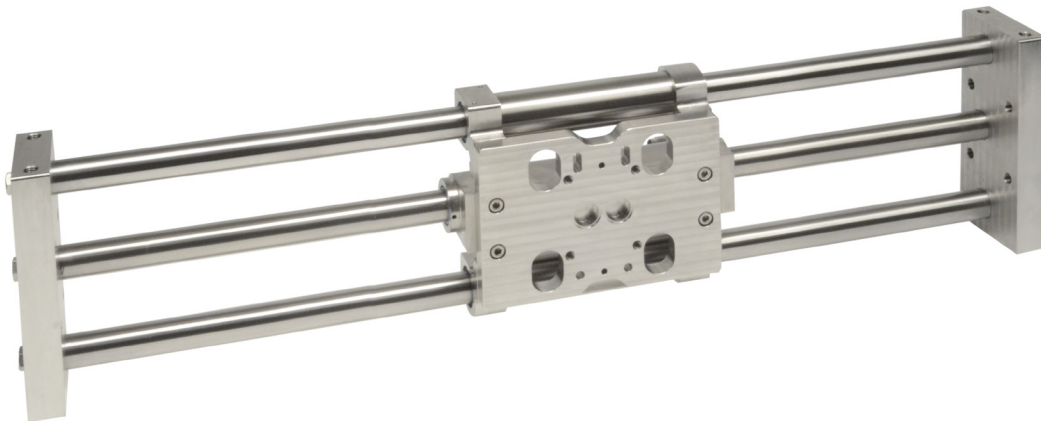


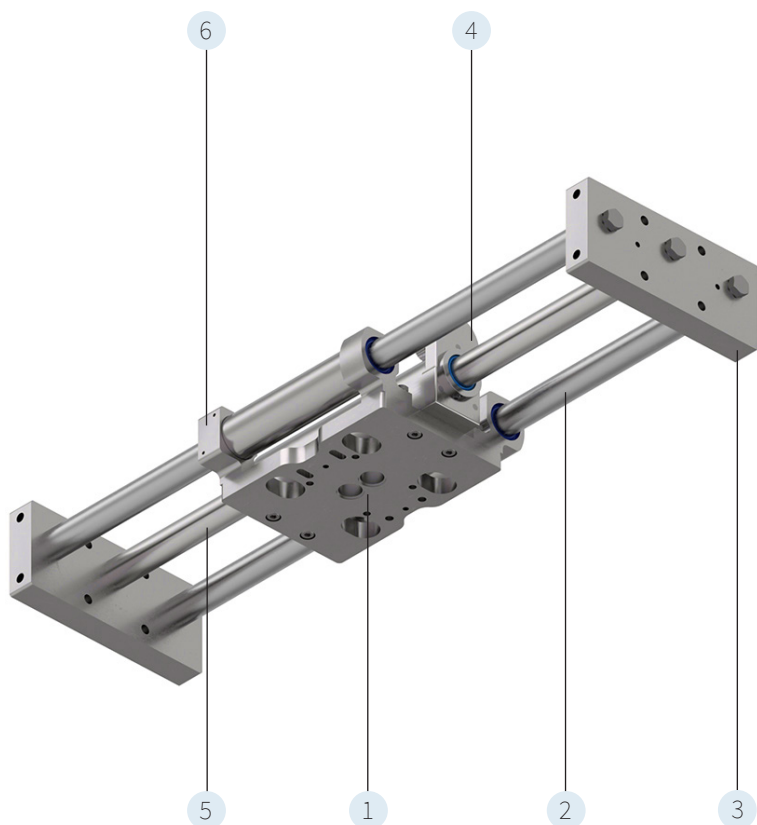
STAINLESS STEEL LINEAR MODULES SM02



- ✓ Compact linear drive system
- ✓ "Moving Stator" principle for long, dynamic movements
- ✓ Especially suitable for pharmaceutical and food applications
- ✓ Suitable for "wash-down" with protection classes up to IP69
- ✓ High chemical resistance
- ✓ Guide with stainless steel linear ball bearings and food-grade lubricant (NSF H1) or sliding guide with FDA-approved polymer bearings
- ✓ Equipped with "Plug and Play" technology
- ✓ Simple load simulation through LinMot Designer software

LINEAR MODULES SM02

Description	3
SM02-37Sx120	6
SM02-48x150G	11
SM02-48x240F	14
Accessories	19



1. Moving mounting plate with centring holes for fastening the load
2. Hardened stainless steel guide shafts
3. End plates with threads for mounting the module
4. Stator of the linear motor with integrated temperature and position sensors as well as electronic type plate
5. Magnetic slider of the linear motor (magnets are protected in a stainless steel tube.)
6. Bearing of the moving mounting plate: optionally stainless steel linear ball bearing with food-grade lubricant (NSF H1) or FDA-compliant linear plain bearing

Linearmodules SM02

The SM02 linear modules are complete drive solutions consisting of a linear guide and a "LinMot" linear motor. As the guide rods are fixed and the stator of the linear motor moves with the carriage, the SM02 linear modules are particularly suitable for long-stroke movements. All parts of the linear module are made of stainless steel and are therefore predestined for pharmaceutical applications and the food sector, where a high degree of protection and "wash-down" properties are required. Guide variants based on linear ball bearings with food-grade

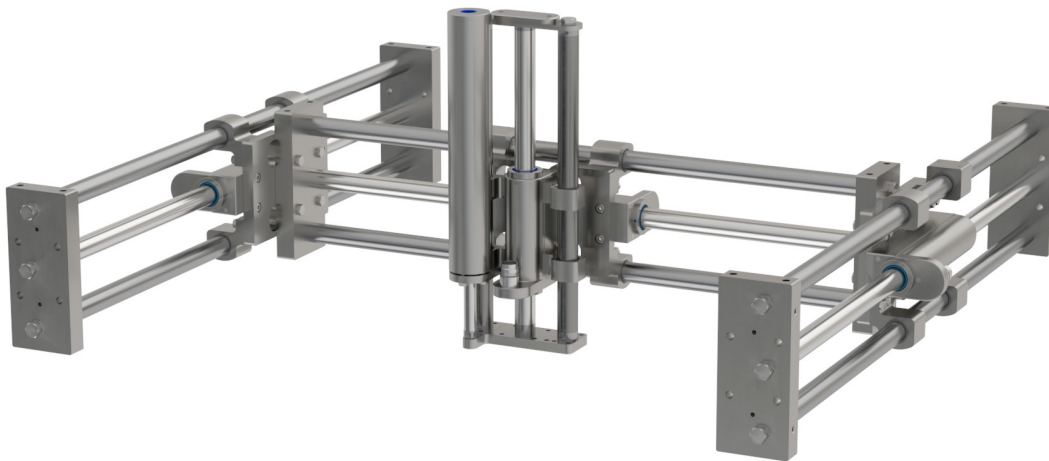
lubricant (NSF H1) as well as sliding guides with FDA-approved polymer bearings are available. Each SM02 linear module is supplied assembled and does not need to be put together from individual parts. Only one article number is required for ordering. Assembly and commissioning of the drives is extremely simple, as all SM02 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.

Application and combinations of the SM02 linear modules

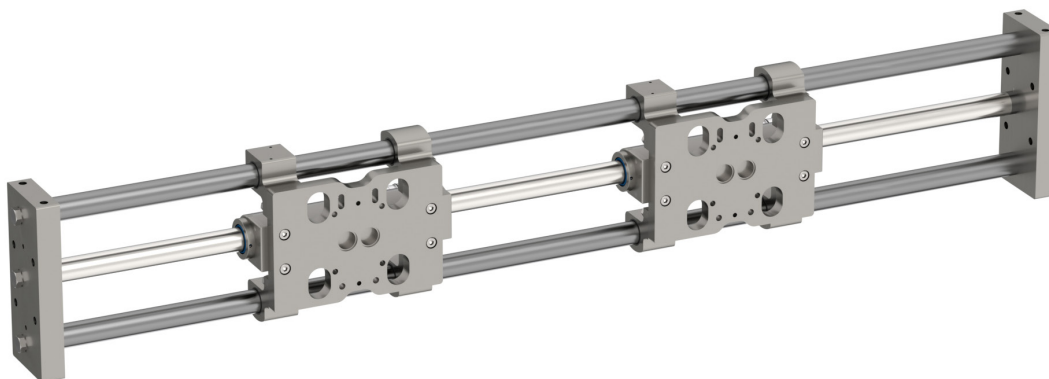
The SM02 linear modules are mounted in the machine with two end plates and as such are self-supporting. They can be mounted either flat or upright. Vertical use is also possible, whereby an additional braking device must be provided depending on the application, since linear motors do not exhibit self-locking when de-energized. 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 incorporated. Appropriate holes and threads with centering options are prepared for fastening the load. In particular, LinMot's short-stroke SM01 modules can be mounted without an additional adapter plate, and the setup of gantry constructions or guideways with several driven carriages is also possible in a simple manner.



SM02 with attached SM01 module as Z-axis



Gantry Portal with SM02 and SM01 as Z-axis

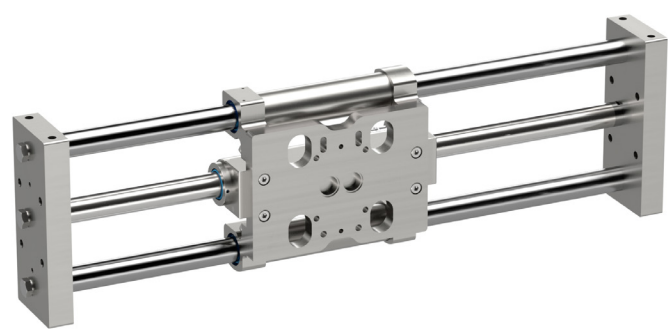


SM02 with several carriages

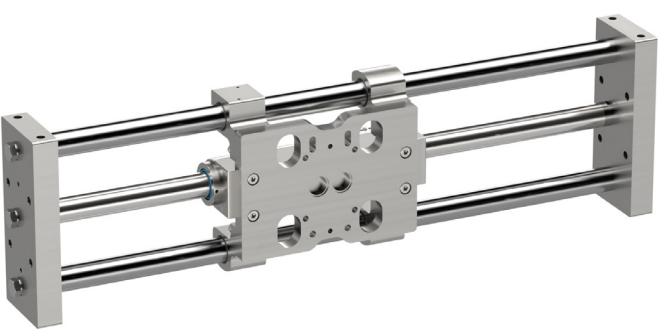
Bearing variants of the SM02 linear modules

Guide systems based on rolling elements such as linear ball bearings are generally superior to plain bearings in terms of guide accuracy, load capacity and the friction that occurs. This is also shown in the respective load diagrams. The stainless steel linear ball bearings used in the SM02 linear modules are lubricated with a food grade lubricant (NSF H1) based on medical white oil and are completely sealed. If the application requires regular 'wash-down', the plain bearing technology without seals is preferred. Other advantages of plain bearing technology include the higher maximum permissible acceleration compared to linear ball bearings.

Due to the simple design of linear bearings, they can be cleaned very easily and can also be operated in dry operation, i.e. without grease, with certain restrictions. The polymer bearings used in the SM02 linear modules are compliant with FDA regulations and should be selected if frequent cleaning with water or cleaning agents is planned and less importance is attached to high guiding accuracy or load capacity. Hardened guide rods made of stainless steel 1.4112 are used as standard for linear ball bearings and plain bearings. For special requirements, guide rods made of stainless steel 1.4435 are also available for plain bearings.

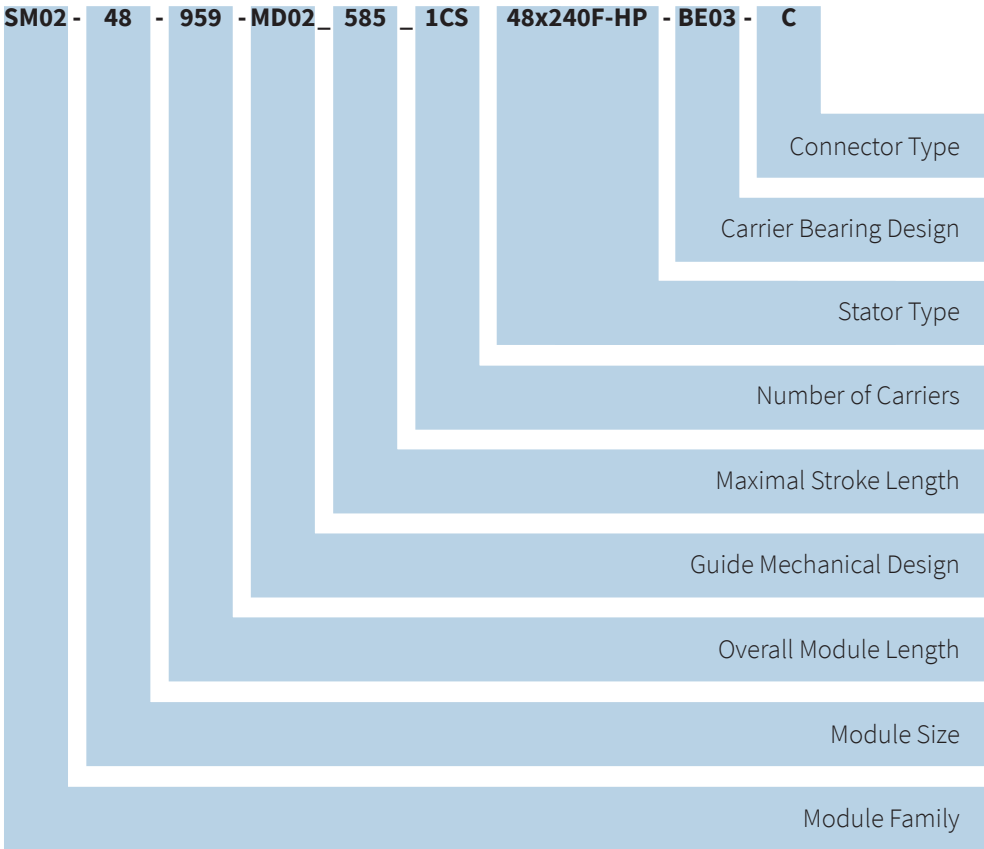


Linear ball bearing variant



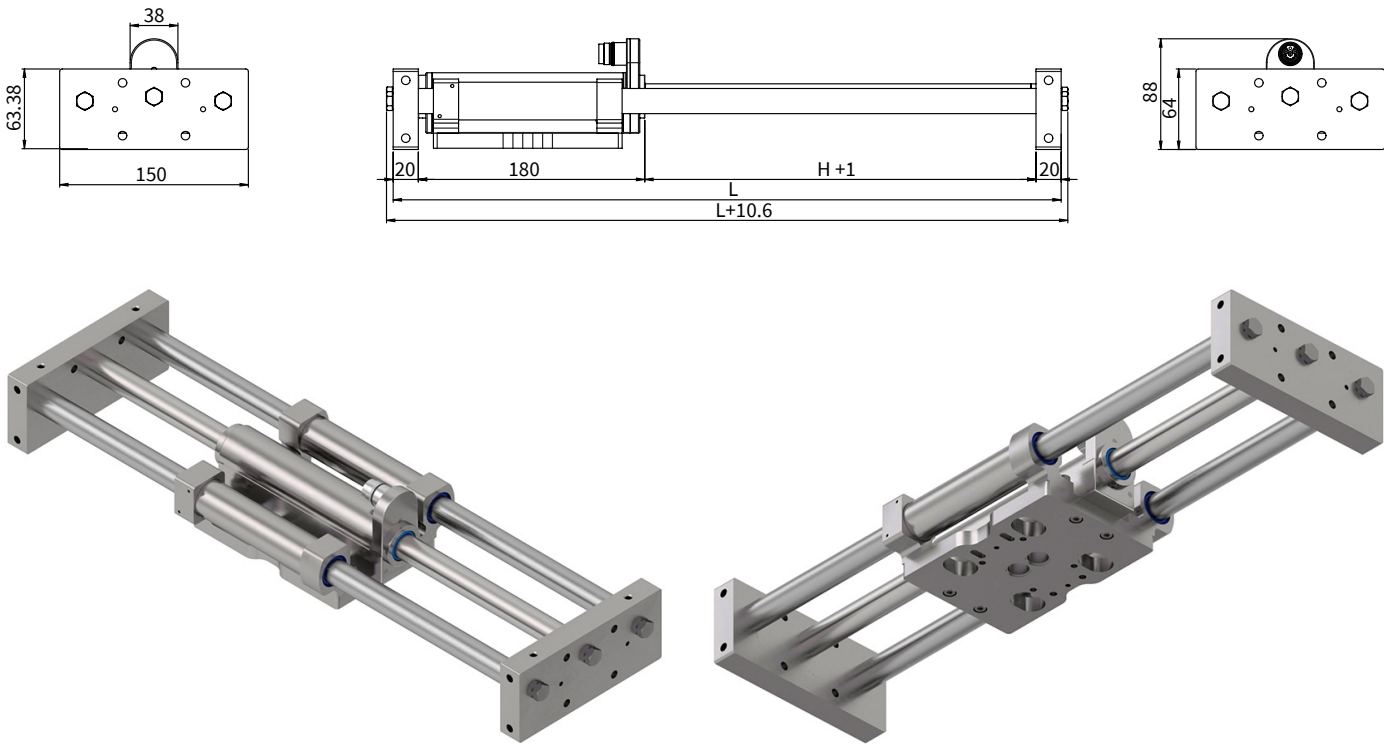
Plain bearing variant

Designation Code Linear Modules SM02



The SM02 linear module product family currently offers more than 20 product variants. Each variant has its own article number and is delivered fully assembled. The wide variety of sizes, strokes, forces and equipment features opens up a very comprehensive range of applications for the user.

SM02-37Sx120_SSCP WITH LINEAR BALL BEARINGS



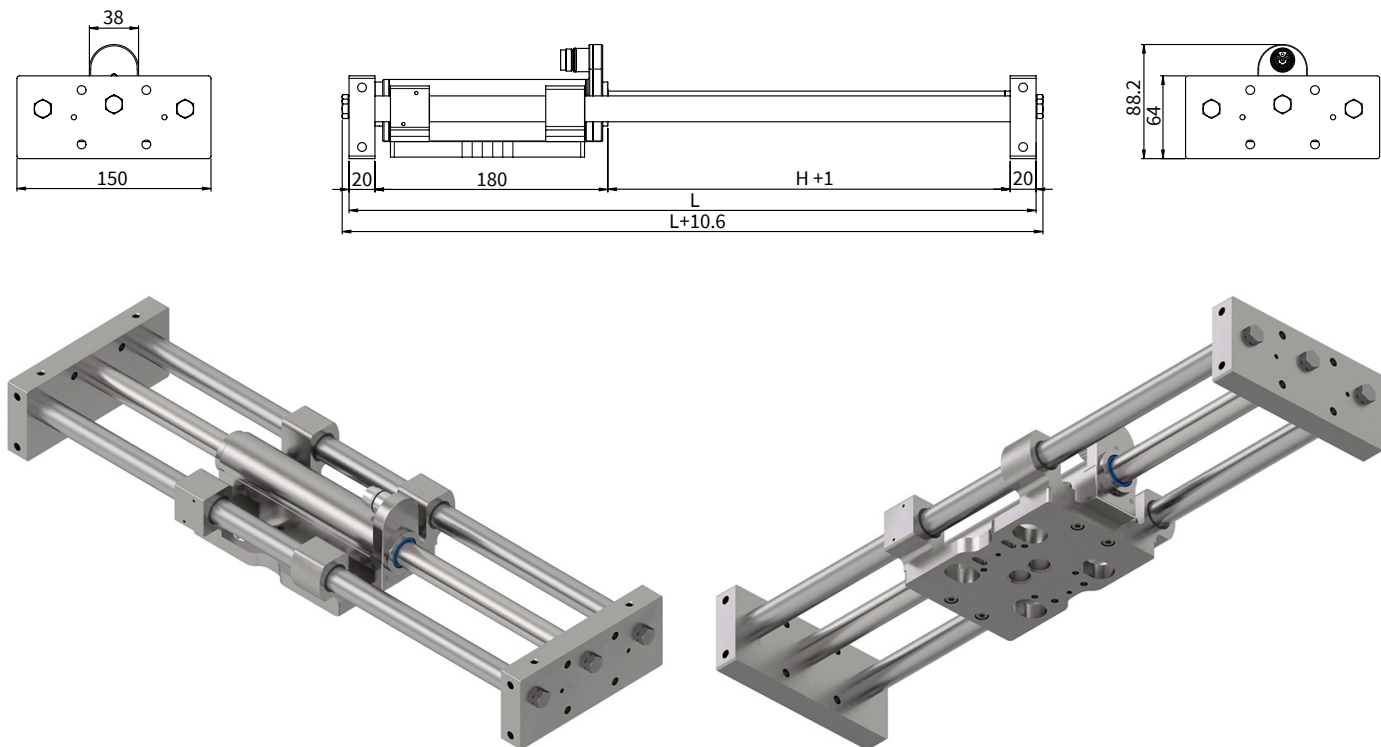
Dimensions mm

Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
SM02-37-542_310_1CS37Sx120F-HP-R	310 (12.2)	531 (20.91)	3349 (7.38)	9903 (21.83)
SM02-37-642_410_1CS37Sx120F-HP-R	410 (16.14)	631 (24.84)	3349 (7.38)	10643 (23.46)
SM02-37-742_510_1CS37Sx120F-HP-R	510 (20.08)	731 (28.78)	3349 (7.38)	11383 (25.1)
SM02-37-842_610_1CS37Sx120F-HP-R	610 (24.02)	831 (32.72)	3349 (7.38)	12105 (26.69)
SM02-37-942_710_1CS37Sx120F-HP-R	710 (27.95)	931 (36.65)	3349 (7.38)	12846 (28.32)
SM02-37-1042_810_1CS37Sx120F-HP-R	810 (31.89)	1031 (40.59)	3349 (7.38)	13585 (29.95)
SM02-37-1242_1010_1CS37Sx120F-HP-R	1010 (39.76)	1231 (48.46)	3349 (7.38)	15065 (33.21)

¹⁾ Mass: Mounting plate, stator

MATERIALS

Stator, Bearing Tube, Bearing Tube Support, Mounting Plate	Stainless Steel Mat. 1.4404 / 316 L
End Plates	Stainless Steel Mat. 1.4404 / 316 L
Guide Shafts	Stainless Steel Mat. 1.4112 / 440 B
Slider	Stainless Steel Mat. 1.4301 / 304
Linear Ball Bearings	Stainless Steel
Bearing (Stator)	PEEK / PPS
Wipers	NBR (FDA conform)

SM02-37Sx120_BE01_SSCP WITH PLAIN BEARINGS AND STAINLESS STEEL SHAFTS 1.4112


Dimensions mm

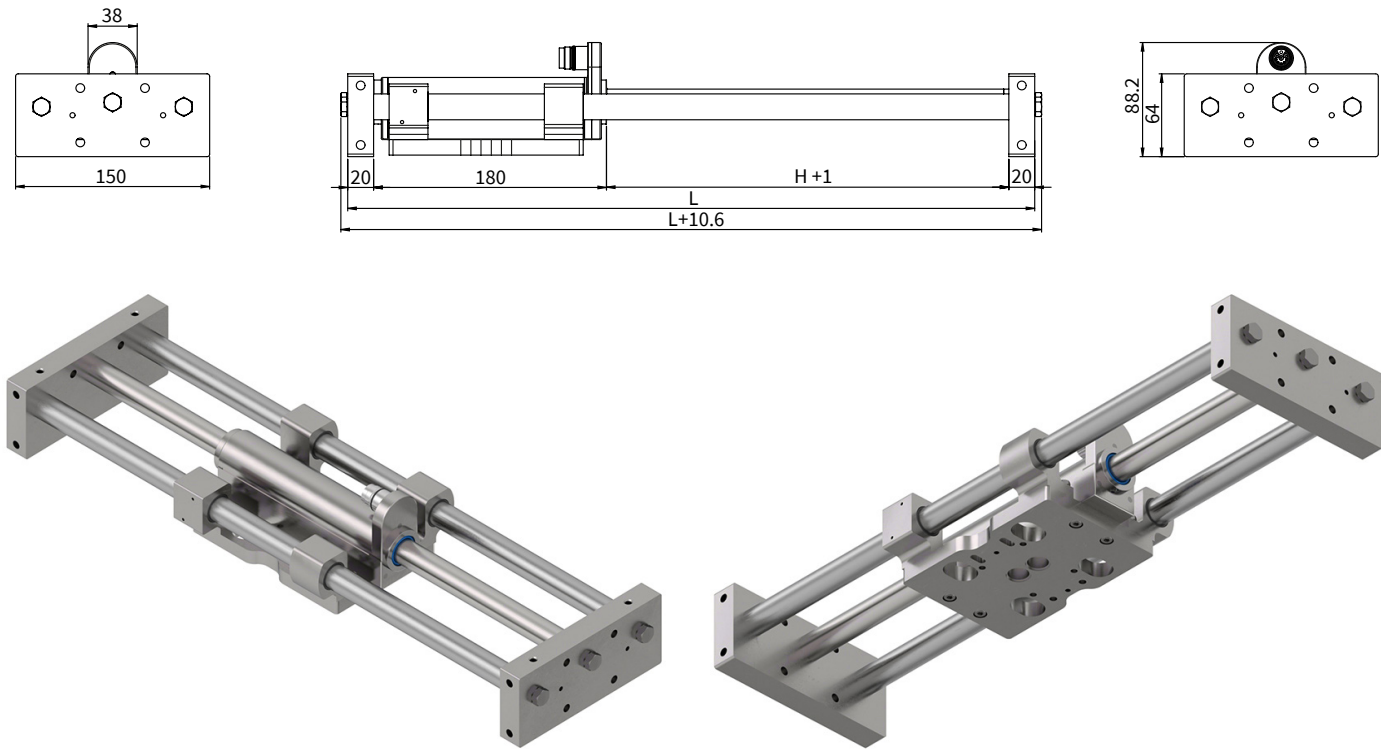
Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
SM02-37-542_310_1CS37Sx120F-HP-BE01-R	310 (12.2)	531 (20.91)	3393 (7.48)	9947 (21.93)
SM02-37-642_410_1CS37Sx120F-HP-BE01-R	410 (16.14)	631 (24.84)	3393 (7.48)	10687 (23.56)
SM02-37-742_510_1CS37Sx120F-HP-BE01-R	510 (20.08)	731 (28.78)	3393 (7.48)	11427 (25.19)
SM02-37-842_610_1CS37Sx120F-HP-BE01-R	610 (24.02)	831 (32.72)	3393 (7.48)	12149 (26.78)
SM02-37-942_710_1CS37Sx120F-HP-BE01-R	710 (27.95)	931 (36.65)	3393 (7.48)	12890 (28.42)
SM02-37-1042_810_1CS37Sx120F-HP-BE01-R	810 (31.89)	1031 (40.59)	3393 (7.48)	13629 (30.05)
SM02-37-1242_1010_1CS37Sx120F-HP-BE01-R	1010 (39.76)	1231 (48.46)	3393 (7.48)	15109 (33.31)

¹⁾ Mass: Mounting plate, stator

MATERIALS

Stator, Bearing Tube, Bearing Tube Support, Mounting Plate	Stainless Steel Mat. 1.4404 / 316 L
End Plates	Stainless Steel Mat. 1.4404 / 316 L
Guide Shafts	Stainless Steel Mat. 1.4112 / 440 B
Slider	Stainless Steel Mat. 1.4301 / 304
Plain Bearings	Polymer (FDA conform)
Bearing (Stator)	PEEK / PPS
Wipers	NBR (FDA conform)

SM02-37Sx120_SSCP WITH PLAIN BEARINGS AND STAINLESS STEEL SHAFTS 1.4435



Dimensions mm

Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
SM02-37-542_MD01_310_1CS37Sx120F-HP-R	310 (12.2)	531 (20.91)	3393 (7.48)	9935 (21.9)
SM02-37-642_MD01_410_1CS37Sx120F-HP-R	410 (16.14)	631 (24.84)	3393 (7.48)	10673 (23.53)
SM02-37-742_MD01_510_1CS37Sx120F-HP-R	510 (20.08)	731 (28.78)	3393 (7.48)	11412 (25.16)
SM02-37-842_MD01_610_1CS37Sx120F-HP-R	610 (24.02)	831 (32.72)	3393 (7.48)	12551 (27.67)
SM02-37-942_MD01_710_1CS37Sx120F-HP-R	710 (27.95)	931 (36.65)	3393 (7.48)	12892 (28.42)
SM02-37-1042_MD01_810_1CS37Sx120F-HP-R	810 (31.89)	1031 (40.59)	3393 (7.48)	13631 (30.05)
SM02-37-1242_MD01_1010_1CS37Sx120F-HP-R	1010 (39.76)	1231 (48.46)	3393 (7.48)	15111 (33.31)

¹⁾ Mass: Mounting plate, stator

MATERIALS

Stator, Bearing Tube, Bearing Tube Support, Mounting Plate	Stainless Steel Mat. 1.4404 / 316 L
End Plates	Stainless Steel Mat. 1.4404 / 316 L
Guide Shafts	Stainless Steel Mat. 1.4435 / 316 L
Slider	Stainless Steel Mat. 1.4404 / 316 L
Plain Bearings	Polymer (FDA conform)
Bearing (Stator)	PEEK / PPS
Wipers	NBR (FDA conform)

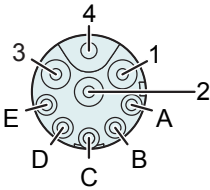
PERFORMANCE DATA SM01-37Sx120

Performance Data Linear Module SM01-37Sx120				
Stroke				
Maximum Stroke	mm (in)		1010	(24.41)
Force				
Max. Force @ 48VDC	N (lbf)		255	(57.3)
Max. Force @ 72VDC	N (lbf)		255	(57.3)
Max. Cont. Force	N (lbf)		58	(13.04)
Force Constant	N/A _{pk} (lbf/A _{pk})		17	(3.82)
Position Detection				
Position Resolution	mm (in)		0.005	(0.0002)
Repeatability	mm (in)		±0.05	(±0.002)
Electrical Data				
Max. Current @ 48VDC	A _{pk}		14.9	
Max. Current @ 72VDC	A _{pk}		14.9	
Max. Cont. Current	A _{pk}		3.4	
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		2	
Thermal Time Constant	s		2700	
Mechanical Data				
Stator Diameter	mm (in)		37	(1.46)
Slider Diameter	mm (in)		20	(0.79)
IP Code [Plain Bearing / Linear Ball Bearing]			IP 69 / IP 67S	

CONNECTOR

Motor Connector Wiring	R-Connector	Wire Color Motor Cable
Ph 1+	1	red
Ph 1-	2	pink
Ph 2+	3	blue
Ph 2-	4	grey
+5VDC	A	white
GND	B	inner Shield
Sinus	C	yellow
Cosinus	D	green
Temp.	E	black
Shield	Case	outer Shield

R-Connector

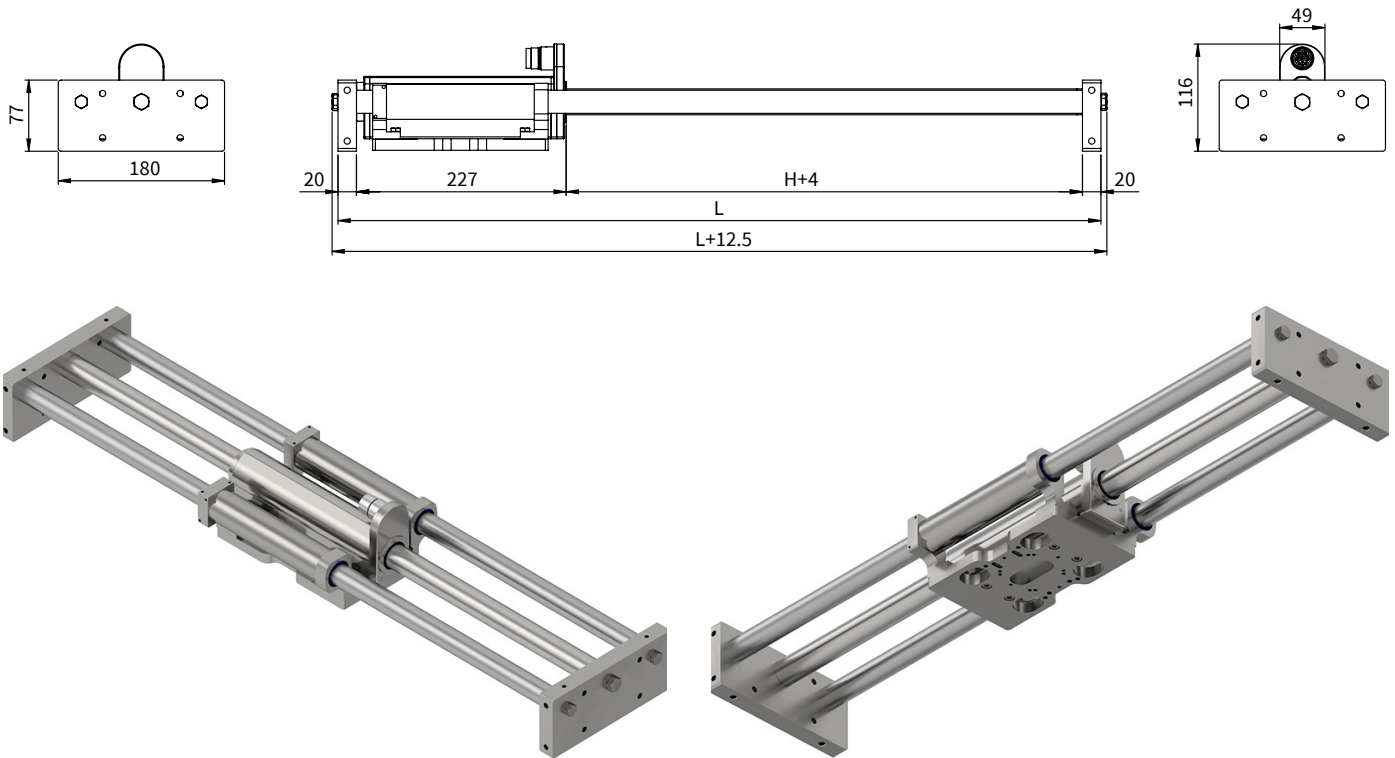


View: Motor connector, plug side

ORDERING INFORMATION

Item	Description	Item-No.
SM02-37-542_310_1CS37Sx120F-HP-R	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 310 mm	0150-4641
SM02-37-642_410_1CS37Sx120F-HP-R	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 410 mm	0150-4642
SM02-37-742_510_1CS37Sx120F-HP-R	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 510 mm	0150-4643
SM02-37-842_610_1CS37Sx120F-HP-R	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 610 mm	0150-4644
SM02-37-942_710_1CS37Sx120F-HP-R	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 710 mm	0150-4645
SM02-37-1042_810_1CS37Sx120F-HP-R	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 810 mm	0150-4646
SM02-37-1242_1010_1CS37Sx120F-HP-R	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 1010 mm	0150-4571
SM02-37-542_310_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 310 mm	0150-4578
SM02-37-642_410_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 410 mm	0150-4635
SM02-37-742_510_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 510 mm	0150-4636
SM02-37-842_610_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 610 mm	0150-4637
SM02-37-942_710_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 710 mm	0150-4638
SM02-37-1042_810_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 810 mm	0150-4639
SM02-37-1242_1010_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 1010 mm	0150-4640
SM02-37-542_MD01_310_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Mat.1.4435, Stroke max. 310 mm	0150-4664
SM02-37-642_MD01_410_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Mat.1.4435, Stroke max. 410 mm	0150-4665
SM02-37-742_MD01_510_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Mat.1.4435, Stroke max. 510 mm	0150-4666
SM02-37-842_MD01_610_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Mat.1.4435, Stroke max. 610 mm	0150-4667
SM02-37-942_MD01_710_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Mat.1.4435, Stroke max. 710 mm	0150-4668
SM02-37-1042_MD01_810_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Mat.1.4435, Stroke max. 810 mm	0150-4669
SM02-37-1242_MD01_1010_1CS37Sx120F-HP-BE01-R	Linear Module, Plain Bearings, Mat.1.4435, Stroke max. 1010 mm	0150-4670

SM02-48x150G_MD02_BE02_SSCP WITH LINEAR BALL BEARINGS



Dimensions mm

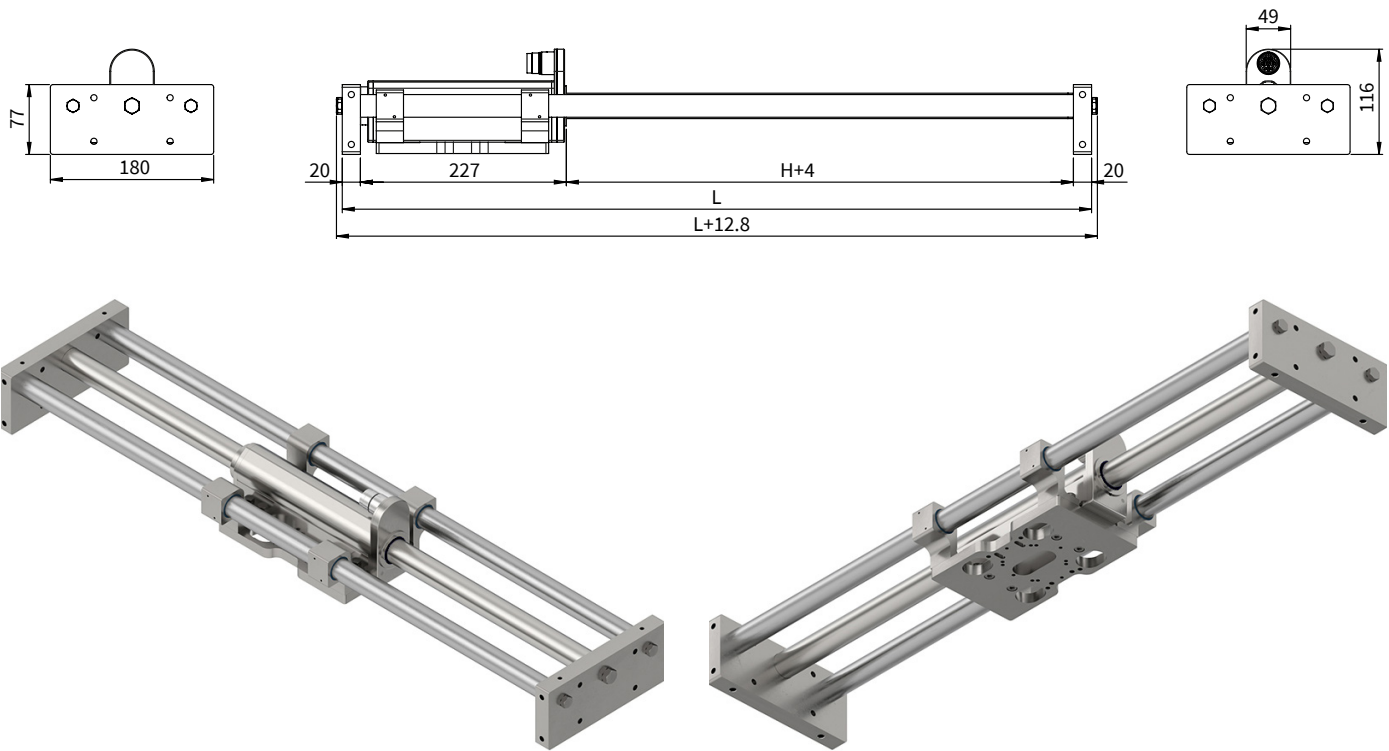
Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
SM02-48-839-MD02_555_1CS48x150G-HP-BE02-C	555 (21.85)	826 (32.52)	5360 (11.82)	18998 (41.88)
SM02-48-959-MD02_675_1CS48x150G-HP-BE02-C	675 (26.57)	946 (37.24)	5360 (11.82)	20644 (45.51)
SM02-48-1049-MD02_765_1CS48x150G-HP-BE02-C	765 (30.12)	1036 (40.79)	5360 (11.82)	21742 (47.93)
SM02-48-1259-MD02_975_1CS48x150G-HP-BE02-C	975 (38.39)	1246 (49.06)	5360 (11.82)	24299 (53.57)

¹⁾ Mass: Mounting plate, stator

MATERIALS

Stator, Bearing Tube, Bearing Tube Support, Mounting Plate	Stainless Steel Mat. 1.4404 / 316 L
End Plates	Stainless Steel Mat. 1.4404 / 316 L
Guide Shafts	Stainless Steel Mat. 1.4112 / 440 B
Slider	Stainless Steel Mat. 1.4301 / 304
Linear Ball Bearings	Stainless Steel
Bearing (Stator)	PEEK / PPS
Wipers	NBR (FDA conform)

SM02-48x150G_MD02_BE03_SSCP WITH PLAIN BEARINGS AND STAINLESS STEEL SHAFTS 1.4112



Dimensions mm

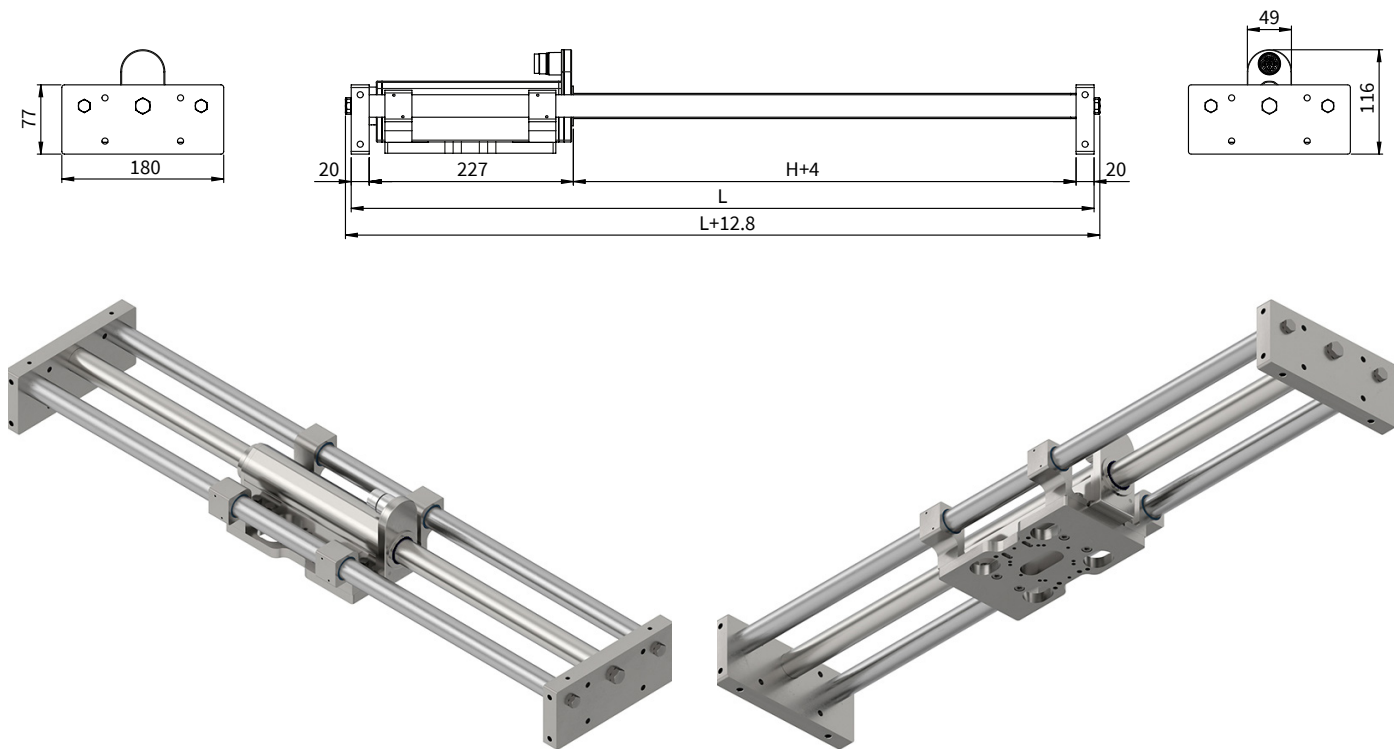
Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
SM02-48-839-MD02_555_1CS48x150G-HP-BE03-C	555 (21.85)	826 (32.52)	4910 (10.82)	18548 (40.89)
SM02-48-959-MD02_675_1CS48x150G-HP-BE03-C	675 (26.57)	946 (37.24)	4910 (10.82)	20194 (44.52)
SM02-48-1049-MD02_765_1CS48x150G-HP-BE03-C	765 (30.12)	1036 (40.79)	4910 (10.82)	21292 (46.94)
SM02-48-1259-MD02_975_1CS48x150G-HP-BE03-C	975 (38.39)	1246 (49.06)	4910 (10.82)	23849 (52.58)

¹⁾ Mass: Mounting plate, stator

MATERIALS

Stator, Bearing Tube, Bearing Tube Support, Mounting Plate	Stainless Steel Mat. 1.4404 / 316 L
End Plates	Stainless Steel Mat. 1.4404 / 316 L
Guide Shafts	Stainless Steel Mat. 1.4112 / 440 B
Slider	Stainless Steel Mat. 1.4301 / 304
Plain Bearings	Polymer (FDA conform)
Bearing (Stator)	PEEK / PPS

SM02-48x150G_MD03_BE03_SSCP WITH PLAIN BEARINGS AND STAINLESS STEEL SHAFTS 1.4435



Dimensions mm

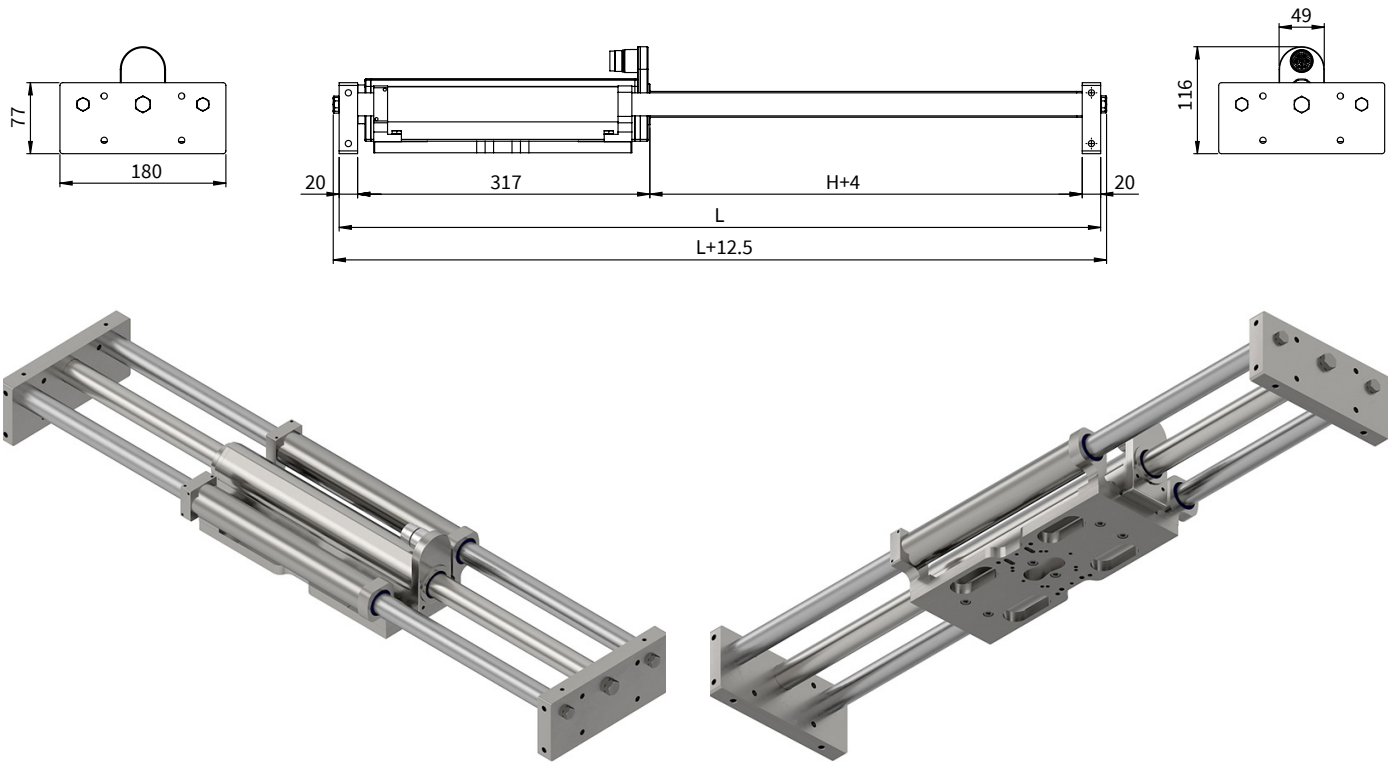
Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
SM02-48-839-MD03_555_1CS48x150G-HP-BE03-C	555 (21.85)	826 (32.52)	4910 (10.82)	19020 (41.93)
SM02-48-959-MD03_675_1CS48x150G-HP-BE03-C	675 (26.57)	946 (37.24)	4910 (10.82)	20530 (45.26)
SM02-48-1049-MD03_765_1CS48x150G-HP-BE03-C	765 (30.12)	1036 (40.79)	4910 (10.82)	21660 (47.75)
SM02-48-1259-MD03_975_1CS48x150G-HP-BE03-C	975 (38.39)	1246 (49.06)	4910 (10.82)	24290 (53.55)

¹⁾ Mass: Mounting plate, stator

MATERIALS

Stator, Bearing Tube, Bearing Tube Support, Mounting Plate	Stainless Steel Mat. 1.4404 / 316 L
End Plates	Stainless Steel Mat. 1.4404 / 316 L
Guide Shafts	Stainless Steel Mat. 1.4435 / 316 L
Slider	Stainless Steel Mat. 1.4404 / 316 L
Plain Bearings	Polymer (FDA conform)
Bearing (Stator)	PEEK / PPS

SM02-48x240F_MD02_BE02_SSCP WITH LINEAR BALL BEARINGS



Dimensions mm

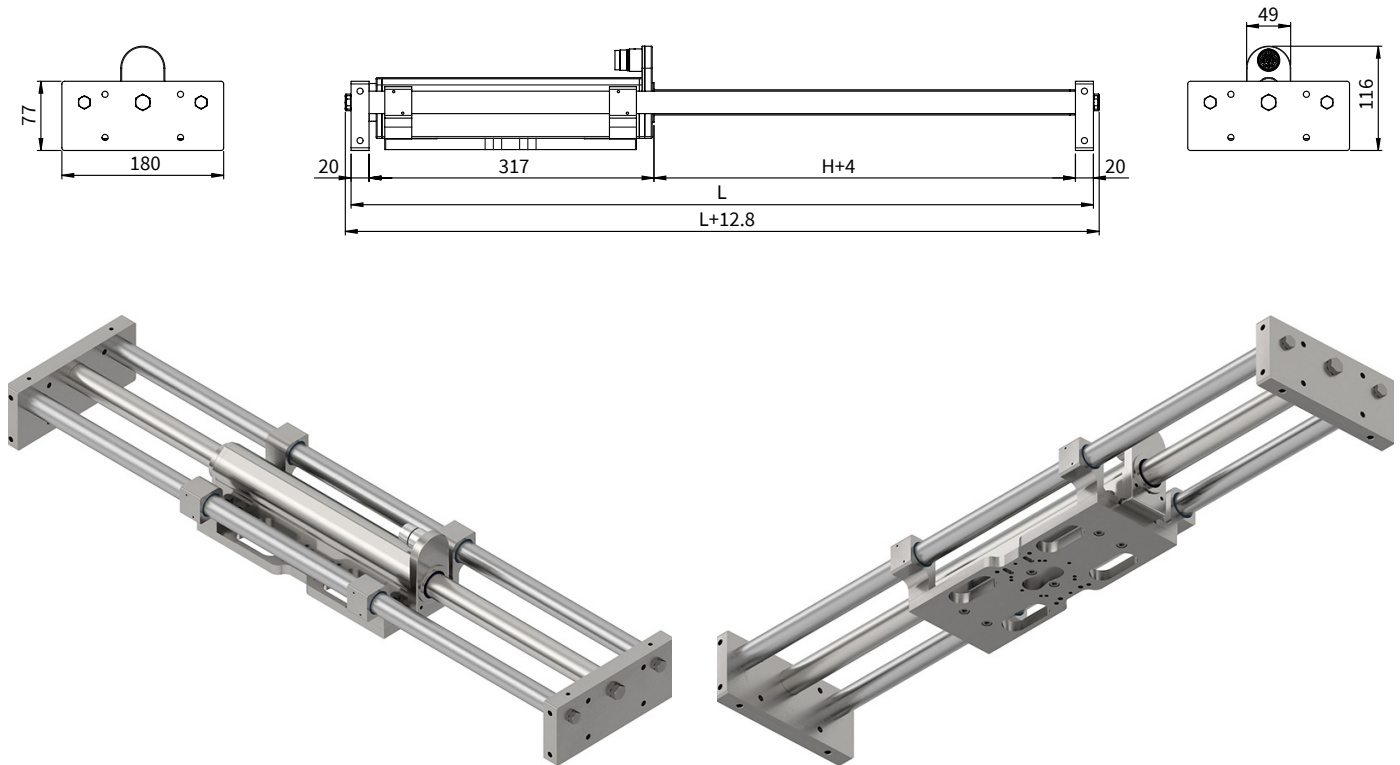
Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
SM02-48-839-MD02_465_1CS48x240F-HP-BE02-C	465 (18.31)	826 (32.52)	6580 (14.51)	20218 (44.57)
SM02-48-959-MD02_585_1CS48x240F-HP-BE02-C	585 (23.03)	946 (37.24)	6580 (14.51)	21864 (48.2)
SM02-48-1049-MD02_675_1CS48x240F-HP-BE02-C	675 (26.57)	1036 (40.79)	6580 (14.51)	22962 (50.62)
SM02-48-1259-MD02_885_1CS48x240F-HP-BE02-C	885 (34.84)	1246 (49.06)	6580 (14.51)	25519 (56.26)

¹⁾ Mass: Mounting plate, stator

MATERIALS

Stator, Bearing Tube, Bearing Tube Support, Mounting Plate	Stainless Steel Mat. 1.4404 / 316 L
End Plates	Stainless Steel Mat. 1.4404 / 316 L
Guide Shafts	Stainless Steel Mat. 1.4112 / 440 B
Slider	Stainless Steel Mat. 1.4301 / 304
Linear Ball Bearings	Stainless Steel
Bearing (Stator)	PEEK / PPS
Wipers	NBR (FDA conform)

SM02-48x240F_MD02_BE03_SSCP WITH PLAIN BEARINGS AND STAINLESS STEEL SHAFTS 1.4112



Dimensions mm

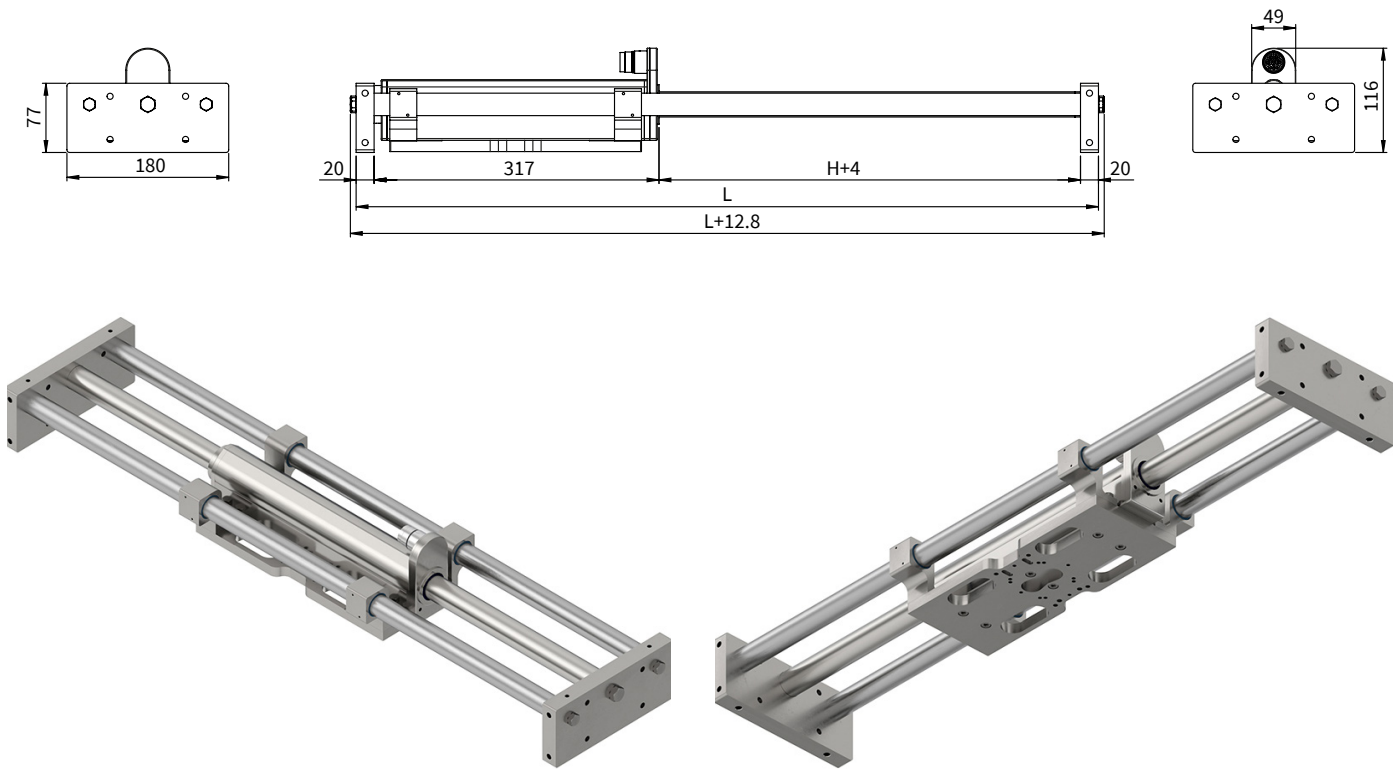
Linear Module	Stroke H [mm (inch)]		Module length L [mm (inch)]		Moving mass ¹⁾ [g (lb)]		Total weight [g (lb)]	
SM02-48-839-MD02_465_1CS48x240F-HP-BE03-C	465	(18.31)	826	(32.52)	6510	(14.35)	20148	(44.42)
SM02-48-959-MD02_585_1CS48x240F-HP-BE03-C	585	(23.03)	946	(37.24)	6510	(14.35)	21794	(48.05)
SM02-48-1049-MD02_675_1CS48x240F-HP-BE03-C	675	(26.57)	1036	(40.79)	6510	(14.35)	22892	(50.47)
SM02-48-1259-MD02_885_1CS48x240F-HP-BE03-C	885	(34.84)	1246	(49.06)	6510	(14.35)	25449	(56.11)

¹⁾ Mass: Mounting plate, stator

MATERIALS

Stator, Bearing Tube, Bearing Tube Support, Mounting Plate	Stainless Steel Mat. 1.4404 / 316 L
End Plates	Stainless Steel Mat. 1.4404 / 316 L
Guide Shafts	Stainless Steel Mat. 1.4112 / 440 B
Slider	Stainless Steel Mat. 1.4301 / 304
Plain Bearings	Polymer (FDA conform)
Bearing (Stator)	PEEK / PPS

SM02-48x240F_MD03_BE03_SSCP WITH PLAIN BEARINGS AND STAINLESS STEEL SHAFTS 1.4435



Dimensions mm

Linear Module	Stroke H [mm (inch)]	Module length L [mm (inch)]	Moving mass ¹⁾ [g (lb)]	Total weight [g (lb)]
SM02-48-839-MD03_465_1CS48x240F-HP-BE03-C	465 (18.31)	826 (32.52)	3349 (7.38)	9903 (21.83)
SM02-48-959-MD03_585_1CS48x240F-HP-BE03-C	585 (23.03)	946 (37.24)	3349 (7.38)	10643 (23.46)
SM02-48-1049-MD03_675_1CS48x240F-HP-BE03-C	675 (26.57)	1036 (40.79)	3349 (7.38)	11383 (25.1)
SM02-48-1259-MD03_885_1CS48x240F-HP-BE03-C	885 (34.84)	1246 (49.06)	3349 (7.38)	12105 (26.69)

¹⁾ Mass: Mounting plate, stator

MATERIALS

Stator, Bearing Tube, Bearing Tube Support, Mounting Plate	Stainless Steel Mat. 1.4404 / 316 L
End Plates	Stainless Steel Mat. 1.4404 / 316 L
Guide Shafts	Stainless Steel Mat. 1.4435 / 316 L
Slider	Stainless Steel Mat. 1.4404 / 316 L
Plain Bearings	Polymer (FDA conform)
Bearing (Stator)	PEEK / PPS

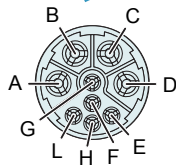
PERFORMANCE DATA

			Linear Modules SM02-48x150		Linear Modules SM02-48x240	
Stroke						
Maximum Stroke	mm	(in)	975 (38.39)		885 (34.84)	
Force						
Max. Force @ 48VDC	N	(lbf)	360 (80.9)		572 (128.6)	
Max. Force @ 72VDC	N	(lbf)	360 (80.9)		572 (128.6)	
Max. Cont. Force [Passive cooling/ Passive mounted ¹ / Cold Plate ²]	N	(lbf)	101 (22.7)		160 (36)	
Force Constant	N/A _{pk}	(lbf/A _{pk})	15.7 (3.52)		22 (4.95)	
Position Detection						
Position Resolution	mm	(in)	0.007 (0.0003)		0.007 (0.0003)	
Repeatability	mm	(in)	±0.05 (±0.002)		±0.05 (±0.002)	
Electrical Data						
Max. Current @ 48VDC	A _{pk}		23		25.9	
Max. Current @ 72VDC	A _{pk}		23		25.9	
Max. Cont. Current [Passive cooling/ Passive mounted ¹ / Cold Plate ²]	A _{pk}		6.6		7.2	
Terminal Resistance 25 °C / 150 °C	Ohm		0.81 / 1.2		0.97 / 1.4	
Terminal Inductivity	mH		0.7		1.1	
Magnetic Period	mm	(in)	60 (2.36)		60 (2.36)	
Thermal Data						
Max. Winding Temperature (Sensor)	°C		120		120	
Thermal Resistance [Passive cooling/ Passive mounted ¹ / Cold Plate ²]	K/W		1.7		1.1	
Thermal Time Constant [Passive cooling/ Passive mounted ¹ / Cold Plate ²]	s		3500		3500	
Mechanische Daten						
Statordurchmesser	mm	(in)	48 (1.89)		48 (1.89)	
Läuferdurchmesser	mm	(in)	28 (1.1)		28 (1.1)	
IP Schutzart [Gleitlager / Linearkugellager]			IP 69 / IP 67S			

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

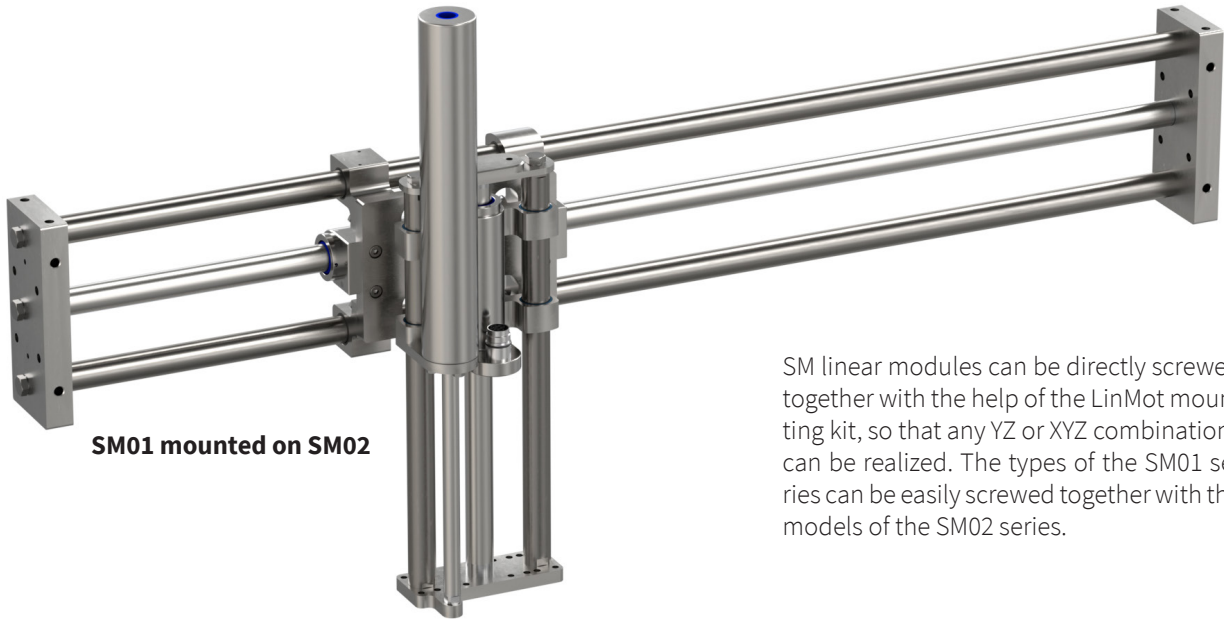


View: Motor connector, plug side

ORDERING INFORMATION

Item	Description	Item-No.
SM02-48-839-MD02_555_1CS48x150G-HP-BE02-C	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 555 mm	0150-4560
SM02-48-959-MD02_675_1CS48x150G-HP-BE02-C	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 675 mm	0150-4869
SM02-48-1049-MD02_765_1CS48x150G-HP-BE02-C	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 765 mm	0150-4877
SM02-48-1259-MD02_975_1CS48x150G-HP-BE02-C	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 975 mm	0150-4878
SM02-48-839-MD02_555_1CS48x150G-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 555 mm	0150-4532
SM02-48-959-MD02_675_1CS48x150G-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 675 mm	0150-4889
SM02-48-1049-MD02_765_1CS48x150G-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 765 mm	0150-4890
SM02-48-1259-MD02_975_1CS48x150G-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 975 mm	0150-4891
SM02-48-839-MD03_555_1CS48x150G-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4435, Stroke max. 555 mm	0150-4844
SM02-48-959-MD03_675_1CS48x150G-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4435, Stroke max. 675 mm	0150-4892
SM02-48-1049-MD03_765_1CS48x150G-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4435, Stroke max. 765 mm	0150-4893
SM02-48-1259-MD03_975_1CS48x150G-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4435, Stroke max. 975 mm	0150-4894
SM02-48-839-MD02_465_1CS48x240F-HP-BE02-C	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 465 mm	0150-4895
SM02-48-959-MD02_585_1CS48x240F-HP-BE02-C	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 585 mm	0150-4896
SM02-48-1049-MD02_675_1CS48x240F-HP-BE02-C	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 675 mm	0150-4897
SM02-48-1259-MD02_885_1CS48x240F-HP-BE02-C	Linear Module, Ball Bearings, Shaft Mat. 1.4112, Stroke max. 885 mm	0150-4898
SM02-48-839-MD02_465_1CS48x240F-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 465 mm	0150-4899
SM02-48-959-MD02_585_1CS48x240F-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 585 mm	0150-4900
SM02-48-1049-MD02_675_1CS48x240F-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 675 mm	0150-4901
SM02-48-1259-MD02_885_1CS48x240F-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4112, Stroke max. 885 mm	0150-4902
SM02-48-839-MD03_465_1CS48x240F-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4435, Stroke max. 465 mm	0150-4903
SM02-48-959-MD03_585_1CS48x240F-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4435, Stroke max. 585 mm	0150-4904
SM02-48-1049-MD03_675_1CS48x240F-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4435, Stroke max. 675 mm	0150-4905
SM02-48-1259-MD03_885_1CS48x240F-HP-BE03-C	Linear Module, Plain Bearings, Shaft Mat. 1.4435, Stroke max. 885 mm	0150-4906

SM01 AND SM02 LINEAR MODULES AS COMBINED MOTION UNITS



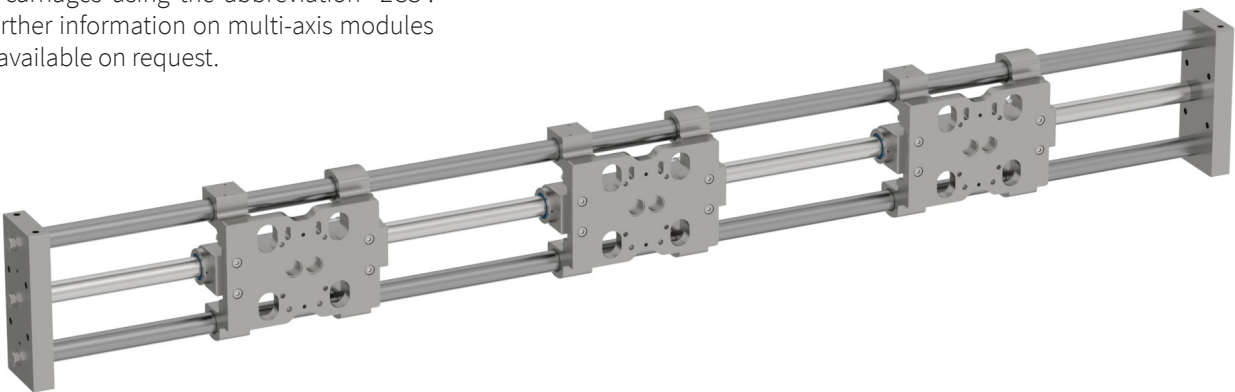
SM linear modules can be directly screwed together with the help of the LinMot mounting kit, so that any YZ or XYZ combinations can be realized. The types of the SM01 series can be easily screwed together with the models of the SM02 series.

The mounting kit contains all necessary screws and pins to mount the SM linear modules together.

Item	Description	Item-No.
Z01-AsKit-SM01-SM01	Mounting kit for SM01 on SM01 Linear Modules	0150-4507

MULTI AXIS MODULE

The SM02 linear module can be extended as desired with additional carriages. Each carriage can be moved independently or synchronously. The multi-axis modules are available in both ball bearing and plain bearing versions. The stroke of a single carriage is reduced by additional carriages. The designation includes the number of carriages using the abbreviation "2CS". Further information on multi-axis modules is available on request.



Item	Description	Item-No.
SM02-37-1242_830_2CS37Sx120F-HP-R	Linear module with 2 carriages, linear ball bearing, shafts mat. 1.4112, stroke max. 830 mm	0150-5574
SM02-48-1436-MD02_760_2CS48x240F-HP-BE02-C	Linear module with 2 carriages, linear ball bearing, shafts mat. 1.4112, stroke max. 765 mm	0150-5640

Other variants are available on request.

ALL LINEAR MOTION FROM A SINGLE SOURCE

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