

# Electric Actuator Type CS

Spring Return 20 Nm, IP55/IP66

ELODRIVE-Actuators are intended to be used for the operation of dampers, valves and other process control elements. The CS-Series of actuators are equipped with a mechanical spring that ensures a failsafe opening or closing of the damper or valve in case of a power supply interruption. 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 CS:

## 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

- Centric clamping adapter
- 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

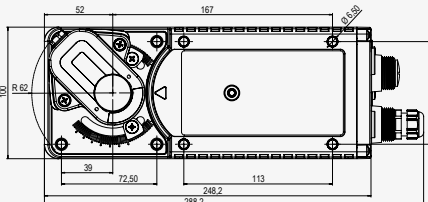
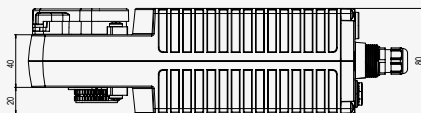
- Centric clamping adapter as a standard feature
- Form fit adapter available in different sizes
- Special solutions for aggressive environments available upon request

## 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 anti-rotation strap or by using additional screws




Torque	Supply voltage	Type / Order-No.		Power consumption
		Protection Degree IP55	Protection Degree IP66	Operation
<b>On/Off</b>				
20 Nm	24 V AC/DC	E-CS-20A1E	E-CSP-20A1E	20 VA / 12 W
20 Nm	120/230V AC	E-CS-20A2E	E-CSP-20A2E	24 VA / 16 W
<b>Floating Point</b>				
20 Nm	24 V AC/DC	E-CS-20F1E	E-CSP-20F1E	20 VA / 12 W
20 Nm	120/230V AC	E-CS-20F2E	E-CSP-20F2E	24 VA / 16 W
<b>Proportional 0/2...10V</b>				
20 Nm	24 V AC/DC	E-CS-20P1E	E-CSP-20P1E	24 VA / 16 W
20 Nm	120/230V AC	E-CS-20P2E	E-CSP-20P2E	24 VA / 16 W



All dimensions in mm

## Nomenclature

Product Line  
C = Product Line C

Protection Degree  
blank = IP55  
P = IP66

Function  
A = On/Off  
F = Floating Point  
P = Proportional 0/2...10V

Country Code  
E = Europe

**C S P - 20 P 1 E**

Power Supply  
1 = 24 V AC/DC  
2 = 120/230 V AC

Torque  
20 = 20 Nm

Typ  
S = Spring Return Actuator,  
90 s / 90° <

### 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 CS		
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. 6 A	
Actuator features at 24V and 120/230V Connection voltage		
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	Ø 12 – 26 mm	
Running time	90 s (+/- 5%), independent of load Spring return approx. 20 s, Roomtemperature	
Position indicator	Mechanical	
Noise emission level	< 35 dB (A), Spring return < 60 dB (A)	
Ambient temperature	-30 to +50°C	
Storage temperature	-40 to +80°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	
<b>On/Off</b>		
Connection Cable	2x0,75 mm <sup>2</sup> , 0,9 m length	
Wiring schematics On/Off		
<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...10V or 2...10V selectable via switch or 24 V AC/DC 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)		
<b>Wiring Schematics</b>		
Integrated auxiliary switches		
Integrated potentiometer		