Technical Data
identiFINDER® R 300

Product
identiFINDER® R 300

Product Variants

*1 nanoRaider Z
*2 nanoRaider ZH

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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 *2	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 *2	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)
Weight *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

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Input/Output	
USB	USB 2.0; mini-B socket
Bluetooth	≤50 m (164'0.5") range

Software	
IPv4	DHCP server included; subnet configurable
IPv6	ULA routing prefix fde6:e89e:44bc::/48 with device specific subnet

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