

Sense^{IoT} Range – Intelligent, Powerful IoT Devices



Product Name	Sense ^{IoT} Fit 400	Sense ^{IoT} Asset	Sense ^{IoT} Asset	Sense ^{IoT} Asset XL	Sense ^{IoT} Condition (with Alert Button)	Sense ^{IoT} Condition (with Laser Range Finder)	Sense ^{IoT} Shield	Sense ^{IoT} Lite
Typical Applications	Efficient operation, equipment monitoring in-house or in transit, data centers and metal IT assets – both in terms of tracking and temperature monitoring, embedding the tag into metal components, monitoring mechanical plants	Hospitals, manufacturing facilities, warehouse management, cold chain condition monitoring, container management, facilities management, ports construction & mining, asset management	Hospitals, manufacturing facilities, warehouse management, container management, facilities management, ports construction and mining, asset management, yard management	Cold chain condition monitoring, container management, facilities management, ports construction & mining, field operations, asset management, worker accountability, fleet monitoring, yard management	Facilities management, production line material flow, consumable replenishment, room utilisation, state change notification, space/asset utilisation, field operations, ports construction & mining, emergency detection, asset management, worker accountability, fleet monitoring, yard management	Facilities management, production line material flow, consumable replenishment, room utilisation, state change notification, space/asset utilisation, field operations, ports construction & mining, emergency detection, asset management, worker accountability, fleet monitoring, yard management	Contact tracing, personnel tracking and social distancing applications across large sites, facilities and sports arena/stadia.	Asset Tracking, personnel tracking, real time location
Radio Protocol	EPC Class 1 Gen2v2	Bluetooth 4.2 (2.45GHz) +8dBm to -15dBm NFC (Beacon configured via NFC)	Bluetooth 4.2 (2.45GHz) +8dBm to -15dBm NFC (Beacon configured via NFC)	LoRaWAN NFC (Beacon configured via NFC)	LoRaWAN NFC (Beacon configured via NFC)	LoRaWAN NFC (Beacon configured via NFC)	Bluetooth 5.0, +4dBm to -20dBm NFC (beacon configured via NFC)	Bluetooth 5.0, +4dBm to -20dBm NFC (beacon configured via NFC)
Frequency Range LoRa	866-868 (EU) 902-928 (US)	N/A	N/A	868MHz (EU) 915MHz (US)	868MHz (EU) 915MHz (US)	868MHz (EU) 915MHz (US)	N/A	N/A
Battery Type	N/A	Sealed Prismatic battery, non-replaceable	Sealed Prismatic battery, non-replaceable	Sealed Prismatic battery, non-replaceable	Sealed Prismatic battery, non-replaceable	Sealed Prismatic battery, non-replaceable	Replaceable CR2032	Replaceable CR2032
Battery Capacity	N/A	1.5Ah	1.2Ah	4.8Ah	3.85Ah	3.85Ah	225Ah	225Ah
Battery Life	N/A	5 years, 5% motion, 10 second beacon rate	5 years, Device moving 10 hours/day (1Hz beacon rate) Device stationary 14 hours/day (0.1Hz beacon rate). TX power set to 0dBm	5 years, 2,000 movements	5 years+, 25,000 activations	5 years+ at 15 Minute range reading interval	Target – 6 months under following conditions: Device stationary 10 hours/day (1 sec beacon rate) Device moving 14 hours/day (0.33 sec beacon rate) Enters alert mode 20 times/day with buzzer activation for 20 secs at each alert	Target – 6 months under following conditions: Device stationary 10 hours/day (1 sec beacon rate) Device moving 14 hours/day (0.33 sec beacon rate) Enters alert mode 20 times/day with buzzer activation for 20 secs at each alert
Read Range	Fixed reader: Up to 4 m (13.1 ft) Handheld reader: Up to 2 m (6.6 ft)	200 m+ depending on reading device	200 m+ depending on reading device	Range 3–4 km urban — can be up to 15 km line of sight	Range 3–4 km urban — can be up to 15 km line of sight	Range 3–4 km urban — can be up to 15 km line of sight	200m+ depending on reading device	200m+ depending on reading device
Default Beacon Rate	N/A	Configurable from 1–10 seconds	Configurable from 1–10 seconds	Configurable from 1–254 hours	Configurable from 1–254 hours	Configurable from 1–254 hours	Configurable from 1–254 hours	Configurable from 1–254 hours
Alarm Beacon Rate	N/A	Configurable from 0–10 seconds (where 0 is off)	Configurable from 0–10 seconds (where 0 is off)	Configurable from 1–254 minutes (where 0 is off)	Configurable from 1–254 minutes (where 0 is off)	Configurable from 1–254 minutes (where 0 is off)	Configurable from 1–254 minutes (where 0 is off)	Configurable from 1–254 minutes (where 0 is off)
Sensors	Temperature	Accelerometer, Temperature	Accelerometer (Movement & Temperature), Button, LED	GPS (Location) Accelerometer (Movement) Temperature (Measurement)	Push Button (Alert) Optional: Temperature, Accelerometer (Movement) Temperature (Measurement)	Laser Range Finder Optional: Accelerometer (Movement) Temperature (Measurement)	Programmable button, accelerometer and temperature	Programmable button, accelerometer and temperature
LED Indicator	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temperature Sensor Range	N/A	-20°C to +60°C with an accuracy of +/-2°C	-20°C to +60°C with an accuracy of +/-2°C	-20°C to +60°C with an accuracy of +/-2°C	N/A	N/A	-20°C to +60°C with an accuracy of +/-2°C	-20°C to +60°C with an accuracy of +/-2°C

¹ Excludes adhesive options, consult adhesive datasheet for recommended temperature ratings.

Continues overleaf

Visit www.omni-id.com to learn more about the complete line of Omni-ID RFID products.

Values for Comparison only, please refer to Product Datasheets for full specifications

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Configurable	N/A	Tag Type (GATT Profile) Alarm Beacon Rate Default Beacon Rate Temp. Threshold Acc. Threshold	Tag Type (GATT Profile) Alarm Beacon Rate Default Beacon Rate Temp. Threshold Acc. Threshold	Alarm Beacon Rate Default Beacon Rate Temp. Threshold Acc. Threshold *GNSS Min. Lock Time *GNSS Max. Lock Time *GNSS DOP Threshold	Alarm Beacon Rate Default Beacon Rate Sensor Period (Minutes) Optional Temp	Alarm Beacon Rate Default Beacon Rate Sensor Period (Minutes)		
Supported Profiles	N/A	Open, iBeacon, Eddystone UUID, Bluetooth	Open, iBeacon, Eddystone UUID, Quuppa	LoRa	LoRa	LoRa	Bluetooth, Quuppa	Bluetooth,
Construction	Painted black. Optimized for metal	Overmolded durable, shock resistant TPE (Thermoplastic elastomer)	Overmolded durable, shock resistant TPE (Thermoplastic elastomer)	Overmolded durable, shock resistant TPE (Thermoplastic elastomer)	2-part durable PC/ABS case	2-part durable PC/ABS case	2-part durable PC/ABS case. Available in belt clip, lanyard or wrist strap options	2-part durable PC/ABS case
Size (mm)	13.1 x 8.05 x 3.1 including IC bump Tolerance +/-0.5	95.1 x 34.2 x 21	95.1 x 34.2 x 21	113.4 x 58.3 x 24.3	80.3 x 60.3 x 21.3	102.5 x 60.3 x 20.1	Lanyard or belt clip - 50.1 x 44.5 x 13 Wrist strap - 44.5 (bezel size), strap length 115 + 75 to buckle	Wrist 35 dia x 116 Rivet 35 dia x 68.4 Adhesive 44.4 x 20 x 14.2 Cable Tie 74.4 x 24 x 14.2 Lanyard 35 dia x 14.2
Weight (g)	1.4	59	59	134	77	80		
Attachment	Film adhesive (included) for placement only in applications exceeding +85°C2	Mechanical (std) Film Adhesive (optional)	Mechanical (std) Film Adhesive (optional)	Mechanical (std) Film Adhesive (optional)	Film Adhesive	Mechanical (std) Film Adhesive (optional)	Available in belt clip, lanyard or wrist strap options	Adhesive, Rivet, Cable tie, Lanyard, Wrist strap
Operating Temperature	-40°C to +85°C1	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C	-20°C to +60°C
High-temperature Alarm	Up to +125°C1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max Temperature Exposure¹	220°C short term 168 hrs 150°C long term 700 hrs	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IP Rating	IP68	IP68	IP68	IP68	IP68	IP68	IP68	IP68
Shock and Vibration	MIL-STD-810-G	MIL-STD-810-F	MIL-STD-810-F	MIL-STD-810-F	MIL-STD-810-F	MIL-STD-810-F	MIL-STD-810-F	MIL-STD-810-F
IC Type (chip)	Magnus S3: M3D / M3E	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year
Certifications	CE, ROHS, ATEX Certified (Optional) CID1/D2 Certified (optional)	CC, FCC, ROHS, WEEE, NFC, BLE	CC, FCC, ROHS, WEEE, NFC, Quuppa	CC, FCC, ROHS, WEEE, NFC, LoRa	CC, FCC, ROHS, WEEE, NFC, LoRa	CC, FCC, ROHS, WEEE, NFC, LoRa	CC, FCC, ROHS, WEEE, NFC, LoRa	CC, FCC, ROHS, WEEE, NFC, LoRa

1. Excludes adhesive options, consult adhesive datasheet for recommended temperature ratings

2. The product has been designed for optimal RF Performance when used with 130 micron ± 20% adhesive under the tag

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