

NEBA – BALL VALVE ELECTRONIC RETURN ACTUATOR

5 Nm | 2-POINT CONTROL



High Neck Ball Valve Actuator



Low Neck Ball Valve Actuator

NEBA...05 (S1) SERIES

NEBA electronic return ball valve actuators are especially designed and produced for applications in the HVAC systems. Our wide range of standard valve actuators has been developed to operate and position ball valves of different sizes.

- Torque: 5 Nm
- Valve size DN15 (1/2") / DN20 (3/4") / DN25 (1") / DN32 (1 1/4")
- Power supply 24 V_{AC/DC} and 230 V_{AC}
- Shaft dimension – 9 mm square (fixed)
- Direction of rotation selectable by switch
- Optional 1 adjustable SPDT auxiliary switch
- Actuator with 1 m connection cable
- Available in high neck and low neck versions

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

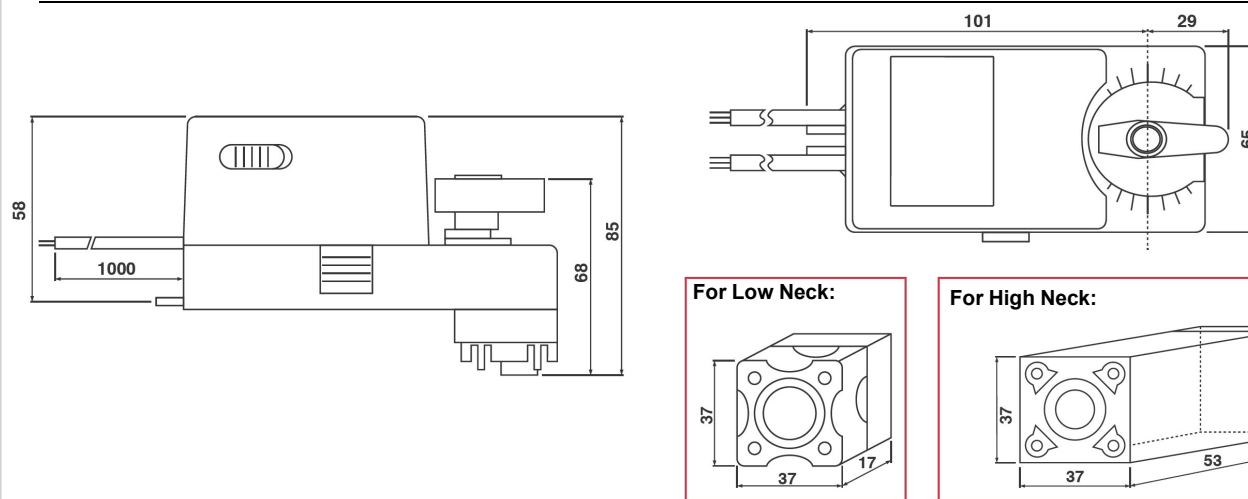
MODEL SELECTION TABLE

Model/type	Torque	Power supply	Running time	Emergency function	Auxiliary switch
NEBA 1-05 LN	5 Nm	24 V _{AC/DC} ± 10%	50...55 s	20 s	-
NEBA 1-05 HN	5 Nm	24 V _{AC/DC} ± 10%	50...55 s	20 s	-
NEBA 1-05S1 LN	5 Nm	24 V _{AC/DC} ± 10%	50...55 s	20 s	1 x SPDT (adjustable)
NEBA 1-05S1 HN	5 Nm	24 V _{AC/DC} ± 10%	50...55 s	20 s	1 x SPDT (adjustable)
NEBA 2-05 LN	5 Nm	230 V _{AC} ± 10%	50...55 s	20 s	-
NEBA 2-05 HN	5 Nm	230 V _{AC} ± 10%	50...55 s	20 s	-
NEBA 2-05S1 LN	5 Nm	230 V _{AC} ± 10%	50...55 s	20 s	1 x SPDT (adjustable)
NEBA 2-05S1 HN	5 Nm	230 V _{AC} ± 10%	50...55 s	20 s	1 x SPDT (adjustable)

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ACTUATOR DIMENSIONS [mm]



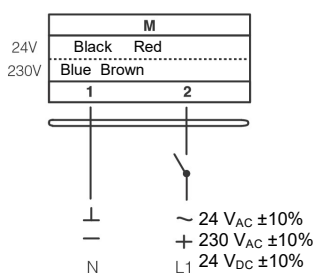
TECHNICAL SPECIFICATION

	NEBA 1-05 (S1)	NEBA 2-05 (S1)
Torque	5 Nm	5 Nm
Valve size	DN15 (1/2") / DN20 (3/4") / DN25 (1") / DN32 (1 1/4")	DN15 (1/2") / DN20 (3/4") / DN25 (1") / DN32 (1 1/4")
Shaft dimensions	□ 9.0 mm (fixed)	□ 9.0 mm (fixed)
Power supply	24 V _{AC/DC} ± 10%	230 V _{AC} ± 10%
Frequency	50...60Hz	50...60Hz
Control signal	2-point control	2-point control
Power consumption		
• In operation	8.7 W	8.7 W
• End position	1.2 W	1.2 W
Rated power	14.0 VA	14.0 VA
Electrical connections	1 m Cable	1 m Cable
Auxiliary switch rating	3 (1.5) A / 250 V _{AC}	3 (1.5) A / 250 V _{AC}
Protection class	Class III ⚡	Class II ⚡
Angle of rotation	90° (95° mechanical limitation)	90° (95° mechanical limitation)
Weight	<0.8 kg	<0.8 kg
Durability	60,000 rotations	60,000 rotations
Sound level	40 dB	40 dB
IP protection class	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
Ambient 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

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WIRING DIAGRAM NEBA...05 (S1) POWER SUPPLY 24 V_{AC/DC} / 230 V_{AC}

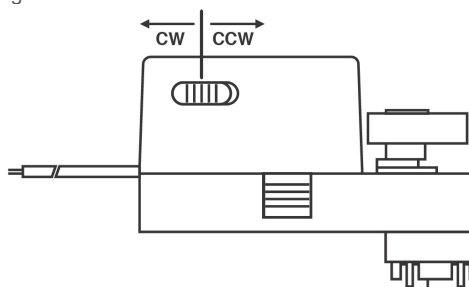


2-point

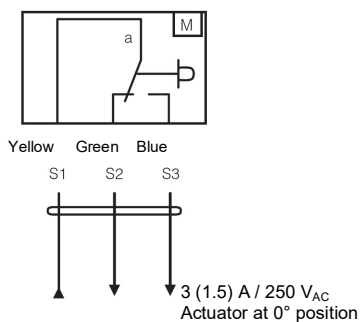
⚠ Connect via safety isolating transformer!

DIRECTION OF ROTATION NEBA...05 (S1)

Factory setting: clockwise (CW). Direction of rotation can be changed by toggling between CW/CCW switch on the actuator housing.

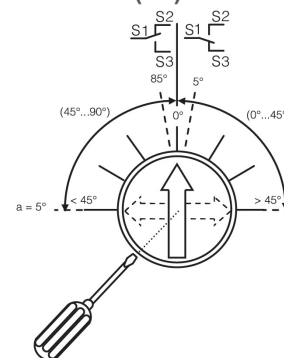


WIRING DIAGRAM NEBA...05 (S1) AUXILIARY SWITCH

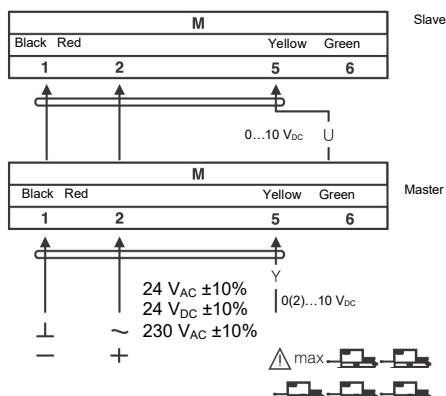


AUXILIARY SWITCH NEBA...05 (S1)

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



WIRING DIAGRAM NEBA...05 (S1) PARALLEL CONNECTION

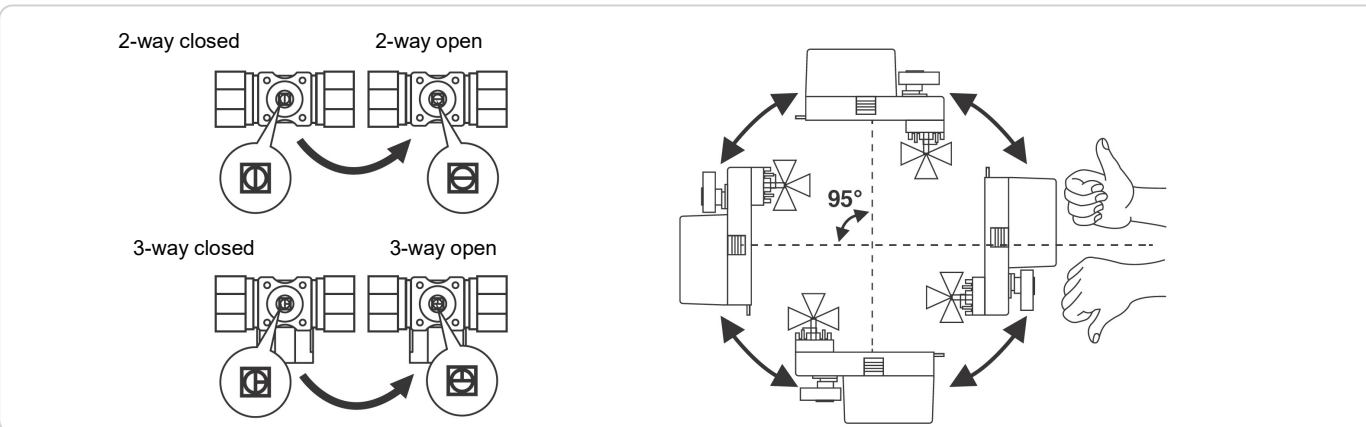
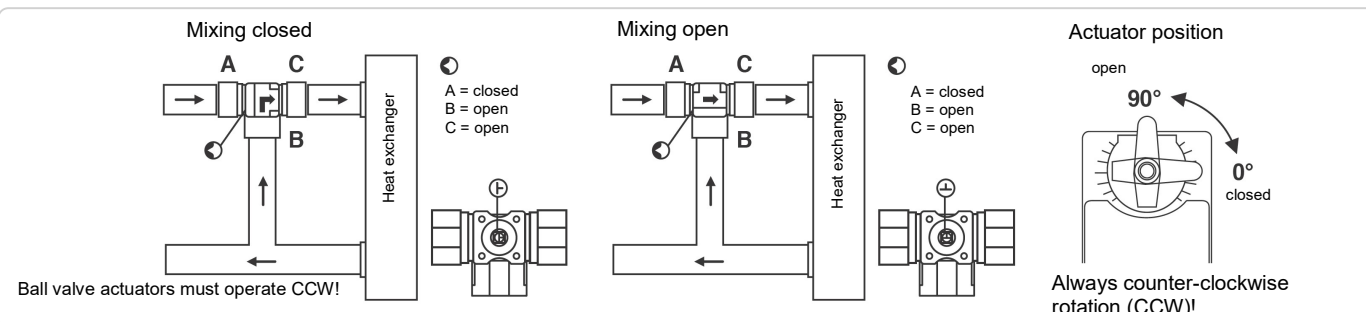


REMARK

Parallel connection of maximum 5 NEBA...05 (S1) actuators is possible. Power consumption must be observed!

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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 3mm 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.



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.

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