

# RMLD - First Responder



**Heath's RMLD technology has been trusted worldwide since 2005, with thousands of legacy units currently sold.**

The **HEATH** Remote Methane Leak Detectors are highly advanced technologies, capable of detecting methane leaks from a remote distance utilizing TDLAS (tunable diode laser absorption spectroscopy).

The RMLD - First Responder (RMLD-FR™) allows first responders to quickly scan common venting points within a structure from a safe distance to determine if there's methane gas present. This instrument is based upon our highly successful RMLD legacy and RMLD-CS designs with many of the same features and functionality as the RMLD-CS but with a simplified user interface.

All too frequently first responders are called to minor and major natural gas emergencies, using equipment that puts them too close to potentially dangerous structures. The RMLD-FR's remote detection allows the operator to shine the beam through most windows, giving them an audible and visual signal as to the presence of methane. This quick scan permits first responders to make quick decisions and establish control of the gas and ignition sources if a detection is present.

The instrument includes features demanded by a growing technology market including GPS, wireless connectivity, WiFi, self-test, color camera, graphical user interface and more.

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# SPECIFICATIONS

## General

**RMLD-FR Weight**  
3 lbs (approx.)

**Carry Case Dimensions**  
21" x 17.5" x 9.5"

**Storage**  
Internal SD card (not removable)

## Power

**Battery**  
Removable, rechargeable  
Lithium-ion pack, 10.8 VDC 3.2Ah

**Battery Run Time**  
8 hours at 32° F (approx.)

**Battery Charger**  
External  
110-240 VAC, 50/60 Hz Universal

**Charge Time**  
2-3 hours full charge (approx.)

**Charging Indicator**  
Integrated into Dual Battery Charger

## Detection Method/ Measurement System

**Tunable Diode Laser Absorption Spectroscopy (TDLAS)**

**Detection Distance**  
100 ft (30m) nominal - may vary due to background type and conditions

**Measurement Range**  
0 to 50K PPM-M

**Sensitivity**  
5 PPM-M at distances from 0 to 100 ft (30m)

**Beam Size**  
Conical in shape with a 22" diameter at 100 ft (55cm at 30m)

## Display

3.5" color LCD  
320x240

## Color Camera

Aperture  
f/2.6

FOV  
94DEG (at 6.0mm image circle)

## Lasers

**IR Laser**  
Class I

**Spotter Laser**  
On time duration is 2 minutes  
Class 2 (II) <2mW @ 532nm  
Spot size is 7mm at 15M

Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007

**Eye Safety Warning**  
Do not stare into beam or view directly with optical instrument

**Avertissement de sécurité des yeux**  
Ne jamais fixer le faisceau ni le regarder directement avec des instruments optiques.

## GPS

**Compatible With**  
GPS  
GLONASS  
Beidou  
Galileo

## Communication

**Wireless connectivity** (to support future features and mobile applications)

WiFi

USB Dual Mode

**USB Port Max Rating**  
UM = 5V, IN = A

## Alarms

**Digital Methane Detection (DMD)**  
Audible tone and visible color border when detection threshold exceeded

**Adjustable Detection Alarm Level**  
50'  
1 to 200 PPM M  
100'  
1 to 400 PPM M

**System Fault & Warnings**  
Audible alarm and visual indication on the display

## Built-In Self Test

Verifies operation and adjusts laser wavelength for maximum sensitivity

Test gas cell integrated within carrying case

## Data Logging

**Saves to Internal Memory**  
FAULT logs  
Self Test logs  
Captures

**Data Collected**  
Includes, but not limited to:  
CH4 PPM-M measurement  
GPS location  
Timestamp  
Battery level  
Battery voltage  
Serial number of the instrument

## Operating Conditions

**Operating Temperature**  
0° to +122° F (-17° to 50° C)

**Humidity**  
5 to 95% RH, non-condensing

**Altitude**  
Up to 6560 ft (2000 m)

**Environment of Use**  
Pollution degree 2 or better  
Outdoor use

## Regulatory

**Instrument Protection**  
IP54 (water splash and dust resistant)

**Compliance**  
EMC (EN61000-6-2, EN6100-6-4)

**Low Voltage Directive** (2014/35/EU)

**Radio Equipment Directive**  
(2014/53/EU)

ETSI EN 301 489-1 v2.2.0

EN 61326-1:2013

47 CFR Part 15 & ICES-003

## Ordinary Location Safety

UL 61010-1

CAN/CSA-C22.2 No 61010-1-12

## Hazardous Location Safety

Class I, Zone 2, AEx ic op is IIA T4 Gc

Class I, Division 2, Group D

Intrinsically Safe



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**Heath**  
Your Safety Our Commitment