## Electric Actuator Type CE

Electronic Failsafe $30 / 40 \mathrm{Nm}$ IP55/66
ELODRIVE-Actuators are intended to be used for the operation of dampers, valves and other process control elements. The CE-Series of actuators (Brand name: EloSafe ${ }^{\ominus}$ ) are equipped with an electronic failsafe solution that ensures a torque constant opening or closing of the damper or valve in case of a power supply interuption. The necessary energy for the failsafe operations is stored within the actuator. Direct mounting of the actuators onto the damper shafts is achieved via the centric clamping adapter. An enclosed anti-rotation strap ensures that the actuator remains in a defined position.
The maximum rotation angle is $95^{\circ}$.
The following applies for all models of the product line CE:

## General Conception

- One size for all types
- Identical accessories for all models

■ Identical control functionality for all models

- Homogeneous control and voltage variants for all models
■ Universal wiring schematics


## Adaption possibilities

■ centric clamping adapter as a standard feature

- Form fit adapters available in different sizes


## Motor and Gear Concept

- Brushless DC-Motor - no wear and tear

■ Constant running time, independent of load
■ Constant torque throughout the entire operating range
■ Synchronized parallel operation

- Very quiet operating

■ 100\% self-locking

## Control Concept

■ Wide supply voltage range (120/230V AC)
■ Automatic shutoff either when reaching programmed hard-stop or when reaching mechanical end-stop
■ No return voltage

## Adaptation possibilities

- Centric clamping adapter as a standard feature
■ Form fit adapter available in different sizes
■ Special solutions for aggressive environments available upon request


## Housing Design

■ Protection degree IP55 and IP66 without additional encasement
■ Direct mounting even in limited spaces
■ Positioning of the actuator can be achieved either via the enclosed antirotation strap or by using additional screws

| Torque | Supply voltage | Type / Order-No. |  | Power consumption |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Protection Degree IP55 | Protection Degree IP66 | Maximum | Operation | Stop |
| On/Off |  |  |  |  |  |  |
| 30 Nm | 24V AC/DC | E-CE-30A1E <br> E-CE-30D1E | E-CEP-30A1E <br> E-CEP-30D1E | $\begin{aligned} & 45,0 \mathrm{VA} / \\ & 30,0 \mathrm{~W} \end{aligned}$ | $\begin{aligned} & 15,0 \mathrm{VA} / \\ & 10,0 \mathrm{~W} \end{aligned}$ | $\begin{aligned} & 4,0 \mathrm{VA} / \\ & 2,0 \mathrm{~W} \end{aligned}$ |
| 30 Nm | 120/230V AC | E-CE-30A2E <br> E-CE-30D2E | E-CEP-30A2E <br> E-CEP-30D2E | $\begin{aligned} & 45,0 \mathrm{VA} / \\ & 30,0 \mathrm{~W} \end{aligned}$ | $\begin{aligned} & 15,0 \mathrm{VA} / \\ & 10,0 \mathrm{~W} \end{aligned}$ | $\begin{aligned} & 4,0 \mathrm{VA} / \\ & 2,0 \mathrm{~W} \end{aligned}$ |
| 40 Nm | 24V AC/DC | E-CE-40A1E <br> E-CE-40D1E | E-CEP-40A1E <br> E-CEP-40D1E | $\begin{aligned} & 45,0 \mathrm{VA} / \\ & 30,0 \mathrm{~W} \end{aligned}$ | $\begin{aligned} & 15,0 \mathrm{VA} / \\ & 10,0 \mathrm{~W} \end{aligned}$ | $\begin{aligned} & 4,0 \mathrm{VA} / \\ & 2,0 \mathrm{~W} \end{aligned}$ |
| 40 Nm | 120/230V AC | E-CE-40A2E <br> E-CE-40D2E | E-CEP-40A2E <br> E-CEP-40D2E | $\begin{aligned} & 45,0 \mathrm{VA} / \\ & 30,0 \mathrm{~W} \end{aligned}$ | $\begin{aligned} & 15,0 \mathrm{VA} / \\ & 10 \mathrm{~W} \end{aligned}$ | $\begin{aligned} & 4,0 \mathrm{VA} / \\ & 2,0 \mathrm{~W} \end{aligned}$ |
| Floating Point |  |  |  |  |  |  |
| 30 Nm | 24V AC/DC | E-CE-30F1E | E-CEP-30F1E | 45,0 VA/30 W | $15 \mathrm{VA} / 10 \mathrm{~W}$ | $4 \mathrm{VA} / 2 \mathrm{~W}$ |
| 30 Nm | 120/230V AC | E-CE-30F2E | E-CEP-30F2E | $45 \mathrm{VA} / 30 \mathrm{~W}$ | $15 \mathrm{VA} / 10 \mathrm{~W}$ | $4 \mathrm{VA} / 2 \mathrm{~W}$ |
| 40 Nm | 24 V AC/DC | E-CE-40F1E | E-CEP-40F1E | $45 \mathrm{VA} / 30 \mathrm{~W}$ | $15 \mathrm{VA} / 10 \mathrm{~W}$ | $4 \mathrm{VA} / 2 \mathrm{~W}$ |
| 40 Nm | 120/230 V AC | E-CE-40F2E | E-CEP-40F2E | $45 \mathrm{VA} / 30 \mathrm{~W}$ | $15 \mathrm{VA} / 10 \mathrm{~W}$ | $4 \mathrm{VA} / 2 \mathrm{~W}$ |
| Proportional 0/2...10V |  |  |  |  |  |  |
| 30 Nm | 24V AC/DC | E-CE-30P1E | E-CEP-30P1E | $45 \mathrm{VA} / 30 \mathrm{~W}$ | $15 \mathrm{VA} / 10 \mathrm{~W}$ | $4 \mathrm{VA} / 2 \mathrm{~W}$ |
| 30 Nm | 120/230V AC | E-CE-30P2E | E-CEP-30P2E | $45 \mathrm{VA} / 30 \mathrm{~W}$ | $15 \mathrm{VA} / 10 \mathrm{~W}$ | $4 \mathrm{VA} / 2 \mathrm{~W}$ |
| 40 Nm | 24V AC/DC | E-CE-40P1E | E-CEP-40P1E | $45 \mathrm{VA} / 30 \mathrm{~W}$ | $15 \mathrm{VA} / 10 \mathrm{~W}$ | $4 \mathrm{VA} / 2 \mathrm{~W}$ |
| 40 Nm | 120/230 V AC | E-CE-40P2E | E-CEP-40P2E | $45 \mathrm{VA} / 30 \mathrm{~W}$ | $15 \mathrm{VA} / 10 \mathrm{~W}$ | $4 \mathrm{VA} / 2 \mathrm{~W}$ |





Highlights of the EloSafe series of actuators:
■ $100 \%$ self-locking even without voltage

- Full specified torque throughout the entire $90^{\circ}$ failsafe function
- Remains in a defined fail-safe position with $100 \%$ self-locking
- Failsafe function also possible when control signal ( $2 . . .10 \mathrm{~V}$ ) is missing
- 2 On/Off versions available Function: CE.-..A
Drives On (90 s / 90 ${ }^{\circ}$ )
Failsafe: $<60 \mathrm{~s} / 90^{\circ}$
Function CE.-..D:
Drives On/Off
(standard operation) $90 \mathrm{~s} / 90^{\circ}$ $\varangle$
Failsafe: approx. $60 \mathrm{~s} / 90^{\circ}$ $\varangle$


## Nomenclature



## Scope of delivery

- Centric clamp adapter
- integrated position indicator
- Anti rotation strap
- Allen key
- Operation manual


## Available accessories

■ Form fit adapter on request

- Position indicator


Position indicator

| Technical Data Electric Actuator Type CE |  |  |
| :---: | :---: | :---: |
| Characteristic | 24 V | 120/230V |
| Nominal voltage | AC $24 \mathrm{~V}+$ /- $20 \%, 50 / 60 \mathrm{~Hz}$, DC 24 to $36 \mathrm{~V}+/-10 \%$ | AC 90 to $264 \mathrm{~V}, 50 / 60 \mathrm{~Hz}$ |
| Protection class | III (SELV, safety low voltage) | Il protective insulation |
| Starting current | Max. 6 A | Max. 6 A |
| Actuator features at 24 V and 120/230 V Connection voltage |  |  |
| Synchronization | +/-5\% |  |
| Rotation direction | Selectable via switch L/R (CCW/CW) or by L/R mounting |  |
| Angle of rotation | Max. $95^{\circ}$ |  |
| Manual adjustment | One-handed positioning - without disengaging of gears |  |
| Shaft mounting | O¢ 12-26mm |  |
| Running time | $90 \mathrm{~s}(+/-5 \%)$, during normal operation; independent of load; Failsafe operations approx. 60 s |  |
| Failsafe operations | $\leq 10.000$ |  |
| Position indicator | Mechanical |  |
| Noise emission level | $<35 \mathrm{~dB}$ (A), Failsafe operation approx. $<60 \mathrm{~dB}(\mathrm{~A})$ |  |
| Ambient temperature | -20 to $+50^{\circ} \mathrm{C}$ |  |
| Storage temperature | -40 to $+70^{\circ} \mathrm{C}$ |  |
| Ambient humidity | 5 to 95\% rH |  |
| Function | Type 1 (EN 60730-1) |  |
| Norm conformity | EN60730-1, EN60730-2, EN55022 Class B, EN55014, EN61000 |  |
| Weight | approx. 2500 g (depends on version) |  |
| Maintenance | maintenance free |  |
| On/Off |  |  |
| Connection Cable (A-Types) | $2 \times 0,75 \mathrm{~mm}^{2}, 0,9 \mathrm{~m}$ length |  |
| Wiring schematics On/Off (A-Types) |  | $\mathrm{N}_{12}^{120 / 230 \mathrm{~V} \mathrm{AC}}: \overbrace{2}^{11}$ |
| Connection Cable (D-Types) | $3 \times 0,75 \mathrm{~mm}^{2}, 0,9 \mathrm{~m}$ length |  |
| Wiring schematics Auf/Zu (D-Typen) | $\begin{array}{l:l} \hline 24 \mathrm{~V} \text { AC/DC } \\ 1-\square & \underbrace{1}_{1} \\ \sim \\ 2 \end{array}$ | $\stackrel{N}{11}_{120 / 230 \mathrm{~V} \mathrm{AC}}^{\mathrm{N}}: \\|_{3}^{1}$ |
| Floating Point |  |  |
| Connection Cable | $4 \times 0,75 \mathrm{~mm}^{2}, 0,9 \mathrm{~m}$ length |  |
| Wiring schematics Floating Point |  |  |
| Proportional 0/2...10V |  |  |
| Working area | $0 \ldots 10 \mathrm{~V}$ or $2 \ldots 10 \mathrm{~V}$ selectable via switch or $24 \mathrm{~V} \mathrm{AC/DC}$ override function (on/off) |  |
| Input resistance | >100 k $\Omega$ |  |
| Output signal | DC 0/2...10V for 0...100\% |  |
| Connection Cable | $4 \times 0,75 \mathrm{~mm}^{2}, 0,9 \mathrm{~m}$ length | $5 \times 0,75 \mathrm{~mm}^{2}, 0,9 \mathrm{~m}$ length |
| Wiring schematics Proportional 0/2...10V (Input till 24 V ) |  |  |
| Wiring Schematics |  |  |
| Integrated auxiliary switches |  | -51 |
| Integrated potentiometer |  | $]^{\text {P1K }}$ |

