

# MC52A



Actuator

Adapter

## Actuator Zone - Modulating version

MC52A is an actuator zone designed to provide modulating control together with V354 valves.

The actuator is available with a selectable ranges.

The actuator is supplied with an adapter that allows an easy coupling to the V354 valves.

Reliable longtime operation is ensured due to the fact that no mechanical feedback potentiometer and no mechanical endswitches are needed. Due to an automatic synchro-nization function the close-off point is self-adjusting.

Based on a running time of 155 s, valve positioning and flow adjustment is very exact.

## SPECIFICATIONS

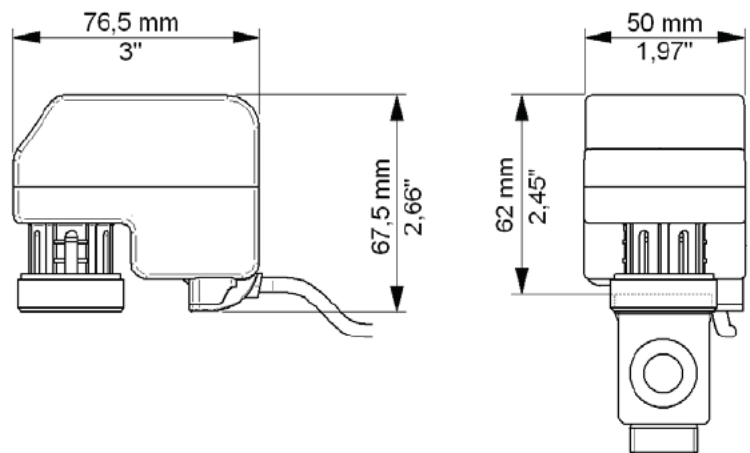
### MC52A

Part number	853-2221-010
Range	(see page 2)
Input voltage	24 VAC 50/60 Hz
Power consumption	1 VA
Speed	18 s/mm (50 Hz) - 15 s/mm (60 Hz)

### Temperature

working	-5T55°C (23T131°F)
storage	-25T65 °C (-13T149°F)
Stem force	200 N (45 lbf)
Max stroke	8,5mm (0.33 in.)
Connection cable	3 wires 1,5 m (5 ft)
Protection class	IP 43 (for vertical mounting)
Suitable for valves	see table page 2

## DIMENSIONS mm (in)



## FUNCTION

MC52A actuator is electric modulating. The valve stem movement is produced by rotation of a screw spindle connected, through a gear train, to a synchronous bidirectional motor.

An internal magnetic hysteresis coupling limits the torque on the valve stem, avoiding the usage of microswitches and protecting the actuator from overload.

The actuator consists of a base and a housing made of syntetic materials which contain motor, gear box, magnetic coupling, valve driving screw spindle.

The actuator-valve assembly is easily made thanks to its threaded ring nut, (which allows a comfortable cable positioning) and an adapter to be screwed on to the valve.

The actuator is equipped with a cable for 3-wire electrical connection. It requires no maintenance. All models are provided with a stroke indicator.

A microprocessor-based high performance positioner guarantees accurate control. The close-off position is self adjusting by means of an automatic synchronization function.

Synchronization is carried out when power is switched on and each time the stem reaches 0% or 100% of its travel.

Manual override is allowed by means of a socket head key (3 mm). It is necessary to power off the actuator before starting the manual control.

**⚠ It is necessary to power off the actuator before starting the manual control.**

## MOUNTING

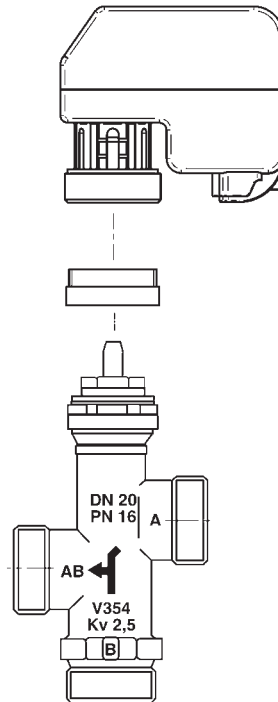
Before mounting the valve, screw the adapter onto the valve M28x1,5 thread, then screw the actuator onto the valve.

A ring nut M30x1.5 is placed on the lower part; it allows an easy coupling to the valve without special tools.

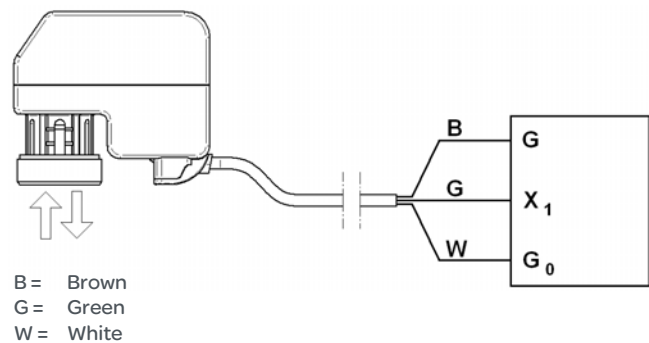
The protection degree declared (IP43) is granted if the valve is mounted with the actuator upwards.

The actuator is able to operate in any mounting position, but it is advisable not to install it downwards.

## MOUNTING



## CONNECTIONS

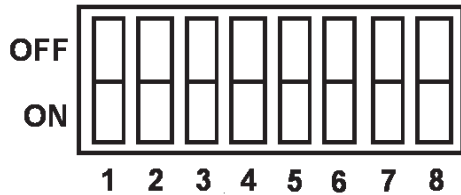


## RANGE AND SELECTION

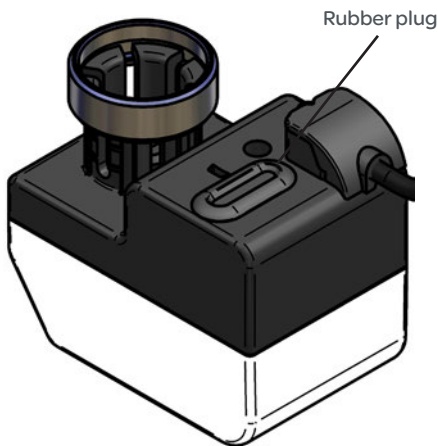
MC52A has 7 different command field to be selected with embedded dip-switches and direct/reverse action, as below.

To access the dip-switches, remove the rubber plug as shown in the picture below.

### COMMAND FIELDS



ON	OFF	N. DIP.
↑ 100% 0%	↓ 0% 100%	1
0..10 V	—	2
6..9 V	—	3
1..5 V	—	4
2..10 V	—	5
4..7 V	—	6
6..10 V	—	7
8..11 V	—	8



## SUITABLE VALVES

V354 - part number 731-5425-000

On October 1st, 2009, TAC became the Buildings Business of its parent company Schneider Electric. This document reflects the visual identity of Schneider Electric, however there remains references to TAC as a corporate brand in the body copy. As each document is updated, the body copy will be changed to reflect appropriate corporate brand changes.