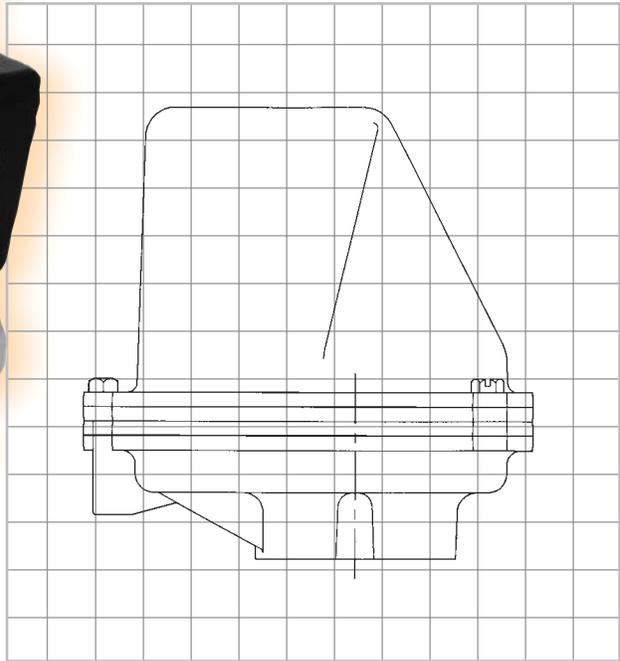




AN ISO 9001 REGISTERED COMPANY



Series 36 Electric Actuator

Unidirectional AC electric actuator for easy automation of quarter-turn devices offers high torque, low cost and versatility

The Series 36 Unidirectional Electric Actuator



The Worcester Series 36 Unidirectional Electric Actuator provides direct, positive, automatic, on/off, quarter-turn valve operation at a low cost. It requires only a single electrical connection as a power source, and it can be easily installed in most piping systems because of its compact design.

Features and Benefits

- **Simplified mounting and installation** with female drive output.
- **Integral overload protection** with automatic reset.
- **Permanently lubricated**, sealed gear train.
- **Easily adjustable on/off** limit switch.
- **One additional 5 A SPDT switch** for remote indication or sequencing (optional).

Series 36 actuators are available in two sizes to meet different torque requirements. The **1036** delivers a rated torque of 150 in-lb and the **2036** delivers 550 in-lb. Both sizes can be provided with an auxiliary limit switch for remote indicating lights to provide positive indication of valve position or for other uses.

Installation is simple and economical. The standard female drive shaft is easily coupled to the valve stem providing a very compact assembly.

The shaded-pole motor opens or closes the valve positively and directly in approximately 5 seconds through 90 degrees of travel and drives the valve through a sealed, permanently lubricated gear train. Travel is controlled by an internal limit switch activated by positive detents located on the output gear. A thermal overload protector, set for 250°F, is incorporated in the motor windings. If the motor overheats, the protector will automatically reset when cool.

Optional Timing Device

A Series 36T solid state timing device is optionally available with the 36 actuator for draining, sampling, purging, flushing, and similar process applications. Refer to brochure PB 36T.

- **Nominal cycle time** for 90°: approximately 5 seconds.
- **Unidirectional, non-reversing** shaded-pole motor.
- **Sizes:** 1036 (150 in-lb) 2036 (550 in-lb)
- **Enclosures:** TYPE 1 (General Purpose) or TYPE 4, 4X (Weatherproof).
- **Voltage options:** 120 VAC or 240 VAC.
- **Baked Finish** on base and cover for corrosion resistance.

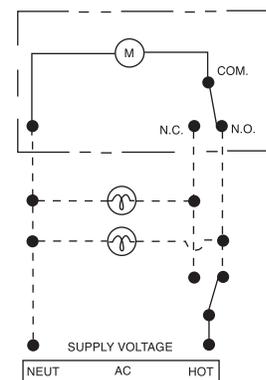
Engineering Data

Size	Torque (in-lb)		Current (At Start-Up Torque)		Duty Cycle @ 70°F Ambient	Cycle Time 90° Actuation	Weight (lb.)
	Stall	Start-up	120 VAC	240 VAC			
1036	150	120	2.3	1.0	20%	5 sec.	6.0
2036	550	480	3.8	1.7	20%	5 sec.	7.0

Direction of Rotation: Counter-clockwise at valve stem viewing from top.
Temperature Limits: 0°F to 150°F maximum ambient.

Series 36 Actuators should not be used on ball valves with an upstream relief hole, three-way valves, butterfly valves, or with Dyn-O-Miser® or High-per Miser® Valves.

Wiring Diagram

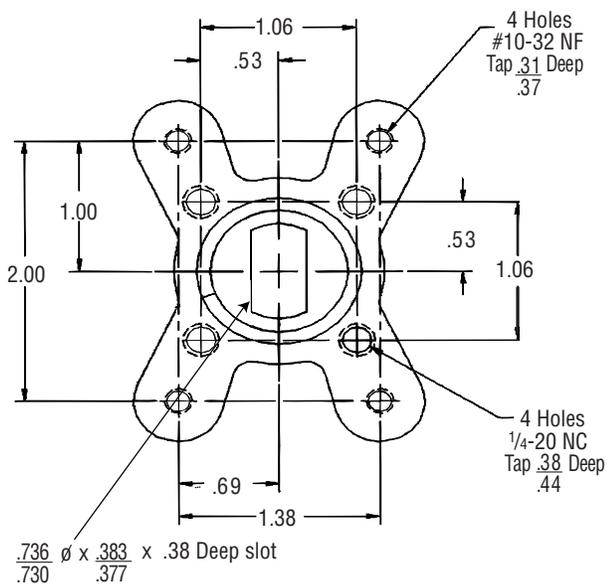
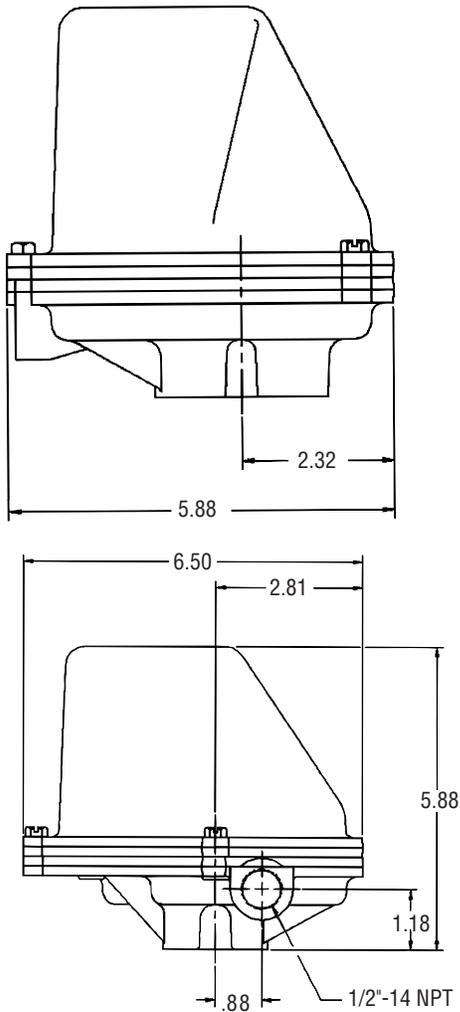


Dotted line indicates wiring by customer. Actuator output shaft must rotate CCW when viewed from the motor end of actuator. Connect field wiring with supplied wiring connectors. Caution: use proper crimping methods. **Caution:** See table in installation, operation and maintenance manual for minimum over current protection ratings when used in motor power circuit.

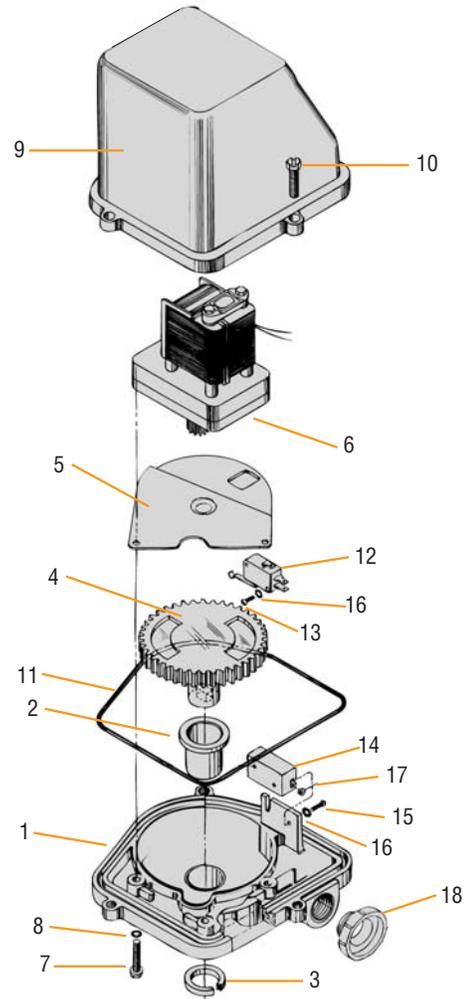
See actuator nameplate for supply voltage.
Located Inside Actuator Cover

Dimensions

General Purpose Enclosure TYPE 1
Weatherproof Enclosure TYPE 4, 4X



Parts Identification and Materials of Construction



Piece	Qty.	Description	Materials
1	1	Base	Die Cast Aluminum
2	1	Bearing	Sintered Bronze
3	1	Seal (Base)	Rubber
4	1	Spur Gear	Steel (Black Oxide Coating)
5	1	Retaining Shroud	Steel (Black Oxide Coating)
6	1	Motor Module AC	
7	3	Motor Mounting Screw	
8	3	O-Ring (Motor Screw) ("W" Weatherproof Actuator only)	Buna
9	1	Cover	Die Cast Aluminum
10	3	Cover Screw	Stainless Steel
11	1	O-Ring (Cover Seal) ("W" Weatherproof Actuator only)	Neoprene
12	1	Limit Switch	Phenolic
13	2	Switch Mounting Screw	Plated Steel
14	1	Spacer (limit switch)	Phenolic
15	2	Spacer Mounting Screw	Plated Steel
16	4	Lock Washer	Plated Steel
17	2	Nut	Plated Steel
18	1	Conduit Plug	Polyethylene



Worcester ... All The Right Valves In All The Right Places

How to Order

20 Size	36 Product Series	Option	W Enclosure Option	Limit Switch	120A Voltage
10 20	36	T— Cycle Timer Option*	Blank— TYPE 1 General Purpose W— TYPE 4, 4x Weatherproof	Blank— 90° Operation M1— 90° Operation with one additional limit switch	120A— 110/120 VAC; 50/60 Hz 240A— 220/240 VAC; 50/60 Hz

NOTE: Code shows a 2036 actuator, 120 V, with TYPE 4, 4x weatherproof enclosure.

*Series 36 Actuators are available with a built-in adjustable timer for applications such as automatic draining. Refer to brochure PB 36T for information.

CAUTION: The Series 36 Actuator features a spring-loaded rotor brake to ensure positive valve position. Therefore, it must be mounted vertically or at $\pm 45^\circ$ from vertical position.

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