Further Information

Please refer to Crowcon website, www.crowcon.com to download the full **Gas-Pro** User and Operator manual (M07995), including safety information and language translations.

Por favor, diríjase a la página web de Crowcon, www.crowcon.com, para descargarse el manual completo de Usuario y Operador **Gas-Pro** (M07995) que incluye la información de seguridad y las traducciones.

Das vollständige **Gas-Pro** Benutzer- und Bedienerhandbuch sowie sämtliche Sicherheitsinformationen und Übersetzungen in verschiedene Sprachen finden Sie auf unserer Webseite www.crowcon.com zum Download.

Consultare il sito web di Crowcon, www.crowcon.com, per scaricare il manuale d'uso e funzionamento **Gas-Pro** (M07995) completo e comprensivo delle informazioni sulla sicurezza e delle traduzioni in altre lingue.

Pełną wersję Podręcznika użytkownika i operatora **Gas-Pro** (M07995) włącznie z informacjami bezpieczeństwa oraz inne wersje językowe można pobrać z witryny internetowej Crowcon www.crowcon.com.

Veuillez-vous reporter au site Internet Crowcon, www.crowcon.com pour télécharger l'intégralité du manuel de l'utilisateur et de l'opérateur de **Gas-Pro** (M07995), y compris les informations de sécurité et les traductions dans les autres langues.

Para acessar o Manual do Usuário e Operador do **Gas-Pro** (M07995), incluindo informações de segurança e versões em outros idiomas, acesse o site da Crowcon, www.crowcon.com.

Zie de Crowcon website, www.crowcon.com, voor het downloaden van de volledige **Gas-Pro** Handleiding voor gebruikers & operators **Gas-Pro** (M07995), m.i.v. veiligheidsinformatie en vertalingen.

Consulte el sitio web de Crowcon, www.crowcon.com, para descargar el manual del usuario y operador de **Gas-Pro** (M07995) completo, incluida la información de seguridad y sus traducciones.
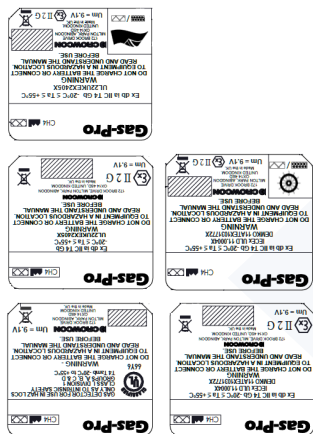
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www.crowcon.com

Gas-Pro

Professional Multi-Gas Monitor

Quick Start Guide

M07001
Issue 5 February 2023

CROWCON
Detecting Gas Saving Lives

Safety Information

Gas-Pro is a hazardous area certified gas detector and as such must be operated and maintained in strict accordance with the instructions, warnings and label information included in this manual. **Gas-Pro** must be operated within the limitations stated.

- Read and understand all instructions in the operation section of the manual prior to use.
- Before use ensure that the equipment is in good condition, the enclosure is intact and has not been damaged in any way.
- If there is any damage to the equipment do not use, contact your local Crowcon office or agent for repair/replacement
- Do not disassemble or substitute components as this may impair intrinsic safety and invalidate safety certification.
- Only genuine Crowcon replacement parts must be used; substitute components may invalidate certification and warranty of the **Gas-Pro** and accessories, reference "Service and Maintenance" section of the manual for details.
- No live maintenance is permissible
- Observe all warnings and instructions marked on the unit and within the manual.
- Observe site health and safety procedures for gases being monitored and evacuation procedures.
- Understand the screen display and alarm warnings prior to use.
- If this product is not working properly, read the troubleshooting guide and/or contact your local Crowcon office or agent, for details reference the 'Crowcon Contacts' section of the manual
- Ensure maintenance, service and calibration is carried out in accordance with the procedures in the manual and only by trained personnel.
- **Gas-Pro** must not be charged or have communication to the device, at ambient temperatures outside of the temperature range 0°C to 40°C.
- Only connect to **Gas-Pro** in a safe area for charging or communications
- Charging cable assemblies, whilst nominally providing a voltage of 6.5V, must not exceed a voltage of 9.1V as this may impair intrinsic safety and invalidate safety certification (Um=9.1V).
- Communication cable assemblies, whilst nominally operating at a voltage of 3.0V TTL, must not exceed a voltage of 9.1V as this may impair intrinsic safety and invalidate safety certification (Um=9.1V).
- The devices are intended for use in normal atmospheric conditions of temperature – 20 °C to +55 °C; pressure 80 KPa (0,8 bar) to 110 KPa (1,1 bar); and air with normal oxygen content, typically 21 % v/v (volume/volume).
- **Gas-Pro** may be used in Zones 1 and 2, for Group IIA, IIB and IIC gases and vapours and for Temperature Classes T1, T2, T3 and T4. (see Certification labels on page 2).

Certification labels

The certification marking for ATEX, IECEx, UL, UKCA, MED marked Gas-Pro is as follows:

Gas-Pro is certified for use in ambient temperatures in the range -20°C to +55°C (-4 to 131°F).

IECEx
IEC 60079-0: 2017, 7th Edition
Explosive atmospheres – Part 0: Equipment - General requirements
IEC 60079-1:2014 7th Edition
Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11: 2014, 6th Edition
Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Ex ia IIC T4 Ga Tamb -20°C to +55°C
Ex db ia IIC T4 Gb Tamb -20°C to +55°C
IECEx ULD 11.0004X

ATEX & UKCA
EN IEC 60079-0: 2018, Explosive atmospheres – Part 0:Equipment: General requirements
EN 60079-1:2014, Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures "d"
EN 60079-11: 2012, Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
⟨Ex⟩ II 1 G Ex ia IIC T4 Ga Tamb -20°C to +55°C
⟨Ex⟩ II 2 G Ex db ia IIC T4 Gb Tamb -20°C to +55°C
DEMKO 11 ATEX 1031772X
UL22UKEX2405X

North American (UL)
Gas detector use in hazardous locations Class 1 Division 1, Groups A, B, C and D only as to intrinsic safety.
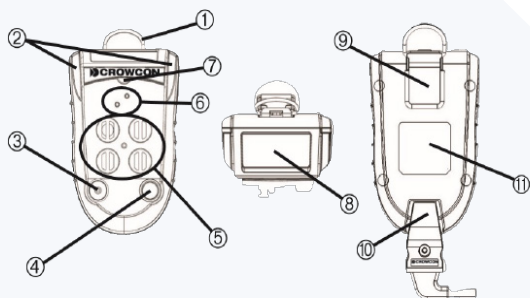UL 913
UL 60079-0:2013
UL 60079-11:2013

PRODUCT OVERVIEW & SET UP

Before use, **Gas-Pro** should always be checked for any signs of physical damage. If this is the first time of use, the battery will require charging to attain the full operating time.

Read and understand the User and Operator manual prior to use.

Gas-Pro Orientation

① D-ring
② Alarm bars
③ Sounder
④ Operator button
⑤ Sensor apertures
⑥ Pump inlet/outlet
⑦ +ve Safety™ indicator
⑧ Dual colour LCD display
⑨ Alligator clip
⑩ Charging cable
⑪ Certification label

Before Operating Gas-Pro

Before turning **Gas-Pro** on ensure you are in 'clean air' (i.e. outside, in normal air away from any plant process or suspected gas location). This will allow **Gas-Pro** to be zeroed using clean air as the base point. If **Gas-Pro** is zeroed in contaminated air a false gas reading can occur, or the zero process could fail.

Turn On/Off Your Gas-Pro

Turn on **Gas-Pro** by holding down the operator button for 3 audible short blips followed by one longer tone. **Gas-Pro** will warm up and go through a series of automatic processes

Gas-Pro will not respond to gas until the start-up sequence is complete.

To turn off, press and hold the operator button. During the 4 second countdown hold the button down until the countdown has finished.
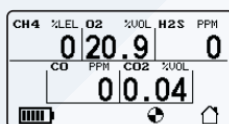
> **Quick View**
> A momentary press of the operator button allows the user to see the gas type and unit, battery level, user and +ve Safety™ status.

Display

Home Screen

- Gas-Pro simultaneously displays up to 5 gases
- The dual colour backlight aids recognition of alarm events
- The home icon will invert to show normal operation.
- The backlight is green and changes to red during an alarm highlighting the gas in alarm

Alarms

- **Gas-Pro** offers audible, visual and vibrate alarms as standard.
- Each gas has 2 instantaneous alarms and toxics also have TWA alarms. The operator has the option to Resume TWA alarm monitoring after powering-off (software version 1V25 and higher).
- When in alarm the display backlight will change from green to red and highlight the gas in alarm.
- When the **Gas-Pro** warns of a low battery, the sounder will emit an audible double blip every 5 seconds and the +ve Safety™ LED will go red. This means the battery has at least 30 minutes of battery life remaining. After 30 minutes the **Gas-Pro** will enter full alarm state and the battery icon will flash empty as shut down is imminent.

Icon	Description	Action
⚠	Fault status	Refer to manual
◖	Long term exposure alarm (TWA)	Follow site procedure
◕	Short term exposure alarm (STEL)	Follow site procedure
⚠1	Alarm 1	Follow site procedure
⚠2	Alarm 2	Follow site procedure

Backlight

The backlight is configurable but set as standard to come on at the press of the operator button or during alarm.

Pump

Please refer to the **Safety Information** in section 2.4.2 of the **Gas-Pro** User & Operator Manual before using pumped/sampling mode.

- If the internal pump option has been chosen, the pump is activated by attaching the pumped flow plate.
- Ensure the gasket is clean and undamaged prior to placement.
- The pump test will activate every time the flow plate is attached the user will be prompted to cover the inlet to ensure a tight seal. **Gas-Pro** will indicate a pass or fail, if failed the flow plate should be removed, checked and reapplied.

Accessing Menu Functions

Access the user menu by double clicking the operator button, then scroll through the menu using single clicks. Once the correct function is highlighted, double click to choose.

Zero

During start-up the operator has the option to perform an autozero, or leave the countdown if an autozero is not required/possible.

A manual zero can be performed at any time following start up and is needed less than 15 minutes prior to running a manual calibration.

Time Weighted Average (TWA)

This function allows the 8 hour TWA to be reviewed.

Pre- Entry Check (PEC)

This function is intended for sampling air of unknown quality before gaining access to it (e.g. going under-ground through a manhole cover) thereby avoiding unnecessary exposure.

Peak Review

This function allows the highest level of each gas detected to be reviewed during the last 8 hours, 12 hours or since turned on.

Flammable Correction factor. Only available for pellistors.

This option selects the flammable gas correction factor to be used for flammable (pellistor) sensors with respect to the base calibration of methane.

Settings

Peak Review

Up to 5 different users can be loaded into **Gas-Pro** using the Portables-Pro V2 PC application.

Pump Setting

This function, which is only present if the **Gas-Pro** has an internal pump, allows authorised users to turn the pump on or off.

Sounder Volume

This function allows authorised users to change the sounder volume between 2 levels.

+ve Safety™

+ve Safety™ is a quick and easy indication of the operating status of **Gas-Pro**, this status is indicated by a front mounted LED.

When the +ve Safety™ LED is illuminated green, this indicates that the unit is functioning as required and no further action is necessary. This enables users and supervisors to easily see that the employee is safe and following work procedures.

When the +ve Safety™ LED is illuminated red this indicates that the instrument requires attention.

Charging & Battery Indications

Charging

- To charge, insert the charger connected into the socket at the back of the **Gas-Pro**.
- The display will show the battery filling and RED LED's will flash red until the battery is full, when they will flash green.

Gas Testing

Crowcon recommends regular gas tests (also known as bump tests) to confirm sensor operation. A number of flexible and simple solutions are available:

Q-Test Quick and simple in field gas test and calibration solution.

I-Test Intelligent wall or desk mount, powered data management solution

If configured to do so, test and calibration can also be completed manually by using the non-pumped flow plate and following prompts on the screen. If a test should fail or calibration is due and the **Gas-Pro** has been manually zeroed in the last 15 minutes a calibration can also be completed.