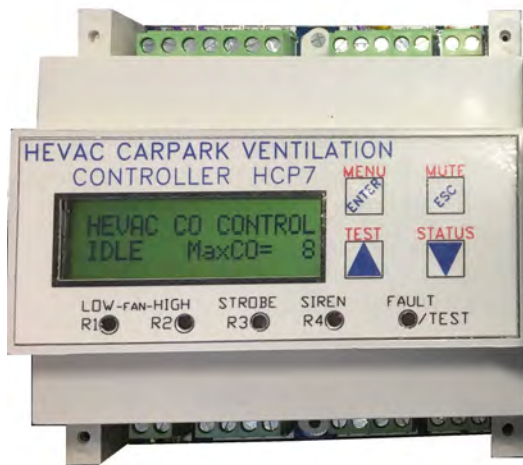


## HCP7 CARPARK "CO" ppm CONTROLLER



HEVAC HGS  
CO SENSOR



SIREN / STROBE

### Features

- PROGRAMS TO COMPLY WITH BOTH OCCUPIED & UNOCCUPIED STANDARDS
- INTERNAL TIME SW. FOR OPTIONAL PEAK PERIOD FORCED MAX FAN SPEED
- ADJUSTABLE IDLE MODE TIMER TO FORCE FAN RUN (GAP & DURATION)
- 4 X 8 Amp POTENTIAL FREE RELAY OUTPUT'S
- CLEAR PLAIN ENGLISH L.C.D MESSAGE'S OF INPUT & OUTPUT STATUS
- HANDY TEST / DEMO ROUTINE FOR EASY COMMISSIONING & TESTING
- UPTO 7 SENSORS, EXPANDABLE TO 42 WITH EXPANSION MODULES
- LOCKABLE SETTINGS BY 4 DIGIT PASSWORD
- NUMBER OF SENSOR I/P'S & Max ppm RANGE USER ADJUSTABLE
- BUILT TO MEET OR EXCEED ALL RELEVANT AUSTRALIAN STANDARDS
- *MODBUS COMPATIBLE VERSION COMMING SOON* . Modbus HGS sensor version available now.
- *DUAL CO / NO2 CAPABLE CONTROLLER COMMING SOON*.

### Use

These pre programmed controllers have been primarily designed to suit CO control requirements in non naturally ventilated carpark. User input links set system operation for either 2 speed High-Low exhaust fan operation or modulating VSD fan control and the option of forced fan ON override by an internal time switch with an adjustable speed setting for operation during morning and evening peak periods, + idle period auto run timer feature. All output relays are voltage free permitting use of either 240 or 24 AC, or DC voltage circuitry. The HCP7 can be powered from 12-24 v DC or AC.



FACTORY DEFAULT OUTPUT SETTINGS (UNOCCUPIED MODE) (exceeds AS1668.2)

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FIXED PRESET SETTINGS FOR 2 SPEED FAN OUTPUT (LOW / HIGH)

RELAY 1	LOW SPEED	ON > 9ppm	OFF < 7ppm	1 MIN.ON DLY / 5 MIN. OFF DLY
RELAY 2	HIGH SPEED	ON > 40ppm	OFF < 30ppm	2 MIN.ON DLY / 5 MIN. OFF DLY
RELAY 3	STROBE LIGHT	ON > 45ppm	OFF < 40ppm	
RELAY 4	SIREN (mutable)	ON > 50ppm	OFF < 40ppm	4 Min. ON DLY

IDLE TIMER SET TO TRIGGER FAN RUN EVERY 24 HOURS FOR 10 MINUTES +INHIBIT PERIOD (SETTINGS ADJUSTABLE)

FIXED PRESET SETTINGS FOR VSD CONTROLLED FANS

RELAY 1	LOW SPEED	ON > 9ppm	OFF < 7ppm	1 MIN.ON DLY / 5 MIN. OFF DLY
Y1 0-10v	VSD RAMP O/P	START >15ppm	MAX >35ppm	P + 60 MIN INTERGRAL TIME ACTION
R1 & THIS Y1 OUTPUT ALSO FORCED ON TO 10 VOLTS ON ANY FAULT CONDITION.				
RELAY 2	ENABLED ON FAULT &	> 50ppm	optional use	1 MIN.ON DLY
RELAY 3	STROBE LIGHT	ON > 45ppm	OFF < 40ppm	
RELAY 4	SIREN (mutable)	ON > 50ppm	OFF < 40ppm	4 Min. ON DLY

IDLE TIMER SET TO TRIGGER FAN RUN EVERY 24 HOURS FOR 10 MINUTES + INHIBIT PERIOD (SETTINGS ADJUSTABLE)

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OCCUPIED MODE SETTINGS USING 2 SPEED LOW /HIGH SPEED FAN (EXCEEDS AS1668.2)

RELAY 1	LOW SPEED	ON > 7ppm	OFF < 5ppm	1 MIN.ON DLY / 5 MIN. OFF DLY
RELAY 2	HIGH SPEED	ON > 24ppm	OFF < 15ppm	2 MIN.ON DLY / 5 MIN. OFF DLY
RELAY 3	STROBE LIGHT	ON > 35ppm	OFF < 30ppm	
RELAY 4	SIREN (mutable)	ON > 40ppm	OFF < 30ppm	4 Min. ON DLY

OCCUPIED MODE SETTINGS USING VSD FAN CONTROL (EXCEEDS AS1668.2)

RELAY 1	LOW SPEED	ON > 7ppm	OFF < 5ppm	1 MIN.ON DLY / 5 MIN. OFF DLY
Y1 0-10v	VSD RAMP O/P	START > 9ppm	MAX >24ppm	P + 60 MIN INTERGRAL TIME ACTION
preset min. vsd speed (30%) hides changing vsd output till it exceeds 15ppm				
RELAY 2	ENABLED ON FAULT &	> 40ppm	optional use	1 MIN.ON DLY
RELAY 3	STROBE LIGHT	ON > 35ppm	OFF < 30ppm	
RELAY 4	SIREN (mutable)	ON > 40ppm	OFF < 30ppm	4 Min. ON DLY

IDLE TIMER SET TO TRIGGER FAN RUN EVERY 24 HOURS FOR 10 MINUTES + INHIBIT PERIOD (SETTINGS ADJUSTABLE).

## Keypad, displays & settings.

The controllers fascia includes 4 push buttons , a 2x16 character LCD screen and five led indicating lamps. Operation of each button is as follows:

"**MENU/ENTER**" : To edit the controllers settings, press this button to enter the controllers menu list (some menus are password protected).

"**MUTE / ESC**" : Used to exit a menu or as a Siren Mute, (which can also be muted by an external push button connected between terminals M and D2).

"**TEST / UP**" : pressing the "TEST" button causes normal operation to stop and a 5 minute demo/ test program to run that simulates CO levels increasing from 0ppm to 45ppm & returning to 0 to demonstrate the effect on outputs and displays at various CO levels, note normal delay times are bypassed or reduced.

"**STATUS / DOWN**" : pushing the "STATUS" button causes the display to show input and output status .Push the up or down buttons to see all pages of information.

Energized relay outputs are also indicated by 4 red led's for fan Low & High speeds, Strobe and Siren operation, and a common fault / demo indication led.

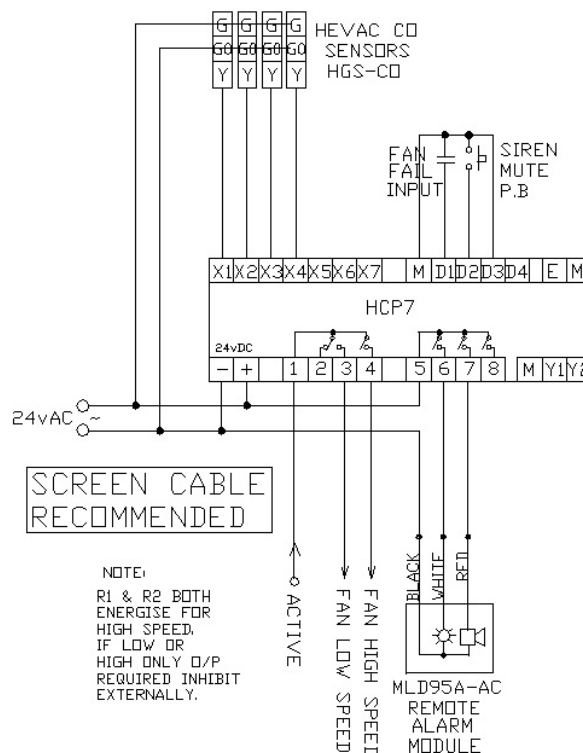
The number of sensor inputs and sensor range are user adjustable in the menu system under the password protected " CONFIGURE CONTROLLER " sub menu. The password is the 1st 4 digits of Hevac's phone number .."9562" (our ph # is 03 9562-7888).

Analog output "Y2" is a fixed 10v DC output signal supplied for optional use as a full speed signal source for a "Manual / Auto" external selector switch.

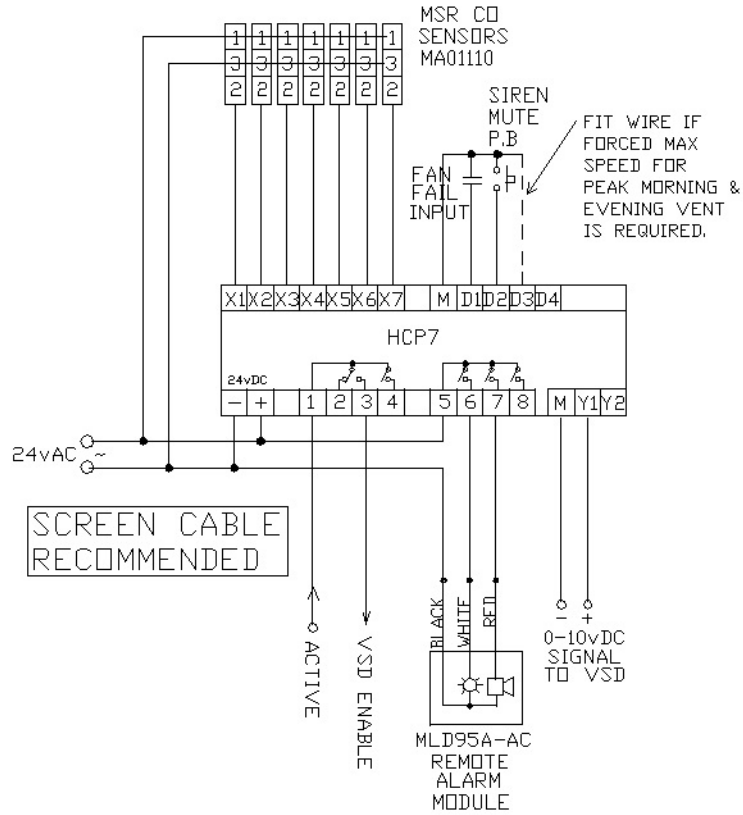
### TECHNICAL INFORMATION

POWER CONSUMPTION USING 24 VAC	4 VA	COLOUR	GREY
" " " 24 VDC	200mA	MATERIAL	POLYCARBONATE
MAX Y1 (VSD O/P) PERMISSIBLE LOAD	1 mA (>10K ohm)	UV STABILISED	YES
MAX SENSOR INPUT CURRENT DRAW	0.07mA (Typically 0.02)	FIRE RETARDANT	YES
6 MODULE DIN MODULE ENCLOSURE		SIZE	L105 X W105 X D60mm

### **Application Example (1) UPTO 7 CO I/P's, 4 CONNECTED , 2 SPEED LO-HI FAN RELAY OUTPUT**



## Application Example (2) UPTO 7 CO I/P, MODULATING VSD OUTPUT



## Application Example (3) UPTO 14 CO I/P, MODULATING VSD OUTPUT

