ARA CO

Wearable carbon monoxide (CO) detector for continuous industrial personal exposure monitoring



Wearable CO Detector

ARA CO is a wearable single gas detector designed specifically for personal carbon monoxide (CO) monitoring in industrial working environments. Compact and lightweight, it clips directly onto workwear to keep CO detection close to the worker's breathing zone, providing continuous monitoring without restricting movement.

Designed for industrial applications where carbon monoxide may be present, ARA CO provides immediate warning when CO concentrations reach pre-set alarm levels. Audible, visual and vibrating alarms alert the wearer to elevated CO levels, helping workers respond quickly to changing conditions.

With 24 months of continuous, maintenance-free operation, ARA CO provides long-term protection without the need for frequent battery replacement. A 36-month hibernation model is also available, allowing the detector to be placed into hibernation when not in use and making it particularly suitable for contractors, consultants and workers who only visit site occasionally.

At just 92 g, ARA CO is compact enough to wear comfortably throughout a working shift. Its robust construction, IP67 rating and intrinsic safety certification make it suitable for demanding industrial environments, including hazardous areas.

The detector has an operating temperature range of -40 to +60 °C, making it suitable for a wide range of challenging working environments.

Key Features

- **Instantaneous Alarms**
  Instant alarms provide immediate warning of dangerous CO concentrations
- **Daily Self Test**
  Self-test feature verifies performance of audio, visual and vibrating alarms
- **Adjustable High and Low Alarms**
  Adjustable alarms allow settings to be configured for site requirements
- **Robust Design**
  IP67 rating protects the instrument against dust and water
- **Event Logging**
  Logging records the most recent 30 events for review



ARA CO Single Gas Detector



- Bright visual LED flash alarms for clear warning of dangerous CO concentrations
- Clear LCD screen
- Single button operation providing a simple user experience
- ATEX IECEx and North American certfication (CAN/CSA)
- Compatible with ARA PC software via IR Link to adjust multiple parameters
- Loud 95 dB audible alarm sounder
- Self-test function verifying audible, visual and vibrating alarms
- 24-month continuous battery life with 36-month hibernation model available

ARA DOCK4

The ARA DOCK4 is a bump test and calibration station that can test up to 4 ARA Single Gas Detectors simultaneously reducing gas usage and testing time. The ARA DOCK4 is simple to operate and records calibration and bump test reading along with the serial number, date and time.



ION Science's ARA DOCK4 streamlines gas detector maintenance with automatic bump test and calibration capabilities. ARA DOCK4 is compatible with all ARA models* (ARA 100/100H/200/200H/300/400) to perform essential procedures for device maintenance.

*The dock is configured for one gas type at a time (e.g. CO, O_2 H_2S, SO_2).

With a simple, intuitive button controls, ARA DOCK4 seamlessly handles critical tasks such as bump testing, calibration, vibration alarm testing, LED testing, and event log transfers. Additionally, it conveniently logs ARA unit serial numbers, along with corresponding test dates and times.

Featuring user-configurable instrument options on ION PC via USB, ARA instruments can be quickly and efficiently configured. With its internal battery for rapid deployment and standalone operation, ARA DOCK4 can also be powered from an external power source and mounted on a wall or desk for added flexibility.



Additionally, ARA DOCK4 features an internal storage space for gas cylinders, adding to its compact and user-friendly design.

Additional Features

Carbon monoxide is a highly toxic, colourless and odourless gas that can be generated by combustion processes and industrial activities. ARA CO is designed specifically for occupational and industrial personal monitoring, helping protect workers who may encounter CO during their normal duties.

The compact detector clips securely to workwear and remains close to the worker's breathing zone as they move around the workplace. This makes it particularly suited to environments where workers may move between areas or where CO concentrations can change rapidly.

ARA CO is an industrial personal gas detector, designed for occupational gas detection applications where workers require individual protection against CO exposure.

ARA CO is designed to provide 24 months of continuous operation without routine battery replacement, helping reduce the maintenance associated with personal gas detection. For organisations with intermittent monitoring requirements, the hibernation model provides up to 36 months of operational life by allowing the detector to be placed into sleep mode when it is not required.

This makes ARA CO particularly suitable for contractors, maintenance teams and workers who may only require personal CO monitoring for specific projects or periods.

Users can choose to display either the live detector reading or a lifetime countdown showing the remaining detector life, helping organisations plan replacement and manage their gas detection equipment more effectively.

ARA Range Overview

Part Number	Name	Description
ARA100	ARA Single Gas H_2S Standard	ARA H_2S single gas detector with 24-month lifetime
ARA100H	ARA Single Gas H_2S Hibernation	ARA H_2S single gas detector with 36-month lifetime
ARA200	ARA Single Gas CO Standard	ARA CO single gas detector with 24-month lifetime
ARA200H	ARA Single Gas CO Hibernation	ARA CO single gas detector with 36-month lifetime
ARA300	ARA Single Gas O_2 Standard	ARA O_2 single gas detector with 24-month lifetime
ARA400	ARA Single Gas SO_2 Standard	ARA SO_2 single gas detector with 24-month lifetime
ARADOCK4	ARA 4-Station Docking Station	Bump test and calibration station for up to 4 ARA Single Gas detectors



Common Applications

- Industrial plant operations
- Combustion and boiler environments
- Confined space entry
- Plant maintenance and inspection
- Welding and hot work
- Emergency and first response



Spares & Accessories



ARA Calibration Cap

Calibration cap for applying test gas during bump tests and calibration of the ARA Single Gas Range.

P/N 908200



ARA IR Link and USB Cable

Infrared communication link and USB cable for connecting ARA detectors to a computer.

P/N 908201



ARA DOCK4 Carry Case

Protective carry case for transporting and storing the ARA DOCK4 docking station.

P/N 908223



ARA DOCK4 Wall Mount Kit

Wall-mounting kit for securely installing the ARA DOCK4 docking station.

P/N 908224



ARA 4-Station Docking Station

Four-station docking system for charging, bump testing and calibrating ARA detectors.

P/N ARADOCK4

Pioneering Gas Sensing Technology. ionscience.com

Technical Specifications

Sensor	Single plug-in electrochemical cell
Detects	Carbon monoxide (CO)
Detection Range	0 to 300 ppm
Alarms	Audio alarm: 95 dB at 10cm Visual alarm: LED Vibrating alarm: vibrator operates from -10 °C up to +60 °C
Display	Liquid crystal display (LCD)
User Options	User ID Low Alarm High Alarm Displayed Data (live reading or lifetime remaining) Bump-test interval Calibration interval Self-test interval
Event Log Storage	Last 30 events
Battery	3.6 Vdc, 1.6 Ah, lithium battery
Battery Life	Standard models: 24 months of operation (2 mins alarms per day) Hibernation models: 36 months of operation (2 mins per day and using sleep function)
Shelf Life	12 months
Operating Temperature	-40 °C to +60 °C
Humidity	5 to 95% RH
Ingress Protection Rating	IP67
Weight	92 g (3.2 oz)
Dimensions	87 x 50 x 29 mm (3.4 x 2 x 1.1 in)
Certification and Approvals	ATEX: CML 18ATEX2340 IECEx: Ex ia IIC T4 Ga CML 18.0158 IEC 60079-0:2017 IEC 60079-11:2011 KCS: KTL 19-KB2BO-0387 North American Hazardous Location: Class I, Division 1, Groups A, B, C and D, T4 Class 1, Zone 0, AEx ia IIC T4 Ga Ex ia IIC T4 Ga
Applicable Standards	CAN/CSA C22.2 No. 60079-0:19 CAN/CSA C22.2 No. 60079-11:14 ANSI/UL 60079-0 7th Edition ANSI/UL 60079-11 6th

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