

NECM...20 (S) SERIES

ELECTRONIC RETURN DAMPER ACTUATOR MODULATING CONTROL

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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.



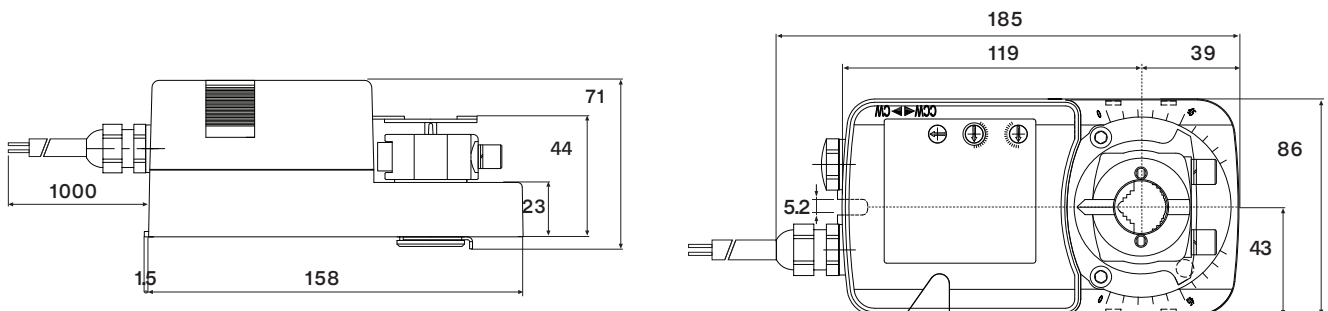
PRODUCT FEATURE

- Torque 20 Nm
- Damper size 4.0 m²
- Power supply AC/DC 24V
- Control modulating DC 0(2)...10 V / 0(4)...20 mA
- Shaft dimensions - Ø 12...20 mm / □ 8.5...14 mm
- Minimum shaft length 50 mm
- Adjustable angle of rotation
- Selectable direction of rotation of reversing actuator
- Optional 2 adjustable SPDT auxiliary switches
- Manual over-ride push button when required

MODEL SELECTION TABLE

MODEL /TYPE	TORQUE	POWER SUPPLY	RUNNING	RETURN	AUXILIARY SWITCH
NECM 1.1-20	20 Nm	AC/DC 24V ± 10%	70...100 sec	55 sec	-
NECM 1.1-20S	20 Nm	AC/DC 24V ± 10%	70...100 sec	55 sec	2 x SPDT (Adjustable)

DIMENSION (mm)



TECHNICAL SPECIFICATION

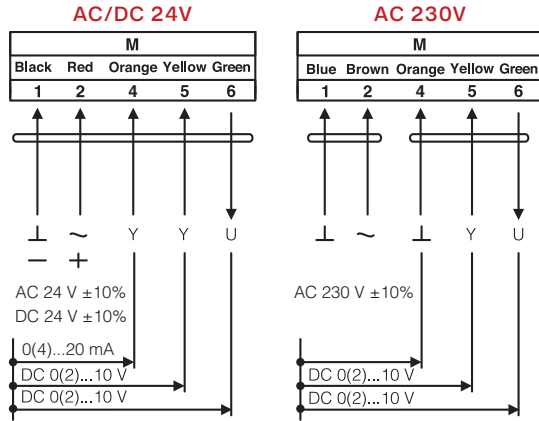
MODEL NUMBER	NECM 1.1-20 (S)
TORQUE	20 Nm
DAMPER SIZE	4.0 m ²
SHAFT DIMENSION	Ø 12...20 mm / □ 8.5...14 mm*
POWER SUPPLY	AC/DC 24 V ± 10%
FREQUENCY	50...60 Hz
CONTROL SIGNAL (INPUT)	DC 0(2)...10 V / 0(4)...20 mA
POSITION SIGNAL (OUTPUT)	DC 0(2)...10 V
POWER CONSUMPTION	
• OPERATING	7.2 W
• END POSITION	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	1.4 Kg
LIFE CYCLE	60,000 Rotation
SOUND LEVEL	40 dB
IP PROTECTION	IP54
OPERATING TEMPERATURE	-30°...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

*Note that shaft dimension has a tolerance offset of ± 0.2mm.

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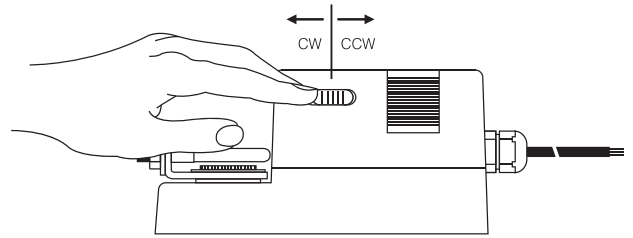
WIRING DIAGRAM NECM...20 (S) POWER SUPPLY AC/DC 24V



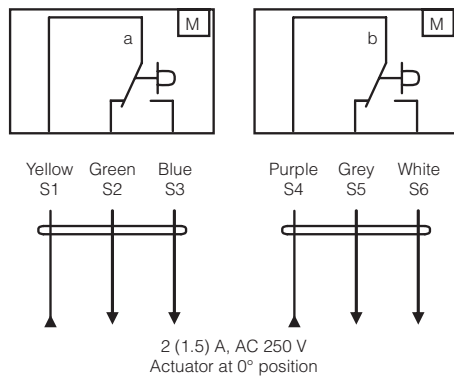
DIRECTION OF ROTATION NECM...20 (S)

Default factory setting: CW.

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



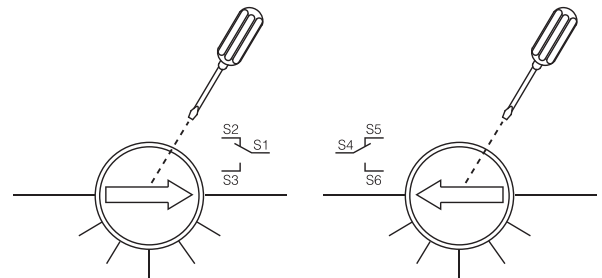
WIRING DIAGRAM NECM...20 (S) AUXILIARY SWITCH



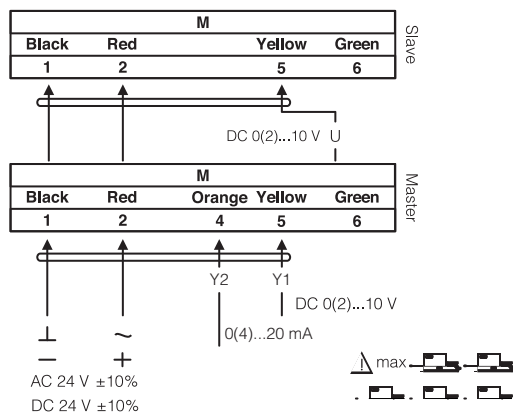
AUXILIARY SWITCH NECM...20 (S)

Auxiliary switch **(a)** factory-set at 5° and **(b)** at 85°.

Both the auxiliary switches **(a)** and **(b)** 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(2)...10 V) of the master actuator must be connected to terminal 5 of the next slave actuator.

ADJUSTING CONTROL SIGNALS NECM...20 (S)

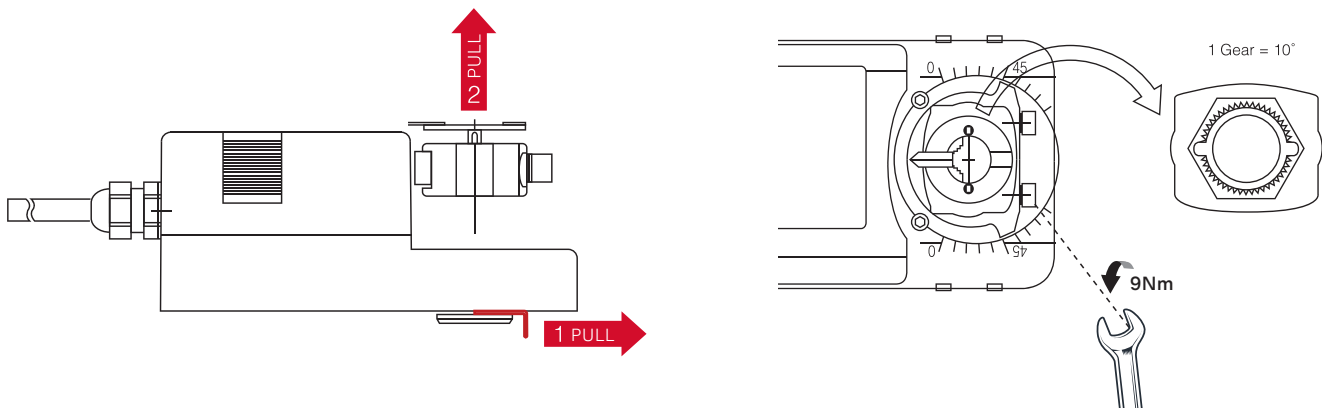
Control Signal 5 DC 0...10V
 Input Resistance Ri100k Ohm

Factory Default Setting

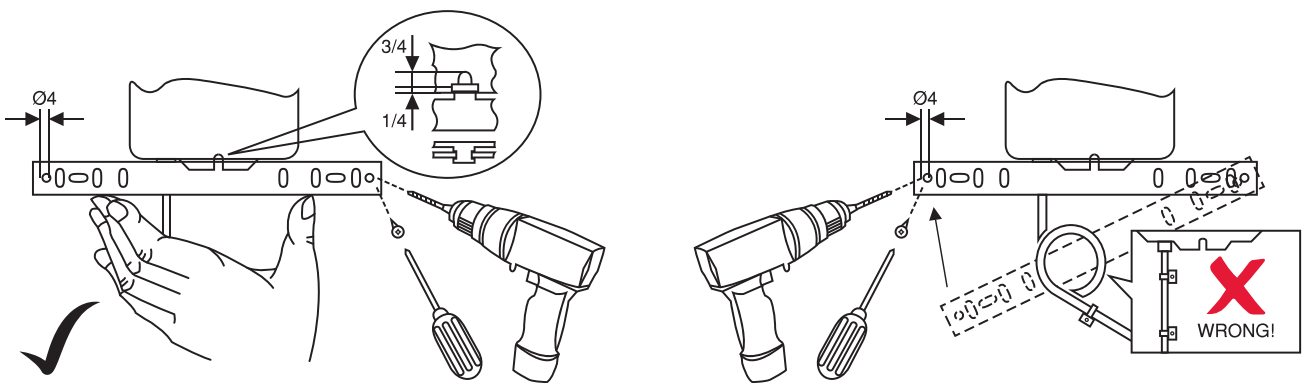
Control Signal 5 DC 2...10V
 Input Resistance Ri500k Ohm

On Request

ANGLE OF ROTATION LIMITING



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:
 AC 230 V:

Connect via safety isolating transformer.

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.