

Fisher[®] 1008 Handwheel Actuator

The Fisher 1008 manual handwheel actuator is used in applications that require a throttling type of control valve that can be manually operated and set. This actuator can be used on nearly all standard globe-style or angle-style control valve body assemblies. No special valve body adaptor is required for use with the 1008 actuator, so that future conversion from manual to automatic control can be accomplished at minimum cost.

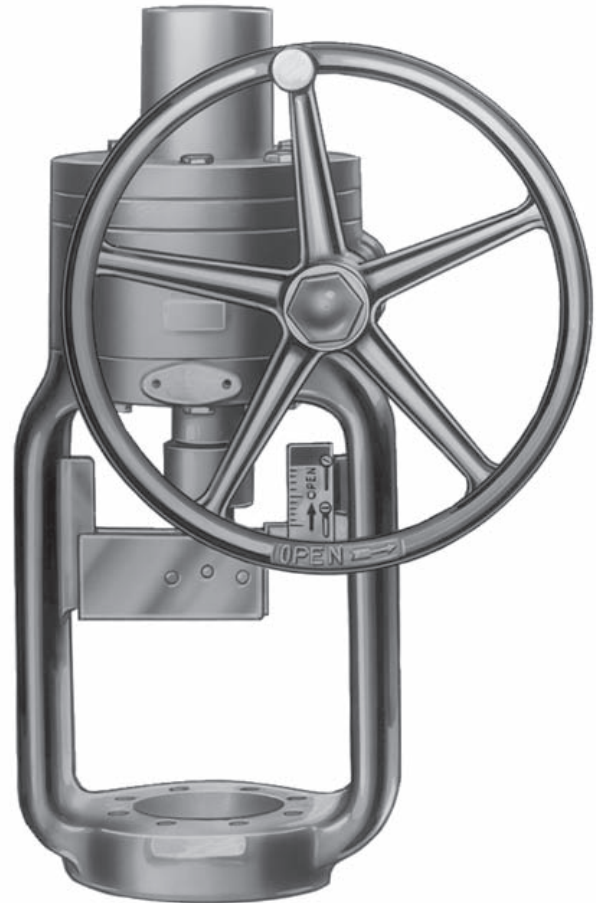
The 1008 actuator is capable of giving precise manual throttling control. A travel indicator mounted on the actuator yoke provides a visual indication of valve plug position at all times. A dial type valve plug position indicator is also available as optional equipment.

Features

- **Easy to Install and Maintain**—For sizes 30, 40, and 50, the yoke is attached to the valve body with a forged steel hammer locknut (figure 2 shows a typical locknut attachment). For the size 80 (figure 1), the yoke is bolted to the valve body. The handwheel mechanism on all sizes is totally enclosed.

- **Easy to Operate**—Regardless of the valve plug action, counterclockwise rotation of the handwheel always opens the valve. In size 40 and larger, two ball bearings are used in the handwheel assembly to facilitate rotation. A spring loaded ball detent in the handwheel prevents it from rotating due to vibration.

- **Accurate Valve Plug Positioning**—The valve stem does not revolve, assuring the same seating surface with each full stroke. Also, the yoke construction ensures that the force required to turn the handwheel cannot be transmitted to the valve body. Sizes 30, 40, and 50 actuators can be furnished with a Tejax Model A35 valve position indicator (figure 3). This indicator enables you to turn the handwheel to the desired position without guesswork. The dial on the indicator is divided into turns and fractions of turns so that you can return to a predetermined valve setting quickly and easily.

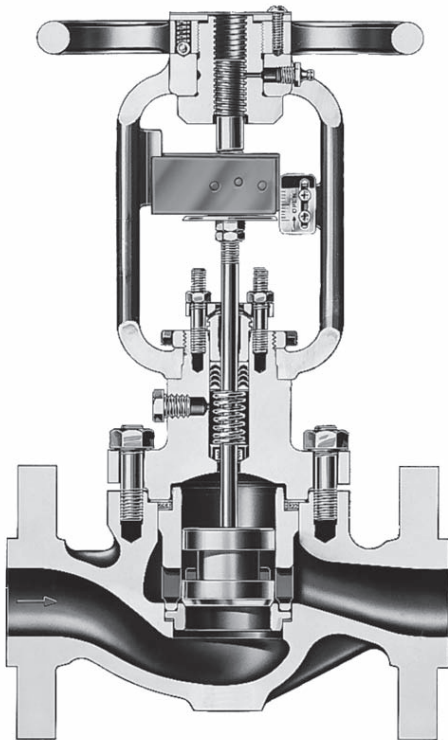


W0590-1/L

Figure 1. Fisher 1008, Size 80 Actuator

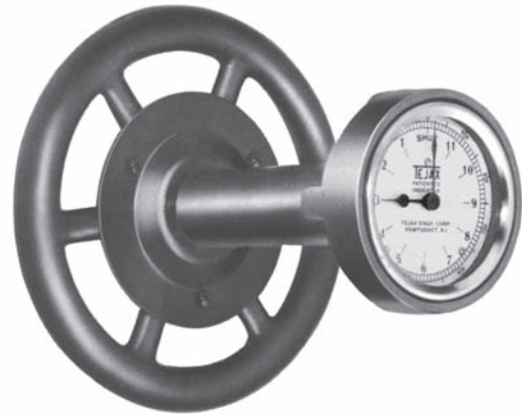


1008 Handwheel Actuator



W0595-3/L

Figure 2. Fisher 1008, Size 30 Actuator Mounted on ES Valve



W6811-1/L

Figure 3. Tejax Model A35 Valve Position Indicator

Table 1. Actuator Size Selection and Specifications

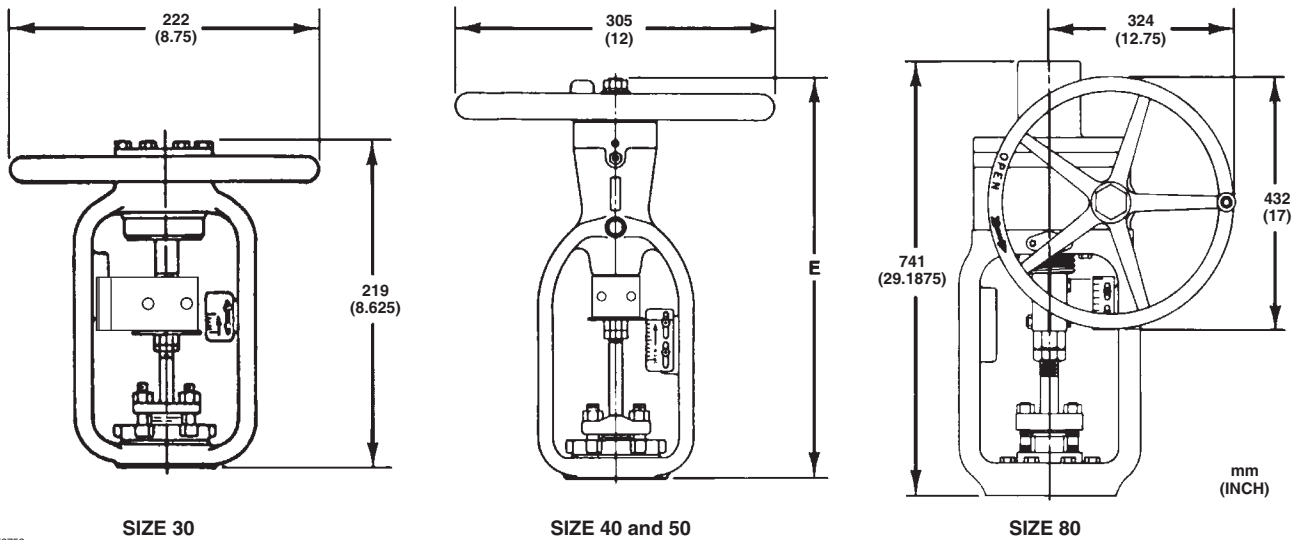
ACTUATOR SIZE	BOSS SIZE	STEM DIAMETER	MAXIMUM USABLE THRUST ⁽¹⁾	MAXIMUM FORCE ON HANDWHEEL	MAXIMUM TRAVEL	REVOLUTIONS PER mm OF TRAVEL
	mm	mm	N	N	mm	
30	54	10	7340	173.5	19	0.3
40	71	13	13122	160	51	0.3
50	90	19	29581	276	51	0.3
80	127	25	50042	423	76 ⁽²⁾	0.4
		32	75620	623		
	Inch	Inch	Lbf	Lbf	Inch	REVOLUTIONS PER INCH OF TRAVEL
30	2-1/8	3/8	1650	39	0.75	8
40	2-13/16	1/2	2950	36	2	8
50	3-9/16	3/4	6650	62	2	8
80	5	1	11250	95	3 ⁽²⁾	10
		1-1/4	17000	140		

1. For S31600 stem at 38°C (100°F).

2. Alternate 102 mm (4 inch) travel construction is available.

Table 2. Overall Dimensions

ACTUATOR SIZE	E	
	mm	Inches
40	386	15.19
50	448	17.63



AN6753
18A1681-D
18A1689-C
B2403-1/L

Figure 4. Overall Dimensions (also see table 2)

Ordering Information

Application

When ordering, specify:

1. Valve body type or design, size, and stem diameter.
2. Valve plug action, push-down-to-open or push-down-to-close.
3. For sizes 30, 40, and 50: Tejax model A35 dial indicator, if required.
4. For size 40 and 50: Set screw handwheel lock.

Note

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Specifications

Available Configuration

Manual-only handwheel actuator for use with sliding-stem valves

Actuator Size

See table 1

Stem and Yoke Boss Diameters

See table 1

Maximum Stem Travel

See table 1

Maximum Usable Thrust

See table 1

Handwheel Rotation

Clockwise handwheel rotation closes the valve
For sizes 30, 40, and 50: ■ Left hand screw assembly for push-down-to-close; ■ Right hand screw assembly for push-down-to-open valve
For size 80: Handwheel assembly is reversible so that it can be arranged for clockwise-to-close rotation.

Maximum Handwheel Force

See table 1

Handwheel Revolutions per Inch of Stem Travel

See table 1

Construction Materials

Sizes 30, 40, and 50:

Handwheel:

Size 30: Ductile Iron

Sizes 40 and 50: Cast Iron

Yoke: Ductile Iron

Acme Power Nut: Stainless Steel (Not used on Size 30)

Acme Power Screw:

Size 30: Stainless steel

Size 40 and 50: Aluminum Bronze

Size 80:

Handwheel: Cast Iron

Yoke: Cast Iron

Worm Gear: Phosphor Bronze

Worm Shaft: Steel

Stem Screw: Steel

Approximate Weight

Size 30: 6.4 kg (15 lb)

Size 40: 15.9 kg (35 lb)

Size 50: 20.4 kg (45 lb)

Size 80: 45.4 kg (100 lb)

Options

■ **Sizes 40 and 50:** Set screw to permit locking handwheel in place

■ **Sizes 30, 40, and 50:** Tejax Model A35 valve stem position indicator⁽¹⁾.

Indicator dial calibrated in turns and fractions of turns

1. When a Tejax indicator is used, the actuator must be installed in a horizontal position.

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