RMLD - First Responder

FR
Specialty Next Generation
January 2021

CS
Next Generation
Released 2019

IS
Legacy
Released 2005

The Remote Methane Leak Detector - First Responder (RMLD-FR™) is part of our RMLD family of instruments. Highly advanced technology designed to improve safety and efficiency for the detection of natural gas for the fire service/first responder and utility markets.

HEATH CONSULTANTS
Your Safety...Our Commitment

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, Bluetooth BLE, WiFi, self-test, color camera, graphical user interface and more.

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
Galilieo

Communication

Bluetooth 4.2 BLE (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

HEATH CONSULTANTS

Your Safety...Our Commitment

Since 1933 Heath Consultants Incorporated has led the industry in the safety of natural gas utilities infrastructure through the innovative and conscientious actions of our employees.

Heath's innovative products have led to safer survey practices for both gas utilities and within our own field services division. These breakthroughs in technology are due in large part to the efforts of our engineering and marketing experts who research and develop new products and services through strategic partnerships with well recognized research and development organizations and industry trade associations.

Heath is certified as a women's business enterprise by the Women's Business Enterprise National Council (WBENC), the nation's largest third-party certifier of the businesses owned and operated by women in the U.S.

Protecting People and the Environment by Embracing Safety and Encouraging Innovation

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