# GAS DETECTION
# Macurco

UL LISTED

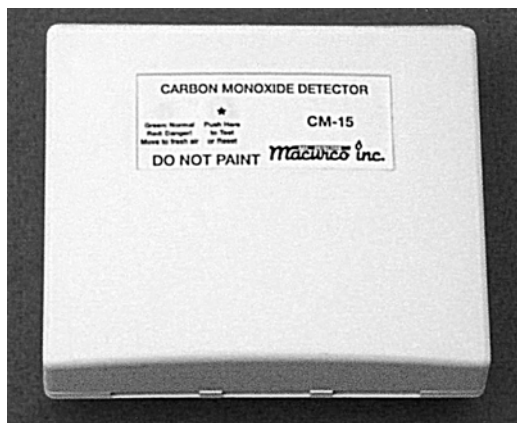# Carbon Monoxide Detector
## FOR USE WITH ALARM CONTROL PANELS

CARBON MONOXIDE DETECTOR

CM-15

DO NOT PAINT Macurco inc.

# CM-15/15A

- SPDT alarm relay
- LED for operating status
- 12-24 VDC / 13-24 VAC Input
- Flush or surface mount
- Long life sensor
- All units individually calibrated

## FEATURES

- **Listed to UL** Standard **2075** for carbon monoxide detectors.
- **Tested to UL** Standard **2034** for carbon monoxide detectors.
- Surface mounts to a wall over a single gang electrical box.
- Flush mounts to the wall over a 4 X 4 or two gang electrical box.
- Small, low profile, attractive unit in a white plastic case. It looks similar to a thermostat.
- Detector alarms at multiple levels of exposure to **carbon monoxide** based on time weighted averages of the gas present.
- Inexpensive, easy to install. Microcomputer control allows mostly automatic operation.
- Test & Reset switch conducts internal tests and actuates relays.
- Visual display: **GREEN** - **Normal** operation.
    **FLASHING AMBER - Trouble** Contact your installer or Macurco Tech Support
            **RED** - **Danger! Move to fresh air** (hazardous condition is present.)
- **Solid state sensor**. No maintenance or periodic sensor replacement needed.
- **SPDT Relay** to connect to Alarm Control Panels or switch external alarm devices.
- Normally closed SPST Trouble relay provides means for **system-wide supervision**.

## CONFIGURATIONS
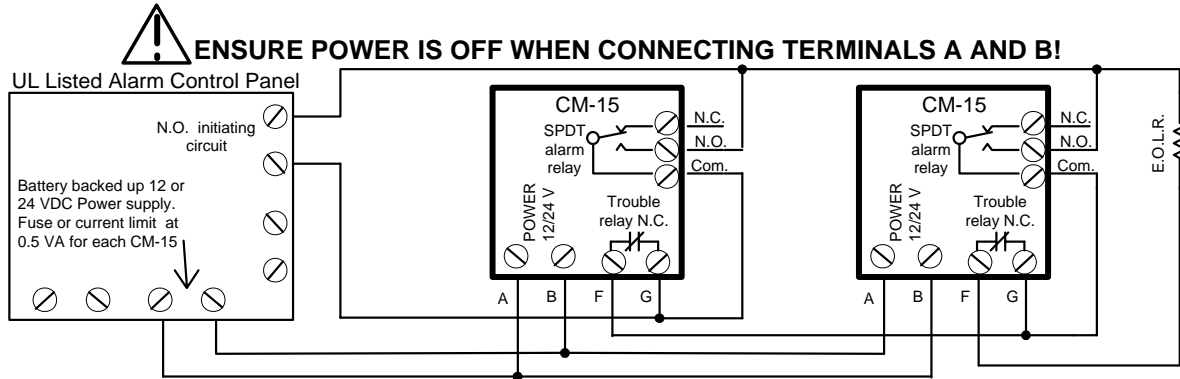
CM-15
    SPDT Alarm Relay
    SPST Trouble Relay

CM-15A
    SPDT Alarm Relay
    SPST Trouble Relay
    Loud Buzzer
    (May be used with a
    UL Listed Class 2
    Power Supply)

## SPECIFICATIONS

| | |
|---|---|
| Voltage: | 12-24 VDC or 13-24 VAC (50-60 Hz) |
| Current (standby): | 45 ma @ 12V, 31 ma @ 24V |
| Current (alarm,CM-15): | 62 ma @ 12V, 45 ma @ 24V |
| Current (standby, CM-15A): | 47 ma @ 12V, 32 ma @ 24V |
| Current (alarm, CM-15A): | 66 ma @ 12V, 46 ma @ 24V |
| Size: | 4 ½ X 5 X 1 5/8 inch |
| Alarm Relay: | 1 Amp, 125V, 30VA |
| Trouble Relay: | 0.5 Amp, 200V, 10VA |
| Buzzer Rating: | 85 dBA at 10 Feet |
| Shipping Weight: | One pound |
| Oper. Temp. Range: | 32° to 120° F |
| Alarm Setting: | Per UL 2034 (Oct.98) |
| Color: | White |

# TYPICAL CONNECTION OF TWO CM-15/15A's TO AN ALARM CONTROL PANEL

**⚠ ENSURE POWER IS OFF WHEN CONNECTING TERMINALS A AND B!**

UL Listed Alarm Control Panel

N.O. initiating circuit

Battery backed up 12 or 24 VDC Power supply. Fuse or current limit at 0.5 VA for each CM-15

CM-15
SPDT alarm relay — N.C. / N.O. / Com.
POWER 12/24 V
Trouble relay N.C.
A   B   F   G

CM-15
SPDT alarm relay — N.C. / N.O. / Com.
POWER 12/24 V
Trouble relay N.C.
A   B   F   G

E.O.L.R.

## NOTE: CM-15/15A refers to both the CM-15 and CM-15A

1. The CM-15/15A is for use with U.L. Listed Alarm Control Panels (Fire or Fire/Burglar type or Critical Process Management Equipment) that have 12 to 24 Vdc power and 12 to 24 Vdc alarm initiating circuits.

2. The Alarm Control Panel (UL Listed Fire or Fire/Burglar type or Critical Process Management Equipment) must be dedicated to CO detection or have alarm devices that provide a distinctive alarm for carbon monoxide detection. Do not connect the CM-15/15A to Fire Alarm Circuits. For CM-15 installations, a UL Listed audible device must be connected that provides at least 85 dBA sound output.

3. The CM-15/15A is intended for installation in buildings in non-hazardous locations such as residences, retail stores, office buildings, and institutional buildings.

4. The CM-15/15A is NOT intended for use in industrial applications such as refineries, chemical plants, etc. The CM-15/15A is NOT intended for use in parking garages, as the controller of exhaust systems.

5. LOCATION: Place the unit at a level where people breathe: about 5 feet (1.5 meters) above the floor. Mount the CM-15/15A in a vertical position on a wall or column. Do NOT mount the CM-15/15A in a corner.

6. SPACING: Use the same spacing as for smoke detectors-- 30 foot (9 meters) centers, 900 sq. feet (83 sq. meters) per detector.

7. INSTALLATION: In the configuration as normally shipped, the CM-15/15A has a three part case. This allows the unit to mount flush to a wall over a single gang electrical box (not included). If the back cover is removed (remove the two screws inside), the CM-15/15A Gas Detector mounts on a two gang, old work box or a 4 X 4 electrical box, provided by the installer. The CM-15/15A has a terminal strip to connect the cables from the control panel or other device. Access to the terminal strip will be easier if the back cover is removed first.

8. The alarm control panel zone inputs must be terminated with end of line resistors (E.O.L.R.), that are provided with the panel.

9. When using the CM-15/15A with normally closed initiating circuits, use the "N.C." and "COM" alarm relay connections.

The CM-15 and CM-15A has not been evaluated as a stand-alone unit by U.L.

CM-15/15A
SPDT alarm relay — N.C. / N.O. / Com.
POWER 12/24 V
Trouble relay N.C.
A   B   F   G

Alarm Relay: SPDT, 1.0 Amps., 125Vdc, 30 VA dry contacts, no polarity

Trouble Relay: SPST 0.5Amp, 200V, 10VA dry contact, no polarity

UL Listed Class 2 Power Source: 13 to 24 Vac 50-60 Hz or 12-24 VDC, 1 VA

CM-15 CONTROLLING A REMOTE ALARM

CM-15
SPDT alarm relay — N.C. / N.O. / Com.
POWER 12/24 V
Trouble relay N.C.
A   B   F   G

UL LISTED 12VDC ALARM

The alarm must not require over 1 amp.

UL LISTED 12 VDC POWER SUPPLY       POWER

01/00