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BELIMO®

TF230 spring-return actuator

TF230

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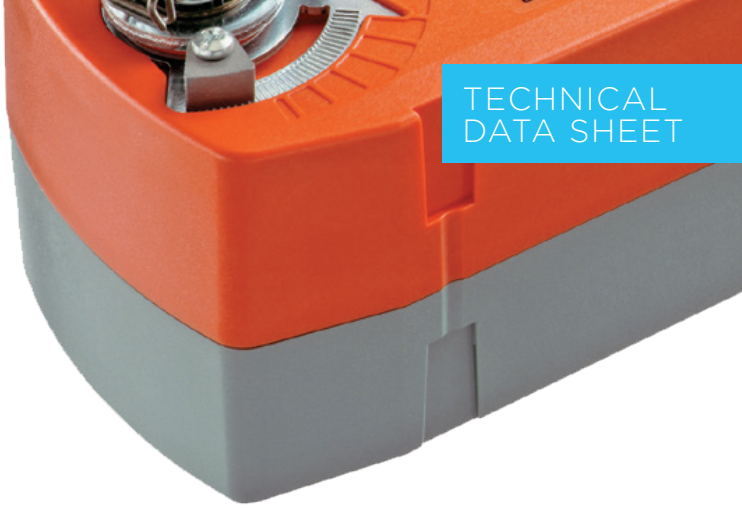


TECHNICAL DATA SHEET

BELIMO

TF230 SPRING-RETURN ACTUATOR

Overview

Spring-return actuator for adjusting dampers with safety functions (e.g. frost and smoke control, hygiene, etc.) in technical building installation. Damper size up to approx. 0.5m^2. Nominal torque 2.5 Nm. Nominal voltage AC 230 V. Control: Open-close.

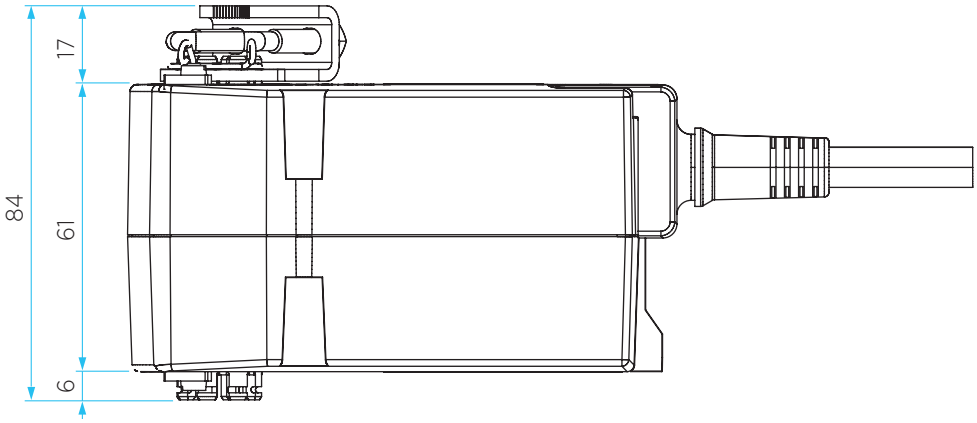
Technical Data

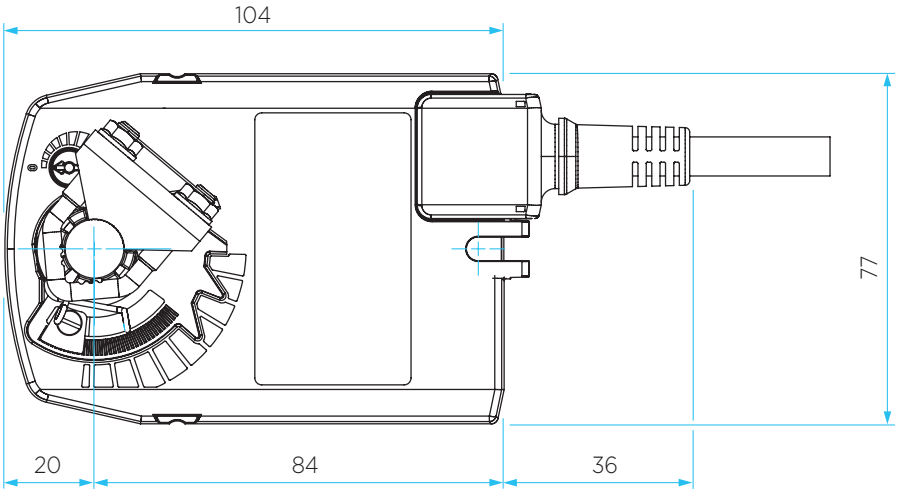
Technical Data		
Electrical Data	Nominal Voltage	AC 230 V
	Nominal Voltage Frequency	50/60 Hz
	Nominal Voltage Range	AC 85 V ... 265 V
	Power Consumption in Operation	2.5 W
	Power Consumption in Rest Position	1.5 W
	Power consumption for Wire Sizing	5 VA
	Connection Supply / Control	Cable 1m, 2 x 0.75mm^2
Functional Data	Torque Motor	Min. 2.5 Nm
	Torque Spring-Return	Min. 2.5 Nm
	Direction of Rotation Motor	Can be selected by mounting L / R
	Direction of Rotation Spring-Return	Can be selected by mounting L / R
	Angle of Rotation	Max. 95°
	Running Time Motor	75s / 90°
	Running Time Emergency Control Function	<25s / 90°
	Sound Power Level Motor Max.	50 dB (A)
	Spindle Driver	Universal spindle clamp 6...12mm
	Position Indication	Mechanical
	Service Life	Min. 60,000 security settings
Safety	Protection Class IEC/EN	II protective insulated
	Degree of Protection IEC/EN	IP42
	EMC	CE in accordance with 2004/108/EC
	Low-Voltage Directive	CE in accordance with 2006/95/EC
	Certification IEC/EN	Certified to: IEC/EN 60730-1 and IEC/EN 60730-2-14
	Principle of Operation	Type 1.AA
	Overvoltage Category	III
	Control Pollution Degree	3
	Ambient Temperature Range	-30°C ... 50°C
	Non-Operating Temperature	-40°C ... 80°C
	Ambient Humidity Range	95% r.h., non-condensing
	Maintenance	Maintenance-free
Dimensions / Weight	Weight	Approx. 0.6kg

Safety Notes

- The actuator is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Caution: Power supply voltage!
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with during installation.
- The device may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user.
- The cable must not be removed from the device.
- The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Product Specifications

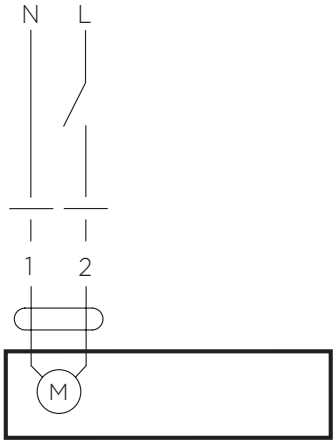




Product Specifications	
Principle of Operation	The actuator moves the damper to the operating position at the same time as tensioning the return spring. The damper is turned back to the safety position by spring energy when the supply voltage is interrupted.
Direct Mounting	Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with a universal mounting bracket to prevent the actuator from rotating.
High Functional Reliability	The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.

Electrical Installation

AC 230 V, open-close



AC 230 V
OPEN-CLOSE CONTROL
WIRING DIAGRAM

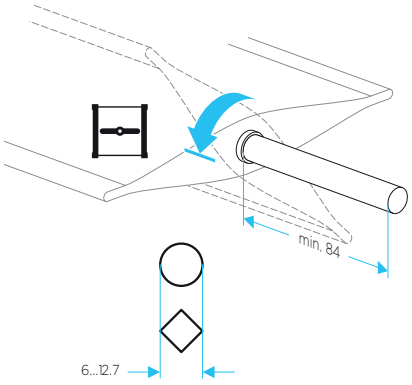
Note -

- **Caution: Power Supply Voltage!**
- Parallel connection of other actuators possible. Observe the performance data.

Cable colours:

1 = blue
2 = brown

Technical Drawings



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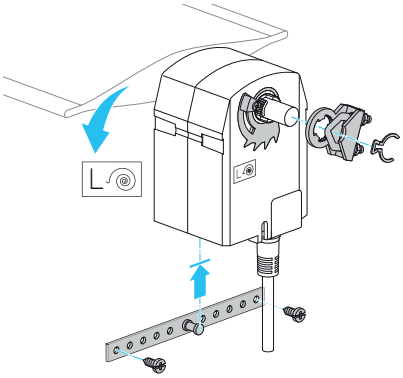

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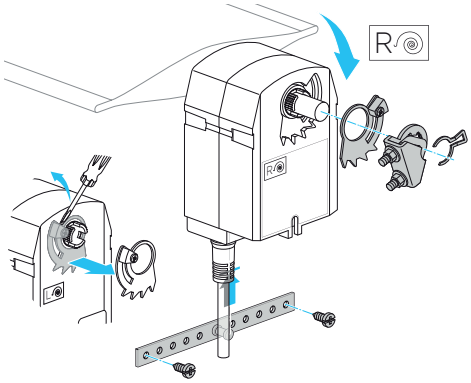

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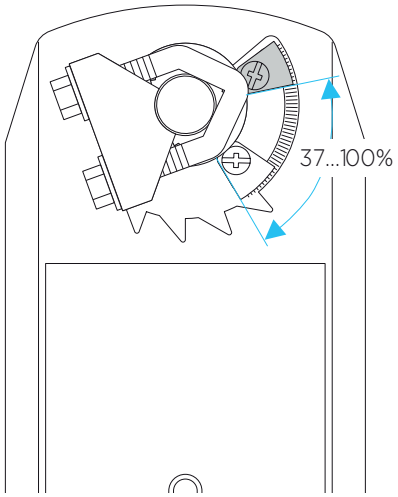

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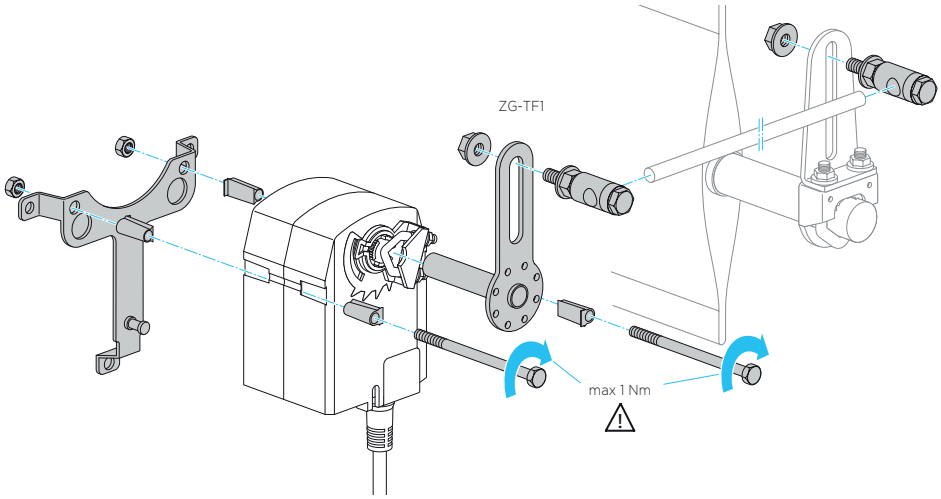
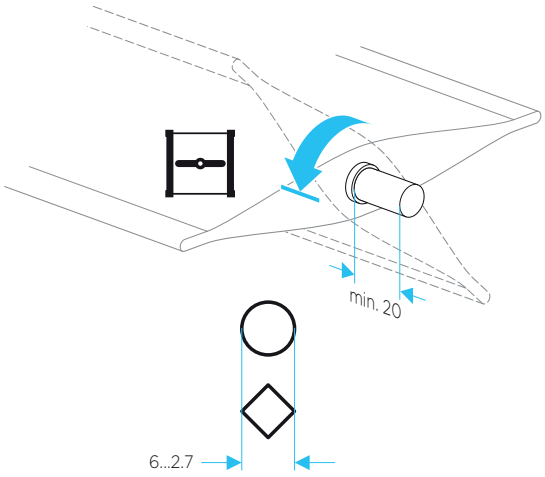


DRAWING 5

info@idealairgroup.com.au **idealairgroup.com.au**
122017



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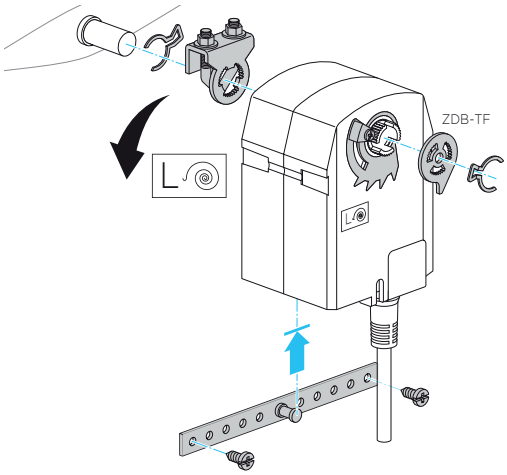

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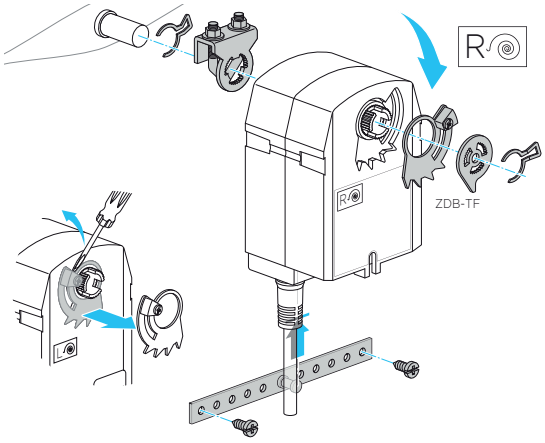

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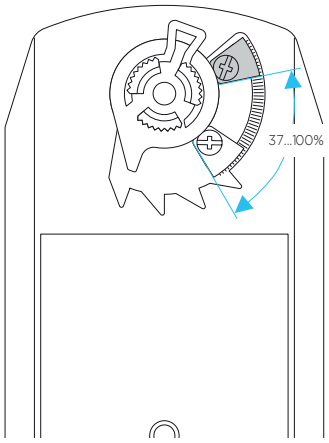

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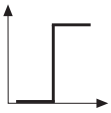
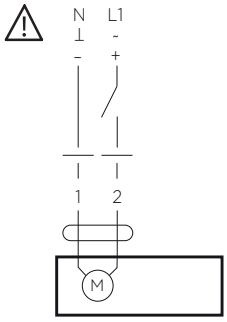
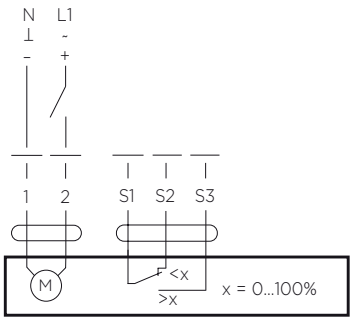


AC 230 V
AC24V / DC 24 V

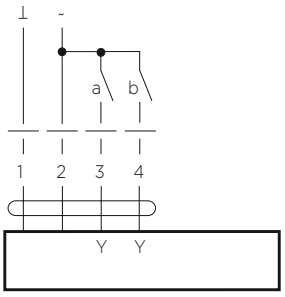


TF230 / TF24



TF230-S / TF24-S

AC 24 V



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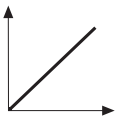
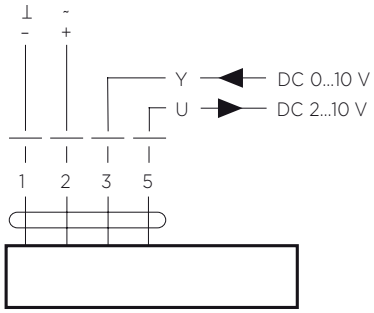


AC 24 V / DC 24 V



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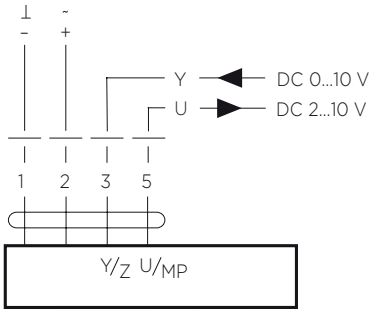

TF24-MFT