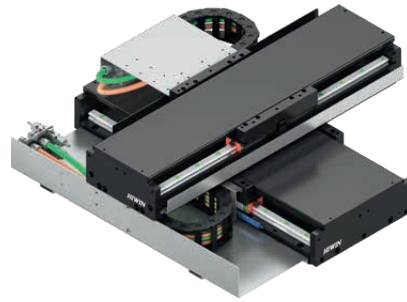


9. LMX2 precision cross tables

9.1 Properties of the LMX2C precision cross tables

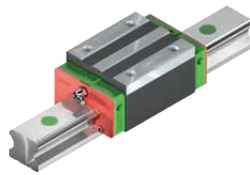
HIWIN LMX2 precision cross tables are based on LMX precision axes and can be customised to a high degree, meaning they can be adapted to customer-specific movement tasks. A wide range of options are available including encapsulation, motor type or encoder system. This means that the highest demands for precision and dynamics can be fulfilled.

- Stroke up to 500 mm in both axial directions
- Equipped with ironless linear motors
- Low inertia, high acceleration
- No cogging torque



Linear guideway

A high-quality HIWIN double guide safely transfers forces and torques from the carriage to the axis profile. Four blocks are used per carriage, which are guided on two parallel, high-precision profile rails. SynchMotion™ technology with ball chain also ensures good synchronisation and very smooth running in all sizes.



Distance measuring systems

The distance measuring system is integrated into the inside of the axis to save space and determines the repeatability. Different measuring systems are available depending on the requirements for measuring method, interface and resolution.



Linear motor

The integrated HIWIN linear motors of the ironless LMC series are the first choice for applications with the highest requirements for synchronisation.



Energy chain

Generously dimensioned energy chains in both axial directions provide space for safely carrying the supply lines.



LMX2 precision cross tables

	LM	X	2	C	CB5	CB8	400	500	K	1	AC
Linear motor axis											Order number of the drawing, multiple forcers, Hall sensor, weight compensation, brake, special mounting holes
Axis version:											Limit switches:
X: Horizontal axis											0: None
Number of axes:											1: Inductive, PNP (standard)
2: Two orthogonal axes											4: Inductive, NPN
Axis profile:											Distance measuring system:
E: Ironless motors (LMC)											A: Optical, analogue, 1 V _{SS} sin/cos
C: Customer-specific											K: Optical, digital TTL, resolution 0.1 μm
Motor type of Y-axis:											C: Magnetic, analogue, 1 V _{SS} sin/cos
LMCxx: Motor size											D: Magnetic, analogue, 1 V _{SS} sin/cos, integrated into guide rail
Motor type of X-axis:											X ¹⁾ : Magnetic, absolute with
LMCxx: Motor size											BiSS-C interface
Stroke length of Y-axis [mm]											Magnetic, absolute with
Stroke length of X-axis [mm]											HIPERFACE interface
											Optical, absolute, encapsulated with
											EnDat interface
											Optical, absolute, encapsulated with
											DRIVE-CLiQ interface
											Optical, absolute, encapsulated with
											FANUC interface
											Optical, digital TTL, resolution 1 μm

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9.3 Dimensions and specifications for LMX2C precision cross tables

9.3.1 Technical data for LMX2C precision cross tables

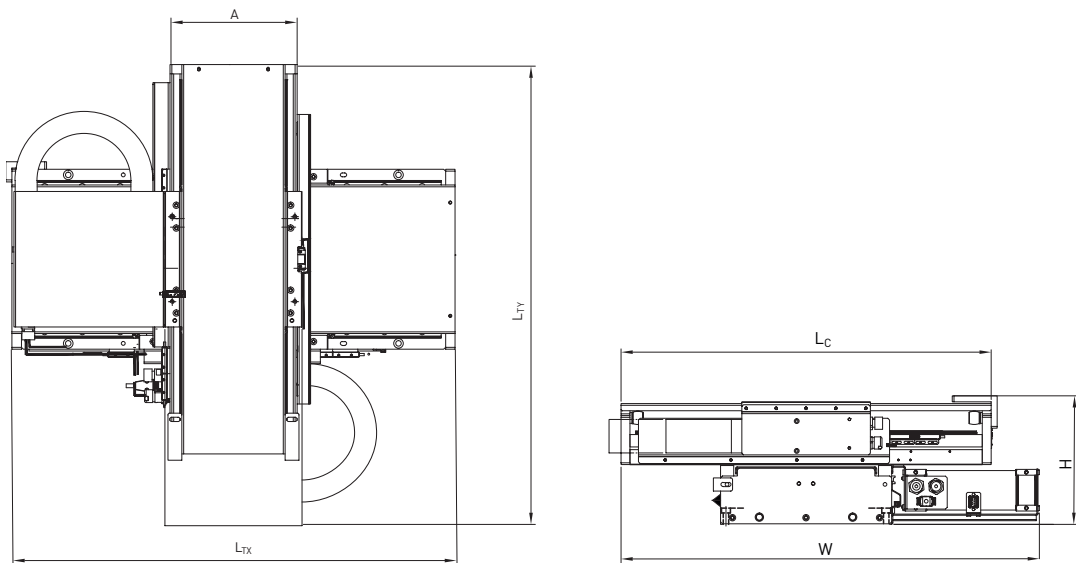


Table 9.1 Dimensions and specifications for LMX2C precision cross tables

	Symbol	Unit	LMX2C-CB5-CB8-300-300-K1AC	LMX2C-CB5-CB8-400-500-K1AC	LMX2C-CB5-CB8-500-500-K1AC
Stroke of Y-axis		mm	300	400	500
Stroke of X-axis		mm	300	500	500
Width of travel carriage	A	mm	218		
Length of travel carriage	LC	mm	215		
Profile width of X-axis	W	mm	286		
Total height	H	mm	205		
Length of Y-axis	LTY	mm	619	719	819
Length of X-axis	LTX	mm	704	904	904
Continuous force of Y-axis	FCY	N	91		
Continuous force of X-axis	FCX	N	145		
Peak force of Y-axis	FPY	N	364		
Peak force of X-axis	FPX	N	580		
Max. speed ¹⁾	v _{max}	m/s	0.3		
Max. acceleration ¹⁾	a _{max}	m/s ²	5		
Max. load capacity		Kg	5		
Distance measuring system	—		K: Optical, digital TTL, resolution 0.1 µm		
Repeatability		µm	±1		
Absolute precision		µm	±3		
Straightness		µm	±5 / 300 mm		
Flatness		µm	±5 / 300 mm		
Yaw		arc sec	±5 / 300 mm		
Pitch		arc sec	±5 / 300 mm		
Orthogonality		arc sec	10 (200 × 200 mm ²)		
Weight		kg	70	80	90
Energy chain of Y-axis	—		R6.29.040.055.0		
Energy chain of X-axis	—		R6.29.050.055.0		
Motor type of Y-axis			LMCB5		
Motor type of X-axis			LMCB8		
Article number			80088433	80089966	80090060

¹⁾ With maximum load capacity