DATA SHEET 1(4)



# PORTABLE GAS DETECTOR ECOTOX PLUS

ART,NR. 1224000-12244020

DETECTION OF TOXIC GASES, OXYGEN AND HYDROGEN

### **GENERAL INFORMATION**

- Detection of toxic gases and oxygen
- ATEX / IECEx certified
- Compact and light weight
- Dual alarm function
- · Graphic display for direct read out
- · Continuous data logging, read out via Bluetooth

The **ECOTOX***PLUS* is a compact and extremely reliable single-gas detector. The **ECOTOX***PLUS* with its robust construction is designed for harsh conditions such as refineries and the chemical industry. The very simple one-button operation offers optimal user convenience. The single control button switches the detector on and off and offers the possibility to easily perform a ZERO and SPAN calibration. The **ECOTOX***PLUS* has an extra long lifetime as the sensor and the battery can be replaced after their life span. The Ecotox plus is available for various types of gas such as O<sub>2</sub>, H<sub>2</sub>S, CO, Cl<sub>2</sub>, ClO<sub>2</sub>, HCN.

Every type of **ECOTOX***PLUS* has a clearly identifiable colour coding on the front label, making it easy for a user to recognize whether the right type of gas detector is being used.

The **ECOTOX***PLUS* offers the ultimate safety through accurate gas measurement. The clear graphic display continuously displays the current measured value (in ppb, ppm or Vol.%) and in the event of a dangerous situation the user is immediately alerted by the dual alarm functions (LED/Acoustic). The graphic display shows which alarm situation has occurred (LOW alarm, HIGH alarm, TWA alarm or STEL alarm).

In addition, the graphical display shows various additional information, such as the length of time until the next calibration, status of the last calibration, currently measured STEL and TWA values, serial number

and unique features can be programmed (3x12 characters) such as user name, location, department or company name

The **ECOTOX***PLUS* has both a full data logger, where measured values are stored continuously, and an event data logger. The data log memory can be read via Bluetooth via a USB BLe dongle and a PC.

Optionally, a **GAS TESTSTATION** is available with which a bump test can be performed every day. The **GAS TESTSTATION** performs a complete bump test in about  $15 \sim 30$  seconds. During the test the operation and functionality of the **ECOTOXPLUS** detector is checked by using test gas. A test is quick and easy to perform. During the test, the test station indicates which function is being checked and whether it has passed correctly.

#### **APPLICATIONS:**

- Chemical Industry
- Refineries
- Water Industry
- + Enclosed and void spaced
- Steel Industry
- Laboratories / Universities
- Government and Utilities
- Food Industry

### WE OFFER MORE THAN A PRODUCT!

- Tailored advice
- Project advice
- Technical support
- Training and education
- Commissioning
- Onsite service / maintenance / calibration

The specifications described herein are subject to change without notice.

DATA SHEET ECOTOX PLUS no.1224000-12244020\_EN\_v2.03



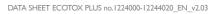
## ORDERING INFORMATION

PORTABLE GAS DETECTOR							
TYPE	GAS	RANGE	PART NO.	LOW ALARM	HIGH ALARM	OPERATING TEMP.	HUMIDITY (N.C.)
ECOTOXPLUS H <sub>2</sub> S	Hydrogen Sulphide	0 – 20 ppm	1224000	1,6	2,4	-20 tot +50 °C	15-90%
ECOTOXPLUS H <sub>2</sub> S	Hydrogen Sulphide	0 – 100 ppm	1224001	10	15	-20 tot +50 °C	15-90%
ECOTOXPLUS O <sub>2</sub>	Oxygen	0 – 25 Vol%	1224003	19,5	22,5	-20 tot +55 °C	5-95%
ECOTOXPLUS CO	Carbon Monoxide	0 – 500 ppm	1224002	25	50	-20 tot +50 °C	15-90%
EOTOXPLUS CI <sub>2</sub>	Chlorine	0 – 50 ppm	1224004	0,5	1	-20 tot +40 °C	15-90%
EOTOXPLUS CIO <sub>2</sub>	Chlorine dioxide	0 – 1.00 ppm	1224005	0,1	0,2	-20 tot +40 °C	15-90%
EOTOXPLUS COCI <sub>2</sub>	Phosgene	0 – 1.00 ppm	1224006	0,1	0,2	-20 tot +40 °C	15-90%
ECOTOXPLUS HCN	Hydrogen cyanide	0 – 30 ppm	1224011	0,9	9	-20 tot +40 °C	15-90%
ECOTOXPLUS NH <sub>3</sub>	Ammonia	0 – 100 ppm	1224016	20	40	-20 tot +40 °C	15-90%
ECOTOXPLUS SO <sub>2</sub>	Sulphur dioxide	0 – 10 ppm	1224019	2	4	-20 tot +50 °C	15-90%
ECOTOXPLUS H <sub>2</sub>	Hydrogen	0 – 1000 ppm	1224009	400	800	-20 tot +40 °C	15-90%

ACCESSORIES			
OPTION	IMAGE	PART NO.	DESCRIPTION
USB Bluetooth Dongle		1224150	For read out and settings of the ECOTOXPLUS
GasTest-station		1225811	Full automatic test and calibration of the ECOTOXPLUS
Calibratie adapter		1225114	Flow / calibration adapter for the ECOTOXPLUS

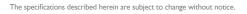
SPARE PARTS			
TYPE	PART NO.	DESCRIPTION	
Sensor filter	1224100	Spare filter, sensor protection	
Lithium battery 3,6 volt	1225616	ATEX/IECEx certified battery for the ECOTOXPLUS	
Crocodile clip	1225603	Stainless Steel crocodile clip	
Spare sensor H <sub>2</sub> S	1225050	H <sub>2</sub> S sensor, 20 / 100 ppm	
Spare sensor O <sub>2</sub>	1215329	O <sub>2</sub> sensor, 0-25 Vol.%	
Spare sensor CO	1225052	CO sensor, 0-500 ppm	
Spare sensor Cl <sub>2</sub>	1215335	Cl <sub>2</sub> sensor; 0-50 ppm	
Spare sensor CIO <sub>2</sub>	1160550	CIO <sub>2</sub> sensor, 0-1 ppm	
Spare sensor COCl <sub>2</sub>	1215600	COCl <sub>2</sub> sensor; 0-1 ppm	
Spare sensor HCN	1160580	HCN sensor, 0-30 ppm	
Spare sensor NH <sub>3</sub>	1160560	NH <sub>3</sub> sensor; 0-100 ppm	
Spare sensor SO <sub>2</sub>	1160530	SO <sub>2</sub> sensor, 0-10 ppm	
Spare sensor H <sub>2</sub>	1215321	H <sub>2</sub> sensor, 0-1000 ppm	

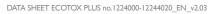
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TEST GAS & CALIBRATION PART		
TYPE	PART NO. DESCRIPTION	
BUGAS, 100 Vol.% N <sub>2</sub>	9990524	Nitrogen, 100 Vol.%, 110 gas litre
BUGAS, 20,9% O <sub>2</sub> / N <sub>2</sub>	9990537	Synthetic air, 20,9% $O_2$ / 79% $N_2$ , 110 gas litre
BUGAS, 10 ppm H <sub>2</sub> S	9990540	Hydrogen sulphide, 10 ppm in air 58 gas litre
BUGAS, 25 ppm H <sub>2</sub> S	9990507	Hydrogen sulphide, 25 ppm in air, 58 gas litre
BUGAS, 100 ppm CO	9990522	Carbon Monoxide, 100 ppm in air 110 gas litre
BUGAS, 200 ppm H <sub>2</sub>	9990542	Hydrogen, 200 ppm in air, 110 gas litre
On Demand Flow Regulator	1225817	On Demand Flow Regulator, Brass (adjustment of the gas flow)
	1225818	On Demand Flow Regulator, Stainless Steel (adjustment of the gas flow)







## **SPECIFICATIONS**

PRODUCT	ECOTOX PLUS			
Gas types	Toxic gasses, Oxygen and Hydrogen			
Sensor type	Electrochemical sensor (EC-sensors)			
Display	Graphic LCD (Liquid Crystal Display)			
Battery	Replaceable Lithium-Thionyl Chloride (Li-SOCI2) cell, type 3.6V (not rechargeable)			
Battery lifetime	> 6 Months			
Triple Alarm function	Visual, 2 clear LED's and acoustic (> 90 dB/30cm)			
Alarm types	LOW alarm, HIGH alarm, Overload alarm, TWA alarm & STEL alarm			
Logging	Full datalog & event log (fifo)			
Self-test	During start-up and operation			
Calibration	Manual; one button operation or by use of the GASTESTSTATION			
Communication	Bluetooth; for communication with GASTESTSTATION and read out of the memory			
Personal Identification	3×12 characters			
Operating temperature	See ordering information			
Storage temperature	0° to +20°C			
Relative humidity	See ordering information			
Pressure	Toxic: Atmospheric ± 10%, Oxygen: 80 to 120 kPa			
Housing	ABS/PC with Stainless Steel-fibres / EMI-shielding			
Carrying clip	Crocodile carrying clip, Stainless Steel			
Dimensions	$82 \times 56 \times 42$ mm (H x W x D, excl. carrying clip)			
Weight	Approximately 110 gram (incl. carrying clip)			
CE marking	ATEX (Directive 2014/34/EU) Radio Equipment Directive (Directive 2014/53/EU)			
Approvals	ATEX II 2 G Ex ia IICT4 Gb IECEx Ex ia IICT4 Gb (Tamb -20° tot +60°C)			
Manufacturer	BUVECO Gasdetection BV, a Consillium Group Company			





