

Methods of controlling a digital EC system

The digital EC control system comprises of impulse fans that incorporate intelligent, highly efficient, Electronically Commutated (EC) motors.

There are **two** types of these systems.

Benefits for both control strategies

- Most cost effective solution
- Minimal cabling as digital messages are used
- Digital monitoring of Jetvent Fans
- Easy installation
- Easy commissioning
- Lowest running costs
- Excellent noise to airflow ratio
- Soft starting motors
- No VSDs or Sinusoidal filters required for JetVent fans
- Digital EC Control capability
 - Up to 24 EC JetVent Fans
 - Up to 48 CO/NO_x sensors
 - Up to 24 integrated smoke detectors

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Digital EC JetVent fans and analogue VSD control for supply and exhaust fans

Applicable to fan series JIU-CPCEC with integrated Speed control

Up to 24 JetVent fans & 48 sensors can be operated by the EcoVent Zone Controller

CO/NO_x Sensors, up to 2 per fan

ComLink to EC Fan Unit

EcoVent Zone Controller

Main Supply Fan

Variable Speed Drive

Variable Speed Drive

Main Exhaust Fan

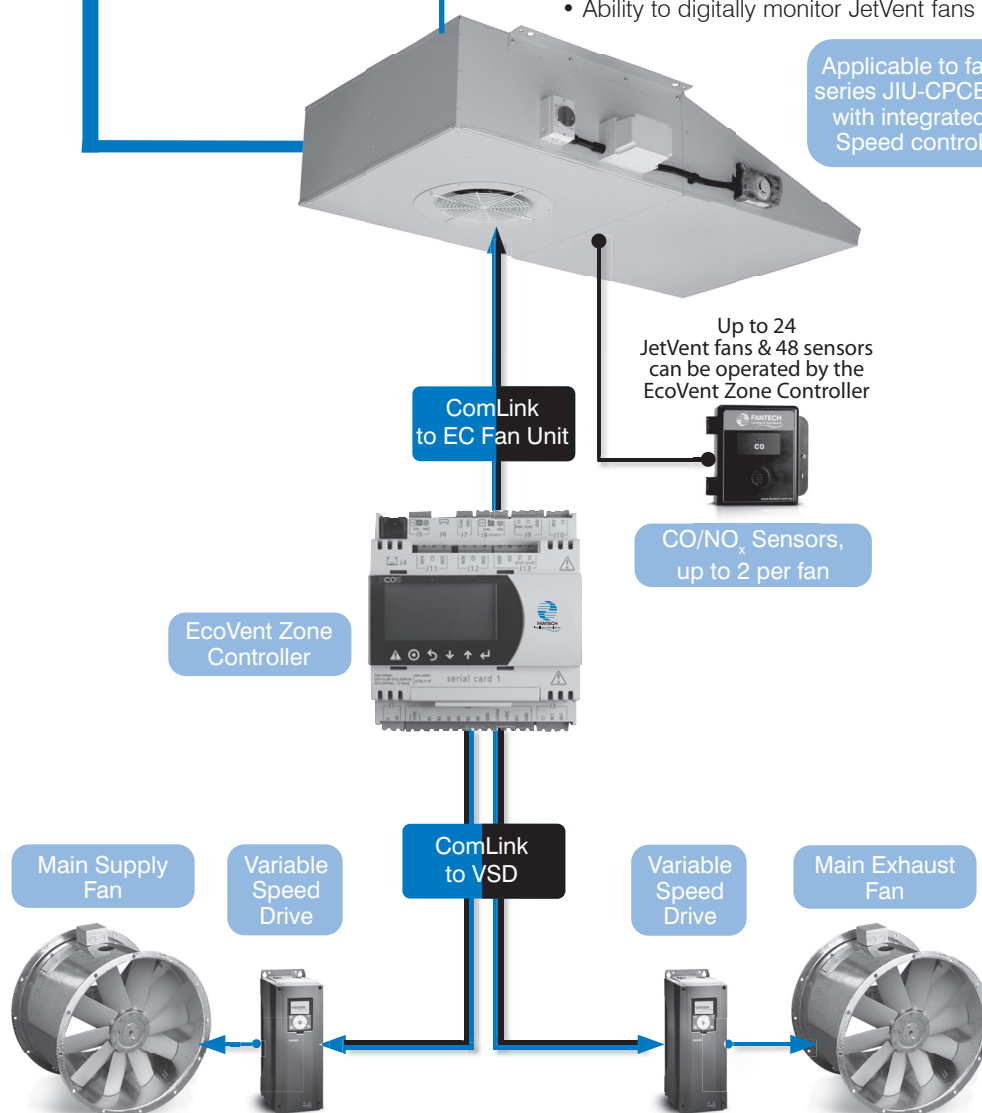
Key
 Output
 Input

2 Digital EC JetVent fans and digital VSD control utilising ComLink.

Additional benefits of control strategy 2

- Controller can monitor the VSDs for actual fan speed and detect any fault conditions that may occur. No additional control equipment is required for this monitoring.
- The VSDs can also be daisy chained on the ComLink allowing them to be located up to 1000m from the EcoVent Controller.
- Up to 6 VSDs can be connected to the ComLink in supply or exhaust mode.
- Ability to digitally monitor JetVent fans and VSDs.

Applicable to fan series JIU-CPCEC with integrated Speed control



Note:

- Fantech sensors included in the Digital EC Control Systems have been designed specifically for this purpose. Please contact Fantech for suitability of any other sensor.
- 120 ohms end of line resistor should be used.
- Both control strategies must use a Vacon 100 HVAC variable speed drive for supply and exhaust fans. See page M12 for more information.