

Table 1. Close-off ratings for ML6420, ML7420 Electric Linear Valve Actuators and Honeywell Valves (psi).

Type	Valve	1/2 in.	3/4 in.	1 in.	1-1/4 in.	1-1/2 in.	2 in.	2-1/2 in.	3 in.
Flange	V5011A	—	—	—	—	—	—	28	16
	V3350/3351/3450/3451	—	—	—	—	—	—	21	14
	V5013B,C; V3360/3361/3460/3461	—	—	—	—	—	—	21 ^a	14 ^a
NPT	V5011F,G	150 ^b	150 ^b	150 ^b	134 ^b	77	49	28	16
	V5011H,J	150	150	150	145	—	—	—	—
	V5011N1xxx, V5011N3xxx, V5013N	230	230	163	104	67	37		
	V5011N2xxx	100	100	100	100				
	V5013F	150	150	150	126	77	49		

^aRepresents maximum pressure difference between the outlet and either of the two inlets.

^bDo not exceed 100 psi with V5011G valves used in steam applications.

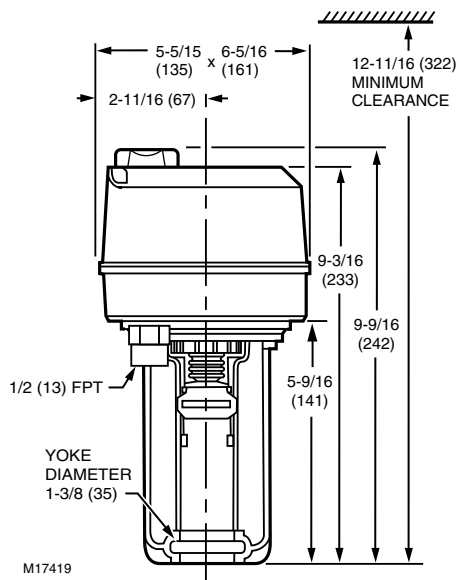


Fig. 1. Approximate dimensions of ML6420, ML7420 Electric Linear Valve Actuator in in. (mm).

INSTALLATION

When Installing this Product...

1. Read instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check ratings and description given in the specifications to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.



CAUTION

Electrical Shock or Equipment Damage Hazard.
Can shock individuals or short equipment circuitry.
Disconnect power supply before installation.

Location

Install the actuator in a location that allows enough clearance for mounting accessories and for servicing.



CAUTION

Equipment Damage Hazard.
Can damage actuator due to condensation or a valve gland leak.
Install the actuator in a position above horizontal.

Mounting

1. Place the actuator on the valve with the U-bolt around the valve collar. See Fig. 2.
2. Place the U-bolt against the valve collar and secure the actuator to the valve by turning each U-bolt nut clockwise.

NOTE: To assure even pressure on the collar, first tighten the nuts finger-tight and then alternate turning each U-bolt nut until both are snug.

3. Push aside the stem button retaining clip and hold. See Fig. 3.
4. Lift valve stem until the head of the valve stem button is inside the large slot of the stem button retaining clip on the actuator.
5. Release the stem button retaining clip to secure the stem button. Check to make certain the stem button is secured by the retaining clip.
6. Remove the cover from the actuator using a Phillips or crosspoint screwdriver. See Fig. 4.

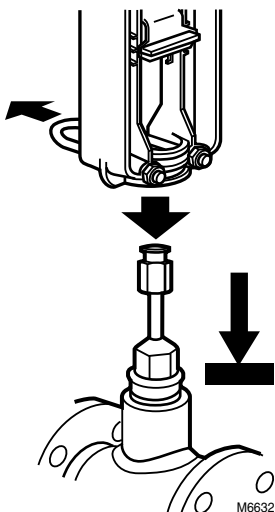


Fig. 2. Attaching actuator to valve collar.

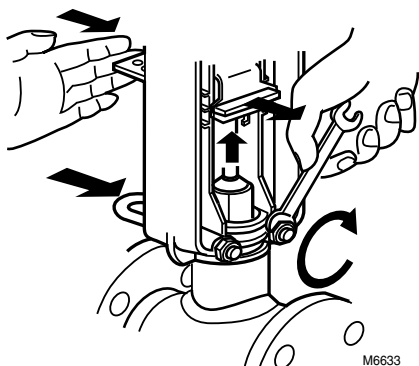


Fig. 3. Securing actuator to valve.

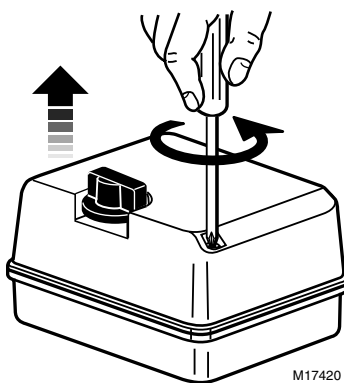


Fig. 4. Removing actuator cover.

Wiring



CAUTION

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Disconnect power supply before installation.

All wiring must comply with local electrical codes, ordinances and regulations. Voltage and frequency of the transformer used with the actuator must correspond with the power supply and actuator characteristics. See Fig. 6 through 11 for typical wiring hookups.

1. Feed power and control wires through the conduit connector located on the bottom of the actuator case. See Fig. 5.



CAUTION

Equipment Damage Hazard.

Conduit connection or removal can break an unsupported connector.

When removing or attaching conduit, use a wrench to support the motor connector.

2. Using the wiring diagram in Fig. 6, connect power and control wires. Make sure that all wiring is correct.
3. For ML7420 only: Check the selector plugs for proper settings. See Signal Input Failure section for details.
4. When wiring is complete, replace the actuator cover. See Fig. 7.
5. Apply power and control signals to the actuator.

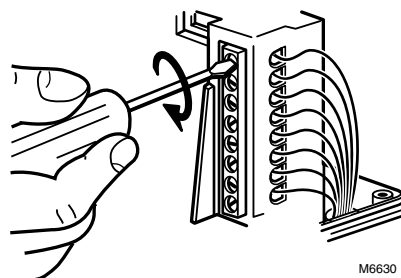


Fig. 5. Connecting power and control wiring.

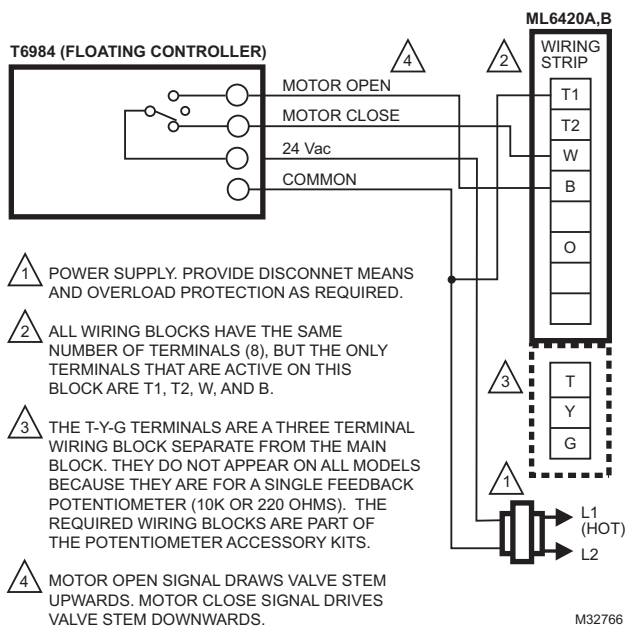


Fig. 6. ML6420 wiring.

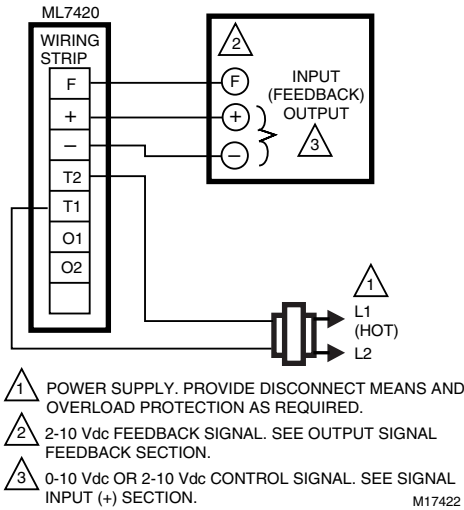


Fig. 7. ML7420 wiring using feedback output from a controller with a common transformer.

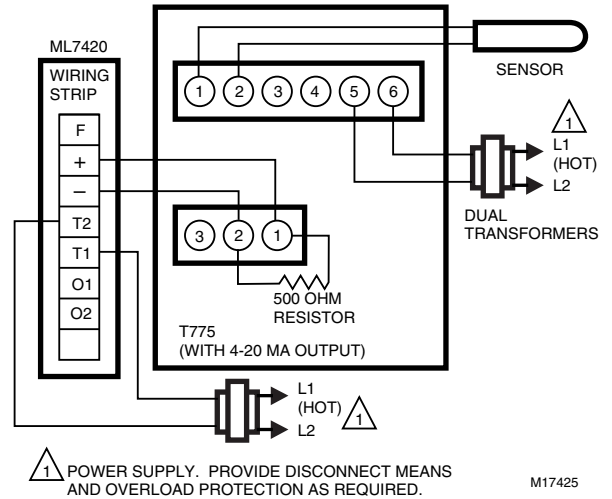


Fig. 10. ML7420 wiring using a 4 to 20 mA control signal and separate transformers.

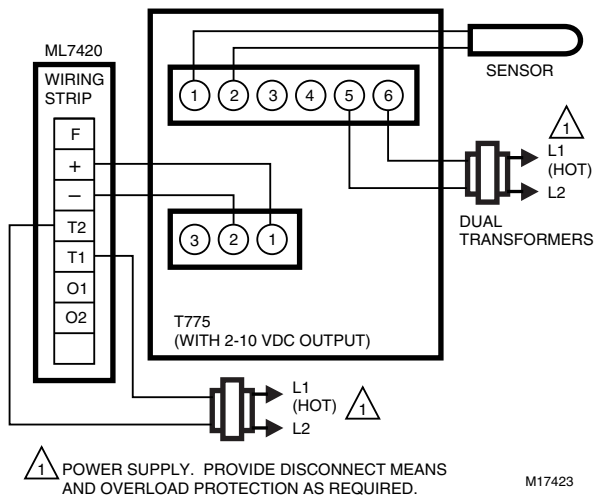


Fig. 8. ML7420 wiring using a 2 to 10 Vdc control signal and separate transformers.

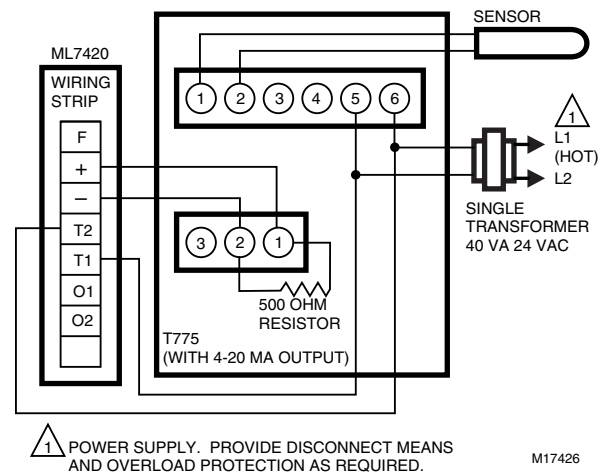


Fig. 11. ML7420 wiring using a 4 to 20 mA control signal and a common transformer.

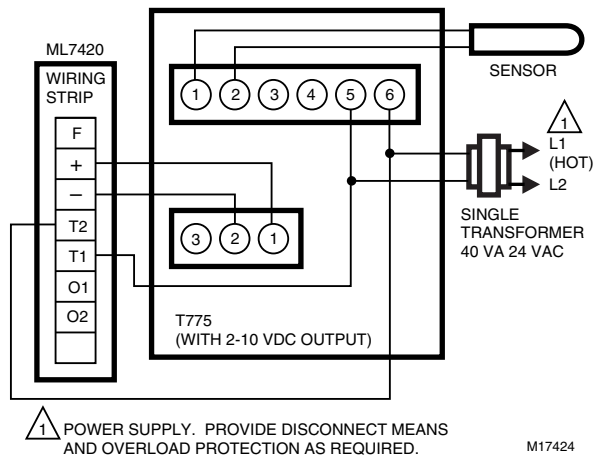


Fig. 9. ML7420 wiring using a 2 to 10 Vdc control signal and a common transformer.

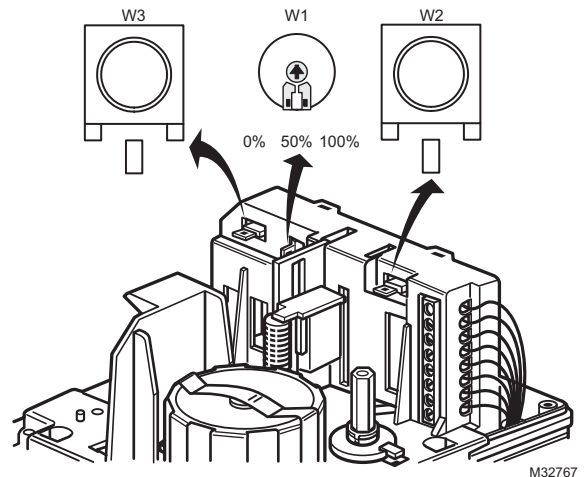


Fig. 12. Location of W1, W2, and W3 selector plugs.

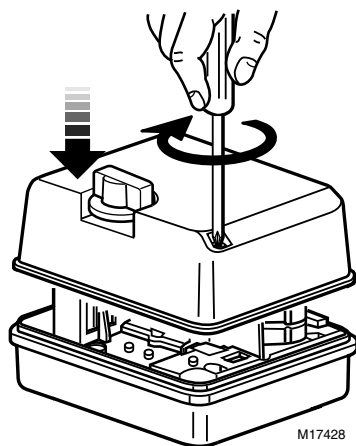


Fig. 13. Replacing actuator cover.