GX-6000

Pumped Multi Gas Monitor

BRUUSGAARD

The GX 6000 is a powerful tool with many configurations especially for detection of toxics. It can be configured with 1-6 sensors and can use two PID range sensors simultaneously. The GX 6000 has a strong built in pump and be configured to detect benzene specifically. The library of over 600 VOC's makes the detector very versatile for occupational hygiene tasks as well as enclosed space entry and personal protection.

Product description

The GX 6000 allows users to simultaneously monitor up to 6 gases. In addition to the standard 4 gases which include combustibles, O_2, CO, & H_2S, the instrument has 2 additional smart channels that accept PID, IR or other toxic sensors.

The GX-6000 has a strong internal pump, a man-down alarm, a panic alarm, an LED flashlight, and large auto rotating LCD display. It can be configured as a single gas PID unit or a multifunctional tool using all 6 channels. With access to an easy to use library of over 600 VOC gases to choose from as standard. The GX 6000 can be configured for specific Benzene detection.

GX-6000 has a rugged design built for the rough environments. It is equipped with a removable impact-resistant rubber boot and a dust and water-resistant enclosure with an IP-67 rating. 5 bright LED lights on 3 sides of the instrument mean the alarms are easily seen from a variety of perspectives. Loud audible alarms and a vibration feature mean the GX-6000 easily alerts users when needed.

The most standard configurations for GX-6000 are:

GX 6000 PID (10.6 eV) ppm

GX 6000 PID (10.6 eV) ppm + 4 GAS – Sensors: LEL, O_2, CO, H_2S

GX 6000 Benzene PID (10.0 eV) ppm

GX 6000 Benzene PID (10.0 eV) ppm + 4 GAS – Sensors: LEL, O_2, CO, H_2S

GX 6000 PID (10.6 eV) ppb

Many sensor combinations of the GX 6000 are possible and can be configured upon request.

RIKEN KEIKI

Features

- ✓ Real-time, simultaneous detection of up to 6 gases
- ✓ Combustibles catalytic LEL and IR
- ✓ Different PID ranges, from ppb to ppm
- ✓ Benzene specific version
- ✓ Large display with auto back-lighting
- ✓ Strong sample pump (30 m)
- ✓ Loud 95dB alarm buzzer
- ✓ 5 bright LED alarm windows
- ✓ Intrinsically safe ATEX Exia II CT4 approved
- ✓ IP67 water and dust-resistant
- ✓ Lithium-ion rechargeable battery
- ✓ Compact, lightweight, ergonomic design
- ✓ Optional waist strap for hands-free operation
- ✓ Data logging as standard

Applications

- ✓ Personal monitoring
- ✓ Refineries/Petrochemical
- ✓ Wastewater treatment
- ✓ Occupational health
- ✓ Confined space
- ✓ Chemical plants
- ✓ Hazardous material
- ✓ Water
- ✓ Fire service
- ✓ Mining

Technical specifications

Each sensor Specification					
Gas To Be Detected	Combustible gas (HC/CH4) <%LEL >	Oxygen (O_2)	Hydrogen sulfide (H_2S)	Carbon monoxide (CO)	Ammonia (NH_3)
Detection Principle	New ceramic	Galvanic cell	Electrochemical	Electrochemical	Electrochemical
Detection Range <Extra Range>	0 - 100%LEL	0-25.0% <to 40.0 vol%>	0- 30.0 ppm <to 100.0 ppm>	0- 150 ppm <to 500 ppm>	0-400.0 ppm
Minimum Resolution	1%LEL	0.1 vol%	0.5 ppm	1 ppm	0.5 ppm
Alarm Setpoint	10%LEL (AL 1) 50%LEL (AL2) 1OO%LEL (OVER)	19.5 vol% (AL 1) 23.5 vol% (AL2) 40.0 vol% (OVER)	5.0 ppm (AL 1) 30.0 ppm (AL2) 10.0 ppm (TWA) 15.0 ppm (STEL) 100.0 ppm (OVER)	25 ppm (AL 1) 50 ppm (AL2) 25 ppm(TWA) 200 ppm (STEL) 500.0 ppm (OVER)	25.0 ppm (AL 1) 50.0 ppm (AL2) 25.0 ppm (TWA) 35.0 ppm (STEL) 400.0 oorn (OVER)
Gas To Be Detected	Volatile organic compound (VOC) <ppb>	Volatile organic compound (VOC) <ppm>	Volatile organic compound (VOC) <ppm>	Sulfur dioxide (SO_2)	Nitrogen dioxide (NO_2)
Detection Principle	Photoionization 10.6 eV	Photoionization 10.6 eV	Photoionization 10. eV	Electrochemical	Electrochemical
Detection Range	50000 ppb	6000 ppm	VOC 0- 100 ppm, Benzene 0-50 ppm	0- 6.00 ppm	0- 9.00 ppm
Minimum Resolution	1 ppb (0 - 5000 ppb) 10 ppb (5000 - 50000 ppb)	0.1 ppm (0 - 600.0 ppm) 1 ppm (600 - 6000 ppm)	0,01 ppm (0-10 ppm) 0,1ppm (0-100 ppm)	0.05 ppm	0.05 ppm
Alarm Setpoint	5000 ppb (AL 1) 10000 ppb (AL2) - (TWA) - (STEL) 50000 ppb (OVER)	400.0 ppm (AL 1) 1000.0 ppm (AL2) - (TWA) - (STEL) 6000 ppm (OVER)	5 ppm (AL 1) 10 ppm (AL2) - (TWA) - (STEL) 100 ppm (OVER)	2.00 ppm (AL 1) 5.00 ppm (AL2) 2.00 ppm (TWA) 5.00 ppm (STEL) 6.00 ppm (OVER)	3.00 ppm (AL 1) 6.00 ppm (AL2) 3.00 ppm (TWA) 9.00 ppm (OVER)

(*) Automatic %LEL and vol% range switching

Technical specifications

Each sensor Specification					
Gas to be detected	Hydrogen cyanide (HCN)	Chlorine (CL$_2$)	Carbon dioxide (CO$_2$) < vol% >	Combustible gas (HC) <%LEL | Vol%>	Combustible gas (CH$_4$) <%LEL/vol% >	Phosphine (PH$_3$)
Detection Principle	Electrochemical	Electrochemical	Non-dispersive infrared	Non-dispersive infrared	Non-dispersive infrared	
Detection Range	0- 15.0 ppm	0- 10.00 ppm	0 - 5.00vol%	0 - 100%LEL / (to 30.0 Vol%) (*)	0 - 100%LEL/ < to 100.0vol%> (*)	0 - 20.00 ppm
Minimum Resolution	0.1 ppm	0.05 ppm	0.02vol%	1%LEL / O.5vol%	1%LEL /0,5vol%	0.01 ppm
Alarm Setpoint	5.0 ppm (AL1) 10.0 ppm (AL2) 4.7 ppm (STEL) 15.0 ppm (OVER)	0.50 ppm (AL 1) 1.00 ppm (AL2) 0.50 ppm (TWA) 1.00 ppm (OVER)	0.50vol% (AL1) 3.00vol% (AL2) 0.50vol% (TWA) 3.00vol% (STEL) 5.00vol% (OVER)	1O%LEL/- (AL 1) 50%LEL/- (AL2) 100%LEL/30vol% (OVER)	10%LEL (AL 1) 50%LEL (AL2) 1OO%LEL (OVER)	0.30 ppm (AL 1) 1.00 ppm (AL 2)

Technical specifications

Common specification GX-6000	
Concentration Display	Digital LCD (full-dot display, 160 x 128 dots)
Detection Method	Pump suction type
Flow Rate	0.45 L/min or more (Open flow rate)
Displays	Clock display, battery level display, operating state display and flow check display
Display Languages	English, Japanese, German, Russian, Korean, Spanish, Italian, French, Portuguese
Buzzer Sound Volume	95 dB (A) or higher (30 cm)
Gas Alarm Display	Lamp blinking, continuous modulating buzzer sounding, gas concentration and alarm detail display blinking and vibration
Gas Alarm Pattern	Self-latching
Fault Alarm/Self Diagnosis	System abnormalities, sensor abnormalities, battery voltage drop, calibration failure, and low flow rate
Fault Alarm Display	Lamp blinking, intermittent buzzer sounding, and detail display
Fault Alarm Pattern	Self-latching
Panic Alarm Display	Preliminary alarm: Lamp blinking, intermittent buzzer sounding Main alarm: Lamp blinking, continuous modulating buzzer sounding
Panic Alarm Pattern	Self-latching
Man-Down Alarm Display (*)	Preliminary alarm: Lamp blinking, intermittent buzzer sounding Main alarm: Lamp blinking, continuous modulating buzzer sounding
Man-Down Alarm Pattern (*)	Non latching (auto-reset)
Transmission Specification	IrDA (for data logger)
Power Supply	Standard: Dedicated lithium ion battery unit [BUL-6000] Option: Dedicated dry battery unit [BUD-60001
Continuous Operating Time	BUL-6000: About 14 hours (25°C, no alarm and no lighting) BUD-6000: About 8 hours (25°C, no alarm and no lighting)
Operating Temperatures	-20 - +50°C
Operating Humidities	Below 95% RH (Non-condensing)
Structure	Drip-proof and dust-proof performances (compliant to IP67 level) (tubes excluded)
Explosion-Proof Structure	Intrinsically safe explosion-proof structure
Explosion-Proof Class	Ex ia IIC T4 Ga (ATEX/IECEx)
External Dimensions	Approx. 70 (W) x 201 (H) x 54 (D) mm (projection portions excluded)
Weight	Approx. 500 g (When BUL-6000 is used)/Approx. 450 g (When BUD-6000 is used)

(*) Normally the man-down alarm function is set to OFF and unavailable. To use this function, please contact RIKEN KEIKI

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