PRODUCT DATASHEET

SynJet® ZFlow 90 Outdoor Cooler

SynJet cooling technology provides the most reliable thermal management solution available. This LED cooler has been developed by Nuventix for outdoor modules and arrays.



- Outdoor Rated[1]
- Reliable 100K Hours Lifetime
- Energy Efficient
- 5 Yr Warranty
- Small Form Factor
- IP56

Specifications[1]

Thermal & Acoustic

SynJet Setting[2]	SPL (dBA)[3]	Wire Connections	
High Performance	28	Red to +VDC Black & Blue to Ground	
Standard	22	Red to +VDC Black only to Ground	
Silent	18	Red to +VDC Black & Purple to Ground	
PWM at 100% duty cycle	28	Red to +VDC Black only to Ground Blue to PWM Signal	

Electrical

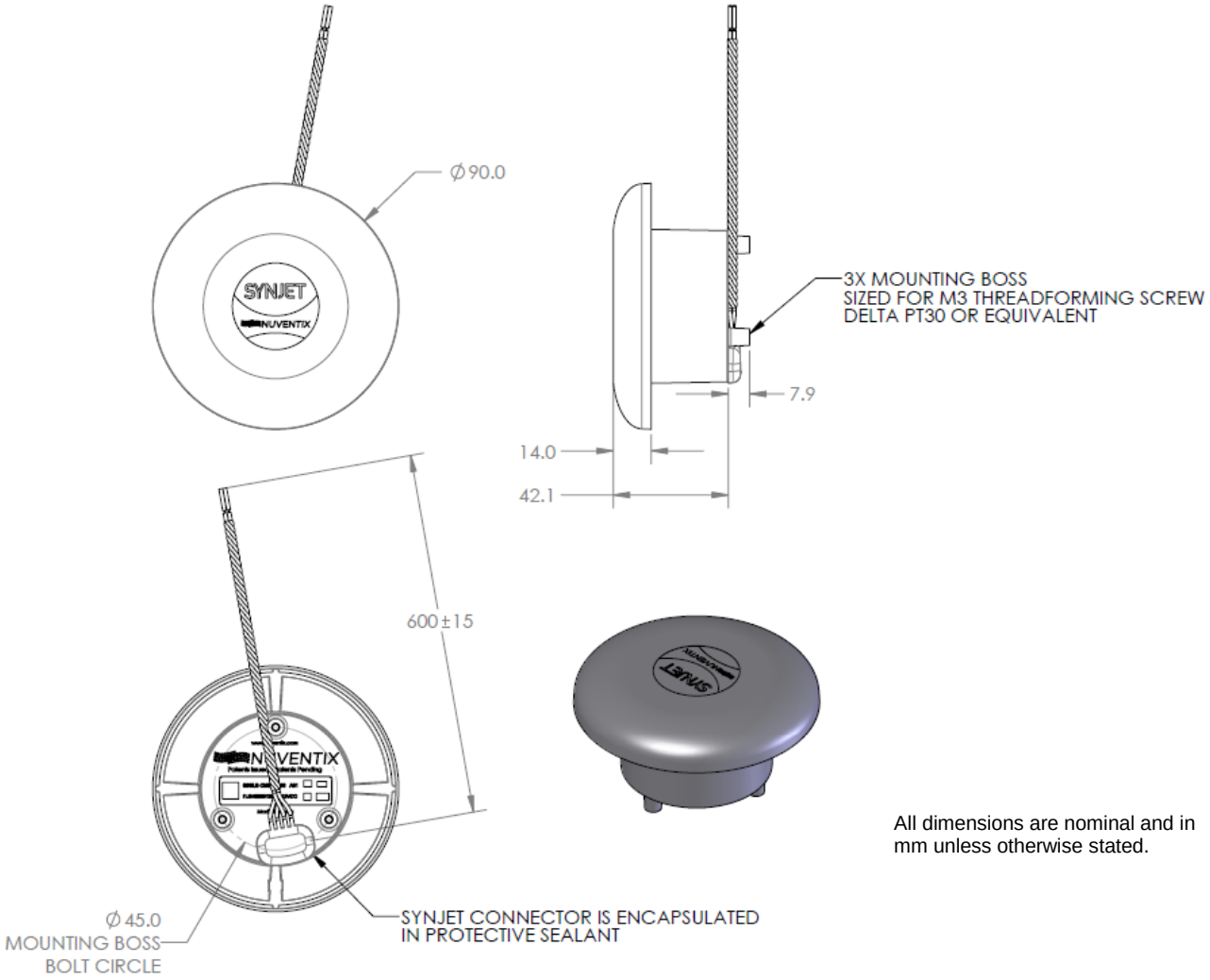
SynJet Setting[2]	Voltage (VDC) +/- 10%	Current (mA)[4]			Pavg (mW)	Voltage (VDC) +/- 10%	Current (mA)[6]			Pavg (mW)
		Imin	Iavg	Ipeak			Imin	Iavg	Ipeak	
High Performance	5	20	120	240	600	12	10	67	134	800
Standard			80	160	400			50	100	600
Silent			60	120	300			40	80	480
PWM at 100% duty cycle			160	320	800			82	164	980

Environmental

All Settings	Min	Max	Units	Conditions
Operating Temperature	-40	70	°C	Air temperature surrounding cooler
Storage Temperature	-50	75	°C	Air temperature surrounding cooler
Storage Altitude		15K	m	Above sea level
Operating Relative Humidity	5	95	%	Non-condensing
Weight		125	g	SynJet only
Reliability		100K	hrs	L10 @ 60°C, air temperature surrounding cooler
Regulatory Compliance				RoHS, UL, FCC Part 15 Class B, CE

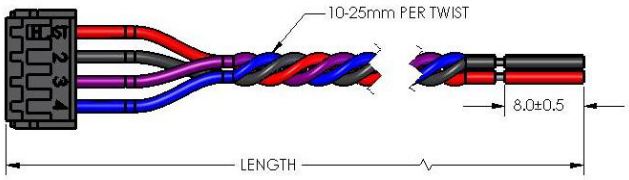
[1] SynJet design guidelines for outdoor use must be followed to meet rated lifetime specifications.
[2] All values are typical at 25ºC unless otherwise stated.
[3] The SynJet has a time varying current. The current waveform is sinusoidal and the average current (Iavg) is used to calculate the average power consumption (Pavg) at nominal input voltage (VDC). See the Electrical section in the Product Design Guide for a detailed explanation.

Mechanical – SynJet Cooler



All dimensions are nominal and in mm unless otherwise stated.

SynJet Wire Harness



Connector Pinout

Pin	Wire Color	Symbol	Description
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

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.

Part Numbers

Part Number	Description	Notes
NX200105	SynJet, ZFlow 90, Outdoor, Level Select, 5V, 600 mm wire harness	Hard wired performance settings
NX200106	SynJet, ZFlow 90, Outdoor, PWM, 5V, 600 mm wire harness	Use with PWM input to control performance setting
NX200107	SynJet, ZFlow 90, Outdoor, Level Select, 12V, 600 mm wire harness	Hard wired performance settings
NX200108	SynJet, ZFlow 90, Outdoor, PWM, 12V, 600 mm wire harness	Use with PWM input to control performance setting

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