

Product Directory



Motion Control and System Technology

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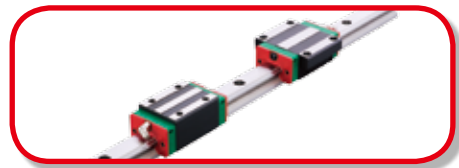
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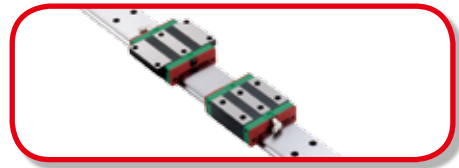
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Linear Guideway



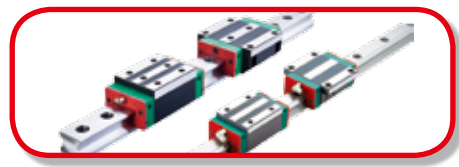
Δ HG Series (Heavy Load Ball Type Linear Guideway)
HG series linear guideways are designed with circular-arc groove and structure optimization for optimized high load capacity and rigidity better than similar guideway offerings.
- Size: 15mm to 65mm - Accuracy: C to UP
- Basic Dynamic Load: 11.38kN - 208.36kN
- Equal load ratings in radial, reverse radial and lateral directions
- Self-alignment to absorb installation-error
- Heavy loads, high speed, high accuracy



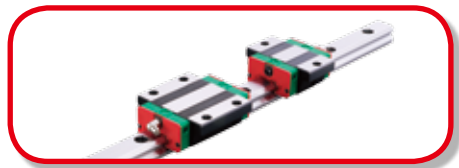
Δ WE Series (Four-Row Wide Rail Linear Guideway)
The WE series features a wide rail for high loads, moments and rigidity and meets high accuracy standards. The ability to use a single rail with a low profile and low center of gravity is ideal where space is limited or high moments are required.
- Size: 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



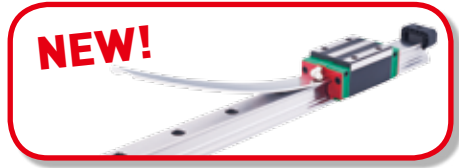
Δ RG Series (High Rigidity Roller Type Linear Guideway)
The RG series features cylindrical rolling elements with a 45-degree contact angle. Elastic deformation is reduced for greater rigidity and higher load capacities in all 4 directions. The RG series offers higher performance than ball bearing guideways.
- Size: 15mm to 65mm - Accuracy: H to UP
- Basic Dynamic Load: 11.3kN - 275.3kN
- Very high load capacity - High Precision
- Longer running life



Δ QH/QE/QW/QR (Quiet Linear Guideway)
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



Δ EG Series (Low Profile Ball Type Linear Guideway)
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



Δ CG 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



Δ MG Series (Miniature Linear Guideway)
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

Linear Guideway Accessories



Δ SE Type (Metallic End Cap Linear Guideway)
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.



Δ E2 Series (Self-Lubricant Linear Guideway)
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

Δ AC Motors

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

Δ Drives

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



Ballscrews



△ 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 ballscrews-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



△ 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 ballscrews - 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)



△ Dustproof options

- 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.



△ E2 Self-lubricant options

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

The KK single-axis robot is a ballscrew driven guideway with an optimized U-rail for high stiffness and accuracy.

- Accuracy: to 20-50µm
- Repeatability: to 3µm
- Static Load: to 8650kg
- Speed: to 1500mm/s
- Travel: to 1.5m



△ KA Series

The KA single-axis robot is a ballscrew or belt driven guideway with an aluminum base for a light-weight design.

- Repeatability: to 20µm
- Max Load: 239kg
- Speed: to 1800mm/s
- Travel: to 3m



△ KS Series

The KS single-axis robot is a light-weight ballscrew or belt driven guideway with enclosed motor, dustproof strip and internal air pressurization to control particle transmission.

- Repeatability: to 20µm
- Max Load: 95kg
- Speed: to 1800mm/s
- Travel: to 3m



△ SK Series

The SK single-axis robot incorporates SynchMotion™ into the KK series design for quieter operation, self lubrication and longer service life.

- Accuracy: to 20-40µm
- Repeatability: to 3µm
- Static Load: 3600kg
- Speed: to 1500mm/s
- Travel: to .8m



△ KU Series

The KU single-axis robot is a light-weight ballscrew driven guideway with a dustproof strip to control particle transmission.

- Repeatability: to 20µm
- Max Load: 95kg
- Speed: to 1000mm/s
- Travel: to 1.1m



△ KE Series

The KE single-axis robot is a compact, light-weight ballscrew driven guideway with a dustproof strip and corrosion protection.

- Repeatability: to 20µm
- Max Load: 25kg
- Speed: to 500mm/s
- Travel: to .6m

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 Bearings

- Patented high rigidity and high load capacity
- Higher Accuracy than the ISO standard
- Space saving construction
- Support combination of both radial and thrust loads
- Easy installation
- Multiple specifications



△ Ballscrew Bearings

- Space saving
- Easy installation and adjustment
- Can be supplied with Hiwin ballscrews for a total solution



△ Support Units

- Standard type and High capacity type
- Matched with high accuracy, high stiffness angular contact ball bearings
- Black Oxide surface coating
- Easy installation and adjustment
- Various Support unit types and dimensions to meet customer requirements
- Can be assembled with Hiwin Ballscrews for a total solution

Linear Actuator

△ LAS1

- Max. thrust/pull: 600-1200N
- Max speed: 12-25mm/sec
- Standard stroke: 50-250mm
- Protection: IP54/IP65
- Weight: 1.04kg
- Working temp: +5°C~40°C
- Connection Type: Audio/DIN 4pin

△ LAS2

- Max. thrust/pull: 1200-1800N
- Max speed: 7-15mm/sec
- Standard stroke: 50-250mm
- Protection: IP54/IP65
- Weight: 1.3kg
- Working temp: +5°C~40°C
- Connection Type: Audio/DIN 4pin
- Position feedback

△ LAS3

- Max. thrust/pull: 600-1200N
- Max speed: 12-25mm/sec
- Standard stroke: 50-250mm
- Protection: IP54/IP65
- Weight: 1.27kg
- Working temp: +5°C~40°C
- Connection Type: Audio/DIN 4pin
- Position feedback

△ LAS4

- Max. thrust/pull: 300-800N
- Max speed: 15-46mm/sec
- Standard stroke: 100-300mm
- Protection: IP54/IP65
- Weight: 1.36kg
- Working temp: +5°C~40°C
- Connection Type: Audio/DIN 4pin
- Position feedback

△ LAS5

- Max. thrust/pull: 300-2000N
- Max speed: 4-8.5mm/sec
- Standard stroke: 100-300mm
- Protection: IP54/IP66
- Weight: 1.5kg
- Working temp: +5°C~40°C
- Connection Type: Audio/DIN 4pin

△ Other available series

LAI, LAM, LAN



Torque Motor (Direct Drive Motor)

△ Torque Motor Rotary Tables

Features:

- Max. Torque: 450Nm
- Repeatability: ±3 arc/sec.
- Max. Speed: 700 rpm
- Resolution: 4,320,000 p/rev

Applications:

- Automation industry
- PCB/AOI examination
- Touch panel testing machines
- Tooling machine industry



△ TMRW Torque Motor

Features:

- Water cooled
- Maximum speed up to 3200 rpm
- Maximum torque up to 5100 Nm

Applications:

- Index tables
- Machining heads
- Turrets

Linear Motor

△ Ironcore Motors

- High thrust 20,827N
- Max. acceleration 10G
- Machine tool

△ Ironless Motors

- Lower velocity ripple
- No cogging force
- Semiconductor industry

△ Planar Motors

- Air bearing for wear-free operation
- Built-in position feedback system
- Magnetoresistive stepping motor

△ Complete Motion Systems

Features:

- Customized design
- The deviation in synchronization movement < 5µm
- Total system can have up to 18 axes
- Best positioning feedback system resolution 50nm
- Max. Velocity 5 m/s
- Max. Acceleration 3.5G

Applications:

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

