

Rotary Damper Actuator

Spring Return 5 Nm

2 Point on/off Control



- NENUTEC **NAFA...05 (S1)** 5 Nm Spring Return damper actuator Series are designed specifically for application into the HVAC market.
- NENUTEC high quality damper actuators are developed for use with air damper, butterfly valve, characterized ball valve and other devices that required a fail safe function. The actuator motorized the damper or other devices when power on and spring back to it original position when power is cut off.

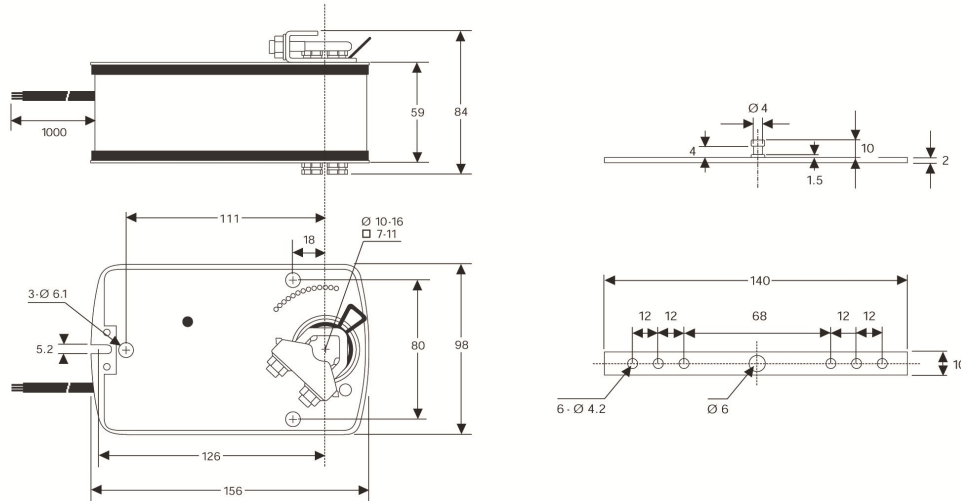
Product Features

- 2 points on/off control
- Damper Size up to 1.0 m²
- Voltage AC/DC 24V and AC 230V available
- Universal Spindle Clamp for easy direct mounting
- Shaft dimension Ø10...16 mm / 7...11 mm square
- Minimum Shaft Length 40mm
- Anti-rotation bracket provided for stability
- Adjustable angle of rotation
- Selectable direction of rotation by reversing actuator
- 1 adjustable SPDT auxiliary switches when re-

Model Selection Table

Torque	Running Time	Power Supply	Auxiliary Switches	Model/Type
5 Nm	50...70 sec	AC/DC 24V	No	NAFA 1-05
	Spring Back <20 sec		1 x SPDT	NAFA 1-05S1
5 Nm	50...70 sec	AC 230V ±10%	No	NAFA 2-05
	Spring Back <20 sec		1 x SPDT	NAFA 2-05S1

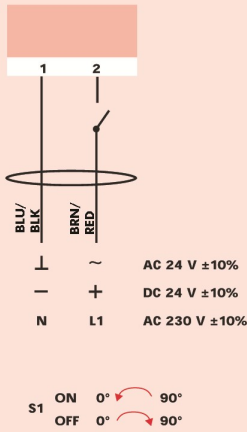
Actuator Dimensions (mm)



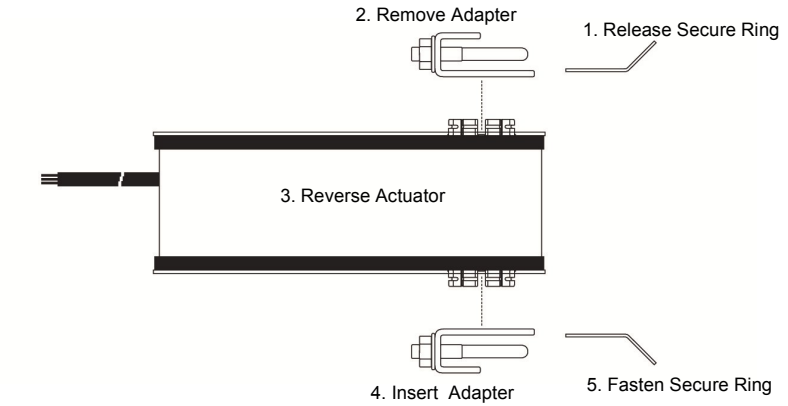
Technical Specification

	NAFA 1-05 (S)	NAFA 2-05 (S)
Torque — Motor (Rated Voltage) — Spring		Min. 5 Nm Min. 5 Nm
Damper Size		1.0 m ²
Power Supply	AC/DC 24 V	AC 230 V ±10%
Frequency		50...60Hz
Power Consumption		
-Operating	7.2 W	4.2 W
-At the end stops	2.5 W	2.5 W
For wire sizing		10.0 VA
Auxiliary Switches Rating (Amp and Voltage)	3 (1.5) A / 230 V (for 24 V and 230 V)	
Protection Class	II (for 24 V and 230 V)	
Controls Signal	2 Point On/Off	
Angle of Rotation	90° (95° mechanical)	
Angle of Rotation Limiting	5°...85° in 5° step	
Weight	1.8 Kg	
Life Cycle	60,000 rotation	
Sound Level	Below 45 dB	
IP Protection	IP54	
Ambient Temperature	-20°...50° as per IEC 721-3-3	
Ambient Humidity	5...95% RH	
Inventory Temperature	+70° as per 721-3-2	
Maintenance	Maintenance free	
Certification	CE and ISO 9000 EN... Requirements	

Wiring Diagram NAFA..05

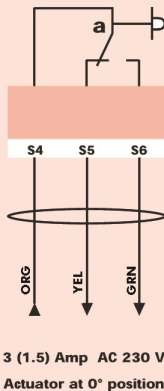


Changing Direction of Rotation NAFA...05 (S1)

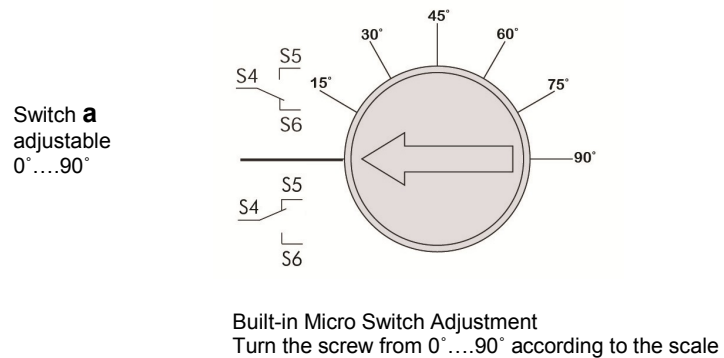


⚠ AC/DC 24V: Connect via safety isolating transformer.
 AC 230V: To isolate from the main power supply, the system must incorporate a device which disconnects the phase conductors (with a least a 3 mm contact gap)

Auxiliary Switches NAFA..05 (S1)



Auxiliary Switches adjustment NAFA...05 (S1)



Angle of Rotation Limiting

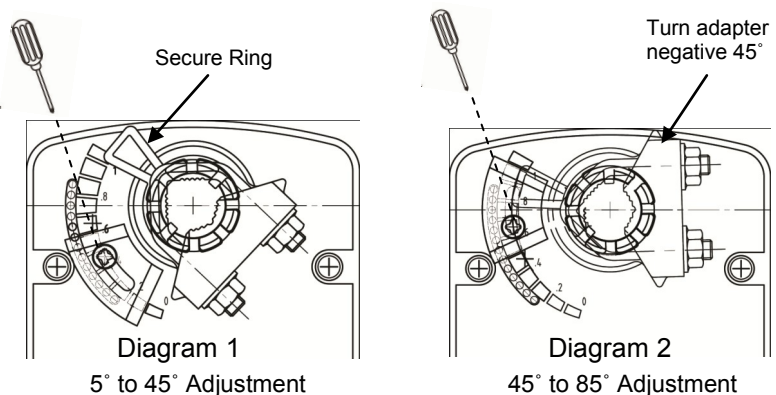
For 5° to 45° Adjustment (Diagram 1)

1. Loosen Screw of the mechanical limiter plate.
2. Move the limiter plate to the appropriate position.
3. Tighten the screw.

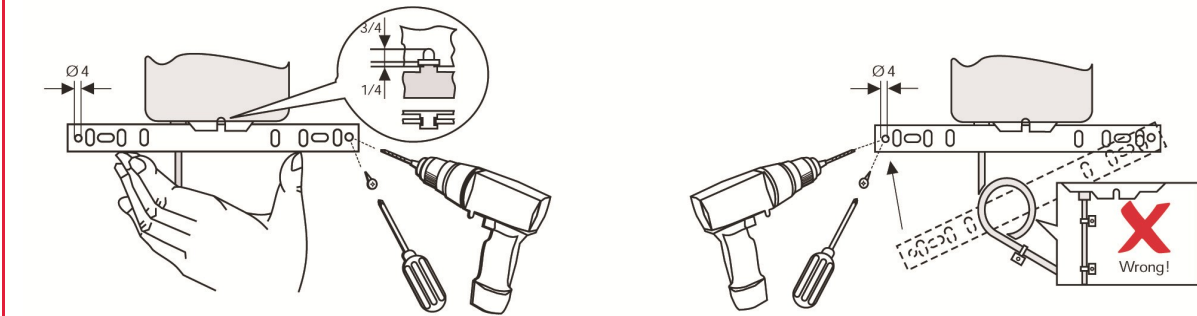
For 45° to 85° Adjustment (Diagram 2)

1. Release the secure ring of the adapter.
2. Remove the adapter and turn negative 45° as shown.
3. Insert adapter and secure the adapter ring.
4. Loosen Screw of the mechanical limiter plate
5. Move the limiter plate to the appropriate position
6. Tighten the screw

Angle of Rotation Limiting 5° to 85° adjustment



Installation / Mounting Instruction



OEM Customised Version on Request

TELIMA/NENUTEC offers you actuators in customised versions, e.g. with your own brand name, with colour-coordinated applications and with your particular demand. Please contact us for further information.

Important Remark

Consult NENUTEC representatives for specific requirements and material selections for your intended application.



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 3 mm contact gap).

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