WL50S Stainless Steel High-Intensity Spot Light - PWM Dimmable

Features

Chemically Resistant 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 V DC to 30 V DC operation
- 56 mm (2.2 in) diameter with flat profile and 30 mm (1.2 in) mounting base
- Rugged, Viton® o-ring sealed housing rated to IP69K
- Chemically resistant 316 stainless steel housing for use in harsh environments
- FDA grade silicone gasket



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

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	LED Color	Window Material	Lumens	Lux		Lens Angle (see "Beam Patterns" on page 3)	Connection
				0.5 m	1 m		
WL50SWSSL5PWMQ	White, 5000K to 8300K	Polycarbonate	295	13780	3445	±5° small, more focused spot	Integral 5-pin M12 male quick-disconnect connector (use with a 4-wire or 5-wire mating cordset, only 3 wires used for connection)
WL50SWSSGL11PWMQ		Glass	285	5460	1365	±11° larger spot	
WL50SWSSL20PWMQ		Polycarbonate	270	2000	500	±20° largest spot	
WL50SWSSGL20PWMQ		Glass					

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

Model	LED Color	Window Material	Lumens	Lux		Lens Angle (see "Beam Patterns" on page 3)	Connection
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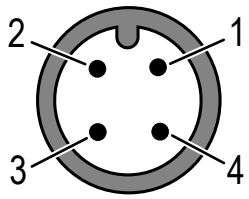
Original Instructions
26-Mar-26

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179497
p/n: 179497 Rev. B

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Wiring

Pinout	Pins	Color	Connection
	1	Brown	12 V DC to 30 V DC
	2	White	Pulse Width Modulation (PWM) input
	3	Blue	DC common
	4	Black	Not used

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

Specifications

Supply Voltage and Current

12 V DC to 30 V DC

Current Draw: 400 mA maximum

Pulse Width Modulation (PWM)

Frequency: Up to 40 kHz

Voltage: 5 V DC 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

Useful Life

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

Construction

316 stainless steel housing, polycarbonate or glass window with Viton seal, 316 stainless steel M30 mounting nut, FDA grade silicon base gasket

Mounting

30 × 1.5 mm thread base mount

Connections

Integral 5-pin M12 male quick-disconnect connector; 4-pin connecting cordset required for quick-disconnect connector models; only 2 wires used

Environmental Rating

IP67, IP69K per ISO 20653

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

Environmental Conditions

Operating: –20 °C to +50 °C (–4 °F to +122 °F)

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

95% maximum relative humidity (non-condensing)

Vibration and Mechanical Shock

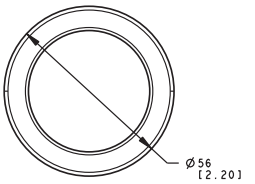
All models meet MIL-STD-202F, Method 201A (Vibration: 10 Hz to 60 Hz maximum, 0.06 inch (1.52 mm) double amplitude, 10G maximum acceleration) requirements. Also meets IEC 60947-5-2 (Shock: 30G 11 ms duration, half sine wave) requirements.

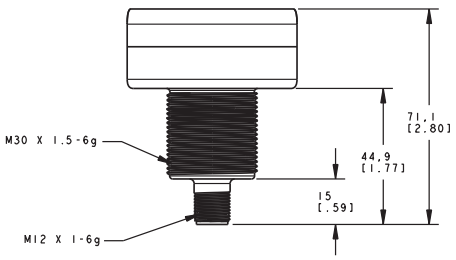
Certifications

Approvals are pending

Dimensions

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



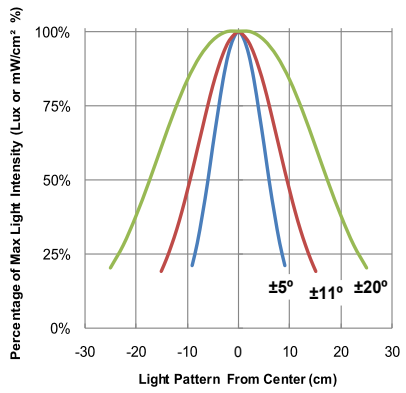


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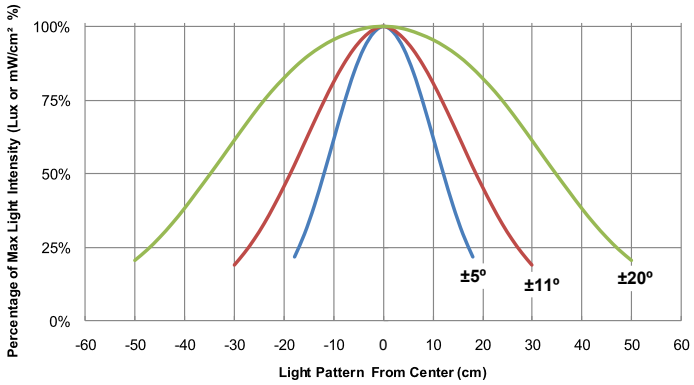
Beam Patterns

Percentage of Maximum Light Intensity Per Lens Type

at 0.5 Meter (Typical)



at 1 Meter (Typical)

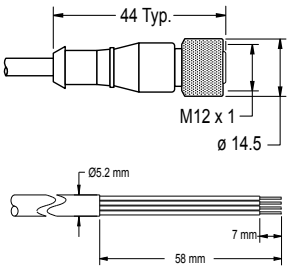
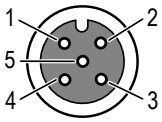
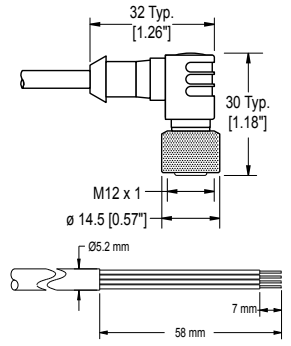
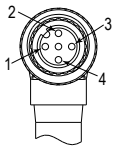


Accessories

Cordsets

Standard Cordsets

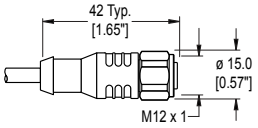
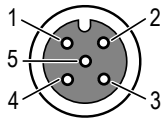
4-Pin Single-Ended M12 Female Cordsets

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)				

Washdown Rated Cordsets

Polypropylene jacket and connector body, stainless steel coupling nut

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5-Pin Single-Ended M12 Female Washdown, Shielded Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MQDCWD-506	2 m (6.56 ft)	Straight		 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray
MQDCWD-530	9 m (29.5 ft)			

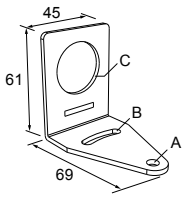
Mounting Brackets

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-gauge stainless steel
- CAD Files: DXF, PDF, IGS, STP

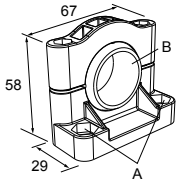
Hole center spacing: A to B=40
Hole size: A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5



SMB30SC

- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic polyester
- Stainless steel mounting and swivel locking hardware included
- CAD Files: DXF, PDF, IGS, STP

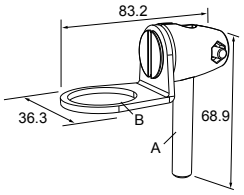
Hole center spacing: A=ø 50.8
Hole size: A=ø 7.0, B=ø 30.0



SMB30FA

- Swivel bracket with tilt and pan movement for precise adjustment
- Mounting hole for 30 mm sensor
- 12-gauge 304 stainless steel
- Easy sensor mounting to extrude rail T-slot
- Metric- and inch-size bolt available
- CAD Files: DXF, PDF, IGS, STP

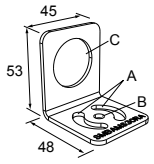
Bolt thread: SMB30FA, A=3/8 - 16 × 2 in; SMB30FAM10, A=M10 - 1.5 × 50
Hole size: B=ø 30.1



SMBAMS30RA

- Right-angle SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge (2.6 mm) cold-rolled steel
- CAD Files: DXF, PDF, IGS, STP

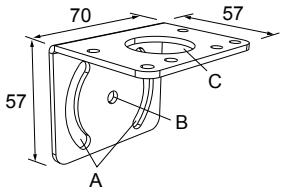
Hole center spacing: A=26.0, A to B=13.0
Hole size: A=26.8 × 7.0, B=ø 6.5, C=ø 31.0



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

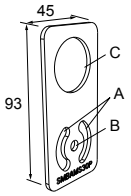


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SMBAMS30P

- 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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