

INDUCTION VAV

BARCOL-AIR

the Netherlands



OUR GREEN COMFORT SOLUTION

BARCOL-AIR

SIG AIR HANDLING

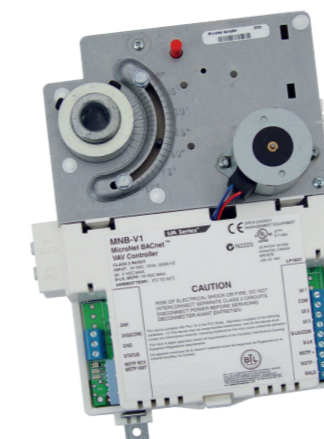
PLUG & PLAY | Intelligent Control Solutions

Inbuilt

- Printed circuit board
- Actuator
- Pressure transducer
- Communication Protocol:

Features

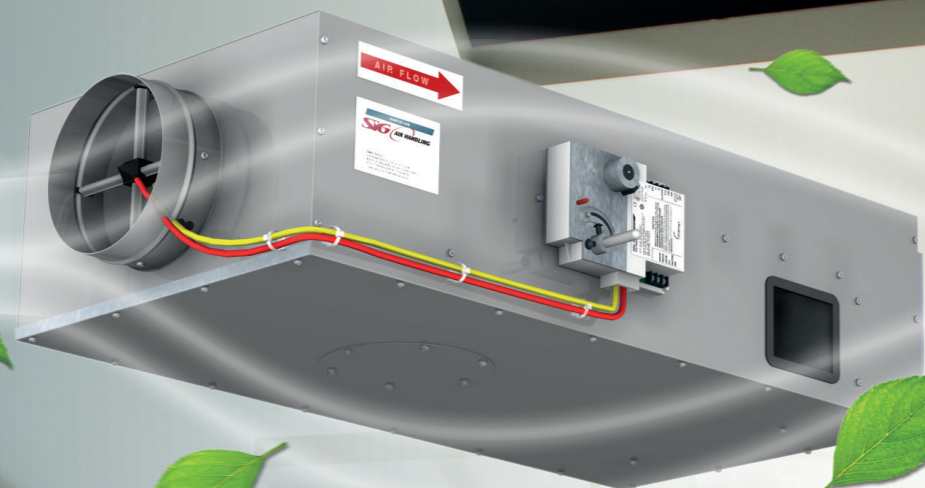
- Fully programmable
- Open communication
- Extra on/board I-O
- Inputs for:
 - Occupancy sensor
 - Window contact
 - Signal from BMS
- Outputs for:
 - Heater (stage type, PWM or modulating)
 - Lighting signal



LONMARK®

ASHRAE BACnet™

INDUCTION VAV



SINGLE SOURCE SINGLE RESPONSIBILITY

Barcol-Air VAV systems have proven to be very energy efficient in providing an optimal indoor climate.

The latest standards and requirements for energy efficiency and human thermal comfort make it more and more challenging to design new HVAC systems that comply to these standards.

Energy could be saved by reducing primary air volumes to a minimum during reduced load conditions.

However with conventional VAV systems this could cause "cold air dumping" and lack of air movement in the room, resulting in occupants discomfort and a consequent decrease in productivity.

Induction VAV is the best solution to maintain proper air circulation and comfort levels, reducing the primary treated air to very minimum (20% of maximum).

Without the use of an additional fan, room air will be induced and induction VAV guarantees that the required standards for comfort will always be achieved.

Flo-Cross® air flow sensor

The Flo-Cross® provides a differential pressure output signal proportional to the dynamic pressure (velocity)

- Pressure Independent Control - no need for VCD's

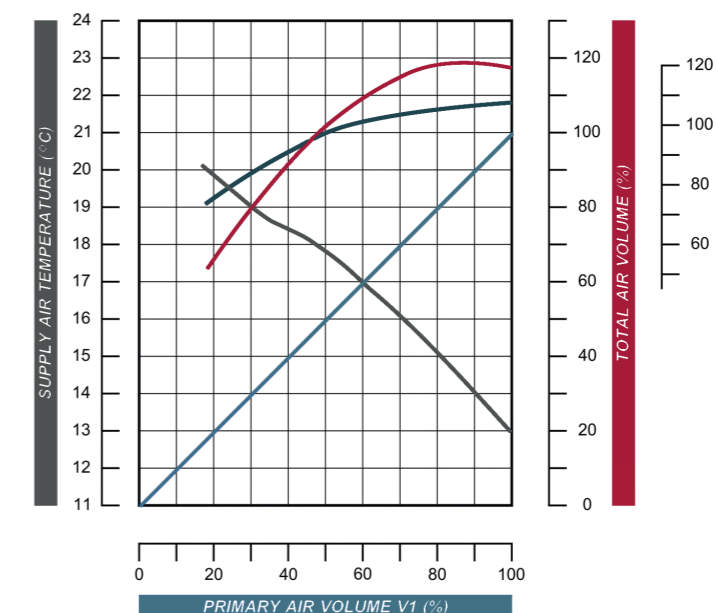
- Multiple test points (at least 2 x 12 points) equally distributed in the duct area
- Only 1 diameter installation space required
- Better than 2,5% accuracy
- Centre averaged signal
- Linear amplified



Room temperature sensor



- Digital display
- Set point adjustment
- Actual temperature measurement
- Programmable override button (optional)
- Built-in CO₂ sensor (optional)
- Built-in humidity sensor (optional)



Green building certifications



breeam



Barcol-Air: Green building projects



Helios Massy, Paris, France



Banco Santander, Buenos Aires, Argentina



Mapletree Business City II, Singapore

Energy efficiency

- Optimum in comfort
- Minimum energy use
- Capacity up to 200 W/m² without loss of comfort
- Cooling, heating and ventilation done by a single VAV terminal
- Pressure independent
- Induction without use of a fan and filter
- Savings in primary ductwork
- No cold air dumping
- Low noise levels
- Maintenance free
- Standard VAV controller can be used
- Highly accurate Flo-Cross® air flow sensor

INDUCTION VAV | REFERENCE PROJECTS



Belgrano, Buenos Aires, Argentina (LEED Gold certification)



Menora Astra Tower, Jakarta, Indonesia (LEED Platinum anticipated)



HQ ADNOC, Abu-Dhabi, UAE (LEED Gold anticipated)

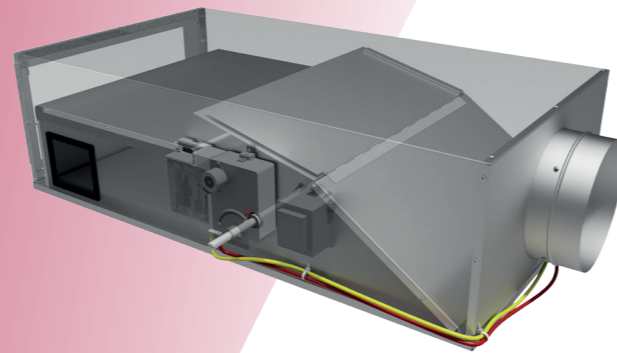


HQ Landmark group, Dubai, UAE (LEED Silver certification anticipated)



Complejo J.F. Ibarra, Santiago del Estero, Argentina (LEED Silver certification)

BIM *ready...*



BARCOL-AIR | AIR DISTRIBUTION

SIG AIR HANDLING

BARCOL-AIR

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Barcol-Air: an SIG Air Handling The Netherlands company



The Edge, Amsterdam, the Netherlands (BREEAM Outstanding)



SKF, Tortuguitas, Argentina



KPMG HQ, Amstelveen, the Netherlands