

# Small but mighty ~~ier.~~ier.

> We set standards.

[www.belimo.com](http://www.belimo.com)



## Maximum performance in minimal space.

The upgraded TF Series meets challenges of smaller damper applications, up to 5.5 sq ft, so common in today's HVAC systems and equipment, including rooftop units, fan shutters, unit ventilators, and fan coil units. Installers like its simplicity, while owners like its reliability.

Even with its small size, the new TF Series delivers a minimum of 22 in-lbs of torque throughout its design life compared to other similarly sized actuators. Plus, it's backed by Belimo's unsurpassed 5-year warranty.

### Installations made easy.

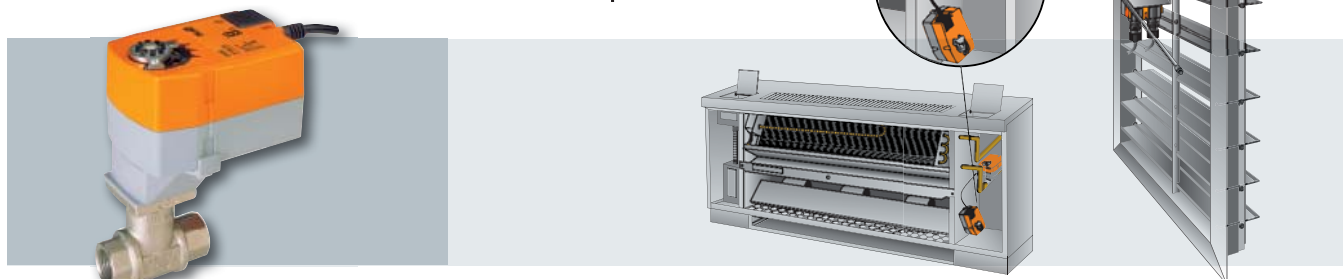
- Direct mounts on dampers easily, 1/4" - 1/2" shafts.
- Mounts on 1/2" and 3/4" CCV, and 1/2" PICCV. (TFRB models)
- Optional linkage kits allows for easy retrofit.
- Installers can reverse spring return action simply by flipping the actuator.
- Universal clamp self centering on a 1/2" shaft.
- Adjustable angle of rotation stop.
- Built-in auxiliary switch (-S) models, adjustable 0-95°.
- Wide range of line voltage models (100-240V).
- New line voltage model with 2-10 VDC control and feedback.
- Quieter TFL models, <40 dB(A)
- Standard 1/2" conduit connectors.

### Proven reliability.

- Minimum 22 in-lb (2.5 Nm) torque throughout specified temperature range.
- True mechanical power spring for reliable, fail-safe operation.
- Rugged, NEMA Type 2 (IP 42) construction.
- Electronic overload protection.
- 5-Year warranty.

**BELIMO**<sup>®</sup>

# TF fail-safe actuators. Versatile and adaptable.



Product Range / Technical Data		TFB24	TFLB24	TFB120	TFLB120	TFCB120-S	TFB24-3	TFB24-SR	TFB120-SR	TFB24-MFT
Universal Clamp		•	•	•	•	•	•	•	•	•
Mounts to PICCV		-	-	-	-	-	-	-	-	•
Mounts to CCV		•	-	-	-	-	•	•	-	•
Control Input	Open-close	•	•	•	•	•	-	-	-	•
	3-point: 2-wire or 1-wire Contacts	-	-	-	-	-	•	-	-	•
	Modulating: 2...10 VDC 4-20 mA <sup>1)</sup> PWM <sup>2)</sup>	-	-	-	-	-	-	•	•	•
Position Feedback		-	-	-	-	-	-	•	•	•
Voltage Supply		AC/DC 24 V	AC/DC 24 V	AC 100-240V	AC 100-240V	AC 100-240V	AC/DC 24V	AC/DC 24V	AC 100-240V	AC/DC 24V
Option: Integrated Auxiliary Switch (0-95) TF...-S		•	-	•	-	•	•	•	-	•
Angle of Rotation 95°		•	•	•	•	•	•	•	•	•
Mechanical Angle of Rotation Limiting		•	•	•	•	•	•	•	•	•
Motor Rotation CW/CCW via Switch		-	-	-	-	-	•	•	•	•
Running Time, Motor		< 75 s	< 75 s	< 75 s	< 75 s	< 30 s	95 s	95 s	95 s	150 s
Running Time, Spring Return		< 25 s	< 75 s	< 25 s	< 75 s	< 25 s	< 25s	< 25 s	< 25 s	< 25 s
Protection NEMA2/IP42		•	•	•	•	•	•	•	•	•
Parameter Setting <sup>2)</sup>		-	-	-	-	-	-	-	-	•

<sup>1)</sup> with ZG-R01

<sup>2)</sup> Factory configurable control operating range, feedback, running time and other functions, or field adjustable with PC-Tool software.

Accessories (additional accessories on request)		
<p><b>Mechanical Damper</b></p>	<p><b>Description</b></p> <p>Crankarm adapter kit (Includes ZG-113 and KH-TF) Crankarm adapter kit Actuator crank arm Ball-and-socket joint (iron ball) Mounting bracket Push Rod</p>	<p><b>Part Number</b></p> <p>ZG-TF112 ZG-TF2 KH-TF US KG8 / KG10A ZG-113 SH8/SH10</p>
<p><b>Electronic for -SR types</b></p>	<p><b>Remote Positoner</b> Input rescaling module Analog to digital switch 500Ω ½ watt resistor (4-20 mA)</p>	<p>SGA24, SGF24 IRM-100 ADS-100 ZG-R01</p>



Belimo Americas

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