AAVID THERMALLOY

PRODUCT DATASHEET

SynJet® Spotlight Cooler 31W

SynJet cooling technology provides the most reliable thermal management solution available. This LED cooler has been developed by Aavid for cooling tracklight, spotlight, and recessed downlight modules.

- Cools up to 31 W[4]
- Reliable 200K Hours Lifetime
- Energy Efficient
- 5 yr Warranty
- Small Form Factor
- Quiet Low Acoustics

Specifications[1]

Thermal & Acoustic

SynJet Setting[2]	Θs-a[3]	TDP[4] (W)	SPL (dBA)[5]	Wire Connections	
High Performance	0.97	31	28	Red to +VDC Black & Blue to Ground	
Mid Performance	1.12	27	25	Red to +VDC Black & Purple to Ground	
Standard Performance	1.20	25	22	Red to +VDC Black only to Ground	
PWM at 100% duty cycle	0.97	31	28	Red to +VDC Black only to Ground Blue to PWM Signal	
Heatsink Only	3.5	9	N/A	N/A	N/A

Electrical

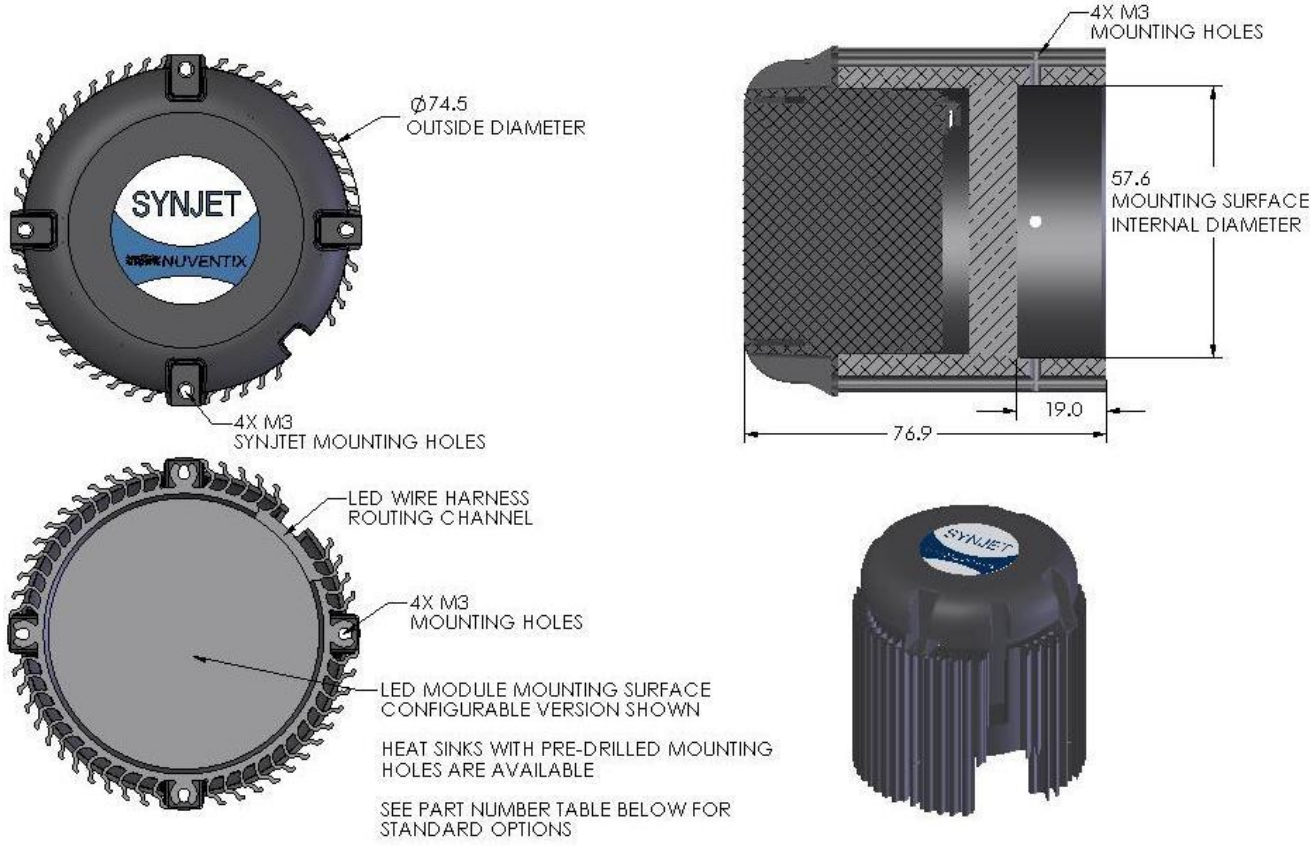
SynJet Setting[2]	Voltage (VDC) +/- 10%	Current (mA)[6]			Pavg (mW)	Voltage (VDC) +/- 10%	Current (mA)[6]			Pavg (mW)
		Imin	Iavg	Ipeak			Imin	Iavg	Ipeak	
High Performance	5	20	66	132	330	12	10	46	92	550
Mid			51	102	255			38	76	455
Standard			44	88	220			30	60	360
PWM at 100% duty cycle			66	132	330			46	92	550

[1] All values are typical at 25ºC unless otherwise stated.
[2] The Level Select model should be used for discrete performance settings. Follow the instructions in the Product Design Guide for adjusting settings.
[3] Thermal resistance values are given as reference only and are measured in free air without airflow obstructions. Thermal resistance is measured from the bottom middle of the heat sink to ambient air measured at the inlet to the SynJet, with a heat source at least 19cm^2 using the 31W spot cooler reference heat sink. Actual thermal performance may vary by application and final product design should be tested to assure proper thermal performance.
[4] Thermal Design Power is based on a 30ºC temperature rise of heat sink mounting surface above ambient temperature around cooler.
[5] Sound Pressure Level is measured at 1 meter distance per ISO 7779.
[6] The SynJet has a time varying current. The current waveform is sinusoidal and the average current (Iavg) is used to calculate the average power consumption (Pavg) at nominal input voltage (VDC). See the Electrical section in the Product Design Guide for a detailed explanation.

Environmental

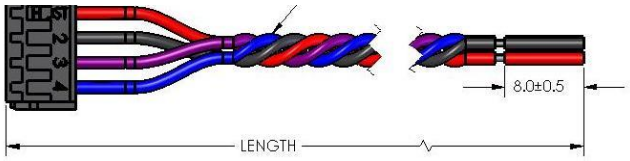
All Settings	Min	Max	Units	Conditions
Operating Temperature	-40	70	°C	Air temperature surrounding cooler
Storage Temperature	-50	95	°C	Air temperature surrounding cooler
Storage Altitude		15K	m	Above sea level
Operating Relative Humidity	5	95	%	Non-condensing
Weight		280	g	SynJet with heat sink
Reliability		200K	hrs	L10 @ 60°C
Regulatory Compliance				RoHS, UL, FCC Part 15 Class B, CE

Mechanical - SynJet Cooling Solution shown with HSLCS-CALCL-007



All dimensions are nominal and in mm unless otherwise stated. See product drawings for more detail.

IMPORTANT: SynJets should be completely wired to the power supply before the power supply is energized. The power supply should be turned off before the SynJet Cooler is disconnected. SynJet Coolers are not designed for “hot swap” or “hot plug” applications.



1	Red	+VDC	5 V or 12 V depending on model
2	Black	GND	Ground
3	Purple	CTRL2	Input for Level Select model Status signal for PWM model
4	Blue	CTRL1	Input for Level Select model PWM input for PWM model

Part Numbers

Part Number	Description	Notes
SSLCS-CM005-001	SynJet, ZFlow 75, PWM, 5V, Black	Use PWM input to control performance setting
SSLCS-CM005-002	SynJet, ZFlow 75, Level Select, 5V, Black	Hard wired performance settings
SSLCS-CM012-001	SynJet, ZFlow 75, PWM, 12V, Black	Use PWM input to control performance setting
SSLCS-CM012-002	SynJet, ZFlow 75, Level Select, 12V, Black	Hard wired performance settings
HSLCS-CALCL-001	Heatsink, 31 W, Spotlight Cooler, Philips SLM, Vossloh-Schwabe, Silver	Has mounting holes for Philips SLM or Vossloh-Schwabe
HSLCS-CALCL-002	Heatsink, 31 W, Spotlight Cooler, LEDON Fulmen, Silver	Has mounting holes for LEDON Fulmen
HSLCS-CALCL-004	Heatsink, 31 W, Spotlight Cooler, Osram PrevaLED, Silver	Has mounting holes for Osram PrevaLED
HSLCS-CALCL-007	Heatsink, 31 W, Spotlight Cooler, Configurable, Silver	Mounting surface does not have mounting holes
HSLCS-CALCL-015	Heatsink, 31W, Spotlight Cooler, Zhaga B3, Tridonic, Silver	Has mounting holes for Zhaga Spot Modules
HSLCS-CALCL-019	Heatsink, 31W, Spotlight Cooler, Xicato XSM M3, Silver	Has mounting holes for Xicato XSM
HSLCS-CALCL-021	Heatsink, 31W, Spotlight Cooler, Bridgelux Vero 13/18, ES, Molex, Silver	Has mounting holes for Bridgelux Vero ES and Molex
WALLS-C4150-001	Wire Harness, 4-Wire, 150 mm Length	Contact sales for other lengths
WALLS-C4600-001	Wire Harness, 4-Wire, 600 mm Length	Contact sales for other lengths

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