

GMB24-3-T N4

NEMA 4 , On/Off, Floating Point Control, Non-Spring Return, Direct Coupled, 24 VAC



Technical Data	GMB24-3-T N4
Power supply	24 VAC \pm 20%, 50/60 Hz 24 VDC \pm 10%, 50/60 Hz
Power consumption	4.0 W (2.0 W)
Transformer sizing	6 VA (Class 2 power source)
Electrical connection	screw terminal (for 26 to 14 GA wire) $\frac{1}{2}$ " conduit connector
Overload protection	electronic throughout 0 to 95° rotation
Control	on/off, floating point
Input impedance	600 Ω
Angle of rotation	max. 95°, adjustable with mechanical stop
Torque	360 in-lb [40 Nm]
Direction of rotation	reversible with switch
Position indication	dial
Running time	150 seconds constant independent of load
Humidity	5 to 100% RH (UL Type 4)
Ambient temperature	-22°F to 122°F [-30°C to 50°C]
Storage temperature	-40°F to 176°F [-40°C to 80°C]
Housing	UL Type 4, NEMA 4, IP66
Housing material	polycarbonate
Agency listings†	cULus acc. to UL 60730-1A/-2-14, CAN/CSA E60730-1, CSA C22.2 No. 24-93, CE acc. to 89/336/EEC
Noise level	<45dB(A)
Servicing	maintenance free
Quality standard	ISO 9001
Weight	4.8 lbs [4.45 kg]

†Rated Impulse Voltage 4kV, Type of action 1, Control Pollution Degree 3.

Torque min. 360 in-lb for control of damper surfaces up to 90 sq ft.

Application

For on/off and floating point control of dampers in HVAC systems. Actuator sizing should be done in accordance with the damper manufacturer's specifications.

The actuator is mounted directly to a damper shaft up to 1.05" in diameter by means of its universal clamp.

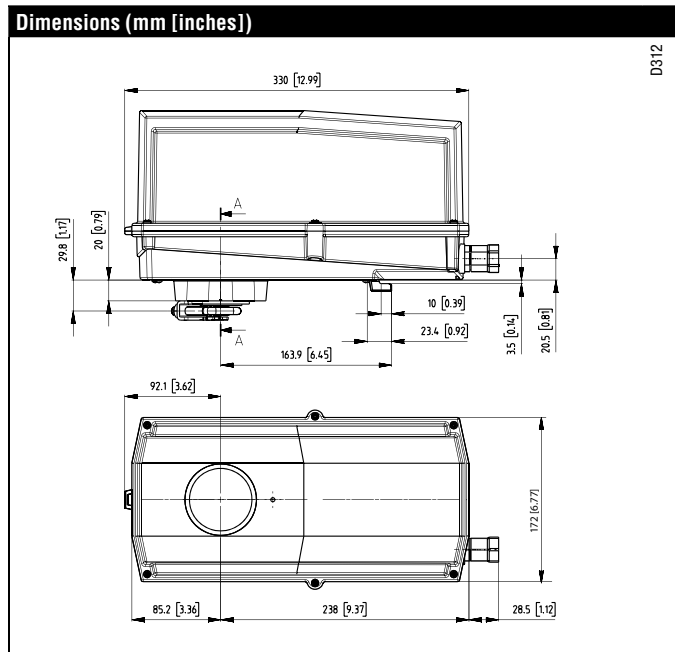
Operation

The actuator is not provided with and does not require any limit switches, but is electronically protected against overload. The anti-rotation strap supplied with the actuator will prevent lateral movement.

The GMB24-3-T N4 provides 95° of rotation and a visual indicator indicates position of the actuator. When reaching the damper or actuator end position, the actuator automatically stops. The gears can be manually disengaged with a button on the actuator after the cover is removed.

The GMB24-3-T N4 actuator uses a sensorless brushless DC motor, which is controlled by an Application Specific Integrated Circuit (ASIC). The ASIC monitors and controls the actuator's rotation and provides a digital rotation sensing (DRS) function to prevent damage to the actuator in a stall condition. Power consumption is reduced in holding mode.

Add-on auxiliary switches or feedback potentiometers are easily fastened directly onto the actuator body for signaling and switching functions.



M40024 - 05/10 - Subject to change. © Belimo Aircontrols (USA), Inc.

Accessories

S1A, S2A	Auxiliary Switch (es)
P...A	Feedback Potentiometers
43442-00001	Gland*
11097-00001	Gasket for Gland*

NOTE: When using GMB24-3-T N4 actuators, only use accessories listed on this page.
 * Both parts are needed when using an auxiliary switch or potentiometer with GMB24-3-T N4

Typical Specification

On/Off, Floating Point control damper actuators shall be electronic direct-coupled type, which require no crank arm and linkage and be capable of direct mounting to a shaft up to 1.05" diameter. Actuators shall have brushless DC motor technology and be protected from overload at all angles of rotation. Actuators shall have reversing switch and manual override on the cover of the actuator. Run time shall be constant and independent of torque. Actuators shall be cULus listed, have a 5-year warranty, and be manufactured under ISO 9001 International Quality Control Standards. Actuators shall be as manufactured by Belimo.

Wiring Diagrams

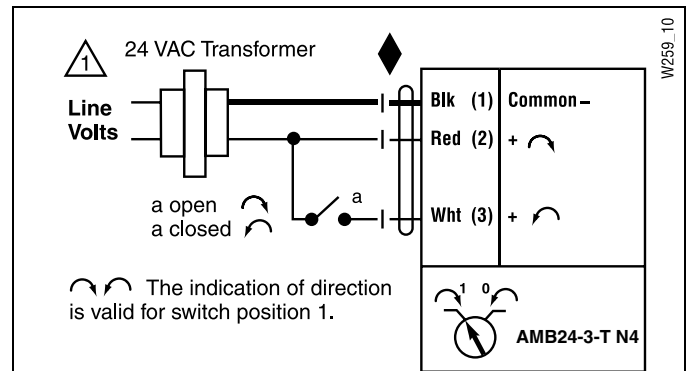
✂️ INSTALLATION NOTES

⚠️ Provide overload protection and disconnect as required.

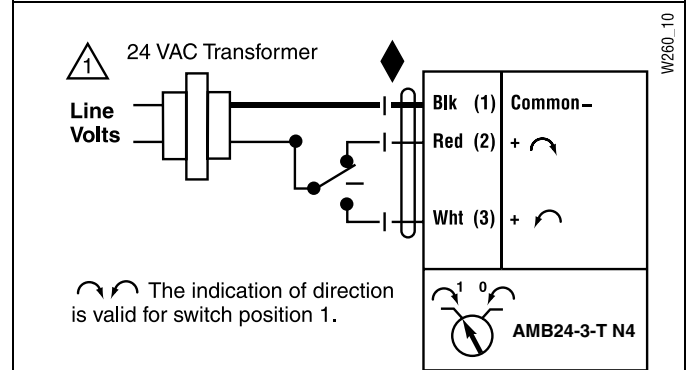
📄 APPLICATION NOTES

◆ Meets cULus or UL and CSA requirements without the need of an electrical ground connection.

⚠️ **WARNING Live Electrical Components!**
 During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.



On/Off control



Floating Point or On/Off control