

# NAFA SERIES SPRING RETURN DAMPER ACTUATOR


2 Point Spring Return Control  
8 Nm


# NENUTEC<sup>®</sup>

INNOVATIVE MEMBER OF SWISSTECH

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## DAMPER ACTUATOR MODEL CHART

MODEL	 NACA	 NACM	 NECA	 NECM	 NASA	 NASM	 NAFA	 SAFA	 SASA	 NSVA
VOLTAGE 230VAC ~ 24VAC/DC	●	●	●	●	●	●	●	●	●	24 VAC
TORQUE (NM)	2 ; 5 ; 10 ; 20 ; 40	2 ; 5 ; 10 ; 20 ; 40	5 ; 10 ; 20	5 ; 10 ; 20	10 ; 20	10 ; 20	3 ; 5 ; 8 ; 20	3 ; 5 ; 8 ; 20	10 ; 15	5
CONTROL	2/3 pts	Modulating	2 pts	Modulating	2/3 pts	Modulating	2 pts SR	2 pts SR	3 pts	Modulating
SPECIAL TYPE										
ELECTRONIC RETURN			●	●						
FAST RUNNING					●	●			●	
SPRING RETURN							●			
FIRE & SMOKE SPRING RETURN								●		
SMOKE SAFETY								●	●	
NETWORKING										●

## TYPE DESIGNATION

TYPE	ACTUATOR	DESIGNATION	CONTROL	VOLTAGE	DOT	INPUT SIGNAL	HYPHENATED	TOUQE	AUXILIARY SWITCH
N	A	C	M	1	.	1	-	1 0	S1

<b>TYPE</b>	N = Standard Actuator
	S = Fire & Smoke
<b>ACTUATOR</b>	A = Standard Actuator
	E = Electronic Return
<b>DESIGNATION</b>	C = Standard Actuator
	S = Fast Running Actuator
	F = Spring Back Actuator
<b>CONTROL</b>	A = 2/3 Points
	M = Modulating
<b>VOLTAGE</b>	1 = 24 VAC/VDC
	2 = 230 VAC
	3 = 110/120 VAC
	4 = 48 VAC

<b>INPUT SIGNAL (NOT APPLICABLE FOR 2/3 POINTS)</b>	1 = 0(2)...10 VDC and 0(4)...20 mA	
	2 = 0(2)...10 VDC only	
	3 = 0...135 Ω only	
	4 = 4...20 mA only	
<b>TORQUE</b>	02 = 2 Nm	03 = 3 Nm
	05 = 5 Nm	08 = 8 Nm
	10 = 10 Nm	15 = 15 Nm
	20 = 20 Nm	40 = 40 Nm
<b>AUXILIARY SWITCH / FEEDBACK POTENTIOMETER</b>	None = No Auxiliary or Feedback Potentiometers	
	S1 = 1 x Auxiliary Switch	
	S = 2 x Auxiliary Switches	
	P1 = 1000Ω	P2 = 10000Ω
		P3 = 140Ω

# NAFA SERIES

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8 Nm

### NAFA...08 (S) SERIES

NAFA series Spring Return actuators are developed for general air damper application, rotary valve and other devices which require a fail-safe function. During normal operation, the actuator motorized the device. In the event of power outage, the actuator springs back to its original position.



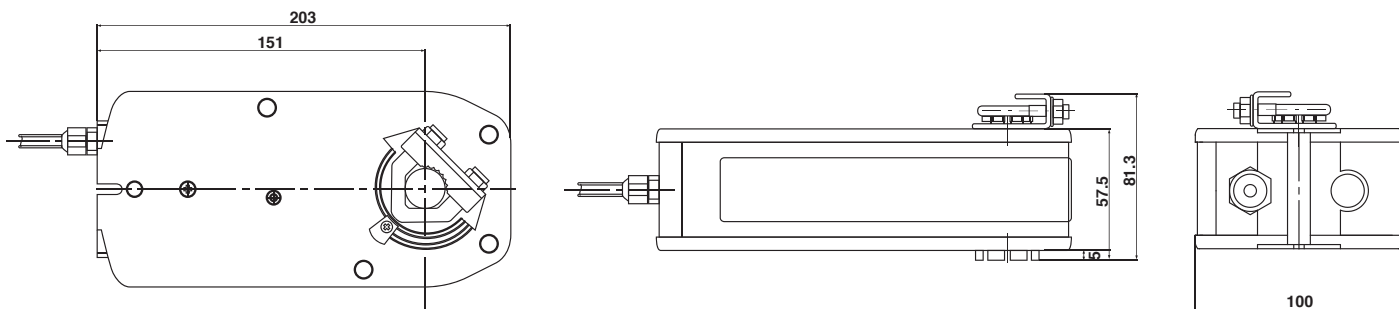
### PRODUCT FEATURE

- Torque 8 Nm
- Damper size 1.5 m<sup>2</sup>
- Power supply AC/DC 24V and AC 230 V
- Shaft dimensions - Ø 10...20 mm / □ 7...14 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 Fixed and 1 Adjustable SPDT auxiliary switches

### MODEL SELECTION TABLE

MODEL / TYPE	TORQUE	POWER SUPPLY	RUNNING TIME	AUXILIARY SWITCHES
NAFA 1-08	8 Nm	AC/DC 24 V ± 10%	100...130 sec (Spring Back <25 sec)	-
NAFA 1-08S	8 Nm	AC/DC 24 V ± 10%	100...130 sec (Spring Back <25 sec)	2 x SPDT (Fixed & Adjustable)
NAFA 2-08	8 Nm	AC 230 V ± 10%	100...130 sec (Spring Back <25 sec)	-
NAFA 2-08S	8 Nm	AC 230 V ± 10%	100...130 sec (Spring Back <25 sec)	2 x SPDT (Fixed & Adjustable)

## DIMENSION (mm)



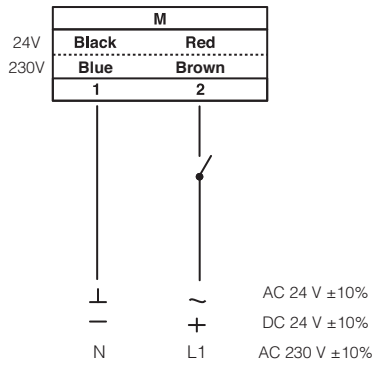
## TECHNICAL SPECIFICATION

MODEL NUMBER	NAFA 1-08 (S)	NAFA 2-08 (S)
<b>TORQUE</b>	8 Nm	8 Nm
<b>DAMPER SIZE</b>	1.5 m <sup>2</sup>	1.5 m <sup>2</sup>
<b>SHAFT DIMENSION</b>	Ø 10...20 mm / □ 7...14 mm	Ø 10...20 mm / □ 7...14 mm
<b>POWER SUPPLY</b>	AC/DC 24 V ± 10%	AC 230 V ± 10%
<b>FREQUENCY</b>	50...60 Hz	50...60 Hz
<b>CONTROL SIGNAL</b>	2 point control	2 point control
<b>POWER CONSUMPTION</b>		
● OPERATING	7.0 W	8.0 W
● END POSITION	2.0 W	5.5 W
<b>FOR WIRE SIZING</b>	8.0 VA	8.0 VA
<b>ELECTRICAL CONNECTION</b>	1 m Cable	1 m Cable
<b>AUXILIARY SWITCHES RATING</b>	3 (1.5) A, AC 250 V	3 (1.5) A, AC 250 V
<b>PROTECTION CLASS</b>	Class III ⚡	Class II ⚡
<b>ANGLE OF ROTATION</b>	-5...+90° (mechanical)	-5...+90° (mechanical)
<b>WEIGHT</b>	2.2 Kg	2.2 Kg
<b>LIFE CYCLE</b>	60,000 Rotation	60,000 Rotation
<b>SOUND LEVEL</b>	45 dB	45 dB
<b>IP PROTECTION</b>	IP54	IP54
<b>OPERATING TEMPERATURE</b>	-20°...50° as per IEC 721-3-3	-20°...50° as per IEC 721-3-3
<b>NON-OPERATING TEMPERATURE</b>	-30°...+60° C / IEC 721-3-2	-30°...+60° C / IEC 721-3-2
<b>AMBIENT HUMIDITY</b>	5%...95% rH non condensing / EN	5%...95% rH non condensing / EN
<b>MAINTENANCE</b>	Maintenance Free	Maintenance Free
<b>MODE OF OPERATION</b>	Type I / EN 60730-1	Type I / EN 60730-1
<b>EMC</b>	CE & ISO 9000 EN / EEC	CE & ISO 9000 EN / EEC

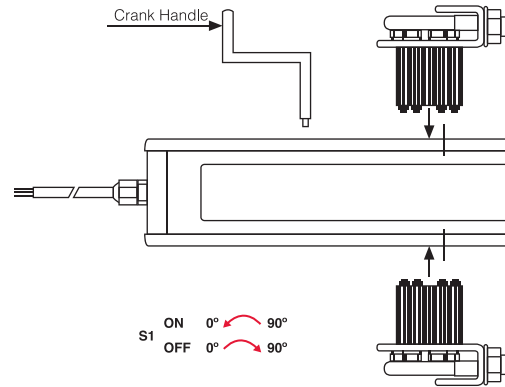
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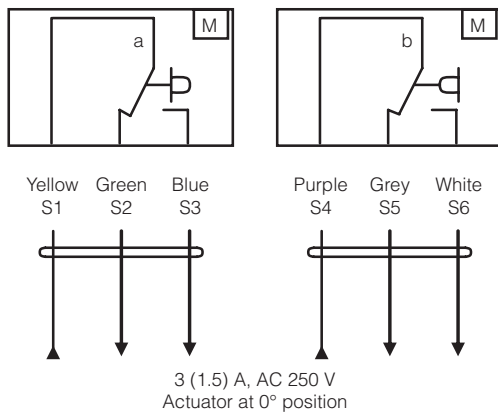
## WIRING DIAGRAM NAFA...08 (S) POWER SUPPLY AC/DC 24 V / AC 230V



## DIRECTION OF ROTATION NAFA...08 (S)



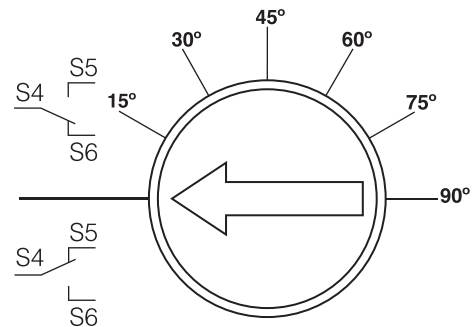
## WIRING DIAGRAM NAFA...08 (S) AUXILIARY SWITCHES



## AUXILIARY SWITCH NAFA...08(S)

Switch **a** factory-set at 5°.

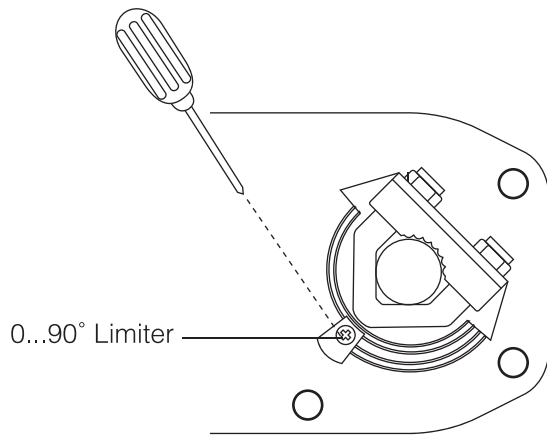
The auxiliary switch can be optimally adjusted between 0°...90°.



Switch **a** factory set at 5°

Switch **b** adjustable 0° ...90°

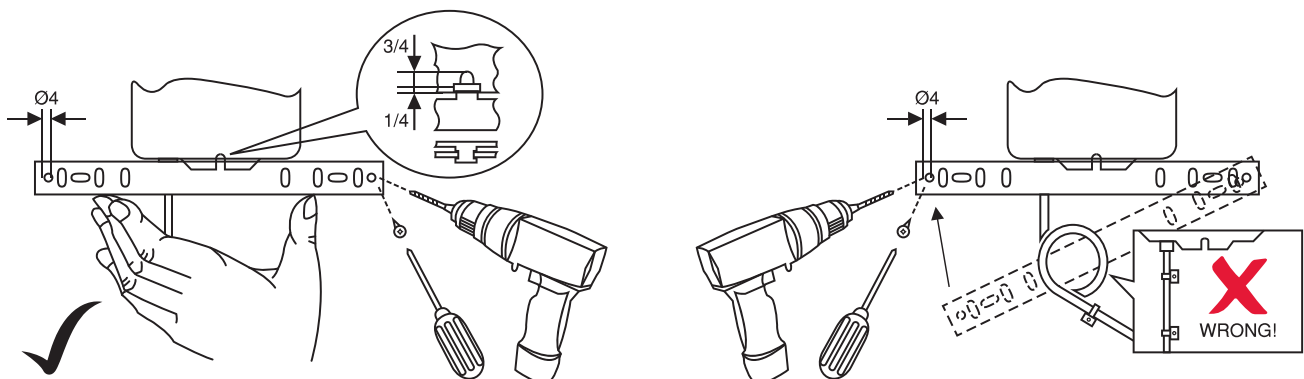
## ANGLE OF ROTATING LIMITATING



### Mechanical Limited Adjustment



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

## INSTALLATION / MOUNTING INSTRUCTION



### IMPORTANT REMARK

For special requirement, consult your local Nenutec'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. Nenutec shall not be liable for damages resulting from misapplication or misuse of its products.