



TAC LF24 TAC LF230

Spring Return Actuator for Open/Close
Damper Actuation 4 Nm (3 ft-lbf)

G-30-17

1 Mar 2002



The TAC LF24 and TAC LF230 open/close spring return actuators are intended for operation of air dampers of up to approximately 0.8 m² (8.6 ft²) cross sectional area that perform safety functions, e.g. frost and smoke protection, hygiene, etc.

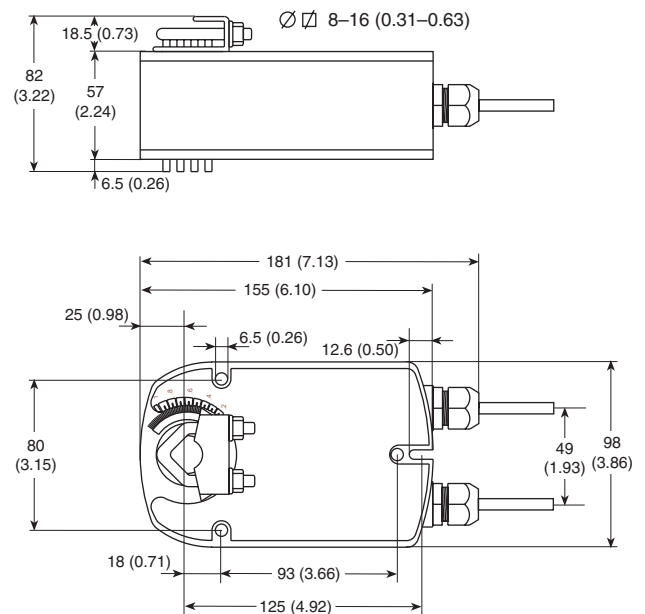
Either direction of rotation can be selected.

The spring return operates as a safety function if the power supply fails or is interrupted. The spring pretensioning can be manually adjusted.

TECHNICAL DATA

Part number:	
TAC LF24	874-0003-000
TAC LF230	875-0003-000
Power supply:	
TAC LF24	24 V AC $\pm 20\%$, 50–60 Hz, 24 V DC -10%, +20%
TAC LF230	230 V AC $\pm 14\%$, 50–60 Hz
Power consumption:	
TAC LF24, opening	5 W
TAC LF24, open	2.5 W
TAC LF230, opening	5 W
TAC LF230, open	3 W
For wire sizing:	
TAC LF24	7 VA ($I_{\max} = 5.8$ A for 5 ms)
TAC LF230	7 VA ($I_{\max} = 150$ mA for 10 ms)
Connection cable	1 m (3.3 ft), 2x0.75 mm ² (AWG 18)
Angle of rotation	max. 95° (adjustable 37–100% \angle with additional limit stop ZDB-LF)
Torque:	
Actuator	min. 4 Nm (3 ft-lbf) (at rated voltage)
Spring return	min. 4 Nm (3 ft-lbf)
Running time:	
Actuator	40–75 s (0–4 Nm (0–3 ft-lbf))
Spring return	approx. 20 s (at -20 to +50 °C (-4 to +122°F)), max. 60 s (at -30 °C (-22°F))
Direction of rotation	selected by mounting L/R
Position indication	mechanical
Standards conformity:	
EMC, emission	SS EN 50081-1
EMC, immunity	SS EN 50082-1
LVD Safety; TAC LF230	SS EN 60335-1
Protection class:	
TAC LF24	III (safety extra-low voltage)
TAC LF230	II (all insulated)
Enclosure rating	IP 54

mm (in.):



Ambient humidity	EN 60335-1
Ambient temperature:	
Operation	-30 to +50 °C (-22 to +122 °F)
Storage	-40 to +80 °C (-40 to +176 °F)
Sound power level:	
Actuator	max. 50 dB (A)
Spring	approx. 62 dB (A)
Service life	min. 60 000 operations
Maintenance	maintenance-free
Weight:	
TAC LF24	1.4 kg (3.1 lb.)
TAC LF230	1.55 kg (3.4 lb.)

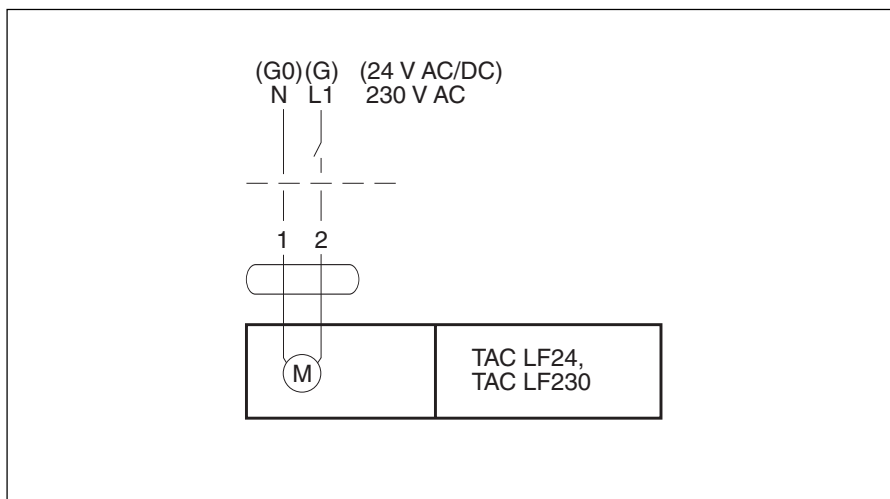
WIRING DIAGRAM



TAC LF24: Connect via safety isolating transformer.

TAC LF230: To isolate from the main power supply, the system must incorporate a device which provides all-pole disconnection (with at least a 3 mm (0.12 in.) contact gap).

Parallel connection of several actuators is possible. Power consumption must be observed.



MODE OF OPERATION

The actuator is fitted with a universal spindle clamp for quick and easy mounting directly onto the damper spindle. The actuator is also supplied with an anti-rotation strap for fixing it in position. The direction of rotation is selected by mounting left or right.

The actuator is used for open/close control by single-wire system.

The actuator has a mechanical angle of rotation limiting, adjustable with an additional limit stop.

The actuator moves the damper to its normal working position while tensioning the return spring at the same time.

If the power supply is interrupted, the energy stored in the spring moves the damper back to its safe position $\leq 0^\circ$.

The actuator is supplied from factory with 5° of pretensioning. The pretensioning can be unlocked manually by means of a crank or electrically by connecting the power supply. The actuator will then be moved back to its safe position $\leq 0^\circ$.

The actuator is overload-proof and needs no limit switches. It stops automatically at the end stops.

NOTE

When calculating the torque required to operate dampers, it is essential to take into account all the data supplied by the damper manufacturer concerning cross sectional area, design, mounting and air flow conditions.

ACCESSORIES

Please refer to data sheet G-30-90 "Accessories Damper Actuators" (part. no. 0-003-2251).

