## Technical Data

**identiFINDER® R 300**

### General

The identiFINDER R 300 is a belt wearable Spectroscopic Personal Radiation Device (SPRD). It provides continuous detection capability and the fast identification of radioactive material which supplies critical information to the user in the field, enabling them to make a next step determination. The unit contains one 13 mm (0.5") × 17 mm (0.7") × 5 mm (0.2") CZT crystal with excellent resolution for identification of the radioactive material while two other detectors of the same size are used for detection and dose rate calculation. The instrument can be equipped with an optional $^3$He neutron detector. Due to its small size and rugged design, a identiFINDER R 300 can be deployed in place of existing PRD technologies with the added capability of identifying the isotope present. These features make it an ideal choice for those on the front lines of homeland security such as emergency responders and border patrol agents.

### Detectors

- **Gamma:** CdZnTe
  - Three crystals; 15 mm (0.6") × 13 mm (0.5") × 5 mm (0.2''); ±5 %
- **Neutrons:** $^3$He Proportional Counter Tube
  - 15 mm (0.6") × 54 mm (2.1''); net: 14 mm (0.6") × 29 mm (1.1''); 8 atm
- **GPS:**
  - 66-channel MediaTek MT3329 receiver; sensitivity >-165 dBm

### Performance

- **Energy Range (Gamma); Identification Channel:** 30 keV – 3 MeV
- **Gamma Spectrum:** 1024 channels; 3 MeV
- **Dose Rate Range:** ≤100 nSv/h – 10 mSv/h; ±30 %
- **Neutron Sensitivity:**
  - $^3$He: 2.6 cps/nv, ±20 %
- **Nuclide Identification:**
  - According to ANSI N42.48
- **Typical Resolution:**
  - ≤3.5 % FWHM at 662 keV at 25.0 °C (77.0 °F) ambient temperature

### Physical

- **Dimensions (W × D × H):** 70 mm (2.8") × 33 mm (1.3") × 125 mm (4.9")
- **Weight:**
  - $^1$ 340 g (12.0 oz)
  - $^2$ 370 g (13.1 oz)
- **Housing Material:** Aluminium

### Environmental

- **Operating Temperature:** -20 °C – +50 °C (-4 °F – 122 °F)
- **Relative Humidity:** 10 % – 93 %, non condensing
- **Protection Rating:** IP63 according to IEC 60529

### Battery

- **Battery Life:** 300 – 500 full charge-discharge cycles; 3 a – 5 a
- **Operating Duration:**
  - ≥24 h at 25.0 °C (77.0 °F) in dose rate mode with dimmed display back light and GPS switched off

### Display

- **Type:** Transflective color LCD
### Technical Data

**Product**

<table>
<thead>
<tr>
<th>identiFINDER® R 300</th>
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**Product Variants**

*1 nanoRaider Z
*2 nanoRaider ZH

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#### Input/Output

<table>
<thead>
<tr>
<th>Input/Output</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB</td>
<td>USB 2.0, mini-B socket</td>
</tr>
<tr>
<td>Bluetooth</td>
<td>≤50 m (164.05') range</td>
</tr>
</tbody>
</table>

#### Software

<table>
<thead>
<tr>
<th>IPv4</th>
<th>DHCP server included; subnet configurable</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPv6</td>
<td>ULA routing prefix fde6:e89e:44bc::/48 with device specific subnet</td>
</tr>
</tbody>
</table>

GPS can be removed upon request. Bluetooth can be removed upon request.