

# CA SERIES STANDARD DAMPER ACTUATOR

**2 Point & 3 Point Control**  
**2 Nm**

## CA...02 (S1) SERIES

CA standard damper actuators are specially designed and produced for applications in the HVAC Systems. Our wide range of Swisotec standard damper actuators has been developed to operate and position air dampers of different sizes.



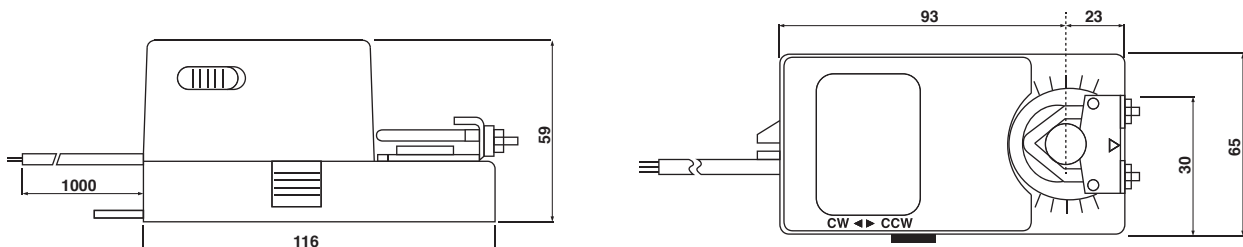
## PRODUCT FEATURE

- Torque 2 Nm
- Damper size 0.4 m<sup>2</sup>
- Power supply AC/DC 24V and AC 230V
- Shaft dimensions - Ø 6...15 mm / □ 5...10 mm
- Minimum Shaft Length 40 mm
- Adjustable angle of rotation
- Selectable direction of rotation of reversing actuator
- Actuator with 1 m cable connection
- Optional 1 Adjustable SPDT auxiliary switch
- Manual Over-ride push button when required

## MODEL SELECTION TABLE

| MODEL / TYPE | TORQUE | POWER SUPPLY     | RUNNING TIME | AUXILIARY SWITCH      |
|--------------|--------|------------------|--------------|-----------------------|
| CA 1-02      | 2 Nm   | AC/DC 24 V ± 10% | 60...90 sec  | -                     |
| CA 1-02S1    | 2 Nm   | AC/DC 24 V ± 10% | 60...90 sec  | 1 x SPDT (Adjustable) |
| CA 2-02      | 2 Nm   | AC 230 V ± 10%   | 60...90 sec  | -                     |
| CA 2-02S1    | 2 Nm   | AC 230 V ± 10%   | 60...90 sec  | 1 x SPDT (Adjustable) |

## DIMENSION (mm)



## TECHNICAL SPECIFICATION

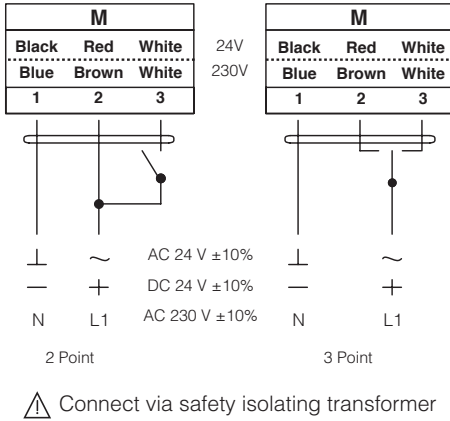
| MODEL NUMBER              | CA 1-02 (S1)                    | CA 2-02 (S1)                    |
|---------------------------|---------------------------------|---------------------------------|
| TORQUE                    | 2 Nm                            | 2 Nm                            |
| DAMPER SIZE               | 0.4 m <sup>2</sup>              | 0.4 m <sup>2</sup>              |
| SHAFT DIMENSION           | Ø 6...15 mm / □ 5...10 mm*      | Ø 6...15 mm / □ 5...10 mm*      |
| POWER SUPPLY              | AC/DC 24 V ± 10%                | AC 230 V ± 10%                  |
| FREQUENCY                 | 50...60 Hz                      | 50...60 Hz                      |
| CONTROL SIGNAL            | 2 & 3 point control             | 2 & 3 point control             |
| POWER CONSUMPTION         |                                 |                                 |
| ● OPERATING               | 2.0 W                           | 2.0 W                           |
| ● END POSITION            | 1.0 W                           | 1.0 W                           |
| FOR WIRE SIZING           | 4.0 VA                          | 4.0 VA                          |
| ELECTRICAL CONNECTION     | 1 m Cable                       | 1 m Cable                       |
| AUXILIARY SWITCH RATING   | 2 (1.5) A, AC 250 V             | 2 (1.5) A, AC 250 V             |
| PROTECTION CLASS          | Class III ⚡                     | Class II ⚡                      |
| ANGLE OF ROTATION         | 90° (95° mechanical)            | 90° (95° mechanical)            |
| WEIGHT                    | 0.55 Kg                         | 0.55 Kg                         |
| LIFE CYCLE                | 60,000 Rotation                 | 60,000 Rotation                 |
| SOUND LEVEL               | 40 dB                           | 40 dB                           |
| IP PROTECTION             | IP54                            | IP54                            |
| OPERATING TEMPERATURE     | -30°...50° as per IEC 721-3-3   | -30°...50° as per IEC 721-3-3   |
| NON-OPERATING TEMPERATURE | -30°...+60° C / IEC 721-3-2     | -30°...+60° C / IEC 721-3-2     |
| AMBIENT HUMIDITY          | 5%...95% rH non condensing / EN | 5%...95% rH non condensing / EN |
| MAINTENANCE               | Maintenance Free                | Maintenance Free                |
| MODE OF OPERATION         | Type I / EN 60730-1             | Type I / EN 60730-1             |
| EMC                       | CE & ISO 9000 EN / EEC          | CE & ISO 9000 EN / EEC          |

\*Note that shaft dimension has a tolerance offset of ± 0.2mm.

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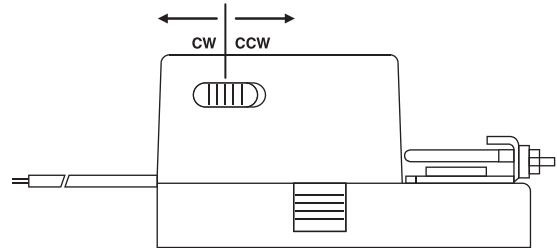
## WIRING DIAGRAM CA...02 (S1) POWER SUPPLY AC/DC 24V OR AC 230V



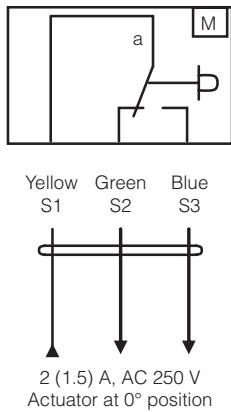
## DIRECTION OF ROTATION CA...02 (S1)

Default factory setting: CW.

Direction of rotation can be changed by toggling between CW/CCW switch on the actuator's housing.



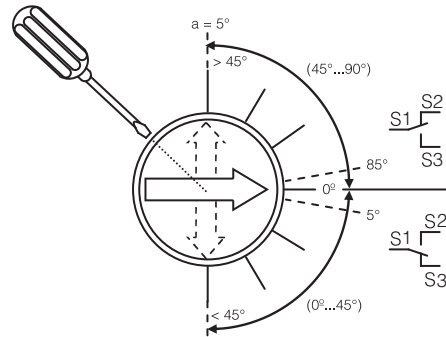
## WIRING DIAGRAM CA...02 (S1) AUXILIARY SWITCH



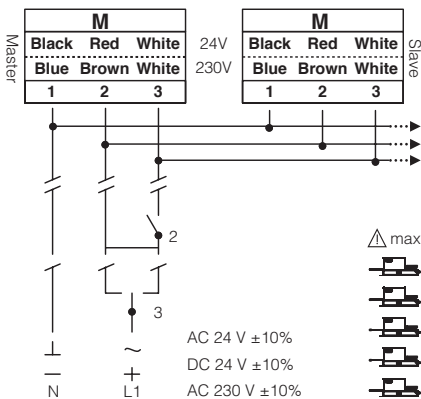
## AUXILIARY SWITCH CA...02 (S1)

Switch **a** factory-set at 5°.

The auxiliary switch can be optimally adjusted between 0°...90°.



## WIRING DIAGRAM CA...02 (S1) PARALLEL CONNECTION

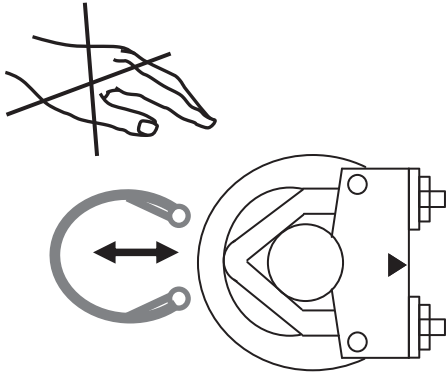


## REMARK

Parallel connection of CA...02 (S1) actuators are limited to 5. Power consumption must be observed.

## RELEASING THE ADAPTER

Releasing the adapter is not required.

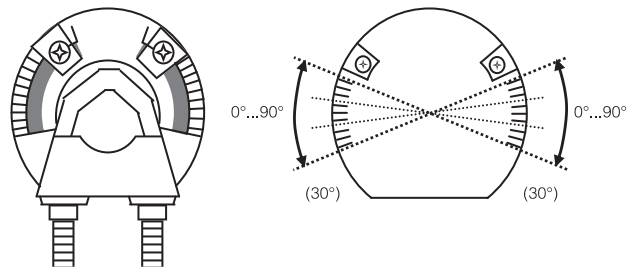


## LIMITING ANGLE OF ROTATION

Adjustment of Mechanical Limiter



1. Loosen screw of mechanical limiter
2. Move limiter to appropriate position\*
3. Tighten screw

\*Working range of 90° can be reduced up to 30° from end position.



## IMPORTANT REMARK

For special requirement, consult your local Swisotec's representative.

  This actuator includes electrical and electronic components and may not be disposed as household garbage. Please consider the local valid legislation.

 AC / DC 24 V: Connect via safety isolating transformer.  
AC 230 V: To isolate from the main power supply, the system must incorporate a device which disconnects the phase conductor (with at least a 3mm contact gap.)

The performance specifications are nominal and conform to acceptable industry standards. Swisotec shall not be liable for damages resulting from misapplication or misuse of its products.