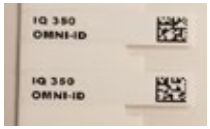
# IQ Range – Labels

## Featured Comparison Guide

Omni-ID®
Intelligent Tracking & Monitoring Devices




High Temperature

| | | IQ 150 | IQ 350 | IQ 400P | IQ 400P HT |
|---|---|---|---|---|---|
| **Typical Applications** | | IT, office, hospital asset tracking<br>Weapons, pipes, road signs<br>Warehouse management | IT and office asset tracking<br>Logistics with metallic packaging<br>Intermodal logistics | Plastic facias's on IT equipment<br>Identification of IT & office hardware | Manufacturing<br>Automotive paint processes<br>Electronics |
| RF Specifications | **Frequency Range (MHz)** | 902-928 (US)<br>866-868 (EU) | 902-928 (US)<br>866-868 (EU) | 860-960 (GS) | 860–960 (GS) |
| | **Read Range (m)**<br>**Fixed reader**<br>**Handheld reader** | <br>Up to 1.6<br>Up to 1.0 | <br>Up to 3.5<br>Up to 2.0 | <br>Up to 5.0<br>Up to 2.5 | <br>Up to 4.0<br>Up to 2.0 |
| | **Material Compatibility** | Optimized for all materials | Optimized for all materials | Plastic & non-metallic substrates | Plastic & non-metallic substrates |
| | **IC Type** | Impinj Monza R6-P | Impinj Monza R6-P | Alien Higgs 3 | Alien Higgs 3 |
| Physical and Environmental Specifications | **Encasement / Material** | Synthetic label | Synthetic label | Synthetic label | Synthetic label |
| | **Size (mm)** | 55.0 × 12.5 × 1.20 | 50.0 × 12.5 × 1.30 | 46.5 × 12.4 × 0.24 | 50.0 × 30.0 × 0.49 |
| | **Weight (g)** | 0.44 | 0.50 | 0.15 | 0.51 |
| | **Operating Temperature (°C)**<br>**Max Temperature Exposure (°C)** | -40 to +85<br>-40 to +85 | -40 to +85<br>-40 to +85 | -40 to +85<br>-40 to +85 | -40 to +85<br>-40 to +230 |
| | **Ingress Protection** | IP68 | IP68 | IP68 | IP68 |
| | **Shock and Vibration** | MIL STD 810-G | MIL STD 810-G | MIL STD 810-G | MIL STD 810-G |
| | **Attachment** | Self Adhesive (std) | Self Adhesive (std) | Self Adhesive (std) | Holes provided for mechanical attachment |
| | **Order Codes†** | 125 – US, EU | 158 – EU, US | 055 – GS | 166 – GS |

† Order option codes are listed on the datasheets.

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



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# IQ Range – Labels

## Featured Comparison Guide

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| | | IQ 600 | IQ 800P | IQ 800P HT |
|---|---|---|---|---|
| | | | | High Temperature |
| **Product Name** | | | | |
| **Typical Applications** | | Logistics & packaging, Pipe manufacturing & recertification<br>IT, Office, & Hospital tracking | Plastic RTI's and containers<br>Plastic pallets | Manufacturing<br>Automotive paint processes<br>Electronics |
| RF Specifications | **Frequency Range (MHz)** | 902-928 (US)<br>866-868 (EU) | 860–960 (GS) | 860–960 (GS) |
| | **Read Range (m)**<br>**Fixed reader**<br>**Handheld reader** | <br>Up to 6.0<br>Up to 3.0 | <br>Up to 10.0<br>Up to 5.0 | <br>Up to 8.0<br>Up to 5.0 |
| | **Material Compatibility** | Optimized for all materials | Plastic & non-metallic substrates | Plastic & on-metallic substrates |
| | **IC Type** | Impinj Monza R6-P | Alien Higgs 3 | Alien Higgs 3 |
| Physical and Environmental Specifications | **Encasement / Material** | Synthetic label | Synthetic label | Synthetic label |
| | **Size (mm)** | 96.0 × 24.0 × 1.30 | 95.0 × 21.0 × 0.24 | 85.0 × 55.0 × 0.49 |
| | **Weight (g)** | 1.50 | 0.50 | 1.50 |
| | **Operating Temperature (°C)**<br>**Max Temperature Exposure (°C)** | -40 to +85<br>-40 to +85 | -40 to +85<br>-40 to +85 | -40 to +85<br>-40 to +230 |
| | **Ingress Protection** | IP68 | IP68 | IP68 |
| | **Shock and Vibration** | MIL STD 810-G | MIL STD 810-G | MIL STD 810-G |
| | **Attachment** | Self Adhesive (std) | Self Adhesive (std) | Holes provided for mechanical attachment |
| | **Order Codes†** | 133 – US, EU | 056 – GS | 165 – GS |

† Order option codes are listed on the datasheets.



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# Fit Range – Small for Integration, High Temperature

## Featured Comparison Guide

Omni-ID®
Intelligent Tracking & Monitoring Devices




| | | | | |
|---|---|---|---|---|
| | | High Temperature | High Temperature | High Temperature |
| **Product Name** | | **Fit 210HT** | **Fit 220HT** | **Fit 400HT** |
| **Typical Applications** | | Hand Tool tracking<br>Paint processes in automotive<br>IT assets at point of manufacture<br>Healthcare - sterilization | Small metal tools<br>IT assets<br>Healthcare instruments | Tool tracking including metal hand tools<br>Metal IT assets<br>Autoclaves & high temperature sterilizations |
| RF Specifications | **Frequency Range (MHz)** | 902–928 (US) 866–868 (EU) | 902–928 (US) 866–868 (EU) | 902–928 (US) 866–868 (EU) |
| | **Read Range (m)**<br>**Fixed reader**<br>**Handheld reader** | <br>Up to 2.0<br>Up to 1.0 | <br>Up to 2.2<br>Up to 1.4 | <br>Up to 4.0<br>Up to 2.0 |
| | **Material Compatibility** | Optimized for Metal | Optimized for Metal | Optimized for Metal |
| | **IC Type** | Alien Higgs 3 | Alien Higgs 3 | Alien Higgs 3 |
| Physical and Environmental Specifications | **Finish** | Red PCB | Ceramic - Painted Black | Ceramic -Painted Black |
| | **Size (mm)** | 57.1 x 5.95 x 1.3 | 7.80 x 6.80 x 2.70 (includes IC bump) | 13.10 x 7.80 x 3.10 (includes IC bump) |
| | **Weight (g)** | 1.00 | 0.60 | 1.50 |
| | **Operating Temperature (°C)[1]**<br>**Max Temperature Exposure (°C)[1]** | -20 to +85<br>-20 to +225 | -20 to +85<br>-20 to +235 | -20 to +85<br>-20 to +235 |
| | **Ingress Protection** | IP68 | IP68 | IP68 |
| | **Shock and Vibration** | MIL STD 810-G | MIL STD 810-G | MIL STD 810-G |
| | **Attachment** | Film adhesive (standard)<br>[For placement only in applications exceeding +85°C] | Film adhesive (standard)<br>[ For placement only in applications exceeding +85°C] | Film adhesive (standard)<br>[For placement only in applications exceeding +85°C] |
| | **Order Codes†** | 123 - EU, US | 155 - EU, US | 124 - EU, US |

1 Excludes adhesive options, consult adhesive datasheets for recommended temperature ratings. Maximum constant exposure for Fit 220 & 400 = 700 hours and 12 hours for Fit 210. † Order option codes are listed on the datasheets.



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# Flex Range – Flexible to Fit Many Applications

## Featured Comparison Guide

| | Product Name | Flex 600 | Flex 1200 |
|---|---|---|---|
| | **Typical Applications** | Office Equipment<br>Light outdoor use<br>Returnable Transit Items<br>Ideal for portal setups | Office Equipment<br>Light outdoor use<br>Returnable Transit Items<br>Ideal for Portal setups |
| RF Specifications | **Frequency Range (MHz)** | 902–928 (US)<br>866–868 (EU) | 902–928 (US)<br>866–868 (EU) |
| RF Specifications | **Read Range (m)**<br>**Fixed reader**<br>**Handheld reader** | Up to 6.0[1] on metal, 3.0m off metal<br>Up to 3.0m on metal, 1.5m off metal | Up to 12.0m on metal, 8.0m off metal<br>Up to 6.0m on metal, 4.0m off metal |
| RF Specifications | **Material Compatibility** | Metal & non-metallic substrates | Optimized for Metal |
| RF Specifications | **IC Type** | Monza R6-P | Monza R6-P |
| Physical and Environmental Specifications | **Coverstock** | White synthetic label with transparent over laminate | White synthetic label with transparent over laminate |
| Physical and Environmental Specifications | **Size (mm)** | 55.8 x 20.0 x 2.50 | 75.0 x 25.0 x 2.50 |
| Physical and Environmental Specifications | **Weight (g)** | 0.85 | 1.66 |
| Physical and Environmental Specifications | **Operating Temperature (°C)[1]** | -40 to +85 | -40 to +85 |
| Physical and Environmental Specifications | **Ingress Protection** | IP68 | IP68 |
| Physical and Environmental Specifications | **Shock and Vibration** | MIL STD 810-G | MIL STD 810-G |
| Physical and Environmental Specifications | **Attachment** | Film adhesive (std) | Film adhesive (std) |
| | **Order Codes†** | 149 - US, EU | 160 - US, EU |



1 Excludes adhesive options, consult adhesive datasheets for recommended temperature ratings. Maximum constant exposure for Fit 220 & 400 = 700 hours and 12 hours for Fit 210. † Order option codes are listed on the datasheets.

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

# Exo Range – Encased and Heavy-Duty

## Featured Comparison Guide

Omni-ID®
Intelligent Tracking & Monitoring Devices

| | |  |  |  |  |  |
|---|---|---|---|---|---|---|
| | | High Temperature | Global | Global | Global | Global |
| **Product Name** | | **Exo 400HT** | **Exo 600** | **Exo 750** | **Exo 800** | **Exo 800P Rigid** |
| **Typical Applications** | | Healthcare sterilization processes<br>Manufacturing<br>Automotive. post paint processes | Logistics & Postal Industries.<br>Automotive.<br>Retail & warehousing | Automotive Supply Chain.<br>Logistics and Postal.<br>Manufacturing tote tracking | Manufacturing tote tracking.<br>Logistics and Postal.<br>Retail supply chain | Plastic RTIs and containers<br>Plastic pallets<br>Non-metallic industrial assets |
| RF Specifications | **Frequency Range (MHz)** | 902-928 (US)<br>866-868 (EU) | 860–930 (GS) | 860–930 (GS) | 860–930 (GS) | 860–930 (GS) |
| | **Read Range (m)**<br>**Fixed reader**<br>**Handheld reader** | Up to 4.0<br>Up to 2.0 | Up to 6.0<br>Up to 3.0 | Up to 11.0 (US), 7.0 (EU)<br>Up to 5.0 (US), 3.5 (EU) | Up to 8.0<br>Up to 4.0 | Up to 8.0 |
| | **Material Compatibility** | Optimized for Metal | Optimized for Metal | Optimized for Metal | Optimized for Metal | Optimized for Plastic |
| | **IC Type** | Alien Higgs 3 | Impinj Monza 4QT | Impinj Monza 4QT | Impinj Monza 4QT | Alien Higgs 3 |
| Physical and Environmental Specifications | **Encasement**[2] | Thermoplastic | ABS Rigid Plastic | ABS Rigid Plastic | ABS Rigid Plastic | ABS Rigid Plastic |
| | **Size (mm)** | 37.0 × 14.0 × 7.5 | 80.0 × 15.0 × 12.5 | 51.0 × 48.0 × 12.6 | 110 × 25.0 × 12.9 | 105 × 36.0 × 3.5 |
| | **Weight (g)** | 5.7 | 12.5 | 25.6 | 26.8 | 11.6 |
| | **Operation Temperature (°C)**<br>**Max Temperature Exposure (°C)** | –20 to +85<br>–20 to +235 | –40 to +85<br>–40 to +85 | –40 to +85<br>–40 to +85 | –40 to +85<br>–40 to +85 | –20 to +85<br>–20 to +85 |
| | **Ingress Protection** | IP68 | IP68 | IP68 | IP68 | IP68 |
| | **Shock and Vibration** | MIL STD 810-G | MIL STD 810-G | MIL STD 810-G | MIL STD 810-G | MIL STD 810-G |
| | **Attachment** | Mechanical (std)<br>2 x Ø3mm holes | Mechanical (std.) Premium foam adhesive (option) | Mechanical (std.) Premium foam adhesive (option) | Mechanical (std.) Premium foam adhesive (option) | Rivet/Screw(not included) Premium foam adhesive (option) |
| | **Order Codes**[†] | 144 – EU, US | 061 – GS | 078 – GS | 077 – GS | 104 – GS |

[†] Order Option Codes are listed on the datasheets. 1 Prolonged exposure to temperatures over 70°C may result in minor dimensional change to the case, attachment by rivets instead of adhesive is recommended. 2 See datasheet for Transparent option

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



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# Exo Range – Encased and Heavy-Duty

## Featured Comparison Guide

Omni-ID®
Intelligent Tracking & Monitoring Devices

Global

Global

Global

| | | Exo 1000 | Exo 2000 | Exo 3000 |
|---|---|---|---|---|
| **Product Name** | | | | |
| **Typical Applications** | | Manufacturing tote tracking<br>Logistics and Postal<br>Retail supply chain | Container tracking for yard management.<br>Cargo tracking.<br>Defense asset management | Cargo and container tracking.<br>Heavy equipment tracking and maintenance.<br>Location identification in lay down zones |
| RF Specifications | **Frequency Range (MHz)** | 860–930 (GS) | 860–930 (GS) | 860–930 (GS) |
| | **Read Range (m)**<br>**Fixed reader**<br>**Handheld reader** | Up to 10.0<br>Up to 8.0 | Up to 20.0<br>Up to 9.0 | Up to 33.0<br>Up to 20.0 |
| | **Material Compatibility** | Optimized for Metal | Optimized for Metal | Optimized for Metal |
| | **IC Type** | Impinj Monza 4QT | Impinj Monza 4QT | Impinj Monza 4QT |
| Physical and Environmental Specifications | **Encasement** | ABS Rigid Plastic | PC ABS blend | PC ABS blend |
| | **Size (mm)** | 110 × 25.0 × 12.7 | 139 × 53.0 × 14.9 | 174 × 70.0 × 17.7 |
| | **Weight (g)** | 18.3 | 64.0 | 110 |
| | **Operation Temperature (°C)**<br>**Max Temperature Exposure (°C)** | –40 to +85[1]<br>–40 to +85[1] | –40 to +85<br>–40 to +100 | –40 to +85<br>–40 to +100 |
| | **Ingress Protection** | IP68 | IP68 | IP68 |
| | **Shock and Vibration** | MIL STD 810-G | MIL STD 810-G | MIL STD 810-G |
| | **Attachment** | Mechanical (std)<br>2 x Ø3mm holes | Manual (std)<br>Premium Foam adhesive (option) | Mechanical (standard)<br>Premium foam adhesive (option) |
| | **Order Codes†** | 144 – EU, US | 152 – GS | 153 – GS |

† Order Option Codes are listed on the datasheets. 1 Prolonged exposure to temperatures over 70°C may result in minor dimensional change to the case, attachment by rivets instead of adhesive is recommended. 2 See datasheet for Transparent option



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# Sense IoT Range – Intelligent, Powerful IoT Devices

Omni-ID
Intelligent Tracking & Monitoring Devices

| | |  Bluetooth |  LoRaWAN |  LoRaWAN |  LoRaWAN |  RFID |
|---|---|---|---|---|---|---|
| **Product Name** | | **Sense$^{IoT}$ Asset** | **Sense$^{IoT}$ Asset XL** | **Sense$^{IoT}$ Condition (with Alert Button)** | **Sense$^{IoT}$ Condition (with Laser Range Finder)** | **Sense$^{IoT}$ Fit 400** |
| **Typical Applications** | | Hospitals, Manufacturing facilities, Warehouse management, Cold chain condition monitoring, Container management, Facilities management, Ports construction & mining, Asset 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 | 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 |
| Operarional Specifications | **Radio Protocol** | Bluetooth 4.2 (2.45GHz) +8dBm to –15dBm<br>NFC (Beacon configured via NFC) | LoRaWAN<br>NFC (Beacon configured via NFC) | LoRaWAN<br>NFC (Beacon configured via NFC) | LoRaWAN<br>NFC (Beacon configured via NFC) | EPC Class 1 Gen2v2 |
| | **Frequency Range LoRa** | N/A | 868MHz (EU) I 915MHz (US) | 868MHz (EU) I 915MHz (US) | 868MHz (EU) I 915MHz (US) | 866-868 (EU) I 902-928 (US) |
| | **Battery Type** | Sealed Prismatic battery, non-replaceable | Sealed Prismatic battery, non-replaceable | Sealed Prismatic battery, non-replaceable | Sealed Prismatic battery, non-replaceable | N/A |
| | **Battery Capacity** | 1.5Ah | 4.8Ah | 3.85Ah | 3.85Ah | N/A |
| | **Battery Life** | 5 years, 5% motion, 10 second beacon rate | 5 years, 2,000 movements | 5 years+, 25,000 activations | 5 years+ at 15 Minute range reading interval | N/A |
| | **Read Range** | 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 | Fixed reader: Up to 4 m (13.1 ft)[1]<br>Handheld reader: Up to 2 m (6.6 ft)[1] |
| | **Default Beacon Rate** | Configurable from 1–10 seconds | Configurable from 1–254 hours | Configurable from 1–254 hours | Configurable from 1–254 hours | N/A |
| | **Alarm Beacon Rate** | 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 ) | N/A |
| | **Sensors** | Accelerometer, Temperature | GPS (Location)<br>Accelerometer (Movement)<br>Temperature (Measurement) | Push Button (Alert)<br>Optional: Temperature,<br>AccelerometerAccelerometer (Movement)<br>Temperature (Measurement) | Laser Range Finder<br>Optional: Temperature,<br>AccelerometerOptional: Temperature,<br>AccelerometerAccelerometer (Movement)<br>Temperature (Measurement) | Temperature |
| | **LED Indicator** | Yes | Yes | Yes | Yes | No |
| | **Temperature Sensor Range** | –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 | |

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

Continues overleaf

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# Sense IoT Range – Intelligent, Powerful IoT Devices

Omni-ID®
Intelligent Tracking & Monitoring Devices

| Product Name | Sense$^{IoT}$ Asset | Sense$^{IoT}$ Asset XL | Sense$^{IoT}$ Condition (with Alert Button) | Sense$^{IoT}$ Condition (with Laser Range Finder) | Sense$^{IoT}$ Fit 400 |
|---|---|---|---|---|---|
| |  Bluetooth |  LoRaWAN |  LoRaWAN |  LoRaWAN |  RFID |
| **Configurable** | Tag Type (GATT Profile)<br>Alarm Beacon Rate<br>Default Beacon Rate<br>Temp. Threshold<br>Acc. Threshold | Alarm Beacon Rate<br>Default Beacon Rate<br>Temp. Threshold<br>Acc. Threshold<br>*GNSS Min. Lock Time<br>*GNSS Max. Lock Time<br>*GNSS DOP Threshold | Alarm Beacon Rate<br>Default Beacon Rate<br>Sensor Period<br>(Minutes)<br>Optional Temp | Alarm Beacon Rate<br>Default Beacon Rate<br>Sensor Period<br>(Minutes) | N/A |
| **Supported Profiles** | Open, iBeacon, Eddystone UUID | N/A | N/A | N/A | N/A |
| **Construction** | 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 | Painted black. Optimized for metal |
| **Size (mm)** | 95.1 × 34.2 × 21 | 113.4 × 58.3 x 24.3 | 80.3 × 60.3 × 21.3 | 102.5 × 60.3 × 20.1 | 13.1 x 8.05 x3.1 including IC bump Tolerance +/–0.5 |
| **Weight (g)** | 59 | 134 | 77 | 80 | 1.4 |
| **Attachment** | Mechanical (std) Film Adhesive (optional) | Mechanical (std) Film Adhesive (optional) | Film Adhesive | Mechanical (std) Film Adhesive (optional) | Film adhesive (included) for placement only in applications exceeding +85°C[2] |
| **Operating Temperature** | –20°C to +60°C | –20°C to +60°C | –20°C to +60°C | | –40°C to +85°C[1] |
| **High-temperature Alarm** | N/A | N/A | N/A | N/A | Up to +125°C[1] |
| **Max Temperature Exposure[1]** | N/A | N/A | N/A | N/A | 220°C short term 168 hrs<br>150°C long term 700 hrs |
| **IP Rating** | IP68 | IP68 | IP68 | IP68 | Magnus S3: M3D / M3E |
| **Shock and Vibration** | MIL-STD-810-F | MIL-STD-810-F | MIL-STD-810-F | MIL-STD-810-F | MIL-STD-810-G |
| **IC Type (chip)** | N/A | N/A | N/A | N/A | Magnus S3: M3D / M3E |
| **Warranty** | 1 year | 1 year | 1 year | 1 year | 1 year |
| **Certifications** | CC, FCC, ROHS, WEEE, NFC, BLE | CC, FCC, ROHS, WEEE, NFC, LoRa | CC, FCC, ROHS, WEEE, NFC, LoRa | CC, FCC, ROHS, WEEE, NFC, LoRa | CE , ROHS, ATEX Certified (Optional)<br>C1D1/D2 Certified (optional) |

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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