Cub 10.6 eV

Wearable VOC gas detector suitable for detection of over 480 compounds, to protect workers from workplace gas hazards



Wearable Personal VOC Gas Detector

Cub 10.6 eV is a wearable personal VOC detector designed to provide fast and accurate detection of volatile organic compounds (VOCs) within the worker's breathing zone. Compact and lightweight, it is designed to be worn throughout the working shift, providing continuous personal monitoring wherever exposure to hazardous VOCs may occur.

As the world's smallest and lightest wearable VOC gas detector, Cub 10.6 eV combines high sensitivity with a compact, unobtrusive design. When worker exposure exceeds pre-set limits, audible, vibrating and flashing LED alarms immediately alert the wearer to elevated VOC concentrations. Real-time readings are displayed on the bright, backlit LCD, while selectable data logging intervals allow measurements to be recorded throughout the working shift.

Cub 10.6 eV uses ION Science's patented PID sensor technology, independently verified for its speed, accuracy and humidity-resistant operation. Its unique Anti-contamination Design and patented Fence Electrode Technology help maintain sensor performance in challenging environments, providing reliable VOC detection when workers need it most.

Cub 10.6 eV is designed to be worn within the breathing zone, providing a direct indication of the VOC concentrations a worker may be exposed to. At just 111 g, its compact form factor is designed to remain unobtrusive while attached to a pocket, collar or belt.

Key Features

- **Wearable Personal Monitoring**
  Keeps VOC detection within the worker's breathing zone
- **Exceptional Sensitivity**
  Cub detects volatile organic compounds down to parts-per-billion levels
- **Rapid Response**
  Detects hazardous gases and vapours in less than 13 seconds
- **12-Hour Battery Life**
  Provides up to 12 hours of operation to support personal monitoring across a full working shift
- **Compact and Lightweight**
  At just 111 g, Cub is designed to be comfortably worn within the breathing zone



Cub 10.6 eV Personal Monitor



- Single tactile button for ease of use
- High capacity lithium-ion battery offering a continuous run time up to 12 hours
- High contrast LCD screen
- Multi-coloured status LEDs
- Loud sounder (95 dB at 300 mm) and vibrate functionality during alarm
- Patented Fence Electrode Technology

Cub Docking Station

The Cub Docking Station provides a simple and efficient way to manage Cub 10.6 eV monitors between shifts, with three configurations available to suit different operational requirements. From basic charging through to automated data management and calibration, flexible options allow organisations to choose the functionality that best suits their needs.



Charge only provides a straightforward solution for keeping Cub monitors powered and ready for the next shift. Ideal for organisations that manage data and calibration separately, this configuration offers a simple way to incorporate regular charging into the instrument management process.

Charge and data download combines charging with convenient transfer of logged monitoring data. When the Cub is placed into the docking station, recorded data can be downloaded for review and analysis, reducing the need for manual connection and helping streamline routine data management across multiple instruments.

Charge, data download and calibration provides the most comprehensive solution, combining all three functions in a single docking station. Alongside charging and automated data transfer, this configuration enables routine calibration of the Cub, helping organisations simplify instrument management and maintain monitoring performance. It is particularly suited to teams managing multiple monitors where efficient, consistent charging, data handling and calibration are important.

With three configurations available, the Cub Docking Station can scale with your monitoring requirements, whether you need a simple charging solution for individual instruments or a complete charging, data management and calibration system for a larger fleet.

Additional Features

Cub 10.6 eV is built around ION Science's patented PID technology, providing fast, accurate VOC detection with built-in resistance to humidity. The Anti-contamination Design helps protect the sensor from contamination, supporting reliable operation during extended use in demanding working environments.

The 10.6 eV PID lamp enables detection of a wide range of VOCs, while the instrument's extensive compound library allows users to select from 480 compounds. This makes Cub 10.6 eV a flexible personal gas detector for a broad range of workplace monitoring applications.

When a pre-set exposure limit is exceeded, the worker receives an immediate combination of audio, visual and vibrating alarms. Pre-programmed TWA and STEL work exposure alarm levels provide additional support for personal exposure monitoring.

Cub 10.6 eV combines personal VOC monitoring with practical features designed to simplify everyday use. Up to 30,000 readings can be stored through the instrument's data logging function, with USB 2.0 communication available for data transfer. Two-point calibration can be carried out via the docking station, while regular factory service and calibration is recommended every 12 months.

Range Overview

Part Number	Name	Detection Range	Features
CKPSXCKX-WD	Cub 10.6 eV ppm	0.1 - 5000 ppm	ppm sensitivity, charge and data dock (UK plug)
CKPSXCKX-WC	Cub 10.6 eV ppm	0.1 - 5000 ppm	ppm sensitivity, calibration dock (UK plug)
CKBSXCKX-WD	Cub 10.6 eV ppb	1 ppb - 5000 ppm	ppb sensitivity, charge and data dock (UK plug)
CKBSXCKX-WC	Cub 10.6 eV ppb	1 ppb - 5000 ppm	ppb sensitivity, calibration dock (UK plug)
CKPSXCAX-WD	Cub 10.6 eV ppm	0.1 - 5000 ppm	ppm sensitivity, charge and data dock (US plug)
CKPSXCAX-WC	Cub 10.6 eV ppm	0.1 - 5000 ppm	ppm sensitivity, calibration dock (US plug)
CKBSXCAX-WD	Cub 10.6 eV ppb	1 ppb - 5000 ppm	ppb sensitivity, charge and data dock (US plug)
CKBSXCAX-WC	Cub 10.6 eV ppb	1 ppb - 5000 ppm	ppb sensitivity, calibration dock (US plug)
CKPSXCEX-WD	Cub 10.6 eV ppm	0.1 - 5000 ppm	ppm sensitivity, charge and data dock (European plug)
CKPSXCEX-WC	Cub 10.6 eV ppm	0.1 - 5000 ppm	ppm sensitivity, calibration dock (European plug)
CKBSXCEX-WD	Cub 10.6 eV ppb	1 ppb - 5000 ppm	ppb sensitivity, charge and data dock (European plug)
CKBSXCEX-WC	Cub 10.6 eV ppb	1 ppb - 5000 ppm	ppb sensitivity, calibration dock (European plug)
CKPSXCSX-WD	Cub 10.6 eV ppm	0.1 - 5000 ppm	ppm sensitivity, charge and data dock (Australian plug)
CKPSXCSX-WC	Cub 10.6 eV ppm	0.1 - 5000 ppm	ppm sensitivity, calibration dock (Australian plug)
CKBSXCSX-WD	Cub 10.6 eV ppb	1 ppb - 5000 ppm	ppb sensitivity, charge and data dock (Australian plug)
CKBSXCSX-WC	Cub 10.6 eV ppb	1 ppb - 5000 ppm	ppb sensitivity, calibration dock (Australian plug)
TCPSXCXX-X	Cub 10.6 eV ppm	0.1 - 5000 ppm	Cub ppm instrument only
TCBSXCXX-X	Cub 10.6 eV ppb	1 ppb - 5000 ppm	Cub ppb instrument only
CUBUPG-M2B	Upgrade	N/A	Software upgrade from ppm to ppb measurements



Common Applications

- Personal VOC exposure monitoring
- Confined space entry
- Plant maintenance and inspection
- Chemical handling and transfer
- Tank farm and terminals
- Occupational exposure monitoring



Spares & Accessories



MiniPID 2 Sensor (10.6 eV, 6-pin)

Replacement PID sensor for the Cub 10.6 eV.

P/N MP6SX6BXU2



PID Lamp (10.6 eV)

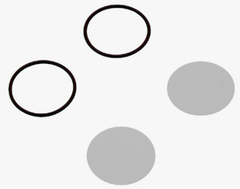
Replacement 10.6 eV PID lamp for the Cub 10.6 eV.

P/N LA4TM600

MiniPID Electrode Stack (White)

Replacement white electrode stack for the Cub 10.6 eV PID sensor.

P/N A-846267



PTFE and Seal Kit

Replacement PTFE components and seals for maintaining the Cub sample inlet.

P/N A-871205



Cub Calibration Docking Station

Calibration Dock to help with quick and easy bump test and calibration of the unit before being used (UK).

P/N CDASXCKX-X



PID Response Check Pen

Portable check pen for confirming the response of compatible PID instruments.

P/N 4/QM-01

Technical Specifications

Sensor	Photoionisation detector with 10.6 eV lamp (can also be configured with 10.0 eV or 11.7 eV lamp)
Detectable ranges	ppm: 0 to 5,000 ppm (0.1 ppm sensitivity) [4] ppb: 0 to 5,000 ppm (0.001 ppm sensitivity) [2 3 4]
Accuracy	+/- 5% displayed reading +/- one digit [2 3]
Response time (T90)	< 13 seconds [2]
Alarms	Visual: Flashing Red and Amber LED Audible: 95 dB @ 300 mm
Data logging	30,000 data logs
Battery	Li-ion battery
Operating time	Up to 12 hours
Charging time	Up to 4 hours
Operating temperature	-20 °C to +55 °C
Ingress protection	Main unit: IP65 [1]
Weight	111 g (3.9 oz)
Dimensions	61 x 66 x 59 mm (2.4 x 2.6 x 2.3 in)
Certification	Ⓔx II 1 G Ex ia IIC T4 Ga (-20°C ≤ Ta ≤ 55°C) Baseefa11ATEX0027 IECEx BAS 11.0014 US and Canadian approvals: Class I, II and III, Division I, Hazardous (Classified) Locations
Warranty	12 months (standard) 24 months (extended)

This publication is not intended to form the basis of a contract and specification can change without notice.

Specifications are based on isobutylene calibration at 20 °C and 1000 mBar.

[1] IP65 with PTFE filter fitted, IP64 without PTFE filter fitted.

[2] Specifications are based on isobutylene calibrations at 20 °C and 1000 mBar. All specifications quoted are at calibration point and under the same ambient conditions.

[3] For indicative measurement only. Quoted accuracy achievable up to 2,000 ppm. For more accurate detection, calibration around concentration of interest is recommended.

[4] Maximum reading is achieved with certain analytes.

ION Science Ltd

The Hive, Butts Lane, Fowlmere, Cambridgeshire, SG8 7SL, UK

T: **+44 (0) 1763 208503**

E: **info@ionscience.com**

W: **www.ionscience.com**

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