

# Industrial Electric Butterfly Valve

With quarter-turn electric actuator

## Principle of Operation

The electric motor drives an epicyclical gear train via a spur reduction. The epicyclical gear train has a single compound planetary gear which meshes with two internally toothed gears, one being the fixed annulus and the other being the output gear. The fixed annulus gear has external helical teeth meshing with a transversely mounted worm gear, thus locking the annulus into a fixed position. The worm gear can drive the annulus; eliminating the need for a declutch mechanism to enable manual operation.



*Electric Butterfly Valve*

Actuator position is controlled with a position sensor directly coupled to the actuator's output drive.

## Electrical Operation

Clockwise or counter-clockwise rotation may be selected during actuator setup. An open or close electrical command will cause the actuator to move to the extreme end of travel or to a partial position.

## Manual Operation

Manual operation can be utilized when there is no power to the actuator or during initial actuator setup and calibration. The manual operating device is completely independent of the motor drive and can be operated at any time (even during electrical operation) without endangering the actuator. The handwheel does not rotate during electrical operation.

To close the valve, turn the handwheel clockwise.

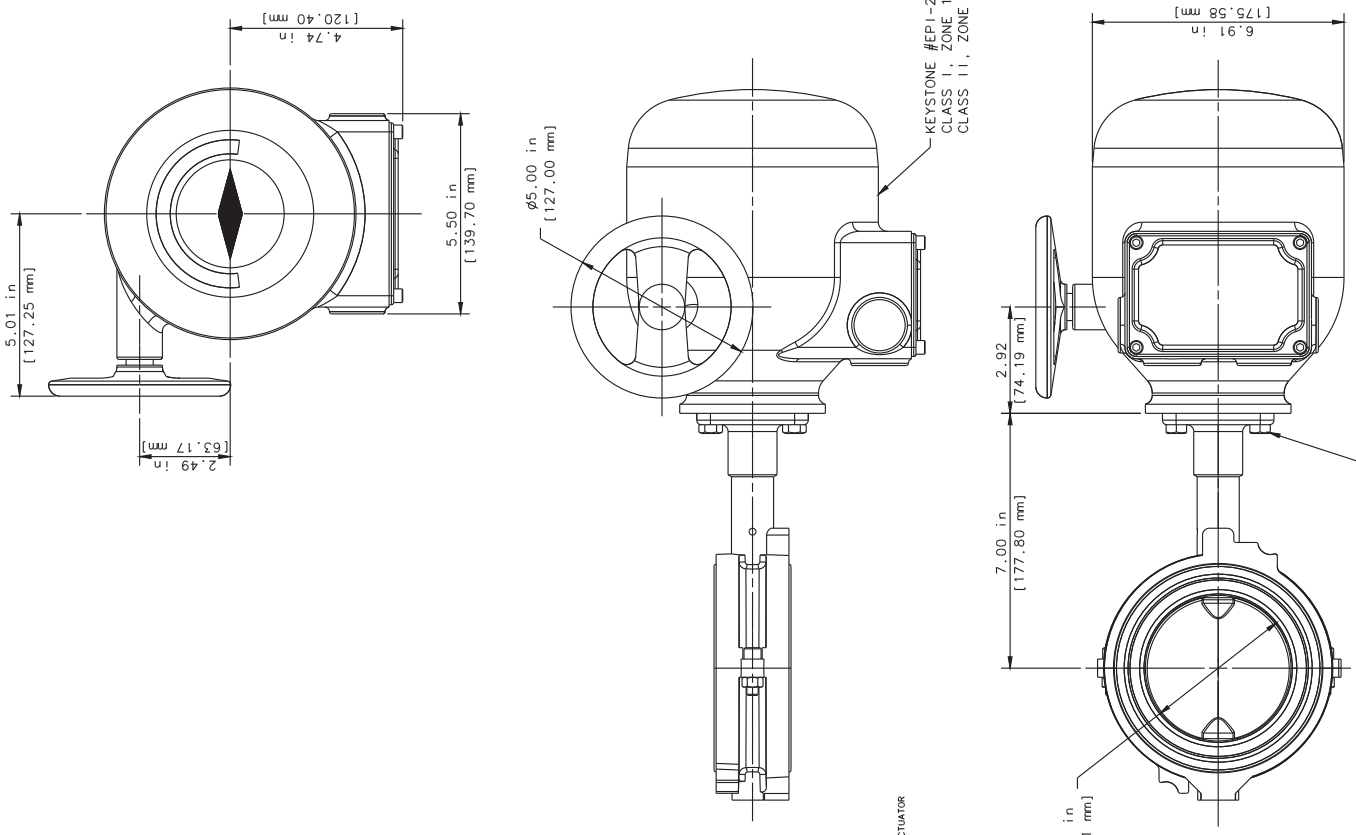
To open the valve, turn the handwheel counter-clockwise.

If the handwheel is used during electrical operation the actuator will stop.

| SPECIFICATIONS   |  |      |                    |      |
|------------------|--|------|--------------------|------|
| Valve Size       | 4"   |      | 8"                 |      |
| Actuator         | EPI 2-E013   |      | EPI 2-E025         |      |
| Torque (in/lbs.) | 1300   |      | 2500               |      |
| Volts (AC)       | 120  | 240  | 120                | 240  |
| Run Amps         | 1.10   | 0.70 | 1.60               | 0.95 |
| Stall Amps       | 1.32   | 0.84 | 1.92               | 1.14 |
| Weight           | 29 lbs. (13.2 kg.)   |      | 45 lbs. (20.4 kg.) |      |
| Pressure Rating  | 125/150 PSI (8.6/10.3 BAR)   |      |                    |      |
| Power            | 120/240 VAC, 50/60Hz., 1-Phase   |      |                    |      |
| Operating Temp   | -40°F to +149°F (-40°C to +65°C) with 80% humidity   |      |                    |      |
| Material         | 316 Stainless Steel Body, Shaft, & Valve Disc<br>Aluminum Actuator and Handwheel   |      |                    |      |
| Certifications   | FM Approved: Class I, Zone 1, AEx/Ex de IIB T5<br>Class II, Division 1, Groups E, F, & G<br>Class III, T4<br>NEMA 4, 4X, & 6 - IP66/68 |      |                    |      |

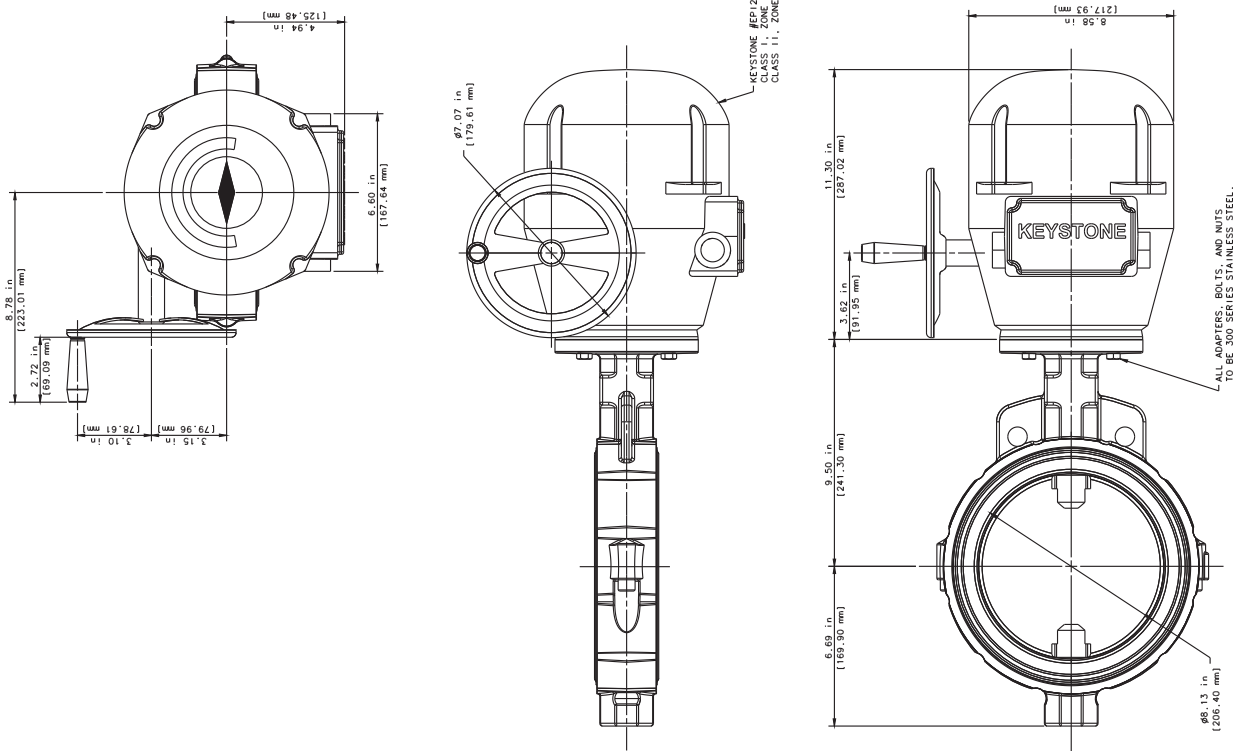
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## 4" EPI 2-E013



ALL ADAPTERS, BOLTS, AND NUTS TO BE 300 SERIES STAINLESS STEEL.

## 8" EPI 2-E025



ALL ADAPTERS, BOLTS, AND NUTS TO BE 300 SERIES STAINLESS STEEL.