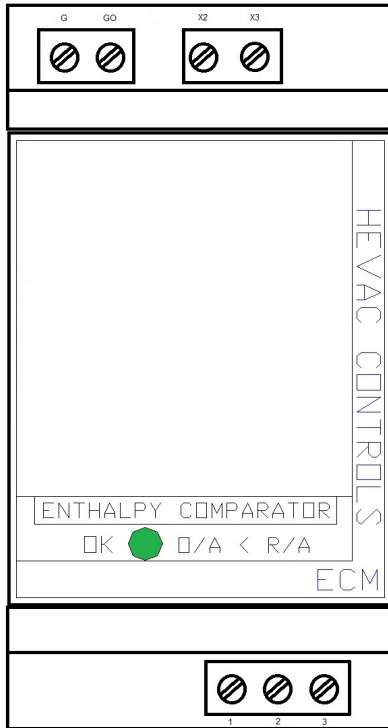


HEVAC

Control Agencies



ECM

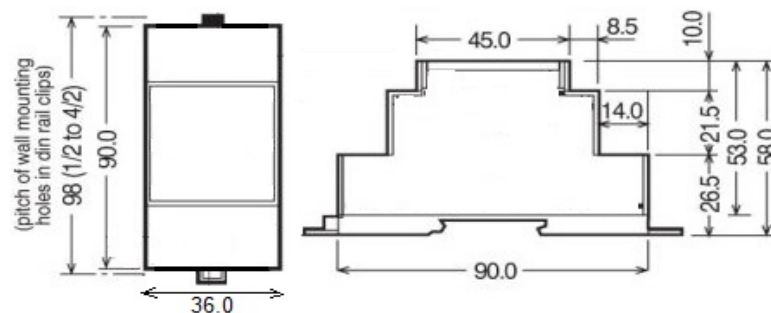
DAMPER ECONOMY CYCLE ON/OFF INTERLOCK WITH ENTHALPY COMPARATOR

- Australian Designed & Manufactured.
- 2 x 0-10vdc Enthalpy Sensor (Comparator) Inputs
- Indication Led for Input Suitability Status
- Potential Free 10A/240v rated Output relay with C/O contacts
- Small 2 module Standard Din module Enclosure.
- Stand alone capability.

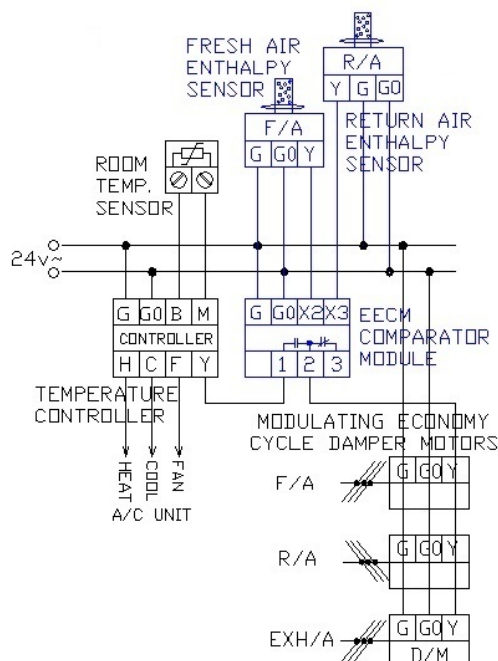
Typical Application & notes :

Typically used in conjunction with air conditioning temperature controllers that also control economy cycle dampers for free cooling using either 2 position or modulating motorised fresh air & return air dampers. This module adds the ability to also inhibit economy cycle operation using 2 connected enthalpy sensors, if the measured outside air enthalpy isn't at least 2.5 kJ/kgs (0.3vdc) lower than the return (or room) air enthalpy. For a basic perspective, typically an enthalpy delta (change) of 2.5 kJ/kg relates to a change of ~ 1 degrees Celsius or 7%RH or 1g/kg absolute humidity at an atmospheric pressure of 1 bar. Although Enthalpy measurement is a more accurate method of determining which air (F/A or R/A) is more suitable for cooling then comparing just temperature, it should be noted enthalpy sensors are not as long term accurate as temperature sensors and will require calibration after years of service, not as easily understood, & more difficult for checking the sensor measurement by service personal during system checking. The comparator function could alternatively compare any 0-10vdc type sensor signals ie O/A & R/A temperature inputs instead of comparing enthalpy with the switching differential fixed at 0.3 volts.

DIMENSIONS



ELECTRICAL CONNECTIONS EXAMPLE



TEMPERATURE CONTROL SYSTEM WITH MODULATING O/P USING EECM MODULE FOR F/A-R/A ENTHALPY COMPARATOR INHIBIT INTERLOCK