



Typical Specifications for Acme TWINSET Dual Gas Detection & Control Unit

Parking Garages / Maintenance Garages / Fire Stations / Loading Docks / Ambulance Bays

Suitable for small applications where the ventilation system will be hooked up directly to the Acme Twinset Dual Gas Monitor.

1. Supply, install and connect at locations shown on plans ACME Twinset Dual Gas Detection and Control unit. The Twinset will consist of one integral CO sensor and one remote sensor for any one of the following gases: CO, NO₂ and combustibles.
2. CO and NO₂ sensors shall be electrochemical whereas the combustible sensors shall be catalytic bead (pellistors). Twinset sensors shall be equipped with compensatory circuits for variations in relative humidity and temperature and maintain a high level of accuracy. The Twinset unit will be capable of operating within relative humidity ranges of 15-90% and temperature ranges of 32°F to 104°F (0°C to 40°C) with an optional capacity of operating at extended temperature ranges.

The unit is manufactured within an ISO 9001-2000 production environment.

The Twinset alarm levels are to activate fans, dampers and alarms and the unit is to be installed in accordance with the following parameters:

The CO operating levels shall typically be 35 PPM, 100PPM and 100PPM 30 minutes time-delayed (1-60min adjustable) for the LOW, HIGH and ALARM levels respectively. NO₂ operating levels shall typically be 1PPM, 2PPM and 3PPM for LOW, HIGH and ALARM levels respectively. Combustible Gas operating levels shall typically be 20%, 30% and 40% L.E.L. for LOW, HIGH and ALARM levels respectively. The Twinset shall have typically three SPDT relay contacts to operate at the selected operating levels, visual indicators and an alarm buzzer. The operating levels can also be programmed to have different time delays.

Table of factory default operating levels	FIRST ALARM SET POINT (LOW)	SECOND ALARM SET POINT (HIGH)	THIRD ALARM SET POINT (ALARM)	RADIUS OF COVERAGE
Carbon Monoxide (CO)	35 PPM	100 PPM	100PPM 30Min	50 feet
Diesel (NO ₂)	1 PPM	2 PPM	3PPM	50 feet
Combustibles	20% L.E.L.	30% L.E.L.	40% LEL	25 feet

3. Sensing element shall require no more than a yearly calibration. CO and NO₂ sensors shall have a maximum life of 2 years whereas combustible gas sensors shall have a maximum life of 3 years.
4. The Twinset shall be housed in a NEMA 3 robust PVC enclosure.
5. The remote sensor to control unit field wiring shall be done by using 2 x #18 (for CO/NO₂) or 3 x # 18 (for combustible gas) low voltage wires.