



TAC AF24/AF24-S
TAC AF230/AF230-S
 Spring Return Actuator for Open/Close
 Damper Actuation 15 Nm (11 ft-lbf)

G-30-26

1 Mar 2002



The TAC AF24 (-S) and TAC AF230 (-S) open/close spring return actuators are intended for operation of air dampers of up to approximately 3 m² (32 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.

The TAC AF24 (-S) and TAC AF230 (-S) can be manually operated and has integral position stops.

The TAC AF24-S and TAC AF230-S actuators have two auxiliary switches for signalization.

TECHNICAL DATA

Part number:
 TAC AF24 874-0000-010
 TAC AF24-S 874-0010-010
 TAC AF230 875-0000-010
 TAC AF230-S 875-0010-010

Power supply:
 TAC AF24 (-S) 24 V AC \pm 20%, 50–60 Hz,
 24 V DC \pm 10%
 TAC AF230 (-S) 230 V AC \pm 14%, 50–60 Hz

Power consumption:
 TAC AF24 (-S), opening 5.0 W
 TAC AF24 (-S), open 1.5 W
 TAC AF230 (-S), opening 6.5 W
 TAC AF230 (-S), open 2.5 W

For wire sizing:
 TAC AF24 (-S) 10 VA
 TAC AF230 (-S) 11 VA

Auxiliary switch 2xSPDT 6 (3) A, 250 V AC
 Switching points fixed 5% \angle , adjustable 26–89% \angle

Connection cable:
 Actuator 1 m (3.3 ft), 2x0.75 mm² (AWG 18)
 Auxiliary switches (-S) 1 m (3.3 ft),
 6x0.75 mm² (AWG 18)

Angle of rotation max. 95°
 (adjustable 26–95% \angle with
 additional limit stop ZDB-AF)

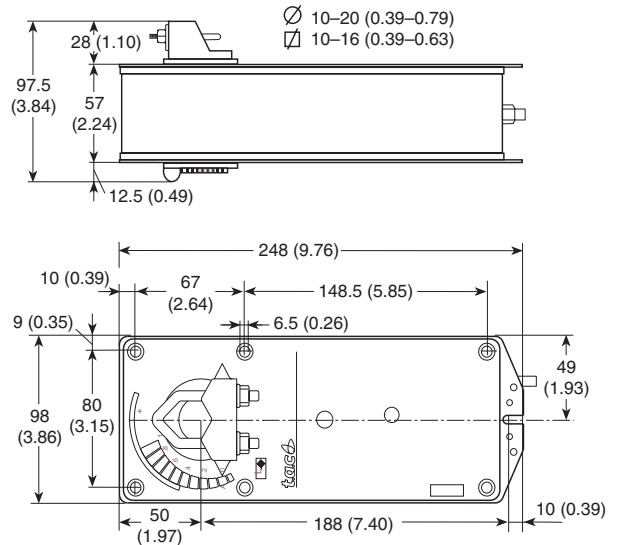
Torque:
 Actuator min. 15 Nm (11 ft-lbf)
 Spring return min. 15 Nm (11 ft-lbf)

Running time:
 Actuator approx. 150 s
 Spring return approx. 16 s

Direction of rotation selected by L/R mounting
 Position indication mechanical

Standards conformity:
 EMC, emission SS EN 50081-1
 EMC, immunity SS EN 50082-1
 LVD Safety; TAC AF230 (-S) SS EN 60335-1

mm (in.):



Protection class:
 TAC AF24 (-S) III (safety extra-low voltage)
 TAC AF230 (-S) II (all insulated)

Enclosure rating IP 54
 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. 45 dB (A)
 Spring return approx. 62 dB(A)

Service life approx. 60 000 operations
 Maintenance maintenance free

Weight:
 TAC AF24 (-S) 3.0 kg (6.6 lb.)
 TAC AF230 (-S) 3.3 kg (7.3 lb.)

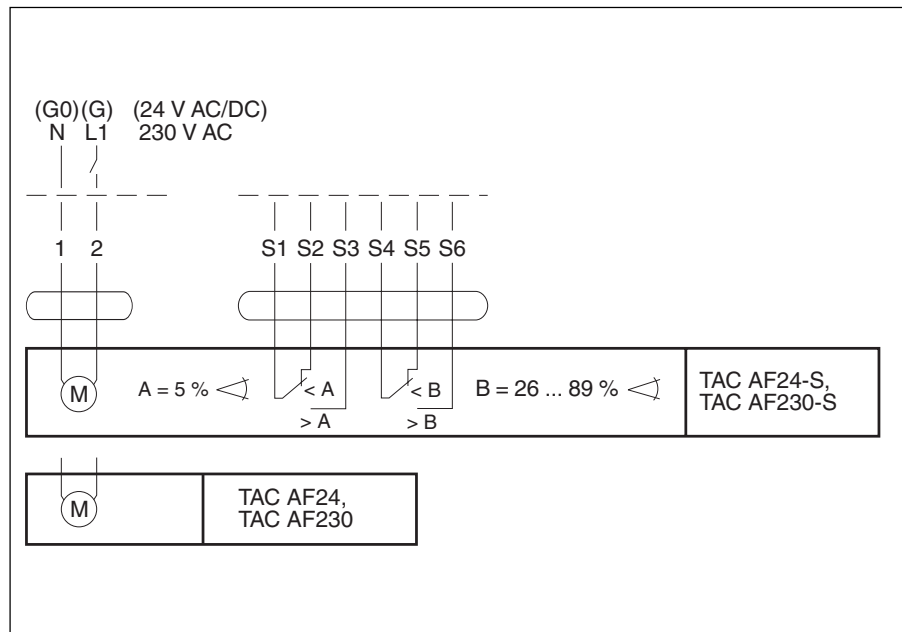
WIRING DIAGRAM



TAC AF24 (-S): Connect via safety isolating transformer.

TAC AF230 (-S): 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 damper can be operated manually and locked in the required position. Release of the locking mechanism can be achieved manually or automatically by applying the supply voltage.

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.

VARIABLE END SWITCH

The TAC AF24(230)-S actuator has one fixed auxiliary switch and one adjustable auxiliary switch which allows an angle of rotation of 5° and between 26 and 89% to be signalled.

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. 0-003-22551).

