

HIWIN®

PRODUCT DIRECTORY

INDUSTRIE 4.0 Best Partner



HG(Heavy Load Ball Type Linear Guideway) Series

HG series linear guideways are designed with circular-arc groove and structure optimization for high load capacity and rigidity better than similar guideway offerings.

- Size: 15mm to 65mm • Accuracy: C to UP
- Basic Dynamic Load: 11.38kN - 208.36kN
- Equal load ratings in radial, reverse radial and lateral directions
- Self-alignment to absorb installation-error
- Heavy loads, high speed, high accuracy.



EG(Low Profile Ball Type Linear Guideway) Series

The EG series offers a low profile, high load capacity, and high rigidity. Lower assembly height and the shorter length make the EG series suitable for high-speed, automation machines and space limited applications.

- Size: 15mm to 35mm • Accuracy: C to UP
- Basic Dynamic Load: 5.35kN - 33.35kN
- Equal load ratings in all 4 directions
- Self-alignment to absorb installation-error
- High speed, very high accuracy



WE(Four-Row Wide Rail Linear Guideway) Series

The WE series features a wide rail for high loads, moments and rigidity and meets high accuracy standards. The ability to use a single rail with a low profile and low center of gravity is ideal where space is limited or high moments are required.

- Size: 15mm to 35mm • Accuracy: C to UP
- Basic Dynamic Load: 5.23kN - 29.8kN
- Equal load ratings in radial, reverse radial and lateral directions
- Self-alignment to limit installation-error
- Very low profile, high accuracy



● CG(Anti-moment) Series

The new CG linear guideway features an O-Type bearing configuration greatly improving moment load capacity. The series also offers a rail cover strip for enhanced resistance to dust and other contaminants and an improved lubrication path.

- Superior load ratings • Quick installation
- Longer service life • Size: 15mm to 45mm
- Accuracy: C to UP
- Basic Dynamic Load: 13.8kN - 124.43



RG(High Rigidity Roller Type Linear Guideway) Series

The RG series features cylindrical rolling elements with a 45-degree contact angle. Elastic deformation is reduced for greater rigidity and higher load capacities in all 4 directions. The RG series offers higher performance than ball bearing guideways.

- Size: 15mm to 65mm • Accuracy: H to UP
- Basic Dynamic Load: 11.3kN - 275.3kN
- Very high load capacity • High Precision
- Longer running life



MG(Miniature Linear Guideway) Series

The MG series is a compact miniature linear guideway with a Gothic arch contact design for high stiffness and high rigidity. The MG series offers anti-corrosion protection with high grade stainless steel on all surfaces. The MG is available in a narrow (MGN) and wide width(MGW) block.

- Size: 5mm to 15mm
- Accuracy: C to P
- Basic Dynamic Load: 0.54kN - 8.93kN
- Compact design
- Stainless steel

QH/QE/QW/QR(Quiet Linear Guideway with SynchMotion™ Technology) Series

The HIWIN QH/QE/QW/QR Series linear guideways have HIWIN's Patented SynchMotion™ Technology and are interchangeable with the HG/EG/WE/RG series respectively.

- Superior lubrication • High speed • Quiet operation • Reduced dust generation
- Longer running life



Linear Guideway Accessories



SE (Metallic End Cap Linear Guideway) Type

SE series guideways are a metallic block option that increases temperature resistance and supports high accelerations. This option enables guideway blocks to function at service temperatures up to 150°C and instance temperatures up to 200°C. Steel scrapers and copper bolt caps are available for additional protection. Suitable for vacuum applications.



E2 (Self-Lubricant Linear Guideway) Series

The E2 kit is a rail raceway lubricator, installed between the end cap and end seal of a linear guideway block. Equipped with a replaceable/ refillable oil cartridge, the E2 is designed to extend distance between maintenance cycles by as much as 10,000km.

Positioning Guideway

HIWIN offers positioning guideway systems with non-contact magnetic encoders for integration with a linear guideway. A magnetic strip is embedded in the rail to prevent contact damage and damage caused by materials such as oil, water and dust. The non-contact sensor prevents wear and increases service life.

- Repeatability: to 2µm
- Resolution: to 1µm
- Maximum Length: 30m
- Max Speed: 10m/sec
- Protection Class: IP67



Positioning Measurement System

Position measurement systems with non-contact magnetic encoders for integration with positioning systems. Analog and digital options supported. Multiple 1 and 3 axis display options with selectable resolutions are available.

- Repeatability: to 1µm
- Resolution: to 1µm
- Maximum Length: 30m
- Max Speed: 10m/sec
- Protection Class: IP67
- Compact design



AC Servo Motor & Drive

HIWIN AC servo motors and drives complement our product offerings for complete linear motion solutions.

AC Servo Motors

- Encoders to 17 bits
- High resolution and positional accuracy
- Low heat generation
- Low noise and vibration
- Motor sizes: 50W to 1KW
- Optional brake

Drives

- Fully digital, vector-controlled drive amplifier
- Auto-tuning function
- Vibration suppression
- Error compensation
- Easily programmable





Super S Series

The Super S series features a patented internal recirculation cassette that reduces noise and nut size, and improves performance.

- Low noise: 5-7 dB lower than external recirculation
- Space Saving: 18% - 32% smaller
- Acceleration: 9.8m/sec²
- JIS Accuracy: C0-C7 (ground ballscrew)
C6-C10 (rolled ballscrew)
- Exceptional Dm-N Value: to 220,000



Heavy Load Ballscrew RD Series

Heavy load ballscrews offer 2-3 times higher load capacity than a standard ballscrew series with a reinforced circulation system suitable for high speed conditions and a longer service life.

- High Static Load: to 496,160kg
- High Acceleration
- JIS Accuracy: C7
- Dm-N Value: to 160,000



Dust-Proof Ballscrew

- SS (Scrape wiper)
Flexible spring-loaded fingers extended from ends eliminate gap between wiper and shaft surface for dust-proof protection.
- SH (Scrape wiper + felt)
Finger wiper plus high density felt ring for improved dust resistance.
- EW/ NW
TPU/rubber wiper for standard DIN ball nuts on rolled ballscrews.



Super T Series

The Super T series features an external recirculation design that reduces noise and vibration below standard ballscrew designs.

- Low noise: 3-5 dB lower than external recirculation
- Static Load: to 58,851kg
- JIS Accuracy: C0-C7 (ground ballscrew)
C6-C10 (rolled ballscrew)
- Dm-N Value: to 160,000



Rotating Nut Ballscrew R1 Series

Rotating nut ballscrews integrate a nut and support bearing into a single design allowing a fixed shaft design.

- Low Noise
- High Axial Load : 45° contact angle
- JIS Accuracy: C6-C10 (rolled ballscrew)



Cool Type I-Extra High Dm-N Value Ballscrew

Cool type series ballscrews utilize forced fluid cooling to minimize heat generation and thermal expansion. Constant temperature eliminates warm-up time and thermal distortion.

- High Acceleration: to 4.9m/sec²
- JIS Accuracy: C3C7 (ground ballscrew)
- High Dm-N Value: to 200,000



E2 Self-Lubricant

Efficient and economical lubrication option.

- Extend maintenance cycle
- Ideal lubrication position
- Easy to install and refill
- Clean and environmental friendly
- Interchangeable oil selection
- Suited for harsh environments: e.g., excess moisture and dust

Single-Axis Robot - Ballscrew or Belt Driven Stage



KK Series

Integration of ball screw and linear guide way together through modular design, which can provide high precision, fast installation, selection, high rigidity, small size, space-saving features. With high-precision ball screw as a transmission mechanism and the optimal design of the U-shaped rail as a guide mechanism to ensure the accuracy and stiffness.



SK Series

With SynchMotion™ technology in the re-circulation system, it reduces the noise; improve smooth movement, low particle emission and other characteristics.



KA Series

Lightweight aluminum base design is suitable for semiconductor and automation industry.



KU Series

High-precision lightweight aluminum extrusion base with dust-proof design provides high precision, high efficiency, high reliability, with easy installation, maintenance and other characteristics suitable for high precision Industry, semiconductor industry, medical automation industry, FPD panel handling and testing or test environment.



KS Series

For clean room equipment, KS has special shockproof design which is best suited for use in semiconductor process equipment, light-emitting diode detectors, medical equipment and other products.



KE Series

Simple structure with easy installation and maintenance, it features dust-proof design, high reproducibility, high efficiency and high reliability which is suitable for high-precision industry, semiconductor industry, medical automation industry, FPD panel handling and detection or test environment.

Single-Axis Robot - Multi-Axis Solutions

Multi-Axis Positioning Systems

- Off-the-shelf / Assembly ready
- Complete motor, drive and accessory solutions
- Single and multi-axis designs
- Customizable XYZ configurations
- Competitive prices – Save as much as 50%
- Prompt delivery – Fully assembled systems in as little as 2-4 weeks



Precision Bearing



Crossed Roller Bearing

- Able to withstand both axial and radial load
- High Loading Capacity and High Rigidity
- Customized design to meet customer's specific requirements

Support Unit

- Anti-rust surface treatment.
- With high precision, high rigidity rangular contact ball bearing
- Compact size for easy installation
- Can be assembled with HIWIN Ballscrews for a total solution



Ballscrew Bearing

- Great axial rigidity
- Provide flexible assembly tolerances, to meet specific requirements of customers
- Can be supplied with HIWIN ballscrews for a total solution



Ball Spline

- Transmission of torque
The steel balls traveling on the groove with angular contact offer relative movement between the nut and the screw to achieve torque transmission.
- Integral structure
The integration of the nut and support bearings allows the Ball Spline to achieve high precision and a compact design.
- Easy installation
With the optimized retainer design, the nut can easily be removed from the spline shaft and the steel balls will remain secure in the nut.
- Lubricant path
The optimized lubricant path allows grease to be directly guided to the ball track improving lubrication and increasing service life.



DATORKER® Robot Reducer

● New Product

- Compact and light weight – Easy for user to assemble and work with.
- High accuracy – Provides stable repeatability and positioning.
- High torque – Widely use in automation and inspection equipment.
- Wide range of reduction ratio – Various choices available under same model.
- Customization – Can be customized as per requirements.
- Type / Function:
 - WUT-PO Type
 - WUI-CO Type
 - WTI-PH Type
 - WTI-AH Type



Torque Motor & Direct Drive Motor

Torque Motor:

Features:

- Water cooled
- Large hollow shaft
- Peak torque:TMRW 5020Nm
- Max. speed:TMRW 4000rpm
- Only require calibration before shipments, easy to install

Applications:

- Rotary indexing table
- 5-axis machining center
- Machine tool spindle
- Tablet machine
- Tool magazine
- Measuring machine



Direct Drive Motor:

Features:

- No backlash drive
- Hollow shaft
- No gear wear
- No maintenance, small size
- Max. speed 700rpm
- Peak Torque 450Nm
- Excellent dynamic characteristics
- Brushless drive
- Incremental optical scale / absolute resolver

Applications:

- Production equipment
- Assembly line
- Machine tools
- Industrial Robot
- QC testing equipment



Linear Motor

Ironcore Motors

- High thrust
- High acceleration and deceleration
- Point-to-point motion applications

Shaft Motors

- Circle stator
- No cogging force
- Smooth motion profile application

Ironless Motors

- No cogging force
- Lower velocity ripple
- Scan motion applications

Planar Motors

- Air bearing for wear-free operation
- Integrated position sensor, closed-loop control
- No temperature rise issue, can be installed upside down

Products

LMSA Series, LMFA Series, LMSC Series, LMC Series, LMT Series, LMSP Series

Complete Motion Systems

Features:

- Customized design
- Deviation in synchronization movement < 5μm
- Complete system can have up to 18 axes
- Best positioning feedback system resolution 50nm
- Max. velocity 5m/s
- Max. acceleration 3.5G

Applications:

- Automation pick and place
- Solar energy equipment
- FPD/PCB/AOI equipment
- Water jet
- Machine tool
- Laser scanning and cutting equipment



Industrial Robot - Multi-Axis Robot



Articulated Robot - RA/RT Series

- A compact and agile 6-axis jointed-arm robot for precise assembly, part transfer and workpiece loading/unloading.
- Applications include: pick-and-place, handling, assembly, deburring, grinding and polishing.



Electric Gripper - X Series

- Full range of products are integrated with stepper motor and encoder, have the feature of statuses return signal, abnormal alarm, object identification and other signal output.
- Use the miniature both-hand linear modules, to achieve high-speed, high precision, high rigidity, high efficiency and with small size advantages.
- System inbuilt with the auto-tuning original reset and the gripping model establishment, which have real-time adaptive capture, model adjustment and other intelligent functions.
- Move direction, travel, force, speed, etc. can be set, and the software has the function of recording operating history.



Delta Robot - RD Series

- A 4-axis parallel robot utilizing a parallel linkage mechanism to perform extremely high speed motions with stability and high accuracy.
- Applications include: pick-and-place, assembly, alignment and packaging.



Electric Rotary Joint-ERJ Series

- Designed and developed to prevent the wires from twisting during continuous rotational motion, thus eliminating the chances of wire interference and wear.
- The end of robot arm can be opened for infinite rotational motion.
- Significantly speed up the assembly, grinding, polishing, deburring.

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