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Технические характеристики на электрические цилиндры стержневого типа, электрические приводы бесштоковые, серводвигатели и приводы ELION E/809000/M, E/140000 компании IMI NORGREN



# **Norgren ELION**

## E/809000 Rod-Style Electric Actuator Range

Designed to meet our customers' requirements, our flagship range of high performance ISO standard rod-style electromechanical linear actuators are suitable for a variety of industrial applications.

We offer a one-stop shop for your electric actuation needs. Partnering with Control Techniques, a world leading servo motor & drive manufacturer, we are able to offer you a complete electric actuator solution to suit your application.

## » Accurate and Repeatable

Ball screw and servo motor provides accurate and repeatable positioning

### » Long Life

Ball screw and bearing mechanisms enable high cycle life

### » Ease of Installation

Based on ISO 15552 standard with universal mounting options

## » Performance Monitoring

Integral sensors and external switches monitor actuator performance and enable planned maintenance

### » Energy Saving

Electromechanical components efficiently convert electricity to mechanical power, only energised when movement is required, reducing energy consumption and the cost of ownership

### » Safety in Service

Servo motor with optional integrated holding brake enables actuators to self-lock when the power is isolated

## » Industries

Carefully selected materials and product specifications suitable for a variety of applications

## » Smart Configurations

Our online configurator enables quick and easy product selection based on customer application input

## » One-Stop Shop

Motors, drives and accessories are available



» 32, 40, 50, 63, 80, 100mm



» 100mm - 1500mm stroke



» Up to 30.4kN



» Max. 1.6m/s



» 0°C to +60°C Operating Temperature



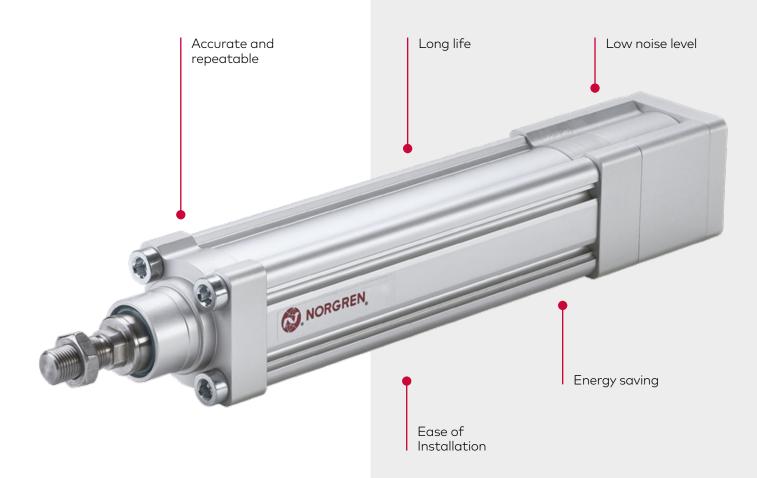
» IP65 Protection (motor only)

## **Technical Specifications:**

- » Ball screw actuators with or without servo motor
- » 6 bore sizes
- » 2 motor mounting options
- » Robust construction
- » Based on ISO 15552
- » Maintenance free
- » Built on reliable & long-life Norgren technology
- » Wide range of motors, drives & accessories

## **Optional**

- » Piston rod extension
- » Internally threaded piston rod
- » Piston rod bellows





# Norgren ELION

## E/140000 Rodless Electric Actuator Range

A range of high performance rodless electromechanical linear actuators in 4 sizes with 2 drive options: toothbelt and ball screw. The toothbelt drive provides the highest speeds and longest strokes, and the ball screw drive is capable of moving higher loads with extremely accurate and repeatable positioning.

## » Accurate and Repeatable

Drive technologies and servo motor provides accurate and repeatable positioning.

Precision ball screw and ball screw nut achieves +/- 0.05 mm. Toothbelt and pulley drive achieves +/- 0.1 mm.

## » High Speed & Fast Response

Toothbelt allows fast acceleration and a highly dynamic control with speeds up to 10m/s. A choice of gearboxes allows different speed ranges to be selected.

### » Tolerates Offset Loads

Internal guidance system counteracts load moments.

### **High Load Capability**

Precision ball screw and ball screw nut can withstand high loads.

Drive technologies and bearing mechanisms enable high cycle life.

### » Ease of Installation

Motor and gear box can be mounted in two positions, and motor can be rotated on its axis.

### » Performance Monitoring

Integral motor sensors and external switches with IO-Link capability monitor actuator performance and enable planned maintenance.

## » Energy Saving

Electromechanical drives have lower energy consumption than other motion technologies, reducing the cost of ownership.

### » Safety in Service

Servo motor with optional integrated holding brake enables actuators to self-lock when the power is isolated.

#### » Resistant to the Environment

Cover strip protects drive mechanisms from environmental factors. Carriage wipers remove contamination and guidance system is protected inside the actuator. High quality materials, surface finishes and product specifications suitable for a variety of applications.

### » Smart Configurations

Online configurator enables quick and easy product selection based on customer application input.

## » One-Stop Shop

Motors, drives and accessories are available.



» 48, 60, 80, 100 mm



- " Toothbelt 100 mm 5500 mm » Ball screw 100 mm - 2500 mm\*
- \* strokes up to 4100 mm on request



» Toothbelt 0.20 kN - 1.50 kN » Ball screw 2.5 kN - 10.2 kN



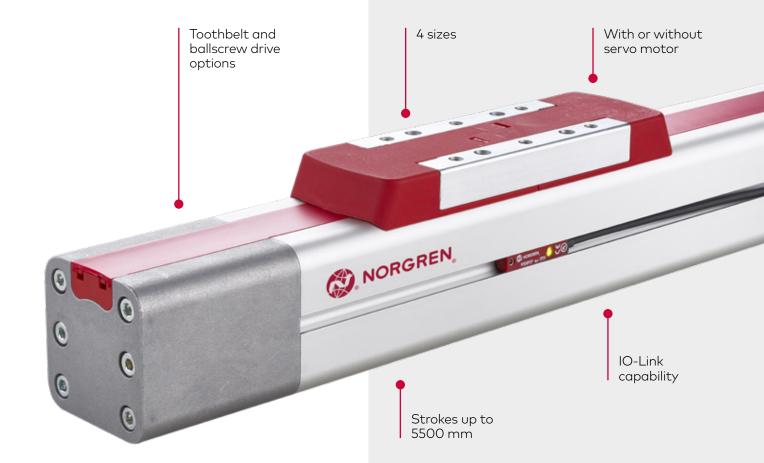
- » Toothbelt max. 10.0 m/s » Ball screw max. 1.6 m/s
- » 0°C to +60°C Operating temperature (actuator)
- » 0°C to +40°C Operating temperature (motor)



» IP65 Protection (motor only)

## **Technical Specifications:**

- » 4 sizes
- » Toothbelt and ballscrew drive options
- » With or without servo motor
- » Internal guidance
- » Environmental cover strip
- » Robust construction
- » Maintenance free
- » Built on reliable and long-life Norgren technology
- » Step-down gearbox for toothbelt version
- » Wide range of motors, drives and accessories



# **Servo Motors and Drives**

# Motors

Norgren ELION electric actuators are complemented by a range of high performance AC servo motors. Motors can be mounted axially or in parallel in four positions. With a wide torque range, from 0.16 Nm up to 10.5 Nm, and a selection of feedback options they offer the best fit for your application requirements.



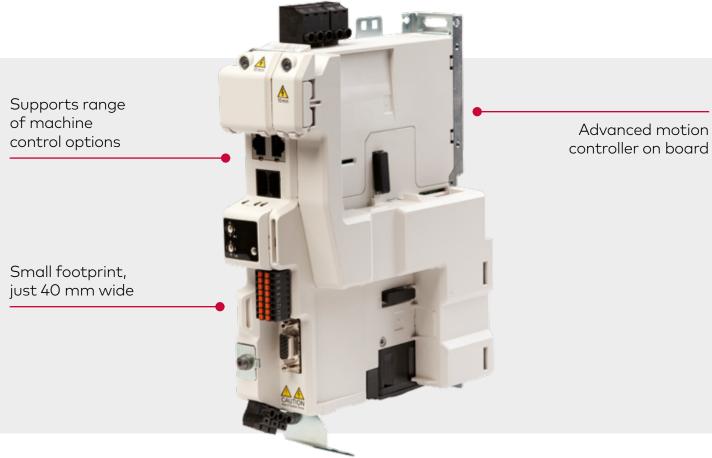
## **Technical Specifications:**

- » Torque range: from 0.16 Nm to 10.5 Nm
- » Holding brake available
- » Flange according to IEC 72-1
- » IP65 protection is standard (motor only); sealed against water spray and dust
- » Low inertia for high dynamic performance
- » Motor speeds 3000 rpm

- » UL/CUL certified
- » CE certified
- » RoHS Compliant

# **Drives & Protocols**

Norgren ELION electric actuators are also available with a range of servo drives offering maximum servo performance in a minimum size package. Optimised for highly dynamic applications, they provide the flexibility of both standalone and modular configurations. Minimal footprint and exceptional power density make them one of the smallest servo drives on the market today. This means that you can build the most compact cabinets possible.







- » Available in 3 variants, 200 V to 400 V
- » Small footprint, just 40 mm wide
- » Advanced motion controller on board
- » 250 µs cycle time
- » Built-in RS485 communication
- » Protocols include Ethernet/IP. PROFINET, PROFIBUS. EtherCAT, CANopen and DeviceNet















# **Accessories**

The Norgren ELION range electric actuators are supported by one of the largest ranges of accessories on the market, including mountings, switches and cables.

## **Cables**

Two cable options are available in various lengths - power cable and feedback cable.

## **Switches**

Reed, solid state and IO-Link switches are available which are suitable for all cylinder ranges. Switches can be mounted flush.



## **Rod-Style Mountings**

A comprehensive range of mountings conforming to ISO 15552 for front end cover, rear end cover and piston rod mounting.

## **Rodless Mountings**

Foot mountings complement customer mounting points on the carriage.



## **Electric Cylinders**

## - accurate, repeatable and long-life

A range of ISO standard rod-style, ball screw electromechanical linear cylinders available with or without servo motors, in 6 bore sizes with 2 motor mounting options.

A unique set of benefits over pneumatic systems.





## Rod-style electric cylinders

The ISO standard rod-style, ball screw cylinders are available with or without servo motors in 6 bore sizes and with 2 motor mounting options. Accurate and repeatable, they offer long life, easy installation based on ISO 15552; and with optional IP65 protection for both axial and parallel mounted motors they offer a solution for all application environments.



## Accurate and repeatable

Ball screw and servo motors provide accurate and repeatable positioning, capable of high cycle life.



## Performance monitoring

Integral sensors and external switches monitor cylinder performance and enable planned maintenance.





## **Motors**

Rod-style electric cylinders are complemented by a range of high-performance AC servo motors. Motors can be mounted axially or in parallel.



#### Flexible

Axially or parallel assembly in four positions.



#### Reliable

IP65 options for both axial and parallel mounted motors ensure cylinders will continue to operate in dusty and wet environments.



### Performance

We offer a wide torque range from 0.16 Nm to 10.5 Nm, and a selection of feedback options.

## **Drives**

Rod-style electric cylinders are available with a range of servo drives offering maximum servo performance in a minimum-size package. Minimal footprint and exceptional power density make them one of the smallest servo drives on the market today.



## Connected

EtherCAT, PROFINET, Ethernet/IP, DeviceNet and CANopen protocols.



#### Compact Small footprint.



### Maximum performance

3 options are available, 200 V to 400 V, 250  $\mu s$  cycle time and built-in RS485 communication.



## Technical specifications and options

With the flexibility of choosing between models with or without a servo motor, we offer the perfect fit for your application.

# Rod-style Electric Cylinder



## Electric Cylinder based on ISO15552 Maintenance-free

Downloads

## CAD

We offer CAD for the vast majority of our product range providing you with access to download 2D and 3D CAD models, quickly and easily in a wide range of file formats and versions.

## **Technical Details**

**Guiding System** 

Range

Series

Brand

Sliding E/809000

Norgren ELION

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