

NECA SERIES
ELECTRONIC RETURN DAMPER ACTUATOR

2 Point Control

2 Nm

NENUTE[®] TEC

INNOVATIVE MEMBER OF SWIS+TEC

ELECTRONIC RETURN DAMPER ACTUATOR

2 Nm | 2-POINT CONTROL



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

NECA...02 (S1) SERIES

NECA 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).

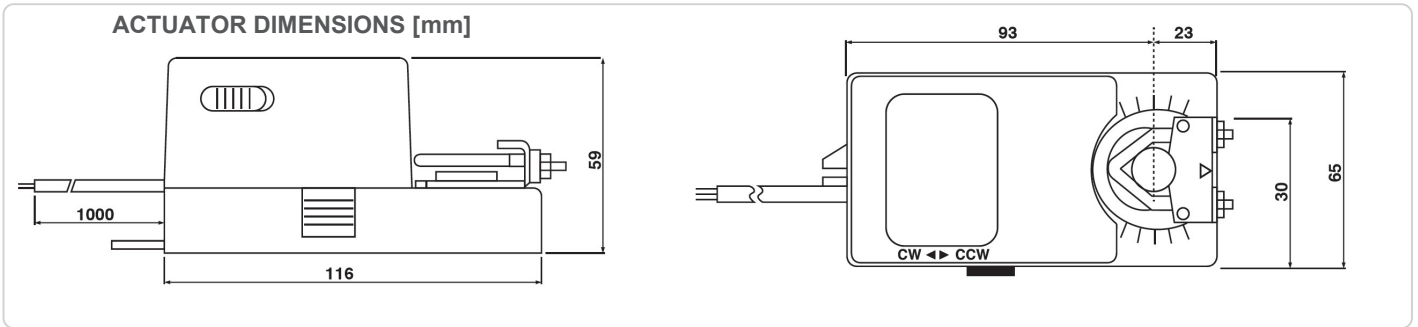
- Torque 2 Nm.
- For damper size ca. 0,4 m².
- Power supply 24 V_{AC/DC} and 230 V_{AC}
- 2-point control.
- Manual over-ride push button.
- Shaft dimension: Ø 10...17 mm / square 5...12 mm.
- Minimum shaft length 40 mm.
- Selectable direction of rotation by switch.
- Adjustable angle of rotation.
- Actuator available with 1 m connection cable.
- Optional 2 adjustable SPDT auxiliary switches.
- Customised versions and functions (on request).

MODEL SELECTION TABLE

Torque	Running time	Return time – safety function	Power supply	Auxiliary switches	Model/type
2 Nm	50...55 s	35 s	24 V _{AC/DC} ± 10%	No	NECA 1-02
2 Nm	50...55 s	35 s	24 V _{AC/DC} ± 10%	1 x SPDT (adjustable)	NECA 1-02S1
2 Nm	50...55 s	35 s	230 V _{AC} ± 10%	No	NECA 2-02
2 Nm	50...55 s	35 s	230 V _{AC} ± 10%	1 x SPDT (adjustable)	NECA 2-02S1

ELECTRONIC RETURN DAMPER ACTUATOR

2 Nm | 2-POINT CONTROL



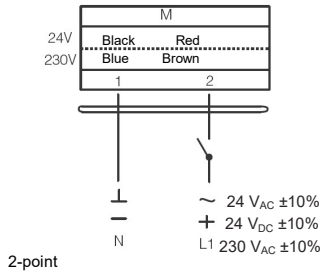
TECHNICAL SPECIFICATION

	NECA 1-20 (S1)	NECA 2-20 (S1)
Torque	2 Nm	2 Nm
Damper size	0.4 m ²	0.4 m ²
Shaft dimensions	Ø 10...17 mm / square □ 5...12 mm	Ø 10...17 mm / square □ 5...12 mm
Power supply	24 V _{AC/DC} ± 10%	230 V _{AC} ± 10%
Frequency	50...60 Hz	50...60 Hz
Control signal (input)	2-point control	2-point control
Power consumption		
– Operating	8.7 W	8.7 W
– At end position	1.2 W	1.2 W
Rated power	14.0 VA	14.0 VA
Auxiliary switch rating	3(1.5) A / 250 V _{AC}	3(1.5) A / 250V _{AC}
Protection class	III ⚡	II □
Electrical wiring	1 m Cable	1 m Cable
Angle of rotation	90° (95° mechanical limitation)	90° (95° mechanical limitation)
Weight	<0.55 kg	<0.55 kg
Durability	60,000 rotations	60,000 rotations
Sound level	< 42 dB	< 42 dB
Protection degree	IP54	IP54
Working temperature range	-20°C...50°C as per IEC 721-3-3	-20°C...50°C as per IEC 721-3-3
Storage temperature	-30°C...+60°C / IEC 721-3-2	-30°C...+60°C / IEC 721-3-2
Humidity	5...95% rH (non condensing) / EN	5...95% rH (non condensing) / EN
Maintenance	Maintenance free	Maintenance free
Principle of operation	Type 1 (acc. to EN 60730-1)	Type 1 (acc. to EN 60730-1)
Electromagnetic compatibility	CE & ISO 9000 to EN / EEC	CE & ISO 9000 to EN / EEC

ELECTRONIC RETURN DAMPER ACTUATOR

2 Nm | 2-POINT CONTROL

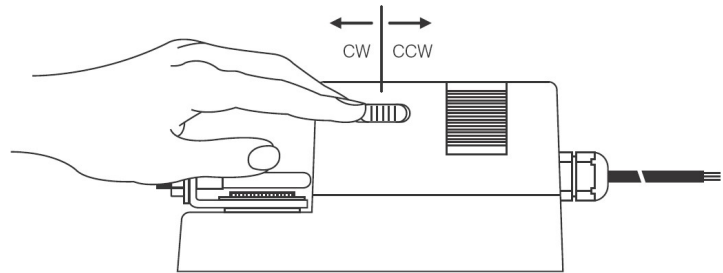
Wiring diagram NACA...10 (S1)
Power supply 24 V_{AC/DC} / 230 V_{AC}



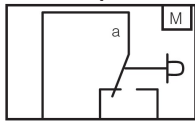
⚠ Connect via safety isolating transformer.

■ Changing direction of rotation NECA ...02 (S1)

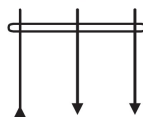
Direction of rotation can be changed by toggling the CW/CCW switch on the actuator housing.



Wiring diagram NACA...10 (S1)
Auxiliary switch



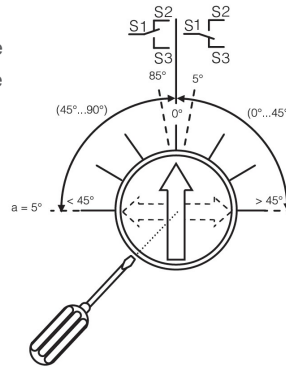
Yellow S1 Green S2 Blue S3



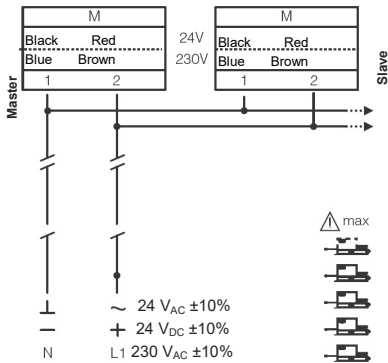
3 (1.5) A / 250 V_{AC}
Actuator at 0° position

■ Auxiliary switch NECA ...02 (S1)

Switch a factory-set at 5°. The auxiliary switch can be adjusted in the range 0°...90°.



Wiring diagram NECA...02 (S1)
Parallel connection



■ Note

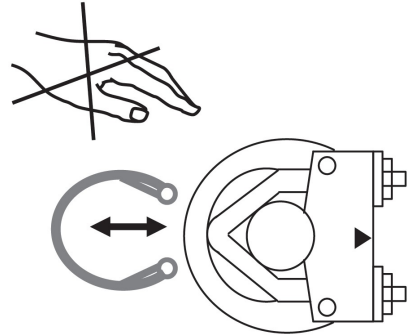
Parallel connection of maximum five NECA...02 (S1) actuators is possible.
Power consumption must be observed!

ELECTRONIC RETURN DAMPER ACTUATOR

2 Nm | 2-POINT CONTROL

■ Releasing the adapter NECA...02 (S1)

Releasing the adapter is not required.

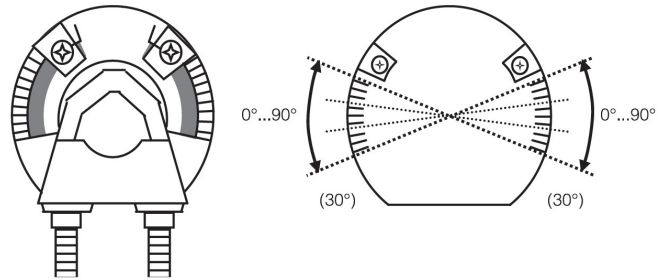


■ LIMITING ANGLE OF ROTATION NECA...02 (S1)

Adjustment of mechanical limiter.

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

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



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 NECA... actuator series can be equipped with a variety of NENUTEC products as characterized 2-way and 3-way ball valves of NVCB series.

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.

NECM SERIES
ELECTRONIC RETURN DAMPER ACTUATOR

Modulating Control

2 Nm

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ELECTRONIC RETURN DAMPER ACTUATOR

2 Nm| MODULATING CONTROL



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NECM...02 (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 2 Nm.
- For damper size ca. 0,4 m².
- Power supply 24 V_{AC/DC}
- Modulating control 0(2)...10 V_{DC}.
- Manual over-ride push button.
- Shaft dimension: Ø 10...17 mm / square 5...12 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).

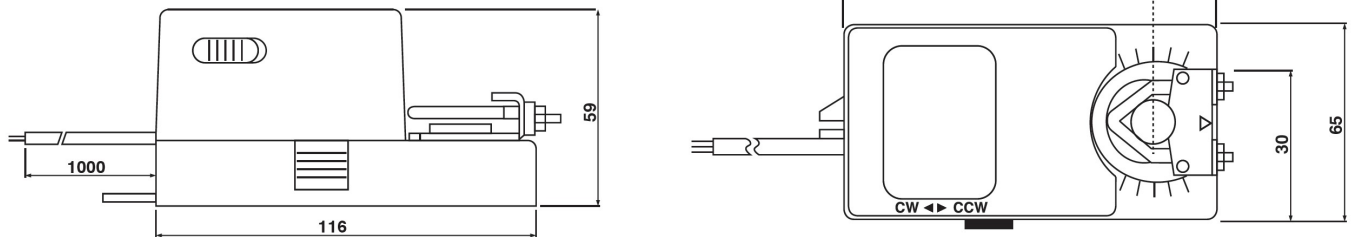
MODEL SELECTION TABLE

Torque	Running time	Return time – safety function	Power supply	Auxiliary switch	Model/type
2 Nm	50...55 s	35 s	24 V _{AC/DC} ± 10%	No	NECM 1.2-02
2 Nm	50...55 s	35 s	24 V _{AC/DC} ± 10%	1 x SPDT	NECM 1.2-02S1

ELECTRONIC RETURN DAMPER ACTUATOR


2 Nm| MODULATING CONTROL

ACTUATOR DIMENSIONS (mm)



TECHNICAL SPECIFICATION

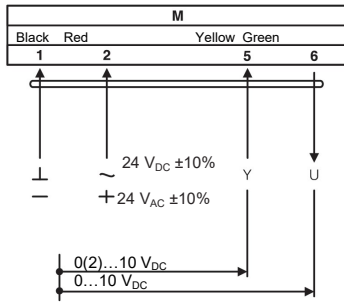
NECM 1.2-02 (S1)

Torque	2 Nm
Damper size	0.4 m ²
Shaft dimensions	Ø 10...17 mm / square 5...12 mm
Power supply	24 V _{AC/DC} ± 10%
Frequency	50...60 Hz
Control signal (input)	0(2)...10 V _{DC}
Position signal (output)	0...10 V _{DC}
Power consumption	
– Operating	7.2 W
– At end position	1.2 W
Rated power	14 VA
Protection class	III 
Auxiliary switch rating	3 (1.5) A/250 V _{AC}
Electrical wiring	Cable 1 m
Angle of rotation	90° (95° mechanical limitation)
Weight	<0.7 kg
Durability	60,000 rotations
Sound level	42 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

2 Nm| MODULATING CONTROL

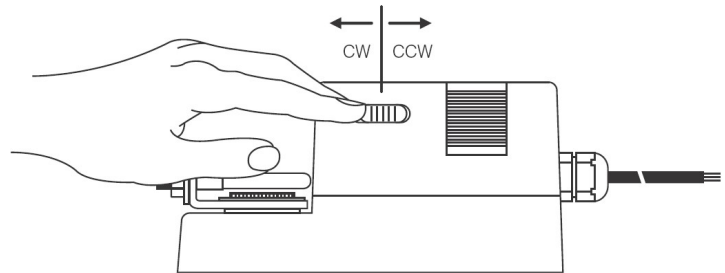
Wiring diagram NECM...02 (S1)
Power supply 24 V_{AC/DC}



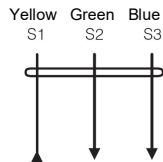
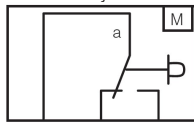
■ Changing direction of rotation NECM ...02 (S1)

Default factory setting.

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



Wiring diagram NECM...02 (S1)
Auxiliary switch

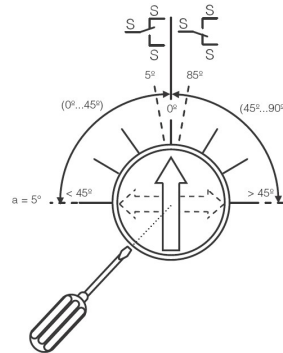


3 (1.5) A / 250 V_{AC}
Actuator at 0° position

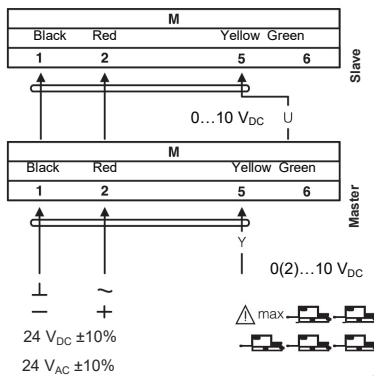
■ Auxiliary switch NECM ...02 (S1)

Switch a factory-set at 5°.

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



Wiring diagram NECM...02 (S1)
Parallel connection



■ Note

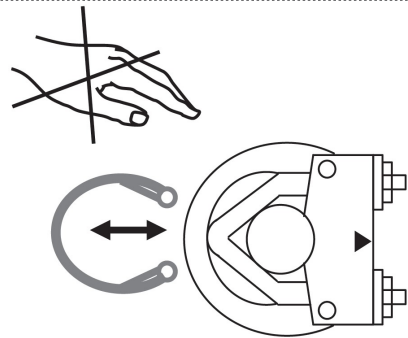
During parallel operation, the output signal (terminal 6, 0...10 V_{DC}) of the master actuator must be connected to terminal 5 of the next slave actuator.

ELECTRONIC RETURN DAMPER ACTUATOR

2 Nm| MODULATING CONTROL

Releasing the Adapter NECM...02 (S1)

Releasing the adapter is not required.

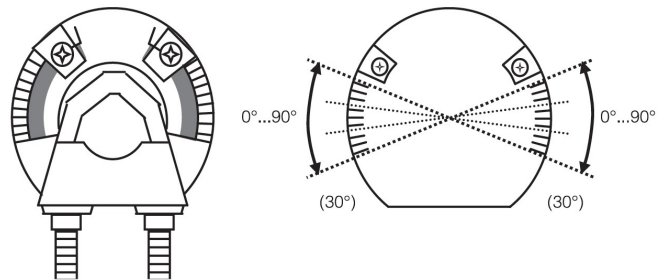


■ LIMITING ANGLE OF ROTATION NECM...02 (S1)

Adjustment of mechanical limiter.

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

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



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.)

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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.

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NECA SERIES
ELECTRONIC RETURN DAMPER ACTUATOR

2 Point Control

5 Nm

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ELECTRONIC RETURN DAMPER ACTUATOR

5 Nm | 2-POINT CONTROL



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NECA...05 (S1) SERIES

NECA 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 5 Nm.
- For damper size ca. 1.0 m².
- Power supply 24 V_{AC/DC} and 230 V_{AC}
- 2-point control.
- Manual over-ride push button.
- Shaft dimension: Ø 10...17 mm / square 5...12 mm.
- Minimum shaft length 40 mm.
- Selectable direction of rotation by switch.
- Adjustable angle of rotation.
- Actuator available with 1 m connection cable.
- Optional 1 adjustable SPDT auxiliary switch.
- Customised versions and functions (on request).

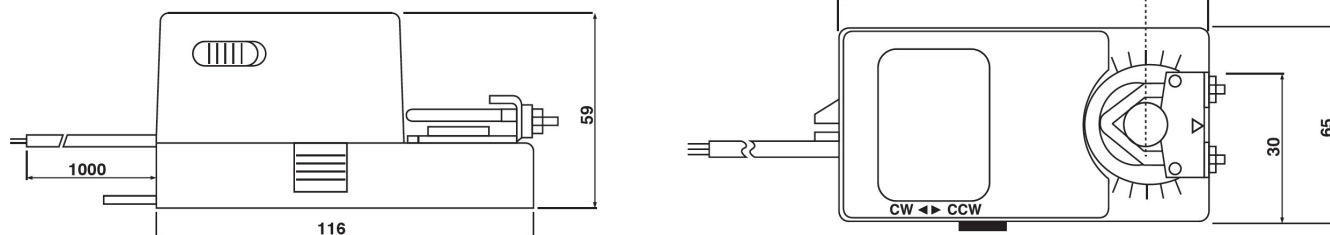
MODEL SELECTION TABLE

Torque	Running time	Return time – safety function	Power supply	Auxiliary switches	Model/type
5 Nm	50...55 s	35 s	24 V _{AC/DC} ± 10%	No	NECA 1-05
5 Nm	50...55 s	35 s	24 V _{AC/DC} ± 10%	1 x SPDT (adjustable)	NECA 1-05S1
5 Nm	50...55 s	35 s	230 V _{AC} ± 10%	No	NECA 2-05
5 Nm	50...55 s	35 s	230 V _{AC} ± 10%	1 x SPDT (adjustable)	NECA 2-05S1

ELECTRONIC RETURN DAMPER ACTUATOR

5 Nm | 2-POINT CONTROL

ACTUATOR DIMENSIONS [mm]



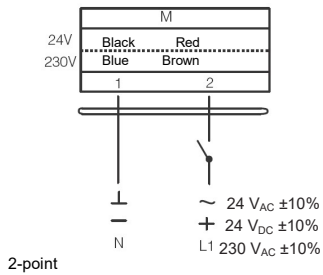
TECHNICAL SPECIFICATION

	NECA 1-20 (S1)	NECA 2-20 (S1)
Torque	5 Nm	5 Nm
Damper size	1.0 m ²	1.0 m ²
Shaft dimensions	Ø 10...17 mm / square □ 5...12 mm	Ø 10...17 mm / square □ 5...12 mm
Power supply	24 V _{AC/DC} ± 10%	230 V _{AC} ± 10%
Frequency	50...60 Hz	50...60 Hz
Control signal (input)	2-point control	2 point control
Power consumption		
– Operating	8.7 W	8.7 W
– At end position	1.2 W	1.2 W
Rated power	14.0 VA	14.0 VA
Auxiliary switch rating	3(1.5) A / 250 V _{AC}	3(1.5) A / 250V _{AC}
Protection class	III ⚡	II □
Electrical wiring	1 m Cable	1 m Cable
Angle of rotation	90° (95° mechanical limitation)	90° (95° mechanical limitation)
Weight	<0.55 kg	<0.55kg
Durability	60,000 rotations	60,000 rotations
Sound level	< 42 dB	< 42 dB
Protection degree	IP54	IP54
Working temperature range	-20°C...50°C as per IEC 721-3-3	-20°C...50°C as per IEC 721-3-3
Storage temperature	-30°C...+60°C / IEC 721-3-2	-30°C...+60°C / IEC 721-3-2
Humidity	5...95% rH (non condensing) / EN	5...95% rH (non condensing) / EN
Maintenance	Maintenance free	Maintenance free
Principle of operation	Type 1 (acc. to EN 60730-1)	Type 1 (acc. to EN 60730-1)
Electromagnetic compatibility	CE & ISO 9000 to EN / EEC	CE & ISO 9000 to EN / EEC

ELECTRONIC RETURN DAMPER ACTUATOR

5 Nm | 2-POINT CONTROL

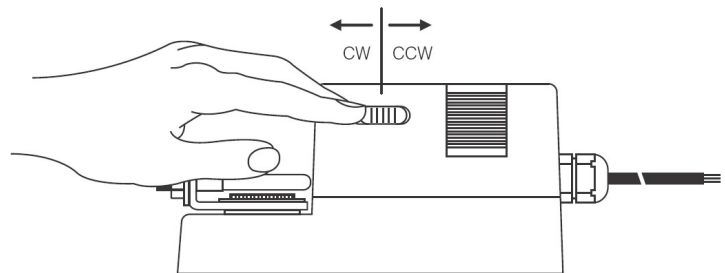
Wiring diagram NECA...05 (S1)
Power supply 24 V_{AC/DC} / 230 V_{AC}



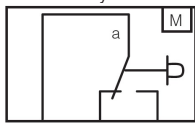
⚠ Connect via safety isolating transformer.

■ Changing direction of rotation NECA ...05 (S1)

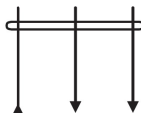
Direction of rotation can be changed by toggling the CW/CCW switch on the actuator housing.



Wiring diagram NECA...05 (S1)
Auxiliary switch



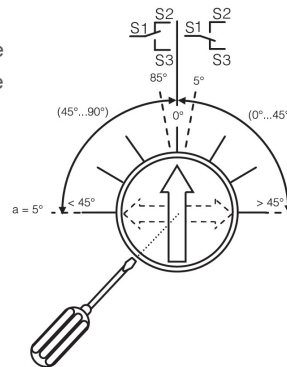
Yellow Green Blue
S1 S2 S3



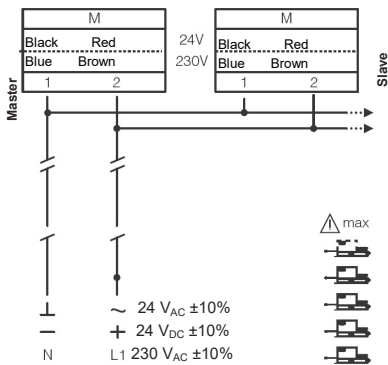
3 (1.5) A / 250 V_{AC}
Actuator at 0° position

■ Auxiliary switch NECA ...05 (S1)

Switch a factory-set at 5°. The auxiliary switch can be adjusted in the range 0°...90°.



Wiring diagram NECA...05 (S1)
Parallel connection



■ Note

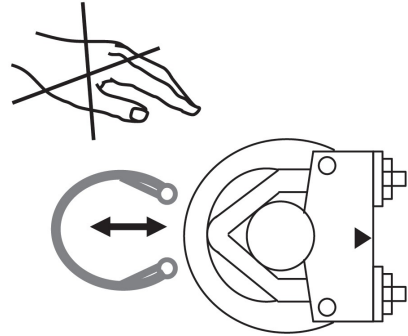
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Power consumption must be observed!

ELECTRONIC RETURN DAMPER ACTUATOR

5 Nm | 2-POINT CONTROL

■ Releasing the adapter NECA...05 (S1)

Releasing the adapter is not required.

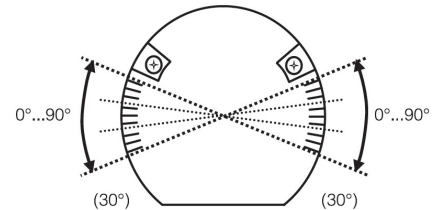
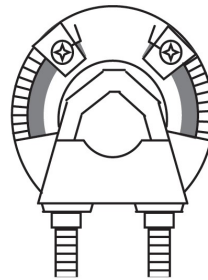


■ LIMITING ANGLE OF ROTATION NECA...05 (S1)

Adjustment of mechanical limiter.

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

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



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.)

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Modulating Control

5 Nm

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- Torque 5 Nm.
- For damper size ca. 1,0 m².
- Power supply 24 V_{AC/DC}
- Modulating control 0(2)...10 V_{DC}.
- Manual over-ride push button.
- Shaft dimension: Ø 10...17 mm / square 5...12 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).

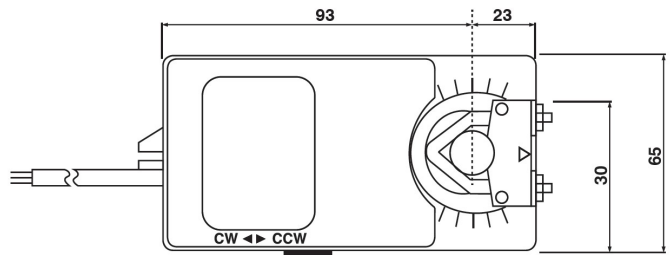
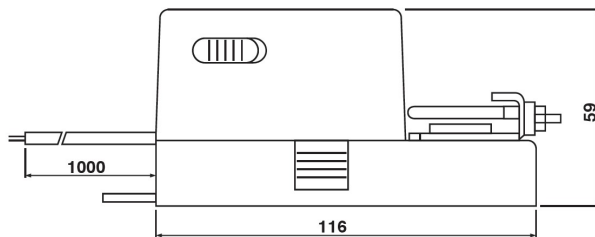
MODEL SELECTION TABLE

Torque	Running time	Return time – safety function	Power supply	Auxiliary switch	Model/type
5 Nm	50...55 s	35 s	24 V _{AC/DC} ± 10%	No	NECM 1.2-05
5 Nm	50...55 s	35 s	24 V _{AC/DC} ± 10%	1 x SPDT	NECM 1.2-05S1

ELECTRONIC RETURN DAMPER ACTUATOR


5 Nm| MODULATING CONTROL

ACTUATOR DIMENSIONS [mm]



TECHNICAL SPECIFICATION

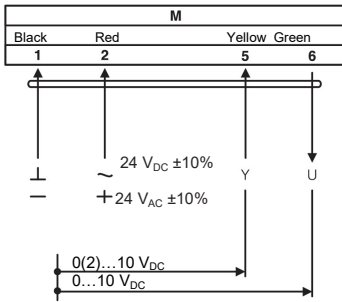
NECM 1.2-05 (S1)

Torque	5 Nm
Damper size	1.0 m ²
Shaft dimensions	Ø 10...17 mm / square □ 5...12 mm
Power supply	24 V _{AC/DC} ± 10%
Frequency	50...60 Hz
Control signal (input)	0(2)...10 V _{DC}
Position signal (output)	0...10 V _{DC}
Power consumption	
– Operating	7.2 W
– At end position	1.2 W
Rated power	14 VA
Protection class	III 
Auxiliary switch rating	3(1.5) A / 250 V _{AC}
Electrical wiring	1 m Cable
Angle of rotation	90° (95° mechanical limitation)
Weight	<0.7 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

5 Nm| MODULATING CONTROL

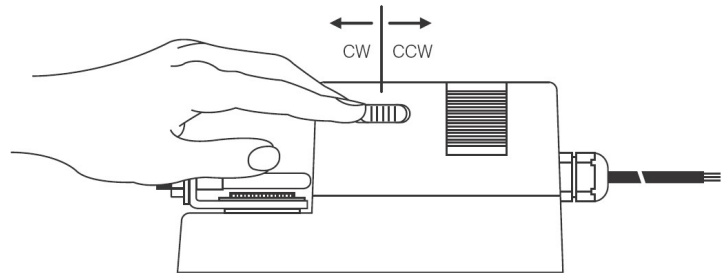
Wiring diagram NECM...05 (S1)
Power supply 24 V_{AC/DC}



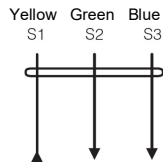
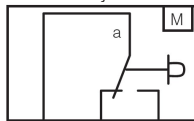
■ Changing direction of rotation NECM ...05 (S1)

Default factory setting.

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



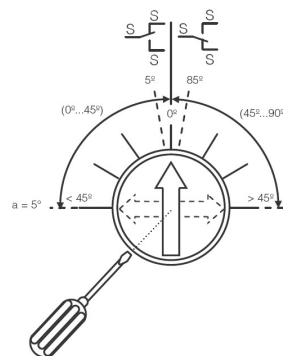
Wiring diagram NECM...05 (S1)
Auxiliary switch



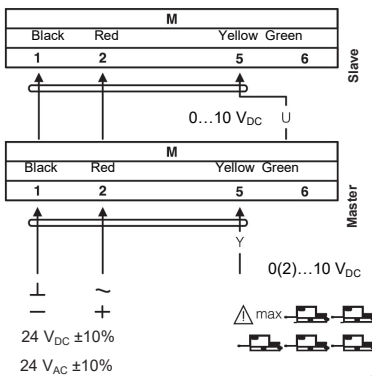
3 (1.5) A / 250 V_{AC}
Actuator at 0° position

■ Auxiliary switch NECM ...05 (S1)

Switch **a** factory-set at 5°. The auxiliary switch can be adjusted in the range 0°...90°.



Wiring diagram NECM...05 (S1)
Połączenia równoległe



■ Note

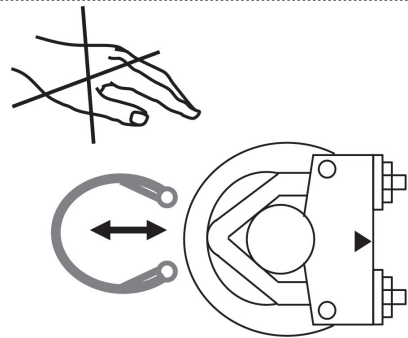
During parallel operation, the output signal (terminal 6, 0...10 V_{DC}) of the master actuator must be connected to terminal 5 of the next slave actuator.

ELECTRONIC RETURN DAMPER ACTUATOR

5 Nm| MODULATING CONTROL

Releasing the Adapter NECM...05 (S1)

Releasing the adapter is not required.

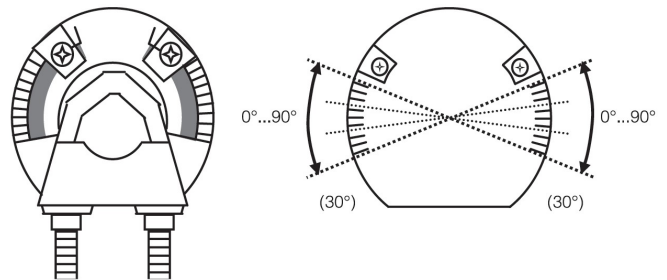


■ LIMITING ANGLE OF ROTATION NECM...05 (S1)

Adjustment of mechanical limiter.

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

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



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. Nenuotec 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.

SWISS⁺
TECHNOLOGY

NECA SERIES
ELECTRONIC RETURN DAMPER ACTUATOR

2 Point Control

6 Nm

NENUTE[®]EC

INNOVATIVE MEMBER OF SWIS⁺TEC

NECA SERIES ELECTRONIC RETURN DAMPER ACTUATOR

2 Point Control
6 Nm

NECA...6 SERIES (S1)

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

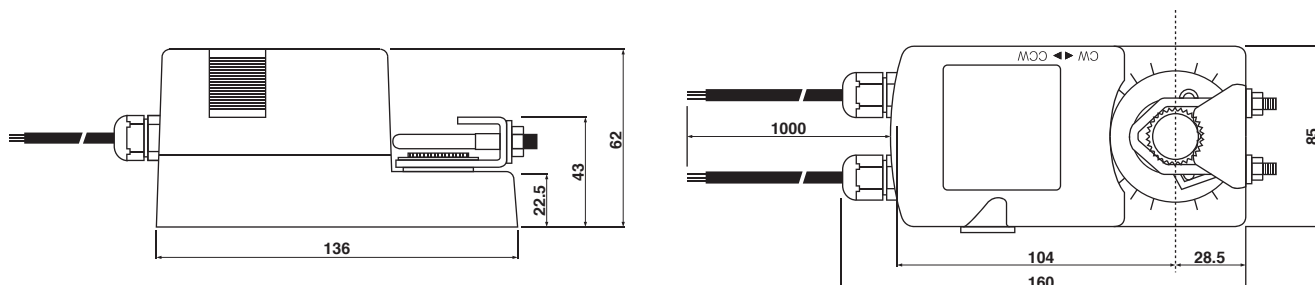


- Torque 6 Nm
- Damper size 2.0 m²
- Power supply AC/DC 24V and AC 230V
- Shaft dimensions - Ø 10...20 mm / □ 5...14 mm
- Minimum Shaft Length 40 mm
- Adjustable angle of rotation
- Selectable direction of rotation of reversing actuator
- Actuator with 1 m cable connection
- Optional 1 Adjustable SPDT auxiliary switch
- Manual Over-ride push button when required

MODEL SELECTION TABLE

MODEL /TYPE	TORQUE	POWER SUPPLY	RUNNING TIME	RETURN	AUXILIARY SWITCH
NECA 1-6	6 Nm	AC/DC 24V ± 10%	65...70 sec	40 sec	-
NECA 1-6S1	6 Nm	AC/DC 24V ± 10%	65...70 sec	40 sec	1 x SPDT (Adjustable)
NECA 2-6	6 Nm	AC 230V ± 10%	65...70 sec	40 sec	-
NECA 2-6S1	6 Nm	AC 230V ± 10%	65...70 sec	40 sec	1 x SPDT (Adjustable)

DIMENSION (mm)



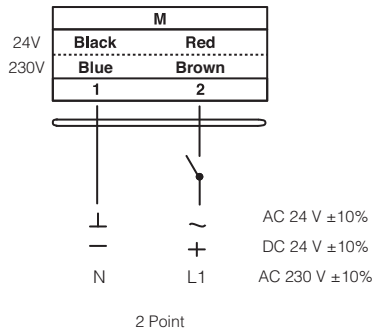
TECHNICAL SPECIFICATION

MODEL NUMBER	NECA 1-6 (S1)	NECA 2-6 (S1)
TORQUE	6 Nm	6 Nm
DAMPER SIZE	2.0 m ²	2.0 m ²
SHAFT DIMENSION	Ø 10...20 mm / □ 5...14 mm	Ø 10...20 mm / □ 5...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 SWITCH RATING	3 (1.5) A / AC 250 V	3 (1.5) A / AC 250 V
PROTECTION CLASS	Class III ⚡	Class II ⚡
ANGLE OF ROTATION	90° (95° mechanical)	90° (95° mechanical)
WEIGHT	1.8 Kg	1.8 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

NECA SERIES ELECTRONIC RETURN DAMPER ACTUATOR

2 Point Control
6 Nm

WIRING DIAGRAM NECA...6 (S1) POWER SUPPLY AC/DC 24 V / AC 230V

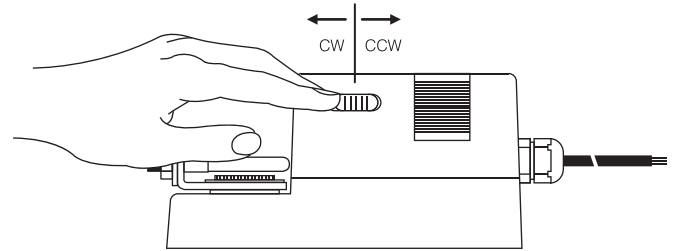


⚠ Connect via safety isolating transformer

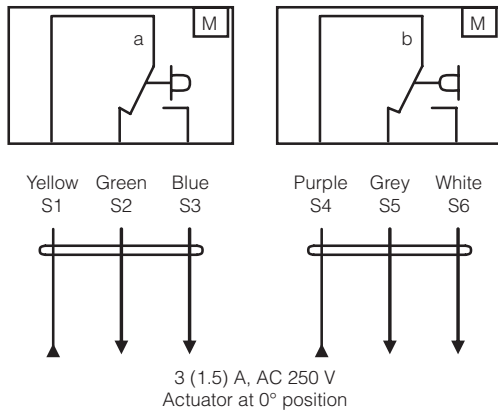
DIRECTION OF ROTATION NECA...6 (S1)

Default factory setting: CW.

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



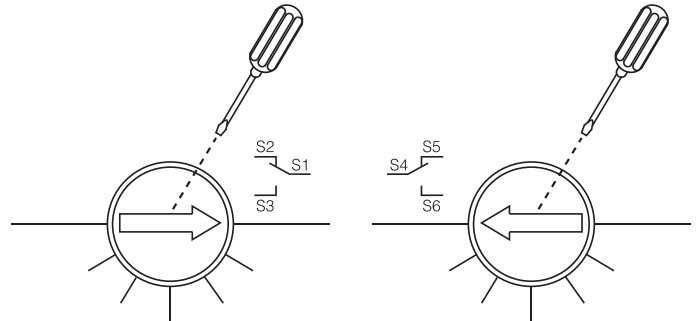
WIRING DIAGRAM NECA...6 (S1) AUXILIARY SWITCH



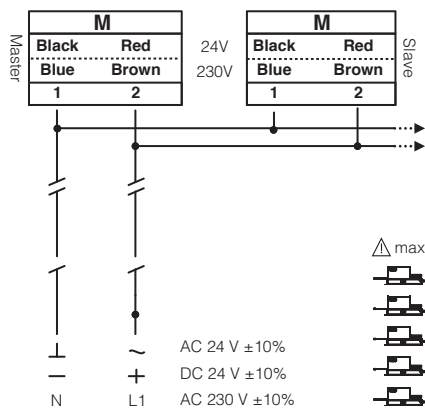
AUXILIARY SWITCH NECA...6 (S1)

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

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



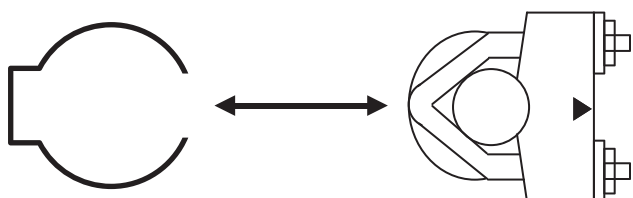
WIRING DIAGRAM NECA...6 (S1) PARALLEL CONNECTION



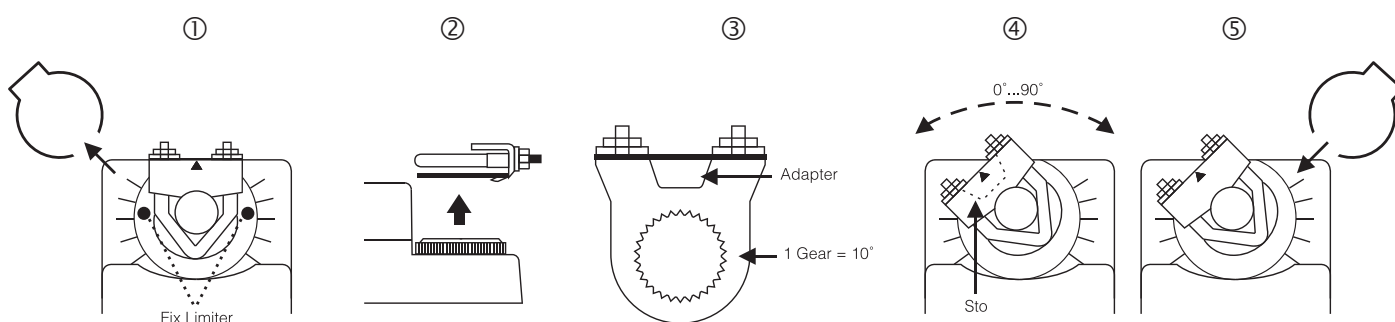
REMARK

Parallel connection of NECA...6 actuators are limited to 5. Power consumption must be observe.

RELEASING THE ADAPTER NECA...6 (S1)





LIMITING ANGLE OF ROTATION NECA...6 (S1)



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.

SWISS⁺
TECHNOLOGY

NECM SERIES
ELECTRONIC RETURN DAMPER ACTUATOR

Modulating Control
6 Nm

NENUTE[®]EC

INNOVATIVE MEMBER OF SWIS⁺TEC

NECM SERIES ELECTRONIC RETURN DAMPER ACTUATOR

Modulating Control
6 Nm

NECM...6 SERIES

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



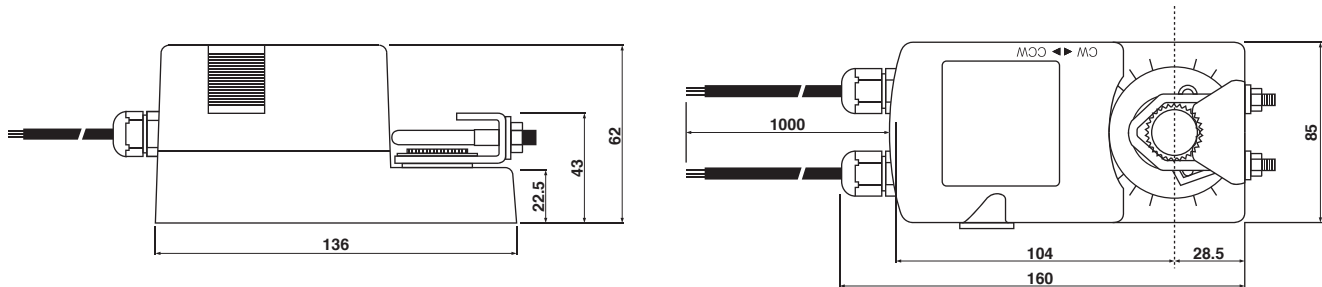
PRODUCT FEATURE

- Torque 6 Nm
- Damper size 2.0 m²
- Power supply AC/DC 24V
- Control Modulating Signal DC 0(2)...10 V / 0(4)...20 mA
- Shaft dimensions - Ø 10...20 mm / □ 5...14 mm
- Minimum Shaft Length 45 mm
- Adjustable angle of rotation
- Selectable direction of rotation of reversing actuator
- Actuator with 1 m cable connection
- Manual Over-ride push button when required

MODEL SELECTION TABLE

MODEL /TYPE	TORQUE	POWER SUPPLY	RUNNING TIME	RETURN	AUXILIARY SWITCH
NECM 1.1-6	6 Nm	AC/DC 24V ± 10%	65...70 sec	40 sec	-
NECM 1.1-6S	6 Nm	AC/DC 24V ± 10%	65...70 sec	40 sec	1 x SPDT (Adjustable)

DIMENSION (mm)



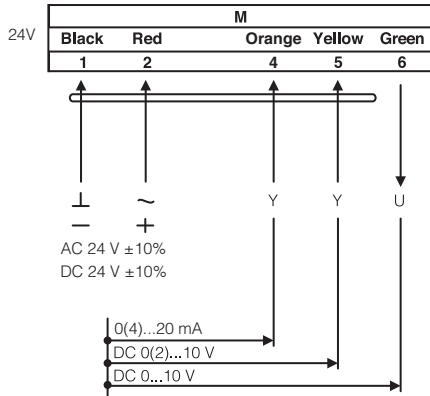
TECHNICAL SPECIFICATION

MODEL NUMBER	NECM 1.1-06 (S)
TORQUE	6 Nm
DAMPER SIZE	2.0 m ²
SHAFT DIMENSION	Ø 10...20 mm / □ 5...14 mm
POWER SUPPLY	AC/DC 24 V ± 10%
FREQUENCY	50...60 Hz
CONTROL SIGNAL (INPUT)	DC 0(2)...10 V, 0(4)...20 mA
POSITION SIGNAL (OUTPUT)	DC 0...10 V
POWER CONSUMPTION	
● OPERATING	7.2 W
● END POSITION	1.2 W
FOR WIRE SIZING	10.0 VA
ELECTRICAL CONNECTION	1 m Cable
AUXILIARY SWITCH RATING	3 (1.5) A / AC 250 V
PROTECTION CLASS	Class III ⚡
ANGLE OF ROTATION	90° (95° mechanical)
WEIGHT	< 1.0 Kg
LIFE CYCLE	60,000 Rotation
SOUND LEVEL	40 dB
IP PROTECTION	IP54
OPERATING TEMPERATURE	-20°...50° as per IEC 721-3-3
NON-OPERATING TEMPERATURE	-30°...+60° C / IEC 721-3-2
AMBIENT HUMIDITY	5%...95% rH non condensing / EN
MAINTENANCE	Maintenance Free
MODE OF OPERATION	Type I / EN 60730-1
EMC	CE & ISO 9000 EN / EEC

NECM SERIES ELECTRONIC RETURN DAMPER ACTUATOR

Modulating Control
6 Nm

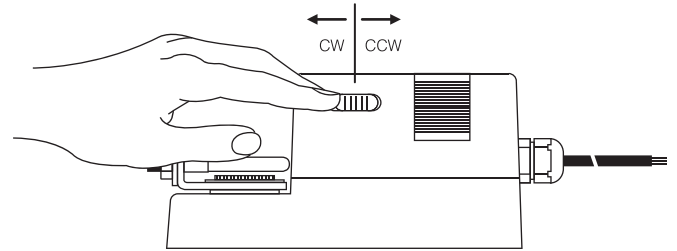
WIRING DIAGRAM NECM...6 (S) POWER SUPPLY AC/DC 24V



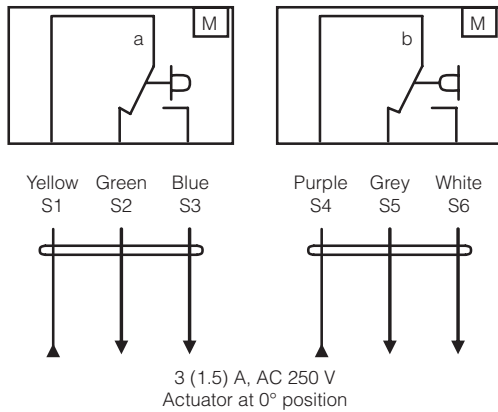
DIRECTION OF ROTATION NECM...6 (S)

Default factory setting: CW.

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



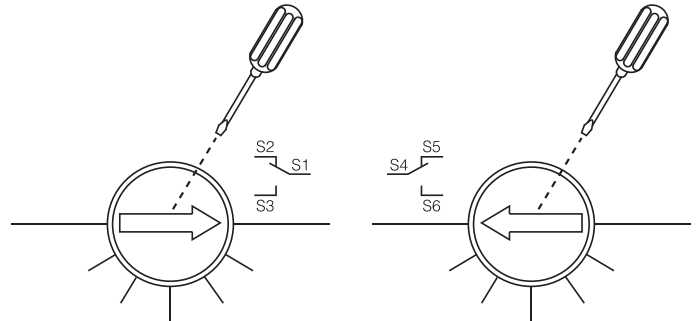
WIRING DIAGRAM NECM...6 (S) AUXILIARY SWITCH



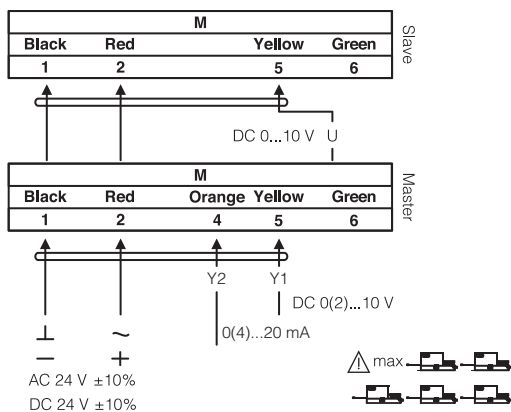
AUXILIARY SWITCH NECM...6 (S)

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

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



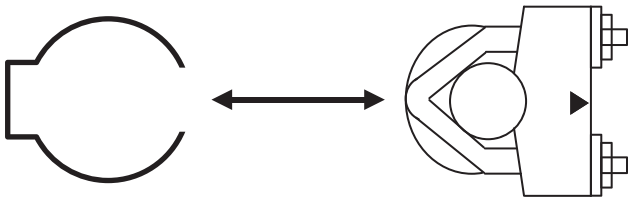
WIRING DIAGRAM NECM...6 (S) PARALLEL CONNECTION



REMARK

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...6 (S)



Adjusting Control Signals NECM...6 (S)

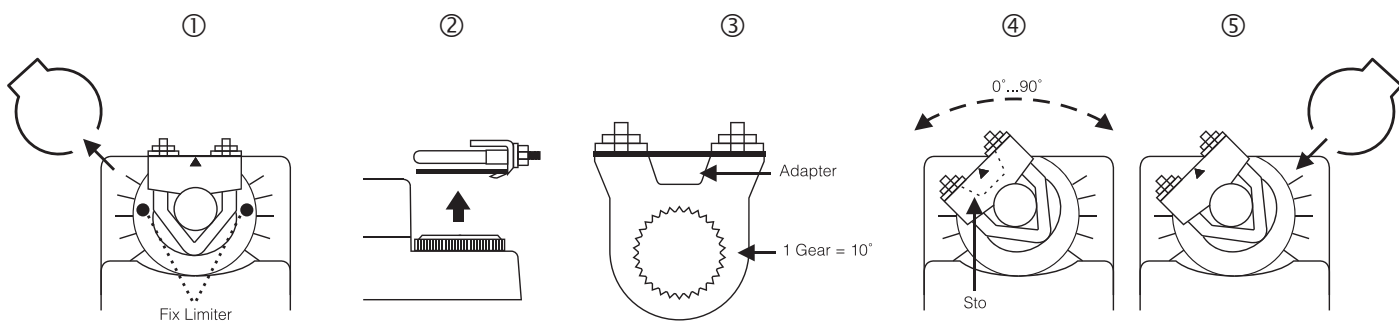
Control Signal 5 DC 0...10V
Input Resistance Ri100k Ohm

Factory Default Setting

Control Signal 5 DC 2...10V
Input Resistance Ri500k Ohm



On Request

LIMITING ANGLE OF ROTATION NECM...6 (S)



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.

SWISS⁺
TECHNOLOGY

NECM SERIES
ELECTRONIC RETURN DAMPER ACTUATOR

Modulating Control
10 Nm

NENUTE[®]EC

INNOVATIVE MEMBER OF SWIS⁺TEC

NECM SERIES ELECTRONIC RETURN DAMPER ACTUATOR

Modulating Control
10 Nm

NECM...10 SERIES

NECM series actuators with Electronic Return® (ER) function are designed and produced for extended functionalities in 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

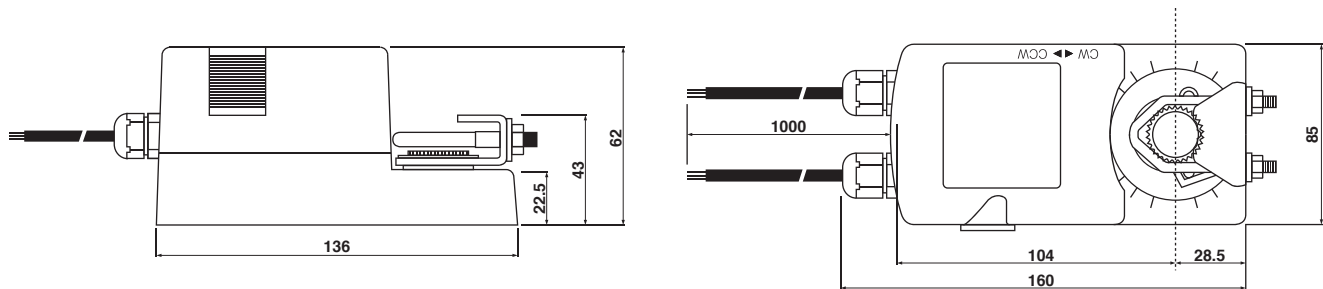
- Torque 10 Nm
- Damper size 2.0 m²
- Power supply AC/DC 24V
- Control Modulating Signal DC 0(2)...10 V / 0(4)...20 mA
- Shaft dimensions - Ø 10...20 mm / □ 5...14 mm
- Minimum Shaft Length 45 mm
- Adjustable angle of rotation
- Selectable direction of rotation of reversing actuator
- Actuator with 1 m cable connection
- Manual Over-ride push button when required



MODEL SELECTION TABLE

MODEL /TYPE	TORQUE	POWER SUPPLY	RUNNING TIME	RETURN	AUXILIARY SWITCH
NECM 1.1-10	10 Nm	AC/DC 24V ± 10%	65...70 sec	40 sec	-
NECM 1.1-10S	10 Nm	AC/DC 24V ± 10%	65...70 sec	40 sec	2 x SPDT (Adjustable)

DIMENSION (mm)



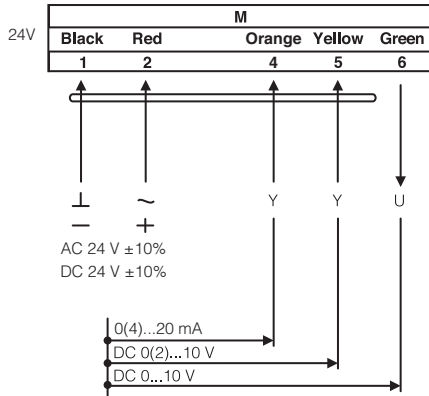
TECHNICAL SPECIFICATION

MODEL NUMBER	NECM 1.1 (S1)
TORQUE	10 Nm
DAMPER SIZE	2.0 m ²
SHAFT DIMENSION	Ø 10...20 mm / □ 5...14 mm
POWER SUPPLY	AC/DC 24 V ± 10%
FREQUENCY	50...60 Hz
CONTROL SIGNAL (INPUT)	DC 0(2)...10 V, 0(4)...20 mA
POSITION SIGNAL (OUTPUT)	DC 0...10 V
POWER CONSUMPTION	
● OPERATING	7.2 W
● END POSITION	1.2 W
FOR WIRE SIZING	10.0 VA
ELECTRICAL CONNECTION	1 m Cable
AUXILIARY SWITCH RATING	3 (1.5) A / AC 250 V
PROTECTION CLASS	Class III ⚡
ANGLE OF ROTATION	90° (95° mechanical)
WEIGHT	< 1.0 Kg
LIFE CYCLE	60,000 Rotation
SOUND LEVEL	40 dB
IP PROTECTION	IP54
OPERATING TEMPERATURE	-20°...50° as per IEC 721-3-3
NON-OPERATING TEMPERATURE	-30°...+60° C / IEC 721-3-2
AMBIENT HUMIDITY	5%...95% rH non condensing / EN
MAINTENANCE	Maintenance Free
MODE OF OPERATION	Type I / EN 60730-1
EMC	CE & ISO 9000 EN / EEC

NECM SERIES ELECTRONIC RETURN DAMPER ACTUATOR

Modulating Control
10 Nm

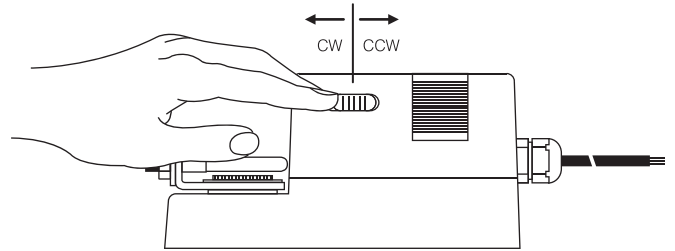
WIRING DIAGRAM NECM...10 (S1) POWER SUPPLY AC/DC 24V



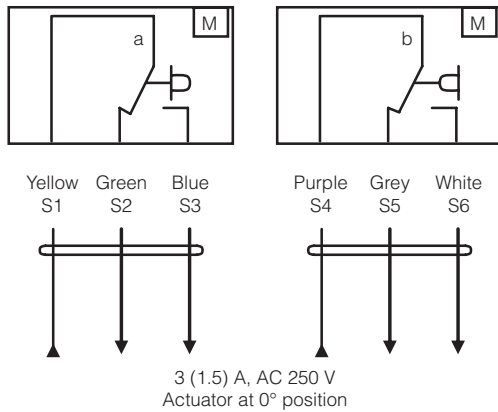
DIRECTION OF ROTATION NECM...10 (S1)

Default factory setting: CW.

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



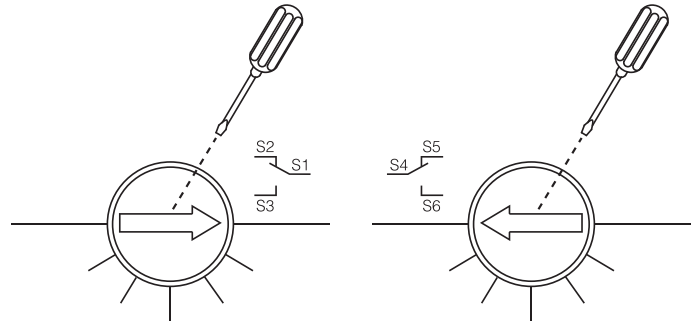
WIRING DIAGRAM NECM...10 (S1) AUXILIARY SWITCH



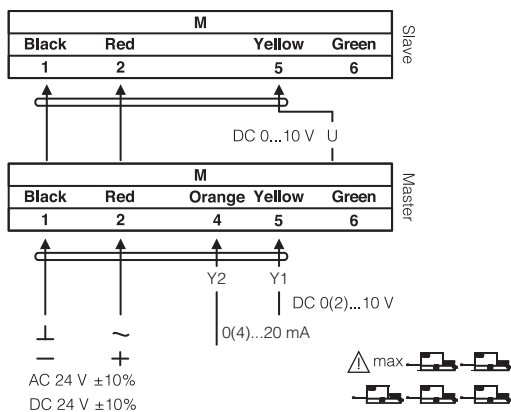
AUXILIARY SWITCH NECM...10 (S1)

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

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



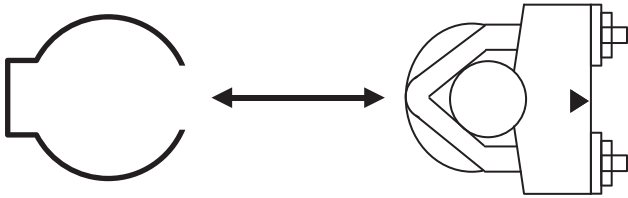
WIRING DIAGRAM NECM...10 (S1) PARALLEL CONNECTION



REMARK

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...10 (S1)

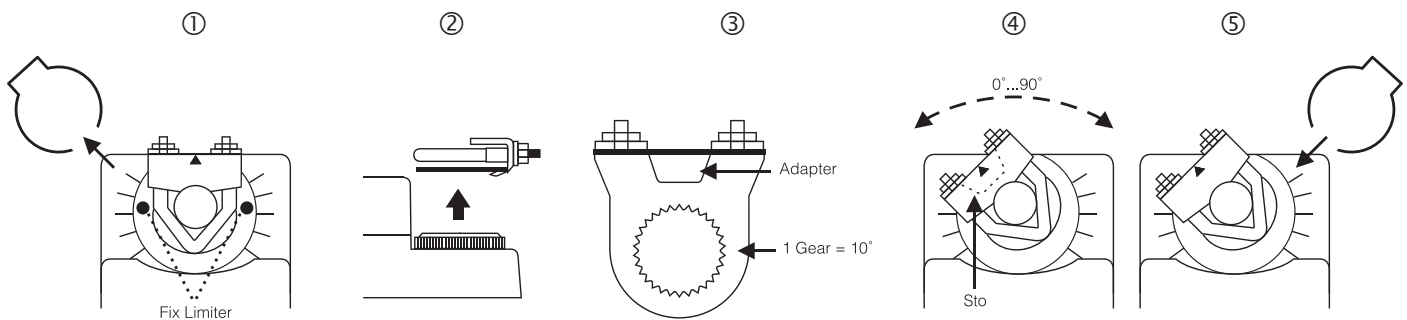


Adjusting Control Signals NECM...10 (S1)

Control Signal 5 DC 0...10V
 Input Resistance Ri100k Ohm
Factory Default Setting

Control Signal 5 DC 2...10V
 Input Resistance Ri500k Ohm
On Request

LIMITING ANGLE OF ROTATION NECM...10 (S1)



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. NENU TEC shall not be liable for damages resulting from misapplication or misuse of its products.

SWISS⁺
TECHNOLOGY

NECA SERIES

ELECTRONIC RETURN DAMPER ACTUATOR

2 Point Control
10 Nm

NENUTE[®]EC

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NECA SERIES ELECTRONIC RETURN DAMPER ACTUATOR

2 Point Control
10 Nm

NECA...10 SERIES (S1)

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

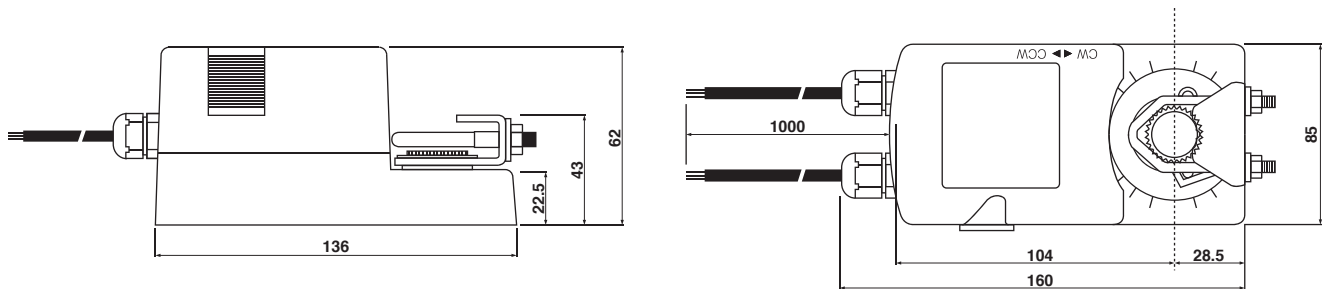


- Torque 10 Nm
- Damper size 2.0 m²
- Power supply AC/DC 24V and AC 230V
- Shaft dimensions - Ø 10...20 mm / □ 5...14 mm
- Minimum Shaft Length 40 mm
- Adjustable angle of rotation
- Selectable direction of rotation of reversing actuator
- Actuator with 1 m cable connection
- Optional 1 Adjustable SPDT auxiliary switch
- Manual Over-ride push button when required

MODEL SELECTION TABLE

MODEL /TYPE	TORQUE	POWER SUPPLY	RUNNING TIME	RETURN	AUXILIARY SWITCH
NECA 1-10	10 Nm	AC/DC 24V ± 10%	65...70 sec	40 sec	-
NECA 1-10S	10 Nm	AC/DC 24V ± 10%	65...70 sec	40 sec	2 x SPDT (Adjustable)
NECA 2-10	10 Nm	AC 230V ± 10%	65...70 sec	40 sec	-
NECA 2-10S	10 Nm	AC 230V ± 10%	65...70 sec	40 sec	2 x SPDT (Adjustable)

DIMENSION (mm)



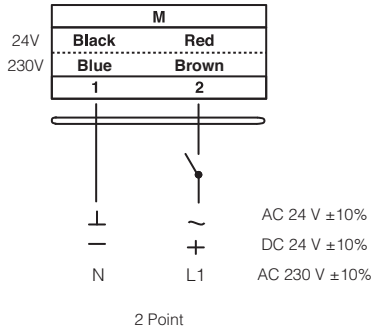
TECHNICAL SPECIFICATION

MODEL NUMBER	NECA 1-10 (S1)	NECA 2-10 (S1)
TORQUE	10 Nm	10 Nm
DAMPER SIZE	2.0 m ²	2.0 m ²
SHAFT DIMENSION	Ø 10...20 mm / □ 5...14 mm	Ø 10...20 mm / □ 5...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 SWITCH RATING	3 (1.5) A / AC 250 V	3 (1.5) A / AC 250 V
PROTECTION CLASS	Class III ⚡	Class II ⚡
ANGLE OF ROTATION	90° (95° mechanical)	90° (95° mechanical)
WEIGHT	1.8 Kg	1.8 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

NECA SERIES ELECTRONIC RETURN DAMPER ACTUATOR

2 Point Control
10 Nm

WIRING DIAGRAM NECA...10 (S1) POWER SUPPLY AC/DC 24 V / AC 230V

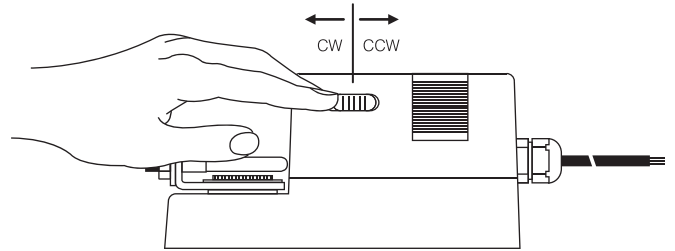


⚠ Connect via safety isolating transformer

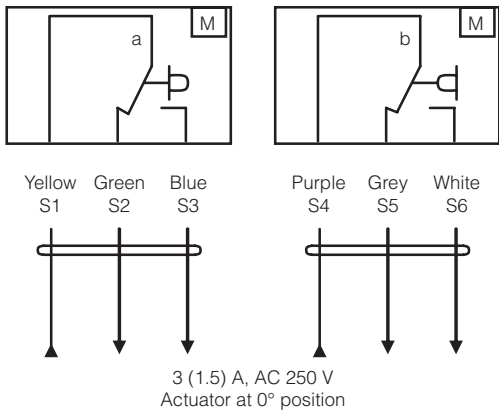
DIRECTION OF ROTATION NECA...10 (S1)

Default factory setting: CW.

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



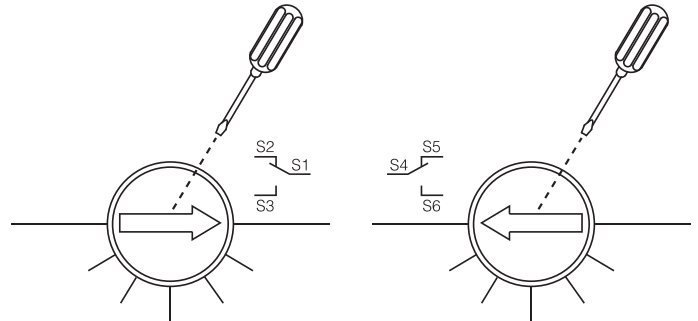
WIRING DIAGRAM NECA...10 (S1) AUXILIARY SWITCH



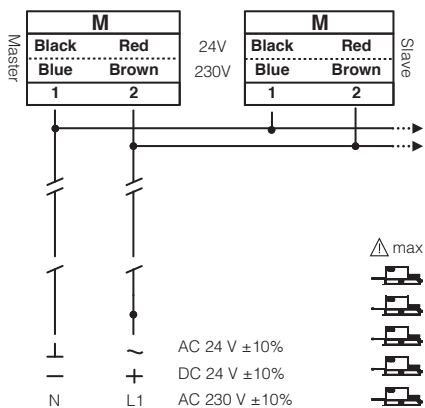
AUXILIARY SWITCH NECA...10 (S1)

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

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



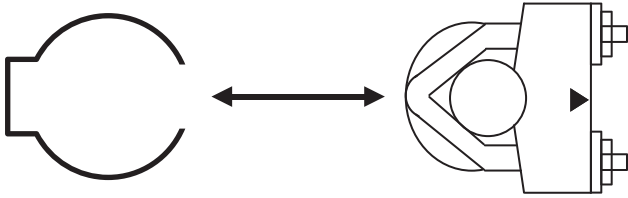
WIRING DIAGRAM NECA...10 (S1) PARALLEL CONNECTION



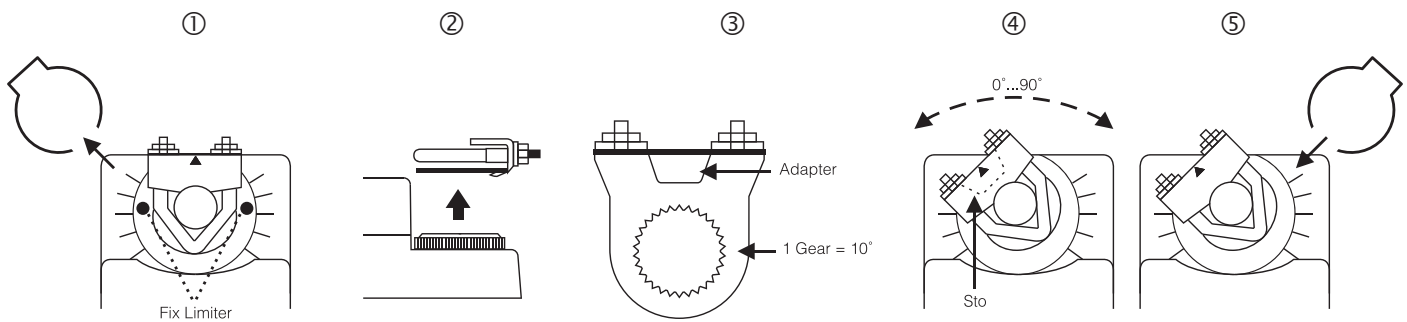
REMARK

Parallel connection of NECA...10 actuators are limited to 5. Power consumption must be observe.

RELEASING THE ADAPTER NECA...10 (S1)





LIMITING ANGLE OF ROTATION NECA...10 (S1)



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.

NECA SERIES
ELECTRONIC RETURN DAMPER ACTUATOR

2 Point Control
20 Nm

NENUTE[®]EC

INNOVATIVE MEMBER OF SWIS⁺TEC

NECA SERIES

ELECTRONIC RETURN DAMPER ACTUATOR

2 Point Control
20 Nm

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.



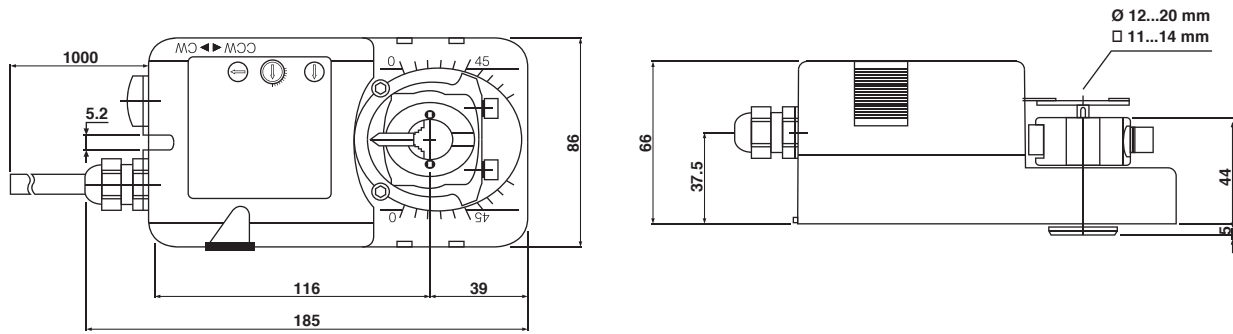
PRODUCT FEATURE

- 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%	90...100 sec	70 sec	-
NECA 1-20S	20 Nm	AC/DC 24V ± 10%	90...100 sec	70 sec	2 x SPDT (Adjustable)
NECA 2-20	20 Nm	AC 230V ± 10%	90...100 sec	70 sec	-
NECA 2-20S	20 Nm	AC 230V ± 10%	90...100 sec	70 sec	2 x SPDT (Adjustable)

DIMENSION (mm)



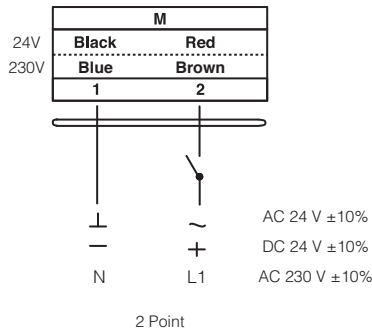
TECHNICAL SPECIFICATION

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	3 (1.5) A, AC 250 V	3 (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

NECA SERIES ELECTRONIC RETURN DAMPER ACTUATOR

2 Point Control
20 Nm

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

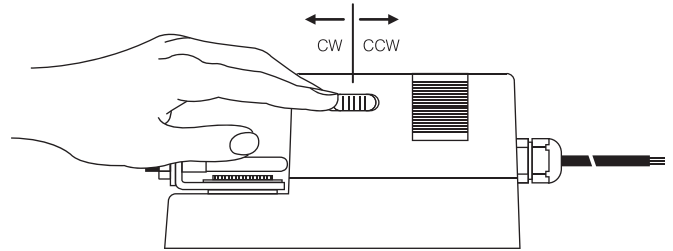


⚠ Connect via safety isolating transformer

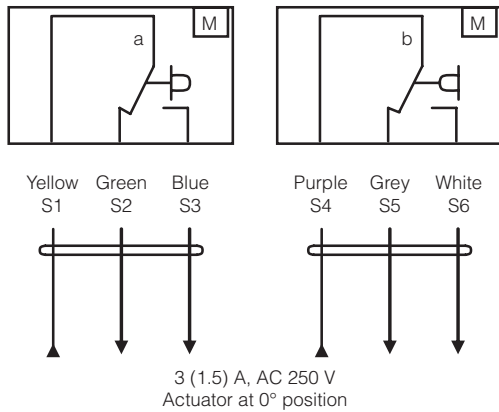
DIRECTION OF ROTATION NECA...20 (S)

Default factory setting: CW.

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



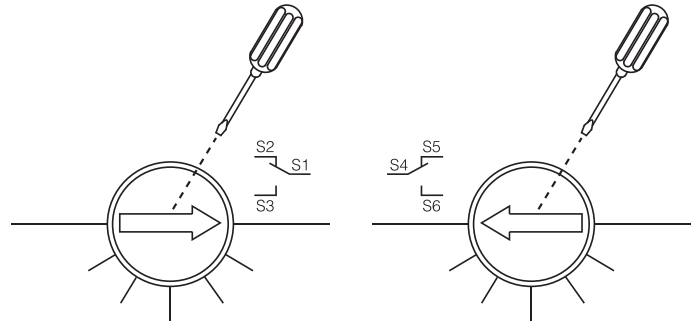
WIRING DIAGRAM NECA...20 (S) AUXILIARY SWITCH



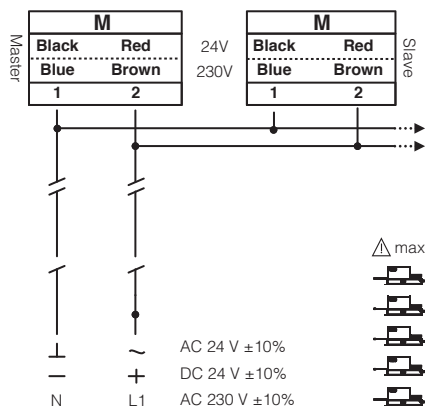
AUXILIARY SWITCH NECA...20 (S)

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

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



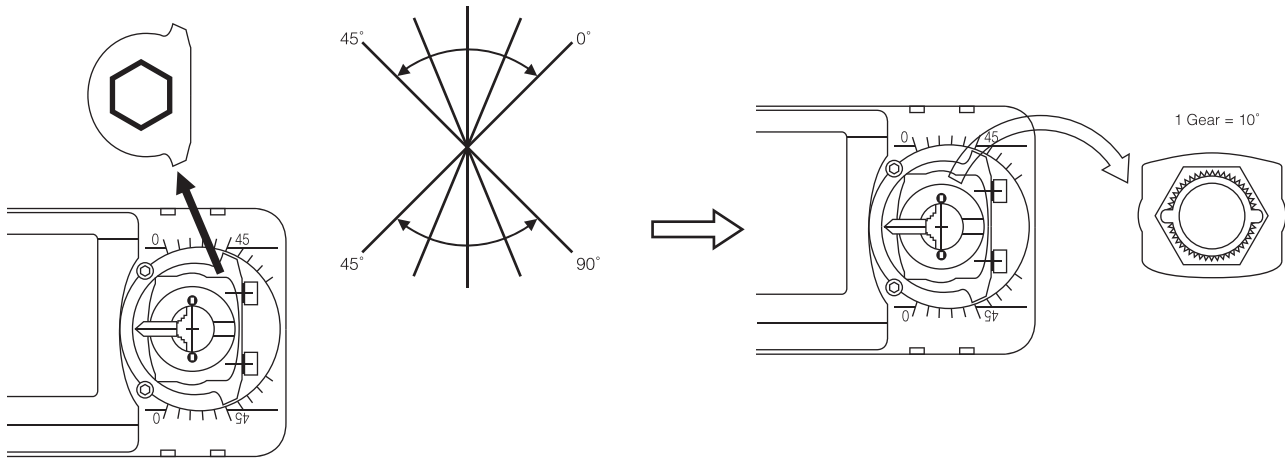
WIRING DIAGRAM NECA...20 (S) PARALLEL CONNECTION



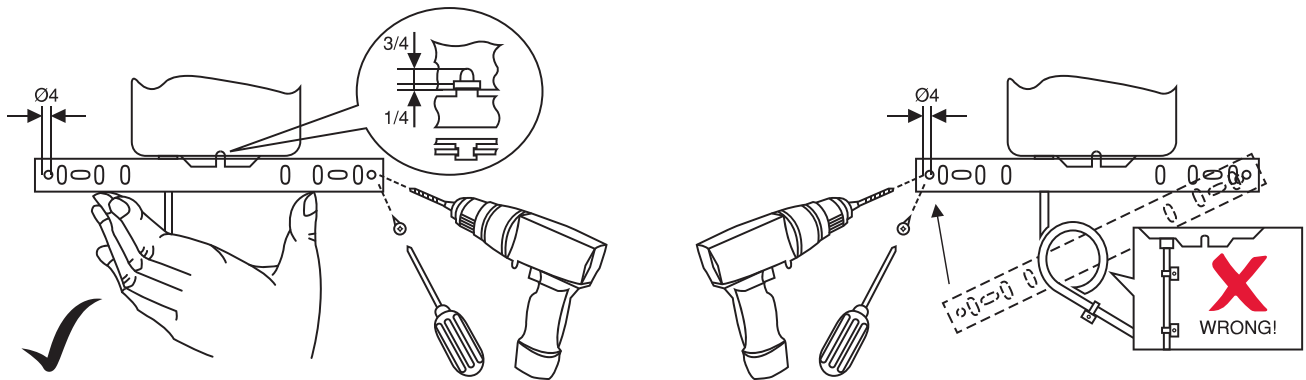
REMARK

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.

SWISS⁺
TECHNOLOGY

NECM SERIES **ELECTRONIC RETURN DAMPER ACTUATOR**

Modulating Control
20 Nm

NENUTE[®]EC

INNOVATIVE MEMBER OF SWIS⁺TEC

NECM SERIES ELECTRONIC RETURN DAMPER ACTUATOR

Modulating Control
20 Nm

NECM...20 SERIES (S)

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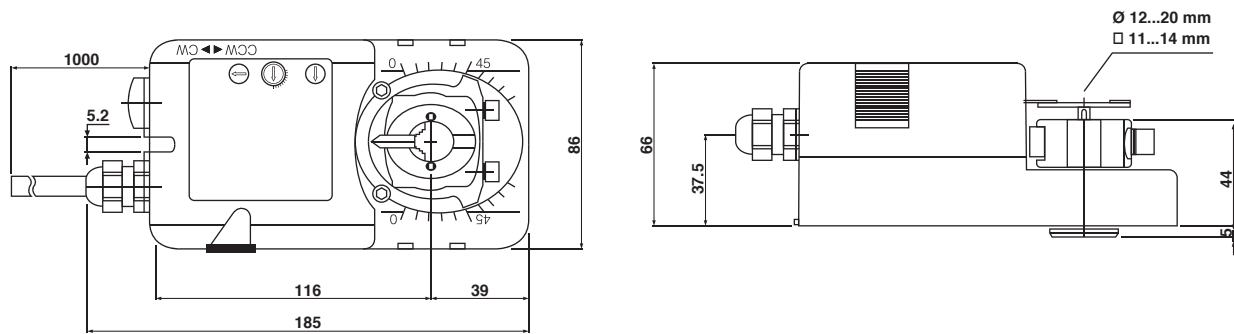
PRODUCT FEATURE

- Torque 20 Nm
- Damper size 4.0 m²
- Power supply AC/DC 24V
- Control Modulating Signal DC 0(2)...10 V / 0(4)...20 mA
- Shaft dimensions - Ø 12...20 mm / □ 11...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 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
NECM 1.1-20	20 Nm	AC/DC 24V ± 10%	90...100 sec	70 sec	-
NECM 1.1-20S	20 Nm	AC/DC 24V ± 10%	90...100 sec	70 sec	2 x SPDT (Adjustable)

DIMENSION (mm)



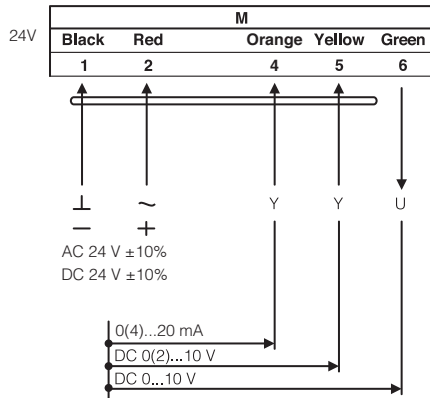
TECHNICAL SPECIFICATION

MODEL NUMBER	NECM 1.1-20 (S)
TORQUE	20 Nm
DAMPER SIZE	4.0 m ²
SHAFT DIMENSION	Ø 12...20 mm / □ 11...14 mm
POWER SUPPLY	AC/DC 24 V ± 10%
FREQUENCY	50...60 Hz
CONTROL SIGNAL (INPUT)	DC 0(2)...10 V / 0(4)...20 mA
POSITION SIGNAL (OUTPUT)	DC 0...10 V
POWER CONSUMPTION	
● OPERATING	7.2 W
● END POSITION	1.2 W
FOR WIRE SIZING	8.0 VA
ELECTRICAL CONNECTION	1 m Cable
PROTECTION CLASS	Class III ⚡
ANGLE OF ROTATION	90° (95° mechanical)
WEIGHT	1.2 Kg
LIFE CYCLE	60,000 Rotation
SOUND LEVEL	40 dB
IP PROTECTION	IP54
OPERATING TEMPERATURE	-20°...50° as per IEC 721-3-3
NON-OPERATING TEMPERATURE	-30°...+60° C / IEC 721-3-2
AMBIENT HUMIDITY	5%...95% rH non condensing / EN
MAINTENANCE	Maintenance Free
MODE OF OPERATION	Type I / EN 60730-1
EMC	CE & ISO 9000 EN / EEC

NECM SERIES ELECTRONIC RETURN DAMPER ACTUATOR

Modulating Control
20 Nm

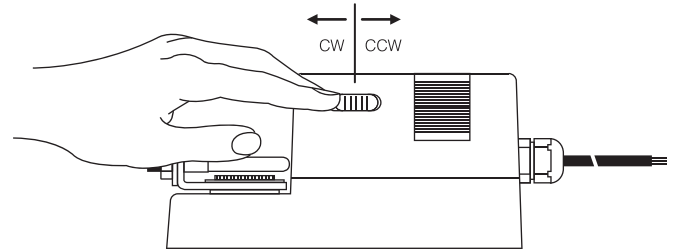
WIRING DIAGRAM NECM...20 (S) POWER SUPPLY AC/DC 24V



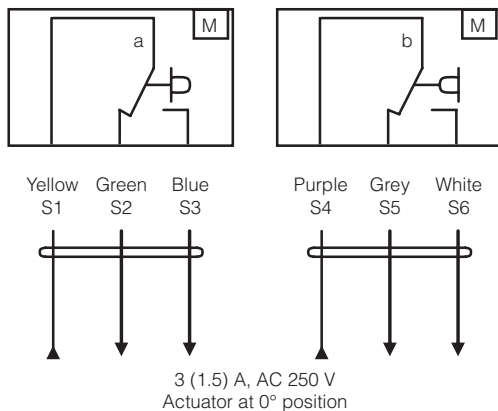
DIRECTION OF ROTATION NECM...20 (S)

Default factory setting: CW.

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



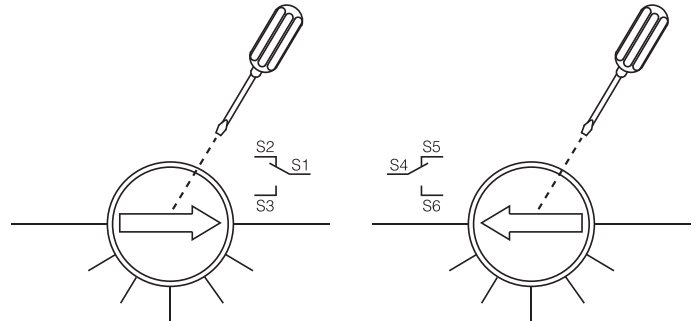
WIRING DIAGRAM NECM...20 (S) AUXILIARY SWITCH



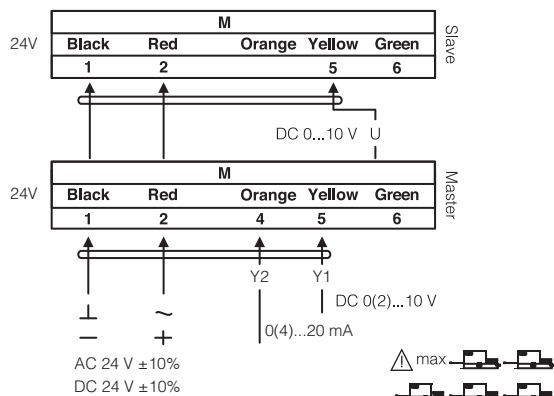
AUXILIARY SWITCH NECM...20 (S)

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

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



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



REMARK

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.

ADJUSTING CONTROL SIGNALS NECM...20 (S)

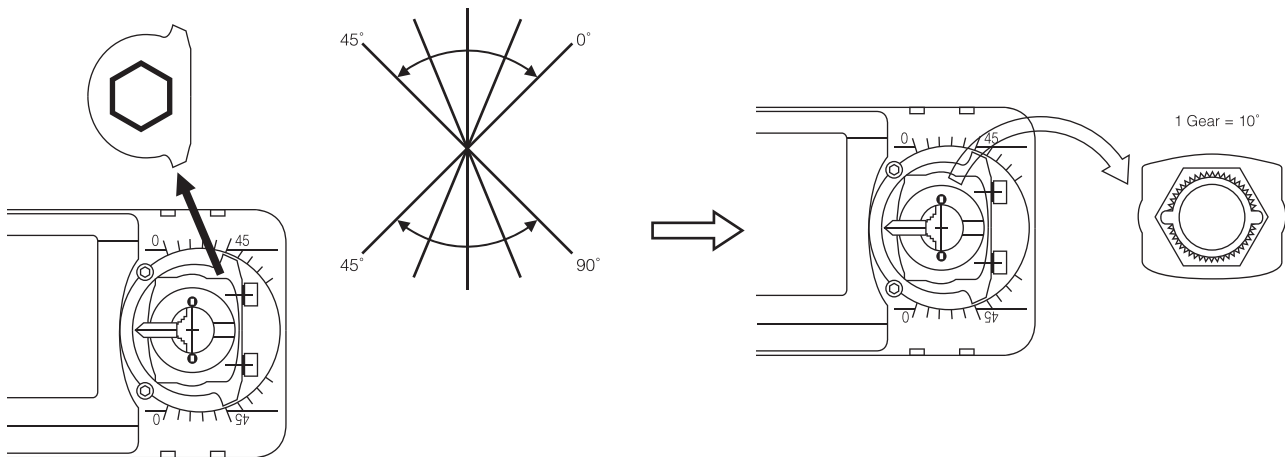
Control Signal 5 DC 0...10V
Input Resistance Ri100k Ohm

Factory Default Setting

Control Signal 5 DC 2...10V
Input Resistance Ri500k Ohm



On Request

ANGLE OF ROTATION LIMITING



IMPORTANT REMARK

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

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 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. NENUTECH shall not be liable for damages resulting from misapplication or misuse of its products.