

## TETRA

### Multi-Gas Detector for Professional Use (ATEX II 2G Eex iad IIC T4)

- acoustic alarm: 90 dB (A)
- visual alarm: red and blue LED / vibration alarm
- single-button operation
- sensors are even interchangeable in dangerous areas
- internal automatic gas suction pump available for extra charge

#### Approvals:

##### Europe:

- ATEX II 2G EEx iad IIC T4 (-20 ... +55 °C)
- BASEEFA 03ATEX0193

##### USA & Canada:

- Class I Division 1 Instruments. A, B, C, D

#### Standards / codes:

##### Europe:

- EN50014, EN50020, EN50018, 94/9/EC
- EN50270, EN 50271, IEC61508

##### USA & Canada:

- UL913, CSA22.2, 152



#### TECHNICAL SPECIFICATIONS (LEL = flammable gases such as methane)

Model	TETRA-1	TETRA-2	TETRA-3	TETRA-4	TETRA-5
Measurement range (LEL, O <sub>2</sub> )	(LEL, O <sub>2</sub> )	(LEL, O <sub>2</sub> , H <sub>2</sub> S)	(LEL, CO, O <sub>2</sub> )	(LEL, O <sub>2</sub> , CO, H <sub>2</sub> S)	(O <sub>2</sub> , O <sub>3</sub> )
LEL	0 ... 100 %	0 ... 100 %	0 ... 100 %	0 ... 100 %	---
O <sub>2</sub>	0 ... 25 %	0 ... 25 %	0 ... 25 %	0 ... 25 %	0 ... 25 %
O <sub>3</sub>	---	---	---	---	0 ... 100 ppm
CO	---	---	0 ... 500 ppm	0 ... 500 ppm	---
H <sub>2</sub> S	---	0 ... 100 ppm	---	0 ... 100 ppm	---
Alarm limits					
LEL	20 %	20 %	20 %	20 %	---
O <sub>2</sub>	19.5 and 23.5 %	19.5 and 23.5 %	19.5 and 23.5 %	19.5 and 23.5 %	19.5 & 23.5 %
O <sub>3</sub>	---	---	---	---	0.1 ppm
CO	---	---	30 ppm	30 ppm	---
H <sub>2</sub> S	---	5 ppm	---	5 ppm	---
Sensor life	typical: flammable g.: approx. 5 years / toxic g.: approx. 3 years / oxygen: approx. 2 years				
Response time	T90 = methane and other inflammable gases: 20 s / toxic gases: 20 s / oxygen: 10 s				
Alarm	visual: 2 flashing red and blue LEDs; acoustic: 90 dB (A) at 1 m distance; vibration				
Display	graphical LCD, with backlight, battery level indicator, 128 x 64 pixels				
Memory	data logger & event recorder (e. g. when limits are exceeded)				
Interface for PC	IR interface				
Software	optional, for configuration, calibration and data access				
Power supply	rechargeable lithium ion battery (min. 12 h of continuous use, with internal pump min. 8 h)				
Operating conditions	-20 ... +55 °C / 0 ... 99 % RH				
Protection	can be used in ex areas, dust and waterproof, resistant to chemical corrosion, IP 65				
Dimensions / weight	122 x 128 x 57 mm / 500 g				

#### INCLUDES

TETRA (model -1,-2,-3,-4 or-5), rechargeable battery, instruction manual (please order charger separately), other gases on request

ITEM NO.	ITEM
K-TETRA-1	2-gas for LEL and O
K-TETRA-2	3-gas for LEL, O <sub>2</sub> / H <sub>2</sub> S
K-TETRA-3	3-gas for LEL, O <sub>2</sub> / CO
K-TETRA-4	4-gas for LEL, O <sub>2</sub> / CO / H <sub>2</sub> S
K-TETRA-5	2-gas O <sub>2</sub> / O <sub>3</sub>
K-TETRA-IP	internal gas suction pump (not possible for O <sub>3</sub> )

#### OPTIONAL ACCESSORIES

K-TETRA-LS	230 V / 50 Hz charger
K-TETRA-ASP	suction set (gas suction by means of hand-operated bellows)
K-TETRA-INT	RS-232 interface for PR, IR adaptor software
K-TETRA-SW	additional sensor LEL
K-ESS-T-LEL	additional sensor O <sub>2</sub>
K-ESS-T-O2	additional sensor H <sub>2</sub> S
K-ESS-T-H2S	additional sensor CO
K-ESS-T-CO	calibration / maintenance carrying strap
K-CAL-TETRA	
K-C01863	

# CO<sub>2</sub> Analyser

## PCE-AC 4000

### Large CO<sub>2</sub> Display up to 5000 ppm

- display in A4 format
- simultaneous indication of CO<sub>2</sub>, temperature and RH
- adjustable acoustic alarm
- temperature units °C and °F
- status displayed via coloured LED indicators (green-good / yellow-acceptable / red-bad)



#### TECHNICAL SPECIFICATIONS

Meas. Range CO <sub>2</sub>	0 ... 5000 ppm
Accuracy	±75 ppm +5 % of reading
Alarm	1000 ppm standard (adjustable)
Temp. range	0 ... +50 °C
Accuracy	±1 °C (0 ... +40 °C), otherw. ±1.5 °C
RH range	10 ... 90 % RH
Accuracy	±5 % RH (+25 °C), or ±7 % RH
Display	CO <sub>2</sub> (2.3" / 56.8 mm), temperature / RH (0.8" / 20.4 mm)
Power supply	12 V / 1 A
Op. conditions	0 ... +50 °C / <80 % RH
Dimensions	approx. 300 x 210 x 50 mm

#### INCLUDES

Large CO<sub>2</sub> display, mains adaptor, case, instruction manual

#### ITEM NO. ITEM

K-PCE-AC 4000 large CO<sub>2</sub> display



## IAQ Series

### Indoor Air Quality Meter

- AVG, MIN / MAX functions
- NDIR sensor / measures CO<sub>2</sub> in real time (ppm)
- **further functions of the IAQ7525**
- manual / continuous storage (intervals 1s ... 1h)
- includes LogDat2™ software and connection cable
- calculates percentage of fresh air on basis of CO<sub>2</sub>
- measures humidity, dew point & wet bulb temp.



#### TECHNICAL SPECIFICATIONS

Model	IAQ7515	IAQ7525
Meas. range CO <sub>2</sub>	0 ... 5000 ppm	
Accuracy	±3 % of reading or ±50 ppm	
Temperature	---	0 ... +50 °C
Accuracy / Resol.	---	±0.6 °C / 0.1 °C
Air humidity	---	5 ... 95 % RH
Accuracy	---	±3 % / 0.1 % RH
Memory	---	12700 values
Power supply	4 x 1.5V AA batteries	
Op. conditions probe	-10 ... +60 °C	
Dimensions probe	integrated Ø 19 x 283 mm	
Dim. / weight of device	244 x 84 x 44 mm / 270 g	

#### INCLUDES

Air quality meter, calibration certificate, (IAQ7525 comes with software & data cable), instruction manual

#### ITEM NO. ITEM

K-IAQ7515 CO<sub>2</sub> meter  
K-IAQ7525 CO<sub>2</sub> meter with memory

#### OPTIONAL ACCESSORIES

K-CAL-IAQ-7515 ISO calibration certificate  
K-CAL-IAQ-7525 ISO calibration certificate

## PCE-AC 3000

### Indoor Carbon Dioxide Meter

- wide CO<sub>2</sub> measurement range up to 3000 ppm
- with RJ45 switched output
- 24 hours data logger function
- adjustable limit value alarm for CO<sub>2</sub>
- can be reset to factory defaults
- acoustic alarm



#### TECHNICAL SPECIFICATIONS

Meas. range CO <sub>2</sub>	0 ... 3000 ppm
Resolution	1 ppm (at 0 ... 100 ppm) 5 ppm (at 1000 ... 2000 ppm) 10 ppm (at 2000 ... 3000 ppm)
Accuracy	±5 % of reading or ±50 ppm
Temperature	-20 ... +50 °C
Resolution	0.1 °C
Accuracy	±1% or ±1 °C
Memory	48 values
Power supply	4 x 1.5 V AA batteries or mains ad.
Op. conditions	+5 ... +50 °C
Dimensions / weight	165 x 80 x 23 mm / 600 g

#### INCLUDES

Air quality meter, 4 x 1.5 V AA batteries, mains adaptor, instruction manual

#### ITEM NO. ITEM

K-PCE-AC 3000 CO<sub>2</sub> meter



## CDL 210

### CO<sub>2</sub> & Climate Data Logger

- measures and displays temperature and air humidity
- acoustic signal when pre-set CO<sub>2</sub> value is exceeded
- simultaneous indication of CO<sub>2</sub>, temperature and humidity
- memory: 5300 series of measurements / USB interface
- wide CO<sub>2</sub> measurement range of up to 2000 ppm



#### TECHNICAL SPECIFICATIONS

Meas. range CO <sub>2</sub>	0 ... 2000 ppm / NDIR principle
Accuracy / resol.	50 ppm ±5 % / 1 ppm (0 ... 100 ppm)
Temperature	-10 ... +60 °C
Accuracy / resol.	±0.6 °C / 0.1 °C
Air humidity	5 ... 95 %
Accuracy / resol.	±3 % / 0.1 %
Display	shows all parameters at once
Memory	5300 series of measurement values
Log data / rate	up to 16000; 3 / 10 / 30 s 1 / 3 / 10 / 30 min.; 1 / 3 / 4 h
Power supply	5V ac mains adaptor / 0.5 A
Dimensions	120 x 100 x 110 mm

#### INCLUDES

Data logger CO<sub>2</sub> and climate, mains adaptor, data cable, PC software, instruction manual

ITEM NO.	ITEM
K-CDL 210	CO <sub>2</sub> data logger

#### Note:

Manual calibration should be done on a clear day outside, e.g. on an exterior window sill where the level of CO<sub>2</sub> is approximately 400 ppm.

## RLA 100

### Gas Detection System to Detect Carbon Dioxide (CO<sub>2</sub>)

- detects carbon dioxide (CO<sub>2</sub>)
- 2 adjustable alarm limits
- 4-digit digital display
- continuous visual surveillance possible
- potential-free change-over contact
- integrated alarm transmitter
- can easily be mounted to a wall
- three system components



#### TECHNICAL SPECIFICATIONS

Gas detector	
Sample gas	carbon dioxide (CO <sub>2</sub> ): 0 ... 50000 ppm (5 %) (vol.), NDIR sensor
Gas entry	by diffusion
Alm. contacts	1 potential-free change-over contact to control external devices (NO/NC) for alarm 1; switching capacity: 30 V dc / 250 V ac, max. 2 A
Alam limits	alarm 1: 0.5 / 1 / 1.5 / 2 % alarm 2: 1.5 / 2 / 2.5 / 3 / 3.5 / 4 %
Menu items	supervision of device connection, calibration, unit switching, alarm 1, 2 and factory settings
Display	4-digit display for concent. in range ppm; 3 digit display for concent. in range %; LEDs for operation, Alarm 1, 2 y monitoring of voltage supply
Safety	Continuous self-surveillance, sensor lifetime, unplausible measurement values, EEPROM system, internal data transfer
Power supply	Adaptor 100 ... 240V AC, 50/60 Hz
Case	Plastic, IP 54, splash resistant
Op. conditions	0 ... +45 °C
Dimensions	168 x 125 x 47 mm (without connections)



#### Control unit

Power supply	via data cable connected to gas detector
Op. conditions	0 ... +45 °C
Menu items	Control connection between the PC measuring the gas and the gas alerter Change from °C to °F
Display	4-digit indication for content in ppm; 3-digit indication for content in %; additional indication for temperature; LEDs for operation, alarm 1 and 2 and monitoring of voltage supply
Case	aluminium, IP 54, splash proof
Dimensions	118 x 85 x 34 mm (without connections)

#### INCLUDES

Gas detection system, instruction manual

ITEM NO.	ITEM
K-RLA 100	gas detection system

#### OPTIONAL ACCESSORIES

K-CAL-RLA	ISO calibration certificate
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## HFX205

### Measuring Device for Formaldehyde

- short response time / real-time display
- manual and automatic data storage
- high-speed USB
- software for online data transfer
- no warm-up time necessary
- automatic backlight
- self-calibration / limit value alarm



#### TECHNICAL SPECIFICATIONS

Meas. range	0 ... 5 ppm
Resolution	0.01 ppm
Accuracy	<±2 %
Sensor	electrochemical sensor
Response time	<30 s
Calibration	automatic self-calibration
Memory	up to 500 sets of data
Interface	USB
Power supply	rech. Li-Ion batt. (3.7 V / 1200 mAh) ac adaptor 100 ... 240 V to 5 V dc / 1 A
Op. conditions	+5 ... +40 °C / <90 % RH
Contin. operation	6 h with batteries
Dimens. / weight	80 x 36 x 150 mm / approx. 200 g

#### INCLUDES

Meas. device, rechargeab. (Li-Ion) batt., 230 V charger, USB data cable, softw., calibration cert., manual

ITEM NO.	ITEM
K-HFX205	formaldehyde measuring device

#### OPTIONAL ACCESSORIES

K-	measurement range up to 25 ppm
K-RHT200	humidity / temperature sensor

## Gasman Ozon

### Ozone meter for personal use (ATEX)

- Adjustable alarm levels; vibration alarm, LED alarm, beeper
- Can take it into Ex zone / internal security
- Dust and water resistant IP 65 / 67
- LCD screen with backlight
- Internal calibration via keypad / datalogger function



#### TECHNICAL SPECIFICATIONS

Meas. range	0 ... 1 ppm (O <sub>3</sub> )
Alarm	0.1 ppm
Response time	20 s
Acoustic alarm	95 dBA, several alarm tones
Visual alarm	gas hazard = LED flashing red / blue
Vibration alarm	internal vibration alarm transmitter
Prot. class case	IP 65 / 67
Display	LCD with backlight
Power supply	Lithium battery
Op. conditions	-20 ... +55 °C / 0 ... 99 % RH
Dimens. / weight	90 x 48 x 24 mm / 118 g

#### INCLUDES

Ozone meter, pocket clip, battery, instruction manual

ITEM NO.	ITEM
K-Gasman-O3	gas / ozone meter

#### OPTIONAL ACCESSORIES

K-CAL-G-N	ISO calibration certificate
K-SW-G-N	software
K-RS232-G-N	RS-232 data cable
K-RS232-USB	adaptor RS-232 to USB

## Tetra 5

### Gas Meter for Ozone with ATEX

- ATEX II 2G EEx iad IIC T4
- acoustic & visual alarm: 90 dB (A) / red LED and vibration alarm / case IP 65 protection
- 128 x 64 pixels graphical display with backlight
- additional sensors for other gases available
- can be used in hazardous areas



#### TECHNICAL SPECIFICATIONS

Meas. range	0 ... 1.00 ppm (O <sub>3</sub> )
Alarm	0.1 ppm
Response time	10 s
Acoustic alarm	90 dB (A) at a distance of 1 m
Visual alarm	extra bright LED
Protection class	IP 65
Display	LCD, with backlight
Power supply	rech. Li ion battery (min. 12 h)
Operating conditions	-20 ... +55 °C / 0 ... 99 % RH
Dimensions	122 x 128 x 57 mm
Weight	498 g

#### INCLUDES

Ozone meter, rech. Li ion battery, charger, manual

ITEM NO.	ITEM
K-TETRA-5-O	gas / ozone meter

#### OPTIONAL ACCESSORIES

K-CAL-TETRA	ISO calibration certificate
K-TETRA-SW	software
K-TETRA-INT	interface for PC
K-TETRA-ASP	suction pump
K-TETRA-TRA	shoulder and chest carrying strap