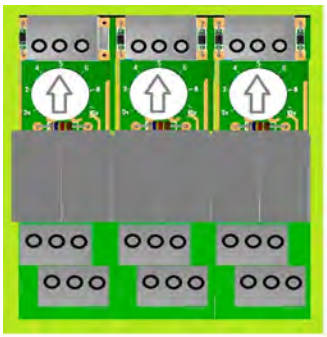
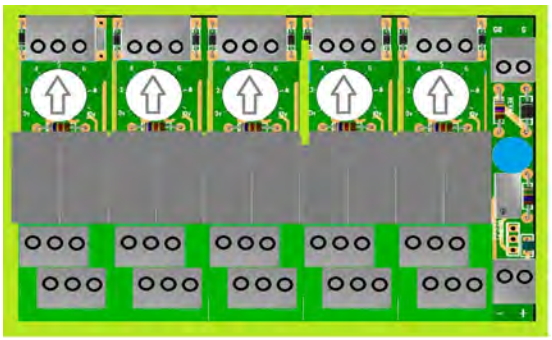
HEVAC Control Agencies

PRELIMINARY DATA SHEET

AWEC SERIES EC FAN AUTO/MANUAL MODULES





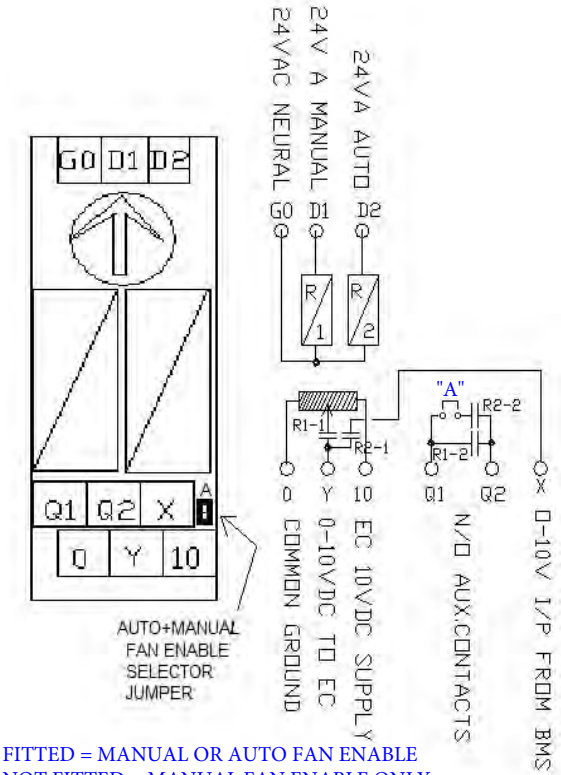
AWEC-1 AWEC-3 AWEC-5-10v

- **Made in Australia to Australian Standards.**
- **Multiple I/O versions : single, 3 way & 5 way.**
- **Auto / Manual inputs can be looped to other 24vAC relays etc.**
- **Manual potentiometer can adjust output from 0-10vDC.**
- **Potential Free (24v 1Amp max.) SPST Fan Enable Relay Output selectable for use in manual mode only or when both manual or auto input selected.**
- **AWEC-5-10v has five I/O cards + an additional adjustable DC power supply**
- **Optional additional 0-10vdc controlled relay card also available**
- **Din rail mount low profile.**

APPLICATION

The AWEC modules are intended for use as a low cost alternative to traditional plug in relays & potentiometers for Auto/Off/Manual EC fan speed interlocks & control. The device is available in 3 versions - a Single output module AWEC-1, AWEC-3 (3 I/O card only), & a 5 output version AWEC-5 c/w an adjustable DC power supply card. Two 24v active Inputs set each card to output either a manually adjustable 0-10vdc output (set using the onboard potentiometer/s) ***or*** *to pass out the 0-10vdc signal/s from an external control device ie BMS EC fan speed control outputs. The AWEC5 version also comes with an optional use adjustable DC power supply card that can be used either as a local common 10vdc power supply to power the five onboard manual potentiometers or as a common preset voltage that can be used as DC signal source to set the fan speed in the D2 input mode (instead of signals from an external source) ie 2 speed low / high (adjustable) speed selection (as selected by external switch).* ***The potentiometer shaft/knob can be removed exposing only a hexagonal hole to decrease the ability of tampering post commissioning manual fan speed settings.***

TERMINAL LEGEND



"A" FITTED = MANUAL OR AUTO FAN ENABLE
"A" NOT FITTED = MANUAL FAN ENABLE ONLY

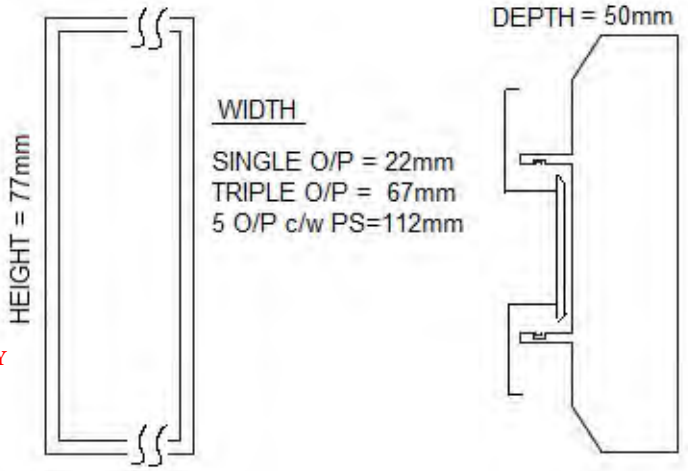
GO 24v NEUTRAL
D1 24v ACTIVE to energise relay 1 (Manual)
D2 24v ACTIVE to energise relay 2 (Auto)

Q1 & Q2 Auxiliary SPST N/O contacts
X External 0-10vdc input

0 EC Fan & potentiometer DC ground interlock
Y EC Fan 0-10Vdc output control interlock
10 Potentiometer 10vDC supply input **from** EC fan or external power supply.

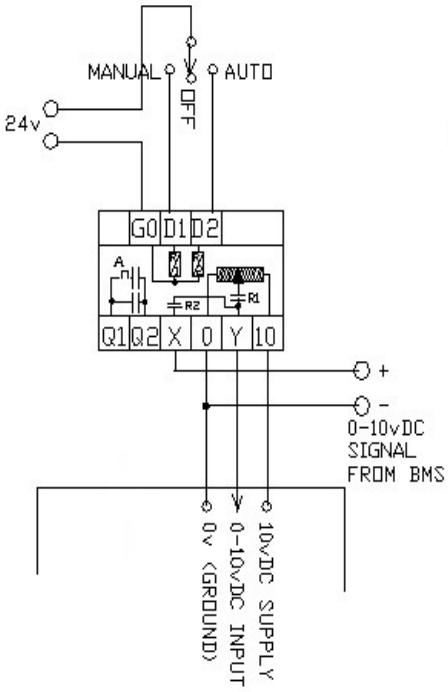
THE AWEC-1 & 3 NEEDS AN EXTERNALLY SUPPLIED 10vDC SUPPLY FOR THE ONBOARD MANUAL SPEED SETTING POTENTIOMETER, IF THE EC FAN DOESNT INCLUDE A 10vDC SUPPLY , A LOW COST 10VDC POWER SUPPLY CAN BE PURCHASED FROM HEVAC.

DIMENSIONS

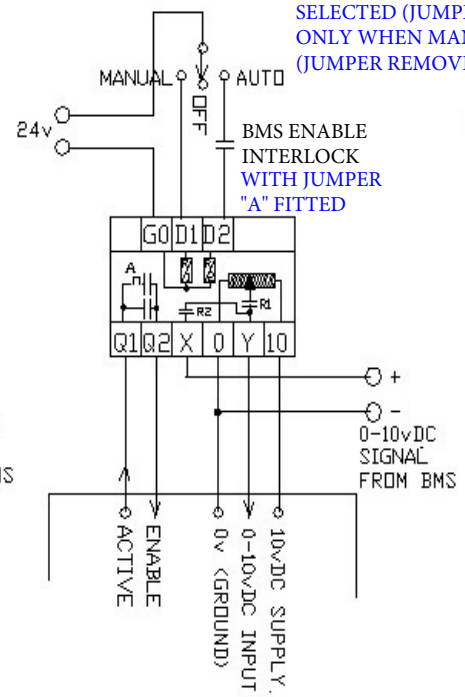


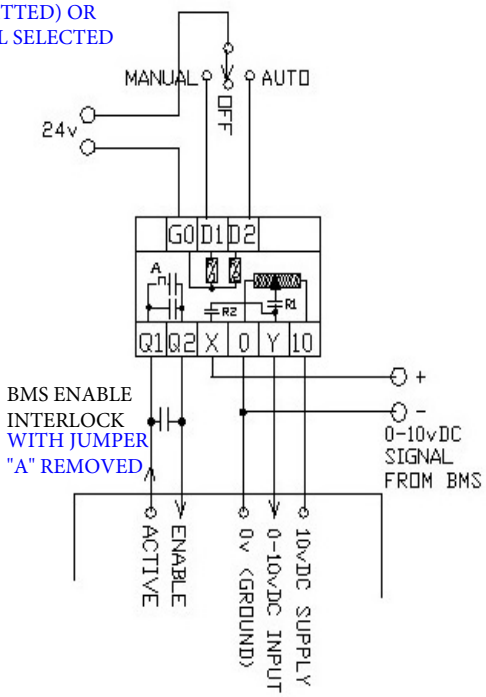
USE & CONNECTION EXAMPLES

JUMPER "A" SETS WHETHER Q1 & Q2 CLOSE WHEN AUTO OR MANUAL SELECTED (JUMPER FITTED) OR ONLY WHEN MANUAL SELECTED (JUMPER REMOVED).



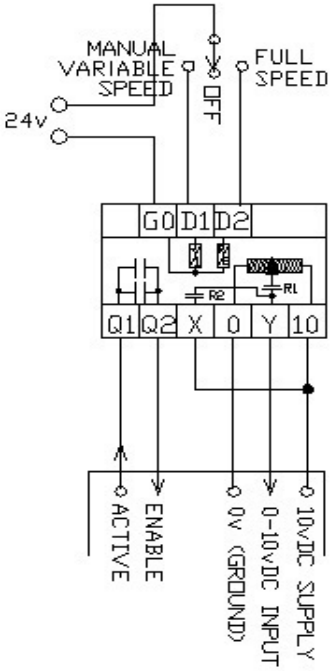
BASIC EC FAN SPEED CONTROL WITH VARIABLE EXTERNAL CONTROL INPUT & MANUAL SPEED SELECTION VIA 3 POSITION SWITCHBOARD SWITCH.





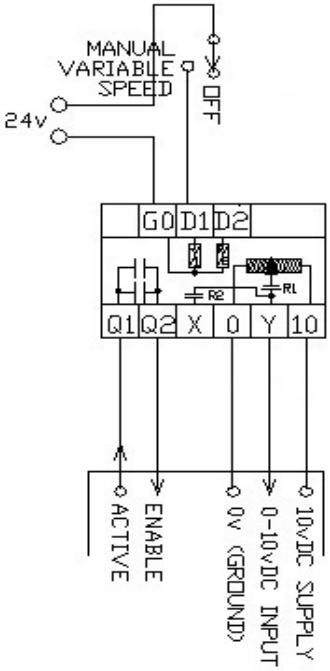
EC FAN SPEED CONTROL WITH VARIABLE EXTERNAL INPUT & MANUAL SPEED VIA SWBD SWITCH C/W FAN RUN RELAY ENABLE OUTPUT. WITH EITHER ONLY MANUAL MODE ENABLING FAN OR BOTH AUTO & MANUAL ENABLING FAN.

MANUAL LOW /HIGH FAN SPEED SELECT



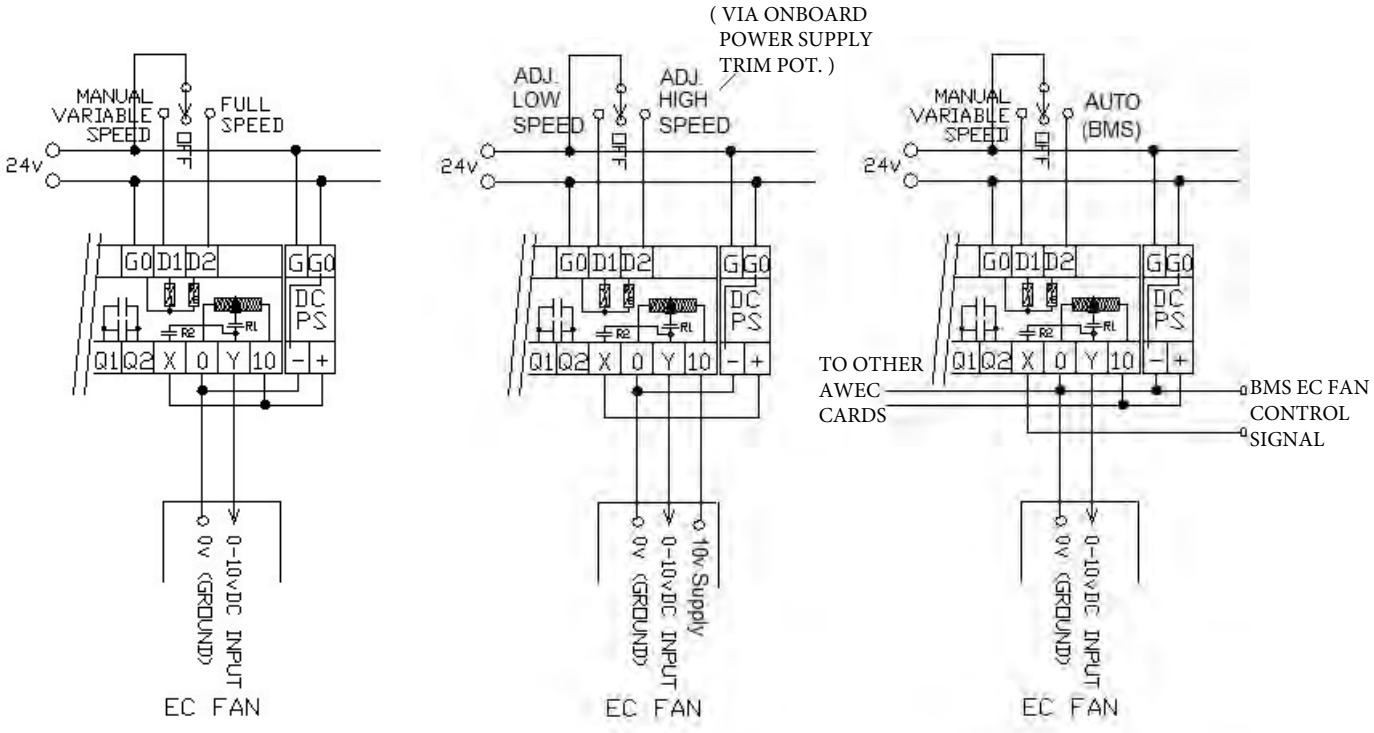
EC FAN SPEED CONTROL WITH VARIABLE MANUAL SPEED OR FIXED FULL SPEED VIA SWBD SWITCH C/W FAN RUN RELAY ENABLE O/P.

SIMPLE ON/OFF EC FAN ENABLE WITH SETTABLE OUTPUT SIGNAL(SPEED)



EC FAN SPEED CONTROL WITH VARIABLE MANUAL SPEED VIA SWBD SWITCH C/W FAN RUN RELAY ENABLE O/P.

EXAMPLE DETAIL OF (PART) AWEC-5 5 OUTPUT VERSION SHOWING OPTIONAL USE OF ONBOARD ADJUSTABLE DC POWER SUPPLY CARD.

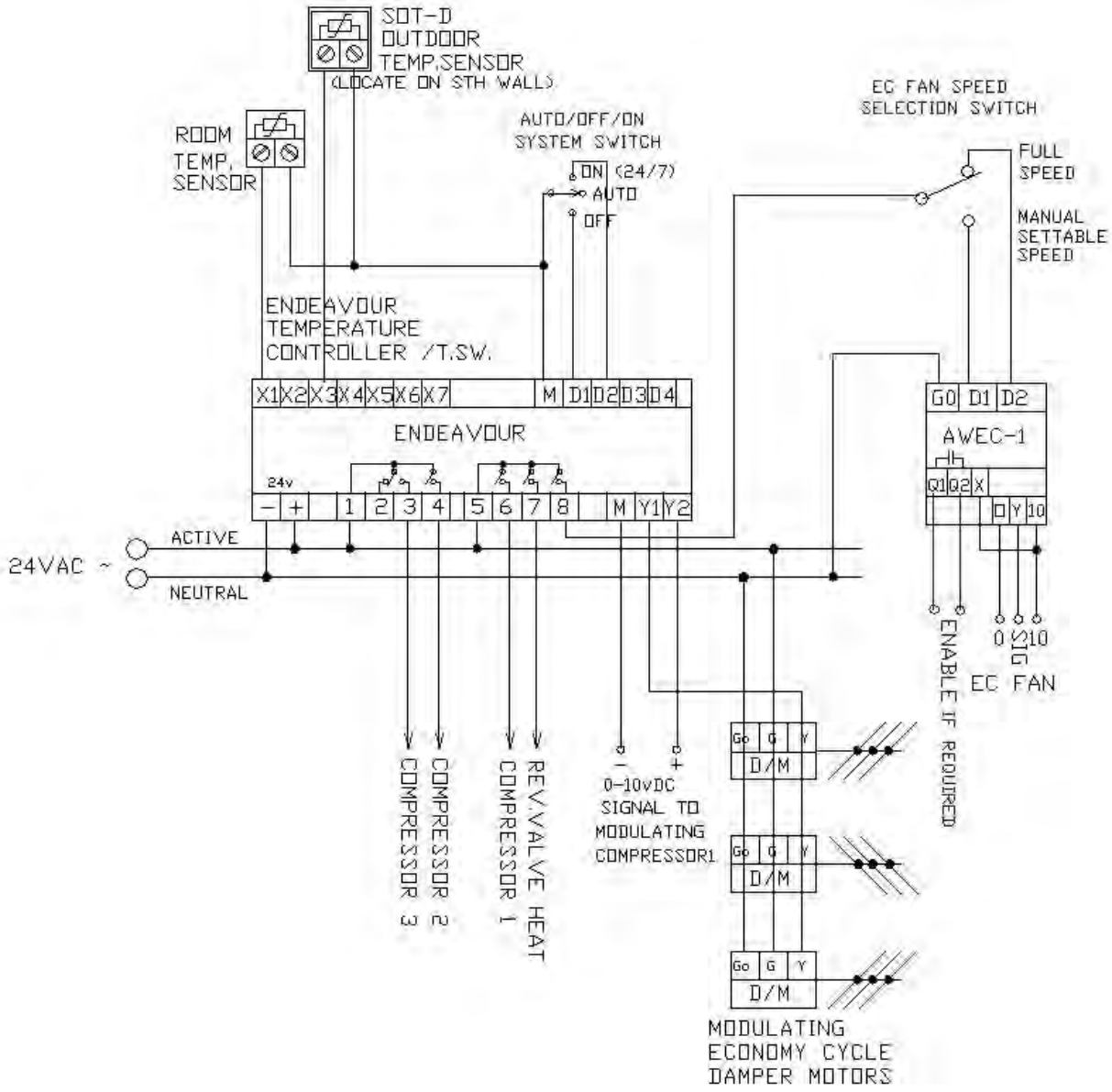


2 SPEED EC FAN CONTROL SYSTEM WITH ADJUSTABLE LOW SPEED/FIXED FULL SPEED

2 SPEED EC FAN CONTROL SYSTEM WITH ADJUSTABLE LOW SPEED & ADJUSTABLE HIGH SPEED.

USING ONBOARD POWER SUPPLY CARD TO SAVE 3rd WIRE (10vDC SUPPLY) TO EC FAN CONNECTIONS.

EXAMPLE :USED IN CONJUNCTION WITH ENDEAVOUR TEMPERATURE CONTROLLER



TERMINAL 8 ON THE HEVAC ENDEAVOUR CONTROLLER IS THE TIME SWITCH OUTPUT, TYPICALLY USED TO START & STOP THE SUPPLY AIR FAN. SHOWN IN THIS DRAWING TERMINAL 8 IS CONNECTED TO THE NEW AWEC EC FAN MODULE VIA A SWITCHBOARD OR FIELD MOUNTED HIGH/LOW SPEED SELECTOR SWITCH WHICH CAUSES THE SELECTED INPUT TO CONTROL THE EC SPEED. THE Q1 & Q2 CONTACTS WILL CLOSE IN EITHER SELECTION WITH THE "A" JUMPER FITTED.