

HR-HRM

High-Range Handheld Radiation Monitor

The HR-HRM is a small, self-contained gamma ray and thermal neutron radiation detector for use in the interdiction and localization of larger gamma-ray sources such as those that might be used in the construction of a radioactive dirty bomb. It was specifically designed for operators who need to quickly and discreetly detect and locate a threat device or radiological materials in an unpredictable radiation background.

As a fully militarized and ruggedized nuclear search instrument, the HR-HRM is in a class of its own. Unlike commercial-grade instruments currently available, the HR-HRM can be carried on a parachute jump, can be used by divers underwater, and can be easily employed by gloved and equipped operators in a full range of tactical and environmental conditions.

As a highly sensitive instrument for the detection of gamma and neutron radiation at standoff range, the HRM has long been established as the gold standard nuclear search handheld for elite Military, Law Enforcement, and Federal Agency operators.



The high sensitivity of the HRM is made possible by the use of a high-quality photomultiplier tube and a cesium iodide scintillator combined with a high-pressure Helium-3 filled proportional counter. It is the size of a flashlight and is intended to be handheld or worn on the operator's belt, leg, or arm in the nylon holster.



Features

Ruggedness

The HR-HRM is unique as the only fully militarized and proven handheld, high-range radiation detector available as commercial equipment. Its case is machined out of a solid block of high-impact resistant plastic, and all penetrations are O-ring sealed. It has been engineered and tested to operate at extreme temperatures, at extreme altitudes, and underwater. It has survived all manner of practical drop and shock testing. It can go anywhere the operator goes, and it can be quickly decontaminated without special care.



Sensitivity

As the Helium-3 neutron detector employed in the HRM is larger, and of a higher efficiency than those employed in any competing handheld, the HRM enjoys a measurably superior initial detection range against the most critical nuclear threat materials.

Reliability

Over the last decade, with thousands of units deployed in the field, the HRM has demonstrated tremendous reliability with an average uptime of 364.9 days/year and an Operational Availability (Ao) of 0.999. While the HRM seldom needs to be repaired, the included five-year factory warranty ensures that no-cost service is available when you need it.

Bluetooth Communications

As a factory-installed option, the HRM can be equipped for Bluetooth communications. This capability allows real-time streaming of radiological data to mobile device applications and to centralized command and control networks.

Specifications

Radiation Type		Gamma, Neutron
Gamma	Detector Type	Cesium Iodide Scintillator
	Detector Size	3.2mm ³
	Sensitivity	0.002 cps per μ R/h at Cs-137 (662keV)
	Operating Range	3.3mR/hr to 88.8R/hr +/-40% @ Cs
Neutron	Detector Type	Helium-3 Proportional Counter
	Detector Size	1.81 in ³ (122 psi)
	Sensitivity	10.5 cps/nv
Integration Time		<1 Second
Size		21.1 cm x 5.1 cm x 3.0 cm
Weight		346g with Battery
Battery		CR123A
Battery Life (Operating)		1 Month
Environmental Protection		Shock, Vibration, and Drop Resistant; Waterproof to 66ft
Temperature Range		-25° to 50° C
Indicators		Visible, Audible, Vibration
Data Streaming		Optional Bluetooth
Operational Availability		0.999

