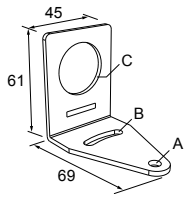
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For use with T30 models or base-mount K50L models

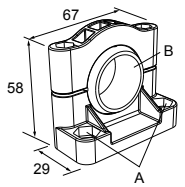
SMB30A
- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- 12-gauge stainless steel

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



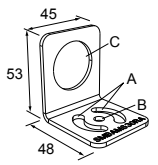
SMB30SC
- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic polyester
- Stainless steel mounting and swivel locking hardware included

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



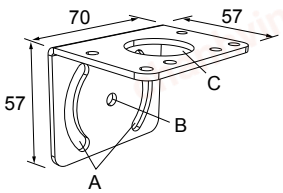
SMBAMS30RA
- Right-angle SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge (2.6 mm) cold-rolled steel

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



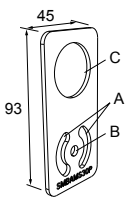
SMB30MM
- 12-gauge stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor

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



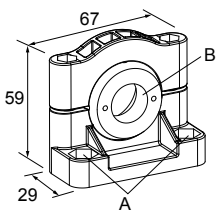
SMBAMS30P
- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge 300 series stainless steel

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



SMB3018SC
- 18 mm swivel side or barrel-mount bracket
- Black reinforced thermoplastic polyester
- Stainless steel swivel locking hardware included

Hole center spacing: A = 50.8
Hole size: A = ø 7.0, B = ø 18.0

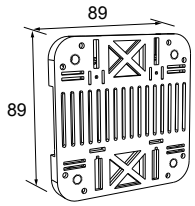


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DIN-mount bracket for K80L models

SMBDX80DIN
- Black reinforced thermoplastic
- Bracket for mounting on a 35 mm DIN rail



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