YORK®

BY JOHNSON CONTROLS

Fire detection thermostat for Roof Top ACTIVA 017/175

Options and Accessories, Installation manual

Ref.: N-40443_EN 0714

C E

Johnson Controls

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Fire detection thermostat

1.1 General information

When the hot supply air reaches the set temperature, the thermostat disconnects and the control detects the fault, indicating as such on the YKN2Open board, on the DPC-1 thermostat and closing the relay contact on the accessory board.
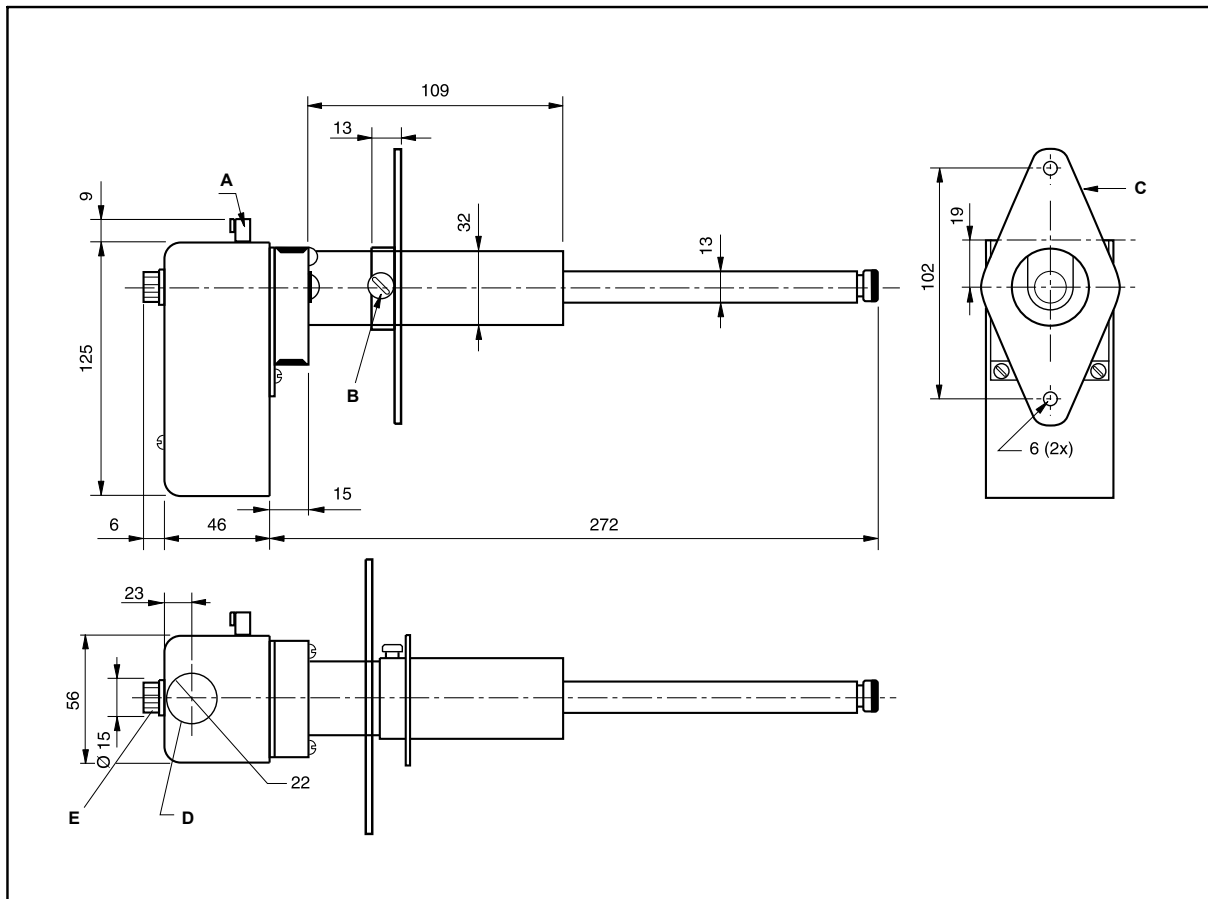
1.2 Technical specifications

This optional includes the following components:
- Limiting thermostat (A25CN).
- Temperature/Smoke control board.
- Telephone connection cable (300 mm).
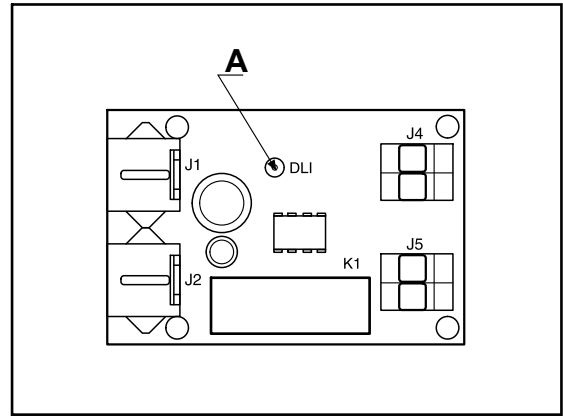- Ties for cable securing.

1.3 General dimensions

Thermostat (mm)

A.   Reset lever.

B.   1/4-20UNC assembly bolt.

C.   Flange.

D.   22,3 mm hole - PG16.

E.   Dial button.
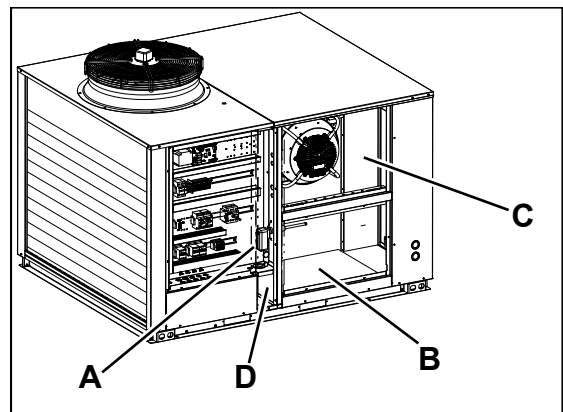
Accessory board

A. Green LED.

1.4 Assembly

The temperature limiting thermostat is fitted on the inside of the Roof Top, on the supply air side, using the metal flange supplied and attached to the separator panel with two bolts from inside the electrical box in models 017 / 040 and 100 / 175, and from the return section in models 045 / 090.

The temperature/smoke control board is fitted to the inside of the electrical box in the holes provided for this accessory on the side of the boards.
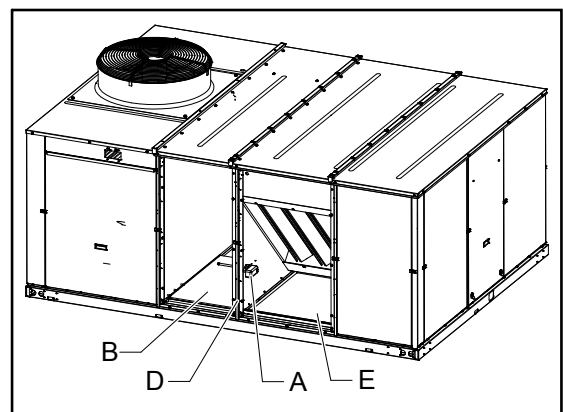
Close-up of assembly, thermostat side
Models 017 / 040

A. Fire detection thermostat

B. Supply section, side or bottom

C. Fan access

D. Post

Models 045 / 090
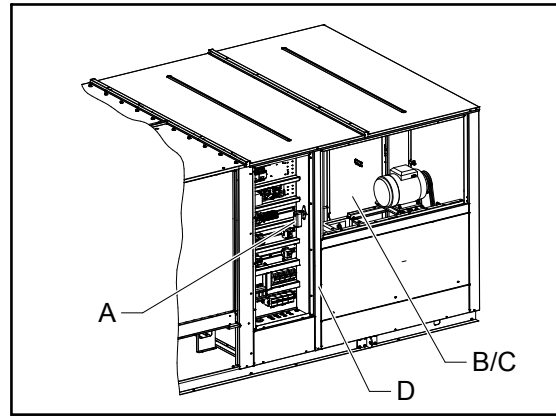
A. Fire detection thermostat

B. Supply section, side or bottom

D. Post

E. Return section

1.4   Assembly

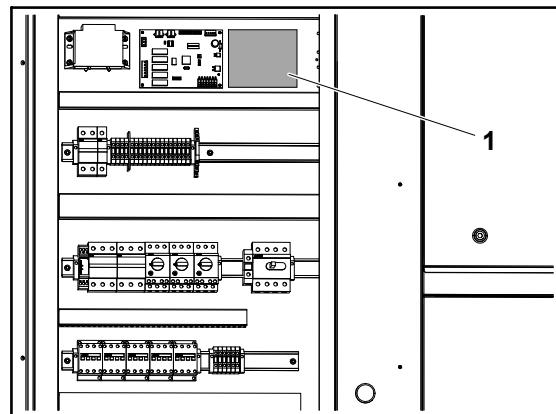## Models 100 / 175

- A.   Fire detection thermostat
- B.   Supply section, side or bottom
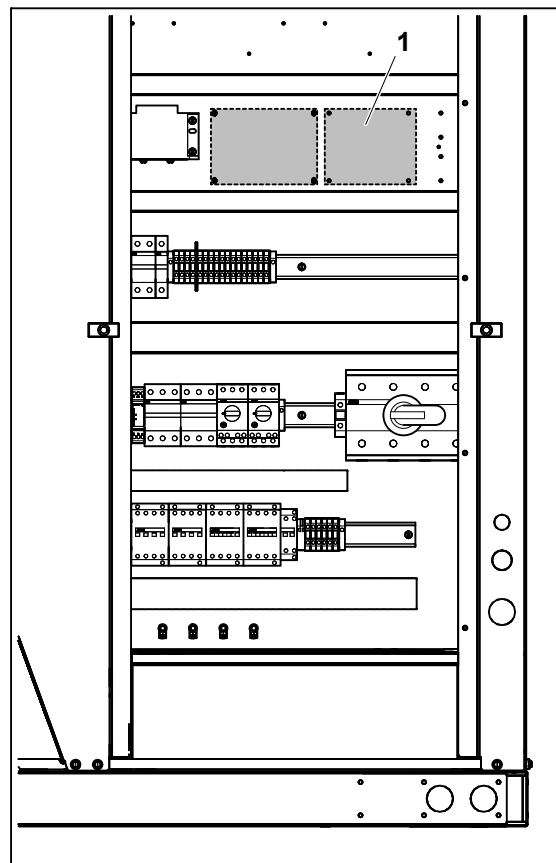- C.   Fan access
- D.   Post

Accessory circuit board
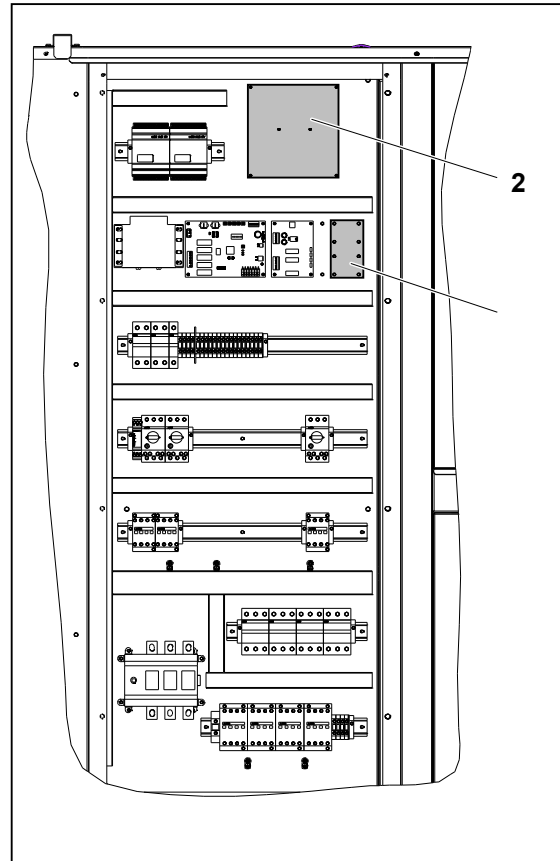## Models 017 / 040

1: Temperature/Smoke control board.

Models 045 / 090

1: Temperature/Smoke control board.

Models 100 / 175

1: Control board

2: DAD control

1.5 Operation

In normal operation contact 1 (COM) of the thermostat is on standby and 2 (NC) is closed. When a temperature higher than the set value (100 °C) is detected the contact opens.

The temperature/smoke control board detects the open contact at the inlet of terminals J4, triggering output relay K1 through terminals J5 (contact not live).

The YKN2Open board (A1) indicates high temperature faults with a 4-5 flashing sequences of the red LED. If thermostat DPC-1 is fitted, the incident is indicated on the screen where the time is displayed along with fault code 45.

Once the cause of the increase in temperature has disappeared, the thermostat must be manually reset and the YKN2Open board (A1) reset to delete the incident.

Where the economiser accessory is fitted, check the position of jumper J20 on the economiser board. Jumper J20 (outside damper closed with high temperature-smoke alarm) is open by default. If the jumper is closed, outside damper open with high temperature-smoke alarm is selected.

In units equipped with a supply probe connected to the YKN2Open board, with hot water coil (accessory) or economiser, if a supply temperature of over 80 °C is detected the equipment will stop and fault code 45 is displayed.
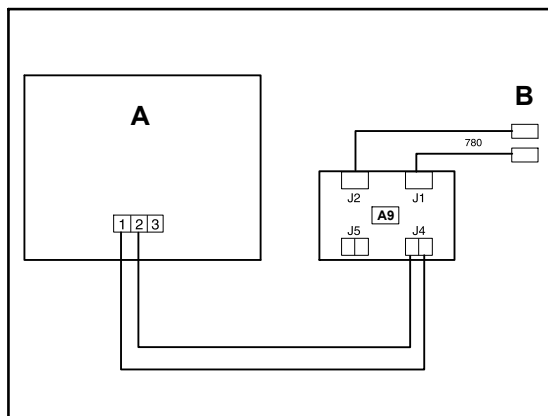
1.6 Installation

ⓘ NOTE

Bear in mind the current regulations on electrical installation in the country where the unit is to be installed.

A. Manual thermostat A25CN-9001.

B. Accessories.

1. Disconnect the main switch on the unit.
2. Fit the thermostat using the metal flange supplied and two bolts to the separator panel plate on the supply air side.
3. Connect brown wires, terminal 1 (COM), and terminal 2, (NC).
4. Set the thermostat to 100 ºC.
5. Fit the temperature/smoke control board in the electrical box.

ⓘ NOTE

If the smoke detection accessory is also fitted, only one temperature/smoke control board is fitted and the two normally closed contacts fitted in series in input J4.

6. Connect the brown wired to connector J4 of board A9. Connect the telephone cable to connector J2 or J8 on board A2.
7. Once all of the connections are made, reconnect the unit main switch.
8. Check that the green LED on board A9 remains lit. Next, search and configure the accessories by pressing the test button on the YKN2Open board (A1) for more than three seconds, until the red LED lights up. When the search and configuration process starts, the red LED on the board will light up and will remain on until the operation is completed. Once it has switched off, check that the green LED (V1) on board A9 is flashing to indicate that the accessory has been configured.
9. To check the electrical operation, disconnect the wires of terminals 1 and 2 of the thermostat and check that the YKN2Open board (A1) indicates the high temperature fault with a 4-5 flashing sequences of the red LED. Reconnect the wires and reset the YKN2Open (A1) board to delete the fault.

⚠ CAUTION

Loose connection terminals produce overheating of cables and terminals. The unit will work incorrectly and there is a risk of fire.

Data and measurements subject to changes without prior notice.