

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



Actuator for switching between setpoint values with Type EN (with angle scale)



Actuator for switching between setpoint values with Type RN



Actuator with mechanical stops for Type VFC or VFR



Actuator with potentiometers for Type VFC or VFR

Constant volume flow control CAV controllers

Retrofit kits



For motorised setpoint value adjustment on CAV controllers and flow adjustment dampers, e.g. switching between q_{vmin} and q_{vmax}

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

General information	2	Variants	4
Order code	3		

General information

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

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

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)

Commissioning

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

Order code

NR-VAV – 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.

Variants

Auxiliary switch (B * 2) type S2A



Variant B50, B60, B70



Auxiliary switch S2A from variant B52, B62, B72

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

Order code	Retrofit	Construction	Supply voltage	Type
NR-VAV-RN-B50	B 50	3-point (min./max.)	24 V	LM24A-F
NR-VAV-RN-B60	B 60	3-point (min./max.)	230 V	LM230A-F
NR-VAV-RN-B70	B 70	Modulating actuator (control input signal 2 – 10 V DC)	24 V	LM24A-SR-F
NR-VAV-RN-S2	S2	Auxiliary switch for B52, B62, B72	-	S2A

Auxiliary switch (B * 2) type S2A



Variant B50, B60, B70



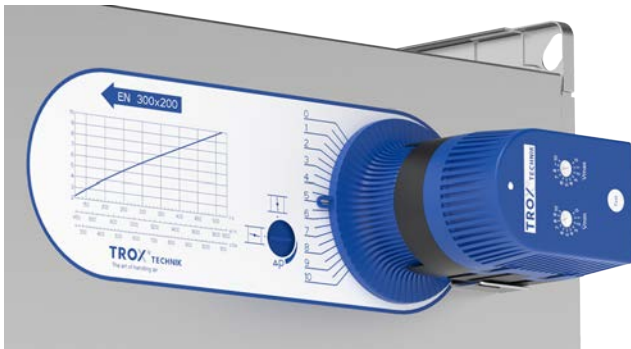
Auxiliary switch S2A from variant B52, B62, B72

Retrofit actuators for type EN (*2) (incl. assembly materials EN (*2))

Order code	Retrofit	Construction	Supply voltage	Type
NR-VAV-EN-B50	B 50	3-point (min./max.)	24 V	LM24A-F

NR-VAV-EN-B60	B 60	3-point (min./max.)	230 V	LM230A-F
NR-VAV-EN-B70	B 70	Modulating actuator (control input signal 2 – 10 V DC)	24 V	LM24A-SR-F
NR-VAV-EN-S2	S2	Auxiliary switch for B52, B62, B72	-	S2A

*2 = Generation 2: setpoint value adjustment with angle scale.



Variant E01, E02, E03

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

Order code	Retrofit	Construction	Supply voltage	Type
NR-VAV-EN-E01	E01	3-point (min./max.)	24 V	224-024-02-001
NR-VAV-EN-E02	E02	3-point (min./max.)	230 V	224-230-02-002
NR-VAV-EN-E03	E03	Modulating actuator (control input signal 0 – 10 V DC)	24 V	224C-024-02-003

*3 = Generation 3: setpoint value adjustment with blue hand wheel.

Actuator with mechanical stops (M0*) for Type VFC or VFR



Variant E01, E02, E03

Variant M01, M02

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

Order code	Retrofit	Construction	Supply voltage	Type
NR-VAV-VFC-E01	E01	3-point (min./max.)	24 V	224-024-02-001
NR-VAV-VFC-E02	E02	3-point (min./max.)	230 V	224-230-02-002
NR-VAV-VFC-E03	E03	Modulating actuator (control input signal 0 – 10 V DC)	24 V	224C-024-02-003
NR-VAV-VFC-M01	M01	3-point (min./max.)	24 V	CM24-F
NR-VAV-VFC-M02	M02	3-point (min./max.)	230 V	CM230-F

Actuator with mechanical stops (M0*) for Type VFC or VFR


Variant E01, E02, E03

Variant M01, M02

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

Order code	Retrofit	Construction	Supply voltage	Type
NR-VAV-VFR-E01	E01	3-point (min./max.)	24 V	224-024-02-001
NR-VAV-VFR-E02	E02	3-point (min./max.)	230 V	224-230-02-002
NR-VAV-VFR-E03	E03	Modulating actuator (control input signal 0 – 10 V DC)	24 V	224C-024-02-003
NR-VAV-VFR-M01	M01	3-point (min./max.)	24 V	CM24-F
NR-VAV-VFR-M02	M02	3-point (min./max.)	230 V	CM230-F