

ELECTRONIC RETURN DAMPER ACTUATOR

6 Nm / 10 Nm | MODULATING CONTROL



The appearance of the product may differ from the illustration. Technical specifications are subject to change.

NECM...06/10 (S1) SERIES

NECM series actuators with Electronic Return® (ER) function are designed and produced for extended functionalities in HVAC systems fan coil and laboratory applications.

Electronic Return® (ER) is able to manage short voltage interruptions for max. 4 seconds. In case of longer voltage interruption actuator will move the damper or valve to a predefined emergency position (EPS).

- Torque 6 Nm / 10 Nm.
- For damper size ca. 1.0 m² / 2.0 m².
- Power supply 24 V_{AC/DC}
- Modulating control 0(2)...10 V_{DC} and 0(4)..20 mA.
- Manual over-ride push button.
- Shaft dimension: Ø 10...20 mm / square 5...15 mm.
- Minimum shaft length 45 mm.
- Selectable direction of rotation by switch.
- Adjustable angle of rotation.
- Actuator available with 1 m connection cable.
- Optional 1 SPDT auxiliary switch.
- Customised versions and functions (on request).

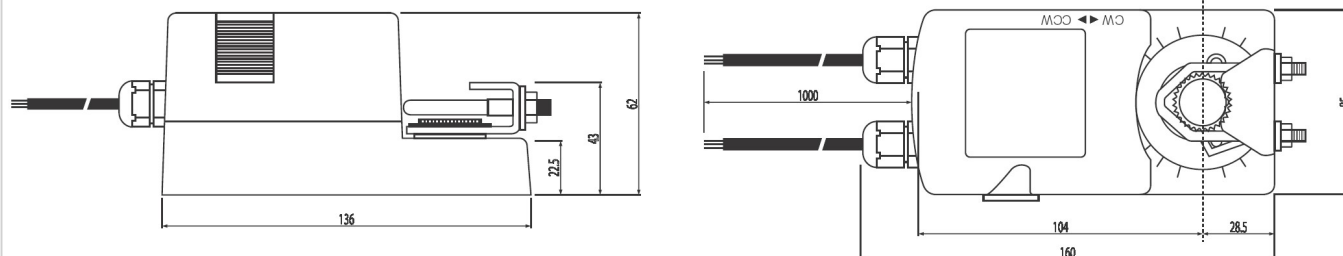
MODEL SELECTION TABLE

Torque	Running time	Return time – safety function	Power supply	Auxiliary switch	Model/type
6 Nm	60...80 s	40 s	24 V _{AC/DC} ± 10%	No	NECM 1.1-06
6 Nm	60...80 s	40 s	24 V _{AC/DC} ± 10%	1 x SPDT	NECM 1.1-06S1
10 Nm	60...80 s	40 s	24 V _{AC/DC} ± 10%	No	NECM 1.1-10
10 Nm	60...80 s	40 s	24 V _{AC/DC} ± 10%	1 x SPDT	NECM 1.1-10S1

ELECTRONIC RETURN DAMPER ACTUATOR


6 Nm / 10 Nm | MODULATING CONTROL

ACTUATOR DIMENSIONS [mm]



TECHNICAL SPECIFICATION

NECM 1.1-06/10 (S1)

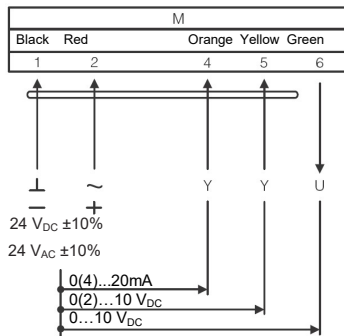
Torque	6 Nm / 10 Nm
Damper size	1.0 m ² / 2.0 m ²
Shaft dimensions	Ø 10...20 mm / square 5...15 mm
Power supply	24 V _{AC/DC} ± 10%
Frequency	50...60 Hz
Control signal (input)	0(2)...10 V _{DC} ; 0(4)...20 mA
Position signal (output)	0...10 V _{DC}
Power consumption	
– Operating	7.2 W
– At end position	1.2 W
Rated power	6.5 VA
Protection class	III 
Auxiliary switches rating	3 (1.5) A/250 V _{AC}
Electrical wiring	1 m Cable
Angle of rotation	90° (95° mechanical limitation)
Weight	<1.0 kg
Durability	60,000 rotations
Sound level	40 dB
Protection degree	IP54
Working temperature range	-20°C...50°C as per IEC 721-3-3
Storage temperature	-30°C...+60°C / IEC 721-3-2
Humidity	5...95% rH (non condensing) / EN
Maintenance	Maintenance free
Principle of operation	Type 1 (acc. to EN 60730-1)
Electromagnetic compatibility	CE & ISO 9000 to EN / EEC

ELECTRONIC RETURN DAMPER ACTUATOR

6 Nm / 10 Nm | MODULATING CONTROL

Wiring diagram NECM...06/10 (S1)

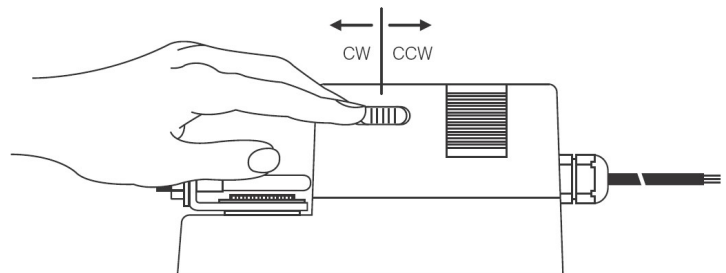
Power supply 24 V_{AC} / DC



■ Changing direction of rotation NECM ... 06/10 (S1)

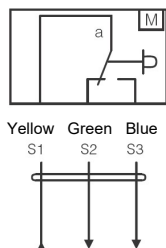
Default factory setting.

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



Wiring diagram NECM...06/10 (S1)

Auxiliary switch



Yellow Green Blue
S1 S2 S3

3 (1.5) A / 250 V_{AC}
Actuator at 0° position

■ Adjusting control signals NECM ...06/10 (S1)

Control signal 5 0...10 V_{DC}
Input resistance R_i = 100 kOhm

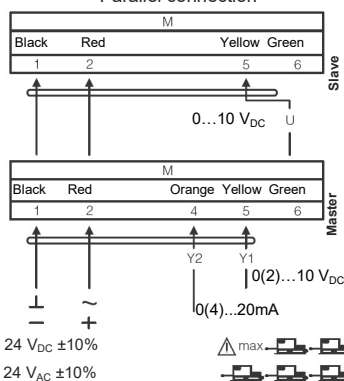
Factory default setting

Control signal 5 2...10 V_{DC}
Input resistance R_i = 500 kOhm

On request

Wiring diagram NECM...06/10 (S1)

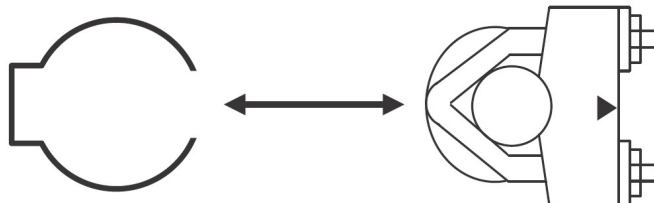
Parallel connection



■ Note

During parallel operation, the output signal (terminal 6, DC 0...10 V) of the master actuator must be connected to terminal 5 of the next slave actuator.

■ Releasing the adapter NECM...06/10 (S1)



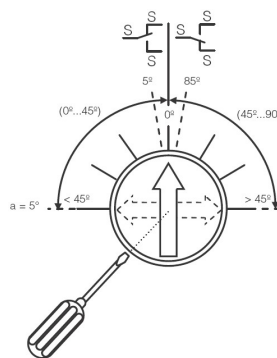
ELECTRONIC RETURN DAMPER ACTUATOR

6 Nm / 10 Nm | MODULATING CONTROL

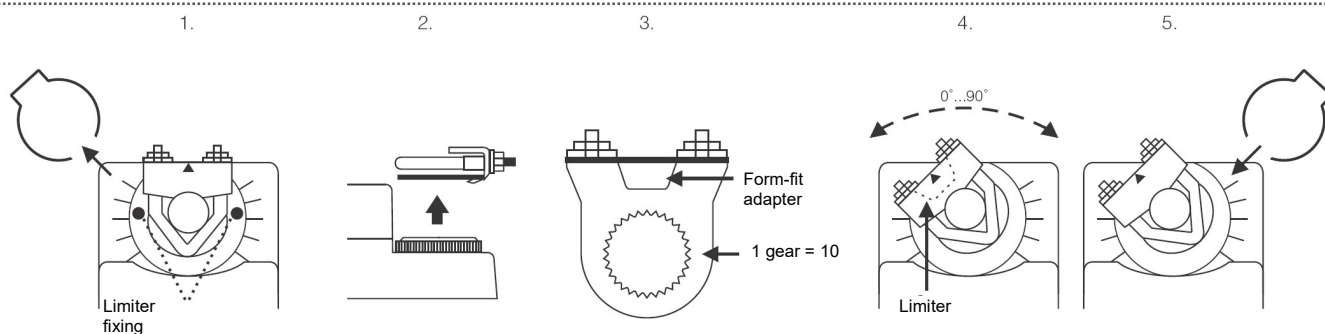
Auxiliary switch NECM ...06/10 (S1)

Switch a factory-set at 5°.

The auxiliary switch can be adjusted in the range 0°...90°.



Limiting angle rotation NECM ...06/10 (S1)



IMPORTANT REMARKS

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

24 V_{AC/DC}: Connect via safety isolating transformer.

230 V_{AC}: 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.)

Consult NENUTEC representatives for specific requirements and material selections for your intended application. The entire content of this technical datasheet is protected by copyright. All rights are reserved ©.

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.

IMPORTANT REMARK

The NENUTEC NECM...(S1) actuator series can be equipped with a variety of NENUTEC products characterized 2-way und 3-way ball valves of NVCB... series and NPG-1 position transmitter accessories.

Contact NENUTEC representatives or factory for the specific requirements and material selection for your intended application.

CUSTOMISED VERSION

NENUTEC offers you actuators in customised versions, e.g. with your own brand name, with colour-coordinated applications and with your particular demand on request.

For further information please contact us or our local representative.

Nenutec Polska

00-236 Warszawa
ul. Świętojerska 5/7
tel.: +48-(0)-504-050225
nenutec@nenutec.pl