IRISS ESC-HUB Gateway

E Sentry Connect Gateway

Overview

The E Sentry Hub serves as the central gateway device in the E Sentry system, collecting real-time data from distributed sensors and securely transmitting it to the cloud or local servers for analysis and reporting. Engineered for industrial environments, the hub features robust connectivity options including Ethernet, Wi-Fi 6, and dual Bluetooth Low Energy modules for sensor communication and over-the-air updates. Its enclosure and wide operating temperature range ensure reliable performance in harsh conditions. With support for PoE and advanced security protocols, it provides seamless integration into maintenance workflows, enabling smarter, faster, and fully traceable inspection processes.

Key Features

Security-First Command Center

Combines BLE, Wi-Fi 6, and Ethernet connectivity with AES-128 CTR, RSA-2048, WPA3™ security protocols for unmatched communication and data integrity.

Reliable Data Capture Even During Outages

The ESC-HUB's local processing, backup battery (5–10 hours), and data buffering ensure insight continues even if facility networks briefly fail.

PoE-powered for Simple Installation

IEEE 802.3af PoE and a 10/100 Ethernet interface mean a single cable can provide both power and data, simplifying deployment on existing industrial networks.

Future-ready with OTA and scalable architecture

Automatic updates and open connectivity help you add new sensors, analytics, or enterprise integrations without replacing hardware.

Long Range Sensor Fleet Management

The ESC-HUB manages large sensor fleets over 2,000 ft line-of-sight, reducing the number of gateways needed and lowering infrastructure cost.

American Made, Globally Trusted

The ESC-HUB is proudly designed, engineered, and built in the USA - delivering the quality, reliability, and innovation expected from American manufacturing.

Specifications

Model	ESC-HUB
General Specifications	
Dimensions (H x W x D)	266 mm x 181 mm x 102 mm (Including Antenna)
Weight	608 g (1.34 lbs)
Operating Temperature	0°C to 55°C (32°F to 131°F)
Operating Humidity	5% to 85% RH (non-condensing)
Body Material	UL 94 5VA Nylon (switchgear-grade plastic); -40°C (-40°F)to 273°C (523°F)
Hardware Material	316 Stainless Steel
Ethernet Interface	10/100 Mbit/sec
Power Specifications	
Power over Ethernet (PoE)	IEEE 802.3af compliant; 1500V isolated DC/DC converter; Input voltage range: 36V to 57V
Minimum Current Required	100 mA @ 40V DC input
Backup Battery	7.4V 2600mAh Li-Ion
Backup Battery Life	5 - 10 Hours
Wireless Specifications	
Wireless Antenna Types	Terminal-Mounted Omnidirectional Dipole Antenna
Frequency Bands	2.4 GHz (BLE); Dual-band (2.4 GHz and 5 GHz) or 2.4 GHz only (Wi-Fi)
Wireless Range	2,000+ ft (610 m) (Line of Sight)
Wireless Protocols	Long Range BLE, IEEE 802.11 a/b/g/n/ac/ax (Wi-Fi 6)
Wireless Transmission Power	+20 dBm (BLE); Adjustable from +5 dBm to +19 dBm (Wi-Fi)
Features Supported	WMM®, WMM-Power Save, Wi-Fi Agile Multiband™, Wi-Fi Direct®
Security	AES-128 CTR, RSA-2048, WPA3™, WPA2™, WPA™ – Personal and Enterprise
Certifications	
	FCC ID: X8WWT02C40C, 2AC7Z-ESPS3WROOM2, X8WBT40N
	IC: 4100A-WT02C40C, 21098-ESPWROOM32E, 4100A-BT40N
Other	
Warranty	12 Month Limited Warranty

Specifications are subject to change without notice. For the most up-to-date specs, go to www.iriss.com

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