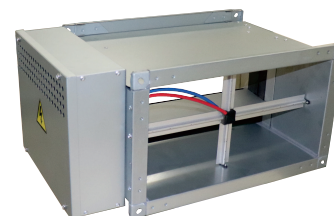
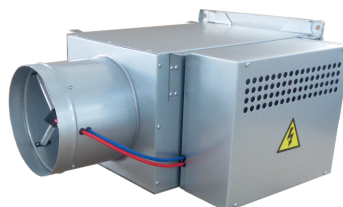


NA-NB Round VAV Control Dampers with integral Actuator/Controller and remote Room Temperature Controller.

NC Compact Control Dampers with integral Actuator/Controller and remote Room Temperature Controller.

NK-NL Rectangular Control Dampers with integral Actuator/Controller and remote Room Temperature Controller.



Remote Room Temperature Controller



Remote Room Temperature Controller



Remote Room Temperature Controller



Description

Barcol-Air Room Temperature Control VAV terminals are supplied complete with Barcol-Air factory assembled and calibrated control packages ready for operation. The NA and NB series terminals have round bodies, and the NK and NL series are rectangular, NC series are compact. All units are complete with integral Damper Actuator/Controller and remote Room Temperature Controller. The NA and NK series have single skin bodies, and the NB and NL series have double skin with enclosed insulation for improved acoustic and thermal performance, and the NC series plenum have single skin with internal fiberglass insulation with black glass tissue covering.

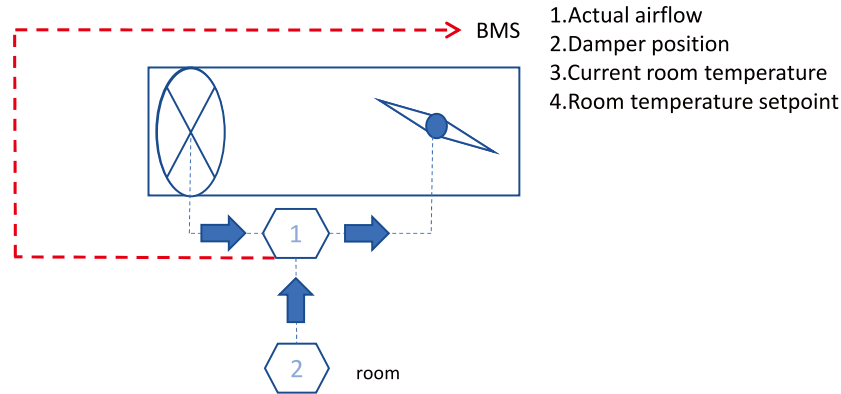
Control Functions



Include:

- Barcol-Air high accuracy Flo-Cross sensor for airflow measurement with 2x12 sensing points, signal amplification and signal averaging providing sensing accuracy of better than $\pm 2.5\%$ in its operating range. Insuring accurate flow measurement and pressure independent operation.
- The VAV room temperature control series are supplied complete with a Barcol-Air Actuator/Controller with PI control for pressure independent operation and a dynamic response pressure transducer for airflow sensor pressure measurement.
- BACnet communication with the Building Management System using BACnet MS/TP protocol.
- BACnet function – addressable from 1 to 127 in a singular BACnet MS/TP network. Recommended to have repeater every 32 BACnet devices.
- Test function/test display – two LED's which show power status, bus communication and adaptation.
- Nominal power requirements: - 24VAC, 50/60Hz, 7VA. Optional transformer available for 230VAC to 24VAC power supply.
- Actuator torque 5NM.
- Remote Room Temperature Controller with built in thermistor temperature sensor, backlit LCD display and setpoint input control buttons. Option - without LCD display and setpoint input control buttons for using NFC interface only.
- Temperature set point adjustments via:
 - Set buttons on room temperature controller.
 - BACnet MS/TP communication with Actuator/Controller.
 - NFC interface with Actuator/Controller or Room Temperature Controller.
- Air Flow setpoint adjustments via:
 - BACnet MS/TP communication with Actuator/Controller.
 - NFC interface with Actuator/Controller and Room Temperature Controller.
- Powerless Commissioning via NFC interface.

Control Schematic

Pressure Independent Room Temperature Control Series with remote Room Temperature Controller. RTC-ZE



-  VAV controller/actuator/airflow pressure sensor RTC-ZE
-  Room Temperature Controller

VAV Terminal Features

- Galvanised steel bodies with optional polyester powder paint finish or stainless steel body for enhanced corrosion resistance.
- NA and NB round series with sandwich construction galvanized steel oval damper blade for linearized performance with neoprene blade seal for low leakage.
- NK and NL rectangular series with aluminum extruded parallel damper blades with edge seals and blade synchronising gear wheels. NKS low leakage series with ultra low leakage damper blade end seals .
- NC compact series with round inlet and rectangular outlet plenum with sandwich construction oval damper blade for linearized performance.
- Low casing air leakage:
 - NA & NB series - Class C according to Standard EN1751.
 - NK & NL series - Class A and NKS series class C according to Standard EN1751.
 - NC series - Class C according to standard En1751.
- Low closed blade air damper leakage:
 - NA & NB series - Class 4 according to Standard EN1751 except diameters 100 and 125 which are Class 3.
 - NK & NL standard version - Class 1 and NKS series low leakage version - Class 4 according to Standard EN1751, except model sizes with 100mm and 200mm heights which are Class 3.
 - NC series - Class 3 according to standard EN1751.

Options

- Power transformer 230VAC to 24VAC.
- Control box.