

# RX-8500

## Portable Multi Gas Monitors

Riken Keiki RX-8500 Series Portable Multi Gas Monitors are designed to measure multiple gases in inert or air atmospheres. Their main application is onboard Liquid Natural Gas (LNG). They replace and improve upon the very successful RX-515.

### Product description

RX-8500 users typically use them to measure gas concentrations in tanks or piping during inerting/purging and tank maintenance work.

The RX-8500 has accurate measurement over the entire range of target hydrocarbons up to 100% by volume. Users benefit from dual auto-ranging technology that allows the instruments to automatically switch from a 0 – 100% LEL to a 0 – 100% volume range.

The RX-8500 has an internal pump that samples at 750ml per minute. The RX-8500 has a clear and intuitive digital display. The instruments are explosion and intrinsically safe and are ATEX approved.

The RX-8500 has a compact and lightweight but very robust design. They are powered by a Lithium Ion battery pack. This gives over 15 hours of continuous operation as well as being quick to charge.

The RX-8500 has additional features that include pilot and pump driving indicator, activating confirmation beep (1-minute intervals) and bump test function. Users have IrDA communications and Password Protection available. Data logger software is available as an option.

The RX-8500 is designed specifically for Liquid Natural Gas (LNG) carriers. It has IR sensors for Methane (CH<sub>4</sub>) 0 – 100% LEL and 0 – 100% Volume (Autoranging). Carbon Dioxide (CO<sub>2</sub>) 0-20% Volume as well as an Electro-Chemical sensor for Carbon Monoxide (CO) 0-1000ppm. A Galvanic Sensor for Oxygen with a 0-40% Volume range is also included.



### Features

- ✓ Dual range detection of CH<sub>4</sub> % VOL and %LEL
- ✓ Unique gas combinations: CH<sub>4</sub>/O<sub>2</sub>/CO/CO<sub>2</sub>
- ✓ Accurately measure CH<sub>4</sub> from inerted tanks with infrared sensor.
- ✓ Robust and intrinsically safe design.
- ✓ Long lasting and fast charging Lithium Ion battery.
- ✓ Pilot and pump driving indicator.
- ✓ Activating confirmation signal.
- ✓ Bump test function.
- ✓ IrDA communications.
- ✓ Password protection

### Applications

- ✓ Liquid Natural Gas (LNG) storage vessel gas monitoring
- ✓ Crude Oil Tanker storage tank gas monitoring
- ✓ Oil and LNG storage depots
- ✓ Tank Farms
- ✓ Refineries
- ✓ Petrochemical plants

# Specifications

Target Gas	Methane (CH <sub>4</sub> )	Oxygen (O <sub>2</sub> )	Carbon Monoxide (CO)	Carbon Dioxide (CO <sub>2</sub> )
Detection Principal	Non-Dispersive Infrared Ray	Galvanic Cell	Electro-Chemical	Non-Dispersive Infrared Ray
Detection range	0-100.0%LEL/ 5-100.0vol%	0-40%vol%	0-1000ppm	0-20.0%vol
Increments	0.5%LEL(0-100.0%LEL) 0.5%vol%(5-100.0%vol)	0.1%vol	1ppm	0.01%vol(0-2%vol) 0.05%vol(2-5%vol) 0.1%vol (5-20%vol)

Sampling Method	Sample Draw
Sampling Rate	Minimum 0.75L/min
Display	Digital LCD ( 7 segment + sign + bar display )
Power Supply	Lithium-Ion Battery ( Standard ) Alkaline battery ( AA Alkaline battery x 3 ) ( option)
Continuous operation	Li-ion battery : Longer than 15 hours ( full charge, no alarm, no light at 25 Deg C AA Battery Unit : Longer than 8 hours ( new battery , no alarm, no light at 25 Deg C
Operating temp and Humidity	-20-+50 deg C , below 85% RH ( Non-condensing )
Dimensions	Approx 154(W) x 81(H) x 163(D) mm
Weight	Approx 1.3kg (Lithium battery type , 1.2kg Alkaline battery type)
Ingress proof rating	Equivalent to IP67
Explosion Proof	Intrinsically safe (Ex ia II CT4) ( ATEX/IECEX)
Approvals	ATEX/IECDx . TIIS . MED ( Pending )
Other Functions	LCD backlight , Datalogger , Log data , Peak Hold , Pump stop function
Transmission method	IrDA for Datalogger

# The Bruusgaard System



TBS is a unique turnkey portable gas detection solution, giving you increased safety and substantial cost savings through standardised instruments, routines, training and procurement.

## Logistic Support

At any given time we know the status of all vessels and sites covered by The Bruusgaard System. We consolidate all shipments and make sure you have everything you need on board until next scheduled delivery. This results in fewer shipments and substantial savings!

- Year round follow up of instruments, spares and consumables
- Handling of all shipments & logistics
- Annual reports per vessel including budgeting



## Safety

QA – strict routines and logging

- Crew are able to use instruments and follow routines correctly
- Instruments are in proper working condition at all times
- Instruments are calibrated at correct intervals
- Sensors and other items are replaced at correct intervals
- Usage of instruments is logged, including abnormal observations
- Traceability – instrument history and usage
- Routines and procedures can merge into the overall QA-system

Effective and proven training is an integrated part of The Bruusgaard System.

## Instruments

All the equipment used for gas detection and calibration is placed in a custom-made wall cabinet. Including Log & Instruction Manual, which are crucial to maintaining the safety integrity.

- Standardised vessel specific gas detector solutions
- Total solutions including all equipment and routines necessary for efficient and safe use, storage and maintenance

## Cost Savings

Some of our customers have been able to go from 8 to 10 suppliers down to 1 – translating into cost savings of up to 40-50%. For one vessel, this could be thousands of dollars annually, and for a whole fleet, the cost savings can be dramatic. This is achieved through:

- One contact for worldwide supply of spares & gases
- All service and calibration can be done on site.
- Reductions of instrument types from 10-12 to 2-3

Reduced maintenance costs through:

- On board calibration
- Fewer instruments on board
- No need for spares on board
- One PO per year
- Increased safety
- Less use of administrative time