



**CAV CONTROLLERS**

Actuator for switching between setpoint values with EN (with rotary knob)



**ACTUATOR FOR SWITCHING BETWEEN SETPOINT VALUES**

EN (Generation 2) with actuator



**ACTUATOR FOR SWITCHING BETWEEN SETPOINT VALUES**

Actuator for switching between setpoint values with Type RN



**ACTUATOR WITH MECHANICAL STOPS**

Actuator with mechanical stops for Type VFC or VFR



**ACTUATOR WITH POTENTIOMETERS**

Actuator with potentiometers for Type VFC or VFR

## RETROFIT KITS

### FOR MOTORISED SETPOINT VALUE ADJUSTMENT ON CAV CONTROLLERS AND FLOW ADJUSTMENT DAMPERS, E.G. SWITCHING BETWEEN QVMIN AND QVMAX

Actuators and installation accessories for mechanical self-powered CAV controllers Type EN, RN, or VFC, and flow adjustment dampers Type VFR

- Parts kits for easy retrofit
- Potentiometer or mechanical stops
- Supply voltage 24 V AC/DC or 230 V AC
- Control input signal: 1-wire control or 2-wire control (3-point) for min-max switching
- Control input signal: Signal voltage 0 – 10 V DC or 2 – 10 V DC for modulating actuators
- Positive lock connection with CAV controller or flow adjustment damper

Optional accessories for type RN

- Auxiliary switch with adjustable switching points, for example for capturing the end positions

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#### Application

Parts kits for the retrofit of mechanical self-powered volume flow controllers or flow adjustment dampers with an actuator for the setpoint value adjustment of CAV controllers.

Types RN, EN, VFC

- Min/max switching of the volume flow rate setpoint values
- Variable adjustment of the volume flow rate setpoint

Flow adjustment damper type VFR

- Min/Max change of the damper blade position
- Variable adjustment of the damper blade position

#### Parts and characteristics

Setpoint value adjustment, supply voltage and special functions of the drive variant and its adjustment range to the various basic devices (see variant description).

- Adjustment of the setpoint values to mechanical stops
- Adjustment of the setpoint values to potentiometers
- Supply voltage 24 V AC/DC or 230 V AC
- Min-max setpoint value switching with switch contact provided by others
- Variable setpoint value adjustment with signal voltage 0 – 10 V DC or 2 – 10 V DC
- Push button to trigger a test run (only variants E01, E02, E03)
- Optional auxiliary switch, e.g. for end position sensing (only variant B52, B62, B72)

## Variants

### B50

- Type of actuator LM24A-F
- 24 V AC/DC supply
- Min-max switching, mechanical adjustment
- For types RN and EN (setpoint value with angle scale)

### B52

- As before but with auxiliary switch
- For types RN and EN (setpoint value with angle scale)

### B60

- Type of actuator LM230A-F
- 230 V AC supply
- Min-max switching, mechanical adjustment
- For types RN and EN (setpoint value with angle scale)

### B62

- Like the B60, but with auxiliary switch S2A
- For types RN and EN (setpoint value with angle scale)

### B70

- Type of actuator LM24A-SR-F
- 24 V AC/DC supply
- Variable control in the range min-max with 2 - 10 V signal control voltage
- For types RN and EN (setpoint value with angle scale)

### B72

- Like the B70, but with auxiliary switch S2A
- For types RN and EN (setpoint value with angle scale)

### S2

- Retrofit of attachable auxiliary switch type S2A
- 2 adjustable switching points
- Only for variants B50, B60, B70
- For types RN and EN (setpoint value with angle scale)

### E01

- Type of actuator 224-024-03-001
- 24 V AC/DC supply
- Min-max switching, adjustment with potentiometers
- For types EN (setpoint value adjustment with blue hand wheel), VFC, VFR

### E02

- Type of actuator 224-230-03-002,
- 230 V AC supply
- Min-max setpoint value switching, adjustment with potentiometers
- For types EN (setpoint value adjustment with blue hand wheel), VFC, VFR

### E03

- Type of actuator 224-024-03-003

- 24 V AC/DC supply
- Variable setpoint value in the range min-max, adjustment with potentiometers
- Signal voltage range 0 – 10 V DC
- For types EN (setpoint value adjustment with blue hand wheel), VFC, VFR

## Description

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### Allgemeine Information 04

#### Commissioning

- Assembly actuator
- Install wiring
- Setpoint value adjustment via mechanical stops or potentiometers
- Perform test run

## TECHNICAL INFORMATION

#### Specification text

#### Parts and characteristics

Setpoint value adjustment, supply voltage and special functions of the drive variant and its adjustment range to the various basic devices (see variant description).

- Adjustment of the setpoint values to mechanical stops
- Adjustment of the setpoint values to potentiometers
- Supply voltage 24 V AC/DC or 230 V AC
- Min-max setpoint value switching with switch contact provided by others
- Variable setpoint value adjustment with signal voltage 0 – 10 V DC or 2 – 10 V DC
- Push button to trigger a test run (only variants E01, E02, E03)
- Optional auxiliary switch, e.g. for end position sensing (only variant B52, B62, B72)

**NR-VAV**

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**RN-B50**

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1 Type

NR-VAV Retrofit kit

2 Variant

Retrofit actuators for RN type (incl. installation material RN)

RN-B50 Retrofit B50: 3-point (min/max) actuator 24 V

RN-B60 Retrofit B60: 3-point (min/max) actuator 230 V

RN-B70 Retrofit B70: modulating actuator 24V

RN-S2 Retrofit S2: auxiliary switch for B52, B62, B72

Retrofit actuators for EN type (\*2)

(incl. installation material EN (\*2))

EN-B50 Retrofit B50: 3-point (min/max) actuator 24 V

EN-B60 Retrofit B60: 3-point (min/max) actuator 230 V

EN-B70 Retrofit B70: modulating actuator 24V

EN-S2 Retrofit S2: auxiliary switch for B52, B62, B72

Retrofit actuators for EN type (\*3) (incl. EN installation material (\*3))

EN-E01 Retrofit E01: 3-point (min/max) actuator 24V

EN-E02 Retrofit E02: 3-point (min/max) actuator 230V

EN-E03 Retrofit E03: modulating actuator 24V

Retrofit actuators for VFC type (incl. installation material for M0\*)

VFC-E01 Retrofit E01: 3-point (min/max) actuator 24V

VFC-E02 Retrofit E02: 3-point (min/max)

Actuator 230 V

VFC-E03 Retrofit E03: modulating actuator 24V

VFC-M01 Retrofit M01: 3-point (min/max) actuator 24V

VFC-M02 Retrofit M02: 3-point (min/max)

Actuator 230 V

Retrofit actuators for VFR type (incl. installation material for M0\*)

VFR-E01 Retrofit E01: 3-point (min/max) actuator 24V

VFR-E02 Retrofit E02: 3-point (min/max)

Actuator 230 V

VFR-E03 Retrofit E03: modulating actuator 24V

VFR-M01 Retrofit M01: 3-point (min/max) actuator 24V

VFR-M02 Retrofit M02: 3-point (min/max)

Actuator 230 V

Note on EN control variants:

(\*2) Type EN-Generation 2: setpoint value adjustment with angle scale.

(\*3) Type EN-Generation 3: setpoint value adjustment with blue hand wheel.