



# CONSPEC®

INNOVATION THAT DIGS DEEPER.

## 91154-1 CO/VC



## Ventilation Fan Controller

Conspec's 91154 Ventilation Fan Controller Series is based on OSHA guidelines and various National, State, or Local Building Codes designating those areas where toxic gases may accumulate must be continually ventilated or have a gas monitoring device installed. Before an unsafe level of Carbon Monoxide is reached, the detector will signal ventilation fans to cycle and operate until the atmosphere in the area has returned to normal.

Multiple controllers can be installed and easily connected without the need for a central panel by a simple series connection of the controllers. LED indicator lights clearly show the status of the monitor and a large LCD display continually shows the CO levels being monitored. In the event of a power loss or malfunction, the controller activates the ventilation system.

Electricity and heating expenses can be dramatically reduced due to the ventilation fans operating only when needed as opposed to continuously running. Energy savings of up to 85% can be achieved and in most cases, the return on the cost of the system is realized in one year or less!

### BENEFITS

- Immediate Energy Savings up to 85%
- Simple Installation of Single or Multiple Controllers
- Adjustment Free, One Person Calibration Procedure

### KEY FEATURES

- 7 Year Sensor Life
- Self Diagnostic Testing
- Onboard Relay Contacts
- Onboard 80 dB Alarm
- Automatic Reset After Power Loss
- Bright LCD Display
- 2 Year Limited Warranty

### APPLICATIONS

- Enclosed Parking Garages
- Vehicle Maintenance Facilities
- Factories | Warehouses
- Bus Terminals & Depots
- Tunnels
- Car Dealerships
- Fire / Police Stations
- Service Bays

# 911154-1 CO/VC

# Technical Specifications

## MECHANICAL

- **Enclosure** NEMA4X Non-Metallic (UL & CSA Approved)
- **Dimensions** 4.3" X 2.2" X 3"
- **Weight** 1.2 lbs.
- **Mounting** 4" Electrical Junction Box Mounting Plate Included (1/2" Conduit Entry)

## ENVIRONMENTAL

- **Operating Temperature** -20°C to 50°C (-4 °F to 120°F)
- **Operating Humidity** 10% to 90% RH Non-Condensing
- **Temperature Compensation** Full Temperature Range

## ELECTRICAL

- **Operating Voltage** 24VAC
- **Current Consumption** 0.1A Maximum
- **Output Signals** Two Dry Contact 2A, 30VDC SPDT Relay (Fan, Alarm)

## SYSTEM

- **Sensory Types** Electrochemical
- **Sensor Range** Carbon Monoxide 500ppm
- **Sensor Life Expectancy** 7 Years
- **Response Time** < 30 Seconds, 90% Final Level, Using 250ppm gas
- **Repeatability** +/- 2% at 250ppm Calibration Point
- **Linearity** +/- 5% Over 0 to 500ppm Range
- **Alarm Set Point #1** CO 5ppm
- **Audible Alarm** 80db Three Feet
- **Display** Two Line, 8 Character LCD Display

## California Title 24 Specifications

1. With all sensors active and all sensors reading below the 25 ppm threshold, the VFD's will run the fans at minimum speed. VFD's will be programmed by others. The ventilation rate should be at least 0.15 cfm/ft2 when the garage is scheduled to be occupied.
2. CO System will automatically detect contaminant levels and stage fans to insure provided acceptable contaminant levels are maintained.
3. CO shall be monitored with at least one sensor per 5,000 ft2, with the sensor located in the highest expected concentration locations, with at least two sensors per proximity zone. System will be installed using engineered plan locations.
4. CO concentration at all sensors is maintained 25 ppm at all times.
5. CO sensors are:
  - A. Certified by the manufacturer to be accurate within plus or minus 5% of measurement.
  - B. Factory calibrated.
  - C. Certified by the manufacturer to drift no more than 5% per year.
  - D. Certified by the manufacturer to require calibration no more frequently than once a year.
  - E. Self-check for sensor failure. Upon detection of a failure, the system shall engage the fans and signal sensor failure.
  - F. Sensor will indicate when it has not been calibrated according to the manufacturer's and indicate as a failed sensor.

## Available Accessories

- P1879 Calibration Kit
- P1880 Calibration Gases
- 911154-SN Replacement Sensor
- 911154-PS Power Supply
- 911118M Infrared Handheld Programmer