

The Thermo Scientific LFM-3 portal radiation detection system is an easy to set-up and use, multi-purpose gamma and X-ray detection system.

## Thermo Scientific LFM-3 Radiation Detection System



### Key Features

- Robust, ruggedized detectors suitable for indoor or outdoor applications
- Supplied with 200' (60m) of cable for each detector, with a maximum capability up to 3,300' (1000m)
- High-performance system control unit with single button operation
- Automated, natural background compensation system ready to operate within minutes of installation
- Low, medium and high energy channels provide additional information about the type of radiation detected
- Large, clear display screen and LEDs provide for easy interpretation of data

### Applications

- Solid Waste Facilities
- Transfer Stations
- Waste to Energy Plants
- Recycling facilities
- Hospitals – Nuclear Medicine and Housekeeping
- Healthcare and Research

The Thermo Scientific LFM Series Radiation Monitoring System product family has long been considered to be the benchmark for radiation monitoring in the hospital and solid waste industry, with hundreds of installed units. The LFM-3 builds on the proven, familiar detector design of previous LFM models and combines this with new, state-of-the-art electronics.

The LFM-3 Radiation Monitoring System is designed to maximize sensitivity to gamma radiation, with a minimum of nuisance alarms, at an affordable price. The system is perfect for monitoring materials bound for landfills, transfer stations and other waste processing facilities

The complete system consists of two shielded, 50.8 mm (2 in.) diameter, NaI (TI) scintillation detectors shock-mounted in separate weatherproof PVC housings.

Cables connect the detectors to an easy-to-read digital readout electronics package. Operating the system does not require intensive training or specialized knowledge.

The detectors are constructed to withstand temperature extremes. They also have low mass housings to detect and discriminate low, medium, and high gamma energies.

## LFM-3 Specifications

### FHT-6020 Controller

Displayable Range	0 – 999,999 cps
Operating Temperature	32 to 122°F (0 to 50°C)
Power Requirements	85V to 264VAC (nominal 115V to 230VAC), 47 to 400hz.
Maximum input current	550mA, 115VAC or 330mA, 230VAC
Size	6.5"x5.11"x2" (165mm x 130mm x 51mm)
Weight	2.9 lbs (1.3kg)
Construction	Extruded Aluminum housing
Display	128 x 64 Pixel LCD display
Push Button	One operating key
LEDs	4 LEDs: <ul style="list-style-type: none"> <li>• 1 Green LED (Status)</li> <li>• 2 Yellow LED's ( Error and Alarm 1)</li> <li>• 1 Red LED (Alarm 2)</li> </ul>
Audible Alarm	85 dB(A) at 11.8" (30 cm) distance
Interfaces	<ul style="list-style-type: none"> <li>• One RS-232 PC interface with a baud rate of 9,600 or 19,200</li> <li>• One RS-485 connection for both NaI detectors</li> <li>• One RS-485 connection for optional alarm tower connection</li> </ul>

### NaI Detectors

Radiation Detected	Low, medium, and high energy gammas and X-rays (>20keV)								
Sensitivity	The following point sources, free in air at 7 feet (2.1m) from the detector face can be detected with a confidence level of 95%: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>1 Second Interval</th> <th>15 Second Interval</th> </tr> </thead> <tbody> <tr> <td>• 44.6 µCi (1.65MBq) Cs-137</td> <td>• 14.0 µCi (0.52MBq) Cs-137</td> </tr> <tr> <td>• 17.3 µCi (0.64MBq) Ba-133</td> <td>• 5.4 µCi (0.20MBq) Ba-133</td> </tr> <tr> <td>• 29.0 µCi (1.07MBq) Co-57</td> <td>• 9.1 µCi (0.34MBq) Co-57</td> </tr> </tbody> </table>	1 Second Interval	15 Second Interval	• 44.6 µCi (1.65MBq) Cs-137	• 14.0 µCi (0.52MBq) Cs-137	• 17.3 µCi (0.64MBq) Ba-133	• 5.4 µCi (0.20MBq) Ba-133	• 29.0 µCi (1.07MBq) Co-57	• 9.1 µCi (0.34MBq) Co-57
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Detectors	Two, 2" NaI(Tl) scintillation detectors in low mass housings, constructed to withstand temperature extremes; they are also lead-shielded and shock mounted within special PVC housings.								
Size	4.5" x 17.5" x 7" (144mm diameter, 445mm length, 178mm height)								
Weight	14.7 lbs (6.7 kg)								
Construction	Weatherproofed, painted PVC housings with liquid tight connections suitable for outdoor use.								
Operating Temperature	-4 to 122°F (-20 to 50°C)								

### Options

Alarm Tower includes standard 50' (15m) of cable	TF-401-10000050
Desktop Mounting Assembly	1100722
Response Optimization and Test Adapter Assembly	LFM-00003-ME
Mini Desktop Receipt Printer (alarm activated)	TF-120-0004

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Worldwide  
Frauenauracher Strasse 96 +49 (0) 9131 909-0  
D 91056 Erlangen, Germany +49 (0) 9131 909-205 fax

United Kingdom  
Bath Road, Beenham, +44 (0) 118 971 2121  
Reading RG7 5PR United Kingdom +44 (0) 118 971 2835 fax

United States +1 (508) 520-2815  
27 Forge Parkway +1 (800) 274-4212 toll-free  
Franklin, MA 02038 USA +1 (508) 428-3535 fax

[www.thermo.com/rmp](http://www.thermo.com/rmp)

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