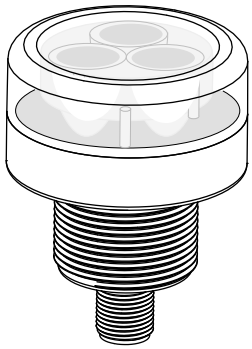
WL50S High-Intensity Spot Light - PWM Dimmable

Datasheet

General-purpose LED work lighting



- Intensity can be controlled from 0 to 100% using Pulse Width Modulation (PWM) on an input control wire
- Three lens options, depending on model, to vary spot size
- Illuminates a large area with an even pattern of light and no shadows
- 12 to 30 V dc operation
- Cabled and quick-disconnect models available
- 50 mm diameter with flat profile and 30 mm mounting base
- Rugged sealed housing rated to IP69K

For PWM dimming, use with the LC65 Dimmer Module. For more information, refer to the LC65 LED Dimmer Module datasheet, p/n *177086*.

Model[1]	LED Color	Lumens	Lux		Lens Angle	Connection
			0.5 m	1 m		
WL50SWL5PWMQ	White, 5000-8300 K	295	13780	3445	±5° (smaller, more focused spot; see graph)	5-pin Euro-style integral QD connector (use with a 4-wire mating cordset; only 3 wires used for connection)
WL50SWL11PWMQ	White, 5000-8300 K	285	5460	1365	±11° (larger spot; see graph)	
WL50SWL20PWMQ	White, 5000-8300 K	270	2000	500	±20° (largest spot; see graph)	

WARNING: Not To Be Used for Personnel Protection

Never use this device as a sensing device for personnel protection. Doing so could lead to serious injury or death. This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition.

[1] Integral QD models only are listed. To order the integral 2 m (6.5 ft) PVC cable models, omit the suffix Q from model number (example, WL50SWL5PWM). A model with a QD requires a mating cordset.

Specifications

Supply Voltage and Current
Operating voltage: 12 to 30 V dc
Current draw: 400 mA maximum

Pulse Width Modulation (PWM)
Frequency: Up to 40 kHz
Voltage: 5 V to 30 V dc
Current: 15 mA max.

Supply Protection Circuitry
Protected against reverse polarity and transient voltages

Light Source
Three high-intensity LEDs; see models table for color temperature or wavelengths

Useful Life
When operating within specifications, output will decrease less than 30% after 50,000 hours.

Construction
Black anodized aluminum housing; polycarbonate window; nickel-plated QD connector or PVC-jacketed cable; black zinc-plated steel mounting nut

Mounting:
30 × 1.5 mm thread base mount

Connections
Integral 5-pin M12 quick disconnect fitting or 2 m (6.5 ft) integral cable, depending on model; 4-pin connecting cordset required for quick disconnect fitting models; only 2 wires used

Environmental Rating
IEC IP67, IP69K per DIN 40050-9

NOTE: Do not spray the cable with a high-pressure sprayer or cable damage will result.

Operating Conditions
−20 °C to +50 °C (−4 °F to +122 °F)
95% maximum relative humidity (non-condensing)

Vibration and Mechanical Shock
All models meet Mil. Std. 202F requirements method 201A (vibration: 10 to 60 Hz max., double amplitude 0.06", maximum acceleration 10G). Also meets IEC 947-5-2; 30G 11 ms duration, half sine wave.

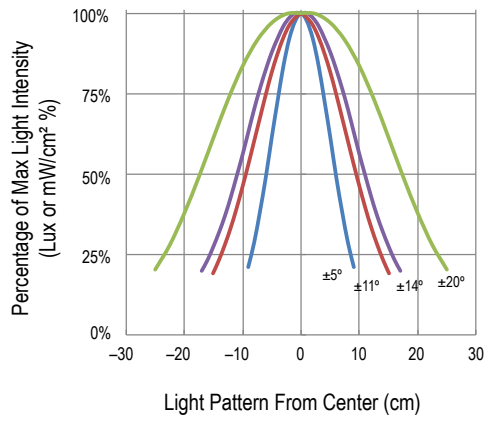
Storage Temperature
−40 °C to +70 °C (−40 °F to +158 °F)

Certifications

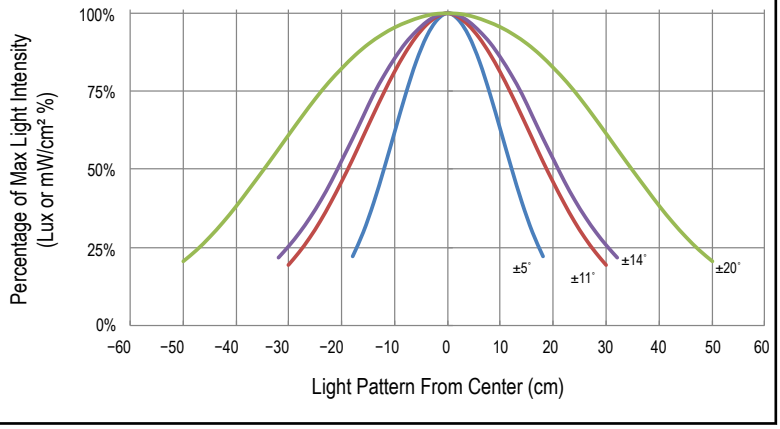
UL Recognized for easy installation in control cabinets

Beam Patterns

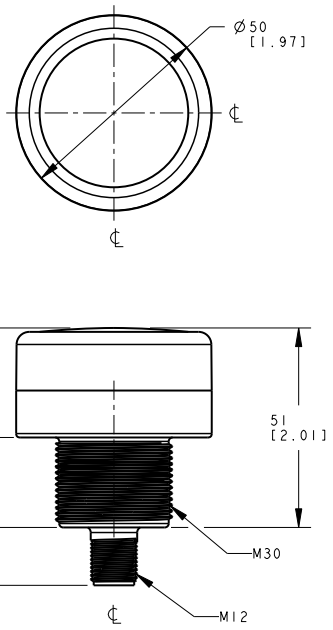
Percentage of Maximum Light Intensity Per Lens Type at 0.5 Meter (Typical)



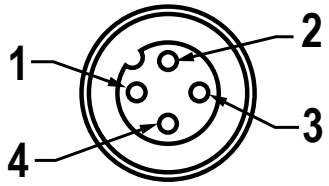
Percentage of Maximum Light Intensity Per Lens Type at 1 Meter (Typical)



Dimensions



Wiring

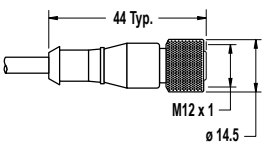
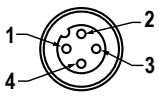


Pins	Color	Color/Connection
1	brown	12 to 30 V dc
3	blue	dc common
4	black	Not used
2	white	Pulse Width Modulation (PWM) input

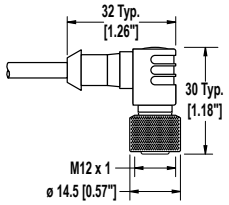
For maximum intensity, leave the white and black wires floating or connected to common.

Accessories

4-Pin Euro-Style Cordsets

4-Pin Threaded M12/Euro-Style Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC-406	1.83 m (6 ft)	Straight		
MQDC-415	4.57 m (15 ft)			
MQDC-430	9.14 m (30 ft)			
MQDC-450	15.2 m (50 ft)			

1 = Brown
2 = White
3 = Blue
4 = Black

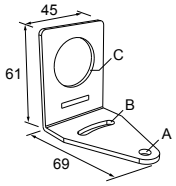
4-Pin Threaded M12/Euro-Style Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC-406RA	1.83 m (6 ft)	Right-Angle		
MQDC-415RA	4.57 m (15 ft)			
MQDC-430RA	9.14 m (30 ft)			
MQDC-450RA	15.2 m (50 ft)			

Mounting Brackets

All measurements are in mm

SMB30A

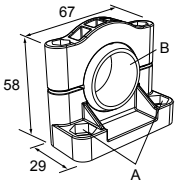
- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- 12-ga. stainless steel



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

SMB30SC

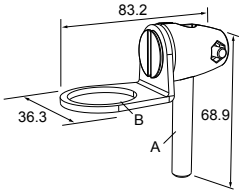
- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic polyester
- Stainless steel mounting and swivel locking hardware included



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

SMB30FA

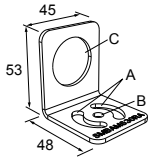
- Swivel bracket with tilt and pan movement for precise adjustment
- Mounting hole for 30 mm sensor
- 12-ga. 304 stainless steel
- Easy sensor mounting to extrude rail T-slot
- Metric and inch size bolt available



Bolt thread: SMB30FA, A= 3/8 - 16 x 2 in; SMB30FAM10, A= M10 - 1.5 x 50
Hole size: B= ø 30.1

SMBAMS30RA

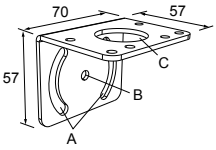
- Right-angle SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-ga. (2.6 mm) cold-rolled steel



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

SMB30MM

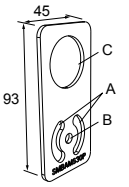
- 12-ga. stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor



Hole center spacing: A = 51, A to B = 25.4
Hole size: A = 42.6 x 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-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=ø 6.5, C=ø 31.0

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