

# Electromechanical Linear Actuators DGE-ZR

## Belt Driven

**FESTO**



## High Speed in a Compact, Protected Package

The DGE-ZR offers high speed performance up to 10 m/s in a compact, protected unit. By having the belt drive integrated within the body of the actuator, all DGE-ZR actuators offer reliable performance and predictable life. These units can be easily configured into multi-axis systems.

### Quiet Operation

The optimized tooth geometry of the DGE-ZR provides minimal tooth spacing tolerance and improved repeatability, delivering low belt noise emission and long life.

### Benefits at a Glance

- DGE linear actuators encapsulate their mechanical drives within the body of the actuator. This protects them from contamination and prevents premature failure.
- Wide range of options for third-party motor mounting kits
- Comprehensive range of mounting accessories for multi-axis combinations
- Can be used in any mounting position

### Versatile

With three guide options available, the DGE-ZR satisfies a wide variety of motion control requirements. It features open interfaces with modular handling systems, such as for motor packages and accessories. Includes assembly options and a wide range of options for mounting on drive units. A key part of Festo package solutions for the handling sector.

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### DGE-ZR Toothed Belt

#### Actuator configuration

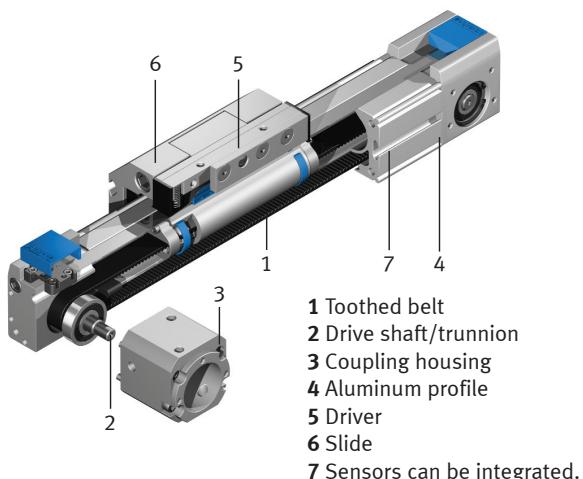
- Without guide. These actuators are ideal for moving light loads. Or, when combined with external linear guides, to move heavy loads, or to withstand high moment loads.
- With recirculating ball bearing guide, available with extended slide as an option. These actuators are used to carry a maximum load or moment in a compact space.
- Dustproof version. Guide and slide are fitted with a cover to

protect against the ingress of particles from above and the side.

- With heavy-duty guide. Used in applications where you need the lowest profile possible to withstand high moment loads.

#### Note

Use the Festo PtTool project engineering tool on CD-ROM and in the Download Software section at [www.festo.com/us](http://www.festo.com/us). It aids in project engineering and calculates the expected positioning time.



#### DGE-ZR (Electromechanical Actuator with Toothed Belt, without Guide)

Size	8	12	18	25	40	63
Guide	– (Designed for use with external guide)					
Working stroke <sup>1)</sup> [mm]	1 ... 650	1 ... 1,000	1 ... 1,000	1 ... 3,000 <sup>2)</sup>	1 ... 4,000 <sup>2)</sup>	1 ... 4,500 <sup>2)</sup>
Max. input torque [Nm]	0.08	0.18	0.5	2.6	9.7	42
Max. no-load running torque <sup>3)</sup> [Nm]	0.05	0.08	0.2	0.5	1.0	4.5
Max. speed [m/s]	1	1.5	2	5	5	5
Repeatability [mm]	±0.08		±0.1			

#### DGE-ZR-KF (Electromechanical Actuator with Toothed Belt and Recirculating Ball Bearing Guide)

Size	8	12	18	25	40	63
Guide	Recirculating ball bearing guide					
Working stroke <sup>1)</sup> Standard Slide, GK [mm]	1 ... 650	1 ... 1,000	1 ... 1,000	1 ... 3,000 <sup>2)</sup>	1 ... 4,000 <sup>2)</sup>	1 ... 4,500 <sup>2)</sup>
Working stroke <sup>1)</sup> Extended Slide, GV [mm]	–	–	1 ... 920	1 ... 2,900	1 ... 3,830	1 ... 4,250
Working stroke <sup>1)</sup> Dustproof Version, GA [mm]	–	–	–	1 ... 1,800	1 ... 1,800	–
Max. input torque [Nm]	0.08	0.18	0.5	2.6	9.7	42
Max. no-load running torque <sup>3)</sup> [Nm]	0.05	0.08	0.2	0.5	1.0	4.5
Max. speed [m/s]	1	1.5	2	3	3	3
Repeatability [mm]	±0.08		±0.1			

#### DGE-ZR-RF (Electromechanical Actuator with Toothed Belt and Internal Roller Guide)

Size	25	40	63
Guide	Internal roller guide		
Working stroke <sup>1)</sup> [mm]	1 ... 3,000	1 ... 5,000	1 ... 5,000
Max. input torque [Nm]	3.7	12.1	55.3
Max. no-load running torque <sup>3)</sup> [Nm]	0.5	1.0	4.5
Max. speed [m/s]	10		
Repeatability [mm]	±0.1		

#### DGE-ZR-HD (Electromechanical Actuator with Heavy-Duty Guide)

Size	18-HD18	25-HD25	25-HD40	40-HD40
Guide	Recirculating ball bearing guide			
Working stroke <sup>1)</sup> [mm]	1 ... 1,000	1 ... 2,000	1 ... 2,000	1 ... 2,000
Max. input torque [Nm]	0.5	2.6	2.6	9.7
Max. no-load running torque <sup>3)</sup> [Nm]	0.2	0.5	0.5	1.0
Max. speed [m/s]	3			
Repeatability [mm]	±0.08		±0.1	

1) Total stroke = working stroke + 2x stroke reserve    2) Special lengths on request    3) Measured at a speed of 0.2 m/s



#### Festo Corporation

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