

WORM GEAR ACTUATOR

Val-Matic Specification

1 Scope

1.1 This specification covers the design, manufacture, and testing of quarter-turn worm gear actuators for use with AWWA butterfly, ball, and eccentric plug valves.

2. Standards, Approvals, and Verification

2.1 The actuators shall be designed, manufactured, and tested in accordance with the applicable requirements of AWWA C504, C507, and C517.

2.2 The manufacturer shall have a quality management system that is certified to ISO 9001 by an accredited, certifying body.

3 Design

3.1 Actuators shall be designed to provide smooth quarter-turn operation of valves and equipped with a 2 in. square nut requiring a maximum input torque of 150 ft-lbs or a handwheel requiring a maximum of 80 lbs rim pull.

3.2 Actuators shall be mounted to the valve actuator flange with alloy bolting and coupled to the valve stem with a precision bore and square key.

3.3 The actuator shall OPEN LEFT (counter-clockwise) unless otherwise specified.

3.4 Externally adjustable Open and Closed external stops shall be provided.

3.5 For above-ground operation, an indicator arrow and "open" and "close" markings shall be provided on the cover.

3.6 When required to reduce input torque, a spur gear assembly shall be provided.

4 Materials

4.1 The actuator housing shall be fully sealed and constructed of gray or ductile iron. The actuator mechanism shall include a ductile iron or bronze worm gear, alloy steel worm. Buried service units shall be packed 90% with grease.

5 Options

5.1 When specified, a Limit Switch and Position Indicator Assembly shall be mounted to the actuator cover and coupled to the valve stem with a dowel pin and flexible coupling. Four (4) SPDT 10-amp micro switches limit shall be pre-wired to numbered terminals and provided in an aluminum NEMA 4X housing with a 3/4" NPT conduit connection.

6 Manufacture

6.1 The exterior of the actuator shall be coated with primer with a dry film thickness of 3 mils.

6.2 Worm Gear actuators shall be Series WG as manufactured by Val-Matic Valve & Mfg. Corp., Elmhurst, IL USA or approved equal.

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DATE 8-28-09

The logo for Val-Matic, featuring the word "VAL" in a large, bold, sans-serif font, followed by "MATIC" in a smaller, bold, sans-serif font. A registered trademark symbol (®) is located to the upper right of "MATIC".

VALVE AND MANUFACTURING CORP.

DRWG. NO.

VM-WG-S