

# Electric Actuator Type BE

Electronic Failsafe 10/15 Nm IP55/66

ELODRIVE-Actuators are intended to be used for the operation of dampers, valves and other process control elements. The **BE-Series** of actuators (Brand name: **EloSafe**) 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 interruption. 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°.

The following applies for all models of the product line B:

## 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

## Operational Functionality

- Simple one-handed manual positioning
  - no disengaging of gears required
- Direction of rotation (CW or CCW) and also signal 0...10V and 2...10V selectable via switch

## 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

## 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 anti-rotation strap or by using additional screws




## Highlights of the EloSafe series of actuators:

- 100% self-locking even without voltage
- Full specified torque throughout the entire 90° failsafe function
- Remains in a defined fail-safe position with 100% self-locking
- Failsafe function also possible when control signal (2...10 V) is missing
- 2 On/Off versions available

### Function BE-...A:

Drives On (90 s / 90°)

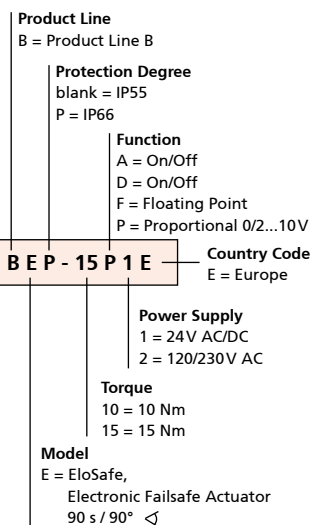
Failsafe: 90° approx. 60 s

**Function BE-...D:** Drives On/Off (standard operation) 90 s / 90° <

Failsafe: approx. 30 s / 90° <

Torque	Supply voltage	Type / Order-No.		Power consumption		
		Protection Degree IP55	Protection Degree IP66	Maximum	Operation	Stop
<b>On/Off</b>						
10 Nm	24V AC/DC	E-BE-10A1E E-BE-10D1E	E-BEP-10A1E E-BEP-10D1E	20,0 VA / 14,0 W	9,0 VA / 6,0 W	3,0 VA / 2,0 W
10 Nm	120/230V AC	E-BE-10A2E E-BE-10D2E	E-BEP-10A2E E-BEP-10D2E	20,0 VA	12,0 VA	2,0 VA
15 Nm	24V AC/DC	E-BE-15A1E E-BE-15D1E	E-BEP-15A1E E-BEP-15D1E	20,0 VA / 14,0 W	9,0 VA / 6,0 W	3,0 VA / 2,0 W
15 Nm	120/230V AC	E-BE-15A2E E-BE-15D2E	E-BEP-15A2E E-BEP-15D2E	20,0 VA	12,0 VA	2,0 VA
<b>Floating Point</b>						
10 Nm	24V AC/DC	E-BE-10F1E	E-BEP-10F1E	20,0 VA / 14,0 W	9,0 VA / 6,0 W	3,0 VA / 2,0 W
10 Nm	120/230V AC	E-BE-10F2E	E-BEP-10F2E	20,0 VA	12,0 VA	2,0 VA
15 Nm	24V AC/DC	E-BE-15F1E	E-BEP-15F1E	20,0 VA / 14,0 W	9,0 VA / 6,0 W	3,0 VA / 2,0 W
15 Nm	120/230V AC	E-BE-15F2E	E-BEP-15F2E	20,0 VA	12,0 VA	2,0 VA
<b>Proportional 0/2...10V</b>						
10 Nm	24V AC/DC	E-BE-10P1E	E-BEP-10P1E	20,0 VA / 14,0 W	9,0 VA / 6,0 W	3,0 VA / 2,0 W
10 Nm	120/230V AC	E-BE-10P2E	E-BEP-10P2E	20,0 VA	12,0 VA	2,0 VA
15 Nm	24V AC/DC	E-BE-15P1E	E-BEP-15P1E	20,0 VA / 14,0 W	9,0 VA / 6,0 W	3,0 VA / 2,0 W
15 Nm	120/230V AC	E-BE-15P2E	E-BEP-15P2E	20,0 VA	12,0 VA	2,0 VA

## Nomenclature



### Scope of delivery

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

### Available accessories

Crank arm



Foot mounting bracket



Form fit adapter



Anti rotation strap



Auxilliary switches and Potentiometers



### Technical Data Electric Actuator Type BE

Characteristic	24V	120/230V
Nominal voltage	AC 24V +/- 20%, 50/60 Hz, DC 24 to 36V +/- 10%	AC 90 to 264V, 50/60 Hz
Protection class	III (SELV, safety low voltage)	II protective insulation
Starting current	max. 14 A at impulse width 5 ms	max. 5 A at impulse width 5 ms
<b>Actuator features at 24V and 120/230V Connection voltage</b>		
Synchronization	+/- 5%	
Rotation direction	Selectable via switch L/R (CCW/CW) or by L/R mounting	
Angle of rotation	Max. 95°	
Manual adjustment	One-handed positioning - without disengaging of gears	
Shaft mounting	Centered, $\varnothing 8 - 20$ mm	
Running time	90 s (+/- 5%), during normal operation; independent of load; Failsafe operations approx. 30 s A-Types: approx. 60 s	
Failsafe operations	≤ 10.000	
Position indicator	Mechanical	
Noise emission level	< 35 dB (A), Failsafe operation approx. < 60 dB (A)	
Ambient temperature	-20 to +50°C	
Storage temperature	-40 to +70°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. 950 g - 1100 g (depends on version)	
Maintenance	maintenance free	
<b>On/Off</b>		
Connection Cable (A-Types)	2x0,75 mm <sup>2</sup> , 0,9 m length	
Wiring schematics On/Off (A-Types)		
Connection Cable (D-Types)	3x0,75 mm <sup>2</sup> , 0,9 m length	
Wiring schematics On/Off (D-Types)		
<b>Floating Point</b>		
Connection Cable	4x0,75 mm <sup>2</sup> , 0,9 m length	
Wiring schematics Floating Point		
<b>Proportional 0/2...10V</b>		
Working area	0...10 V or 2...10 V selectable via switch or 24 V override function (on/off)	
Input resistance	>100 kΩ	
Output signal	DC 0/2...10V for 0...100%	
Connection Cable	4x0,75 mm <sup>2</sup> , 0,9 m length	5x0,75 mm <sup>2</sup> , 0,9 m length
Wiring schematics Proportional 0/2...10V (Input till 24 V)		

All dimensions in mm

