Flex Arm Light

Features

General Purpose LED Work Lights



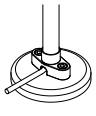
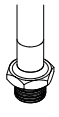
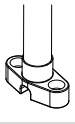
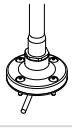
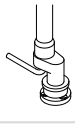
- Designed for desk, work station, enclosure, and small area lighting
- Excellent, even light distribution for close-range lighting applications
- WL50 models offer touch and PWM control for on/off and dimming functions
- Touch models can be actuated with bare hands or gloves via the integrated capacitive switch on the face of the light
- Plug and play with 300 mm M12 cable connection directly into PSW-24-1 or other power supply (sold separately)
- 457 mm (18 in) long, vinyl-coated flexible arm
- WL50 and S18 options available with different light outputs



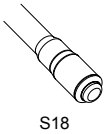
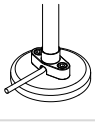
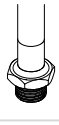
For remote PWM dimming, use with the LC15T-127AP1RBGQP dimmer module. For more information, refer to the LC15T In-Line Touch Switch datasheet, p/n 217460.

Models

WL50 Light Models

Model Number	Light	Control	Base Connection or Bracket	
K-FLX18-50TWDMAGDQP	 WL50	Touch	Magnet	
K-FLX18-50WDMAGDQP		No button		
K-FLX18-50TW12XQP		Touch	1/2-14 NPSM	
K-FLX18-50TWDXQP		Touch	2 × 1/4-20W 1.375 spacing	
K-FLX18-50WDXQP		No button		
K-FLX18-50TW12FQP		Touch	Flange	
K-FLX18-50W12FQP		No button		
K-FLX18-50TWQCXQP		Touch	Quick Connect	
K-FLX18-50WQCXQP		No button		

S18 Light Models

Model Number	Light	Control	Base Connection or Bracket	
K-FLX18-18WDMAGDQP	 S18	No button	Magnet	
K-FLX18-18W12XQP			1/2-14 NPSM	

Continued on page 2

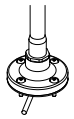
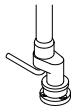
Original Instructions
01-Apr-26

© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

222095
p/n: 222095 Rev. B

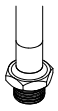
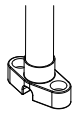
ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Continued from page 1

Model Number	Light	Control	Base Connection or Bracket	
K-FLX18-18W12FQP			Flange	
K-FLX18-18WQCXQP			Quick Connect	

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

Discontinued Models

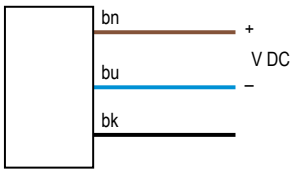
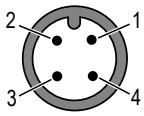
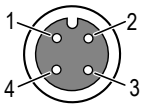
Model Number	Light	Control	Base Connection or Bracket	
K-FLX18-50W12XQP	 WL50	No button	1/2-14 NPSM	
K-FLX18-18WDXQP	 S18		2 × 1/4-20W 1.375 spacing	

Device Configuration (WL50 Touch Models Only)

Device Interface	Function
 **Single Touch**	**ON/OFF** A single touch in the off-state turns the device on. A single touch in the on-state turns the device off.
 **Touch and Hold**	**Lumen Control** Touch and hold to increase the Lumen Output from 10% to 100%. Continue to touch and hold to decrease the Lumen Output from 100% to 10%.
 **Double Touch**	**100% ON** Double touch to return to 100% Lumen Output.

NOTE: The unit flashes at the maximum and the minimum state to notify the user that the limit has been reached.

Wiring

Wiring Diagram	Connection	Pin	Wire Color	Pinout (Male)	Pinout (Female)
	V DC	1	Brown		
	Not used	2	White		
	DC common	3	Blue		
	WL50 models: Pulse width modulation (PWM) input. For maximum intensity, leave the black wire floating or connected to common. Connecting to 12 V DC to 30 V DC causes LEDs to shut off. **S18 models:** No PWM input.	4	Black		

Specifications

WL50-3

Supply Voltage

12 V DC to 30 V DC

Use only with a suitable Class 2 power supply (UL) or SELV power supply (CE)

Supply Current

Max. Current Draw at 12 V DC: 0.250 A

Typical Current Draw at:

© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

12 V DC: 0.220 A
24 V DC: 0.100 A
30 V DC: 0.085 A

Power-Up Response Time

1 ms maximum for touch models

Dimming and Control

Non-touch models: PWM frequency 100-600 Hz
Touch models: On/off, 10% to 100% dimming, and PWM input
See "Device Configuration (WL50 Touch Models Only)" on page 2 for detailed function

Pulse Width Modulation (PWM)

Frequency: Up to 600 Hz
Voltage: 12 V DC to 30 V DC
Current: 3 mA maximum
Duty Cycle Range:
Off - 0%
On - 100%

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Construction

Housing: Polycarbonate
Flex Arm: Vinyl coated material

Mounting

Mounting hardware included
Refer to model table and dimensions for specific mounting

Connections

Terminal model: 3 color-coded screw terminals for up to 16 AWG wire, screw terminal maximum torque 0.11 N·m (1.0 lbf·in)
Flex arm: 300 mm (11.8 in) PVC cable with a 4-pin M12 quick disconnect

Environmental Rating

The illuminated side of the terminal models meets IP65, IP67, and IP69K per ISO 20653 when installed in an enclosure
Terminal connection points meet IP00

LED Lifetime

Lumen maintenance - L_{70}
When operating within specifications, output will decrease less than 30% after 50,000 hours.

Operating Temperature

–40 °C to +50 °C (–40 °F to +122 °F)

Storage Temperature

–40 °C to +70 °C (–40 °F to +158 °F)

Third Wire Functionality

Touch models: PWM input overrides touch control
Standard models: PWM input full on-off, with 10%-100% dimming

Vibration and Mechanical Shock

Vibration: 10 Hz to 55 Hz, 1.0 mm peak-to-peak amplitude per IEC 60068-2-6
Shock: 15G 11 ms duration, half sine wave per IEC 60068-2-27
Impact: IK06 (IEC EN 60068-2-75)

Light Characteristics

Daylight White Efficacy: up to 125 lumens/watt typical at 24 V DC at 25 °C (77 °F)
CRI: 82, typical
Color: Daylight White
Color Temperature (CCT): 5000 K (±300 K)
Lumens (Typical at 25 °C): 300
Watts at 24 V DC: 2.4
Luminous Efficacy: 125 lm/w

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

Certifications and Approvals

For complete information on the WL50-3 light, refer to literature part number 219928.

S18DLH

Supply and Voltage Current

9 V DC to 30 V DC
60 mA at 9 V DC; 25 mA at 30 V DC

Indicator Response Time

Indicator ON/OFF: 1 ms max

Indicator Characteristics

Color: Daylight White
Color Temperature (CCT): 5000 K
Lumen Output (Typical at 25 °C): 20

Connections

Terminal models: 4 color-coded screw terminals for up to 16 AWG wire, depending on model, screw terminal max. torque 0.11 N·m (1.0 lbf·in)
Flex arm: 300 mm (11.8 in) PVC cable with a 4-pin M12 quick disconnect

Environmental Rating

Indicator side of terminal models meet IP67 and IP69K per ISO 20653 when installed in an enclosure. Screw connection points meet IP00

Operating Conditions

–40 °C to +60 °C (–40 °F to +140 °F)

Construction

Housing: Polycarbonate
Flex Arm: Vinyl coated metal

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

Continued on page 4

Continued from page 2

Supply Wiring (AWG)	Required Overcurrent Protection (A)	Supply Wiring (AWG)	Required Overcurrent Protection (A)
22	3.0	28	0.8
24	2.0	30	0.5

Certifications

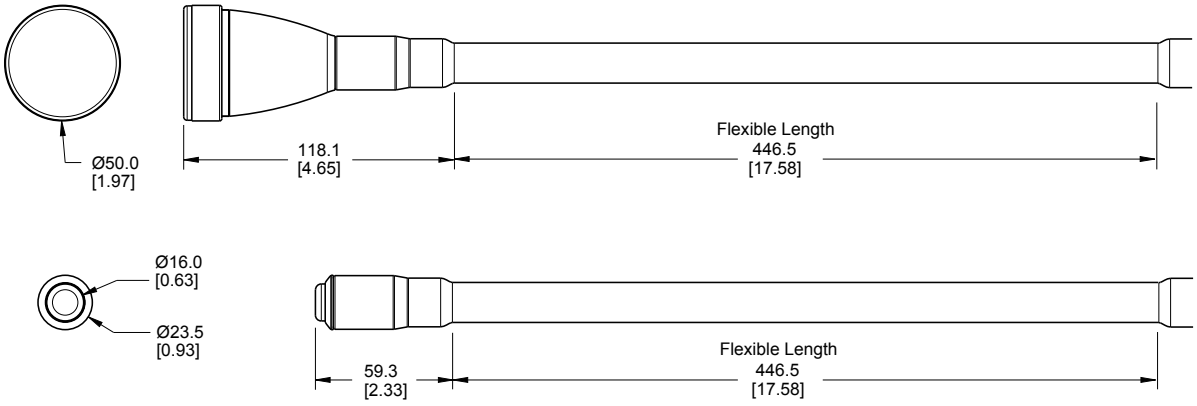
For complete information on the S18DLH light, refer to literature part number 177054.

© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

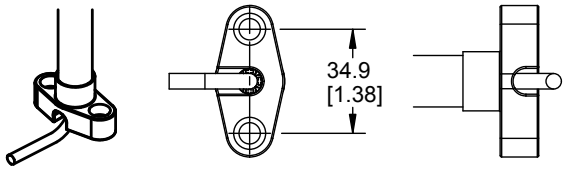
Dimensions

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

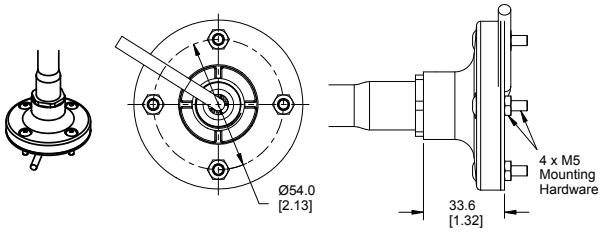
Light dimensions



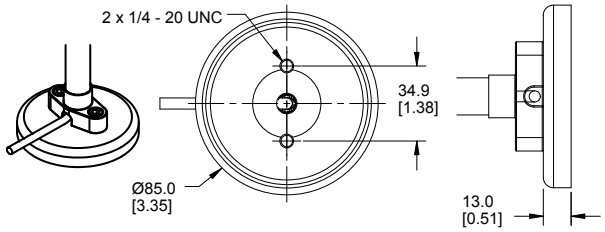
Direct mount base



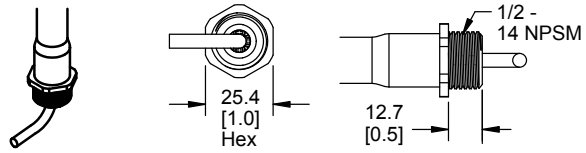
Flange mount base



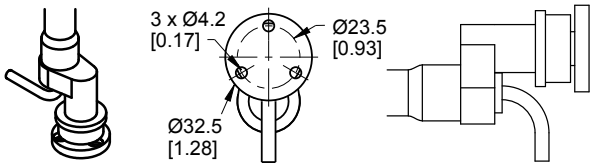
Magnet mount base



NPSM mount base



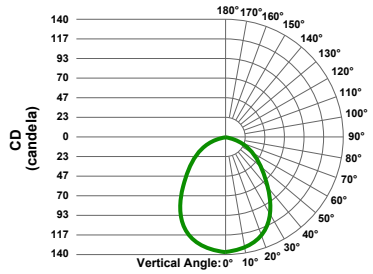
Quick coupler base



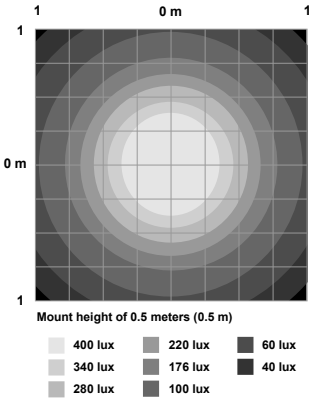
© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

Optical Data (WL50 Models Only)

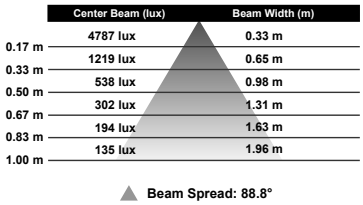
Polar Candela Distribution



Isolux Pattern



Illuminance at a Distance



Accessories

Power Supplies

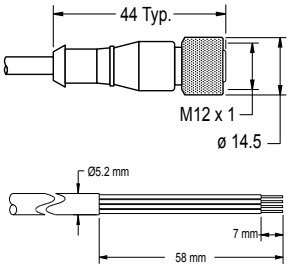
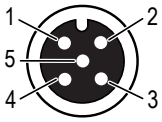
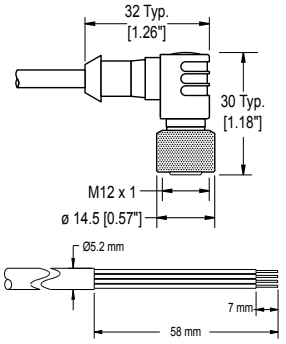
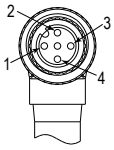
PSW-24-1

- 24 V DC, 1 A Class 2 UL Listed power supply
- 100 V AC to 240 V AC 50/60 Hz input
- 2 m (6.5 ft) PVC cable with M12 quick disconnect
- Includes Type A (US, Canada, Japan, Puerto Rico, Taiwan), Type C (Germany, France, South Korea, Netherlands, Poland, Spain, Turkey), Type G (United Kingdom, Ireland, Singapore, Vietnam), and Type I (China, Australia, New Zealand) AC detachable input plugs

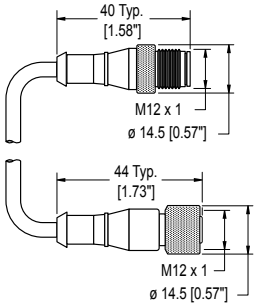
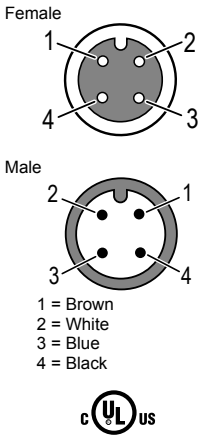


Cordsets

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
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)				

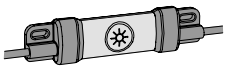
© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

4-Pin Double-Ended M12 Female to M12 Male Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout**
MQDEC-401SS	0.31 m (1 ft)	Male Straight/Female Straight		
MQDEC-403SS	0.91 m (2.99 ft)			
MQDEC-406SS	1.83 m (6 ft)			
MQDEC-412SS	3.66 m (12 ft)			
MQDEC-415SS	4.58 m (15 ft)			
MQDEC-420SS	6.10 m (20 ft)			
MQDEC-430SS	9.14 m (30.2 ft)			
MQDEC-450SS	15.2 m (49.9 ft)			

Dimmers and Switches

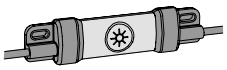
LC15T-127AL2RGQP

- In-line capacitive touch switch with M12 connectors
- On/Off control and illuminated indication
- Rated for up to 30 V DC and 4 A maximum output current
- Rugged and waterproof IP67 housing



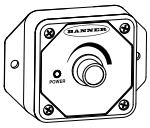
LC15T-127AP1RBGQP

- In-line capacitive touch switch with M12 connectors
- On/Off/Dimming control and illuminated indication
- Rated for up to 30 V DC and 4 A maximum output current
- Rugged and waterproof IP67 housing



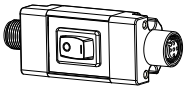
LC65P1T

- Potentiometer with terminal and M12 connector options
- PWM control
- Rated for up to 30 V DC and 4 A maximum output current
- Unsealed IP20 housing



WLS28PBQ

- Two-position in-line switch with M12 connectors
- Used with 2-wire DC LED lights
- Rated for up to 30 V DC and 4 A maximum output current
- IP50 housing

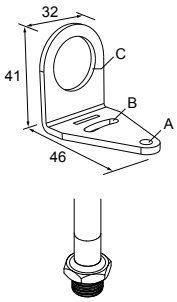


Brackets

SMB22A

- Right-angle bracket with curved slot for versatile orientation
- 12-ga. stainless steel
- Mounting hole for 22 mm sensor
- Used with Flex Arm Light models with 1/2-14 NPSM Base Connection
- CAD Files: DXF, PDF, IGS, STP

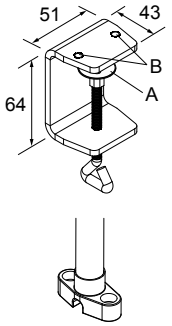
Hole center spacing: A to B = 26.0
Hole size: A = ø 4.6, B = 4.6 x 16.9, C = 22.2



© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

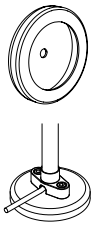
SMBFLXCLAMPD

- Used with Flex Arm Light models with D base mount option, 2 × 1/4-20W 1.375 spacing
- CAD Files: DXF, PDF, IGS, STP



SMBFLXMAGR

- Protective magnet cover
- Prevents scratches to painted surfaces
- Used with magnet base option



Banner Engineering Corp Limited Warranty

Banner Engineering Corp. warrants its products to be free from defects in material and workmanship for one year following the date of shipment. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture which, at the time it is returned to the factory, is found to have been defective during the warranty period. This warranty does not cover damage or liability for misuse, abuse, or the improper application or installation of the Banner product.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), AND WHETHER ARISING UNDER COURSE OF PERFORMANCE, COURSE OF DEALING OR TRADE USAGE.

This Warranty is exclusive and limited to repair or, at the discretion of Banner Engineering Corp., replacement. **IN NO EVENT SHALL BANNER ENGINEERING CORP. BE LIABLE TO BUYER OR ANY OTHER PERSON OR ENTITY FOR ANY EXTRA COSTS, EXPENSES, LOSSES, LOSS OF PROFITS, OR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM ANY PRODUCT DEFECT OR FROM THE USE OR INABILITY TO USE THE PRODUCT, WHETHER ARISING IN CONTRACT OR WARRANTY, STATUTE, TORT, STRICT LIABILITY, NEGLIGENCE, OR OTHERWISE.**

Banner Engineering Corp. reserves the right to change, modify or improve the design of the product without assuming any obligations or liabilities relating to any product previously manufactured by Banner Engineering Corp. Any misuse, abuse, or improper application or installation of this product or use of the product for personal protection applications when the product is identified as not intended for such purposes will void the product warranty. Any modifications to this product without prior express approval by Banner Engineering Corp will void the product warranties. All specifications published in this document are subject to change; Banner reserves the right to modify product specifications or update documentation at any time. Specifications and product information in English supersede that which is provided in any other language. For the most recent version of any documentation, refer to: www.bannerengineering.com.

For patent information, see www.bannerengineering.com/patents.

© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com