

Air Actuators

Air actuators offer reliable performance under the most stringent conditions. Low gas consumption and lightweight, compact construction make the air actuator suitable for aerospace flight hardware applications as well as laboratory or process applications.

The standard air actuator is rated for up to 80 psig at temperatures up to 70°C. Generally speaking, valves which will be heated require a standoff assembly, which locates the air actuator out of the heated zone and supports both the valve and actuator. A high temperature model permits both valve and actuator to be mounted within an oven (175°C maximum), but it is not recommended for use below 50°C.

Air Actuators for Selectors

The recommended method for implementing a selector (multi-position) air actuator requires only a single 4-way solenoid. Up to 80 psig may be used without damaging the valve or actuator. Bottled instrument air or nitrogen is recommended.

If plant air from compressors must be used, an oil separator and water dryer are required.

Multiposition air actuators include a rotary switch which may be connected to a digital readout or your own design.

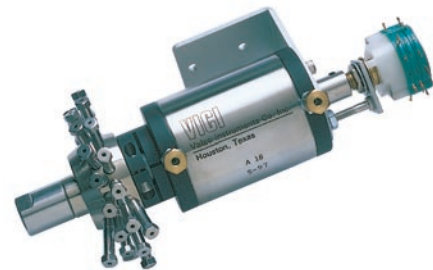


Standard air actuators

for selectors

Temperature range 0-70°C
Standoff version includes a 2" standoff. 3", 4", and 6" standoffs are also available.

Description	With closemount assembly	With 2" standoff assembly	With standoff mounting hardware
	Prod No	Prod No	Prod No
4 position	A4	A42	A4S
6 position	A6	A62	A6S
8 position	A8	A82	A8S
10 position	A10	A102	A10S
12 position	A12	A122	A12S
16 position	A16	A162	A16S



High temperature air actuators

for selectors

Temperature range 50-175°C
Standoff version includes a 4" standoff. 2", 3", and 6" standoffs are also available.

Description	With closemount assembly	With 4" standoff assembly	With standoff mounting hardware
	Prod No	Prod No	Prod No
4 position	AT4	AT44	AT4S
6 position	AT6	AT64	AT6S
8 position	AT8	AT84	AT8S
10 position	AT10	AT104	AT10S
12 position	AT12	AT124	AT12S
16 position	AT16	AT164	AT16S

TECH TIP

The actuator's rotation must be properly matched to the valve's. If you are converting a manual valve to air actuation and have any doubts about which actuator and hardware you need, call our sales or technical staff for assistance.

MORE INFORMATION

PFAF page 199
Position feedback

Mounting Hardware

Closemount hardware page 208
Right angle drive 204
Standoff assembly 205
Standoff mounting hardware 205

ORDER TIP

To purchase a **valve with an air actuator installed**, go directly to valve ordering information.

Replacement O-rings

Includes a complete set of O-rings for a multiposition air actuator.

Description	Prod No	Price
Standard	ORMP	\$16
High temp	ORTMP	20



Two Position Air Actuators

MORE INFORMATION

HSSA..... page 198
 High speed switching accessory
 PFAF 199
 Position feedback

TECH TIP

Here's what you'll get when you order:



Air actuator with a closemount assembly



Air actuator with a 4" standoff assembly



Air actuator for use with an existing standoff

The recommended method for implementing a two position air actuator is a manifold solenoid valve assembly (MSVA), a block-mounted pair of 3-way solenoids that pulses air to the actuator to switch it from position to position. If air is applied continuously, the continuous rotational force applied to the valve can cause sideloading, leaking, and additional wear.

Typical actuation pressure is 40 to 50 psig, but up to 80 psig may be used.

Ideally, only enough air pressure should be used to switch the valve in 1/3 to 1/2 second. Bottled instrument air or nitrogen is recommended. If plant air from compressors must be used, an oil separator and water dryer are required.

A high speed switching accessory (HSSA) can upgrade valve switching times to less than 30 ms with air or 8 ms with helium. A position feedback (PFAF) with contact closures in both positions is also available as an option.

Standard air actuators

for two position valves

Temperature range 0-70°C

Standoff version includes a 4" standoff. 2", 3", and 6" standoffs are also available.

No. of ports in valve	Description	With closemount assembly	With 4" standoff assembly	For use with existing standoff
		Prod No	Prod No	Prod No
3, 4	90° rotation	A90	A904	A90S
6	60° rotation	A60	A604	A60S
8	45° rotation	A45	A454	A45S
10	36° rotation	A36	A364	A36S
12	30° rotation	A30	A304	A30S

High temperature air actuators

for two position valves

Temperature range 50-175°C

Standoff version includes a 2" standoff. 3", 4", and 6" standoffs are also available.

No. of ports in valve	Description	With closemount assembly	With 2" standoff assembly	For use with existing standoff
		Prod No	Prod No	Prod No
3, 4	90° rotation	AT90	AT902	AT90S
6	60° rotation	AT60	AT602	AT60S
8	45° rotation	AT45	AT452	AT45S
10	36° rotation	AT36	AT362	AT36S
12	30° rotation	AT30	AT302	AT30S

Replacement O-rings

Includes a complete set of O-rings for a two position air actuator.

Description	Prod No
Standard	OR
High temp	ORT



Actuator compression fittings

Includes 1/8" compression to 10-32 male thread, plus 1/8" brass ferrule and hex nut.

Description	Prod No
3 piece fitting assembly	F-TCF

