



Expandable

Product Highlights

- Suited for use with low intensity, low speed line scan applications
- Red, Green, Blue, White, UV and IR wavelengths available
- Range of Working Distances and Line Widths available
- LL163 - Expandable in lengths of 1.5" up to 80"
- LL163 Derivatives: LL2912 (3"), LL3024 (6"), LL3148 (12")

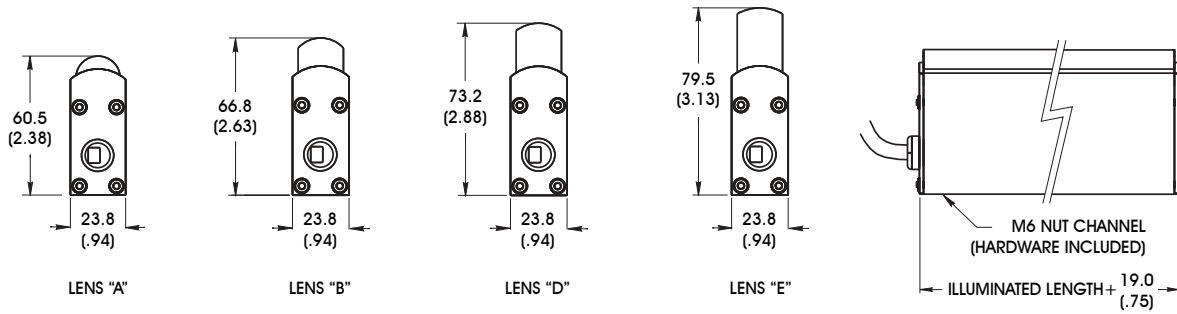


General Specifications

Electrical Specifications	Color	24v Current	All Other Controls
	625, 660 , 880	.03 A per 1.5"	.014 A Max per 1.5"
	395, 470, 520, WHI	.02 A per 1.5"	.009 A Max per 1.5"
Normal Operating Temperature	0 - 60°C		
Weight	Per 3" - 226.8g (8.0oz)		
Standard Cable Information	Up to 2 meters (80") long - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor IEC 62471	Exempt Applicable Wavelengths: 880 Group 1 (Low-Risk) Applicable Wavelengths: 470, 520, 625, 660, WHI Group 2 (Moderate Risk) Applicable Wavelengths: 395		
Compliance			
IP Rating	IP50		
Lumen Maintenance	L70 = 50,000 hours		

LL163 Expandable Series

Mechanical Specifications



Part #	Length in mm (inches)	Part #	Length in mm (inches)
LL163006	57 (2.25)	LL163066	437 (17.25)
LL2912 ¹	95 (3.75)	LL163072	475 (18.75)
LL163018	133 (5.25)	LL163078	513 (20.25)
LL3024 ¹	171 (6.75)	LL163084	551 (21.75)
LL163030	209 (8.25)	LL163090	589 (23.25)
LL163036	247 (9.75)	LL163096	627 (24.75)
LL163042	285 (11.25)	LL163102	665 (26.25)
LL3148 ¹	323 (12.75)	LL163108	703 (27.75)
LL163054	361 (14.25)	LL163114	741 (29.25)
LL163060	399 (15.75)	LL163120	779 (30.75)

Available in increments of 6 leds (1.5 inches) up to 318 leds (79.5 inches).

¹LL2912, LL3024, and LL3148 have unique product numbers.

DIMENSIONS ARE IN MILLIMETERS (INCHES)

Part Number Key

Model	Lens Type	Illuminated Length (# of LEDs)	—	Spectral Wavelength	Connector/Control	—	Alternative Connector
LL163	X	XXX	—	XXX	XX	—	XXX
LL163	A	6 LEDs =		395 (UV)	C1		M12 ¹
	B	38mm		470 (blue)	C5		
	D	(1.5")		520 (green)	IC		
	E			625 (red-orange)	I3		
				660 (red)	I3S		
				880 (infra-red)	24		
				WHI (white)			
Ex: LL163A030-WHIC LL163B102-625IC-M12					¹ Available with IC, I3, I3S and 24v options only		

Stock Product: shipped within 3 days **Build to Order:** shipped in two weeks
LL2912A-WHIC1

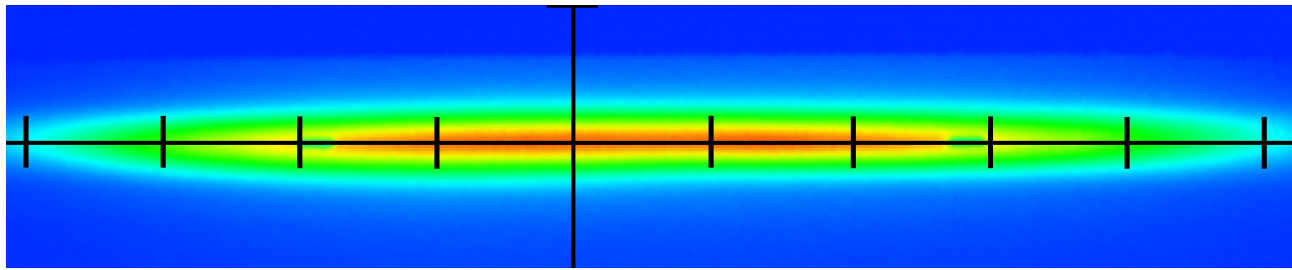
Connector | Control Options

C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)	24
For use with: DCS Series Controllers	For use with: Pulsar 320 Strobe Controller.	Continuous in-line controller Powered with: 24V power supply	Combination strobe/continuous in-line controller Powered with: 24V power supply	Default-OFF strobe/continuous in-line controller Powered with: 24V power supply	Flying/tinned leads Powered with: 24V power supply

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Optical Performance

Intensity Distribution



Optical measurement taken using LL16312-WHIIC @ 25mm

12.5mm



Line Width @ Working Distance

	Lens "A"	Lens "B"	Lens "D"	Lens "E"
Working Distance	25mm	50mm	75mm	125mm
Line Width	6mm	9.5mm	13mm	16mm

Area of Illuminance & Intensity

Working Area (FWHM)
@ Working Distance

81 X 6 (mm)
@25 (mm)



Light Output

Irradiance (W/M²): Min 77.77 ; Typ 91.5
Illuminance (kLux): Min 21.08 ; Typ 24.8

Operation and Wiring

ICS 2 (Ic)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	0-10 VDC Analog Control	White
3	DCGND	Blue
4	GLO	Black

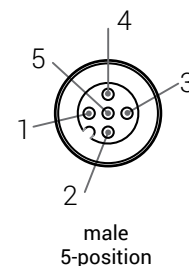
ICS 3 (I3 and I3S)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	Reserved	White
3	GND	Blue
4	PNP/Active High Trigger	Black
5	0-10 VDC Analog Control	Gray

24 Volt

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	N/A	White
3	GND	Blue
4	N/A	Black

Optional M12 Pinout



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Warranty Information

Every Advanced illumination, Inc. (Ai) product is thoroughly inspected and tested before leaving the factory. Products are warranted to be free of defects in workmanship and materials for a period of two years from the original date of purchase. Should a defect develop during this period, please contact Ai Customer Service or your Ai distributor for a Return Merchandise Authorization (RMA), and return the complete product, freight prepaid, to Ai. If a defect is found, Ai will - at our discretion - repair or replace the product without charge. Ai claims no liability for any implied warranties, including "merchantability" and "fitness for a specific purpose."

Electromagnetic Compatibility

This product was tested and complies with the regulatory requirements and limits for electromagnetic compatibility (EMC) as stated in the product specifications. These requirements and limits are designed to provide reasonable protection against harmful interference only when the product is operated in its intended industrial electromagnetic environment. To minimize the potential for electromagnetic interference or unacceptable performance degradation, install and use this product in strict accordance with the instructions in the product documentation.

Customer Service

For information on existing orders, or to make an order adjustment, contact us Monday through Friday 8:00 am to 5:00 pm ET or send an email to orders@advill.com.

Company Information

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