Car Park CO   
Gas Detection  
With Controller

Car Park CO Gas Detection System

PART 1 – GENERAL

1. RELATED DOCUMENTS
   1. Drawings and general provisions of the Contract, including General and Supplementary General Conditions and other Division 01 Specification Sections, apply to this Section

PART 2 – PRODUCTS

* 1. Control Panel type: (S&S Middle East ParkSafe)
     1. The control panel will be 230Vac powered, individually powering, and accepting the inputs of multiple remote detectors. The unit will clearly display the condition of an alarm and provide a re-set and mute function. The unit shall provide a digital touch screen for menu and set up functions as well as real time detector read out. The unit shall be UL certified and listed to UL61010 standards. Mount the panel at AFF. 48”
     2. The control panel will be capable of affecting on/off, two speed and VFD fan controls via on board relays, for local activation of fans or dampers (or other equipment), the relay will change state in alarm and revert back once the alarm has been removed.
     3. Relays shall be provided for pre-alarm, high alarm and full alarm thresholds. A separate damper relay shall be provided which can be configured on site to actuator at a determined threshold.
     4. The control panel shall be capable of operating within relative humidity ranges of 5-95% non- condensing and temperature ranges of -20° C to 60° C.
     5. The control panel shall provide 0-10vdc output for variable speed fan drivers.
     6. The unit will accept up to sixteen (16) remote detectors although less may be required for designated detection area.
     7. For local activation of audible alarms, the transmitter shall have an on-board device able to generate an audible output of 85 dBA @ 10 ft.
     8. Unit will be installed as per manufacturer’s instructions and recommendations.
  2. Detectors type: (S&S Middle East GM100-CO)
     1. A wall-mountable carbon monoxide gas detector capable of monitoring CO gas concentrations in enclosed car parking facilities.
     2. System shall have outputs for integration with building management systems (BAS) using Bacnet MS/TP or Modbus RTU communication protocols.
     3. System shall have internal volt free relays, 0-10V and 4-20mA to activate ventilation equipment and warning alarms upon reaching alarm thresholds.
     4. Wall-mounted at a height recommended by the manufacturer.
     5. Alarm thresholds shall be factory set at the following:
        1. (CO) 25ppm low level, 100ppm high level
     6. System shall include a replaceable sensor module for extended product life.
     7. System shall be 24VAC/DC powered.
     8. System shall have an operating temperature range: -20°C to 50°C.
     9. System shall have internal audible alarm built-in 85dB at 3m.
     10. Acceptable products: S&S Middle East GM100-CO

PART 3 – EXECUTION

* 1. INSTALLATION
     1. Sensors must be installed in compliance with the manufacturer's guidelines.
     2. Install wiring and conduit to prevent interference with other systems.
     3. Ensure accessibility for future sensor maintenance and calibration.