

AWWA
C540-93

CSA[®]
C 201383 US
TYPE 4, 4X

WE Series Weatherproof
CSA Approved TYPE 4 & 4X IP67

SIL[✓]
IEC 61508 / IEC 61511



KE Series
Weatherproof IP67

XE Series Explosion Proof
ATEX/IECEx Certified
Ex db IIB T4 Gb
Ex tb IIIC T135°C Db
IP67



XC Series
CSA Explosion Proof
Class I, Division 1, Group C & D, T4
Ex d IIB T4 Gb
Class I, Zone 1, AEx d IIB T4 Gb

CSA[®]
C 258948 US
TYPE 4, 4X, 6 & 7

Ex
II 2 G
II 2 D
IECEx

KE Series

ELECTRIC ACTUATORS



Standard Features

- Convex lens visual position indicator makes it easier to observe without water collecting on the surface of the indicator
- Anti-condensation heater
- Two auxiliary limit switches
- Self-locking gear train
- Manual override with wrench
- Available motor voltages: 12VDC, 24VDC, 120VAC & 220VAC
- Optional 4-20mA & 0-10 VDC proportional control
- Duty Cycle (IEC60034-1), 50% max torque at 25°C/77°F
 - On/Off – S2 continuous 15 minutes max
 - Modulating – S4 intermittent, 50%, 1200 starts per hour
- Temperature Range: -4° F to 140° F

Triac KE Series Actuators

The Triac KE Series electric actuators are the perfect match for resilient or high-performance butterfly valves and dampers because of the self-locking worm drive. The KE Series actuators are used to control rotary valves, such as butterfly valves, ball valves, plug valves, etc. Widely used in applications such as petroleum, chemical, water treatment, ship, paper, power stations, heating supply, building automation, light industry etc.

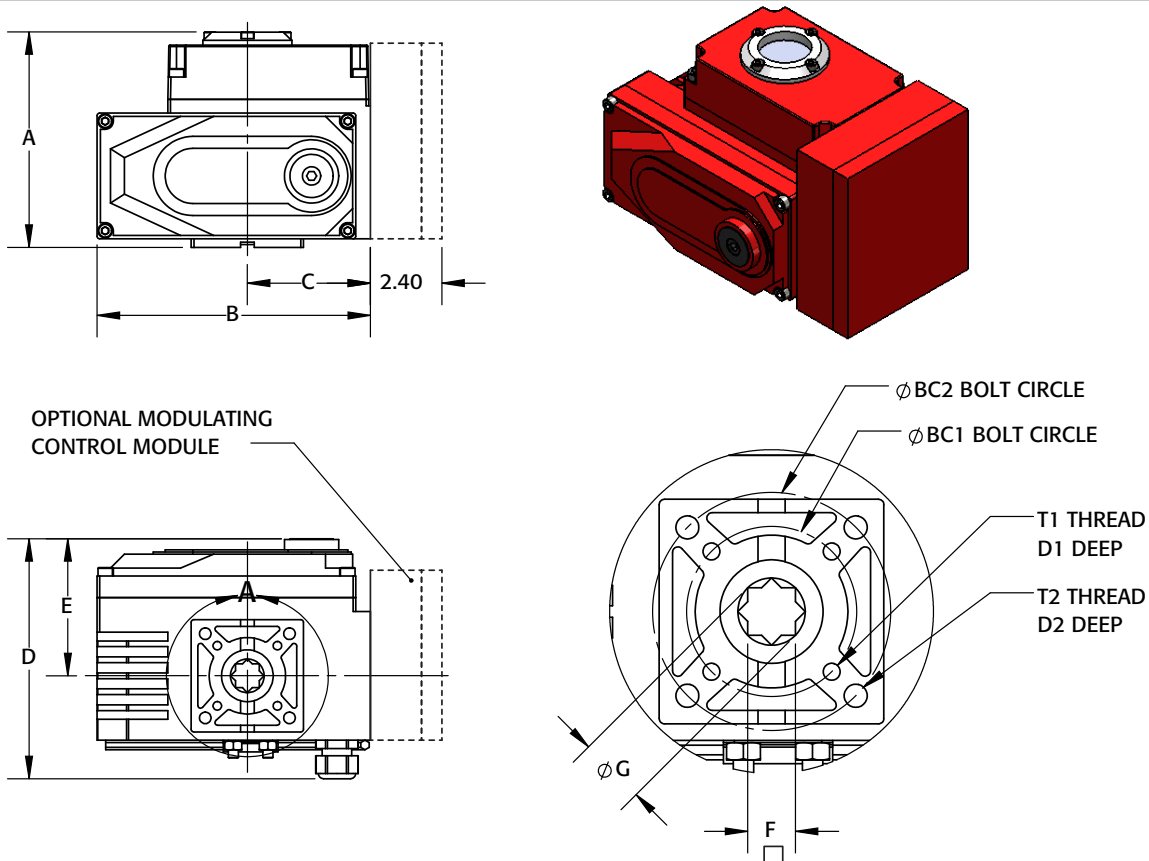


*Unique low profile actuator,
ideal for tight spaces*



Dimensional Drawing

KE-440 to -3500



KE SERIES Dimensions (IN)

| Model | A | B | C | D | E | Mounting Pad | | | | | | | | |
|---------|------|-------|------|------|------|--------------|-------------------|------|-------|-------|-----------|-----|------------|-----|
| | | | | | | ISO 5211 | F | G | BC1 | BC2 | T1 | D1 | T2 | D2 |
| KE-440 | 5.14 | 6.74 | 3.07 | 5.44 | 3.12 | F05/F07 | 0.551 x 0.67 Deep | 0.76 | 1.969 | 2.756 | M6 x 1 | 0.4 | M8 x 1.25 | 0.5 |
| KE-880 | 5.31 | 7.69 | 3.50 | 6.24 | 3.43 | F05/F07 | 0.669 x 0.89 Deep | 0.92 | 1.969 | 2.756 | M6 x 1 | 0.4 | M8 x 1.25 | 0.5 |
| KE-1700 | 6.65 | 11.63 | 4.93 | 8.37 | 4.57 | F10/F12 | 1.063 x 1.28 Deep | 1.47 | 4.016 | 4.921 | M10 x 1.5 | 0.6 | M12 x 1.75 | 0.7 |
| KE-3500 | 6.65 | 11.63 | 4.93 | 8.37 | 4.57 | F10/F12 | 1.063 x 1.28 Deep | 1.47 | 4.016 | 4.921 | M10 x 1.5 | 0.6 | M12 x 1.75 | 0.7 |

KE Motor Technical Data

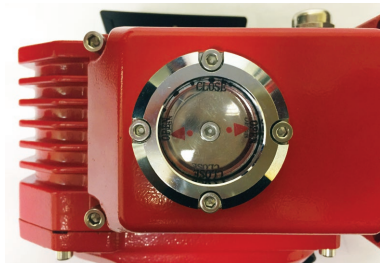
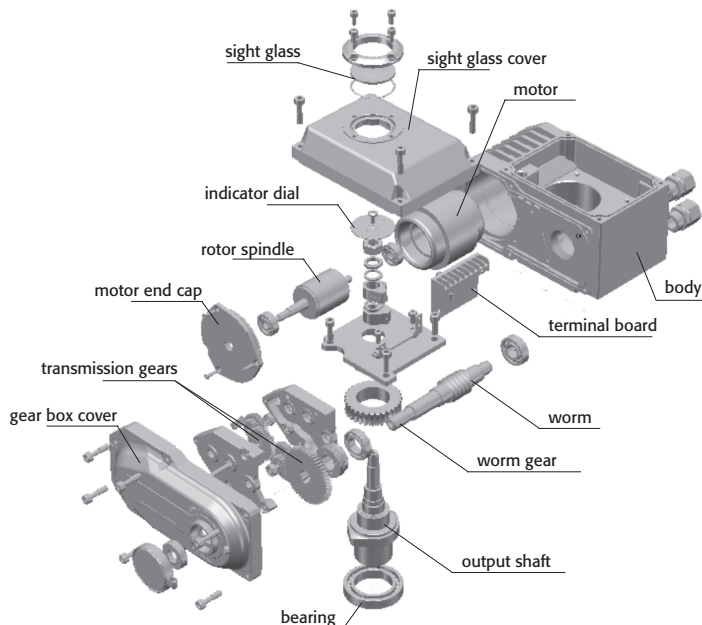
| Actuator Model | Maximum Load Torque | | Speed, sec/90° | | | | Rated Current | | | | Lbs |
|----------------|---------------------|-----|----------------|-------|-----|-----|---------------|-----|---------|--------|-----|
| | | | AC | | DC | | DC | | 1 Phase | | |
| | In-Lbs | Nm | 50 Hz | 60 Hz | 12V | 24V | 12V | 24V | 110VAC | 220VAC | |
| KE-440 | 440 | 50 | 15 | 13 | 25 | 20 | 3.0 | 1.8 | 1.2 | 0.65 | 7.5 |
| KE-880 | 880 | 100 | 15 | 13 | 25 | 20 | 5.3 | 2.8 | 1.3 | 0.9 | 12 |
| KE-1700 | 1700 | 200 | 20 | 17 | N/A | 20 | N/A | 7.5 | 1.3 | 0.6 | 21 |
| KE-3500 | 3500 | 400 | 20 | 17 | N/A | 30 | N/A | 7.5 | 2.5 | 1.2 | 21 |

A-T Controls reserves the right to change product designs and technical/dimensional specifications without notice.

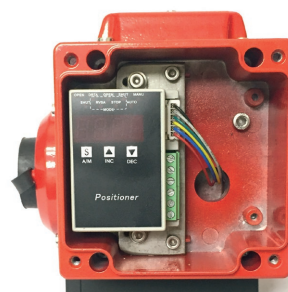
KE Series

ELECTRIC ACTUATORS

KE Series Actuators



Convex lens visual position indicator



4-20mA/0-10 VDC Modulating Control Module

TRIAC® KE Series Electric Actuator Part Number Reference

| 1. Model | |
|----------|--------------------------------------|
| KE | Weather-Proof IP67 Electric Actuator |

| 2. Main Control | |
|-----------------|---|
| Blank | (2) Position Control (Open / Close) |
| M | Standard Modulating Control Card with transmitter |
| E | Ethernet/IP (go to 3) |
| P | Profibus DP (go to 3) |
| R | Modbus RTU Single Channel (go to 3) |
| T | Modbus/TCP (go to 3) |
| U | Modbus RTU Dual Channel Isolated (go to 3) |
| 4 | TMC4 Modulating Card |

| 3. Main Control Type (with Communication Option) | |
|--|--|
| Blank | No Communication Control Type |
| A | Communication Control, Proportional Control/Feedback |
| B | Communication Control, (2) Position Control (Open/Close) |

| 4. Actuator Sizes | |
|-------------------|-------------|
| 440 | 440 In-Lbs |
| 880 | 880 In-Lbs |
| 1700 | 1700 In-Lbs |
| 3500 | 3500 In-Lbs |

| 5. Motor | |
|----------|--|
| X | 110/120VAC/1PH Place holder only - omit when at end of the part number |
| A | 24VDC On/Off (includes motor reversing control card) |
| C | 24VDC (DC motor only unless with 2 - Main Control option) |
| N | 12VDC/VAC On/Off (Size 440 & 880 only) (includes motor reversing control card) |
| B | 12VDC (DC motor only unless with 2 - Main Control option) |
| D | 24VAC/1PH |
| E | 220VAC/1PH |

| 6. Secondary Control Options | |
|------------------------------|--|
| X | No options/Standard - Omit when at end of the part number |
| B | Semi-Integral Control |
| D | Local/Remote Control |
| E | RCT Electronic Speed Control ⁽¹⁾ (both directions standard) |
| F | AMI AC Motor Interface & Speed Control |
| G | AST Sequence Timer |
| HS1 | High Speed |
| R | 2-Wire Control ⁽¹⁾ (110 VAC control voltage) |
| S | 2-Wire Control ⁽¹⁾ (24 VAC control voltage) |
| T | 2-Wire Control ⁽¹⁾ (24 VDC control voltage) |

| 7. Miscellaneous Options 1 | |
|----------------------------|---|
| Blank | No designation, Actuator Series Standard |
| X | Multiple Option Designation |
| T | 0-10VDC or 4-20mA Transmitter (On/Off) |
| N | 1000 Ohm Potentiometer |
| G | General I/O Module (with TMC4 only, CF for options) |
| Y | 180° Operation |
| Z | 270° Operation |

other options available upon request

⁽¹⁾ Use 10 Miscellaneous Options 2 to specify direction

| 8. Conduit Thread Options | |
|---------------------------|--|
| Blank | No designation, Actuator Series Standard |
| X | Multiple Option Designation |
| M | M20 |

| 9. Drive Bushing | |
|------------------|--|
| Blank | No designation, Actuator Series Standard |
| X | Multiple Option Designation |

| 10. Miscellaneous Options 2 | |
|-----------------------------|--|
| Blank | No designation, Actuator Series Standard |
| X | Multiple Option Designation |
| L | CCW Operation |
| R | CW Operation |
| S | 125 g Shock Configuration |
| P | Non Standard Coating Color |

other options available upon request

| HOW TO ORDER ELECTRIC ACTUATORS | | | | | | | | | | | |
|---------------------------------|---|---|---|-----|---|---|---|---|---|---|----|
| 1 | 2 | 3 | - | 4 | 5 | 6 | 7 | - | 8 | 9 | 10 |
| ↓ | ↓ | ↓ | | ↓ | ↓ | ↓ | ↓ | | ↓ | ↓ | ↓ |
| KE | M | | - | 440 | X | X | X | - | X | - | X |
| | | | | | | | | | | | |

Example

KEM-880

Triac Worm Drive Electric Actuator, Weather-Proof IP67, 880 In-Lbs Torque Output, 13 Sec Cycle Speed, 110VAC/1PH, 0.75 Rated Amps, Modulating Control, (2) Auxiliary Limit Switches, Heater & Thermostat, Diecast Aluminum Powder Coated Construction, Manual Override with Wrench, (2) 1/2" NPT Conduit Entries, F05, F07, F10 Mounting Pad, 0.669 (17MM) Star Output Drive