

WM60X

Ball Screw Drive, Ball Guide, Left/Right Moving Carriages

- » Ordering key - see page 193
- » Accessories - see page 131
- » Additional data - see page 188

General Specifications

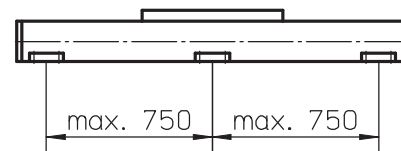
Parameter	WM60X
Profile size (w × h) [mm]	60 × 60
Type of screw	ball screw with double nut
Carriage sealing system	self-adjusting plastic cover band
Screw supports	included in all units that require screw supports
Lubrication	central lubrication of all parts that require lubrication
Included accessories	4 × mounting clamps

Carriage Idle Torque (M_{idle}) [Nm]

Input speed [rpm]	Screw lead [mm]
	$p = 5$
150	1,6
1500	2,8
3000	3,6

M_{idle} = the input torque needed to move the carriage with no load on it.

Deflection of the Profile



A mounting clamp must be installed at least every 750 mm to be able to operate at maximum load. Less clamps may be required if less load is being operated, see the additional technical data for more information. Units with a profile length over 6300 mm consist of two profiles where the joint between the two profiles must be adequately supported on both sides.

Performance Specifications

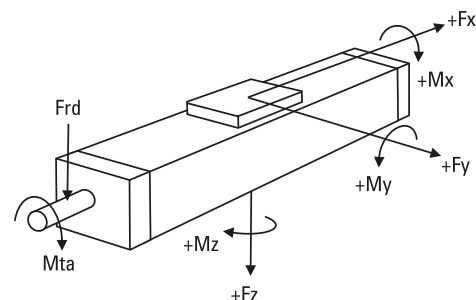
for Units with Single Standard Carriage (N)¹

Parameter		WM60X
Stroke length (S_{max}), maximum	[mm]	10340
Linear speed, maximum	[m/s]	0,25
Acceleration, maximum	[m/s ²]	20
Repeatability	[± mm]	0,01
Input speed, maximum	[rpm]	3000
Operation temperature limits	[°C]	0 – 80
Dynamic load (F_x), maximum	[N]	4000
Dynamic load (F_y), maximum	[N]	2000
Dynamic load (F_z), maximum	[N]	2000
Dynamic load torque (M_x), maximum	[Nm]	100
Dynamic load torque (M_y), maximum	[Nm]	200
Dynamic load torque (M_z), maximum	[Nm]	200
Drive shaft force (F_{rd}), maximum ²	[N]	500
Input/drive shaft torque (M_{ta}), maximum	[Nm]	35
Ball screw diameter (d_o)	[mm]	20
Ball screw lead (p)	[mm]	5
Weight	[kg]	
of unit with zero stroke		10,33
of every 100 mm of stroke		0,65
of each carriage		1,99


¹ See next page for deviating values of units with other carriage types.

² Only relevant for units without RediMount flange.

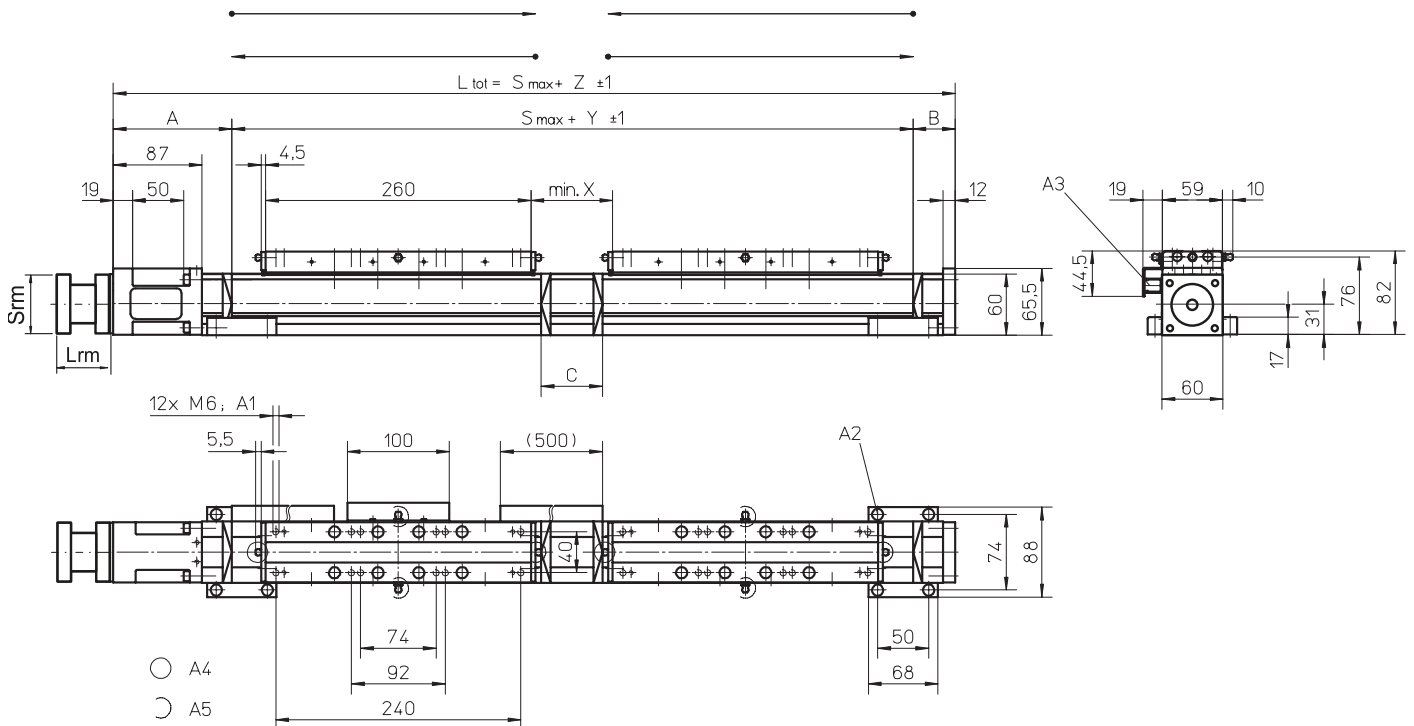
Definition of Forces



WM60X

Dimensions	Projection	Online Sizing & Selection!
METRIC		www.LinearMotioneering.com

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Parameter	Min	Max
Flange length (Lrm) [mm]	83	145
Flange square (Srm) [mm]	90	200
Flange weight * [kg]	5,64	

* Max. weight including coupling and fastening screws

- A1: depth 11
- A2: socket cap screw ISO4762-M6x20 8.8
- A3: ENF inductive sensor rail kit (optional - see page 166)

- A4: tapered lubricating nipple to DIN71412 AM6 on fixed-bearing side as standard feature
- A5: can be changed over to one of the three alternative lubricating points by the customer

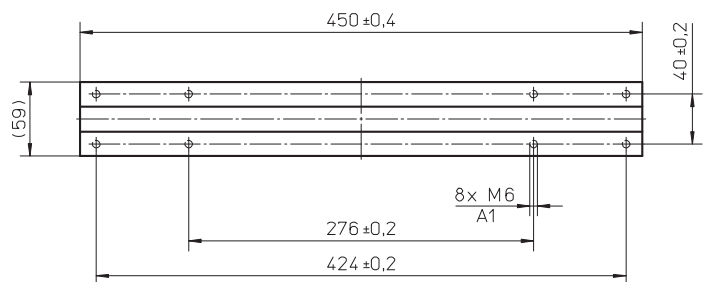
Stroke length (Smax) [mm]	A [mm]	B [mm]	C [mm]	X [mm]	Y [mm]	Z [mm]
0 - 1390 (0 - 1200)	115	65	60	80	620	800
1391 - 2670 (1201 - 2480)	165	115	210	230	770	1050
2671 - 4150 (2481 - 3960)	185	135	250	270	810	1130
4151 - 5560 (3961 - 5370)	210	160	300	320	860	1230
5561 - 10340 (5371 - 10150)	contact customer service					

Values between brackets = for units with long carriage

Performance Specifications

for Units with Single Long Carriage (L)

Parameter	WM60X
Carriage length [mm]	450
Dynamic load torque (My), maximum [Nm]	500
Dynamic load torque (Mz), maximum [Nm]	500
Weight [kg]	3,1



A1: depth 11