



Guide specification

DZK-5

DZK ZONING BOX SPECIFICATION _____	3
> GENERAL _____	3
> Quality assurance _____	3
> Delivery, storage and handling _____	3
> WARRANTY _____	3
> Warranty _____	3
> Installation requirements _____	3
> PERFORMANCE _____	4
> Design basis _____	4
> PRODUCTS _____	4
> DZK030E4-5 - Zoning Box 4 dampers - 8" _____	4
> DZK030E5-5 - Zoning Box 5 dampers - 6" _____	5
> DZK048E4-5 - Zoning Box 4 dampers - 8" _____	7
> DZK048E6-5 - Zoning Box 6 dampers - 6" _____	8
> DZKS015E3-5 - Zoning Box 3 dampers - 8" _____	10
> DZKS015E4-5 - Zoning Box 4 dampers - 6" _____	11
> DZKS030E4-5 - Zoning Box 4 dampers - 8" _____	13
> DZKS030E5-5 - Zoning Box 5 dampers - 6" _____	14
> DZKS048E4-5 - Zoning Box 4 dampers - 6" _____	16
> DZKS048E6-5 - Zoning Box 6 dampers - 6" _____	17
> DZKS054E6-5 - Zoning Box 6 dampers - 8" _____	19
> HVAC EQUIPMENT ALTERNATE (GENERAL INFORMATION) _____	21

DZK ZONING BOX SPECIFICATION

Daikin models numbers:

- DZK030E4-5 – ZONING BOX 4 DAMPERS – 8”
- DZK030E5-5 – ZONING BOX 5 DAMPERS – 6”
- DZK048E4-5 – ZONING BOX 4 DAMPERS – 8”
- DZK048E6-5 – ZONING BOX 6 DAMPERS – 6”
- DZKS015E3-5 – ZONING BOX 4 DAMPERS – 8”
- DZKS015E4-5 – ZONING BOX 5 DAMPERS – 6”
- DZKS030E4-5 – ZONING BOX 4 DAMPERS – 8”
- DZKS030E5-5 – ZONING BOX 5 DAMPERS – 6”
- DZKS048E4-5 – ZONING BOX 4 DAMPERS – 8”
- DZKS048E6-5 – ZONING BOX 6 DAMPERS – 6”
- DZKS054E6-5 – ZONING BOX 6 DAMPERS – 8”

GENERAL

Quality assurance

The units shall be tested by a Nationally Recognized Testing Laboratory (NRTL) in accordance with ANSI/UL Standard UL 1995/CAN/CSA-C22.2 No. 236-11 – 4th Edition (R2011) – Heating and Cooling Equipment, and will bear the Listed Mark.

All wiring shall be in accordance with the National Electric Code (NEC)/Canadian Electrical Code (CEC).

Delivery, storage and handling

Units shall be stored and handled according to the manufacturer's recommendations.

WARRANTY

Warranty

The units shall have a manufacturer's warranty for a period of one (1) year from date of installation. The units shall have a limited labor warranty for a period of one (1) year from date of installation. During the stated period, should any part fail due to defects in material and workmanship, it shall be repaired or replaced at the discretion of Daikin North America LLC according to Daikin's terms and conditions. All warranty service work shall be performed by a Daikin factory-trained service professional.

Installation requirements

The system must be installed by a Daikin factory-trained contractor/dealer. The bidders shall be required to submit proof of training certification with bid documents. The mechanical contractor's installation price shall be based on each system's installation requirements. The mechanical contractor bids with complete knowledge of the HVAC system requirements. Untrained contractors who wish to bid for a project may contact Daikin University at (972) 245-1510 to arrange training prior to bid day.

PERFORMANCE

Design basis

All bidders shall furnish the minimum system standards as defined by the base bid model numbers, model families, or as otherwise specified herein (see **Key General Specifications Alternate Supplier Checklist**). In any event, the contractor shall be responsible for all specified items and intent of this document without further compensation.

PRODUCTS

DZK030E4-5 - Zoning Box 4 dampers - 8"

General

Zoning box with 4 motorized dampers, 8" diameter that fit Daikin units FBQ 18-24-30 PVJU and FXMQ 15-18-24 PBVJU. The DZK Zoning Control Board uses the information from the Wired Thermostat, the Wireless Thermostat and the Wireless Lite Thermostat to update the position of the dampers, thus supplying air only to those zones that are in demand. Through the DZK Interface Board, the DZK Zoning Control Board changes the operation of the IU according with system needs at any time, by controlling the unit ON/OFF, its set point, operation mode, speed control, defrost, and energy efficiency. To control unit speed and energy efficiency, the control board uses algorithms based in overall demand, room temperature change rate, and pre-defined temperature ranges.

Performance

Each DZK Zoning Box performance is based on nominal capacity for the Daikin FBQ 18-24-30 PVJU and FXMQ 15-18-24 PBVJU indoor unit fan coil it is connected to.

Zoning Box

1. The DZK Zoning Box DZK030E4-5 shall be completely factory assembled and tested. It includes 4 motorized dampers, DZK Zoning Control Board, Interface Board, and the necessary wiring to control the IU.
2. It includes a manual setting to define the maximum and minimum opening of each damper.
3. It includes an insulated stopper to be used in case one of the dampers is not used in the installation.

DZK Zoning Control Board

1. The DZK Zoning Control Board is fitted with 6 outputs to control the individual dampers with capacity of 12 Vdc, 150 mA.
2. It controls up to 2 stages of auxiliary heat through dry contacts with 24 Vac, 1 A capacity.
3. The zoning board includes a dry contact input (NC) that will close all dampers if activated (open circuit).
4. There is an analog input for the supply temperature sensor that is type NTC 10K - B₂₅₋₈₅ 3977.
5. The operating range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.
6. The Zoning Box power supply voltage is 110/230 Vac ± 10%, and the current is 250 mA.
7. The DZK Zoning Control Board is protected by a self-resettable fuse.
8. The protection class is IP 21.

DZK Daikin Interface Board

1. DIP Switch configuration.
2. P1-P2 connection for the Daikin units.
3. Seamless integration with the Indoor Unit Control.
 - On/Off status.
 - Fan speed algorithm.
 - Indoor Unit Set point.
 - Operation Mode.
 - Energy Efficiency Control Algorithm.
 - Defrost function.
4. Operation Temperature ranges 32 °F - 122 °F.
5. Operation range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.

DZK BACnet Interface

1. Ethernet or RS-485 connection to the BACnet network.
2. Read/Write parameters and status of individual zones.
3. Report errors from the zoning system and the IU.
4. Read/Write system operation mode.
5. Report status of the auxiliary heating system.

Electrical

1. Transmission (control) wiring between the DZK Zoning Control Board and Wired Thermostat shall be a maximum distance of 130 ft (40 m).
2. Transmission (control) wireless between the DZK Zoning board and Wireless Thermostats shall be a maximum distance of 130 ft (40 m) in clear line of sight.

Control

1. The DZK Zoning Control Board shall have controls provided to perform input functions necessary to operate the system (Wired Thermostat & Wireless Thermostats).
2. The DZK Zoning Control Board shall be compatible with a DZK BACnet Interface to enable BMS BACnet communication.

DZK030E5-5 - Zoning Box 5 dampers - 6"

General

Zoning box with 5 motorized dampers, 6" diameter that fit Daikin units FBQ 18-24-30 PVJU and FXMQ 15-18-24 PBVJU. The DZK Zoning Control Board uses the information from the Wired Thermostat, the Wireless Thermostat and the Wireless Lite Thermostat to update the position of the dampers, thus supplying air only to those zones that are in demand. Through the DZK Interface Board, the DZK Zoning Control Board changes the operation of the IU according with system needs at any time, by controlling the unit ON/OFF, its set point, operation mode, speed control, defrost, and energy efficiency. To control unit speed and energy efficiency, the control board uses algorithms based in overall demand, room temperature change rate, and pre-defined temperature ranges.

Performance

Each DZK Zoning Box performance is based on nominal capacity for the Daikin FBQ 18-24-30 PVJU and FXMQ 15-18-24 PBVJU indoor unit fan coil it is connected to.

Zoning Box

1. The DZK Zoning Box DZK030E5-5 shall be completely factory assembled and tested. It includes 5 motorized dampers, DZK Zoning Control Board, Daikin Interface Board, and the necessary wiring to control the IU.
2. It includes a manual setting to define the maximum and minimum opening of each damper.
3. It includes an insulated stopper to be used in case one of the dampers is not used in the installation.

DZK Zoning Control Board

1. The DZK Zoning Control Board is fitted with 6 outputs to control the individual dampers with capacity of 12 Vdc, 150 mA.
2. It controls up to 2 stages of auxiliary heat through dry contacts with 24 Vac, 1 A capacity.
3. The board includes a dry contact input (NC) that will close all dampers if activated (open circuit).
4. There is an analog input for the supply temperature sensor, type NTC 10K - B₂₅₋₈₅-3977.
5. The operating range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.
6. The Zoning Box power supply voltage is 110/230 Vac ± 10%, and the current is 250 mA.
7. The DZK Zoning Control Board is protected by a self-resettable fuse.
8. The protection class is IP 21.

DZK Daikin Interface Board

1. DIP Switch configuration.
2. P1-P2 connection for the Daikin units.
3. Seamless integration with the Indoor Unit Control.
 - On/Off status.
 - Fan speed algorithm.
 - Indoor Unit Set point.
 - Operation Mode.
 - Energy Efficiency Control Algorithm.
 - Defrost function.
4. Operation Temperature ranges 32 °F - 122 °F.
5. Operation range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.

DZK BACnet Interface

1. Ethernet or RS-485 connection to the BACnet network.
2. Read/Write parameters and status of individual zones.
3. Report errors from the zoning system and the IU.
4. Read/Write system operation mode.
5. Report status of the auxiliary heating system.

Electrical

1. Transmission (control) wiring between the DZK Zoning Control Board and Wired Thermostat shall be a maximum distance of 130 ft (40 m).
2. Transmission (control) wireless between the DZK Zoning board and Wireless Thermostats shall be a maximum distance of 130 ft (40 m) in clear line of sight.

Control

1. The DZK Zoning Control Board shall have controls provided to perform input functions necessary to operate the system (Wired Thermostat & Wireless Thermostats).
2. The DZK Zoning Control Board shall be compatible with a DZK BACnet Interface to enable BMS BACnet communication.

DZK048E4-5 - Zoning Box 4 dampers - 8"

General

Zoning box with 4 motorized dampers, 8" in diameter to fit Daikin units FBQ 36-42-48 PVJU and FXMQ 30-36-48-54 PBVJU. The DZK Zoning Control Board uses information from the Wired Thermostat, the Wireless Thermostat and the Wireless Lite Thermostat to update the position of the dampers, thus supplying air only to those zones that are in demand. Through the DZK Interface Board, the DZK Zoning Control Board changes the operation of the IU according with the system needs at any given time, by controlling the unit ON/OFF, its set point, operation mode, speed control, defrost, and energy efficiency. To control unit speed and energy efficiency, the control board uses algorithms based in overall demand, room temperature change rate, and pre-defined temperature ranges.

Performance

Each DZK Zoning Box performance is based on nominal capacity for the Daikin FBQ 36-42-48 PVJU and FXMQ 30-36-48-54 PBVJU indoor unit fan coil it is connected to.

Zoning Box

1. The DZK Zoning Box DZK048E4-5 shall be completely factory assembled and tested. It includes 4 motorized dampers, DZK Zoning Control Board, Daikin Interface Board, and the necessary wiring to control the IU.
2. It includes a manual setting to define the maximum and minimum opening of each damper.
3. It includes an insulated stopper to be used in case one of the dampers is not used in the installation.

DZK Zoning Control Board

1. The DZK Zoning Control Board is fitted with 6 outputs to control the individual dampers with capacity of 12 Vdc, 150 mA.
2. It controls up to 2 stages of auxiliary heat through dry contacts with 24 Vac, 1 A capacity.
3. The board includes a dry contact input (NC) that will close all dampers if activated (open circuit).
4. There is an analog input for the supply temperature sensor that is type NTC 10K - B₂₅₋₈₅ 3977.
5. The operating range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.
6. The Zoning Box power supply voltage is 110/230 Vac ± 10%, and the current is 250 mA.
7. The DZK Zoning Control Board is protected by a self-resettable fuse.
8. The protection class is IP 21.

DZK Daikin Interface Board

1. DIP Switch configuration.
2. P1-P2 connection for the Daikin units.
3. Seamless integration with the Indoor Unit Control.
 - On/Off status.
 - Fan speed algorithm.
 - Indoor Unit Set point.
 - Operation Mode.
 - Energy Efficiency Control Algorithm.
 - Defrost function.
4. Operation Temperature ranges 32 °F - 122 °F.
5. Operation range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.

DZK BACnet Interface

1. Ethernet or RS-485 connection to the BACnet network.
2. Read/Write parameters and status of individual zones.
3. Report errors from the zoning system and the IU.
4. Read/Write system operation mode.
5. Report status of the auxiliary heating system.

Electrical

1. Transmission (control) wiring between the DZK Zoning Control Board and Wired Thermostat shall be a maximum distance of 130 ft (40 m).
2. Transmission (control) wireless between the DZK Zoning board and Wireless Thermostats shall be a maximum distance of 130 ft (40 m) in clear line of sight.

Control

1. The DZK Zoning Control Board shall have controls provided to perform input functions necessary to operate the system (Wired Thermostat & Wireless Thermostats).
2. The DZK Zoning Control Board shall be compatible with a DZK BACnet Interface to enable BMS BACnet communication.

DZK048E6-5 - Zoning Box 6 dampers - 6"

General

Zoning box with 6 motorized dampers, 6" in diameter to fit Daikin units FBQ 36-42-48 PVJU and FXMQ 30-36-48-54 PBVJU. The DZK Zoning Control Board uses the information from the Wired Thermostat, the Wireless Thermostat and the Wireless Lite Thermostat to update the position of the dampers, thus supplying air only to those zones that are in demand. Through the DZK Interface Board, the DZK Zoning Control Board changes the operation of the IU according with the system needs at any time, by controlling the unit ON/OFF, its set point, operation mode, speed control, defrost, and energy efficiency. To control unit speed and energy efficiency, the control board uses algorithms based on overall demand, room temperature change rate, and pre-defined temperature ranges.

Performance

Each DZK Zoning Box performance is based on nominal capacity for the Daikin FBQ 36-42-48 PVJU and FXMQ 30-36-48-54 PBVJU indoor unit fan coil it is connected to.

Zoning Box

1. The DZK Zoning Box DZK048E6-5 shall be completely factory assembled and tested. It includes 6 motorized dampers, DZK Zoning Control Board, Daikin Interface Board, and the necessary wiring to control the IU.
2. It includes a manual setting to define the maximum and minimum opening of each damper.
3. It includes an insulated stopper to be used in case one of the dampers is not used in the installation.

DZK Zoning Control Board

1. The DZK Zoning Control Board is fitted with 6 outputs to control the individual dampers with capacity of 12 Vdc, 150 mA.
2. It controls up to 2 stages of auxiliary heat through dry contacts with 24 Vac, 1 A capacity.
3. The board includes a dry contact input (NC) that will close all dampers if activated (open circuit).
4. There is an analog input for the supply temperature sensor that is type NTC 10K - B₂₅₋₈₅ 3977.
5. The operating range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.
6. The Zoning Box power supply voltage is 110/230 Vac ± 10%, and the current is 250 mA.
7. The DZK Zoning Control Board is protected by a self-resettable fuse.
8. The protection class is IP 21.

DZK Daikin Interface Board

1. DIP Switch configuration.
2. P1-P2 connection for the Daikin units.
3. Seamless integration with the Indoor Unit Control.
 - On/Off status.
 - Fan speed algorithm.
 - Indoor Unit Set point.
 - Operation Mode.
 - Energy Efficiency Control Algorithm.
 - Defrost function.
4. Operation Temperature ranges 32 °F - 122 °F.
5. Operation range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.

DZK BACnet Interface

1. Ethernet or RS-485 connection to the BACnet network.
2. Read/Write parameters and status of individual zones.
3. Report errors from the zoning system and the IU.
4. Read/Write system operation mode.
5. Report status of the auxiliary heating system.

Electrical

1. Transmission (control) wiring between the DZK Zoning Control Board and Wired Thermostat shall be a maximum distance of 130 ft (40 m).
2. Transmission (control) wireless between the DZK Zoning board and Wireless Thermostats shall be a maximum distance of 130 ft (40 m) in clear line of sight.

Control

1. The DZK Zoning Control Board shall have controls provided to perform input functions necessary to operate the system (Wired Thermostat & Wireless Thermostats).
2. The DZK Zoning Control Board shall be compatible with a DZK BACnet Interface to enable BMS BACnet communication.

DZKS015E3-5 - Zoning Box 3 dampers - 8"

General

Zoning box with 3 motorized dampers, 8" diameter that fit Daikin units FXSQ15TAVJU, FXSQ15TBVJU, FDMQ 09-12 RVJU and FDMQ 09-12 WVJU9. The DZK Zoning Control Board uses the information from the Wired Thermostat, the Wireless Thermostat and the Wireless Lite Thermostat to update the position of the dampers, thus supplying air only to those zones that are in demand. Through the DZK Interface Board, the DZK Zoning Control Board changes the operation of the IU according with system needs at any time, by controlling the unit ON/OFF, its set point, operation mode, speed control, defrost, and energy efficiency. To control unit speed and energy efficiency, the control board uses algorithms based in overall demand, room temperature change rate, and pre-defined temperature ranges.

Performance

Each DZK Zoning Box performance is based on nominal capacity for the Daikin FXSQ15TAVJU, FXSQ15TBVJU, FDMQ 09-12 RVJU and FDMQ 09-12 WVJU9 indoor unit fan coil it is connected to.

Zoning Box

1. The DZK Zoning Box DZKS015E3-5 shall be completely factory assembled and tested. It includes 3 motorized dampers, DZK Zoning Control Board, Interface Board, and the necessary wiring to control the IU.
2. It includes a manual setting to define the maximum and minimum opening of each damper.
3. It includes an insulated stopper to be used in case one of the dampers is not used in the installation.

DZK Zoning Control Board

1. The DZK Zoning Control Board is fitted with 6 outputs to control the individual dampers with capacity of 12 Vdc, 150 mA.
2. It controls up to 2 stages of auxiliary heat through dry contacts with 24 Vac, 1 A capacity.
3. The board includes a dry contact input (NC) that will close all dampers if activated (open circuit).
4. There is an analog input for the supply temperature sensor that is type NTC 10K - B₂₅₋₈₅ 3977.
5. The operating range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.
6. The Zoning Box power supply voltage is 110/230 Vac ± 10%, and the current is 250 mA.
7. The DZK Zoning Control Board is protected by a self-resettable fuse.
8. The protection class is IP 21.

DZK Daikin Interface Board

1. DIP Switch configuration.
2. P1-P2 connection for the Daikin units.
3. Seamless integration with the Indoor Unit Control.
 - On/Off status.
 - Fan speed algorithm.
 - Indoor Unit Set point.
 - Operation Mode.
 - Energy Efficiency Control Algorithm.
 - Defrost function.
4. Operation Temperature ranges 32 °F - 122 °F.
5. Operation range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.

DZK BACnet Interface

1. Ethernet or RS-485 connection to the BACnet network.
2. Read/Write parameters and status of individual zones.
3. Report errors from the zoning system and the IU.
4. Read/Write system operation mode.
5. Report status of the auxiliary heating system.

Electrical

1. Transmission (control) wiring between the DZK Zoning Control Board and Wired Thermostat shall be a maximum distance of 130 ft (40 m).
2. Transmission (control) wireless between the DZK Zoning board and Wireless Thermostats shall be a maximum distance of 130 ft (40 m) in clear line of sight.

Control

1. The DZK Zoning Control Board shall have controls provided to perform input functions necessary to operate the system (Wired Thermostat & Wireless Thermostats).
2. The DZK Zoning Control Board shall be compatible with a DZK BACnet Interface to enable BMS BACnet communication.

DZKS015E4-5 - Zoning Box 4 dampers - 6"

General

Zoning box with 4 motorized dampers, 6" diameter that fit Daikin units FXSQ15TAVJU, FXSQ15TBVJU, FDMQ 09-12 RVJU and FDMQ 09-12 WVJU9. The DZK Zoning Control Board uses the information from the Wired Thermostat, the Wireless Thermostat and the Wireless Lite Thermostat to update the position of the dampers, thus supplying air only to those zones that are in demand. Through the DZK Interface Board, the DZK Zoning Control Board changes the operation of the IU according with system needs at any time, by controlling the unit ON/OFF, its set point, operation mode, speed control, defrost, and energy efficiency. To control unit speed and energy efficiency, the control board uses algorithms based in overall demand, room temperature change rate, and pre-defined temperature ranges.

Performance

Each DZK Zoning Box performance is based on nominal capacity for the Daikin FXSQ15TAVJU, FXSQ15TBVJU, FDMQ 09-12 RVJU and FDMQ 09-12 WVJU9 indoor unit fan coil it is connected to.

Zoning Box

1. The DZK Zoning Box DZKS015E4-5 shall be completely factory assembled and tested. It includes 4 motorized dampers, DZK Zoning Control Board, Interface Board, and the necessary wiring to control the IU.
2. It includes a manual setting to define the maximum and minimum opening of each damper.
3. It includes an insulated stopper to be used in case one of the dampers is not used in the installation.

DZK Zoning Control Board

1. The DZK Zoning Control Board is fitted with 6 outputs to control the individual dampers with capacity of 12 Vdc, 150 mA.
2. It controls up to 2 stages of auxiliary heat through dry contacts with 24 Vac, 1 A capacity.
3. The board includes a dry contact input (NC) that will close all dampers if activated (open circuit).
4. There is an analog input for the supply temperature sensor that is type NTC 10K - B₂₅₋₈₅ 3977.
5. The operating range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.
6. The Zoning Box power supply voltage is 110/230 Vac ± 10%, and the current is 250 mA.
7. The DZK Zoning Control Board is protected by a self-resettable fuse.
8. The protection class is IP 21.

DZK Daikin Interface Board

1. DIP Switch configuration.
2. P1-P2 connection for the Daikin units.
3. Seamless integration with the Indoor Unit Control.
 - On/Off status.
 - Fan speed algorithm.
 - Indoor Unit Set point.
 - Operation Mode.
 - Energy Efficiency Control Algorithm.
 - Defrost function.
4. Operation Temperature ranges 32 °F - 122 °F.
5. Operation range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.

DZK BACnet Interface

1. Ethernet or RS-485 connection to the BACnet network.
2. Read/Write parameters and status of individual zones.
3. Report errors from the zoning system and the IU.
4. Read/Write system operation mode.
5. Report status of the auxiliary heating system.

Electrical

1. Transmission (control) wiring between the DZK Zoning Control Board and Wired Thermostat shall be a maximum distance of 130 ft (40 m).
2. Transmission (control) wireless between the DZK Zoning board and Wireless Thermostats shall be a maximum distance of 130 ft (40 m) in clear line of sight.

Control

1. The DZK Zoning Control Board shall have controls provided to perform input functions necessary to operate the system (Wired Thermostat & Wireless Thermostats).
2. The DZK Zoning Control Board shall be compatible with a DZK BACnet Interface to enable BMS BACnet communication.

DZKS030E4-5 - Zoning Box 4 dampers - 8"

General

Zoning box with 4 motorized dampers, 8" diameter that fit Daikin units FBQ 18-24-30 TBVJU, FXMQ 15-18-24 TBVJU, FXSQ 18-24-30 TAVJU, FXSQ 18-24-30 TBVJU, FDMQ 15-18-24 RVJU and FDMQ 15-18-24 WVJU9. The DZK Zoning Control Board uses the information from the Wired Thermostat, the Wireless Thermostat and the Wireless Lite Thermostat to update the position of the dampers, thus supplying air only to those zones that are in demand. Through the DZK Interface Board, the DZK Zoning Control Board changes the operation of the IU according with system needs at any time, by controlling the unit ON/OFF, its set point, operation mode, speed control, defrost, and energy efficiency. To control unit speed and energy efficiency, the control board uses algorithms based in overall demand, room temperature change rate, and pre-defined temperature ranges.

Performance

Each DZK Zoning Box performance is based on nominal capacity for the Daikin FBQ 18-24-30 TBVJU, FXMQ 15-18-24 TBVJU, FXSQ 18-24-30 TAVJU, FXSQ 18-24-30 TBVJU, FDMQ 15-18-24 RVJU and FDMQ 15-18-24 WVJU9 indoor unit fan coil it is connected to.

Zoning Box

1. The DZK Zoning Box DZKS030E4-5 shall be completely factory assembled and tested. It includes 4 motorized dampers, DZK Zoning Control Board, Interface Board, and the necessary wiring to control the IU.
2. It includes a manual setting to define the maximum and minimum opening of each damper.
3. It includes an insulated stopper to be used in case one of the dampers is not used in the installation.

DZK Zoning Control Board

1. The DZK Zoning Control Board is fitted with 6 outputs to control the individual dampers with capacity of 12 Vdc, 150 mA.
2. It controls up to 2 stages of auxiliary heat through dry contacts with 24 Vac, 1 A capacity.
3. The board includes a dry contact input (NC) that will close all dampers if activated (open circuit).
4. There is an analog input for the supply temperature sensor that is type NTC 10K - B₂₅₋₈₅ 3977.
5. The operating range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.
6. The Zoning Box power supply voltage is 110/230 Vac ± 10%, and the current is 250 mA.
7. The DZK Zoning Control Board is protected by a self-resettable fuse.
8. The protection class is IP 21.

DZK Daikin Interface Board

1. DIP Switch configuration.
2. P1-P2 connection for the Daikin units.
3. Seamless integration with the Indoor Unit Control.
 - On/Off status.
 - Fan speed algorithm.
 - Indoor Unit Set point.
 - Operation Mode.
 - Energy Efficiency Control Algorithm.
 - Defrost function.
4. Operation Temperature ranges 32 °F - 122 °F.
5. Operation range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.

DZK BACnet Interface

1. Ethernet or RS-485 connection to the BACnet network.
2. Read/Write parameters and status of individual zones.
3. Report errors from the zoning system and the IU.
4. Read/Write system operation mode.
5. Report status of the auxiliary heating system.

Electrical

1. Transmission (control) wiring between the DZK Zoning Control Board and Wired Thermostat shall be a maximum distance of 130 ft (40 m).
2. Transmission (control) wireless between the DZK Zoning board and Wireless Thermostats shall be a maximum distance of 130 ft (40 m) in clear line of sight.

Control

1. The DZK Zoning Control Board shall have controls provided to perform input functions necessary to operate the system (Wired Thermostat & Wireless Thermostats).
2. The DZK Zoning Control Board shall be compatible with a DZK BACnet Interface to enable BMS BACnet communication.

DZKS030E5-5 - Zoning Box 5 dampers - 6"

General

Zoning box with 5 motorized dampers, 6" diameter that fit Daikin units FBQ 18-24-30 TBVJU, FXMQ 15-18-24 TBVJU, FXSQ 18-24-30 TAVJU, FXSQ 18-24-30 TBVJU, FDMQ 15-18-24 RVJU and FDMQ 15-18-24 WVJU9. The DZK Zoning Control Board uses the information from the Wired Thermostat, the Wireless Thermostat and the Wireless Lite Thermostat to update the position of the dampers, thus supplying air only to those zones that are in demand. Through the DZK Interface Board, the DZK Zoning Control Board changes the operation of the IU according with system needs at any time, by controlling the unit ON/OFF, its set point, operation mode, speed control, defrost, and energy efficiency. To control unit speed and energy efficiency, the control board uses algorithms based in overall demand, room temperature change rate, and pre-defined temperature ranges.

Performance

Each DZK Zoning Box performance is based on nominal capacity for the Daikin FBQ 18-24-30 TBVJU, FXMQ 15-18-24 TBVJU, FXSQ 18-24-30 TAVJU, FXSQ 18-24-30 TBVJU, FDMQ 15-18-24 RVJU and FDMQ 15-18-24 WVJU9 indoor unit fan coil it is connected to.

Zoning Box

1. The DZK Zoning Box DZKS030E5-5 shall be completely factory assembled and tested. It includes 4 motorized dampers, DZK Zoning Control Board, Interface Board, and the necessary wiring to control the IU.
2. It includes a manual setting to define the maximum and minimum opening of each damper.
3. It includes an insulated stopper to be used in case one of the dampers is not used in the installation.

DZK Zoning Control Board

1. The DZK Zoning Control Board is fitted with 6 outputs to control the individual dampers with capacity of 12 Vdc, 150 mA.
2. It controls up to 2 stages of auxiliary heat through dry contacts with 24 Vac, 1 A capacity.
3. The board includes a dry contact input (NC) that will close all dampers if activated (open circuit).
4. There is an analog input for the supply temperature sensor that is type NTC 10K - B₂₅₋₈₅ 3977.
5. The operating range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.
6. The Zoning Box power supply voltage is 110/230 Vac ± 10%, and the current is 250 mA.
7. The DZK Zoning Control Board is protected by a self-resettable fuse.
8. The protection class is IP 21.

DZK Daikin Interface Board

1. DIP Switch configuration.
2. P1-P2 connection for the Daikin units.
3. Seamless integration with the Indoor Unit Control.
 - On/Off status.
 - Fan speed algorithm.
 - Indoor Unit Set point.
 - Operation Mode.
 - Energy Efficiency Control Algorithm.
 - Defrost function.
4. Operation Temperature ranges 32 °F - 122 °F.
5. Operation range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.

DZK BACnet Interface

1. Ethernet or RS-485 connection to the BACnet network.
2. Read/Write parameters and status of individual zones.
3. Report errors from the zoning system and the IU.
4. Read/Write system operation mode.
5. Report status of the auxiliary heating system.

Electrical

1. Transmission (control) wiring between the DZK Zoning Control Board and Wired Thermostat shall be a maximum distance of 130 ft (40 m).
2. Transmission (control) wireless between the DZK Zoning board and Wireless Thermostats shall be a maximum distance of 130 ft (40 m) in clear line of sight.

Control

1. The DZK Zoning Control Board shall have controls provided to perform input functions necessary to operate the system (Wired Thermostat & Wireless Thermostats).
2. The DZK Zoning Control Board shall be compatible with a DZK BACnet Interface to enable BMS BACnet communication.

DZKS048E4-5 - Zoning Box 4 dampers - 6"

General

Zoning box with 4 motorized dampers, 6" diameter that fit Daikin units FBQ 36-42-48 TBVJU, FXMQ 30-36-48 TBVJU, FXSQ 36-48 TAVJU and FXSQ 36-48 TBVJU. The DZK Zoning Control Board uses the information from the Wired Thermostat, the Wireless Thermostat and the Wireless Lite Thermostat to update the position of the dampers, thus supplying air only to those zones that are in demand. Through the DZK Interface Board, the DZK Zoning Control Board changes the operation of the IU according with system needs at any time, by controlling the unit ON/OFF, its set point, operation mode, speed control, defrost, and energy efficiency. To control unit speed and energy efficiency, the control board uses algorithms based in overall demand, room temperature change rate, and pre-defined temperature ranges.

Performance

Each DZK Zoning Box performance is based on nominal capacity for the Daikin FBQ 36-42-48 TBVJU, FXMQ 30-36-48 TBVJU, FXSQ 36-48 TAVJU and FXSQ 36-48 TBVJU indoor unit fan coil it is connected to.

Zoning Box

1. The DZK Zoning Box DZKS048E4-5 shall be completely factory assembled and tested. It includes 4 motorized dampers, DZK Zoning Control Board, Interface Board, and the necessary wiring to control the IU.
2. It includes a manual setting to define the maximum and minimum opening of each damper.
3. It includes an insulated stopper to be used in case one of the dampers is not used in the installation.

DZK Zoning Control Board

1. The DZK Zoning Control Board is fitted with 6 outputs to control the individual dampers with capacity of 12 Vdc, 150 mA.
2. It controls up to 2 stages of auxiliary heat through dry contacts with 24 Vac, 1 A capacity.
3. The board includes a dry contact input (NC) that will close all dampers if activated (open circuit).
4. There is an analog input for the supply temperature sensor that is type NTC 10K - B₂₅₋₈₅ 3977.
5. The operating range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.
6. The Zoning Box power supply voltage is 110/230 Vac ± 10%, and the current is 250 mA.
7. The DZK Zoning Control Board is protected by a self-resettable fuse.
8. The protection class is IP 21.

DZK Daikin Interface Board

1. DIP Switch configuration.
2. P1-P2 connection for the Daikin units.
3. Seamless integration with the Indoor Unit Control.
 - On/Off status.
 - Fan speed algorithm.
 - Indoor Unit Set point.
 - Operation Mode.
 - Energy Efficiency Control Algorithm.
 - Defrost function.
4. Operation Temperature ranges 32 °F - 122 °F.
5. Operation range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.

DZK BACnet Interface

1. Ethernet or RS-485 connection to the BACnet network.
2. Read/Write parameters and status of individual zones.
3. Report errors from the zoning system and the IU.
4. Read/Write system operation mode.
5. Report status of the auxiliary heating system.

Electrical

1. Transmission (control) wiring between the DZK Zoning Control Board and Wired Thermostat shall be a maximum distance of 130 ft (40 m).
2. Transmission (control) wireless between the DZK Zoning board and Wireless Thermostats shall be a maximum distance of 130 ft (40 m) in clear line of sight.

Control

1. The DZK Zoning Control Board shall have controls provided to perform input functions necessary to operate the system (Wired Thermostat & Wireless Thermostats).
2. The DZK Zoning Control Board shall be compatible with a DZK BACnet Interface to enable BMS BACnet communication.

DZKS048E6-5 - Zoning Box 6 dampers - 6"

General

Zoning box with 6 motorized dampers, 6" diameter that fit Daikin units FBQ 36-42-48 TBVJU, FXMQ 30-36-48 TBVJU, FXSQ 36-48 TAVJU and FXSQ 36-48 TBVJU. The DZK Zoning Control Board uses the information from the Wired Thermostat, the Wireless Thermostat and the Wireless Lite Thermostat to update the position of the dampers, thus supplying air only to those zones that are in demand. Through the DZK Interface Board, the DZK Zoning Control Board changes the operation of the IU according with system needs at any time, by controlling the unit ON/OFF, its set point, operation mode, speed control, defrost, and energy efficiency. To control unit speed and energy efficiency, the control board uses algorithms based in overall demand, room temperature change rate, and pre-defined temperature ranges.

Performance

Each DZK Zoning Box performance is based on nominal capacity for the Daikin FBQ 36-42-48 TBVJU, FXMQ 30-36-48 TBVJU, FXSQ 36-48 TAVJU and FXSQ 36-48 TBVJU indoor unit fan coil it is connected to.

Zoning Box

1. The DZK Zoning Box DZKS048E6-5 shall be completely factory assembled and tested. It includes 6 motorized dampers, DZK Zoning Control Board, Interface Board, and the necessary wiring to control the IU.
2. It includes a manual setting to define the maximum and minimum opening of each damper.
3. It includes an insulated stopper to be used in case one of the dampers is not used in the installation.

DZK Zoning Control Board

1. The DZK Zoning Control Board is fitted with 6 outputs to control the individual dampers with capacity of 12 Vdc, 150 mA.
2. It controls up to 2 stages of auxiliary heat through dry contacts with 24 Vac, 1 A capacity.
3. The board includes a dry contact input (NC) that will close all dampers if activated (open circuit).
4. There is an analog input for the supply temperature sensor that is type NTC 10K - B₂₅₋₈₅ 3977.
5. The operating range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.
6. The Zoning Box power supply voltage is 110/230 Vac ± 10%, and the current is 250 mA.
7. The DZK Zoning Control Board is protected by a self-resettable fuse.
8. The protection class is IP 21.

DZK Daikin Interface Board

1. DIP Switch configuration.
2. P1-P2 connection for the Daikin units.
3. Seamless integration with the Indoor Unit Control.
 - On/Off status.
 - Fan speed algorithm.
 - Indoor Unit Set point.
 - Operation Mode.
 - Energy Efficiency Control Algorithm.
 - Defrost function.
4. Operation Temperature ranges 32 °F - 122 °F.
5. Operation range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.

DZK BACnet Interface

1. Ethernet or RS-485 connection to the BACnet network.
2. Read/Write parameters and status of individual zones.
3. Report errors from the zoning system and the IU.
4. Read/Write system operation mode.
5. Report status of the auxiliary heating system.

Electrical

1. Transmission (control) wiring between the DZK Zoning Control Board and Wired Thermostat shall be a maximum distance of 130 ft (40 m).
2. Transmission (control) wireless between the DZK Zoning board and Wireless Thermostats shall be a maximum distance of 130 ft (40 m) in clear line of sight.

Control

1. The DZK Zoning Control Board shall have controls provided to perform input functions necessary to operate the system (Wired Thermostat & Wireless Thermostats).
2. The DZK Zoning Control Board shall be compatible with a DZK BACnet Interface to enable BMS BACnet communication.

DZKS054E6-5 - Zoning Box 6 dampers - 8"

General

Zoning box with 6 motorized dampers, 8" diameter that fit Daikin units FXMQ54TBVJU, FXSQ54TAVJU and FXSQ54TBVJU. The DZK Zoning Control Board uses the information from the Wired Thermostat, the Wireless Thermostat and the Wireless Lite Thermostat to update the position of the dampers, thus supplying air only to those zones that are in demand. Through the DZK Interface Board, the DZK Zoning Control Board changes the operation of the IU according with system needs at any time, by controlling the unit ON/OFF, its set point, operation mode, speed control, defrost, and energy efficiency. To control unit speed and energy efficiency, the control board uses algorithms based in overall demand, room temperature change rate, and pre-defined temperature ranges.

Performance

Each DZK Zoning Box performance is based on nominal capacity for the Daikin FXMQ54TBVJU, FXSQ54TAVJU and FXSQ54TBVJU indoor unit fan coil it is connected to.

Zoning Box

1. The DZK Zoning Box DZKS054E6-5 shall be completely factory assembled and tested. It includes 6 motorized dampers, DZK Zoning Control Board, Interface Board, and the necessary wiring to control the IU.
2. It includes a manual setting to define the maximum and minimum opening of each damper.
3. It includes an insulated stopper to be used in case one of the dampers is not used in the installation.

DZK Zoning Control Board

1. The DZK Zoning Control Board is fitted with 6 outputs to control the individual dampers with capacity of 12 Vdc, 150 mA.
2. It controls up to 2 stages of auxiliary heat through dry contacts with 24 Vac, 1 A capacity.
3. The board includes a dry contact input (NC) that will close all dampers if activated (open circuit).
4. There is an analog input for the supply temperature sensor that is type NTC 10K - B₂₅₋₈₅ 3977.
5. The operating range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.
6. The Zoning Box power supply voltage is 110/230 Vac ± 10%, and the current is 250 mA.
7. The DZK Zoning Control Board is protected by a self-resettable fuse.
8. The protection class is IP 21.

DZK Daikin Interface Board

1. DIP Switch configuration.
2. P1-P2 connection for the Daikin units.
3. Seamless integration with the Indoor Unit Control.
 - On/Off status.
 - Fan speed algorithm.
 - Indoor Unit Set point.
 - Operation Mode.
 - Energy Efficiency Control Algorithm.
 - Defrost function.
4. Operation Temperature ranges 32 °F - 122 °F.
5. Operation range is Temperature: 32 °F - 122 °F and Humidity: 5% to 90% non-condensing.

DZK BACnet Interface

1. Ethernet or RS-485 connection to the BACnet network.
2. Read/Write parameters and status of individual zones.
3. Report errors from the zoning system and the IU.
4. Read/Write system operation mode.
5. Report status of the auxiliary heating system.

Electrical

1. Transmission (control) wiring between the DZK Zoning Control Board and Wired Thermostat shall be a maximum distance of 130 ft (40 m).
2. Transmission (control) wireless between the DZK Zoning board and Wireless Thermostats shall be a maximum distance of 130 ft (40 m) in clear line of sight.

Control

1. The DZK Zoning Control Board shall have controls provided to perform input functions necessary to operate the system (Wired Thermostat & Wireless Thermostats).
2. The DZK Zoning Control Board shall be compatible with a DZK BACnet Interface to enable BMS BACnet communication.

HVAC EQUIPMENT ALTERNATE (GENERAL INFORMATION)

1. The alternate equipment supplier shall provide to the bidding mechanical contractor a complete equipment data package. This package shall include, but is not limited to, equipment capacities at the design condition, power requirements, indoor units CFM/static pressures, fan curves, installation requirements, and physical dimensions. Nominal performance data is not acceptable.

The mechanical contractor shall request and receive the equipment data package 15 days prior to bid date and should submit this package with the alternate bid.

The mechanical contractor shall list the equipment supplier and submit the required data package with the bid, detailing a complete comparison of the proposed alternate equipment to the specified equipment and the associated cost reduction of the alternate equipment. The contractor bids an alternate manufacturer with full knowledge that the manufacturer's product may not be acceptable or approved.

2. The alternate equipment supplier shall furnish a complete drawing package to the mechanical contractor 15 days prior to bid day for bidding and installation. The drawing format shall be .dxf or equivalent, on 30"x42" sheets. The HVAC and electrical series design documents will be made available in electronic format for use by the equipment supplier in preparing their drawings. The alternate equipment supplier shall prepare the following drawings:

- HVAC Floor Plan
- HVAC Refrigerant Piping Plan
- HVAC Refrigerant Piping/Controls Details
- HVAC Details
- HVAC Schedules

The alternate equipment supplier shall draft all piping circuits, components, overall building control schematic, detailed control wiring diagrams, system details, and schedules for their system. The drawings shall convey all requirements to successfully install the alternate equipment supplier's system.

Provide (2) drawing package sets plotted on 20 lb. vellum. Provide (1) drawing package in electronic format (.dxf files) on CD.

The submitted documents shall be complete system designs and show no less information than the HVAC equipment/controls contract bid documents.

3. The equipment supplier shall guarantee the performance of their system and all published data submitted.
4. The alternate equipment supplier shall submit data sheets with the bid.

DZK

DAIKIN ZONING KIT



RECOGNIZED
COMPONENT



Intertek
4008862