

CBRN Detection and Monitoring

Handheld Chemical Detector – Type ChemHx1



European EMC Products

Technical Datasheet



The ChemHx1 is a handheld detector for field detection and classification of Chemical Warfare agents (CWAs) and selected toxic Industrial Chemicals (TICs).

It provides industry-leading sensitivity and false alarm rejection in the most user friendly and low-maintenance package in its class.

Key Features

- Widest range of detectable chemicals
- Simple maintenance
- Easy to operate
- Versatility (CWA/TIC)
- Minimal false alarm rate
- Radiological and Biological detection with add-on modules

Applications

- Locating leaks and faulty containers
- Monitoring of industrial sites
- Chemical safety of harbors and railways
- Customs and border control
- Monitoring of mass events and high security meetings
- Law enforcement agencies
- Battlefield detection and monitoring
- CBRN Reconnaissance and surveillance

Multisensory Detection

The ChemHx1, uses an array of detection technologies to detect, classify and measure chemicals enabling simultaneous detection of the widest range of chemicals.

The ChemHx1 is a truly orthogonal detector, its heart is a unique open-loop Ion Mobility Spectrometry (IMS) sensor. The performance is improved with additional sensors that provide a wider range of detectable TICs and improve false alarm rejection.

Lowest Life-Cycle Costs & Logistics

The ChemHx1 unlike traditional closed-loop IMS, doesn't use consumable sieve packs or dopants. This substantially reduces the cost of ownership as well as the logistics burden when compared to other chemical detectors.

With the ChemHx1 you won't be left in the middle of an incident with a CWA/TIC detector that doesn't work.



For Further Information Visit: www.euro-emc.co.uk

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Add-On Modules

The ChemHx1 capabilities can be easily expanded to a full CBRN detection system by utilizing unique cost effective external add-on modules.

The ChemPro100 Radiation Detection Module enables the ChemHx1 to detect traces of gamma and X-ray radiation. The current dose rate, the accumulated dose reading and alarms are indicated on the display of ChemHx1..

The ChemHx1 Reader Module adds new functionality in the form of handheld biological detection. It is intended for reading Envi Assay System lateral flow immunoassay tests. The Reader Module stores the test data for evaluation after the mission.

The ChemHx1 GPS Module displays coordinate information on the ChemHx1i display screen, and includes the coordinates to the alarm memo when chemicals are detected.

The ChemPro100 Earphone Module is designed for covert operations where silence is vital. When connected to ChemPro100i, all audible information is heard through the Earphone.

All add-on modules are plug-and-play compatible with the ChemHx1i and operate using power from the ChemHx1 battery.

Technical Data

Size	Approx. 230 x 101 x 57 mm (9"L x 4"W x 2"H)
Weight	Approx. 880 g (31 oz.) (w/Li-Ion battery)
Detectors	Orthogonal detection using open-loop (aspirated) IMS cell Temperature, humidity, pressure and mass flow sensors
Detection	CWA/TIC library as standard
Battery	Easily interchangeable Li-Ion rechargeable and alkaline (6xAA) packs
Sampling	Approx. 1,3 LPM with long lifetime built-in pump unit
Calibration	No calibration is required, but a simple confidence check as needed

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Data Interfaces	RS485-Bus Current Loop input for external devices Relay output for Alarm Relay output for Service/Maintenance/Fault Ethernet (Optional)
Temperature (Operating)	-22°F -131°F (-30°C to 55°C)
Temperature (Storage)	-40°F -160°F (-40°C to 71°C)
Humidity	0-95% non-condensing
Dust & water resistance	IP65: (Totally protected against dust and protected against low pressure water jets)
Accessories	Shock absorbing mounting rack Local alarm unit

About Us

Established in 1996, European EMC Products (EEP) are an established British company whose experience and understanding of the science of shielding makes it an ideal partner in whom you can place your trust with confidence. The purpose of installing EEP shielding systems is to protect people and equipment against the threats posed by electromagnetic and radio frequency (RF) interference, radiation, magnetic fields and electromagnetic pulses. Our diverse range of turnkey products and services, including design, project management, testing and consultancy are delivered across multiple sectors to an international client base.

Quality

European EMC Products Limited are registered to BS EN ISO 9001:2015, Certificate Number FS38901. Registered Scope: The design, assembly, installation, servicing and testing of RF Shielded Structures and equipment including EMI Shielding, Blast Doors, Gas Tight Doors and specialised mobile Electromagnetic Pulse Protection (EMPP) containers.

Radio Frequency, Magnetic Shielding and Quench systems for MRI (Magnetic Resonance Imaging) scanners.

The design, assembly and installation of Ionising Radiation Protection facilities.

The design, manufacture and installation of LED lighting systems for medical applications.

EEP Filters Limited are registered to BS EN ISO 9001:2015, Certificate Number FS38901.

Registered Scope: The design, manufacture, management of installation and testing of high performance EMC and EMP Power and Data Line Filters.

Disclaimer

NB: All the information provided within this datasheet is for reference only. Product specifications are subject to change without notice.