**Technical Data Sheet**

*Note: For safe, efficient blasting, read and follow the owner’s manual and seek training for everyone who will use this equipment.*

**Purpose**

The CMS monitor detects carbon monoxide and hydrocarbons in a compressed air supply and triggers visual and audible alarms when CO is detected in concentrations of 10 parts per million. CMS-1 is wall-mountable; CMS-2 is field-portable with integral rugged carrying case.

**NOTE:** CMS monitors do not remove CO or convert CO to CO₂

**Requirements for Operation**

- Compressed-air source (55 to 145 psi) of Grade D breathing air as defined by the Compressed Gas Association commodity specification: G-7.1 (www.cganet.com).
- Air flow of 0.5 to 0.8 scfh at 55 psi or more to operate and maintain adequate sampling
- Power – 120 volt AC or 12 volt DC. Line cord provided for 120 volt AC; may be conduit wired.

**Description of Operation**

Connect the CMS to the air supply and to an electric power source. The system warms up and stabilizes in about five minutes.

Once stabilized, the unit is operational and continuously monitors the incoming air. The indicator light glows green to indicate adequate air pressure and flow, and that the CO concentration is below 10 ppm. The alarm light glows yellow, and a loud, intermittent alarms sounds if air flow or pressure drops.

The air-quality light turns red and the CMS sounds a loud, constant alarm if CO reaches 10 ppm. To prevent CO poisoning, the operators must immediately remove their respirators and exit the blast environment.

**Advantages**

- One monitor can serve multiple respirators
- Microprocessor circuit and digital readout provide accurate readings
- Simple, rugged construction for in-plant or field use
- Manual calibration accomplished in minutes
- Long-lasting replaceable sensor
- May be used with 120 volt AC or 12 volt DC power source
- Accommodates optional remote alarm kit

**Approvals and Certifications**

- Meets OSHA requirement for CO monitoring

**Specifications**

- Shielded to reject radio frequency interference
- Includes 10 feet of 1/8-inch tubing and connector fittings
- Electrochemical sensor responds instantly to CO
- CMS-1 has polycarbonate case with impact-resistant clear plastic cover meets NEMA-4 specifications
- CMS-2 has polyethylene case with dual hinges, dual latches, and dust-tight, weather-resistant rubber seal
- Nominal noise rating of 98 dB at distance of one foot for the standard alarm; and 100 dB at distance of 3.1 feet for the optional remote alarm.

**Options and Accessories**

- Humidifier .................Stock No. 03600
- Remote alarm kit includes: remote alarm, stand, wiring connector, and 50-ft. cord ..........Stock No. 22909
- Remote alarm extension cord ...........................Stock No. 22910
Related Clemco Literature

Description Stock No.
Operator Safety Equipment ................................................. 07764
CMS-1 Owners Manual ...................................................... 23301
CMS-2 Owners Manual ...................................................... 22925

Replacement Parts

Item Description Stock No.
(-) CMS-1 CO monitor package, includes:
  monitor, calibration connector, and
  10 PPM test gas ...................................................... 23017
1. CMS-1 CO monitor includes:
  monitor & items 3 to 9 ............................................. 23012
2. Calibration connector assembly .................................. 23011
3. Test gas 10 PPM ..................................................... 22865
4. Regulator/Filter ..................................................... 23013
5. Horn w/ wire, 12 Volt DC ........................................... 22922
6. Adaptor, straight, 1/8” NPT x 1/8” barb ........................... 11732
7. Adaptor, elbow, 1/8” NPT x 1/8” barb ............................. 11733
8. Tubing, urethane, per foot ......................................... 12475
9. Reducer, 1/4” x 1/8” .................................................. 02026
10. Sensor (not shown) .................................................... 23015
(-) Filter element (not shown) .......................................... 23014

CMS-2 CO monitor package, includes: monitor, calibration connector, & 10 PPM test gas. Available
120 V AC & 12 V DC; specify voltage .......................... 22894
1. CMS-2 CO monitor (instrument only) .......................... 22892
2. Calibration connector assembly ................................. 22893
3. Test gas 10 PPM ..................................................... 22865
4. Flowmeter ............................................................. 21376
5. Horn w/ wire, 12 Volt DC ........................................... 22922
6. Horn w/ wire, 12 Volt DC ........................................... 22929
7. Flowmeter ............................................................. 21376
8. Tubing, urethane, per foot ......................................... 12475
9. Horn ................................................................. 22922
10. Flowmeter ............................................................. 21376
(-) Sensor (not shown) .................................................... 22919
(-) Filter element (not shown) .......................................... 22921
(-) Air-line humidifier .................................................. 03600

(-) Sensor (not shown) .................................................... 22919
(-) Filter element (not shown) .......................................... 22921
(-) Air-line humidifier .................................................. 03600

Optional

Remote Alarm: includes: alarm, stand, wiring connector and 50 ft. cord .................................... 22909
1. Cable, remote alarm extension 50 feet ......................... 22910
2. Strobe light .......................................................... 22984
3. Horn ................................................................. 22985
4. Wiring adaptor ....................................................... 22986
5. Stand assembly with internal wiring ............................ 22987

Packaging: Ships in one carton with owner’s manual.

Stock No. Dimensions Shipping Wt.
23017 7 1/2” H x 7 1/2” W x 5 1/2” D 8 lb
23012 7 1/2” H x 7 1/2” W x 5 1/2” D 6 lb
22894 9 1/4” H x 10 3/8” W x 5” D 9 lb
22892 9 1/4” H x 10 3/8” W x 5” D 7 lb

Authorized Distributor:

Color: CMS-2: black case w/ white graphic front
       CMS-1: gray metal enclosure w/ white graphic front
Optional Remote Alarm: gray metal

ISO 9001-2000 certified. Clemco is committed to continuous product improvement. Specifications are subject to change without notice.

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