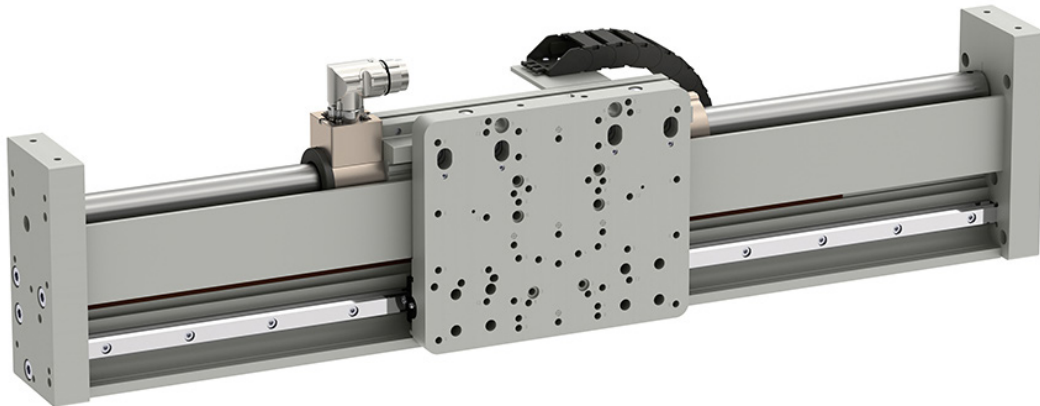


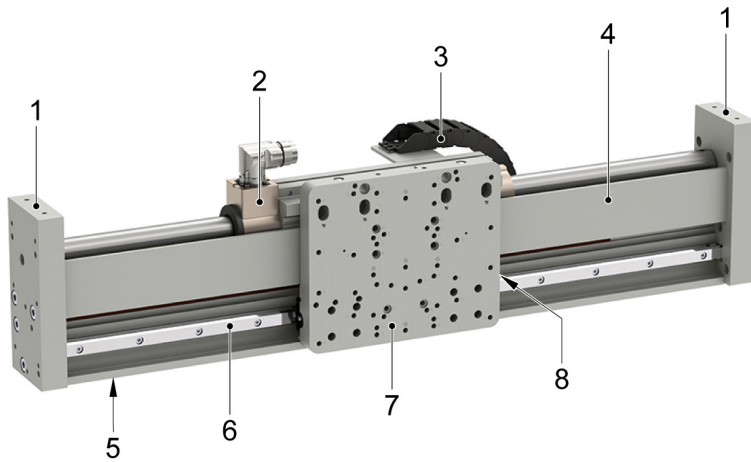
LINEAR MODULES FM01



- ✓ Integrated direct drive for high dynamics
- ✓ Stable profile rail guide for high load capacity
- ✓ With a peak force of 1020 N
- ✓ Can be combined as required with LinMot® linear modules or linear rotary motors
- ✓ Available with up to 8 independent carriages on the same guide
- ✓ Equipped with "Plug and Play" technology
- ✓ Simple load simulation through LinMot Designer software

Linearmodule FM01

Description	3
FM01-37Sx60	6
FM01-37Sx120	10
FM01-48x150	14
FM01-48x240	18
FM01-48x360	22
Accessories	26



1. End plates with a wide range of fastening options
2. LinMot linear motor with integrated position sensors, temperature monitoring and electronic nameplate
3. Optional trailing chain guide for the motor cable and other cables or hoses
4. Torsion-resistant anodised aluminium profiles
5. T-slots in the profile for fastening and mounting accessories
6. Rail guide for absorbing high moments
7. Mounting plate for direct mounting of the load
8. Optional external sensor (incremental or absolute) for increased positioning accuracy

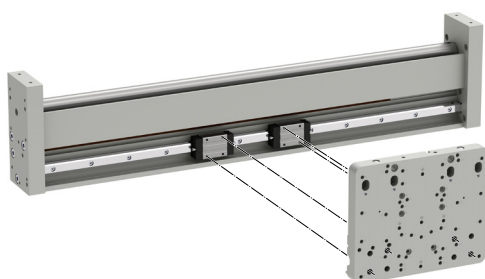
Linear Modules FM01

The FM01 linear modules are complete drive solutions consisting of a linear guide and an integrated "LinMot" linear motor. The modules of the FM01-37S and FM01-48 series differ in the linear motors used. While motors of the PS01-37Sx60 and PS01-37Sx120 series with a maximum force of 128 N and 255 N are used in the FM01-37S, linear motors of the PS01-48x150G, PS01-48x240F and PS01-48x360F types with peak forces of 360 N, 572 N and 1020 N are used in the FM01-48 modules. The external dimensions of the FM01-37 and FM01-48 linear modules are largely identical.

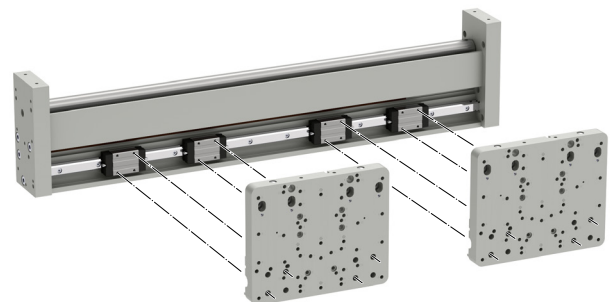
The linear modules are based on an anodised aluminium profile on which two profile rail guides are mounted. This and the

carriages offer a high guiding accuracy and can in particular absorb high torques, so that cantilever loads are also possible. The modules of the FM01-48 series are supplied with two carriages as standard.

Each FM01 linear module is delivered assembled and tested and does not have to be assembled from individual parts. Only one article number is required for ordering. The assembly and commissioning of the drives is extremely simple, as all FM01 linear modules are equipped with "Plug and Play" technology. The required type parameters are automatically read in by the servo drive, thus simplifying the commissioning of the linear modules.



Linear module with one Carriage Kit

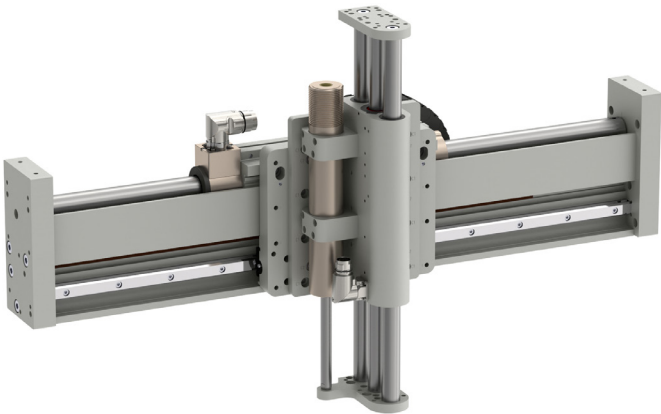


Linear module with two Carriage Kits

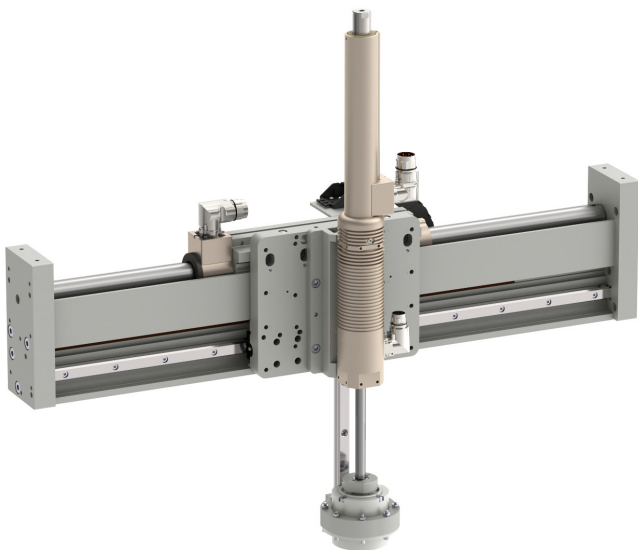
Application and combinations of the FM01 linear modules

The FM01 linear modules up to a length of 1200 mm can be used both horizontally and vertically. Longer modules should only be installed upright. As standard, all modules have linear motors with integrated position measurement, temperature monitoring and electronic type plate. If increased positioning accuracy is required for the respective application, module variants with absolute and incremental value sensors are available. Due to the direct linear motor technology used, it is possible to place several drive units on one guide and control their movements independently of each other. This results in com-

pact and economical multi-motor solutions with a wide range of application perspectives, such as for merging or separating products on a conveyor belt. FM01 linear modules can be screwed directly to other LinMot products with intelligent LinMot adapter plates, so that any XYZ combinations can be realised. The motor cable and any additional cables and hoses for the load can be fed via a trailing chain, the attachment points of which are already provided. For mounting the load, appropriate holes and threads with centring possibilities are provided on the moving mounting plate.



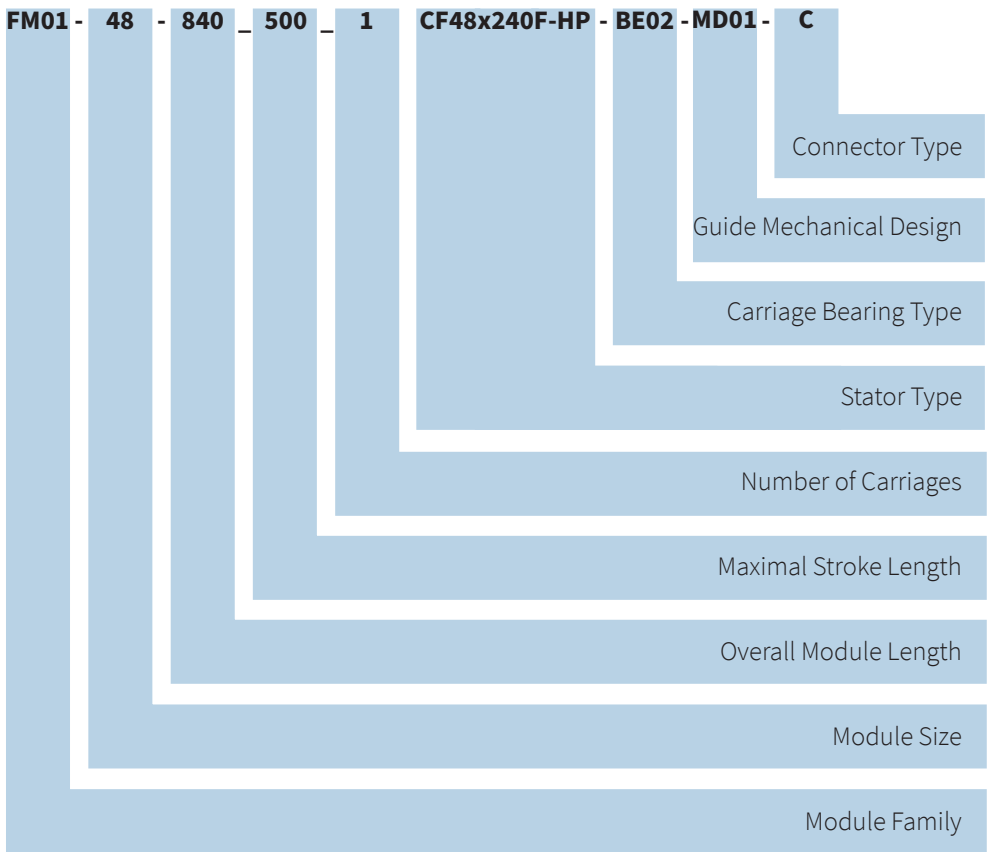
Pick & Place
FM01-48x240F-HP with DM01 linear module



Pick, Rotate & Place
FM01-48x240F-HP with PR01-52 gearbox

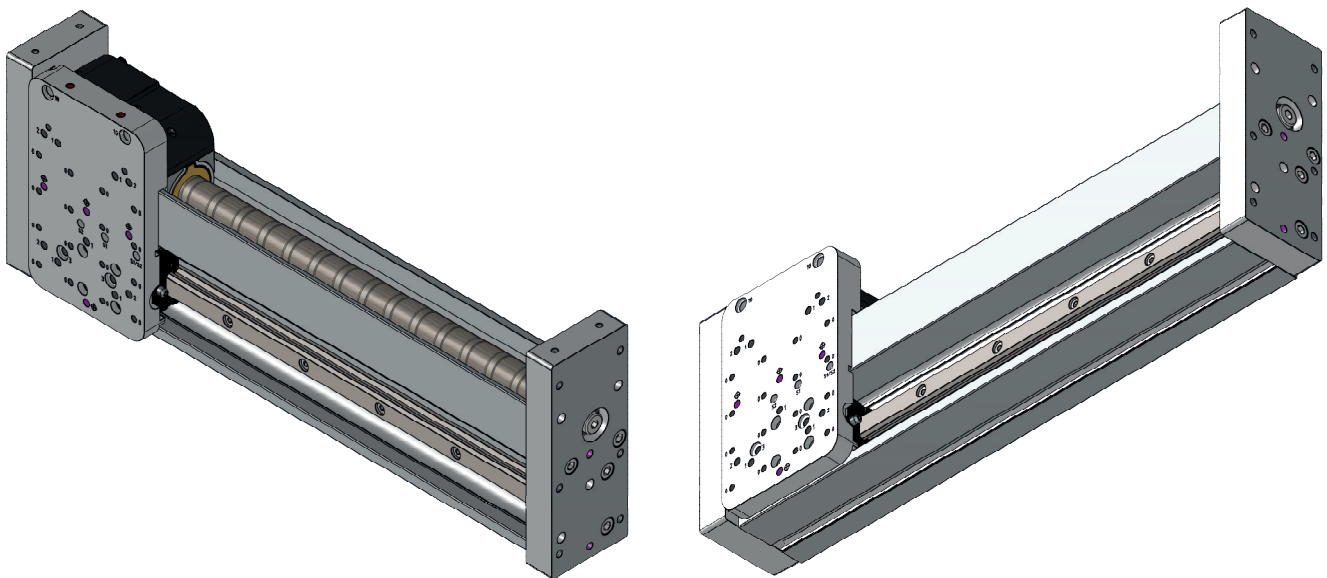
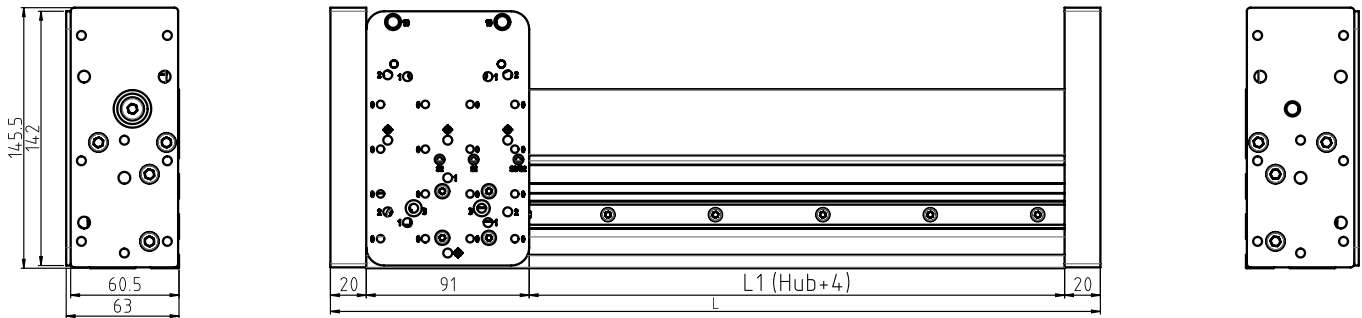
13

Designation Code Linear Modules FM01



The FM01 linear module product family currently offers more than 50 product variants. Each variant has its own article number and is supplied fully assembled. The wide variety of sizes, strokes, forces and equipment features opens up a very comprehensive range of applications for the user.

FM01-37SX60

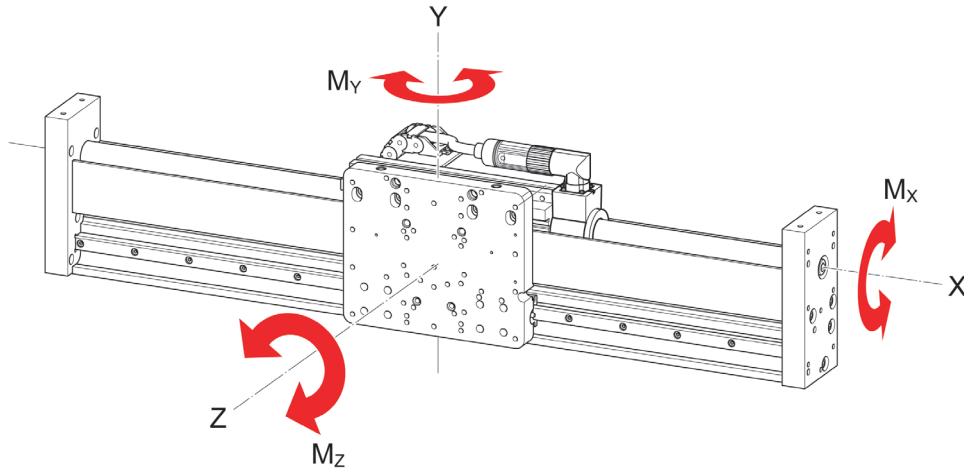


Dimensions mm

Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
FM01-37-330_195_1CF37Sx60-HP-BE01-MD01-N	195 (7.68)	330 (13.0)	591 (1.30)	6815 (15.02)
FM01-37-430_295_1CF37Sx60-HP-BE01-MD01-N	295 (11.61)	430 (16.93)	591 (1.30)	7743 (17.07)
FM01-37-530_395_1CF37Sx60-HP-BE01-MD01-N	395 (15.55)	530 (20.87)	591 (1.30)	8815 (19.43)
FM01-37-630_495_1CF37Sx60-HP-BE01-MD01-N	495 (19.49)	630 (24.80)	591 (1.30)	9767 (21.53)
FM01-37-830_695_1CF37Sx60-HP-BE01-MD01-N	695 (27.36)	830 (32.68)	591 (1.30)	11685 (25.76)
FM01-37-1030_895_1CF37Sx60-HP-BE01-MD01-N	895 (35.24)	1030 (40.55)	591 (1.30)	13592 (29.97)
FM01-37-1230_1095_1CF37Sx60-HP-BE01-MD02-N	1095 (43.11)	1230 (48.43)	591 (1.30)	15653 (34.51)
FM01-37-1430_1295_1CF37Sx60-HP-BE01-MD02-N	1295 (50.98)	1430 (56.30)	591 (1.30)	17582 (38.76)
FM01-37-1630_1495_1CF37Sx60-HP-BE01-MD02-N	1495 (58.86)	1630 (64.17)	591 (1.30)	19564 (43.13)
FM01-37-2030_1895_1CF37Sx60-HP-BE01-MD02-N	1895 (74.61)	2030 (79.92)	591 (1.30)	23528 (51.87)

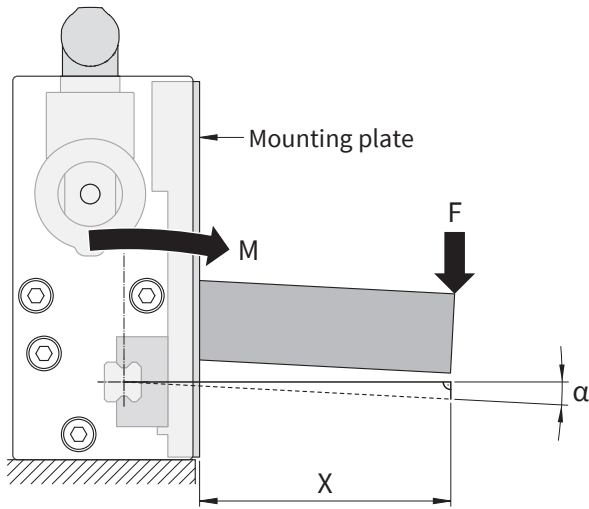
¹⁾ Mass: Mounting plate, Stator, Bearings

PERFORMANCE DATA FM01-37SX60

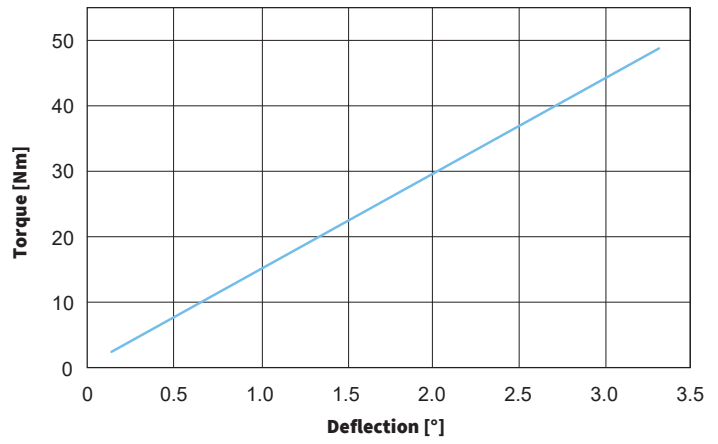


Performance Data Linear Module FM01-37Sx60			
Mechanical Data			
Static Load Rating (per Carriage)	N (lbf)	15400	(3462.1)
Dynamic Load Rating (per Carriage)	N (lbf)	8400	(1888.4)
Static Moment Load M_{x0}	Nm (lbfin)	54	(477.9)
Static Moment Load $M_{y0/20}$	Nm (lbfin)	54	(477.9)
Dynamic Moment Loads M_x	Nm (lbfin)	54	(477.9)
Dynamic Moment Loads $M_{y/z}$	Nm (lbfin)	cannot occur	
Friction (estimated)	N (lbf)	10	(2.25)
Number of Bearings (Linear Ball Bearings)		1	
Distance between Bearings (Linear Ball Bearings)	mm (in)	(-)	
Distance between Rails	mm (in)	138	(5.43)
Max. Force @ 72VDC	N (lbf)	128	(28.7)
Max. Cont. Force	N (lbf)	16	(3.7)
Force Constant	N/A _{pk} (lbf/A _{pk})	13.4	(3.02)
Velocity			
Max. Velocity @ 72VDC	m/s (in/s)	4.9	(189.9)
Position Detection			
Position Resolution	mm (in)	0.005	(0.0002)
Repeatability	mm (in)	±0.05	(±0.002)
Position Resolution with external Sensor	mm (in)	0.001	(0.00004)
Repeatability with external Sensor	mm (in)	±0.01	(±0.0004)
Linearity with external Sensor	mm (in)	±0.01	(±0.0004)
Electrical Data			
Max. Current @ 72VDC	A _{pk}	9.4	
Max. Cont. Current	A _{pk}	1.2	
Terminal Resistance 25 °C / 150 °C	Ohm	3.2 / 4.7	
Terminal Inductivity	mH	1.6	
Magnetic Period	mm (in)	40	(1.57)
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance	K/W	12	
Thermal Time Constant	s	2400	

DEFLECTION



M = Torque ($F \times x$)
 F = Force
 x = Lever arm
 α = Deflection

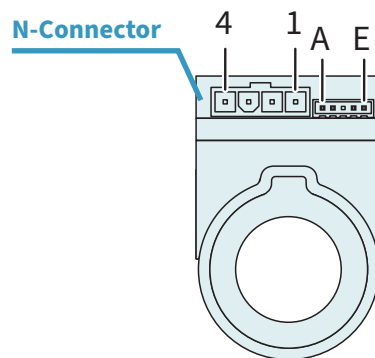


MATERIALS

Guide profile	Anodised aluminium
Mounting plate	Anodised aluminium
End plate	Anodised aluminium
Bearing	Plastic, aluminium, metal
Rail guide	Hardened steel
Slider	Chrome steel

CONNECTOR

Motor Connector Wiring	N-Connector	Wire color motor cable
Phase 1+	Pin 4	red
Phase 1-	Pin 3	pink
Phase 2+	Pin 2	blue
Phase 2-	Pin 1	grey
+5V	Pin A	white
GND	Pin B	Inner Shield
Sensor Sin	Pin C	yellow
Sensor Cos	Pin D	green
Temp Sensor	Pin E	black
Housing		Outer Shield

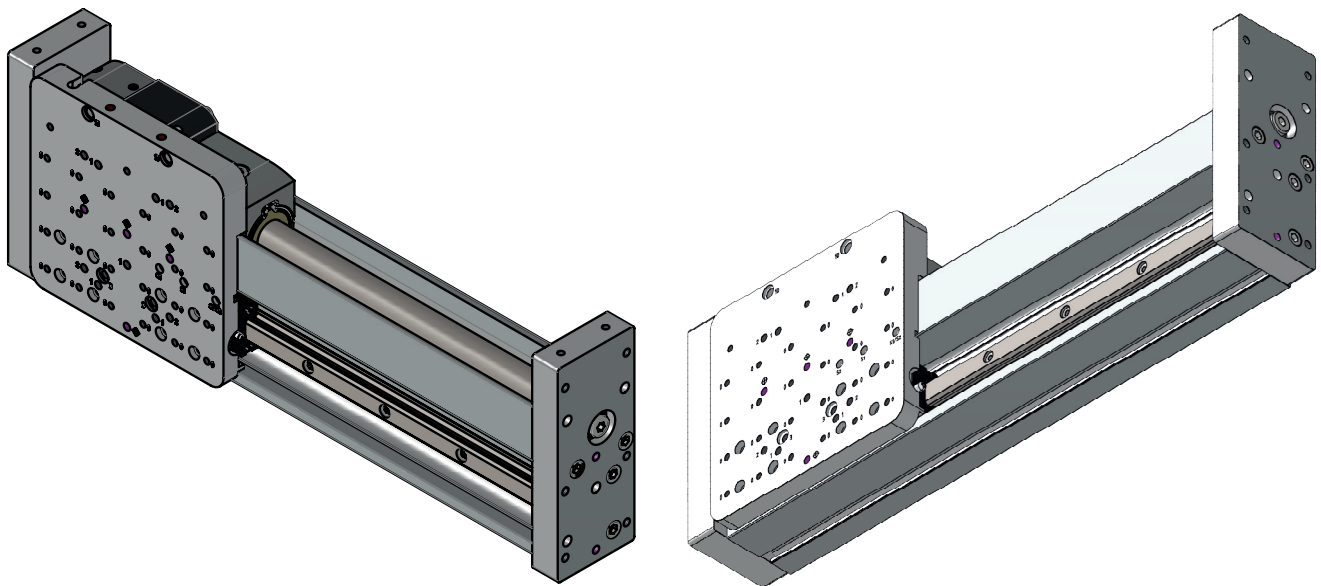
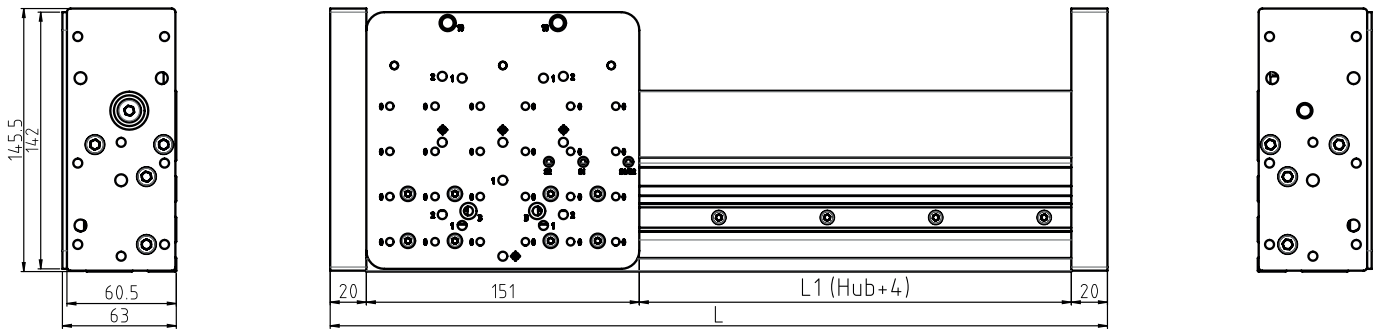


View: Motor connector, plug side

ORDERING INFORMATION

Item	Description	Item-No.
FM01-37-330_195_1CF37Sx60-HP-BE01-MD01-N	Linear module, stroke max. 195 mm, single bearing	0150-4980
FM01-37-430_295_1CF37Sx60-HP-BE01-MD01-N	Linear module, stroke max. 295 mm, single bearing	0150-4988
FM01-37-530_395_1CF37Sx60-HP-BE01-MD01-N	Linear module, stroke max. 395 mm, single bearing	0150-4989
FM01-37-630_495_1CF37Sx60-HP-BE01-MD01-N	Linear module, stroke max. 495 mm, single bearing	0150-4991
FM01-37-830_695_1CF37Sx60-HP-BE01-MD01-N	Linear module, stroke max. 695 mm, single bearing	0150-4992
FM01-37-1030_895_1CF37Sx60-HP-BE01-MD01-N	Linear module, stroke max. 895 mm, single bearing	0150-4993
FM01-37-1230_1095_1CF37Sx60-HP-BE01-MD02-N	Linear module, stroke max. 1095 mm, single bearing	0150-4994
FM01-37-1430_1295_1CF37Sx60-HP-BE01-MD02-N	Linear module, stroke max. 1295 mm, single bearing	0150-4995
FM01-37-1630_1495_1CF37Sx60-HP-BE01-MD02-N	Linear module, stroke max. 1495 mm, single bearing	0150-4996
FM01-37-2030_1895_1CF37Sx60-HP-BE01-MD02-N	Linear module, stroke max. 1895 mm, single bearing	0150-4997

FM01-37SX120

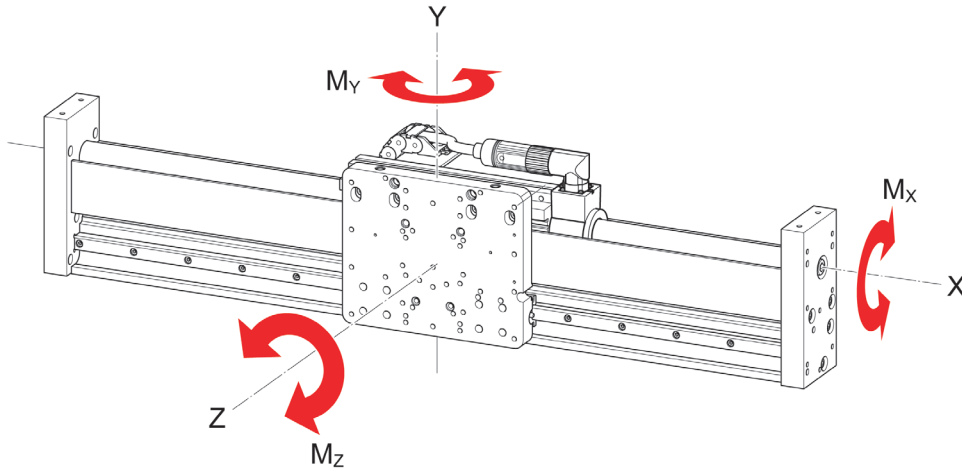


Dimensions mm

Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
FM01-37-330_135_1CF37Sx120F-HP-BE02-MD01-N	135 (5.31)	330 (13.0)	1579 (3.48)	6985 (15.40)
FM01-37-430_235_1CF37Sx120F-HP-BE02-MD01-N	235 (9.25)	430 (16.93)	1579 (3.48)	7913 (17.45)
FM01-37-530_335_1CF37Sx120F-HP-BE02-MD01-N	335 (13.19)	530 (20.87)	1579 (3.48)	8985 (19.81)
FM01-37-630_435_1CF37Sx120F-HP-BE02-MD01-N	435 (17.13)	630 (24.80)	1579 (3.48)	9937 (21.91)
FM01-37-830_635_1CF37Sx120F-HP-BE02-MD01-N	635 (25.0)	830 (32.68)	1579 (3.48)	11855 (26.14)
FM01-37-1030_835_1CF37Sx120F-HP-BE02-MD01-N	835 (32.87)	1030 (40.55)	1579 (3.48)	13761 (30.38)
FM01-37-1230_1035_1CF37Sx120F-HP-BE02-MD02-N	1035 (40.75)	1230 (48.43)	1579 (3.48)	15671 (34.55)
FM01-37-1430_1235_1CF37Sx120F-HP-BE02-MD02-N	1235 (48.62)	1430 (56.30)	1579 (3.48)	17600 (38.80)
FM01-37-1630_1435_1CF37Sx120F-HP-BE02-MD02-N	1435 (56.50)	1630 (64.17)	1579 (3.48)	19581 (43.17)
FM01-37-2030_1835_1CF37Sx120F-HP-BE02-MD02-N	1835 (72.24)	2030 (79.92)	1579 (3.48)	23546 (51.91)

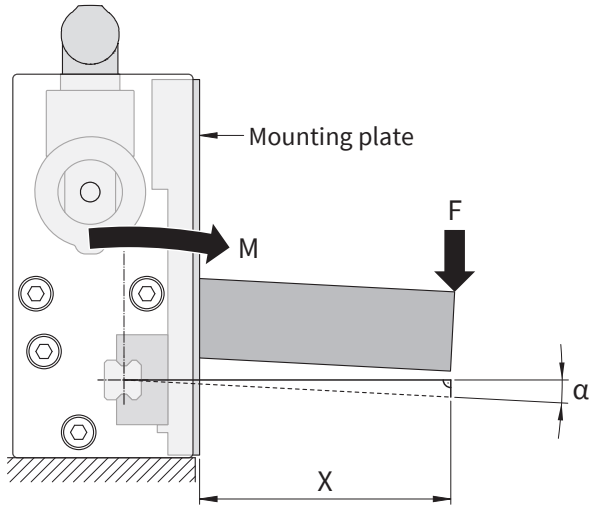
¹⁾ Mass: Mounting plate, Stator, Bearings

PERFORMANCE DATA FM01-37SX120

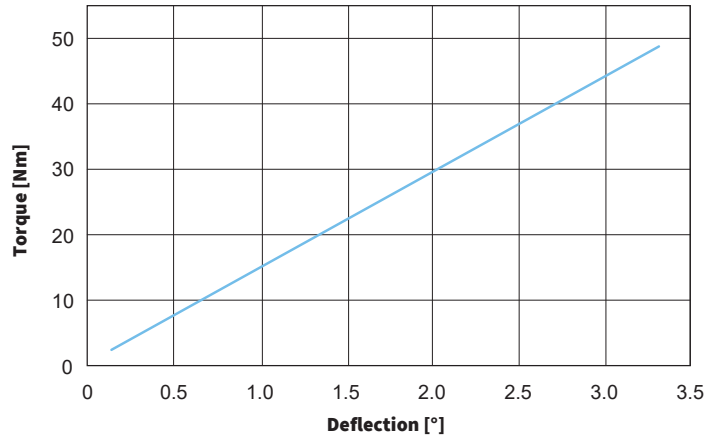


Performance Data Linear Module FM01-37Sx120			
Mechanical Data			
Static Load Rating (per Carriage)	N (lbf)	15400	(3462.1)
Dynamic Load Rating (per Carriage)	N (lbf)	8400	(1888.4)
Static Moment Load M_{x0}	Nm (lbfin)	108	(955.9)
Static Moment Load $M_{y/20}$	Nm (lbfin)	cannot occur	
Dynamic Moment Loads M_x	Nm (lbfin)	108	(955.9)
Dynamic Moment Loads $M_{y/z}$	Nm (lbfin)	108	(955.9)
Friction (estimated)	N (lbf)	10	(4.27)
Number of Bearings (Linear Ball Bearings)		1	
Distance between Bearings (Linear Ball Bearings)	mm (in)	108	(4.25)
Distance between Rails	mm (in)	-	-
Max. Force @ 72VDC	N (lbf)	255	(57.3)
Max. Cont. Force	N (lbf)	35	(7.8)
Force Constant	N/A _{pk} (lbf/A _{pk})	17	(3.82)
Velocity			
Max. Velocity @ 72VDC	m/s (in/s)	3.8	(149.9)
Position Detection			
Position Resolution	mm (in)	0.005	(0.0002)
Repeatability	mm (in)	±0.05	(±0.002)
Position Resolution with external Sensor	mm (in)	0.001	(0.00004)
Repeatability with external Sensor	mm (in)	±0.01	(±0.0004)
Linearity with external Sensor	mm (in)	±0.01	(±0.0004)
Electrical Data			
Max. Current @ 72VDC	A _{pk}	14.9	
Max. Cont. Current	A _{pk}	2.1	
Terminal Resistance 25 °C / 150 °C	Ohm	2.4 / 3.5	
Terminal Inductivity	mH	1.6	
Magnetic Period	mm (in)	40	(1.57)
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance	K/W	5.5	
Thermal Time Constant	s	2200	

DEFLECTION



M = Torque ($F \cdot x$)
 F = Force
 x = Lever arm
 α = Deflection



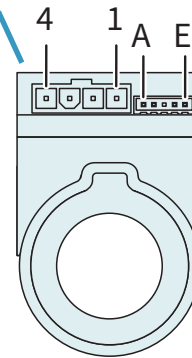
MATERIALS

Guide profile	Anodised aluminium
Mounting plate	Anodised aluminium
End plate	Anodised aluminium
Bearing	Plastic, aluminium, metal
Rail guide	Hardened steel
Slider	Chrome steel

CONNECTOR

Motor Connector Wiring	N-Connector	Wire color motor cable
Phase 1+	Pin 4	red
Phase 1-	Pin 3	pink
Phase 2+	Pin 2	blue
Phase 2-	Pin 1	grey
+5V	Pin A	white
GND	Pin B	Inner Shield
Sensor Sin	Pin C	yellow
Sensor Cos	Pin D	green
Temp Sensor	Pin E	black
Housing		Outer Shield

N-Connector

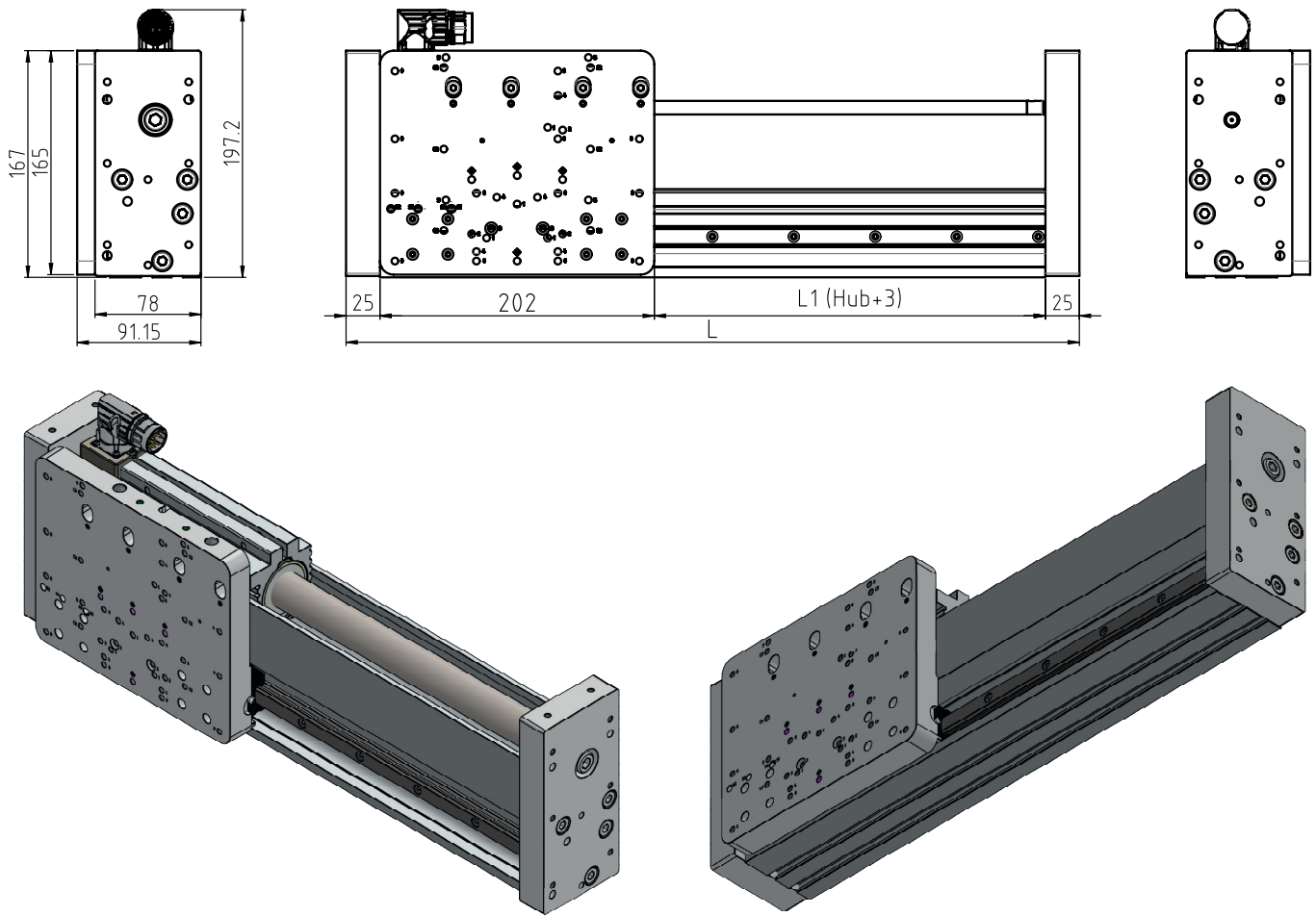


View: Motor connector, plug side

ORDERING INFORMATION

Item	Description	Item-No.
FM01-37-330_135_1CF37Sx120F-HP-BE02-MD01-N	Linear module, stroke max. 135 mm, double bearing	0150-4990
FM01-37-430_235_1CF37Sx120F-HP-BE02-MD01-N	Linear module, stroke max. 235 mm, double bearing	0150-4947
FM01-37-530_335_1CF37Sx120F-HP-BE02-MD01-N	Linear module, stroke max. 335 mm, double bearing	0150-4948
FM01-37-630_435_1CF37Sx120F-HP-BE02-MD01-N	Linear module, stroke max. 435 mm, double bearing	0150-4949
FM01-37-830_635_1CF37Sx120F-HP-BE02-MD01-N	Linear module, stroke max. 635 mm, double bearing	0150-4981
FM01-37-1030_835_1CF37Sx120F-HP-BE02-MD01-N	Linear module, stroke max. 835 mm, double bearing	0150-4982
FM01-37-1230_1035_1CF37Sx120F-HP-BE02-MD02-N	Linear module, stroke max. 1035 mm, double bearing	0150-4983
FM01-37-1430_1235_1CF37Sx120F-HP-BE02-MD02-N	Linear module, stroke max. 1235 mm, double bearing	0150-4984
FM01-37-1630_1435_1CF37Sx120F-HP-BE02-MD02-N	Linear module, stroke max. 1435 mm, double bearing	0150-4985
FM01-37-2030_1835_1CF37Sx120F-HP-BE02-MD02-N	Linear module, stroke max. 1835 mm, double bearing	0150-4986

FM01-48X150

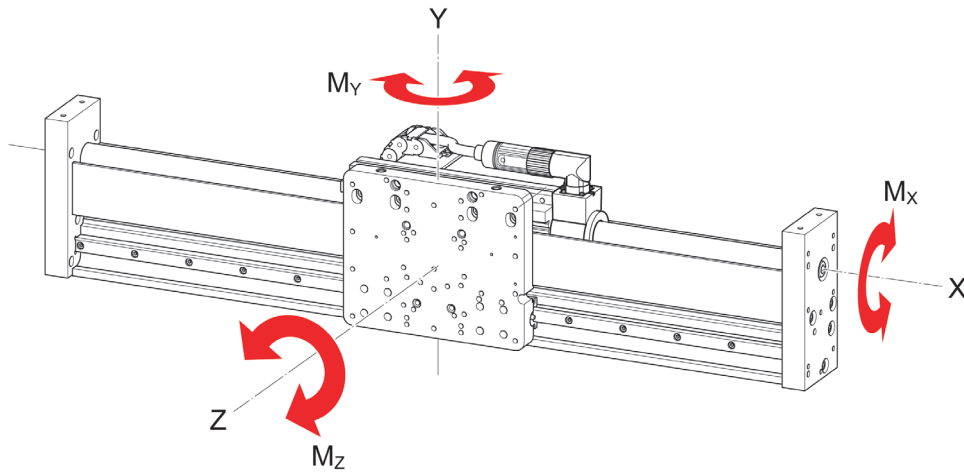


Dimensions mm

Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
FM01-48-540_285_1CF48x150G-HP-BE02-MD01-C	285 (11.22)	540 (21.26)	4598 (8.46)	12267 (27.04)
FM01-48-660_405_1CF48x150G-HP-BE02-MD01-C	405 (15.94)	660 (25.98)	4598 (8.46)	13221 (29.15)
FM01-48-750_495_1CF48x150G-HP-BE02-MD01-C	495 (19.49)	750 (29.53)	4598 (8.46)	15044 (33.17)
FM01-48-840_585_1CF48x150G-HP-BE02-MD01-C	585 (23.03)	840 (33.07)	4598 (8.46)	14798 (32.62)
FM01-48-960_705_1CF48x150G-HP-BE02-MD01-C	705 (27.76)	960 (37.80)	4598 (8.46)	14494 (31.95)
FM01-48-1050_795_1CF48x150GHP-BE02-MD01-C	795 (31.30)	1050 (41.34)	4598 (8.46)	16622 (36.65)
FM01-48-1110_855_1CF48x150G-HP-BE02-MD02-C	855 (33.66)	1110 (44.88)	4598 (8.46)	17451 (38.47)
FM01-48-1170_915_1CF48x150G-HP-BE02-MD02-C	915 (36.02)	1170 (46.06)	4598 (8.46)	18020 (39.73)
FM01-48-1260_1005_1CF48x150G-HP-BE02-MD02-C	1005 (39.57)	1260 (49.61)	4598 (8.46)	18513 (40.81)
FM01-48-1440_1185_1CF48x150G-HP-BE02-MD02-C	1185 (45.65)	1440 (56.69)	4598 (8.46)	20051 (44.20)
FM01-48-1650_1395_1CF48x150G-HP-BE02-MD02-C	1395 (54.92)	1650 (64.96)	4598 (8.46)	21935 (48.36)
FM01-48-1860_1605_1CF48x150G-HP-BE02-MD02-C	1605 (63.19)	1860 (73.23)	4598 (8.46)	23635 (52.11)
FM01-48-2040_1785_1CF48x150G-HP-BE02-MD02-C	1785 (70.28)	2040 (80.31)	4598 (8.46)	25154 (55.46)
FM01-48-2250_1995_1CF48x150G-HP-BE02-MD02-C	1995 (78.54)	2250 (88.58)	4598 (8.46)	27050 (59.64)
FM01-48-2490_2235_1CF48x150G-HP-BE02-MD02-C	2235 (87.99)	2490 (98.03)	4598 (8.46)	29487 (65.01)

¹⁾ Mass: Mounting plate, Stator, Bearings

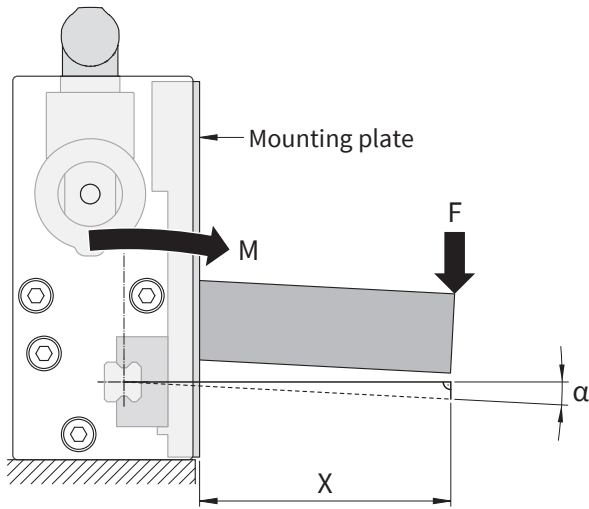
PERFORMANCE DATA FM01-48X150



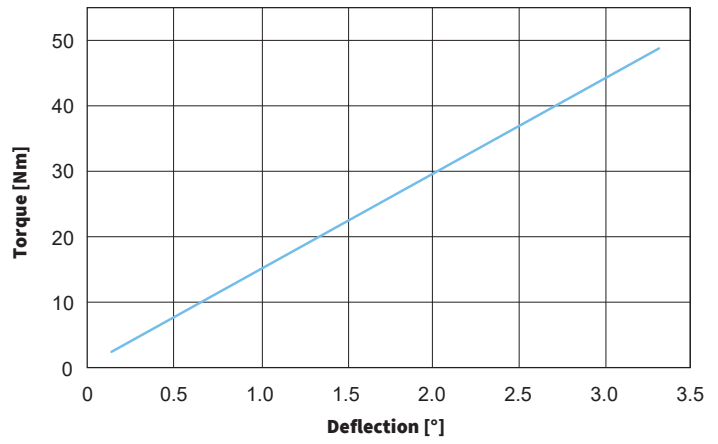
Performance Data Linear Module FM01-48x150

Performance Data Linear Module FM01-48x150			
Mechanical Data			
Static Load Rating (per Carriage)	N (lbf)	15400	(3462.1)
Dynamic Load Rating (per Carriage)	N (lbf)	8400	(1888.4)
Static Moment Load M_{x0}	Nm (lbf·in)	108	(955.9)
Static Moment Load $M_{y/20}$	Nm (lbf·in)	cannot occur	
Dynamic Moment Loads M_x	Nm (lbf·in)	108	(955.9)
Dynamic Moment Loads $M_{y/z}$	Nm (lbf·in)	cannot occur	
Friction (estimated)	N (lbf)	10	(2.25)
Number of Bearings (Linear Ball Bearings)		2	
Distance between Bearings (Linear Ball Bearings)	mm (in)	128	(5.04)
Distance between Rails	mm (in)	-	-
Max. Force @ 72VDC	N (lbf)	360	(80.9)
Max. Cont. Force	N (lbf)	100	(23)
Force Constant	N/A _{pk} (lbf/A _{pk})	15.65	(3.51)
Velocity			
Max. Velocity @ 72VDC	m/s (in/s)	4.1	(169.9)
Position Detection			
Position Resolution	mm (in)	0.007	(0.0003)
Repeatability	mm (in)	±0.05	(±0.002)
Position Resolution with external Sensor	mm (in)	0.001	(0.00004)
Repeatability with external Sensor	mm (in)	±0.01	(±0.0004)
Linearity with external Sensor	mm (in)	±0.01	(±0.0004)
Electrical Data			
Max. Current @ 72VDC	A _{pk}	23	
Max. Cont. Current	A _{pk}	6.7	
Terminal Resistance 25 °C / 150 °C	Ohm	0.81 / 1.2	
Terminal Inductivity	mH	0.7	
Magnetic Period	mm (in)	60	(2.35)
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance	K/W	1.5	
Thermal Time Constant	s	970	

DEFLECTION



M = Torque ($F \cdot x$)
 F = Force
 x = Lever arm
 α = Deflection



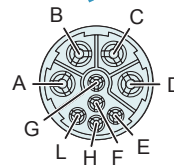
MATERIALS

Guide profile	Anodised aluminium
Mounting plate	Anodised aluminium
End plate	Anodised aluminium
Bearing	Plastic, aluminium, metal
Rail guide	Hardened steel
Slider	Chrome steel

CONNECTOR

Motor Connector Wiring	C-Connector	Wire Color Motor Cable
Ph 1+	A	red
Ph 1-	B	pink
Ph 2+	C	blue
Ph 2-	D	grey
+5VDC	E	white
GND	F	inner Shield
Sinus	G	yellow
Cosinus	H	green
Temp.	L	black
Shield	Case	outer Shield

C-Connector

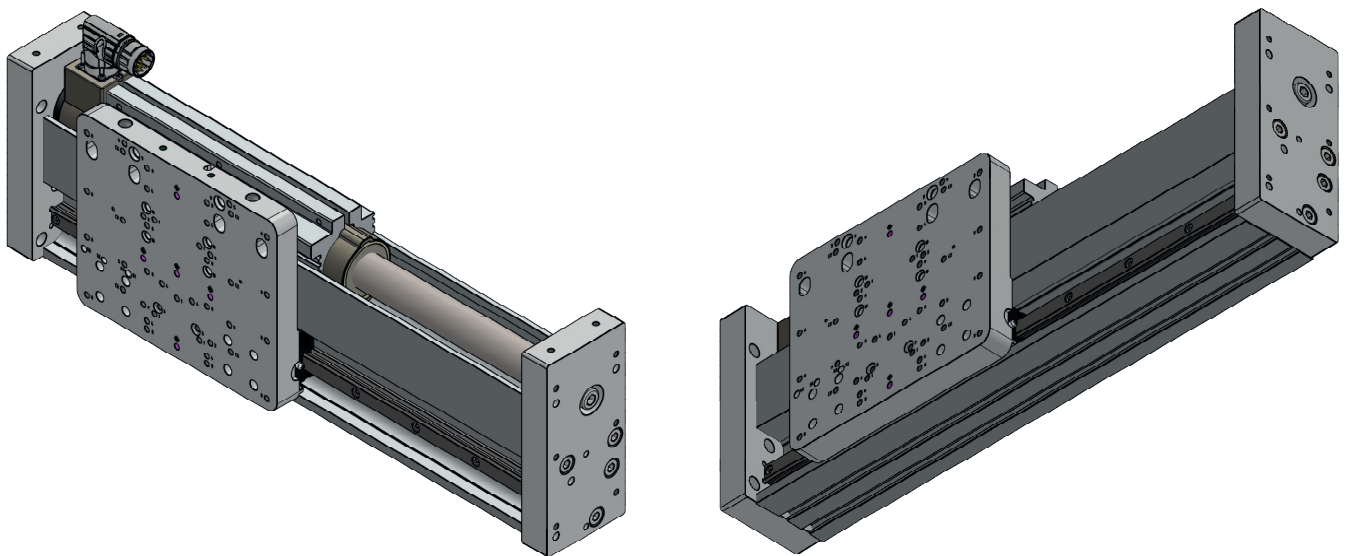
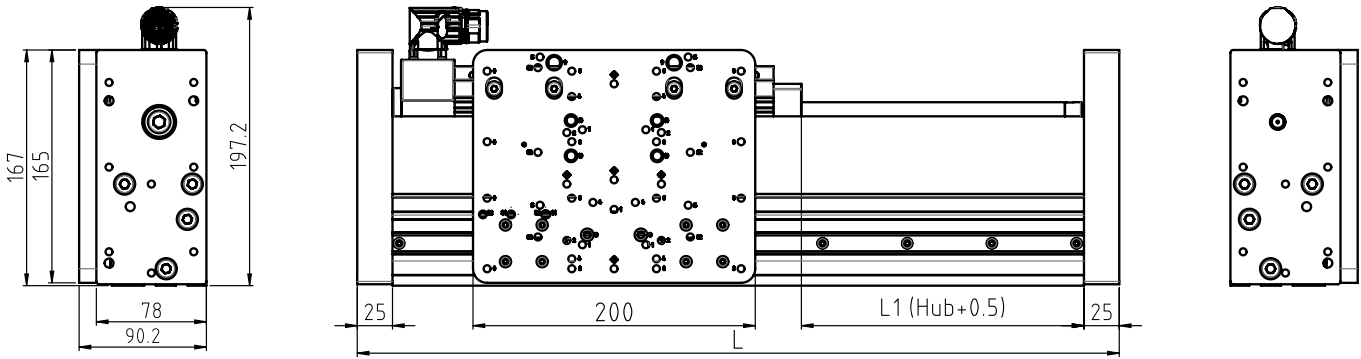


View: Motor connector, plug side

ORDERING INFORMATION

Item	Description	Item-No.
FM01-48-540_285_1CF48x150G-HP-BE02-MD01-C	Linear module, stroke max. 285 mm, double bearing	0150-5658
FM01-48-660_405_1CF48x150G-HP-BE02-MD01-C	Linear module, stroke max. 405 mm, double bearing	0150-5659
FM01-48-750_495_1CF48x150G-HP-BE02-MD01-C	Linear module, stroke max. 495 mm, double bearing	0150-5660
FM01-48-840_585_1CF48x150G-HP-BE02-MD01-C	Linear module, stroke max. 585 mm, double bearing	0150-5661
FM01-48-960_705_1CF48x150G-HP-BE02-MD01-C	Linear module, stroke max. 705 mm, double bearing	0150-5662
FM01-48-1050_795_1CF48x150GHP-BE02-MD01-C	Linear module, stroke max. 795 mm, double bearing	0150-5663
FM01-48-1110_855_1CF48x150G-HP-BE02-MD02-C	Linear module, stroke max. 855 mm, double bearing	0150-5664
FM01-48-1170_915_1CF48x150G-HP-BE02-MD02-C	Linear module, stroke max. 915 mm, double bearing	0150-5708
FM01-48-1260_1005_1CF48x150G-HP-BE02-MD02-C	Linear module, stroke max. 1005 mm, double bearing	0150-5665
FM01-48-1440_1185_1CF48x150G-HP-BE02-MD02-C	Linear module, stroke max. 1185 mm, double bearing	0150-5666
FM01-48-1650_1395_1CF48x150G-HP-BE02-MD02-C	Linear module, stroke max. 1395 mm, double bearing	0150-5667
FM01-48-1860_1605_1CF48x150G-HP-BE02-MD02-C	Linear module, stroke max. 1605 mm, double bearing	0150-5668
FM01-48-2040_1785_1CF48x150G-HP-BE02-MD02-C	Linear module, stroke max. 1785 mm, double bearing	0150-5669
FM01-48-2250_1995_1CF48x150G-HP-BE02-MD02-C	Linear module, stroke max. 1995 mm, double bearing	0150-5670
FM01-48-2490_2235_1CF48x150G-HP-BE02-MD02-C	Linear module, stroke max. 2235 mm, double bearing	0150-5671

FM01-48X240

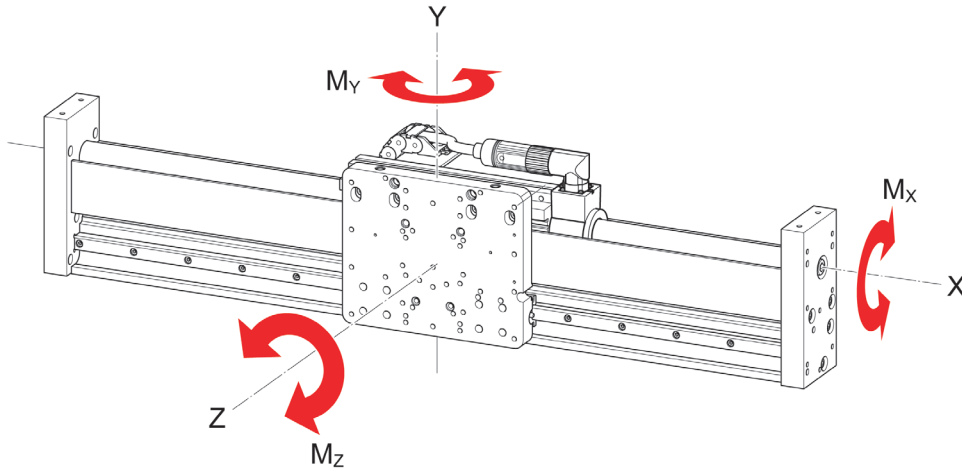


Dimensions mm

Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
FM01-48-540_200_1CF48x240F-HP-BE02-MD01-C	200 (7.57)	540 (21.26)	5546 (12.23)	13209 (29.12)
FM01-48-660_320_1CF48x240F-HP-BE02-MD01-C	320 (12.60)	660 (25.98)	5546 (12.23)	14164 (31.23)
FM01-48-750_410_1CF48x240F-HP-BE02-MD01-C	410 (16.14)	750 (29.53)	5546 (12.23)	15987 (35.26)
FM01-48-840_500_1CF48x240F-HP-BE02-MD01-C	500 (19.69)	840 (33.07)	5546 (12.23)	15740 (34.70)
FM01-48-960_620_1CF48x240F-HP-BE02-MD01-C	620 (24.41)	960 (37.80)	5546 (12.23)	15436 (34.03)
FM01-48-1050_710_1CF48x240F-HP-BE02-MD01-C	710 (27.95)	1050 (41.34)	5546 (12.23)	17565 (38.72)
FM01-48-1170_830_1CF48x240F-HP-BE02-MD02-C	830 (32.68)	1170 (46.06)	5546 (12.23)	18992 (41.87)
FM01-48-1260_920_1CF48x240F-HP-BE02-MD02-C	920 (36.22)	1260 (49.61)	5546 (12.23)	19456 (42.89)
FM01-48-1440_1100_1CF48x240F-HP-BE02-MD02-C	1100 (43.31)	1440 (56.69)	5546 (12.23)	20994 (46.28)
FM01-48-1650_1310_1CF48x240F-HP-BE02-MD02-C	1310 (51.57)	1650 (64.96)	5546 (12.23)	22878 (50.44)
FM01-48-1860_1520_1CF48x240F-HP-BE02-MD02-C	1520 (59.84)	1860 (73.23)	5546 (12.23)	24578 (54.19)
FM01-48-2040_1700_1CF48x240F-HP-BE02-MD02-C	1700 (66.93)	2040 (80.31)	5546 (12.23)	26098 (57.54)
FM01-48-2250_1910_1CF48x240F-HP-BE02-MD02-C	1910 (75.20)	2250 (88.58)	5546 (12.23)	27993 (61.71)
FM01-48-2490_2150_1CF48x240F-HP-BE02-MD02-C	2150 (84.65)	2490 (98.03)	5546 (12.23)	30430 (67.09)

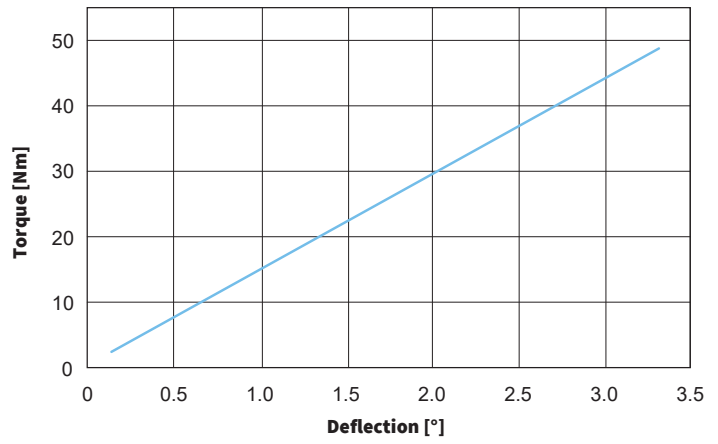
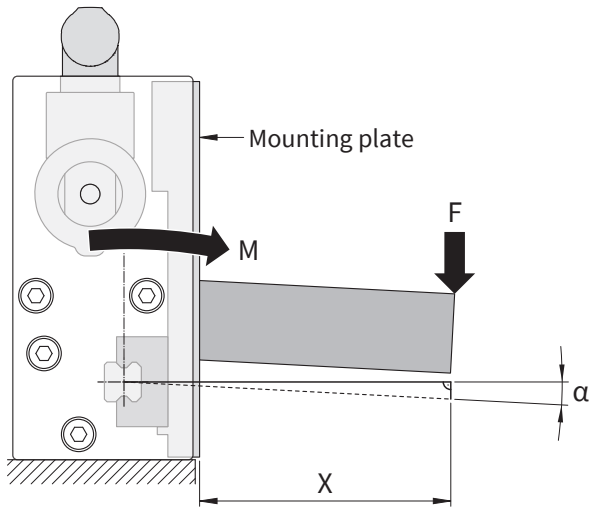
¹⁾ Mass: Mounting plate, Stator, Bearings

PERFORMANCE DATA FM01-48X240



Performance Data Linear Module FM01-48x240			
Mechanical Data			
Static Load Rating (per Carriage)	N (lbf)	15400	(3462.1)
Dynamic Load Rating (per Carriage)	N (lbf)	8400	(1888.4)
Static Moment Load M_{x0}	Nm (lbf·in)	112	(991.3)
Static Moment Load $M_{y/20}$	Nm (lbf·in)	cannot occur	
Dynamic Moment Loads M_x	Nm (lbf·in)	108	(955.9)
Dynamic Moment Loads $M_{y/z}$	Nm (lbf·in)	cannot occur	
Friction (estimated)	N (lbf)	10	(2.25)
Number of Bearings (Linear Ball Bearings)		2	
Distance between Bearings (Linear Ball Bearings)	mm (in)	128	(5.04)
Distance between Rails	mm (in)	-	-
Max. Force @ 72VDC	N (lbf)	572	(129)
Max. Cont. Force	N (lbf)	170	(38)
Force Constant	N/A _{pk} (lbf/A _{pk})	22	(4.95)
Velocity			
Max. Velocity @ 72VDC	m/s (in/s)	2.9	(119.9)
Position Detection			
Position Resolution	mm (in)	0.007	(0.0003)
Repeatability	mm (in)	±0.05	(±0.002)
Position Resolution with external Sensor	mm (in)	0.001	(0.00004)
Repeatability with external Sensor	mm (in)	±0.01	(±0.0004)
Linearity with external Sensor	mm (in)	±0.01	(±0.0004)
Electrical Data			
Max. Current @ 72VDC	A _{pk}	25.9	
Max. Cont. Current	A _{pk}	7.7	
Terminal Resistance 25 °C / 150 °C	Ohm	0.97 / 1.4	
Terminal Inductivity	mH	1.1	
Magnetic Period	mm (in)	60	(2.35)
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance	K/W	0.95	
Thermal Time Constant	s	970	

DEFLECTION



M = Torque ($F \cdot x$)
 F = Force
 x = Lever arm
 α = Deflection

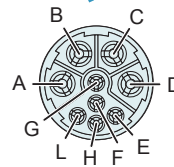
MATERIALS

Guide profile	Anodised aluminium
Mounting plate	Anodised aluminium
End plate	Anodised aluminium
Bearing	Plastic, aluminium, metal
Rail guide	Hardened steel
Slider	Chrome steel

CONNECTOR

Motor Connector Wiring	C-Connector	Wire Color Motor Cable
Ph 1+	A	red
Ph 1-	B	pink
Ph 2+	C	blue
Ph 2-	D	grey
+5VDC	E	white
GND	F	inner Shield
Sinus	G	yellow
Cosinus	H	green
Temp.	L	black
Shield	Case	outer Shield

C-Connector

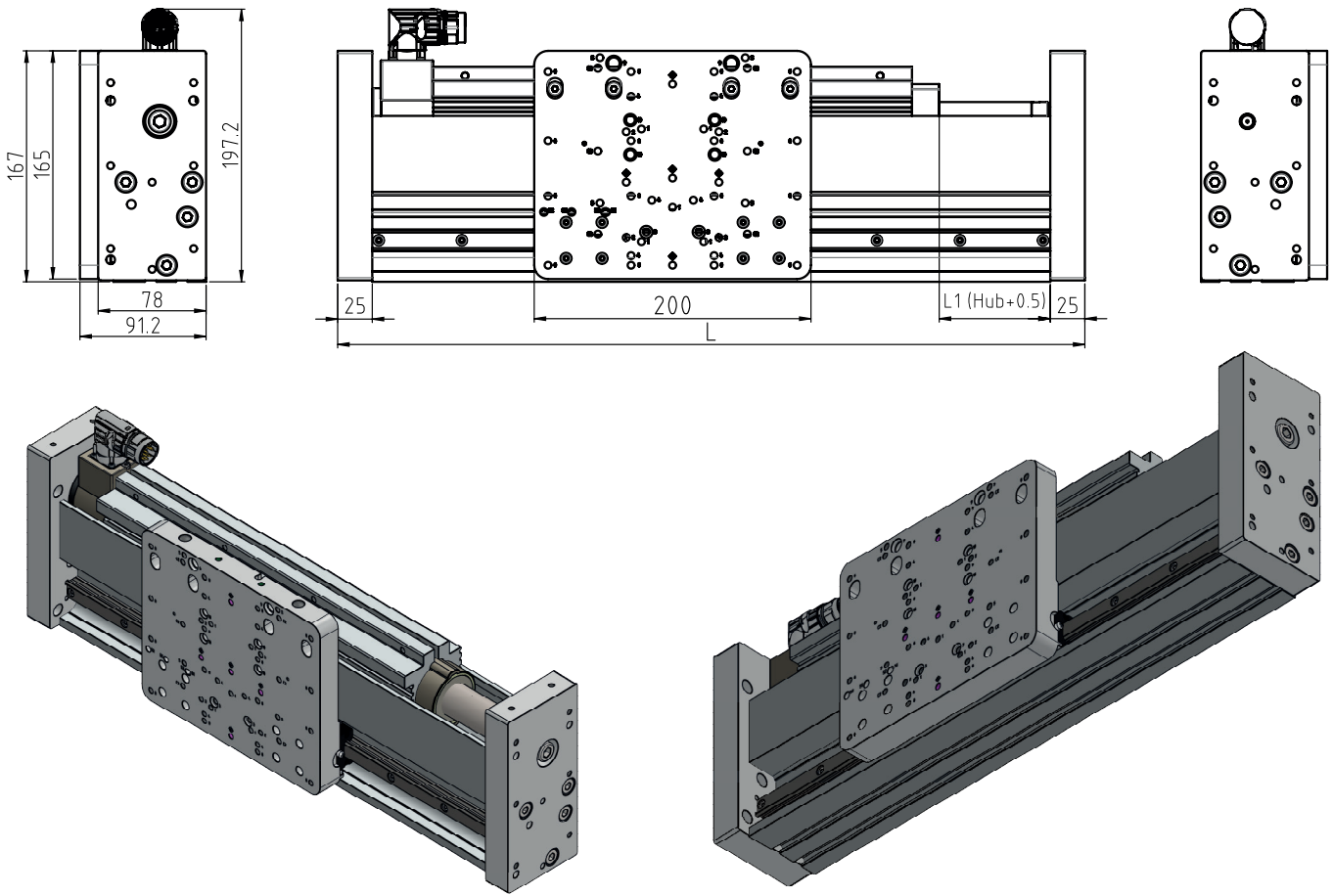


View: Motor connector, plug side

ORDERING INFORMATION

Item	Description	Item-No.
FM01-48-540_200_1CF48x240F-HP-BE02-MD01-C	Linear module, stroke max. 200 mm, double bearing	0150-5321
FM01-48-660_320_1CF48x240F-HP-BE02-MD01-C	Linear module, stroke max. 320 mm, double bearing	0150-5322
FM01-48-750_410_1CF48x240F-HP-BE02-MD01-C	Linear module, stroke max. 410 mm, double bearing	0150-5550
FM01-48-840_500_1CF48x240F-HP-BE02-MD01-C	Linear module, stroke max. 500 mm, double bearing	0150-5323
FM01-48-960_620_1CF48x240F-HP-BE02-MD01-C	Linear module, stroke max. 620 mm, double bearing	0150-5551
FM01-48-1050_710_1CF48x240F-HP-BE02-MD01-C	Linear module, stroke max. 710 mm, double bearing	0150-5324
FM01-48-1170_830_1CF48x240F-HP-BE02-MD02-C	Linear module, stroke max. 830 mm, double bearing	0150-5707
FM01-48-1260_920_1CF48x240F-HP-BE02-MD02-C	Linear module, stroke max. 920 mm, double bearing	0150-5325
FM01-48-1440_1100_1CF48x240F-HP-BE02-MD02-C	Linear module, stroke max. 1100 mm, double bearing	0150-5326
FM01-48-1650_1310_1CF48x240F-HP-BE02-MD02-C	Linear module, stroke max. 1310 mm, double bearing	0150-5327
FM01-48-1860_1520_1CF48x240F-HP-BE02-MD02-C	Linear module, stroke max. 1520 mm, double bearing	0150-5328
FM01-48-2040_1700_1CF48x240F-HP-BE02-MD02-C	Linear module, stroke max. 1700 mm, double bearing	0150-5329
FM01-48-2250_1910_1CF48x240F-HP-BE02-MD02-C	Linear module, stroke max. 1910 mm, double bearing	0150-5330
FM01-48-2490_2150_1CF48x240F-HP-BE02-MD02-C	Linear module, stroke max. 2150 mm, double bearing	0150-5331

FM01-48X360

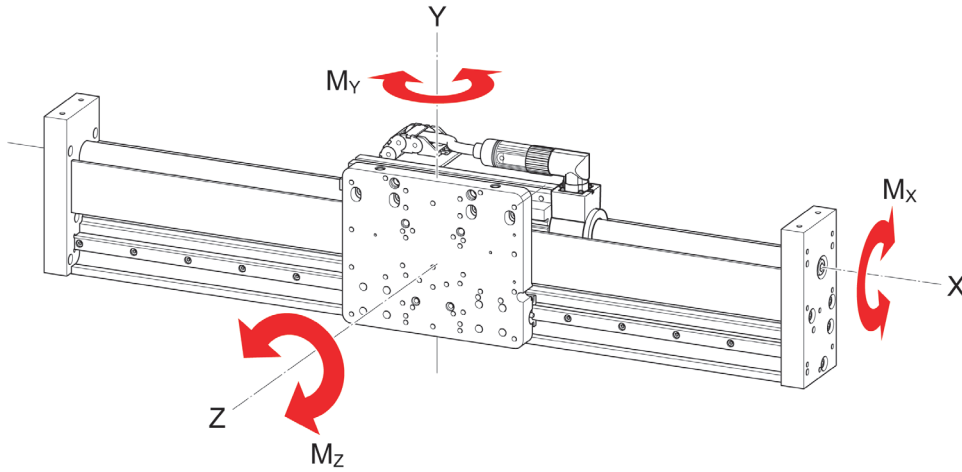


Dimensions mm

Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
FM01-48-540_80_1CF48x360F-HP-BE02-MD01-C	80 (3.15)	540 (21.26)	6804 (15.00)	14413 (31.78)
FM01-48-660_200_1CF48x360F-HP-BE02-MD01-C	200 (7.87)	660 (25.98)	6804 (15.00)	15367 (33.88)
FM01-48-750_290_1CF48x360F-HP-BE02-MD01-C	290 (11.42)	750 (29.53)	6804 (15.00)	16190 (35.69)
FM01-48-840_380_1CF48x360F-HP-BE02-MD01-C	380 (14.96)	840 (33.07)	6804 (15.00)	16944 (37.36)
FM01-48-960_500_1CF48x360F-HP-BE02-MD01-C	500 (19.69)	960 (37.80)	6804 (15.00)	17640 (38.89)
FM01-48-1050_590_1CF48x360F-HP-BE02-MD01-C	590 (23.23)	1050 (41.34)	6804 (15.00)	18768 (41.38)
FM01-48-1110_650_1CF48x360F-HP-BE02-MD02-C	650 (25.59)	1110 (43.70)	6804 (15.00)	19274 (42.49)
FM01-48-1170_710_1CF48x360F-HP-BE02-MD02-C	710 (27.95)	1170 (46.06)	6804 (15.00)	20800 (48.86)
FM01-48-1260_800_1CF48x360F-HP-BE02-MD02-C	800 (31.50)	1260 (49.61)	6804 (15.00)	21660 (47.75)
FM01-48-1440_980_1CF48x360F-HP-BE02-MD02-C	980 (38.58)	1440 (56.69)	6804 (15.00)	22197 (48.94)
FM01-48-1650_1190_1CF48x360F-HP-BE02-MD02-C	1190 (46.85)	1650 (64.96)	6804 (15.00)	24081 (53.09)
FM01-48-1860_1400_1CF48x360F-HP-BE02-MD02-C	1400 (55.12)	1860 (73.23)	6804 (15.00)	25781 (56.84)
FM01-48-2040_1580_1CF48x360F-HP-BE02-MD02-C	1580 (62.20)	2040 (80.31)	6804 (15.00)	27301 (60.19)
FM01-48-2250_1790_1CF48x360F-HP-BE02-MD02-C	1790 (70.47)	2250 (88.58)	6804 (15.00)	29335 (64.67)
FM01-48-2490_2030_1CF48x360F-HP-BE02-MD02-C	2030 (79.92)	2490 (98.03)	6804 (15.00)	31792 (70.09)

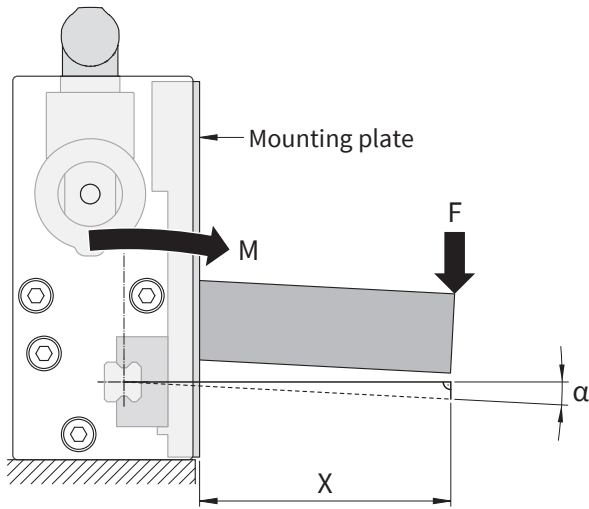
¹⁾ Mass: Mounting plate, Stator, Bearings

PERFORMANCE DATA FM01-48X360

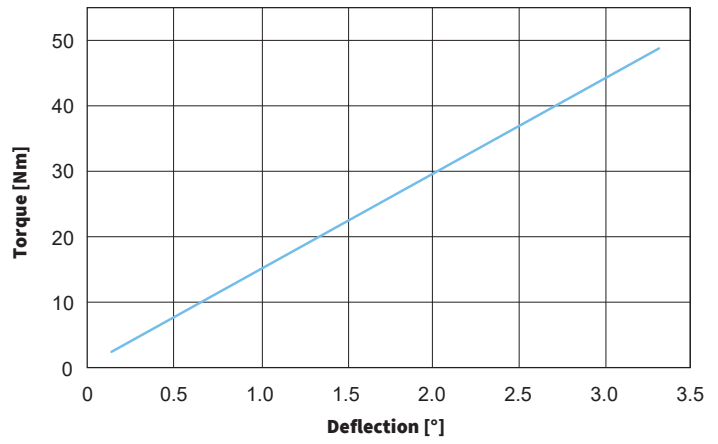


Performance Data Linear Module FM01-48x360			
Mechanical Data			
Static Load Rating (per Carriage)	N (lbf)	15400	(3462.1)
Dynamic Load Rating (per Carriage)	N (lbf)	8400	(1888.4)
Static Moment Load M_{x0}	Nm (lbfin)	112	(991.3)
Static Moment Load $M_{y/20}$	Nm (lbfin)	112	(991.3)
Dynamic Moment Loads M_x	Nm (lbfin)	112	(991.3)
Dynamic Moment Loads $M_{y/z}$	Nm (lbfin)	90	(796.6)
Friction (estimated)	N (lbf)	24	(5.4)
Number of Bearings (Linear Ball Bearings)		4	
Distance between Bearings (Linear Ball Bearings)	mm (in)	66	(2.6)
Distance between Rails	mm (in)	-	-
Max. Force @ 72VDC	N (lbf)	1020	(229)
Max. Cont. Force	N (lbf)	170	(38)
Force Constant	N/A _{pk} (lbf/A _{pk})	22	(4.95)
Velocity			
Max. Velocity @ 72VDC	m/s (in/s)	2.9	(119.9)
Position Detection			
Position Resolution	mm (in)	0.007	(0.0003)
Repeatability	mm (in)	±0.05	(±0.002)
Position Resolution with external Sensor	mm (in)	0.001	(0.00004)
Repeatability with external Sensor	mm (in)	±0.01	(±0.0004)
Linearity with external Sensor	mm (in)	±0.01	(±0.0004)
Electrical Data			
Max. Current @ 72VDC	A _{pk}	25.9	
Max. Cont. Current	A _{pk}	7.7	
Terminal Resistance 25 °C / 150 °C	Ohm	1.4 / 1.9	
Terminal Inductivity	mH	1.6	
Magnetic Period	mm (in)	60	(2.35)
Thermal Data			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance	K/W	0.72	
Thermal Time Constant	s	1000	

DEFLECTION



M = Torque ($F \cdot x$)
 F = Force
 x = Lever arm
 α = Deflection



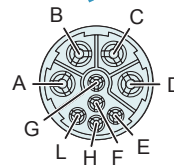
MATERIALS

Guide profile	Anodised aluminium
Mounting plate	Anodised aluminium
End plate	Anodised aluminium
Bearing	Plastic, aluminium, metal
Rail guide	Hardened steel
Slider	Chrome steel

CONNECTOR

Motor Connector Wiring	C-Connector	Wire Color Motor Cable
Ph 1+	A	red
Ph 1-	B	pink
Ph 2+	C	blue
Ph 2-	D	grey
+5VDC	E	white
GND	F	inner Shield
Sinus	G	yellow
Cosinus	H	green
Temp.	L	black
Shield	Case	outer Shield

C-Connector

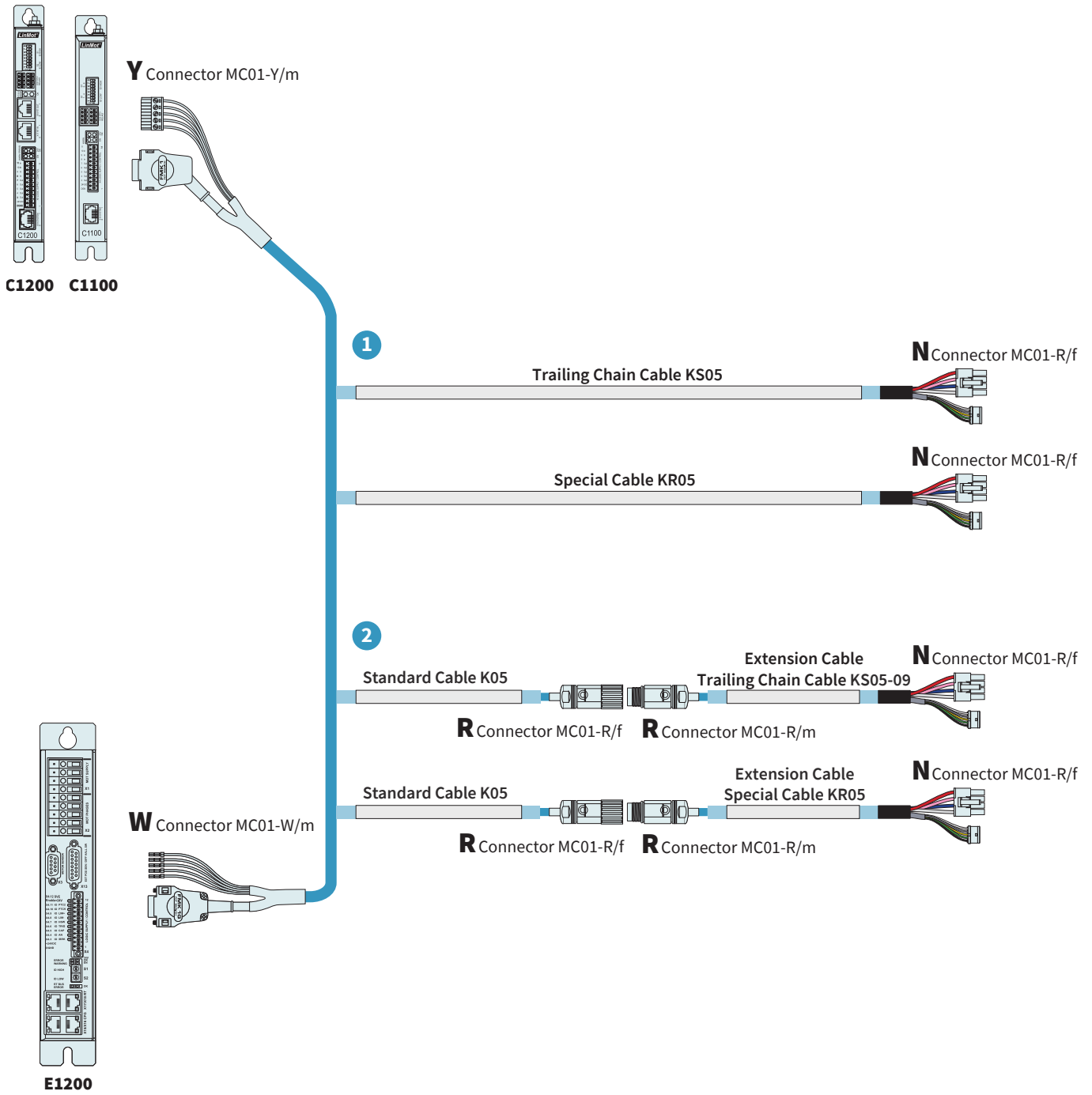


View: Motor connector, plug side

ORDERING INFORMATION

Item	Description	Item-No.
FM01-48-540_80_1CF48x360F-HP-BE02-MD01-C	Linear module, stroke max. 80 mm, double bearing	0150-5332
FM01-48-660_200_1CF48x360F-HP-BE02-MD01-C	Linear module, stroke max. 200 mm, double bearing	0150-5342
FM01-48-750_290_1CF48x360F-HP-BE02-MD01-C	Linear module, stroke max. 290 mm, double bearing	0150-5552
FM01-48-840_380_1CF48x360F-HP-BE02-MD01-C	Linear module, stroke max. 380 mm, double bearing	0150-5343
FM01-48-960_500_1CF48x360F-HP-BE02-MD01-C	Linear module, stroke max. 500 mm, double bearing	0150-5553
FM01-48-1050_590_1CF48x360F-HP-BE02-MD01-C	Linear module, stroke max. 590 mm, double bearing	0150-5344
FM01-48-1110_650_1CF48x360F-HP-BE02-MD02-C	Linear module, stroke max. 650 mm, double bearing	0150-5554
FM01-48-1170_710_1CF48x360F-HP-BE02-MD02-C	Linear module, stroke max. 710 mm, double bearing	0150-5709
FM01-48-1260_800_1CF48x360F-HP-BE02-MD02-C	Linear module, stroke max. 800 mm, double bearing	0150-5345
FM01-48-1440_980_1CF48x360F-HP-BE02-MD02-C	Linear module, stroke max. 980 mm, double bearing	0150-5346
FM01-48-1650_1190_1CF48x360F-HP-BE02-MD02-C	Linear module, stroke max. 1190 mm, double bearing	0150-5347
FM01-48-1860_1400_1CF48x360F-HP-BE02-MD02-C	Linear module, stroke max. 1400 mm, double bearing	0150-5348
FM01-48-2040_1580_1CF48x360F-HP-BE02-MD02-C	Linear module, stroke max. 1580 mm, double bearing	0150-5349
FM01-48-2250_1790_1CF48x360F-HP-BE02-MD02-C	Linear module, stroke max. 1790 mm, double bearing	0150-5555
FM01-48-2490_2030_1CF48x360F-HP-BE02-MD02-C	Linear module, stroke max. 2030 mm, double bearing	0150-5556

MOTOR CABLES FOR FM01-37



13

OPTION 1: DIRECT WIRING

TRAILING CHAIN CABLES		
Item	Description	Item-No.
KS05-W/N-2	Trailing Chain Cable W/N, 2 m	0150-2296
KS05-W/N-4	Trailing Chain Cable W/N, 4 m	0150-2297
KS05-W/N-6	Trailing Chain Cable W/N, 6 m	0150-2298
KS05-W/N-8	Trailing Chain Cable W/N, 8 m	0150-2299
KS05-W/N-	Trailing Chain Cable W/N, Custom length	0150-3412
KS05-Y/N-2	Trailing Chain Cable Y/N, 2 m	0150-2442
KS05-Y/N-4	Trailing Chain Cable Y/N, 4 m	0150-2443
KS05-Y/N-6	Trailing Chain Cable Y/N, 6 m	0150-2444
KS05-Y/N-8	Trailing Chain Cable Y/N, 8 m	0150-2445
KS05-Y-Fe/N-	Trailing Chain Cable Y/N, Custom length	0150-3509

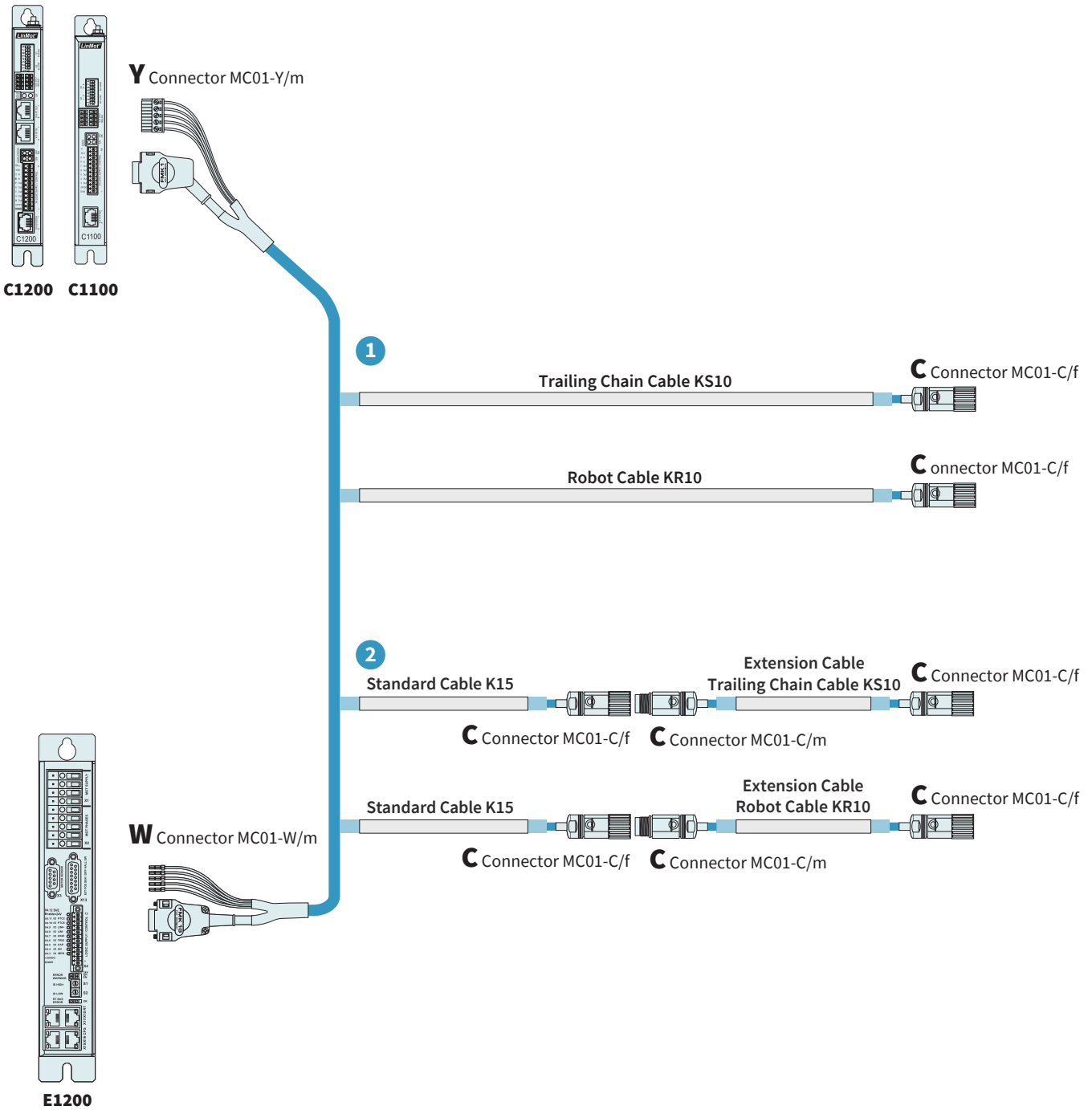
ROBOT CABLES		
Item	Description	Item-No.
KR05-W/N-	Special Cable W/N, Custom length	0150-3406
KR05-Y-Fe/N-	Special Cable Y-Fe/N, Custom length	0150-3514

OPTION 2: INDIRECT WIRING WITH EXTENSION CABLES

EXTENSION CABLES		
Item	Description	Item-No.
KS05-09-R/N-1.5	Trailing Chain Cable R/N 1.5 m (for guides)	0150-3880
KS05-09-R/N-2	Trailing Chain Cable R/N 2 m (for guides)	0150-3881
KS05-09-R/N-3	Trailing Chain Cable R/N 3 m (for guides)	0150-3882
KS05-R/N-	Trailing Chain Cable R/N, Custom length	0150-3486
KR05-R/N-	Special Cable R/N, Custom length	0150-3757

STANDARD CABLES		
Item	Description	Item-No.
K05-W/R-2	Motor Cable W/R, 2 m	0150-2119
K05-W/R-3	Motor Cable W/R, 3 m	0150-2459
K05-W/R-3.5	Motor Cable W/R, 3.5 m	0150-2481
K05-W/R-4	Motor Cable W/R, 4 m	0150-2120
K05-W/R-6	Motor Cable W/R, 6 m	0150-2121
K05-W/R-8	Motor Cable W/R, 8 m	0150-2122
K05-W/R-10	Motor Cable W/R, 10 m	0150-2132
K05-W/R-	Motor Cable W/R, Custom length	0150-3262
K05-Y/R-2	Motor Cable Y/R, 2 m	0150-2421
K05-Y/R-3	Motor Cable Y/R, 3 m	0150-4854
K05-Y/R-4	Motor Cable Y/R, 4 m	0150-2422
K05-Y/R-6	Motor Cable Y/R, 6 m	0150-2423
K05-Y/R-8	Motor Cable Y/R, 8 m	0150-2424
K05-Y-Fe/R-	Motor Cable Y/R, Custom length	0150-3501

MOTOR CABLES FOR FM01-48



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OPTION 1: DIRECT WIRING

TRAILING CHAIN CABLES		
Item	Description	Item-No.
KS10-W/C-4	Trailing Chain Cable W/C, 4 m	0150-1807
KS10-W/C-5	Trailing Chain Cable W/C, 5 m	0150-1860
KS10-W/C-6	Trailing Chain Cable W/C, 6 m	0150-1858
KS10-W/C-8	Trailing Chain Cable W/C, 8 m	0150-1808
KS10-W/C-	Trailing Chain Cable W/C, Custom length	0150-3139
KS10-Y/C-4	Trailing Chain Cable Y/C, 4 m	0150-2439
KS10-Y/C-6	Trailing Chain Cable Y/C, 6 m	0150-2440
KS10-Y/C-8	Trailing Chain Cable Y/C, 8 m	0150-2441
KS10-Y/C-	Trailing Chain Cable Y-Fe/C, Custom length	0150-3511

ROBOT CABLE		
Item	Description	Item-No.
KR10-W/C-	Robot Cable W/C, Custom length	0150-3199
KR10-Y-Fe/C-	Robot Cable Y-Fe/C, Custom length	0150-3515

OPTION 2: INDIRECT WIRING WITH EXTENSION CABLES

EXTENSION CABLES		
Item	Description	Item-No.
KS10-C/C-2	Trailing Chain Cable C/C, 2 m	0150-1816
KS10-C/C-4	Trailing Chain Cable C/C, 4 m	0150-1817
KS10-C/C-	Trailing Chain Cable C/C, Custom length	0150-3206
KR10-C/C-	Trailing Chain Cable C/C, Custom length	0150-3222

STANDARD CABLES		
Item	Description	Item-No.
K15-W/C-2	Motor Cable W/C, 2 m	0150-1811
K15-W/C-4	Motor Cable W/C, 4 m	0150-1801
K15-W/C-6	Motor Cable W/C, 6 m	0150-1802
K15-W/C-8	Motor Cable W/C, 8 m	0150-1803
K15-W/C-	Motor Cable W/C, Custom length	0150-3131
K15-Y/C-2	Motor Cable Y/C, 2 m	0150-2429
K15-Y/C-4	Motor Cable Y/C, 4 m	0150-2430
K15-Y/C-6	Motor Cable Y/C, 6 m	0150-2431
K15-Y/C-8	Motor Cable Y/C, 8 m	0150-2432
K15-Y-Fe/C-	Motor Cable Y-Fe/C, Custom length	0150-3506

TRAILING CHAIN KIT

With the help of the trailing chain kits offered by LinMot, the motor cable and other cables or hoses can be optimally guided, protected and the minimum bending radius can be maintained. The trailing chains are made of plastic and allow the cables to run very smoothly and are available in various lengths. The kit consists of the trailing chain, the angle plate and the corresponding fixing material. The cables or hoses can be inserted simply by opening a divider.



Item	Description	Item-No.
F01-TC300-37	Trailing chain kit for FM01-37 (Item-No. 0150-4980, 0150-4990), Length 300 mm	0150-5457
F01-TC400-37	Trailing chain kit for FM01-37 (Item-No. 0150-4988, 0150-4947), Length 400 mm	0150-5456
F01-TC500-37	Trailing chain kit for FM01-37 (Item-No. 0150-4989, 0150-4948), Length 500 mm	0150-5455
F01-TC600-37	Trailing chain kit for FM01-37 (Item-No. 0150-4991, 0150-4949), Length 600 mm	0150-5439
F01-TC800-37	Trailing chain kit for FM01-37 (Item-No. 0150-4992, 0150-4981), Length 800 mm	0150-5440
F01-TC1000-37	Trailing chain kit for FM01-37 (Item-No. 0150-4993, 0150-4982), Length 1000 mm	0150-5441
F01-TC1200-37	Trailing chain kit for FM01-37 (Item-No. 0150-4994, 0150-4983), Length 1200 mm	0150-5442
F01-TC1400-37	Trailing chain kit for FM01-37 (Item-No. 0150-4995, 0150-4984), Length 1400 mm	0150-5443
F01-TC1600-37	Trailing chain kit for FM01-37 (Item-No. 0150-4996, 0150-4985), Length 1600 mm	0150-5444
F01-TC2000-37	Trailing chain kit for FM01-37 (Item-No. 0150-4997, 0150-4986), Length 2000 mm	0150-5445

Item	Description	Item-No.
FM01-TC500-48x18	Trailing chain kit for FM01-48 (Item-No. 0150-5658, 0150-5321, 0150-5332), Length 500 mm	0150-4987
FM01-TC600-48x18	Trailing chain kit for FM01-48 (Item-No. 0150-5659, 0150-5322, 0150-5342), Length 600 mm	0150-5056
FM01-TC800-48x18	Trailing chain kit for FM01-48 (Item-No. 0150-5660, 0150-5661, 0150-5550, 0150-5323, 0150-5552, 0150-5343), Length 700 mm	0150-5057
FM01-TC1000-48x18	Trailing chain kit for FM01-48 (Item-No. 0150-5662, 0150-5663, 0150-5551, 0150-5324, 0150-5553, 0150-5344), Length 800 mm	0150-5058
FM01-TC1200-48x18	Trailing chain kit for FM01-48 (Item-No. 0150-5664, 0150-5708, 0150-5665, 0150-6812, 0150-5707, 0150-5325, 0150-5554, 0150-5709), Length 900 mm	0150-5059
FM01-TC1400-48x18	Trailing chain kit for FM01-48 (Item-No. 0150-5666, 0150-5326, 0150-5345), Length 1000 mm	0150-5064
FM01-TC1600-48x18	Trailing chain kit for FM01-48 (Item-No. 0150-5667, 0150-5327, 0150-5346, 0150-5347), Length 1200 mm	0150-5065
FM01-TC2000-48x18	Trailing chain kit for FM01-48 (Item-No. 0150-5668, 0150-5669, 0150-5328, 0150-5329, 0150-5348, 0150-5349), Length 1400 mm	0150-5235
FM01-TC2200-48x18	Trailing chain kit for FM01-48 (Item-No. 0150-5670, 0150-5330, 0150-5555), Length 1600 mm	0150-6550
FM01-TC2400-48x18	Trailing chain kit for FM01-48 (Art-Nr. 0150-5671, 0150-5331, 0150-5556), Length 1600 mm	0150-6551

PNEUMATIC HOLDING BRAKE KIT

LinMot offers pneumatically controlled holding brakes with a holding force of 1000N for the FM01 linear modules. These can be used for FM01-37 and FM01-48. The set includes both side flanges, the guide shaft and the pneumatic cylinder with mounting. If the set is ordered with the linear module, this will be professionally assembled. For horizontally installed modules, holding brakes are ideal to prevent unwanted movements when the module is at a standstill. If the module is installed vertically, they also support the stator. In this way, holding brakes save unnecessary load and power.



Item	Description	Item-No.
BK01-37-300	Holding brake kit for FM01-37 (Item-No. 0150-4980, 0150-4990)	0150-4318
BK01-37-400	Holding brake kit for FM01-37 (Item-No. 0150-4988, 0150-4947)	0150-4319
BK01-37-500	Holding brake kit for FM01-37 (Item-No. 0150-4989, 0150-4948)	0150-4320
BK01-37-600	Holding brake kit for FM01-37 (Item-No. 0150-4991, 0150-4949)	0150-4321
BK01-37-800	Holding brake kit for FM01-37 (Item-No. 0150-4992, 0150-4981)	0150-4322
BK01-37-1000	Holding brake kit for FM01-37 (Item-No. 0150-4993, 0150-4982)	0150-4323
BK01-37-1200	Holding brake kit for FM01-37 (Item-No. 0150-4994, 0150-4983)	0150-4324
BK01-37-1400-F	Holding brake kit for FM01-37 (Item-No. 0150-4995, 0150-4984)	0150-4325
BK01-37-1600-F	Holding brake kit for FM01-37 (Item-No. 0150-4996, 0150-4985)	0150-4327
BK01-37-2000-F	Holding brake kit for FM01-37 (Item-No. 0150-4997, 0150-4986)	0150-4328

Item	Description	Item-No.
BK01-48-500	Holding brake kit for FM01-48 (Item-No. 0150-5658, 0150-5321, 0150-5332)	0150-4329
BK01-48-620	Holding brake kit for FM01-48 (Item-No. 0150-5659, 0150-5322, 0150-5342)	0150-4330
BK01-48-800	Holding brake kit for FM01-48 (Item-No. 0150-5661, 0150-5323, 0150-5343)	0150-4331
BK01-48-1010	Holding brake kit for FM01-48 (Item-No. 0150-5663, 0150-5324, 0150-5344)	0150-4332
BK01-48-1220	Holding brake kit for FM01-48 (Item-No. 0150-5665, 0150-5325, 0150-5545)	0150-4333
BK01-48-1400	Holding brake kit for FM01-48 (Item-No. 0150-5666, 0150-5326, 0150-5346)	0150-4334
BK01-48-1610	Holding brake kit for FM01-48 (Item-No. 0150-5667, 0150-5327, 0150-5347)	0150-4335
BK01-48-1820	Holding brake kit for FM01-48 (Item-No. 0150-5668, 0150-5328, 0150-5348)	0150-4336
BK01-48-2000	Holding brake kit for FM01-48 (Item-No. 0150-5669, 0150-5329, 0150-5349)	0150-4337
BK01-48-2210	Holding brake kit for FM01-48 (Item-No. 0150-5670, 0150-5330, 0150-5556)	0150-4338
BK01-48-2450	Holding brake kit for FM01-48 (Item-No. 0150-5671, 0150-5331, 0150-5555)	0150-4339

EXTERNAL POSITION SENSORS

LinMot offers various external position sensors for applications requiring the highest accuracy. These are non-contact measuring position sensors based on magnets with integrated evaluation electronics for the servo drives of the C and E series.

In combination with the matching magnetic tape, the position sensors form a high-resolution, robust linear measuring system. Depending on the choice, an incremental or an absolute interface is available in different resolutions.

Comparison of sensors	Sensor type	Interface	Resolution (mm)
F01-37S-SK	Incremental	RS422(ABZ)	0.002
E01-37S-SK/D-SSI	Absolute	SSI	0.005
E01-SK02/D-BISS	Absolute	BISS	0.001



Item	Description	Item-No.
F01-37S-SK	External Sensor kit for FM01/EM01, incremental	0150-5446

The external sensor kit consists of an external sensor, mounting brackets and screws. The magnetic strips and additional cables must be ordered separately.



Item	Description	Item-No.
F01-MB300	Magnetic strip for E/F-Guide (Item-No. 0150-4980, 0150-4990) incremental, Strip length 280 mm	0150-5454
F01-MB400	Magnetic strip for E/F-Guide (Item-No. 0150-4988, 0150-4947) incremental, Strip length 380 mm	0150-5451
F01-MB500	Magnetic strip for E/F-Guide (Item-No. 0150-4989, 0150-4948, 0150-5658, 0150-5321, 0150-5332) incremental, Strip length 480 mm	0150-5452
F01-MB600	Magnetic strip for E/F-Guide (Item-No. 0150-4991, 0150-4949, 0150-5659, 0150-5322, 0150-5342) incremental, Strip length 580 mm	0150-5431
F01-MB700	Magnetic strip for E/F-Guide (Item-No. 0150-5660, 0150-5550, 0150-5552) incremental, Strip length 680 mm	0150-6507
F01-MB800	Magnetic strip for E/F-Guide (Item-No. 0150-4992, 0150-4981, 0150-5661, 0150-5323, 0150-5343) incremental, Strip length 780 mm	0150-5432
F01-MB900	Magnetic strip for E/F-Guide (Item-No. 0150-5662, 0150-5551, 0150-5553) incremental, Strip length 880 mm	0150-6508
F01-MB1000	Magnetic strip for E/F-Guide (Item-No. 0150-4993, 0150-4982, 0150-5663, 0150-5324, 0150-5344) incremental, Strip length 980 mm	0150-5433
F01-MB1060	Magnetic strip for E/F-Guide (Item-No. 0150-5664, 0150-6812, 0150-5554) incremental, Strip length 1040 mm	0150-6509
F01-MB1120	Magnetic strip for E/F-Guide (Item-No. 0150-5708, 0150-5707, 0150-5709) incremental, Strip length 1100 mm	0150-6510
F01-MB1200	Magnetic strip for E/F-Guide (Item-No. 0150-4994, 0150-4983, 0150-5665, 0150-5325, 0150-5345) incremental, Strip length 1180 mm	0150-5434
F01-MB1400	Magnetic strip for E/F-Guide (Item-No. 0150-4995, 0150-4984, 0150-5666, 0150-5326, 0150-5346) incremental, Strip length 1380 mm	0150-5435
F01-MB1600	Magnetic strip for E/F-Guide (Item-No. 0150-4996, 0150-4985, 0150-5667, 0150-5327, 0150-5347) incremental, Strip length 1580 mm	0150-5436
F01-MB1820	Magnetic strip for E/F-Guide (Item-No. 0150-5668, 0150-5328, 0150-5348) incremental, Strip length 1800 mm	0150-5465
F01-MB2000	Magnetic strip for E/F-Guide (Item-No. 0150-4997, 0150-4986, 0150-5669, 0150-5329, 0150-5349) incremental, Strip length 1980 mm	0150-5437
F01-MB2210	Magnetic strip for E/F-Guide (Item-No. 0150-5670, 0150-5330, 0150-5555) incremental, Strip length 2190 mm	0150-5467
F01-MB2450	Magnetic strip for E/F-Guide (Item-No. 0150-5671, 0150-5331, 0150-5556) incremental, Strip length 2430 mm	0150-5468



Item	Description	Item-No.
KS025-D15/D-Encoder-	KS025-D15/D-Encoder- for E01-37S-SK/D, Custom length	0150-3168

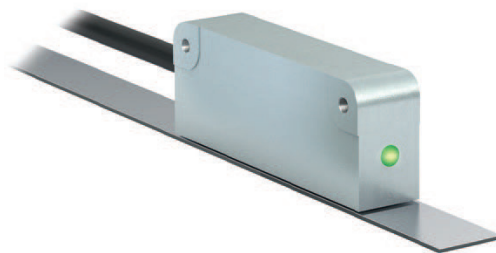


Item	Description	Item-No.
E01-37S-SK/D-SSI	External Sensor kit for FM01/EM01, absolute	0150-2943

The external sensor kit consists of an external sensor, mounting brackets and screws. The magnetic strips and additional cables must be ordered separately. Only for 48 linear modules.



Item	Description	Item-No.
E01-MB300/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-4980, 0150-4990) absolute, Strip length 280 mm	0150-2960
E01-MB400/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-4988, 0150-4947) absolute, Strip length 380 mm	0150-2961
E01-MB500/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-4989, 0150-4948, 0150-5658, 0150-5321, 0150-5332) absolute, Strip length 480 mm	0150-2962
E01-MB600/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-4991, 0150-4949, 0150-5659, 0150-5322, 0150-5342) absolute, Strip length 580 mm	0150-2963
E01-MB700/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-5660, 0150-5550, 0150-5552) absolute, Strip length 680 mm	0150-6500
E01-MB800/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-4992, 0150-4981, 0150-5661, 0150-5323, 0150-5343) absolute, Strip length 780 mm	0150-2964
E01-MB900/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-5662, 0150-5551, 0150-5553) absolute, Strip length 880 mm	0150-6501
E01-MB1000/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-4993, 0150-4982, 0150-5663, 0150-5324, 0150-5344) absolute, Strip length 980 mm	0150-2965
E01-MB1060/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-5664, 0150-6812, 0150-5554) absolute, Strip length 1040 mm	0150-6502
E01-MB1120/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-5708, 0150-5707, 0150-5709) absolute, Strip length 1100 mm	0150-6503
E01-MB1200/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-4994, 0150-4983, 0150-5665, 0150-5325, 0150-5345) absolute, Strip length 1180 mm	0150-2966
E01-MB1400/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-4995, 0150-4984, 0150-5666, 0150-5326, 0150-5346) absolute, Strip length 1380 mm	0150-2967
E01-MB1600/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-4996, 0150-4985, 0150-5667, 0150-5327, 0150-5347) absolute, Strip length 1580 mm	0150-2968
E01-MB1800/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-5668, 0150-5328, 0150-5348) absolute, Strip length 1780 mm	0150-6504
E01-MB2000/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-4997, 0150-4986, 0150-5669, 0150-5329, 0150-5349) absolute, Strip length 1980 mm	0150-2969
E01-MB2210/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-5670, 0150-5330, 0150-5555) absolute, Strip length 2190 mm	0150-6505
E01-MB2450/D-SSI	Magnetic strip for E/F-Guides (Item-No. 0150-5671, 0150-5331, 0150-5556) absolute, Strip length 2430 mm	0150-6506



Item	Description	Item-No.
FM01-37/48-SK02-D-BiSS ¹⁾	External Sensor kit for FM-Modul, 2m (absolut)	0150-5635
FM01-37x120-SK02-D-BiSS ²⁾	External sensor kit for FM01-37x120 module, 2m (absolute)	0150-6115

The external sensor kit consists of an external sensor, mounting brackets and screws. The magnetic strips and additional cables must be ordered separately.

1) For linear modules FM01-37x60 and FM01-48

2) For linear modules FM01-37x120



Item	Description	Item-No.
MB01-ABS/BiSS-28	Magnetic strip for E/F-Guide (Item-No. 0150-4980, 0150-4990, 0150-5658, 0150-5321, 0150-5332) Strip length 28 cm	0150-4910
MB01-ABS/BiSS-38	Magnetic strip for E/F-Guide (Item-No. 0150-4988, 0150-4947, 0150-5659, 0150-5322, 0150-5342) Strip length 38 cm	0150-4911
MB01-ABS/BiSS-48	Magnetic strip for E/F-Guide (Item-No. 0150-4989, 0150-4948, 0150-5660, 0150-5550, 0150-5552) Strip length 48 cm	0150-4912
MB01-ABS/BiSS-58	Magnetic strip for E/F-Guide (Item-No. 0150-4991, 0150-4949, 0150-5661, 0150-5662, 0150-5323, 0150-5343) Strip length 58 cm	0150-4913
MB01-ABS/BiSS-78	Magnetic strip for E/F-Guide (Item-No. 0150-4992, 0150-4981, 0150-5663, 0150-5551, 0150-5324, 0150-6812, 0150-5553, 0150-5344, 0150-5554) Strip length 78 cm	0150-4914
MB01-ABS/BiSS-98	Magnetic strip for E/F-Guide (Item-No. 0150-4993, 0150-4982, 0150-5664, 0150-5708, 0150-5707, 0150-5709) Strip length 98 cm	0150-4915
MB01-ABS/BiSS-118	Magnetic strip for E/F-Guide (Item-No. 0150-4994, 0150-4983) Strip length 118 cm	0150-4917
MB01-ABS/BiSS-120	Magnetic strip for E/F-Guide (Item-No. 0150-5665, 0150-5325, 0150-5345) Strip length 120 cm	0150-4918
MB01-ABS/BiSS-138	Magnetic strip for E/F-Guide (Item-No. 0150-4995, 0150-4984, 0150-5666, 0150-5326, 0150-5327, 0150-5346, 0150-5347) Strip length 138 cm	0150-4919
MB01-ABS/BiSS-158	Magnetic strip for E/F-Guide (Item-No. 0150-4996, 0150-4985, 0150-5667, 0150-5328, 0150-5348) Strip length 158 cm	0150-4920
MB01-ABS/BiSS-180	Magnetic strip for E/F-Guide (Item-No. 0150-5668, 0150-5329, 0150-5349) Strip length 180 cm	0150-4922
MB01-ABS/BiSS-198	Magnetic strip for E/F-Guide (Item-No. 0150-4997, 0150-4986, 0150-5669, 0150-5330, 0150-5555) Strip length 198 cm	0150-4923
MB01-ABS/BiSS-219	Magnetic strip for E/F-Guide (Item-No. 0150-5670) Strip length 219 cm	0150-4924
MB01-ABS/BiSS-243	Magnetic strip for E/F-Guide (Item-No. 0150-5671, 0150-5331, 0150-5556) Strip length 243 cm	0150-4925



Item	Description	Item-No.
KSS01-12.../ABS-ENC-10	Cable for MS01-1/D-SSI/BiSS, 10m, flying leads	0160-3387
KSS01-12-D15/ABS-ENC-	Cable for MS01-1/D-SSI, Custom length	0150-3652

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Area with horizontal dotted lines for notes.


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