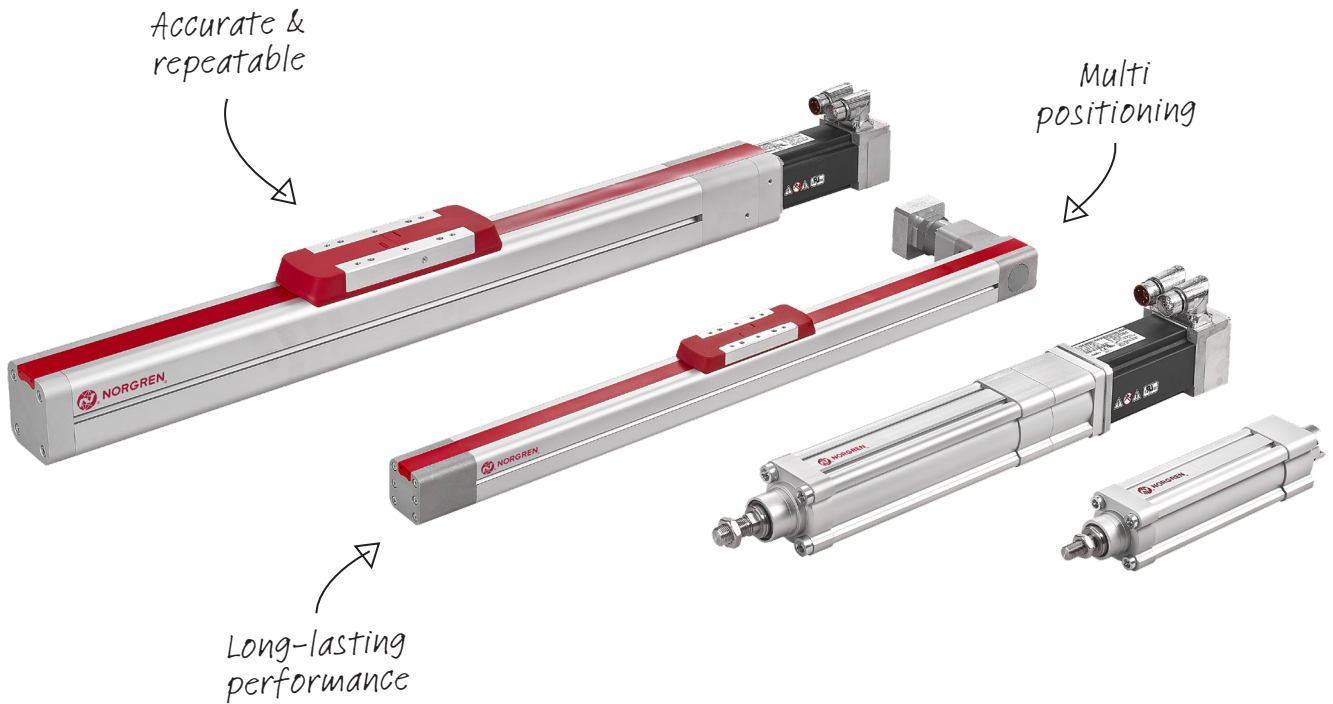


Norgren ELION Electric Actuators Rod-style and Rodless Ranges



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Breakthrough Engineering for a Better World

Norgren is part of global engineering organization IMI plc. IMI is at the forefront of delivering the solutions we need in a changing world and is focused on **creating tremendous value by solving key industry problems in attractive markets and employing the best.**

Norgren has a proud history of creating innovative engineering solutions in precise motion control and fluid technology, and we collaborate with our customers across more than 50 countries in critical areas such as Factory Automation, Material Handling, Rail, Energy, Process Control, Life Science and Commercial Vehicles.

From improving speed, productivity, reliability and efficiency of equipment, to generating significant energy and cost savings, or lowering total cost of ownership across many industries, Norgren's high-quality solutions are designed to help customers pursue progress, achieve new goals and overcome problems.

With market-leading industry expertise, we offer the capability, resources, engineering intelligence and global support infrastructure to tackle the largest project demands.

Our world-class portfolio of fluid and motion control products include Norgren, Buschjost, FAS, Herion, Kloehn, Maxseal and Thompson Valves. Supplied either individually or combined into powerful customized solutions to meet customer needs.

Breakthrough engineering you can count on.

Electric Actuation

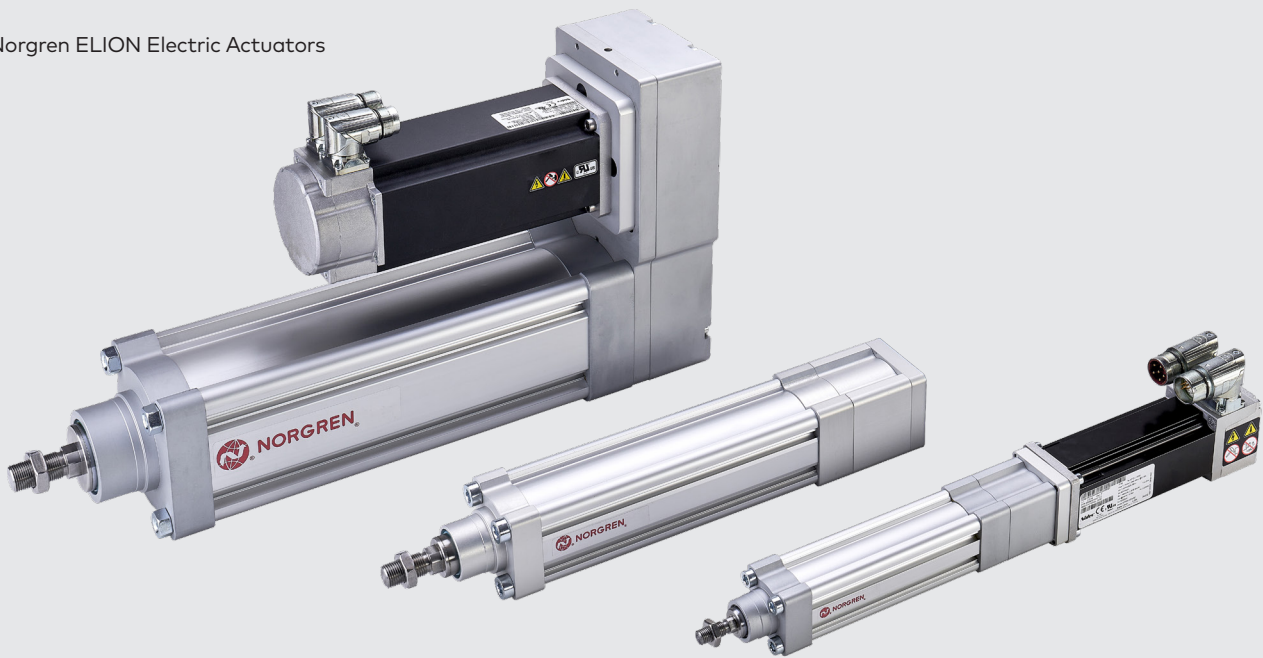
The requirements for modern industrial automation applications are becoming increasingly complex, therefore it is essential to select the best possible solution for each application. Electric actuators offer the perfect solution when precise control, accurate positioning and repeatability is essential.

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





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 energized 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

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



» 32, 40, 50, 63, 80, 100mm



» 100mm - 1500 mm stroke



» Up to 30.4kN



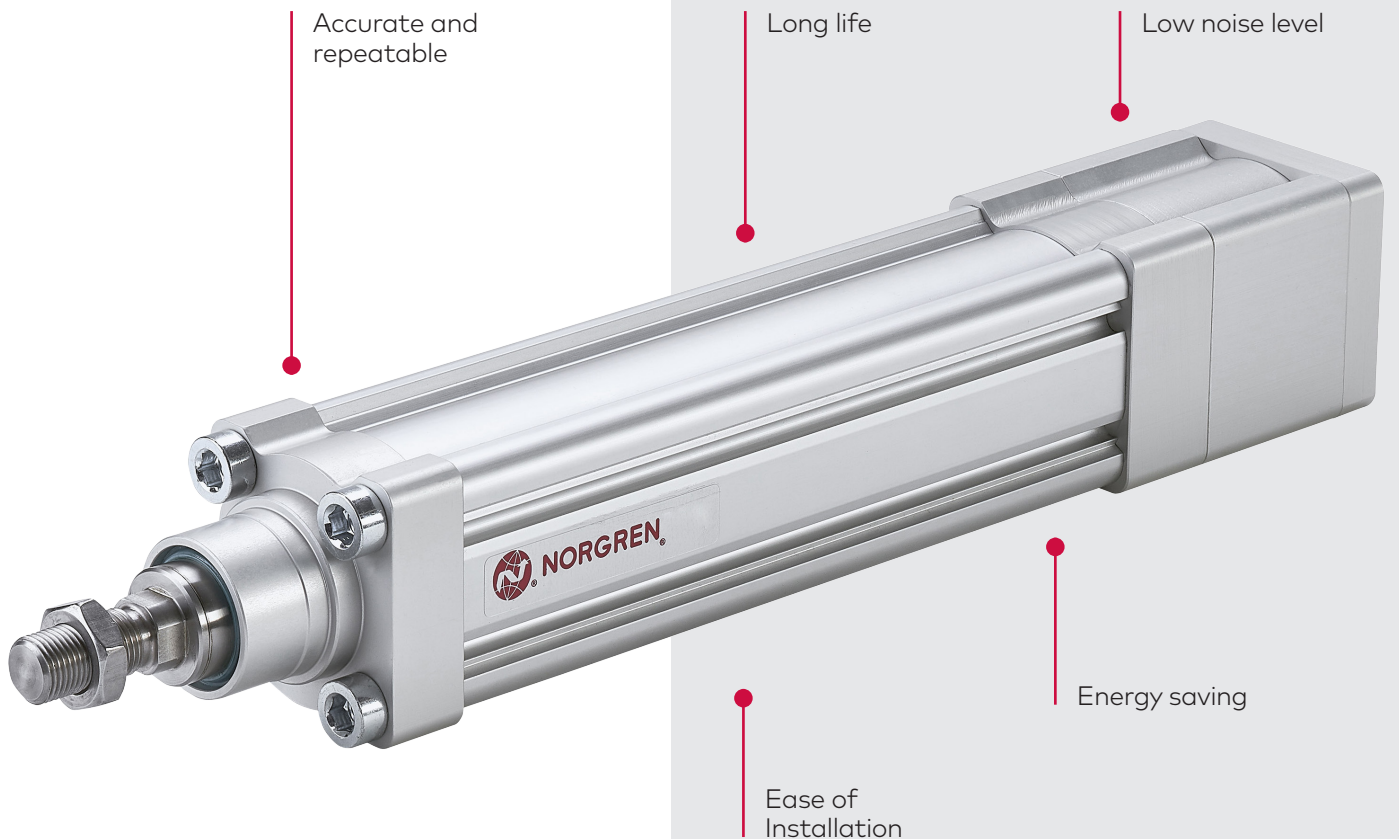
» Max. 1.6m/s



» 0°C to +60°C Operating Temperature



» IP65 Protection (motor only)



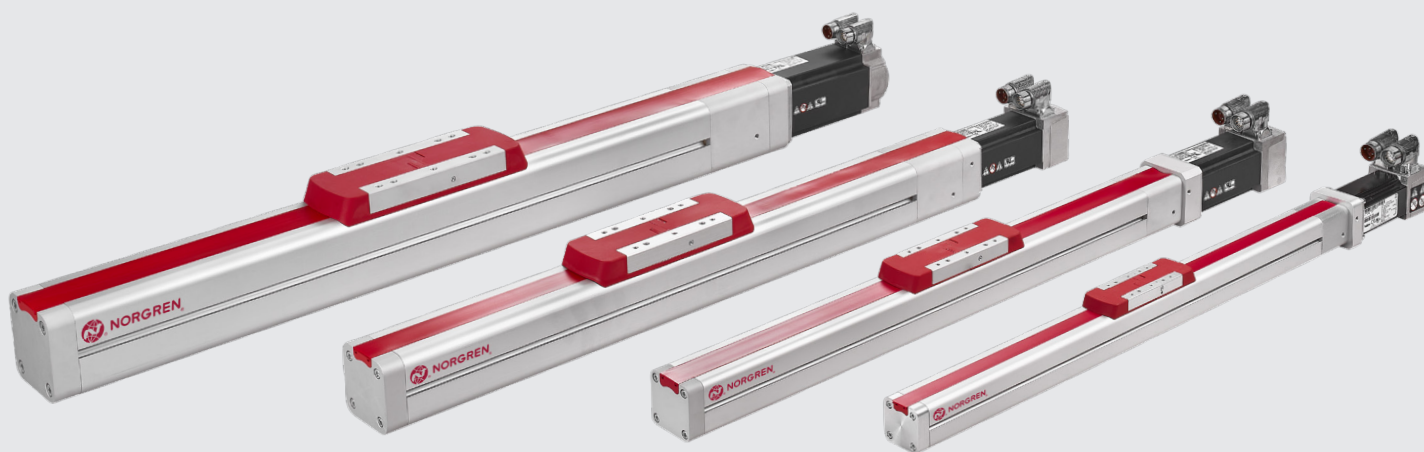
Accurate and repeatable

Long life

Low noise level

Ease of Installation

Energy saving



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.

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



» 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)

Toothbelt and ballscrew drive options

4 sizes

With or without servo motor



IO-Link capability

Strokes up to 5500 mm

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. Optimized 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.

Supports range of machine control options

Small footprint, just 40 mm wide

Advanced motion controller on board



Technical Specifications:

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

EtherNet/IP™

PROFI[®]
NET

PROFI[®]
BUS

EtherCAT[®]

CANopen

DeviceNet™



SIL3
Safety Integrity Level

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.



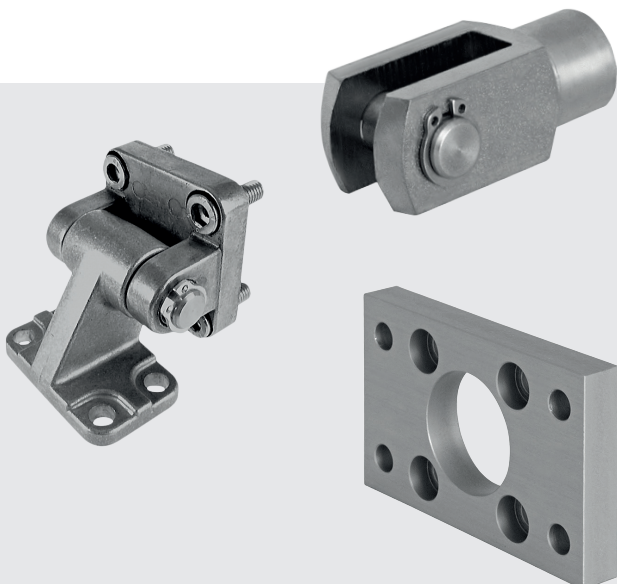
Switches

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



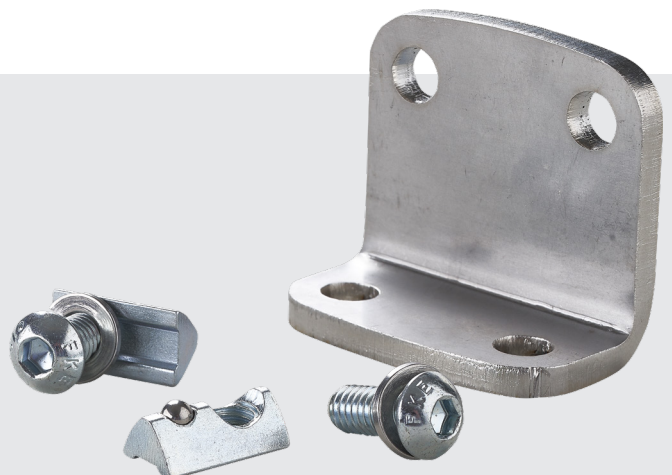
Rod-Style Mountings

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.





Configurator and Technical Support

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.

Application Configurator

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 application attributes such as distance, load, and time.

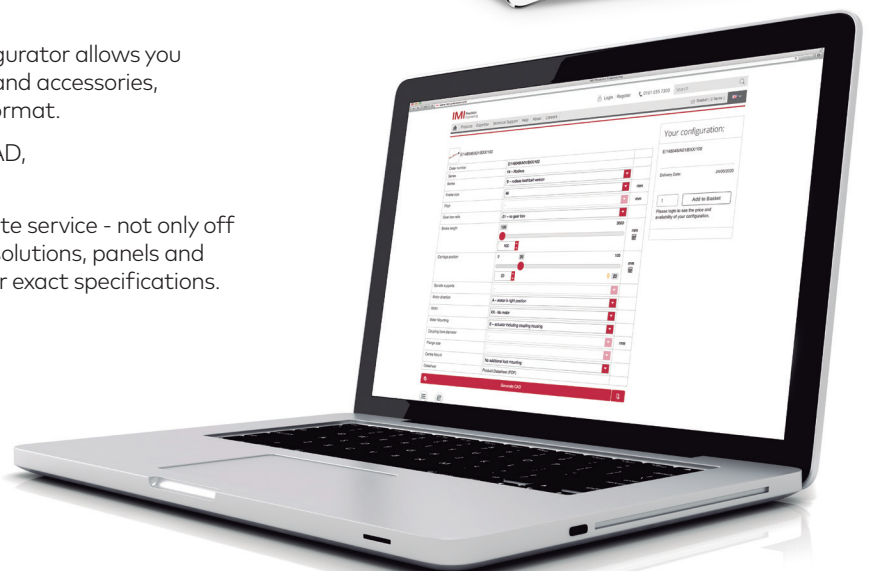


CAD Configurator

If you know the product you need, then our CAD Configurator allows you to configure using product attributes, add mountings and accessories, and download your configuration in your native CAD format.

We support 60+ native CAD formats including AutoCAD, SolidWorks, Pro/Engineer, NX and Catia.

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.



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

For information on all Norgren companies visit

www.norgren.com

Supported by distributors worldwide.

For further information, scan this QR code or visit www.norgren.com



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Incorporating



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