Features

DC-Operated Indicators with 4 Colors and Multiple Flashing Frequencies

- Rugged, cost-effective, and easy-to-install indicators in K50, K50 Flat Pack, or K80 housing style
- Displays 4 colors and multiple flashing frequencies: steady ON, flashing, or alternating
- Illuminated dome provides easy-to-see operator guidance and indication of equipment status
- Compact devices are completely self-contained, no controller needed
- Choose NPN or PNP input, depending on model
- Immune to ambient light, EMI, and RFI interference
- 18 V DC to 30 V DC operation

Contact factory for more information.

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	Construction	Connection	LED Function [1]	Inputs
K50LGRYB4PQ	50 mm dome / 30 mm mount polycarbonate	Integral 5-pin M12 male quick-disconnect connector	4 Color: Choose Green, Red, Yellow or Blue ON, flashing or alternative	PNP
K50LGRYB4NQ				NPN
K50FLGRYB4PQ	50 mm polycarbonate dome / polycarbonate base			PNP
K50FLGRYB4NQ				NPN
K80LGRYB4PQ	50 mm dome / Flat or DIN-mount polycarbonate			PNP
K80LGRYB4NQ				NPN

For the K50L and K50FL Models:
- To order the 150 mm PVC cable with QD model, replace the **Q** with a **QP** in model number (example, **K50LGRYB4PQP**).
- To order the 2 m (6.5 ft) cable model, omit the suffix **Q** from model number (example, **K50LGRYB4P**).
- Models with a QD require a mating cable.

For the K80L Models: To order the terminal-wired model, omit the suffix **Q** from model number (example, **K80LGRYB4P**).

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[1] Contact the factory for other colors and color combinations.

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p/n: 137329 Rev. D

Wiring Diagrams

Function	PNP Wiring	NPN Wiring
Wiring Key: 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray		
Green steady	bk (4) +	bk (4) −
Green flashes	bk (4) / wh (2) +	bk (4) / wh (2) −
Red steady	bn (1) +	bu (3) −
Red flashes	bk (4) / bn (1) +	bk (4) / bu (3) −
Yellow steady	wh (2) +	wh (2) −
Yellow flashes	wh (2) / bn (1) +	wh (2) / bu (3) −
Blue steady	gy (5) +	gy (5) −
Blue flashes	bn (1) / gy (5) +	bu (3) / gy (5) −
Green, Red flash cycle	bk (4) / gy (5) +	bk (4) / gy (5) −
Red, Blue flash cycle	wh (2) / gy (5) +	wh (2) / gy (5) −
Green, Yellow flash cycle	bk (4) / wh (2) / gy (5) +	bk (4) / wh (2) / gy (5) −
Green, Blue flash cycle	bk (4) / bn (1) / gy (5) +	bk (4) / bu (3) / gy (5) −
Red, Yellow flash cycle	bn (1) / wh (2) / gy (5) +	bu (3) / wh (2) / gy (5) −

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Function	PNP Wiring	NPN Wiring
Yellow, Blue flash cycle	bk (4) + bn (1) wh (2)	bk (4) − bu (3) wh (2)
Green, Red, Yellow, Blue flash cycle	bk (4) + bn (1) wh (2) gy (5)	bk (4) − bu (3) wh (2) gy (5)

Specifications

Supply Voltage and Current
18 V DC to 30 V DC at 50 mA maximum

Indicators
Entire translucent diffuser or dome provides indication. LEDs are independently selected: Green, Red, Yellow, or Blue; ON steady or flashing, alternating or rotating

Input Response Time
Indicator ON: 250 ms maximum
Indicator OFF: 10 ms maximum

Operating Conditions
–40 °C to +50 °C (–40 °F to +122 °F)

Environmental Rating
K50L and K50FL models: fully encapsulated, rated IP67 and IP69K per DIN 40050-9. Cabled models also meet IP69K if the cable and cable entrance are protected from high-pressure spray.

K80L models: IP67 (encapsulated electronics)

Indicator Flash Rate
1-Color: 1-second flash rate (500 ms ON)
2- and 4-Color Flash: 500 ms per color

Construction
See Models table

Connections
Integral 5-pin M12 male quick-disconnect connector; 150 mm (6 in) PVC-jacketed cable with a 5-pin M12 male quick-disconnect connector; or 2 m (6.5 ft) unterminated 5-wire PVC-jacketed cable depending on the model ordered

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

K50L models only: c UL us LISTED

Dimensions

K50L	K50FL
50.0 mm (1.97") 38 mm (1.50")* 20 mm (0.79") 11 mm (0.43") M30 x 1.5 (mounting nut included) Max. Torque 4.5 Nm (40 in-lbf) Internal Threads ½ - 14 NPSM Max. Torque 2.25 Nm (20 in-lbf)	44.6 [1.76] Ø50 [1.97] 60.0 [2.36] 35.0 [1.38] 2x 5.0 [0.20] 16.0 [0.63] 2x 5.5 [0.21] 2x 5.0 [0.20] 40.0 [1.58] 17.0 [0.67]

K80L	
80.8 mm (3.18") 65.0 mm (2.56") 66.3 mm (2.61") 109.5 mm (4.31") 65.0 mm (2.56") 4X Ø 5.5 mm (Ø 0.22") Max. Torque 1.12 Nm (10 in–lbf) with supplied screws Internal Threads ½ - 14 NPSM Max. Torque 2.25 Nm (20 in–lbf) 26.0 mm (1.02") 4X 8–32 UNC Max. Torque 1.12 Nm (10 in–lbf) M12 X 1	

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	44 Typ. M12 x 1 ø 14.5	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)			

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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)			

Brackets

Brackets for K80L models

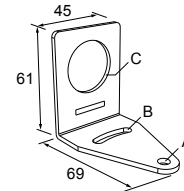| **SMBDX80DIN** • Black reinforced thermoplastic • Bracket for mounting on a 35 mm DIN rail	
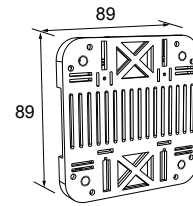
Brackets for K50L and K50FL models

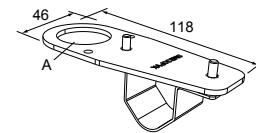| **SMB30A** • Right-angle bracket with curved slot for versatile orientation • Clearance for M6 (¼ in) hardware • Mounting hole for 30 mm sensor • 12-gauge stainless steel **Hole center spacing:** A to B=40 **Hole size:** A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5	
SMB30FA • Swivel bracket with tilt and pan movement for precise adjustment • Mounting hole for 30 mm sensor • 12-gauge 304 stainless steel • Easy sensor mounting to extrude rail T-slot • Metric- and inch-size bolt available **Bolt thread:** SMB30FA, A= 3/8 - 16 × 2 in; SMB30FAM10, A= M10 - 1.5 × 50 **Hole size:** B= ø 30.1	
SMB30FVK • 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 **Hole size:** A= ø 31	
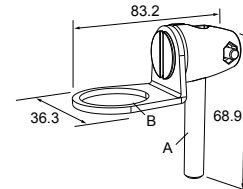
SMB30MM
- 12-gauge stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor

Hole center spacing: A = 51, A to B = 25.4
Hole size: A = 42.6 × 7, B = ø 6.4, C = ø 30.1
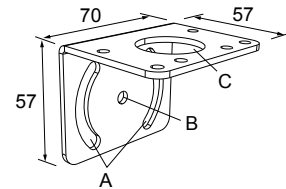
SMB30RAVK
- V-clamp, right-angle bracket and fasteners for mounting sensors to pipe or extrusion
- Clamp accommodates 28 mm dia. tubing or 1 in. square extrusions
- 30 mm hole for mounting sensors

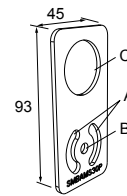**Hole size:** A = ø 30.5
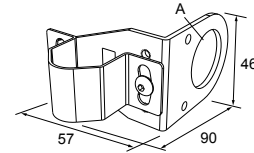
SMB30SC
- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic polyester
- Stainless steel mounting and swivel locking hardware included

Hole center spacing: A=ø 50.8
**Hole size:** A=ø 7.0, B=ø 30.0
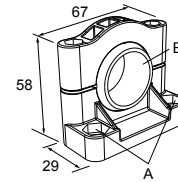
SMBAMS30P
- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge 300 series stainless steel

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

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
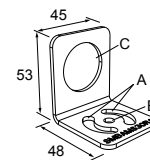
NOTE: K50FL models include a 48 mm (1.9 in) circular velcro mounting kit for easy mounting with no additional hardware.

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