

IMI Norgren ELION Electric Actuators Rodless Range



Accurate & repeatable

Up to 5500 mm stroke

High speed

Long-lasting performance

High load capacity

Multi positioning

Engineering
GREAT Solutions

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Engineering GREAT solutions through people, products, innovation and service

IMI Precision Engineering is a world-leader in fluid and motion control. Building close, collaborative relationships with our customers, we gain a deep understanding of their engineering needs and then mobilise our resources and expertise to deliver distinctive products and solutions.

Wherever precision, speed and engineering reliability are essential, our global footprint, problem-solving capability and portfolio of high performance products enables us to deliver GREAT solutions which help customers tackle the world's most demanding engineering challenges.

> **Reliability**

We deliver and support our high quality products through our global service network.

> **High performance products**

Calling on a world-class portfolio of fluid and motion control products including IMI Norgren, IMI Buschjost, IMI FAS, IMI Herion and IMI Maxseal. We can supply these singly, or combined in powerful customised solutions to improve performance and productivity.

> **Partnership & Problem Solving**

We get closer to our customers to understand their exact challenges.

Electric actuation

The requirements for modern industrial automation applications are becoming increasingly complex, therefore it is essential to select the best possible solution for each application. Electric actuators offer the perfect solution when precise control, accurate positioning and repeatability is essential.

Electric actuators offer distinct advantages over pneumatic actuators. Acceleration and speed are controllable, and multiple intermediate positions are possible with high precision and repeatability. This positioning flexibility allows multiple actuators to move in sync and change speed without needing to stop or overrunning position. Acceleration and deceleration control also allows the cylinders to glide into position without stopping abruptly, making them ideal for applications where vibrations and disruptive movement is not acceptable.

With no need for compressed air, electric actuators offer a cleaner, quieter solution, and total cost of ownership can be greatly reduced.

High performance electric actuators suitable for a variety of industrial applications



Introducing IMI Norgren ELION

E/140000 Rodless Electric Actuator Range

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

Two drive options are available, 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.

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**

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.

> **Long Life**

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**

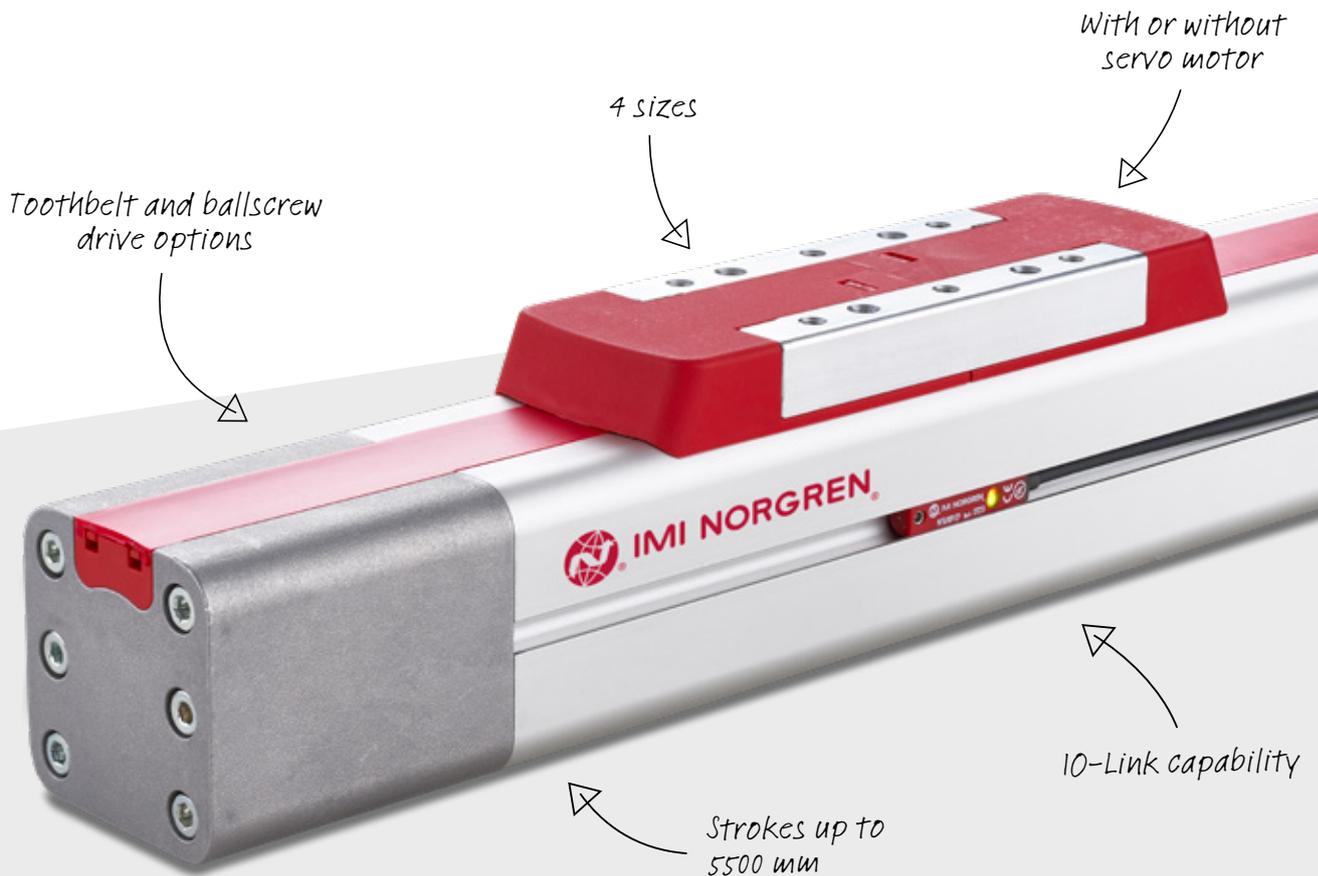
Motors, drives and accessories are available.



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 IMI Norgren technology
- > Step-down gearbox for toothbelt version
- > Wide range of motors, drives and accessories

	48, 60, 80, 100 mm				
	<table border="0"> <tr> <td>Toothbelt</td> <td>100 mm – 5500 mm</td> </tr> <tr> <td>Ball screw</td> <td>100 mm – 2500 mm*</td> </tr> </table> <p>* strokes up to 4100 mm on request</p>	Toothbelt	100 mm – 5500 mm	Ball screw	100 mm – 2500 mm*
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	<table border="0"> <tr> <td>Toothbelt</td> <td>0.20 kN - 1.50 kN</td> </tr> <tr> <td>Ball screw</td> <td>2.5 kN - 10.2 kN</td> </tr> </table>	Toothbelt	0.20 kN - 1.50 kN	Ball screw	2.5 kN - 10.2 kN
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0°C to +60°C operating temperature (actuator)					
0°C to +40°C operating temperature (motor)					
	IP65 Protection (motor only)				



Servo Motors and Drives

Motors

IMI 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

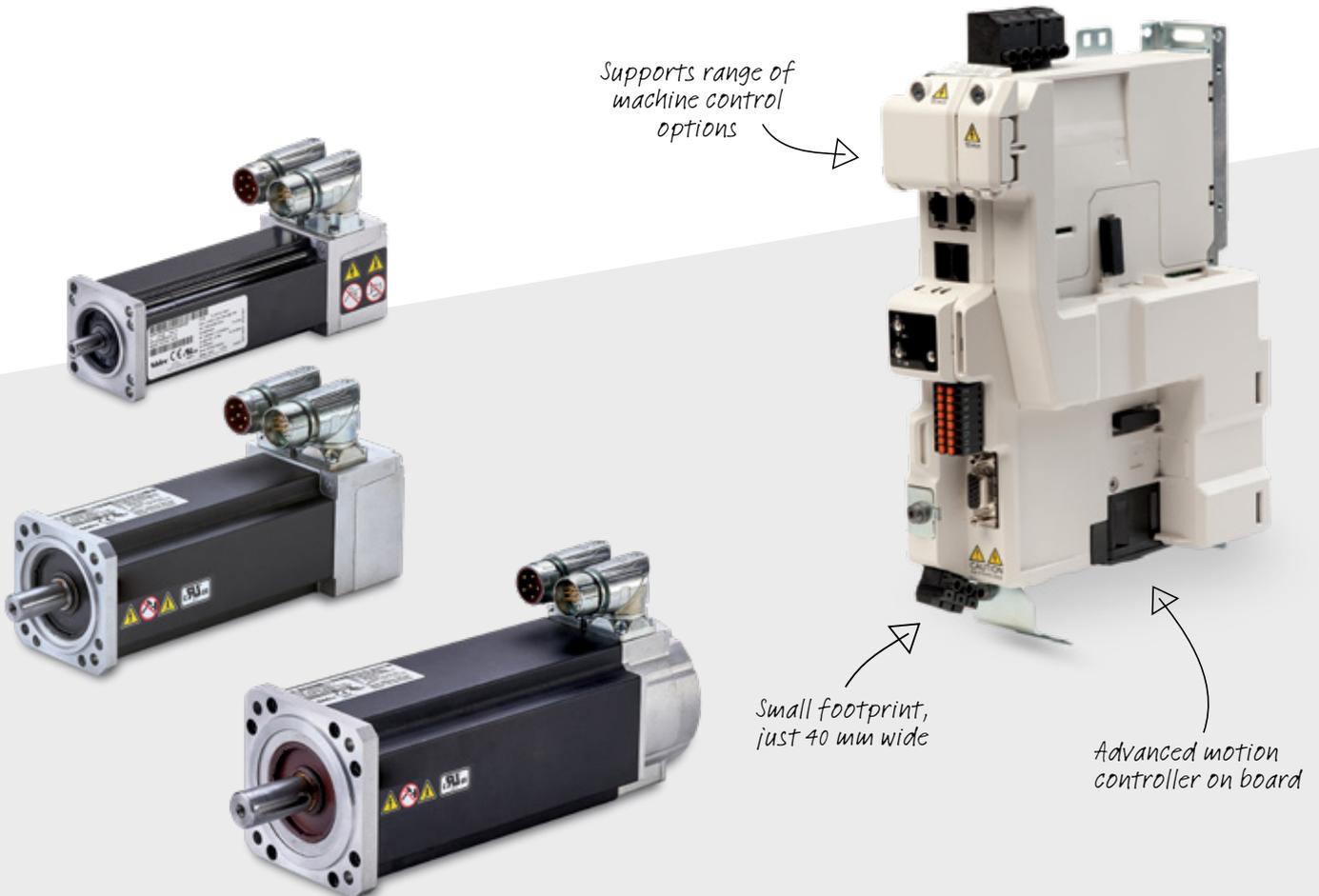
- > Torque range: from 0.16 Nm to 10.5 Nm
- > Holding brake available
- > Flange according to IEC 72-1
- > IP65 protection is standard (motor only); sealed against water spray and dust
- > Low inertia for high dynamic performance
- > Motor speeds 3000 rpm
- > UL/CUL certified
- > CE certified
- > RoHS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

Drives

IMI 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.

Technical specifications

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



Accessories

The IMI Norgren ELION rodless 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.

Mountings

Foot mountings complement customer mounting points on the carriage.



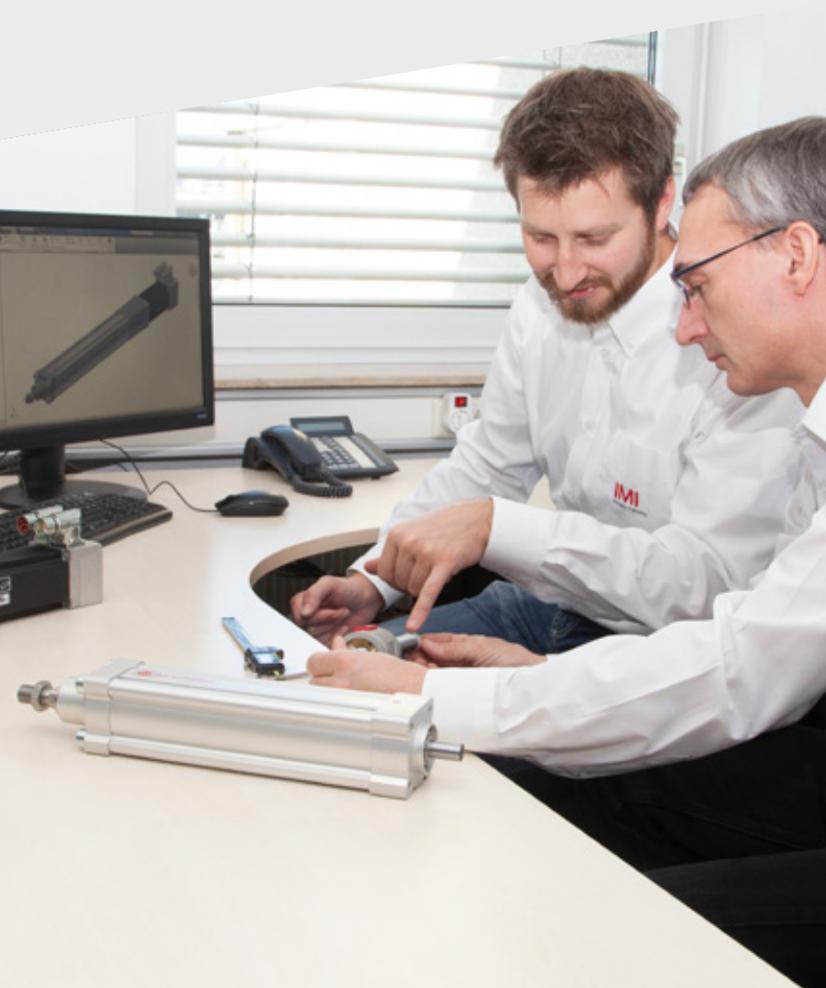
Configurator and Technical Support

IMI Norgren electric actuators are designed by engineers, to the most demanding standards. To ensure you make the correct decision, our dedicated technical team are available to help you specify the correct product for your application and provide full support throughout purchase and delivery.

Our intuitive, easy to use online configuration tool gives you the flexibility to specify the correct actuator for your requirements. You are able to configure using product attributes such as size, stroke and mountings; or application attributes such as distance, load, speed or lifetime.

We are committed to offering our customers a complete service - not only off the shelf standard products, but also tailored custom solutions, panels and complete systems, designed and built according to your exact specifications.

Visit www.imi-precision.com to find out more



IMI Precision Engineering operates four global centres of technical excellence and a sales and service network in 50 countries, as well as manufacturing capability in the USA, Germany, China, UK, Switzerland, Czech Republic, Mexico and Brazil.

For information on all IMI Precision Engineering companies visit

www.imi-precision.com

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