

Belimo GMB24-3-T N4

Belimo GMB24-3-T N4 Non-Spring Return Damper Actuator User Manual

Model: GMB24-3-T N4

INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the Belimo GMB24-3-T N4 Non-Spring Return Damper Actuator. Please read this manual thoroughly before attempting any installation or operation to ensure proper functionality and to prevent damage or injury.



Image: The Belimo GMB24-3-T N4 Non-Spring Return Damper Actuator, an orange-colored rectangular unit with a circular viewing window on the front, designed for controlling air dampers in HVAC systems.

SETUP AND INSTALLATION

Proper installation is crucial for the actuator's performance and longevity. Ensure all local and national electrical codes are followed.

Safety Precautions

- Disconnect power before installation or servicing.
- Ensure the actuator is securely mounted to the damper shaft.
- Do not exceed the specified voltage and current ratings.
- Refer to the wiring diagram for correct electrical connections.
- Installation should only be performed by qualified personnel.

Mounting Instructions

1. Ensure the damper shaft is clean and free of burrs.
2. Slide the actuator onto the damper shaft, aligning the anti-rotation bracket.
3. Secure the actuator to the shaft using the provided screws or clamps.
4. Tighten all mounting hardware to the recommended torque.

Wiring

The GMB24-3-T N4 actuator requires specific wiring for power and control signals. Consult the product's technical data sheet for the precise wiring diagram. Typically, connections include power supply (24V AC/DC), control input (e.g., 0-10V DC or 2-10V DC), and feedback signals (if applicable).

OPERATING INSTRUCTIONS

The Belimo GMB24-3-T N4 is a non-spring return actuator, meaning it will maintain its last position upon power loss. Its operation is controlled by an external signal, typically from a building management system (BMS) or thermostat.

Functional Overview

- The actuator receives a control signal (e.g., voltage or current) that dictates the desired damper position.
- It rotates the damper shaft to the commanded position.
- The actuator provides feedback (if configured) on its current position.
- In the event of a power failure, the damper will remain in its last commanded position.

Manual Override

Some models may feature a manual override button or lever. Refer to the specific product documentation for your actuator to determine if this feature is present and how to use it safely to manually adjust the damper position.

MAINTENANCE

The Belimo GMB24-3-T N4 actuator is designed for long-term, maintenance-free operation under normal conditions. However, periodic checks can help ensure optimal performance.

Routine Checks

- Inspect wiring connections for tightness and signs of wear or corrosion annually.
- Verify that the actuator is securely mounted and that the damper operates smoothly without obstruction.
- Check for any unusual noises during operation.

Cleaning

Clean the exterior of the actuator with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure no moisture enters the actuator housing.

TROUBLESHOOTING

This section provides guidance for common issues. For complex problems, contact technical support.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Actuator does not move	No power supply; Incorrect wiring; Faulty control signal; Damper jammed	Check power connections and voltage; Verify wiring against diagram; Check control signal source; Inspect damper for obstructions
Actuator moves erratically	Unstable control signal; Loose wiring; Interference	Verify control signal stability; Secure all wiring connections; Check for sources of electrical interference
Actuator makes unusual noise	Mechanical obstruction; Internal component issue	Inspect damper and linkage for obstructions; If noise persists, contact technical support

SPECIFICATIONS

Attribute	Detail
Model	GMB24-3-T N4
Brand	Belimo
Type	Non-Spring Return Damper Actuator
Torque	360 in-lb
ASIN	B009XESEMU
Manufacturer	Belimo
Date First Available	July 18, 2017

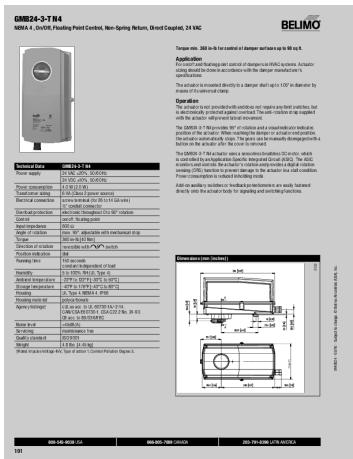
WARRANTY AND SUPPORT

Belimo products are manufactured to high standards and typically come with a manufacturer's warranty. For specific warranty terms and conditions, please refer to the documentation provided with your purchase or visit the official Belimo website.

For technical assistance, troubleshooting beyond this manual, or warranty claims, please contact Belimo customer support or your authorized distributor. Ensure you have your product model number (GMB24-3-T N4) and serial number (if applicable) ready when contacting support.

You can find more information and contact details on the official Belimo website:www.belimo.com





[pdf] Datasheet

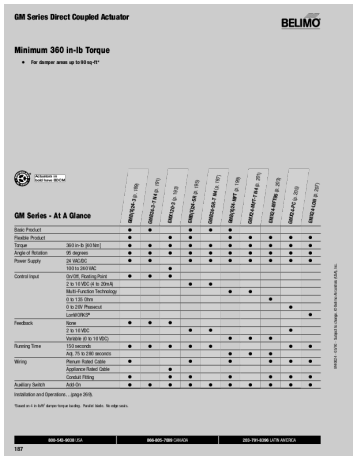
GMB24 3 T N4 NEMA 4 On Off Floating Point Control Non Spring Return Direct Coupled 24 VAC Belimo

Datasheet Gmx24 t Damper Actuator 360 In Ib spg Rtn 24v off floating Nema Blackhawk Supply

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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 20 , 50/60 Hz 24 VDC 10 , 50/60 Hz Power consumption 4.0 W 2.0 W Transformer sizing 6 VA Class 2 power source Electrical connection screw termi...

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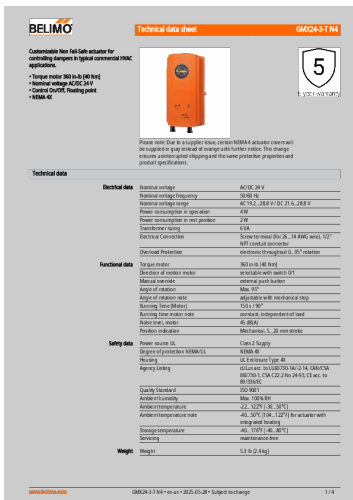


[pdf] User Manual Documentation Catalog

GM Series Direct Coupled Actuators Technical Documentation Belimo manual kele Catalog 02 Dampers

GM Series Direct Coupled Actuator Minimum 360 in-lb Torque For damper areas up to 90 sq-ft* GMB X 24-3 p. 189 **GMB24-3-T N4** p. 191 GMX120-3 p. 193 GMB X 24-SR p. 195 GMB24-SR-T N4 p. 197 GMB X 24-MFT p. 199 GMX24-MFT-T N4 p. 201 GMX24-MFT95 p. 203 GMX24-PC p. 205 GMX24-LON p. 207...

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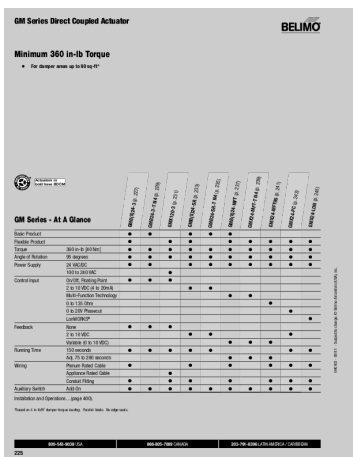
belimodatasheet datasheet Technical data sheet GMX24 3 T N4 8 mag 2025 — Functional Torque motor

360 in lb 40 Nm Direction of motion selectable with switch 0 1 Manual override external push button

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Technical data sheet Customizable Non Fail-Safe actuator for controlling dampers in typical commerci ... nst 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...

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[pdf] Troubleshooting Guide

Belimo Non Spring Return Actuators GM AM NM LM AH LH LU Alps Controls During installation testing

servicing and troubleshooting of this product The GMB24 3 T N4 actuator uses a sensorless brushless

DC motor which non spring return act alpscontrols prod data newdocs BELIMO

GM Series Direct Coupled Actuator Minimum 360 in-lb Torque For damper areas up to 90 sq-ft* GMB X 24-3 p. 227 **GMB24-3-T N4** p. 229 GMX120-3 p. 231 GMB X 24-SR p. 233 GMB24-SR-T N4 p. 235 GMB X 24-MFT p. 237 GMX24-MFT-T N4 p. 239 GMX24-MFT95 p. 241 GMX24-PC p. 243 GMX24-LON p. 245...

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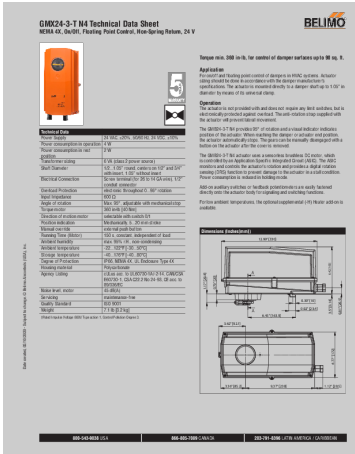


[pdf] Documentation Guide Price List

Belimo 2013 Product Guide and Price List damper actuators For additional MFT programming codes refer to technical documentation or visit belimo us * NEMA 4 with heater option denoted by Damper Actuators victordistcontrols 08 |||

DAMPER ACTUATORS DAMPER ACTUATORS SPRING RETURN, ELECTRONIC FAIL-SAFE, FIRE SMOKE AND NON-SPRING ... 24-3-T N4H* NMB24-SR-T N4 NMB24-SR-T N4H* AMB24-3-T N4 AMB24-3-T N4H* AMB24-SR-T N4 AMB24-SR-T N4H* **GMB24-3-T N4 GMB24-3-T N4H*** GMB24-SR-T N4 GMB24-SR-T N4H* On/Off, Floating Point Add-on 24 VAC/DC ...

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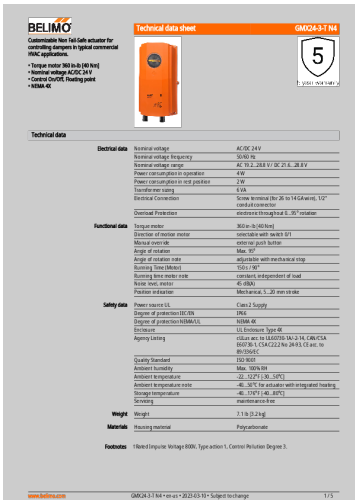


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GMX24-3-T N4 Technical Data Sheet NEMA 4X, On/Off, Floating Point Control, Non-Spring Return, 24 V ... nst overload. The anti-rotation strap supplied with the actuator will prevent lateral movement. The **GMB24-3-T N4** provides 95 of rotation and a visual indicator indicates position of the actuator. When...

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Customizable Non Fail-Safe actuator for controlling dampers in typical commercial HVAC applications.

Torque motor 360 in-lb 40 Nm Nominal voltage AC/DC 24 V Control On/Off, Floating point NEMA 4X

Technical data sheet GMX24-3-T N4 Technical

Customizable Non Fail-Safe actuator for controlling dampers in typical commercial HVAC applications. ... nst 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...

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