

NECA SERIES ELECTRONIC RETURN DAMPER ACTUATOR

**2 Point Control
20 Nm**

NENUTEC®

INNOVATIVE MEMBER OF SWISS⁺ TEC

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DAMPER ACTUATOR MODEL CHART

MODEL										
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	TOQUE	AUXILIARY SWITCH
N	A	C	M	1	.	1	-	1 0	S1

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

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

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NECA...20 SERIES (S)

NECA SERIES damper actuators with Electronic Return® (ER) function are designed and produced for extended functionalities in the HVAC Systems: air handling equipment, fan coils and laboratory applications. Electronic Return® (ER) is able to manage short voltage interruptions for max. 10 seconds.



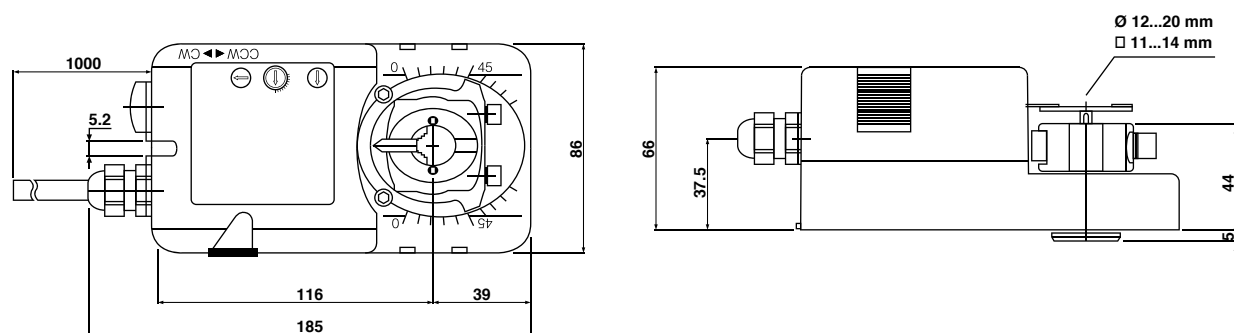
PRODUCT FEATURE

- Torque 20 Nm
- Damper size 4.0 m²
- Power supply AC/DC 24V and AC 230V
- Shaft dimensions - Ø 12...20 mm / □ 11...14 mm
- Minimum Shaft Length 45 mm
- Adjustable angle of rotation
- Selectable direction of rotation of reversing actuator
- Actuator with 1 m cable connection
- Optional 2 Adjustable SPDT auxiliary switches
- Manual Over-ride push button when required

MODEL SELECTION TABLE

MODEL /TYPE	TORQUE	POWER SUPPLY	RUNNING TIME	RETURN	AUXILIARY SWITCH
NECA 1-20	20 Nm	AC/DC 24V ± 10%	70...100 sec	65 sec	-
NECA 1-20S	20 Nm	AC/DC 24V ± 10%	70...100 sec	65 sec	2 x SPDT (Adjustable)
NECA 2-20	20 Nm	AC 230V ± 10%	70...100 sec	65 sec	-
NECA 2-20S	20 Nm	AC 230V ± 10%	70...100 sec	65 sec	2 x SPDT (Adjustable)

DIMENSION (mm)



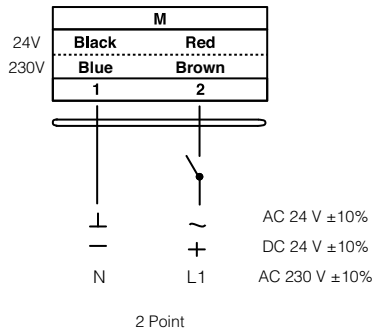
TECHNICAL SPECIFICATION

MODEL NUMBER	NECA 1-20 (S)	NECA 2-20 (S)
TORQUE	20 Nm	20 Nm
DAMPER SIZE	4.0 m ²	4.0 m ²
SHAFT DIMENSION	Ø 12...20 mm / □ 11...14 mm	Ø 12...20 mm / □ 11...14 mm
POWER SUPPLY	AC/DC 24 V ± 10%	AC 230 V ± 10%
FREQUENCY	50...60 Hz	50...60 Hz
CONTROL SIGNAL	2 point control	2 point control
POWER CONSUMPTION		
● OPERATING	7.2 W	7.2 W
● END POSITION	1.2 W	1.2 W
FOR WIRE SIZING	10.0 VA	10.0 VA
ELECTRICAL CONNECTION	1 m Cable	1 m Cable
AUXILIARY SWITCHES 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	1.2 Kg	1.2 Kg
LIFE CYCLE	60,000 Rotation	60,000 Rotation
SOUND LEVEL	< 45 dB (A)	< 45 dB (A)
IP PROTECTION	IP54	IP54
OPERATING TEMPERATURE	-20°...50° as per IEC 721-3-3	-20°...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

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WIRING DIAGRAM NECA...20 (S) POWER SUPPLY AC/DC 24 V / AC 230V

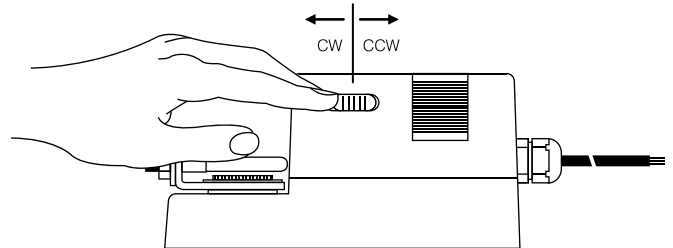


⚠ Connect via safety isolating transformer

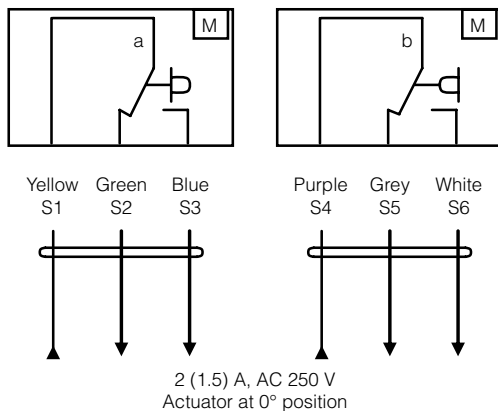
DIRECTION OF ROTATION NECA...20 (S)

Default factory setting: CW.

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



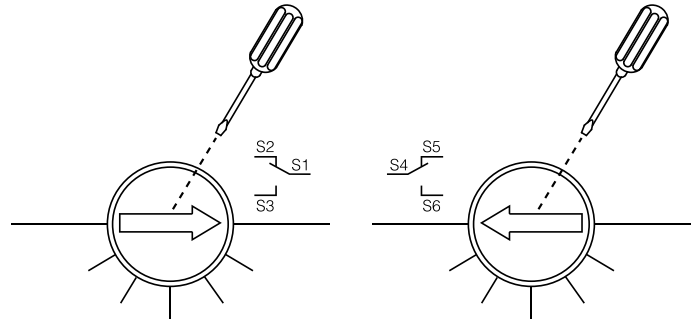
WIRING DIAGRAM NECA...20 (S) AUXILIARY SWITCH



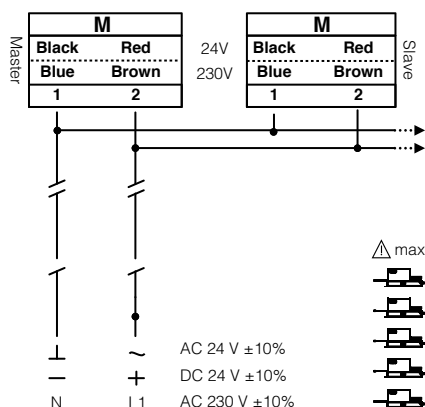
AUXILIARY SWITCH NECA...20 (S)

Switch **a** factory-set at 5° and 85°.

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



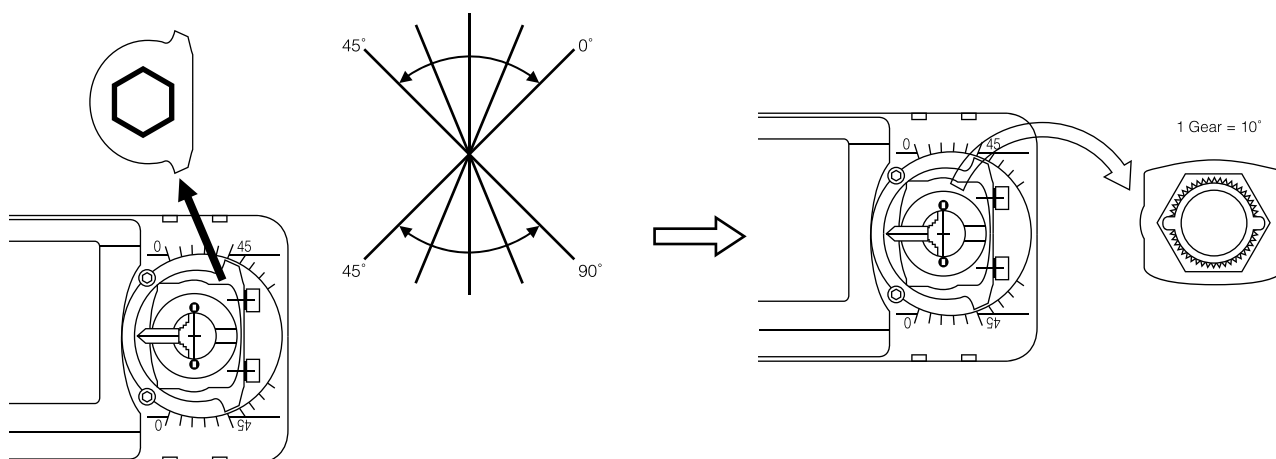
WIRING DIAGRAM NECA...20 (S) PARALLEL CONNECTION



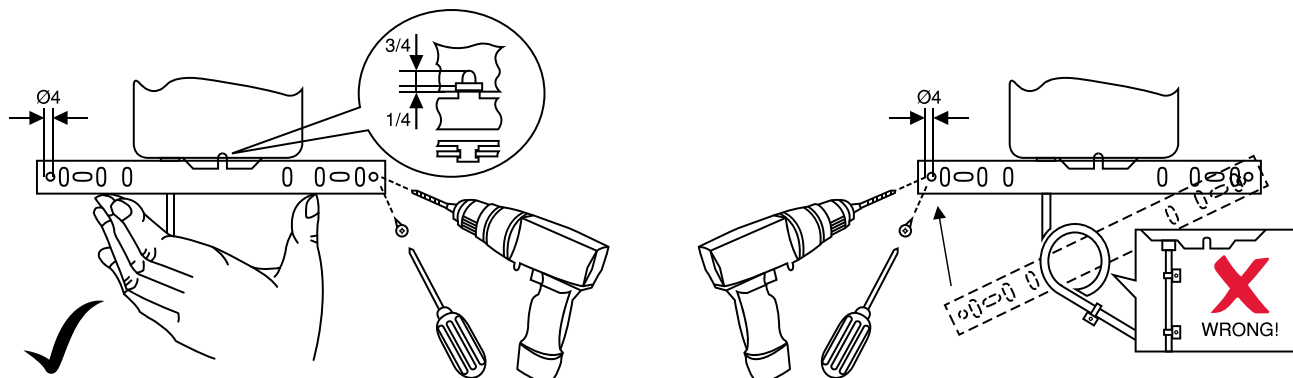
REMARK

Parallel connection of NECA...20 actuators are limited to 5. Power consumption must be observe.

ANGLE OF ROTATION LIMITING



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.