

Push-Pull, Non-Spring Return Actuators, 135 lbf



GAP-T135-024
Tri-state or On/Off
"Linear Stroke"

DESCRIPTION

Electronic, motor-driven, reversible, noiseless, push-pull actuators.

APPLICATION

Actuators to be installed on air dampers and shutters in ventilation and air conditioning systems. Can be controlled by any compatible electric or electronic analog controller, DDC/PLC control or automation system.

FEATURES

- *Push-pull, linear stroke*
- *Optional, aux. switches or feedback pot*
- *Tested for 60,000+ full operations*
- *Manual override*
- *Overload protected*
- *Maintenance-free*
- *Five-year warranty*



SPECIFICATIONS

Control

Input signal Tri-state (3-pt. floating) or On/Off, 24 VAC/DC

Electrical

Power supply 24 VAC/VDC \pm 20%, 50/60 Hz
 Over voltage Up to 40 V, max. 5 sec.
 Power consumption 3.0 W (5.5 VA)

Performance

Push-pull/linear force 135 lbf (600 N)
 Damper size Up to 34 sq. ft. (3 m²), damper friction and linkage mount dependent
 Linear stroke 2.362 in. (60 mm)
 - direct/reverse acting L/R selector, built-in actuator cover
 Stroke time 60 to 80 sec/0-60 mm
 Power failure Stays in last position of operation
 Position indicator 0-60 mm and adj. visual indicator
 Synchronization \pm 1%
 Overload protection Electronic throughout rotation
 Manual override Built-in disengage button
 Motor type DC motor
 Noise level Max. 40 dB(A)

Environmental

Permissible ambient
 - working temperature -22°F to 122°F (-30°C to 50°C)
 - storage temperature -40°F to 176°F (-40°C to 80°C)
 - humidity 5-95% RH, non-condensing

OPTIONS

- **S2** (2) Aux. switches built-in SPDT 24 VAC, 5 (2.5) A, position adj. between 0-6 mm and 54-60 mm, incl. 3 ft. (0.9 m) appliance cable, number coded, and 1/2" conduit connector
- **P1** (1) Feedback pot 1 k Ω pot, incl. 3 ft. (0.9 m) appliance cable, number coded, and 1/2" conduit connector

Physical

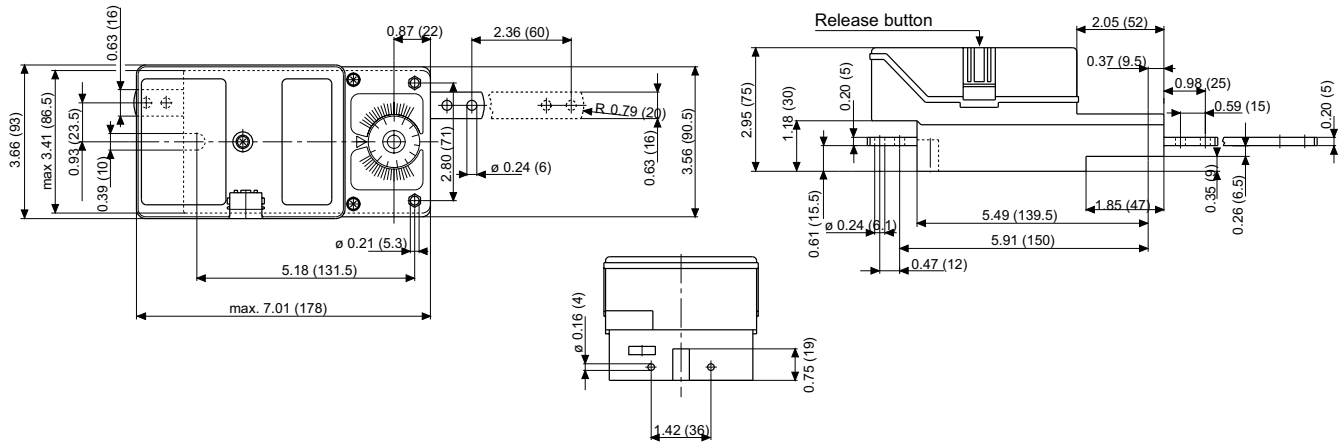
Enclosure
 - cover ABS, UL 94-5V
 - base PA 6.6
 - color Grey and black
 - protection NEMA 2
 Mounting position Any position
 Actuator base mount
 - pivot mount End tab, w/(2) holes, \varnothing 1/5" (6.1 mm)
 - direct/rigid mount Front base, w/(2) holes, \varnothing 3/16" (5.3 mm)
 Linear stroke connection to damper linkage Push rod, w/(2)holes, \varnothing 1/5" (6.1 mm)
 Wire connection 3 ft. (0.9 m) appliance cable, color coded
 - option, on request Plenum rated cable
 Wire size 18 AWG (0.75 mm²)
 Conduit connector 1/2", built-in
 Dimensions 7.01 x 3.65 x 2.95 in. (178 x 92.7 x 75 mm)
 - push rod 0.63 x 0.20 in. (16 x 5 mm)
 Weight 3.3 lbs. (1.5 kg)
Manufacturing ISO 9001 certified
Listings/Approvals CE
Warranty Five-year material and workmanship (Two-year standard, three-year conditional)

ORDERING INFORMATION

GAP-T135-024 Standard
GAP-T135-024-S2 w/(2) Aux. switches
GAP-T135-024-P1 w/(1) 1 k Ω Pot

DIMENSIONS

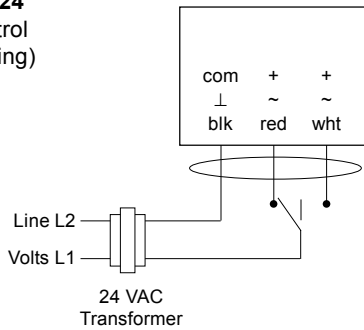
inches (mm)



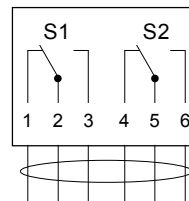
WIRING CONFIGURATION

GAP-T135-024

Tri-state control
(3-point floating)

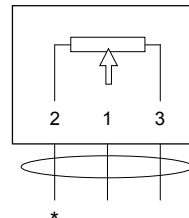


Option S2



(2) Auxiliary switches, SPDT, 24 VAC, 5 (2.5) A, w/adjustable cam for setting between 0-6 mm and 54-60 mm stroke

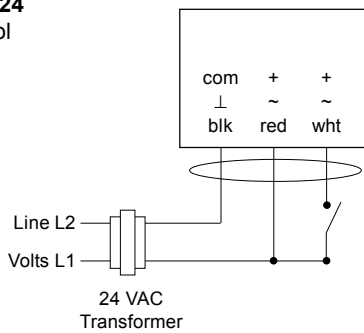
Option P1



(1) Feedback pot, 1 k Ω , * = 0 Ω at 0° angle of rotation

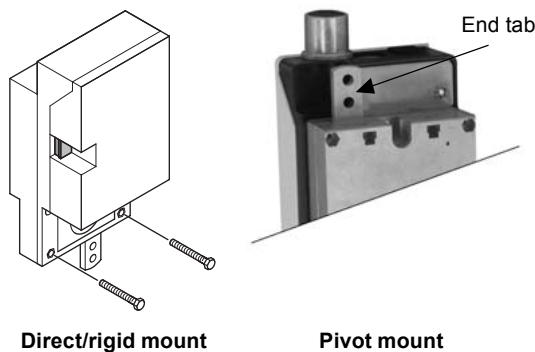
GAP-T135-024

On/Off control



L/R selector (built-in actuator cover)

Select	Linear stroke selection
R	Extending w/red connect
R	Retracting w/white connect
L	Extending w/white connect
L	Retracting w/red connect



- Notes:
- Actuators are provided with color coded wires. Wires for optional switches and feedback pot are number coded.
 - Observe polarity on secondary transformers. Incorrect polarity can cause controller damage or operation error.
 - Provide overload protection for line voltage and disconnect as required.