

LinMot Miniature Linear Servo Drives

Miniature direct drive linear motors of tubular ironless construction with LinMot digital drives are very compact size and suitable for applications that lack space.

Linear modules are motors ready to use with integrated linear guides and linear motors. Built with precision ball sliders and rails which allow high force and torque loads.

Maximum speed and acceleration refer to the linear motor data.

A wide variety of motion controllers offers choices to best fit the application.

Fieldbus devices with Profibus-DP, CANOpen, DeviceNet, RS232, RS485 and Ethernet are available.

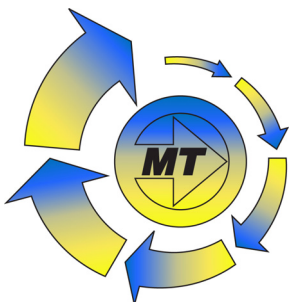


Miniature linear Servodrives

- miniaturised linear direct drives
- peak force to 27.6 N
- 3 phase ironless construction
- integrated incremental measuring system
- integrated plain bearings
- max. speed up to 5 m/s
- acceleration up to 600 m/s²
- repetitive position accuracy +/- 0,05 mm
- compact motion controllers
- fieldbus Profibus-DP, CANOpen, DeviceNet, RS232, RS485 or Ethernet

Linear modules QM01

- turn key linear module with integrated linear motor
- miniature precision linear guide
- high dynamic force and torque loads
- recommended mechanical limits of 5 m/s and 150 m/s² max.

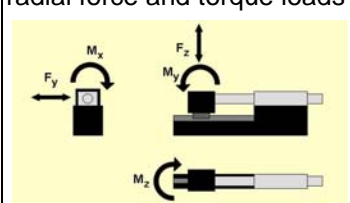


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Tecnical data for Miniature Linear Servomotors P01-1247 and P01-2070

Motor Type	P01-1247-020	P01-1247-080	P01-1247-120	P01-2070-040	P01-2070-120
max. stroke [mm]	20	80	120	40	120
peak / average force [N]	10,7 / 3,6			27,6 / 9,2	
peak / average current [A]	1,66 / 0,55			2,37 / 0,79	
moving slider mass [g]	18	35	43	98	168
max. speed [m/s]	5,0	5,0	5,0	5,0	5,0
max. acceleration without additional mass [m/s ²]	594	306	249	282	164
resolution [mm]	0,006			0,008	
repetitive accuracy [mm]	+/- 0,05				
absolute accuracy [mm]	+/- 0,12	+/- 0,18	+/- 0,22	+/- 0,2	+/- 0,4
dim. stator W x H x L [mm]	12,5 x 32,5 x 49,4			20,0 x 45,0 x 74,0	
slider diameter [mm]	6,31			12,0	
total weight [g]	67	84	92	246	316
connector	10 cm cable with DSUB-9 connector				
operating temperature [°C]	-20 - +125				
rel. humidity [%]	0 – 95 non condensing				

Tecnical data, linear modules QM01-1247 and QM01-2070

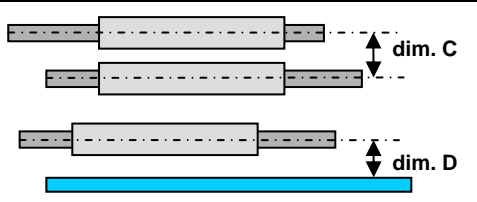
Module Type	QM01-1247-020	QM01-1247-	QM01-1247-120	QM01-2070-040	QM01-2070-120
max. mech. stroke [mm]	29	95	133	55	135
moving mass w/out slider [g]	33	33	33	37	37
max. velocity [m/s] and acceleration [m/s ²]	5 / 150				
dimensions W x H [mm]	20 x 58	20 x 58	20 x 58	20 x 70	20 x 70
length [mm]	120	180	215	160	240
weight motor included [g]	220	280	300	426	566
operating temperature [°C]	-20 bis +125				
radial force and torque loads	 <p> $F_y = 0,5 \text{ kN}$ $F_z = 1,3 \text{ kN}$ $M_x = 5,0 \text{ Nm}$ $M_y = 3,1 \text{ Nm}$ $M_z = 3,7 \text{ Nm}$ </p>				

Strokes and dimensions for linear servo motors

	Motor Type	P01-1247-020	P01-1247-080	P01-1247-120	P01-2070-040	P01-2070-120
	stroke [mm]	20	80	120	40	120
	slider length [mm]	82	154	190	134	218
	stator length [mm]	49,4	49,4	49,4	74	74
	dim. A [mm]	6,3	12,3	10,3	10	12
	dim. B [mm]	26,3	92,3	130,3	50	132

Minimum mounting distances

Motor Type	P01-1247	P01-2070
Minimum distances		
motor to motor dim. C [mm]	27	35
motor to ferromagnetic or conductive material dim. D [mm]	13	20



Idealised positioning times with servodrives and horizontal strokes

Motor Type	P01-1247-020	P01-1247-080	P01-1247-120	P01-2070-040	P01-2070-120
horizontal stroke [mm]	20	80	120	40	120
min. pos. time for stroke [ms]	12	32	44	24	54
pos. time [ms] for stroke / with add. mass [g]	23 / 50	51 / 50	65 / 50	45 / 250	85 / 250
Greater additional masses will increase positioning time!					
Please contact us for vertical applications!					

Ordering informations

Linear module (motor and guide mounted)	Article-No.	linear motor	Article-No.	Linear guide without motor	Article-No.
QM01-1247-020	0291022	P01-1247-020	0290955	QF01-1247-020	0291002
QM01-1247-080	0291023	P01-1247-080	0290956	QF01-1247-080	0291003
QM01-1247-120	0291055	P01-1247-120	0291054	QF01-1247-120	0291056
QM01-2070-040	0291033	P01-2070-040	0291031	QF01-2070-040	0291029
QM01-2070-120	0291034	P01-2070-120	0291032	QF01-2070-120	0291030

Motion Controllers

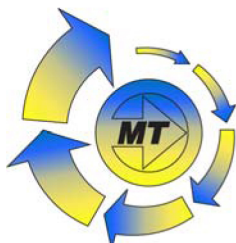
Controller Type	F1000	B1100-PP	B1100-GP	E1130-DP
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single axis controller	Yes	Yes	Yes	Yes
output phases	3	2 / 3		
max. phase current	10 A	8 A		
average phase current	3 A	8 A		
logic supply voltage	24 VDC	24 VDC		
motor power supply voltage	24 VDC	24 to 72 VDC		
PLC inputs	11	6		
PLC outputs	1	6	6	1
internal positioning tasks	8	6	6	
triangle / trapezoidal motion profile	Yes	Yes	Yes	Yes
free motion profiles				Yes
RS232	Yes	Yes	Yes	Yes
RS232 remote controll	Yes		Yes	
0 - 10 V position input		Yes	Yes	Yes
analog scaling of parameters		Yes	Yes	Yes
master-slave synchronisation				Yes
CANOpen interface			Yes	Yes
DeviceNet interface			Yes	
Profibus-DP interface				Yes
dimensions (W x H x L) [mm]	36 x 80 x 87	31 x 206 x 106		38 x 255 x 180
weight [kg]	0,25	0,7		1,5
operating temperature [°C]	0 - +45			
storage temperature [°C]	-25 - +85			
rel. humidity	0 – 95 non condensing			
housing	IP20 / VBG4			

Options

- custom made cables
- turn key solutions

Technical data can be changed without any announcement
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