

CO2 MK90 STAND-ALONE SENSOR SET (2090)

CO2 Mk90 Sensor including Horn/Strobe



Mk90 in no alarm mode



Mk90 in alarm mode

TECHNICAL DATA CO2 MK90 DETECTOR SET

- Operating Principle:** Non-dispersive infrared (NDIR)
- Measurement range:** 0.00 to 6,7% volume CO2
- Operating temperature:** 0 to 45°C (Sensor works from -20°C but values valid only for 0-45 °C)
- Operating humidity:** 0-95% RH non condensed
- Storage temperature:** -40 to + 70 °C
- Power supply:** 24V DC ± 10%
- Power consumption:** 117 mA peak, 56 mA average
- Serial communication:** Modbus protocol over RS485
- Output:** Two 24 volt transistor outputs
- Automatic calibration:** Several times per year
- Dimensions (LxWxD):** 90 x 161 x 38 mm / 3.5" x 6.3" x 1.5"
- Ingression protection:** IP54

TECHNICAL DATA HORN/STROBE

- Nominal voltage:** 18-24V DC
- Average current:** 120 mA @ 24V DC supply
- Decibel:** 110 dB / 1 m
- Flash intensity:** 115 CD
- Flash frequency:** 65/min
- Ambient temperature:** -5°C to +50°C (+23°F to +122°F)
- Dimensions (LxWxD):** 134 x 115 x 61 mm / 5.3" x 4.5" x 2.4"
- Ingress protection:** IP65

FUNCTION

The Mk90 is a CO2 monitor with integrated sound and light Alarm indication, designed to measure CO2 concentration in a confined space environment. It provides an alarm in the event that a CO2 level considered unhealthy/dangerous is reached, in accordance with existing safety codes, in the area being monitored.

Installed properly, the Mk90 will continuously monitor the CO2 concentration that it is exposed to. A light emitting diode (LED) indicates that the Mk90 is running properly. The Mk90 performs a self-calibration at regular intervals insuring calibration under normal circumstances. This eliminates the need of manual calibration in a normal environment. The sensor uses infrared analysis for detecting CO2.

ALTITUDE ADJUSTMENT

The Mk90 CO2 sensor has a manual altitude adjustment.

ALARM LEVELS

The alarm levels can be changed to any level to comply with all local Safety Codes and legislations.

The default CO2 alarm levels are:

5 000 ppm	CO2 Awareness indication
5 000 ppm	TWA Alarm/8h (PEL)
1.5% (15 000 ppm)	Low-Alarm ½ STEL
3.0% (3 0000 ppm)	High-Alarm STEL

APPROVALS

CE, EN55022 :2006/A1 :2007, EN55024/A2 :2003, EN61000-3-2 : 2006, EN61000-3-3/A2 :2006, AS/NZS CISPR 22 :2006, IEC/EN :IT55022/55024, LNE Règle de certification NF 128 rev 12 Nov 2007 (§2.1.2.4.3.) for the S8 CO2 Sensor Module. UL Certified. DIN6653-2:2004-03.

In the United States, the ALERT Mk90 system is in compliance with International Fire Code (IFC) 2015 Edition Section 5307.5.2.2, CGA G-6.5 2013, NFPA 55 2013 Edition 13.2.2 and NBIC Part 1 Supplement 3 S 3.4, as well as OSHA – PEL (Permissible Exposure Limit) of TWA/8 hrs for CO2.

In compliance with EU Commission Directive 2006/15/EC of 7 Feb 2006.

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CO2 Sensor Mk90



Horn/Strobe



SIGN CO2 SENSOR MK90 EN



SIGN CO2 H/S B EN

ORDERING EXAMPLE

Item code	Description
2090	CO2 Mk90 Stand Alone SET

2090 consists of:

	CO2 Mk90, incl. 1 Cable blue 10m and 1 Cable red 5m
0438	Horn/Strobe LED amber glass with blue indicator, incl 1m cable and sign
0519	RJ45 1-1 split
0021	Transformer 1A, incl Plug UL, SE, AU, UK for transformer
HF-MK1004	Plug-lock
	Bag with 3 Collar Seals, 6 stripes, 24 screws and plugs
SIGN CO2 SENSOR MK90 EN	Sign CO2 Sensor Mk90 EN
SIGN CO2 H/S B EN	Sign Horn/strobe Mk9/90 EN
HFE1153	Installation manual Mk90
HFE1155	Quick-guide Mk90

ACCESSORIES

Item code	Description
0328	CO2 Central Unit Mk9 KIT 4 A
0471	RCB with delay for fire alarm, 1 m cable
0468	SMB Safe mode box - shut off valve
0560	Bag with Collar Seal 10 pcs incl stripes 20 pcs

