

**BL-50 Series Backlights** provide sharp contrast to outline a parts shape, hide clear housings, and view openings such as drilled holes. The BL-50 Series provides high output (HO) illumination in small, versatile packaging. Using a new approach in thermal management technology for LED illumination, the BL-50 Series is able to support large LED arrays operating at temperature levels that guarantee long life. BL-50 Series modules employ square arrays of LEDs measuring approximately 50 mm per side.



MODEL #	DESCRIPTION
010-652100	BL-50x50, R LED-D, 12V-C
010-652110	BL-50x50, R LED-D, 24V-C w/9-pin D-sub
010-652117	BL-50x50, R LED-D, 24V-C w/"Flying Leads"
010-652130	BL-50x50, R LED-D, 24V-S
010-652102	BL-50x50, W LED-D, 12V-C
010-652112	BL-50x50, W LED-D, 24V-C w/9-pin D-sub
010-652132	BL-50x50, W LED-D, 24V-S
010-652104	BL-50x50, B LED-D, 12V-C
010-652124	BL-50x50, B LED-D, 24V-C w/9-pin D-sub
010-652134	BL-50x50, B LED-D, 24V-S
010-904500	BL-50x50, I LED-D, 12V-C, 940nm
010-904502	BL-50x50, I LED-D, 24V-C, 940nm, w/9-pin D-sub
010-904504	BL-50x50, I LED-D, 24V-S, 940nm
010-904508	BL-50x50, I LED-D, 24V-C, 880nm, w/"Flying Leads"

**Description Key**

Example: **BL-00x00, R LED-D, 12V-C**

Family Designation	Color	Source	Voltage (DC)
Backlight Size (mm - approx.)	R = Red W = White B = Blue G = Green I = Infrared U = Ultraviolet	FO = Fiber Optic FL = Fluorescent LED = Light Emitting Diode	C = Continuous S = Strobe
			Delivery: D = Diffused ND = Non-Diffused F = Focussed

**MECHANICAL:**

**L x W x H (mm/in.):**

88.9 x 63.5 x 22.2 /  
3.50 x 2.50 x 0.88

**Mounting:**

**Housing Material:**

(2) M3 SHCS holes

**Weight:**

Black Anodized Aluminum  
397 grams (14 oz.)

**ENVIRONMENTAL:**

**Max. Operating Humidity**

95% non-condensing

**Operating Temp.**

40° C (104° F)

**Storage Temp.**

50° C (122° F)

**ILLUMINATION & ELECTRICAL:**

**Lighting Technique:**

Backlight

**Light Output Area:**

46.7 mm x 48.5 mm  
(1.84 in. x 1.91 in.)

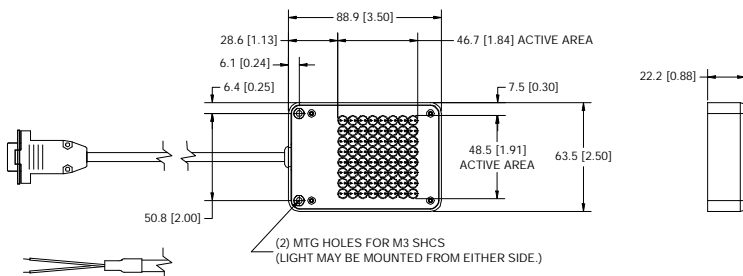
**Light Characteristics:**

Source	Color (nm)	Exp. Life	Voltage/Current (max.)		
			12V-C	24V-C	24V-S
LED	Red (636)	60k hrs.	355 mA	160 mA	3.2 A pk.
LED	White - 6500 Kelvin	10k hrs.	440 mA	320 mA	4.4 A pk.
LED	Blue (470)	10k hrs.	440 mA	320 mA	4.4 A pk.
LED	IR (940)	50k hrs.	176 mA	tbd	1.6 A pk.
LED	IR (880)	50k hrs.	n/a <sup>1</sup>	80 mA	n/a <sup>1</sup>

<sup>1</sup>No model available in stated voltage

**CE Conformity:**

Yes



**ACCESSORIES:**

Part #	Description	Models Used On
010-901900	SCM-2, 2 Channel Strobe Cntrl.	24V-S
010-501402	CPS-24, 24VDC, US cord	24V-S <sup>1</sup>
010-501401	CPS-24, 24VDC, EU cord	24V-S <sup>1</sup>
010-502601	CPS-24T, 24VDC US w/9-pin D-sub	24V-C & 24V-S <sup>1,2</sup>
010-502602	CPS-24T, 24VDC EU w/9-pin D-sub	24V-C & 24V-S <sup>1,2</sup>
010-500301	CPS-12 3.5A, 12VDC, US Cord	12V-C
010-500303	CPS-12 3.5A, 12VDC, EU Cord	12V-C
010-502700	ICM-1, M/D Intensity Cntrl, 12V-C	12V-C
010-502701	ICM-1, M/D Intensity Cntrl, 24V-C	24V-C <sup>2</sup>
010-502702	SCM-1, 1 Channel M/D Strobe Cntrl.	24V-S
010-501200	VPS, Variable, US Cord	12V-C
010-501201	VPS-EU, Variable, EU Cord	12V-C
030-003700	Ext. Cable, Cont., 1.8 M (6 ft.)	12V-C
030-003701	Ext. Cable, Cont., 3.0 M (10 ft.)	12V-C
030-007006	Ext. Cable, Strobe, 1.8 M (6 ft.)	24V-S
030-007010	Ext. Cable, Strobe, 3.0 M (10 ft.)	24V-S
030-006900	Y cable, 2 Lights, 9 pin D-sub Strb.	24V-S
030-003601	Y cable, 2 Lights, 9 pin D-sub Cont.	12V-C & 24V-C

<sup>1</sup> 010-50140x used only with 010-901900;

<sup>2</sup> 010-50260x used with either 010-502702 or 24V-C lights with DB-9 connectors

<sup>2</sup> 24V-C accessories are not available for "Flying Leads" configurations

**CABLES/CONNECTORS:**

	Connector	Length	Pin#	1	2	3	4	5	6	7	8	9
<b>12V-C Models</b>	9 pin D-sub Male	1.8 M (6 ft.)		n/a	n/a	GND	+12VDC	n/a	n/a	n/a	n/a	n/a
<b>24V-S Models</b>	9 pin D-sub Male	1.8 M (6 ft.)		V-	n/a	n/a	+24VDC	n/a	n/a	n/a	n/a	n/a
<b>24V-C Models<sup>1</sup></b>	9 pin D-sub Male <sup>1</sup>	1.8 M (6 ft.) <sup>1</sup>		n/a	n/a	n/a	n/a	n/a	n/a	+24VDC	n/a	GND

<sup>1</sup> Note: Model 010-904508 w/"Flying Leads" has a 2.0 M (6.6 ft.) cable with two (2) tinned leads and no connector; leads are labeled GND and V+ (+24VDC)



Products are protected under US Patent #'s:  
5,461,417; 5,187,611; 5,539,485; 5,301,402;  
5,604,550; 5,684,530; 5,713,661

**All RVSI/NER Products come with an Industry-Leading 2-Year Warranty**