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AI Detection Specifications

Nexus Unit

Sensor Unit
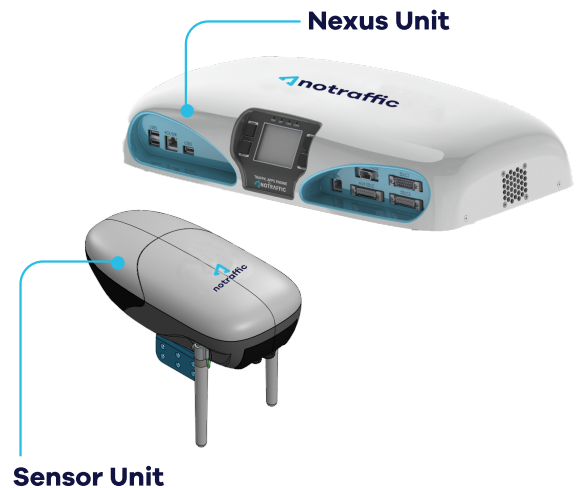
The NoTraffic™ Sensor Unit provides unparalleled vehicle detection and classification accuracy for all road users. The Sensor leverages computer vision and radar, coupled with AI algorithm and edge proccessing, never before applied to traffic management.
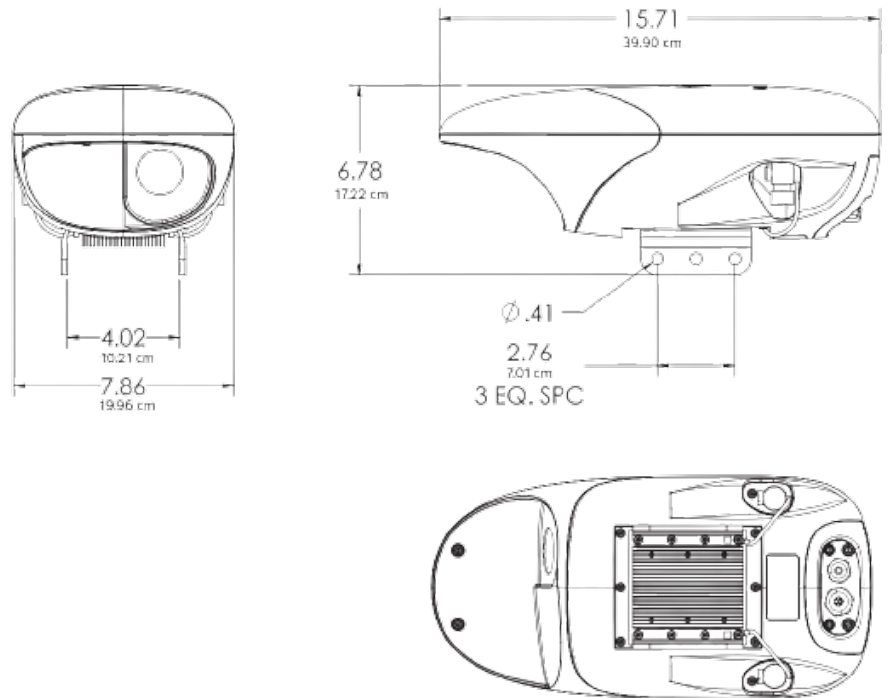
Presence Detection:	Up to 99.7% stop bar accuracy
Advanced Detection:	Up to 600ft (183 meters)
Sensory Input Types:	Video and Radar
Classification:	• High detection accuracy of: - Vehicle and vulnerable roadway users in all weather conditions - Roadway user classification (vehicle types, micro-mobility, pedestrians) • Standard FHWA-defined vehicle classifications with customizable classification categories
Installation Requirements:	• Simple Plug & Play installation – only requires power and mounting • Secure wireless connection to in-cabinet interface
Processing:	Sensor-based edge processing with high-powered AI GPU
Monitoring and Management Tools:	Cloud-based monitoring, management dashboard & communications, Counting and Basic Analytics
NoTraffic Operations Center:	24/7/365 NOC monitoring service included to ensure detection reliability
NoTraffic Mobility Store:	Advanced products and applications are available as software downloads
Hardware Warranty:	5-year with option to extend up to 10 years
System Upgrades:	Over-the-Air (OTA) software updates

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	Sensor Units	Nexus Unit
Temperature and Humidity	-30°F to +165°F, up to 95 % RH per NEMA TS2 (-34.4 degree celsius + 73.8 degree celsius)	
Ingress Protection	IP67 per IEC-60529	IP20 per IEC-60529
Shock & Vibration	Shock: 10g Handling, 30g Crash safety Vibration: 1.5GRMS operational, 5g Endurance per IEC-60068-2, NEMA TS-2	
Qualification Environmental Test	Salt Fog, Freeze/Thaw, Fogging per MIL-STD-810G	
Weight	6 lb. 13 oz., 7 lb. 15 oz w/DSRC & C-V2X Roadside Unit (3.1kg, 7kg, respectively)	5 lb. 8 oz. (2.5kg)
Dimensions	L 15.71 in. x W 7.86 in. x H 6.78 in L 39.09 cm. x W19.96 cm. x H 17.22 cm	L 17.56 in. x W 9.28 in. x H 3.43 in L 44.60 cm. x W 23.57 cm. x H 8.71 cm.
Detector I/O		NTCIP, SDLC, NEMA TS-1 & TS-2, ABC, or Caltrans C1/C11
Video	Supports 1080p@30FPS MJPEG stream	
Regulatory	FCC	
Radar	60GHz Operating Frequency (V Band)	
Cloud Communications		Cellular (LTE)
Wi-Fi	Wi-Fi – IEEE 802.11a/n/ac 5GHz	
Bluetooth		4GBluetooth v4.2 +EDR, Class 1, 2 and 35G
CAV Roadside Unit	DSRC - SAE J2735, USDOT RSU v. 4.1 + C-V2X	
Power	90V-264 VAC 50/60Hz	
Max Consumption	40W	
Mounting	Pelco Astro-Brac, other mounting adapters available on request	NEMA TS-2 style, Caltrans 332, Shelf mounting, rack mounting available on request

AI Detection Specifications

Sensor Unit

15.71
39.90 cm

6.78
17.22 cm

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2.76
7.01 cm
3 EQ. SPC

4.02
10.21 cm

7.86
19.96 cm

Nexus Unit

17.56
44.60 cm

9.28
23.57 cm

8.58
21.79 cm

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3.43
8.71 cm