

NEW AXIS SERIES ACTUATORS – LMAX, BMAX

HIGH PERFORMANCE.
SIMPLE. FLEXIBLE.

ENABLING MANUFACTURING AUTOMATION

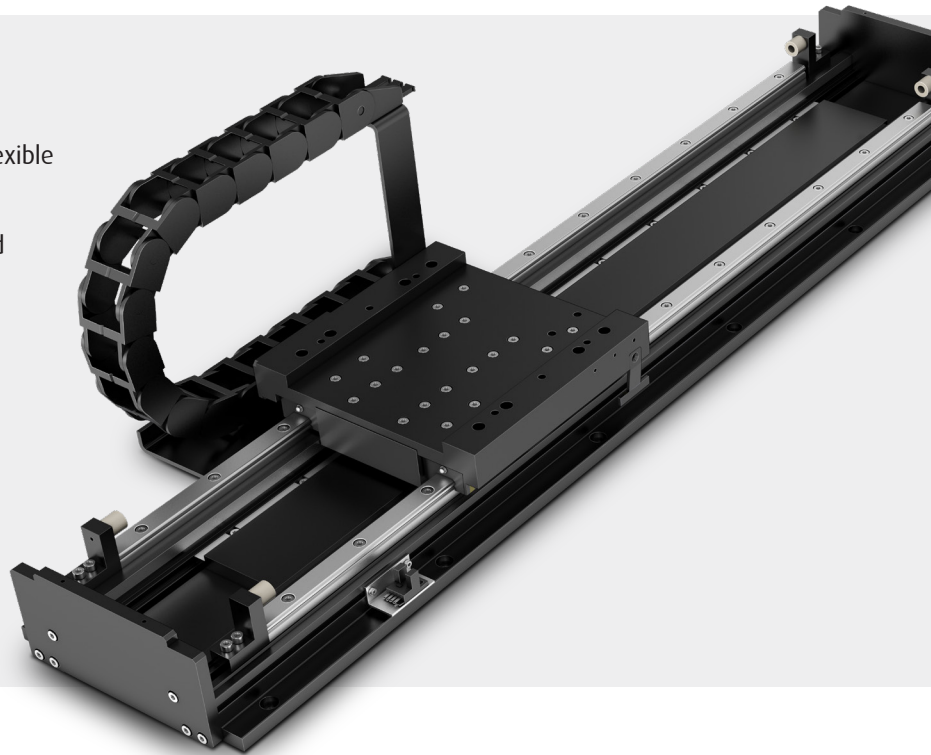
For system designers seeking highly rigid, high speed and ultra-precise linear positioning, NSK seamlessly integrates our accumulated expertise with ball screws, linear guides and support bearings into two new compact, high precision single-axis actuators: our AXIS series. With drive technology options of linear motor (LMAX series) or precision ground ball screw (BMAX series), NSK AXIS actuators deliver seamless integration with considerable benefits.

OPERATING ADVANTAGES

- › **Flexible, open-ended integration** – compatible with wide variety of servo/stepper motors; linear motor utilizes universal position feedback
- › **Robust drive technology options** – precision ground ball screws or linear motor coil
- › **Net positive performance** – with advanced NSK ball screw and linear guide components
- › **Simplified installation** – common components, t-slot assembly, and counterbore installation holes

LMAX DESIGN FEATURES

- › Linear motor drive technology with open-ended, flexible integration into control systems
- › Available in 2 standard frame widths - 175 mm and 200 mm
- › With integrated NSK NS series linear ball guides
- › Linear guides are equipped with NSK K1 long-life, maintenance-free lubrication units
- › Optional accessories including covers, feedback options, sensors



SPECIFICATIONS - LINEAR MOTOR (LMAX) DESIGN TYPE

Actuator size - base width, mm	175		200	
Linear guide, series/size	NS15		NS25	
Motor size, coil length	standard	long	standard	long
Maximum stroke, mm ⁽¹⁾	3 800	3 650	3 800	3 650
Maximum speed, mm/s ⁽²⁾	5 000			
Peak thrust, N	310	621	497	994
Continuous thrust, N	126	253	202	405
Peak current, arms	9	18	9	18
Continuous current, arms	2.5	5	2.5	5
Maximum temperature	50° C maximum / 80° C momentary			
Payload	dependent on load, speed and acceleration profiles			

All performance criteria shown is development data derived from benchmark testing, pending final validation by NSK.

1) Maximum stroke may not be a standard offering

2) Maximum travel speed dependent on encoder resolution

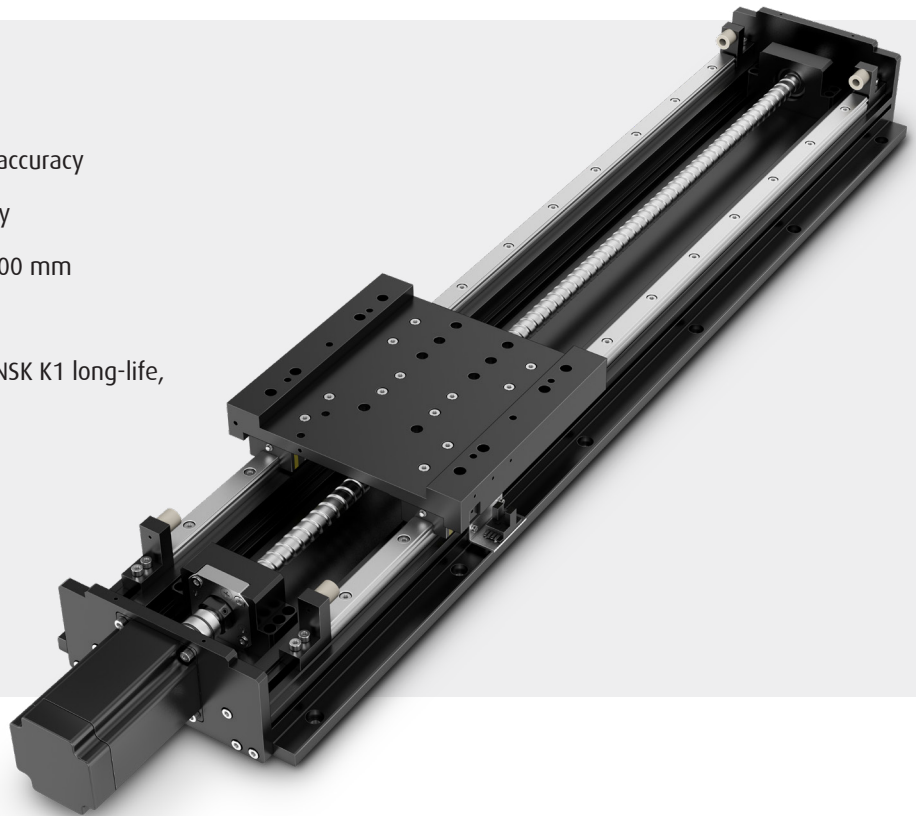
Hall Sensor: Standard a/b/c 5v, integrated

Position Feedback: Renishaw Quantic Incremental Optical Encoder
10um, 5um, 1um, 0.5um resolutions

Drive Compatibility: 3ph servo drive accepting Renishaw feedback protocol

BMAX DESIGN FEATURES

- › Precision ground ball screw drive technology, C5 accuracy
- › Wide variety of servo/stepper motor compatibility
- › Available in 2 standard frame widths - 175 and 200 mm
- › With integrated NSK NS series linear ball guides
- › Ball screws and linear guides are equipped with NSK K1 long-life, maintenance-free lubrication units
- › Optional accessories including covers, feedback options, sensors



SPECIFICATIONS - BALL SCREW (BMAX) DESIGN TYPE

Actuator size - base width, mm	175			200		
Ball screw diameter, mm	15		20	25		
Ball screw lead, mm	5	10	20	5	10	25
Maximum stroke, mm ⁽¹⁾	600	1 000	1 600	1 000	1 600	2 000
Maximum speed, mm/s ⁽²⁾	250	500	1 000	250	500	1 250
Linear guide, series/size	NS15			NS25		
Payload	dependent on load, speed and acceleration profiles					

All performance criteria shown is development data derived from benchmark testing, pending final validation by NSK.

1) Standard stroke offerings are pending validation

2) Maximum travel speed is dependent upon ball screw specifications

For additional information about NSK precision machine components and integrated system solutions, visit:

www.nskautomation.com