



Macurco™ Aerosol CO Field Test Gas CME1-FTG User Instructions



IMPORTANT: Keep these User Instructions for reference.

Intended Use

The CME1-FTG is an 11L 500 ppm Aerosol Carbon Monoxide Field Test Gas that can be used with the Macurco CM-E1 and CM-6 CO detectors. This field test gas allows installers to do a quick functionality test of the CO sensor. The flow rate of the CME1-FTG is 10 Lpm so you will have about a minute of gas or enough to test 20-30 sensors.

Specifications

CME1-FTG Carbon Monoxide Field Test Gas 11L 500ppm CO/Air, Aerosol, 10LPM

Field Test Procedures CM-6

Caution:

- Units to be tested must be powered continuously for a minimum of 3 minutes before proceeding.
- For optimum test results the unit should be in clean air and be in a low ambient air flow.
- Check that the CM-6 status indicator light is illuminated, Green continuously. If not, do not proceed with tests. See CM-6 Trouble Indicator section.

1. The display option should be set to "On" and reading 0 ppm in clean air.
2. With the cover in place, direct the gas into the housing by placing the nozzle of the aerosol can onto the sensor grate area (under DO NOT PAINT) and press for 2 to 3 seconds.



3. Wait for a few seconds. The digital display should climb indicating the increased CO concentration at the sensor confirming a pass of the quick test.

Note: If the Display does not change within 10 seconds, there are four possibilities:

- a. The gas is empty, expired or degraded, replace the gas cylinder.
 - b. The gas was not directed into the housing (direct the gas into the housing by placing the nozzle of the aerosol can onto the sensor grate area and re-test).
 - c. Unit needs to be re-calibrated (go through the Field Calibration Procedure and re-test).
4. Wait for the display to return to 0 ppm and configure options to desired settings.

Testing the Fan Relay

Note: The time to activate the Fan relay depends on the delay setting.

1. With the display function turned "On", the CM-6 will show the current concentration of CO or "0" (zero) in clean air.
2. With the cover in place, direct the gas into the housing by placing the nozzle of the aerosol can onto the sensor grate area (under DO NOT PAINT) and press for 2 to 3 seconds.
3. When the CO concentration reaches the Fan Relay setting (35 ppm, for example) the display will flash back and forth between "FAn" and "35". With the display function turned "Off", the display does not show the CO concentration, but will show "FAn" as long as the fan relay is activated.

Note: If the Fan relay does not close within a few seconds, there are six possibilities:

- a. The gas is empty, expired or degraded, replace the gas cylinder.
 - b. The gas was not directed into the housing (direct the gas into the housing by placing the nozzle of the aerosol can onto the sensor grate area and re-test).
 - c. The gas concentration at the sensor did not reach the Fan relay activation level. Set Fan relay to 25ppm and repeat the test.
 - d. Detector has Fan relay set to disable (OFF) or 100ppm. Set Fan relay to 25ppm and repeat the test.
 - e. The Fan relay delay (Frd) setting is at 3 minutes. Set the Fan relay delay to zero (0) minutes.
 - f. Unit needs to be re-calibrated (go through the Field Calibration Procedure and re-test).
4. Wait for the display to return to 0 ppm and configure options to desired settings.

Testing the Alarm Relay

Note: The CO concentration to activate the Alarm relay depends on the setting.

1. With the display function turned "On", the CM-6 will show the current concentration of CO or "0" (zero) in clean air.
2. With the cover in place, direct the gas into the housing by placing the nozzle of the aerosol can onto the sensor grate area (under DO NOT PAINT) and press for 4 to 5 seconds.
3. When the CO concentration reaches the Fan relay setting, the Fan relay should activate according to the settings.
4. When the CO concentration reaches the Alarm Relay setting, (200 ppm, for example) the display will flash back and forth between "ALr" and "200". The buzzer will sound indicating "Alarm" if the buzzer is turned "On". With the display function turned off the display does not show the CO concentration, but will show "ALr" when the Alarm relay is activated.

Note: If the Fan relay does not close within a few seconds, there are five possibilities:

- a. The gas is empty, expired or degraded, replace the gas cylinder.
 - b. The gas was not directed into the housing (direct the gas into the housing by placing the nozzle of the aerosol can onto the sensor grate area and re-test).
 - c. The gas concentration at the sensor did not reach the Alarm relay activation level. Set Alarm relay to 50 and repeat the test.
 - d. Detector has Alarm relay set to disable (OFF) or 200ppm. Set Alarm relay to 50ppm and repeat the test.
 - e. Unit needs to be re-calibrated (go through the Field Calibration Procedure and re-test).
5. Wait for the display to return to 0 ppm and configure options to desired settings.

Testing the 4-20mA current loop

1. With the display function turned "On", the CM-6 will show the current concentration of CO or "0" (zero) in clean air.
2. With the cover in place, direct the gas into the housing by placing the nozzle of the aerosol can onto the sensor grate area (under DO NOT PAINT) and press for 4 to 5 seconds.
3. The Fan relay should activate according to the settings.
4. The Alarm relay should activate according to the settings.
5. The 4-20 mA output should ramp up from 4mA in clean air to 20mA at 200 ppm.

Note: If the 4-20mA output does not ramp up within a few seconds, there are four possibilities:

- a. The gas is empty, expired or degraded, replace the gas cylinder.
 - b. The gas was not directed into the housing (direct the gas into the housing by placing the nozzle of the aerosol can onto the sensor grate area and re-test).
 - c. Detector has 4-20 mA option set to "OFF". Set 4-20mA option to "On" and repeat the test.
 - d. Unit needs to be re-calibrated (go through the Field Calibration Procedure and re-test).
5. Wait for the display to return to 0 ppm and configure options to desired settings.

See the complete Macurco CM-6 User Instructions for factory settings, trouble codes, calibration and testing.

MACURCO FIXED GAS DETECTION PRODUCTS LIMITED WARRANTY

Macurco™, warrants the CME1-FTG field test gas will be free from defective materials and workmanship for a period of two (1) years from date of manufacture (indicated on the gas bottle label), provided it is maintained and used in accordance with Macurco instructions and/or recommendations. If any component becomes defective during the warranty period, it will be replaced or repaired free of charge, if the unit is returned in accordance with the instructions below. This warranty does not apply to units that have been altered or had repair attempted, or that have been subjected to abuse, accidental or otherwise. The above warranty is in lieu of all other express warranties, obligations or liabilities. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE ARE LIMITED TO A PERIOD OF ONE (1) YEARS FROM THE PURCHASE DATE. Macurco shall not be liable for any incidental or consequential damages for breach of this or any other warranty, express or implied, arising out of or related to the use of said gas detector. Manufacturer or its agent's liability shall be limited to replacement or repair as set forth above. Buyer's sole and exclusive remedies are return of the goods and repayment of the price, or repair and replacement of non-conforming goods or parts.

Manufactured by Aerionics, Inc.

Sioux Falls, SD

Email: info@aerionicsinc.com

Phone: 1-877-367-7891

Rev 05.07.2014

© Aerionics 2014. All rights reserved.

Macurco is a trademark of Aerionics, Inc.

MACURCO
Gas Detection Experts