

LinMot®

PR01-52x40-R/37x120F-HP-C-80

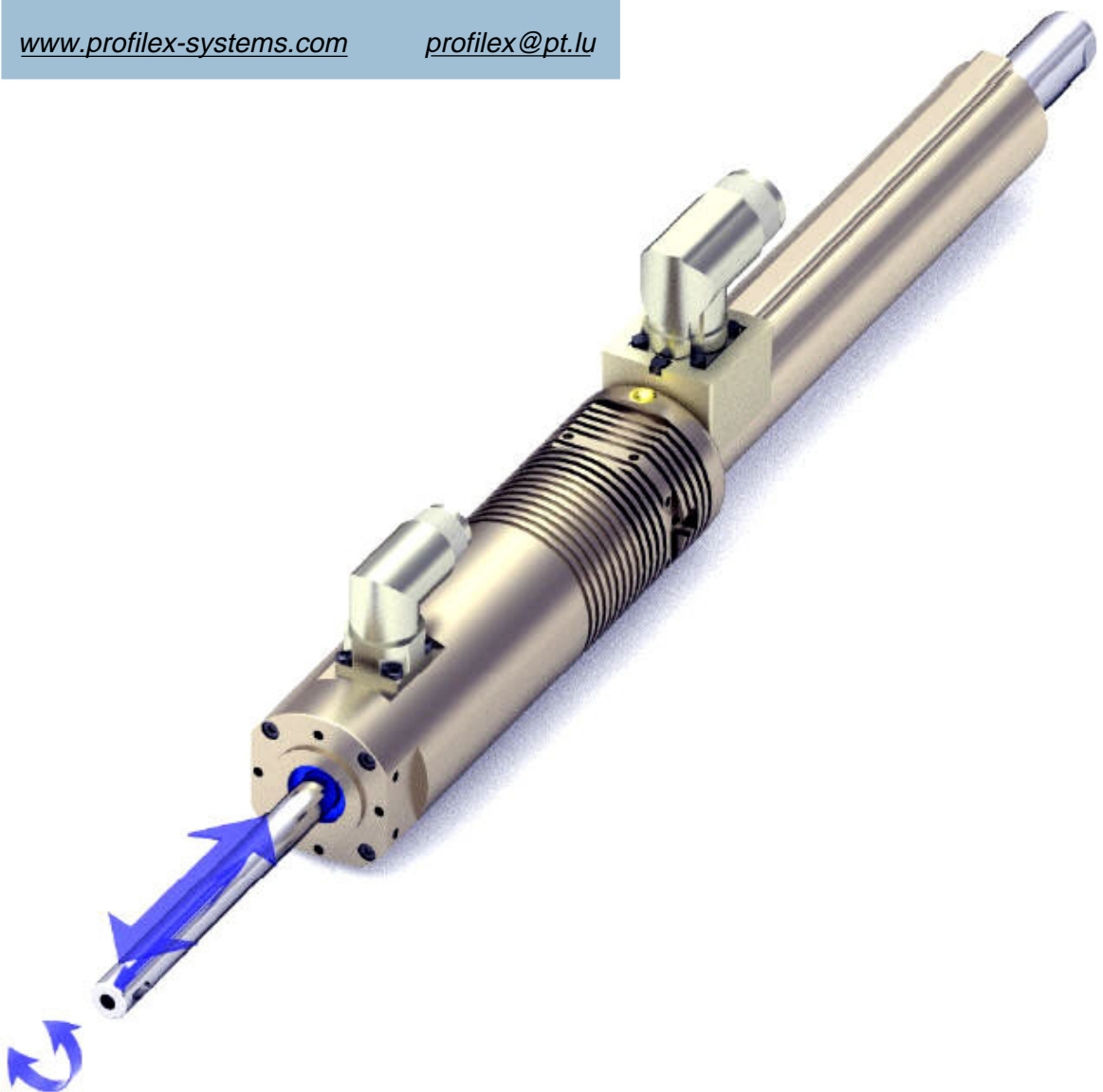
Import Belgium & Luxembourg

Profilex s.a.

4A, Z.I. In den Allern Tel: 00352/99 89 06
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www.profilex-systems.com

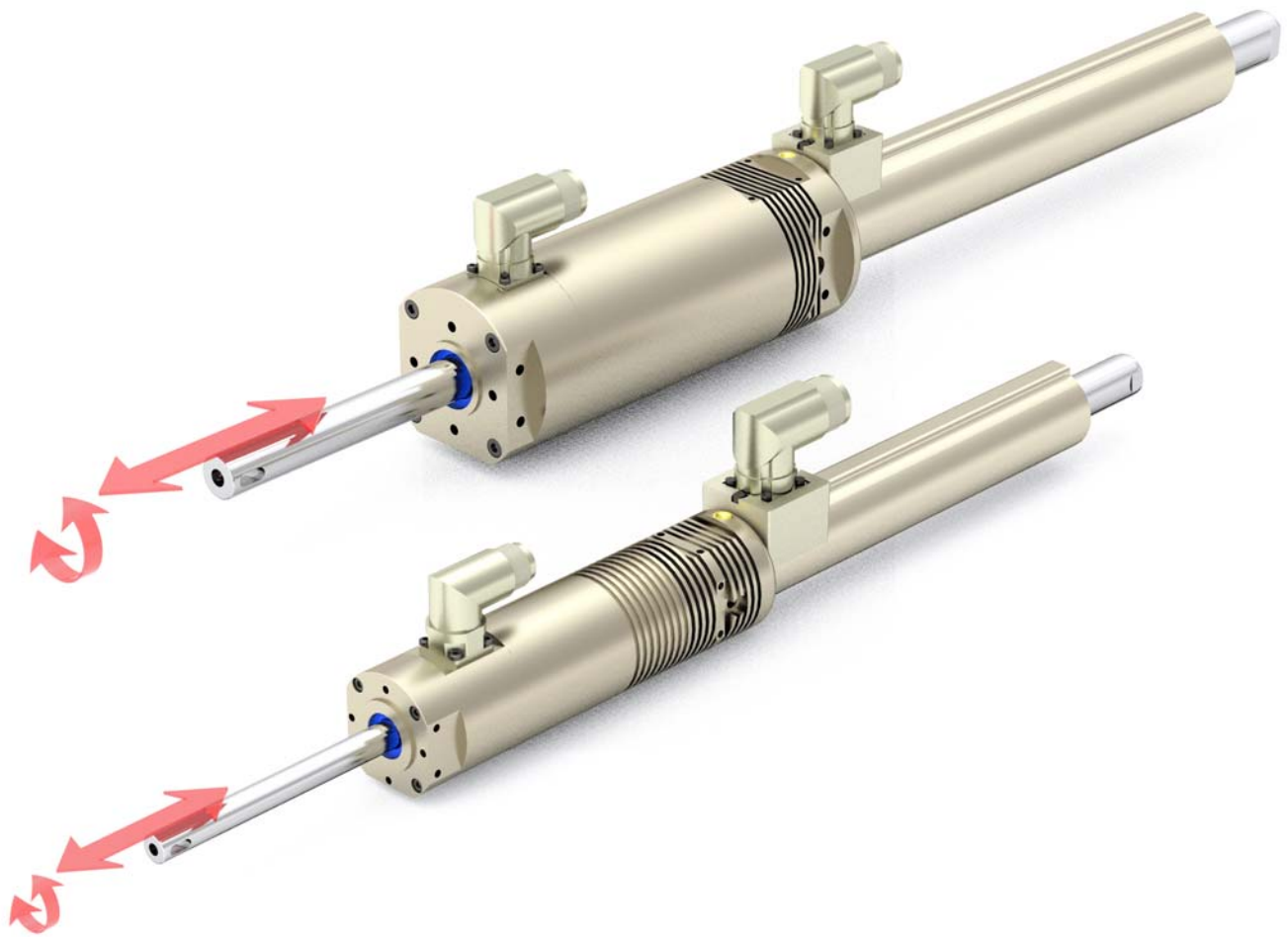
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The linear motor technology for industrial applications

LinMot®

Linear-Rotary Motors



Linear and rotary direct drive



Independent linear and rotary motion



Synchronised linear and rotary motion

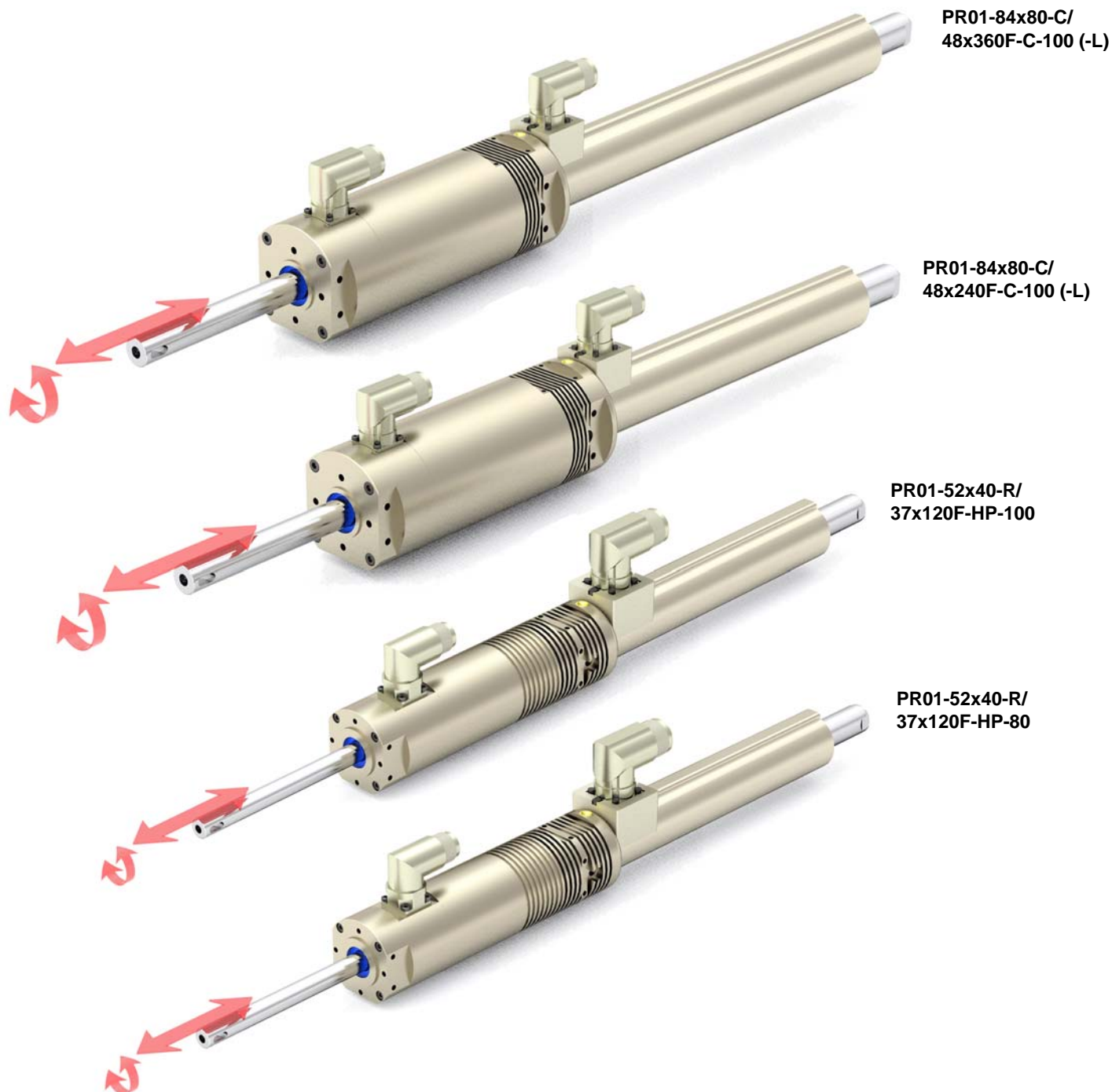


Programmable press force up to 1'024N



Programmable tightening torque up to 7,5N

The linear motor technology for industrial applications

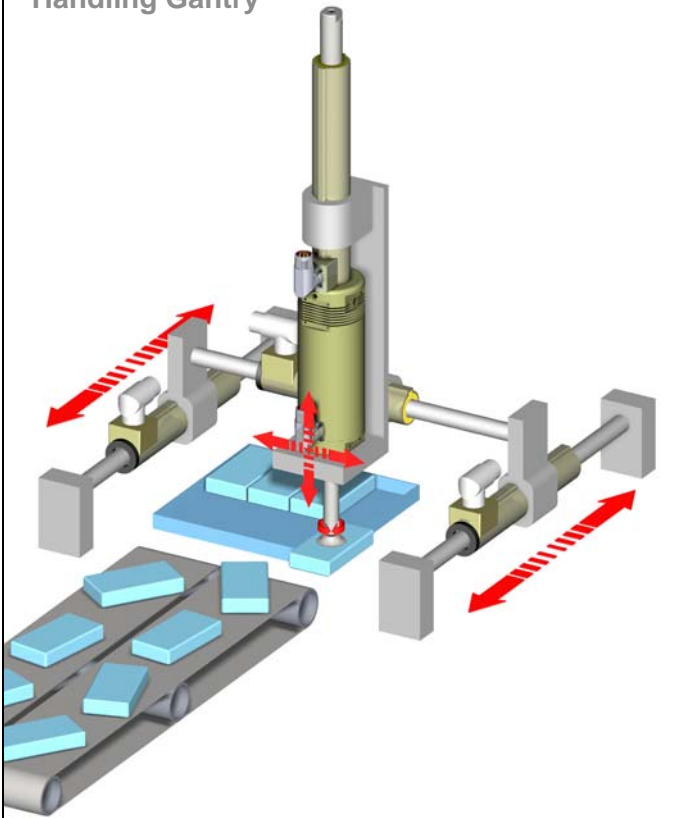


Models

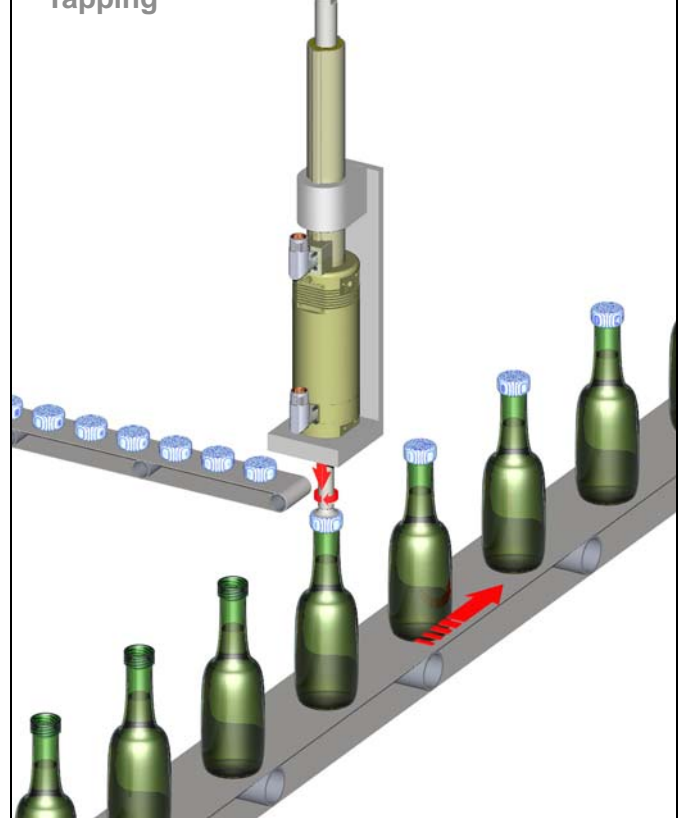
Model	Stroke [mm / in]	Linear	Rotatry	
		Peak Force [N / lbf]	Max. Revolutions [rpm]	Torque [Nm / lbf·in]
PR01-52x40-R/37x120F-HP-80	80 / 3.15	255 / 57.3	2000	1.4 / 12.39
PR01-52x60-R/37x120F-HP-100	100 / 3.94	255 / 57.3	1500	2 / 17.70
PR01-84x80-C/48x240F-C-100 (-L)	130 / 5.12	572 / 128.6	1000	7.5 / 66.38
PR01-84x80-C/48x360F-C-100 (-L)	130 / 5.12	1024 / 230.2	1000	7.5 / 66.38

Application Example

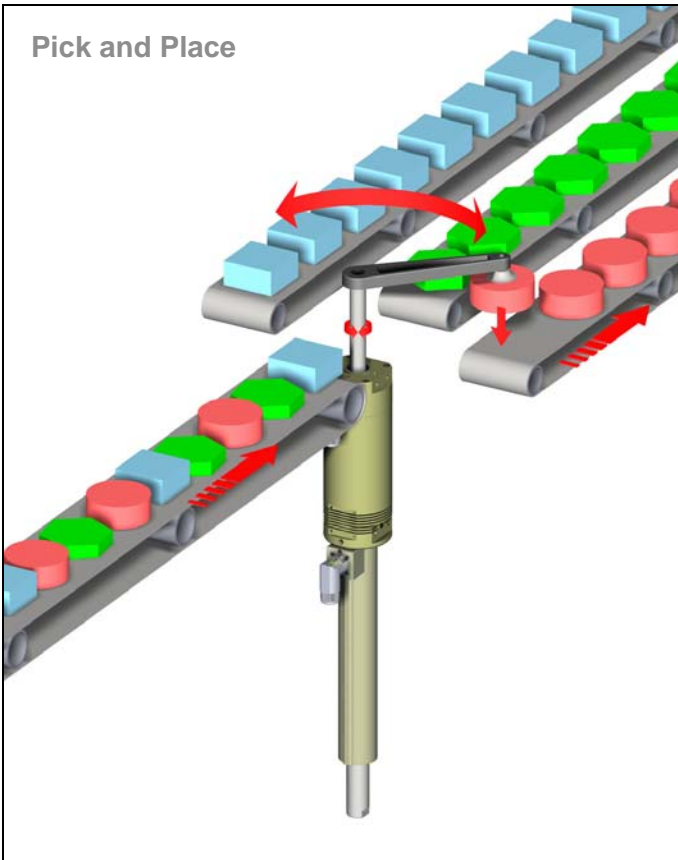
Handling Gantry



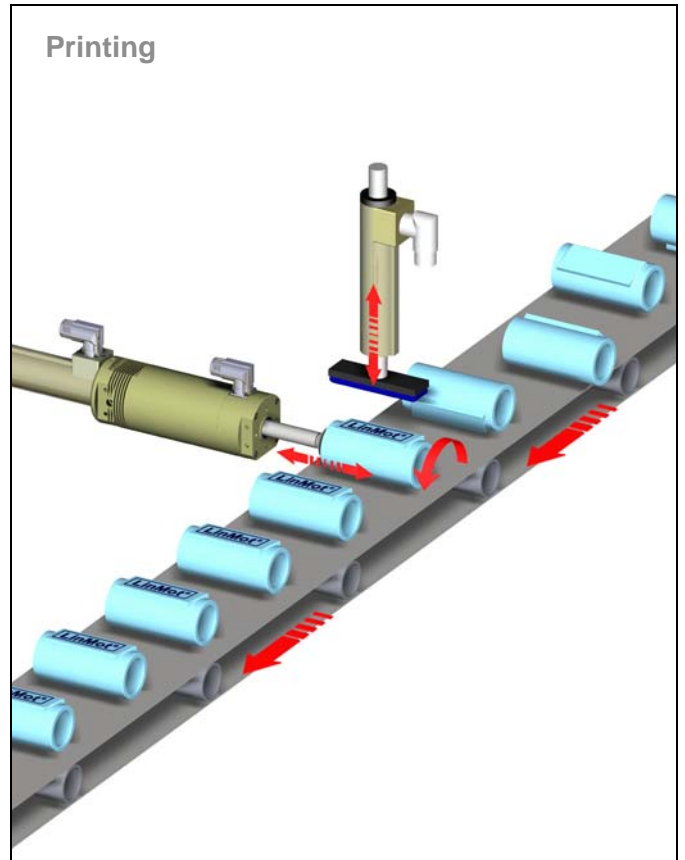
Tapping



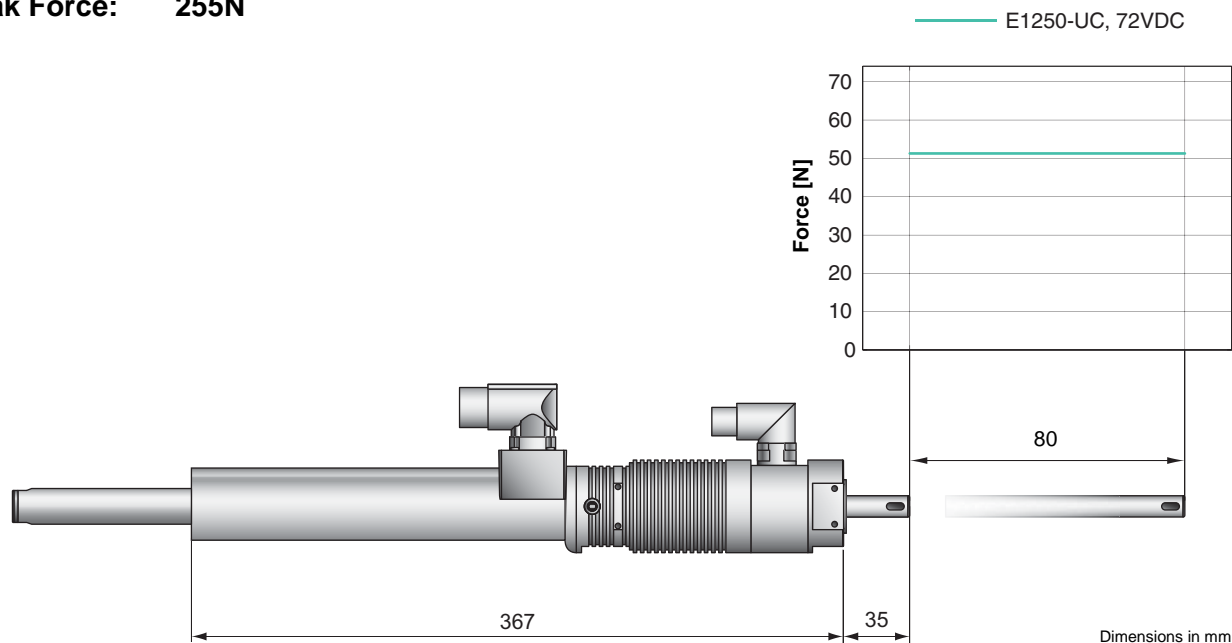
Pick and Place



Printing

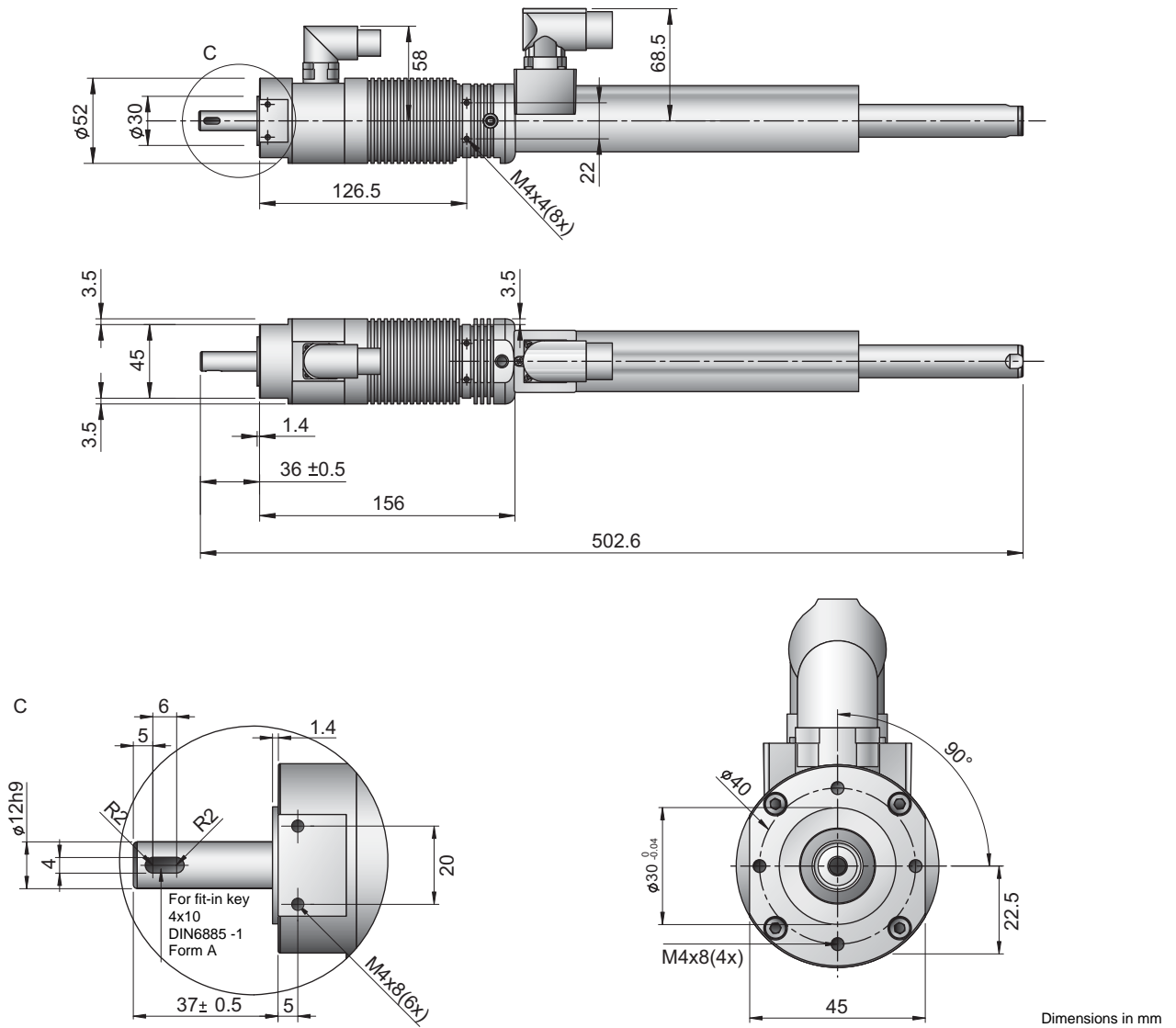


Max. Stroke: 80mm
Peak Force: 255N



Motor Specifications

PR01-52x40-R/37x120F-HP-C-80		
Linear Motion		
Stroke Max.	mm (in)	80 (3.15)
Stroke SS	mm (in)	80 (3.15)
Peak Force E12x0 - UC	N (lbf)	255 (57.3)
Cont. Force	N (lbf)	51 (11.5)
Cont. Force Fan cooling	N (lbf)	92 (20.7)
Force Constant	N/A (lbf/A)	17 (3.8)
Max. Current @ 72VDC	A	15
Max. Velocity @ 72VDC	m/s (in/s)	3.9 (154)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.10
Rotary Motion		
Peak Troque	Nm (lbf·in)	1.4 (12.39)
Constant Torque (Halt)	Nm (lbf·in)	0.4 (3.54)
Max. Number of revolutions	Rpm	2000
Torque Constant	Nm/A _{rms} (lbf·in/A _{rms})	0.43 (3.81)
Max. Current @ 72VDC	A _{rms}	5.7
Repeatability	°	±0.05
Mechanical Dimensions		
Overall Length	mm (in)	503 (22.48)
Diameter Linear Unit	mm (in)	37 (1.46)
Diameter Rotary Unit	mm (in)	52 (2.05)
Connection flange front	mm (in)	30 (1.18)
Mass	g (lb)	2680 (5.91)
Mass linear moved	g (lb)	790 (1.74)
Rotary Torque of inertia	kgcm ² lbf·ft ²	0.22 (0.00052)
Axle Diameter	mm (in)	12h9 (0.47h0.35)
Optional Axel with hole		no
Protection Class		IP64



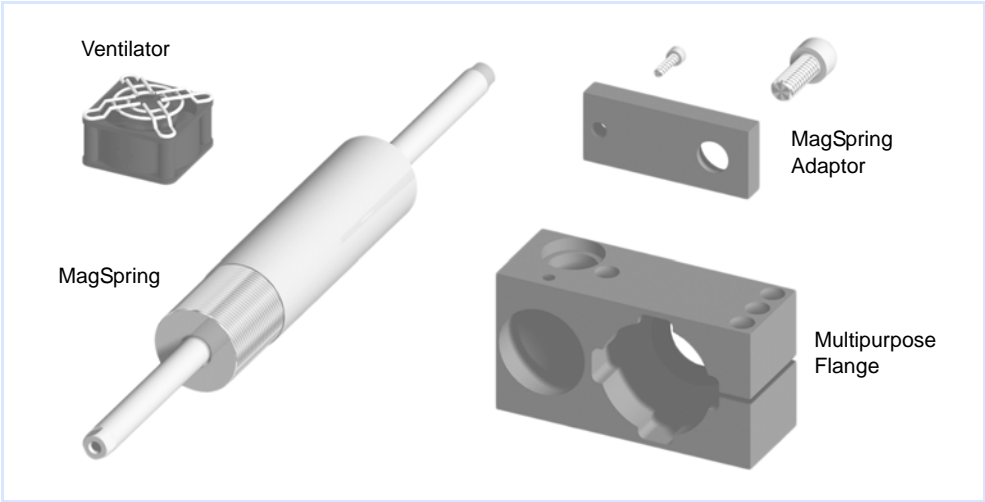
Ordering information

Item	Description	Part Number
PR01-52x40-R/37x120F-HP-C-80	Linear Rotary Motor	0150-1573

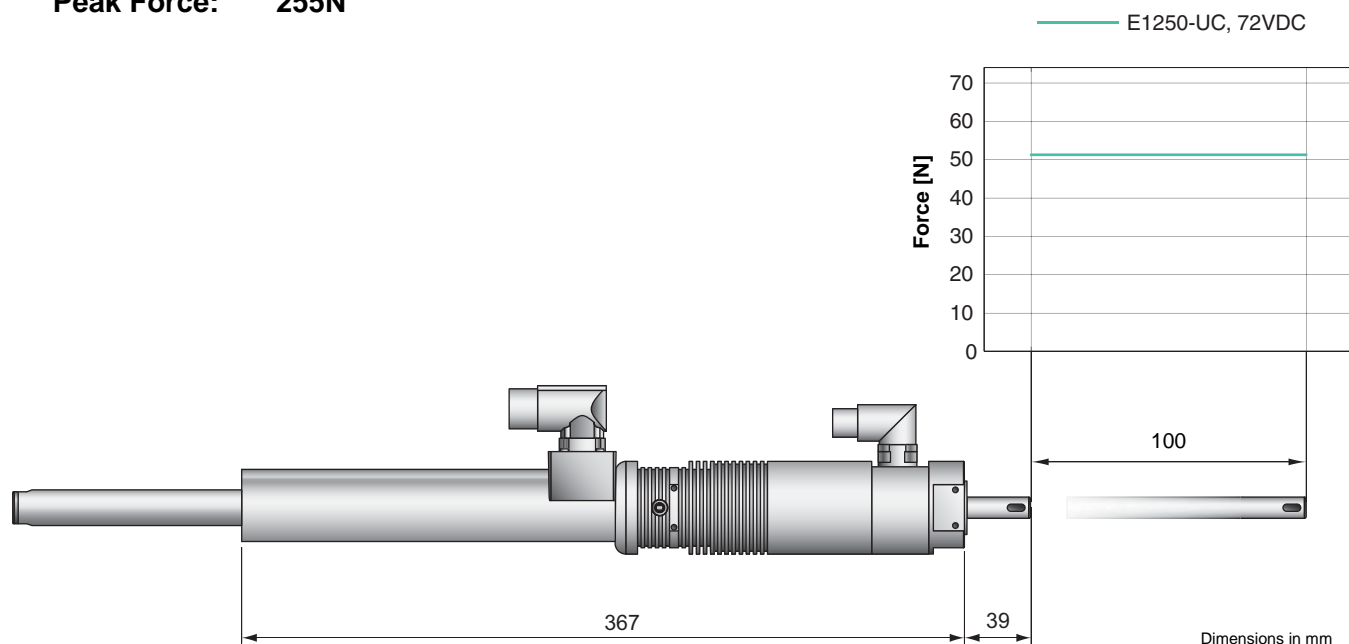
Connectors

Motor Connector Wiring		Linear Motor: C-Connector	Rotary Motor: C- or R-Connector
Ph 1+ / A	red	A	1
Ph 1- / B	pink	B	2
Ph 2+ / C	blue	C	3
Ph 2- / NC	gray	D	4
+5VDC	white	E	A
GND	inner Shield	F	B
Sine	yellow	G	C
Cosine	green	H	D
Temp.	black	L	E
Shield	outer Shield	Case	Case

Accessories

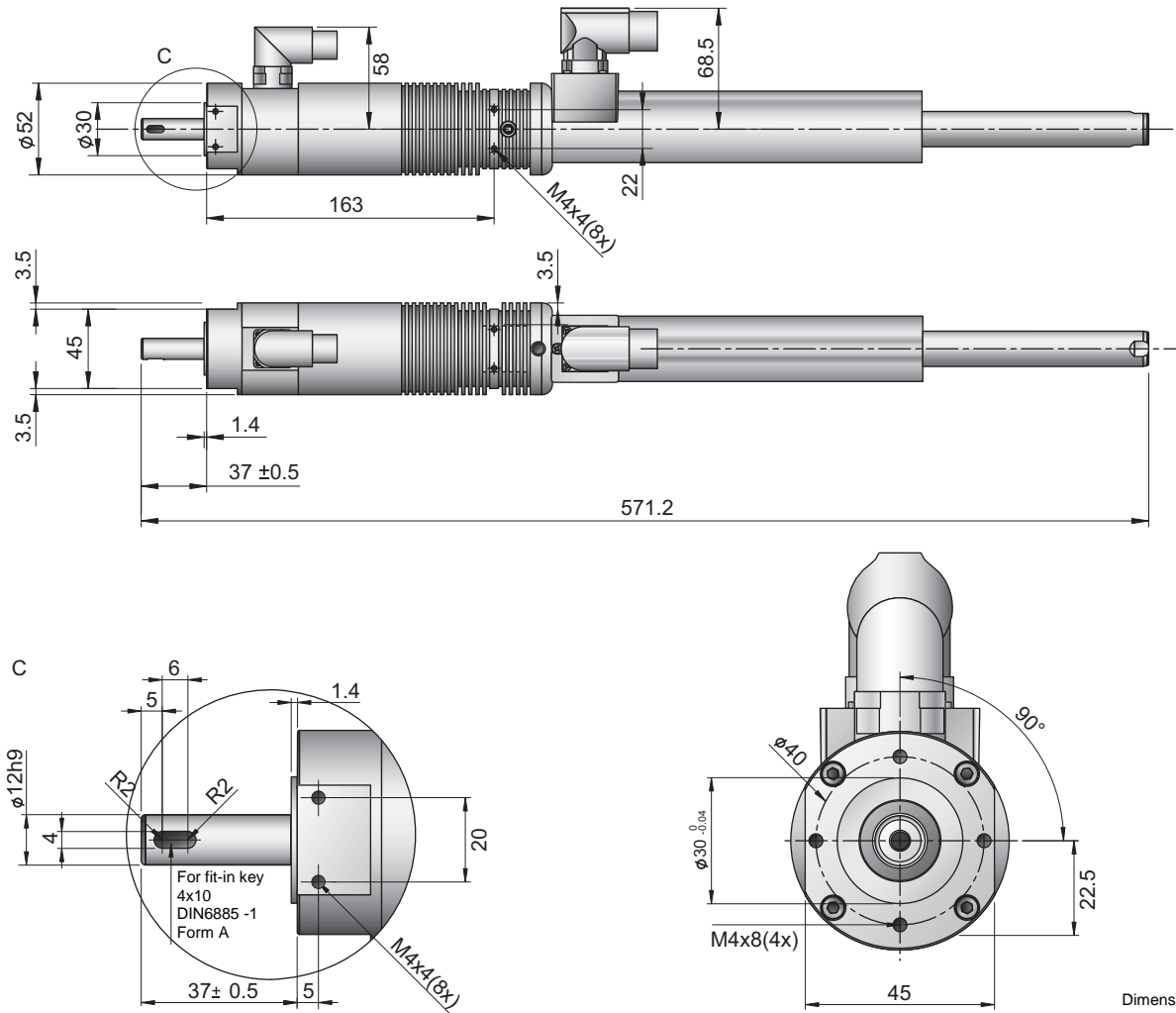


Max. Stroke: 100mm
Peak Force: 255N



Motor Specifications

PR01-52x60-R/37x120F-HP-C-100		
Linear Motion		
Stroke Max.	mm (in)	100 (3.94)
Stroke SS	mm (in)	100 (3.94)
Peak Force E12x0 - UC	N (lbf)	255 (57.3)
Cont. Force	N (lbf)	51 (11.5)
Cont. Force Fan cooling	N (lbf)	92 (20.7)
Force Constant	N/A (lbf/A)	17 (3.8)
Max. Current @ 72VDC	A	15
Max. Velocity @ 72VDC	m/s (in/s)	3.9 (154)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.10
Rotary Motion		
Peak Torque	Nm (lbf·in)	2 (17.7)
Constant Torque (Halt)	Nm (lbf·in)	0.5 (4.4)
Max. Number of revolutions	Rpm	1500
Torque Constant	Nm/A _{rms} (lbf·in/A _{rms})	0.46 (4.07)
Max. Current @ 72VDC	A _{rms}	6.2
Repeatability	°	±0.05
Mechanical Dimensions		
Overall Length	mm (in)	571 (22.48)
Diameter Linear Unit	mm (in)	37 (1.46)
Diameter Rotary Unit	mm (in)	52 (2.05)
Connection flange front	mm (in)	30 (1.18)
Mass	g (lb)	3120 (6.88)
Mass linear moved	g (lb)	860 (1.90)
Rotary Torque of inertia	kgcm ² lbf·ft ²	0.26 (0.0061)
Axle Diameter	mm (in)	12h9 (0.47h0.35)
Optional Axel with hole		no
Protection Class		IP64



Dimensions in mm

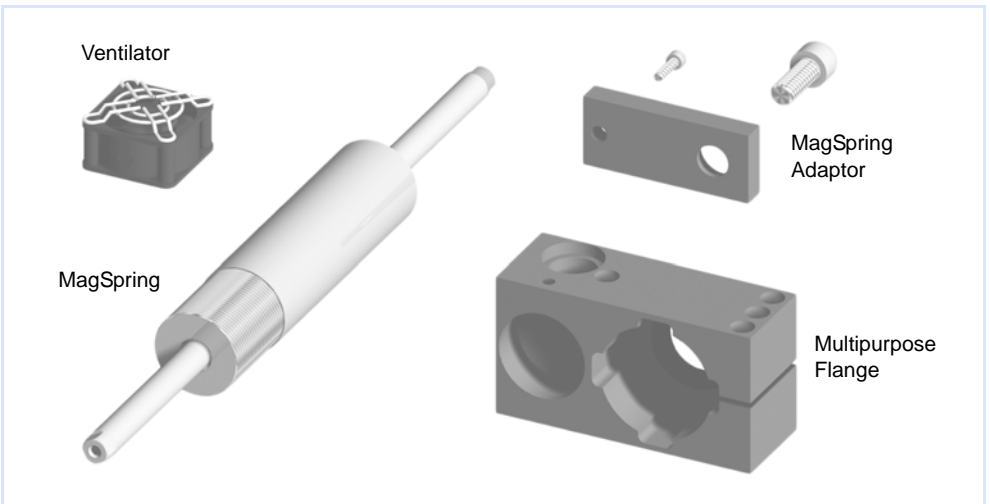
Ordering information

Item	Description	Part Number
PR01-52x60-R/37x120F-HP-C-100	Linear Rotary Motor	0150-1197

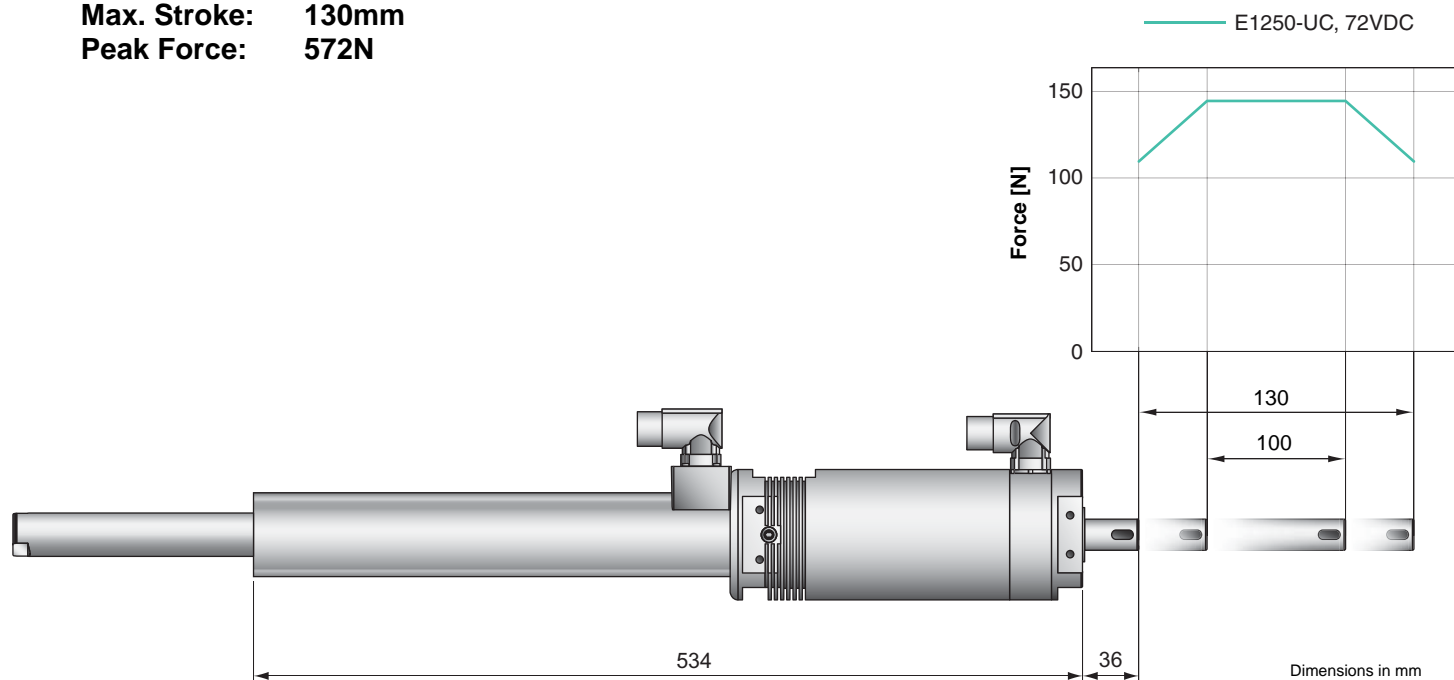
Connectors

Motor Connector Wiring		Linear Motor: C-Connector	Rotary Motor: C- or R-Connector
Ph 1+ / A	red	A	1
Ph 1- / B	pink	B	2
Ph 2+ / C	blue	C	3
Ph 2- / NC	gray	D	4
+5VDC	white	E	A
GND	inner Shield	F	B
Sine	yellow	G	C
Cosine	green	H	D
Temp.	black	L	E
Shield	outer Shield	Case	Case

Accessories

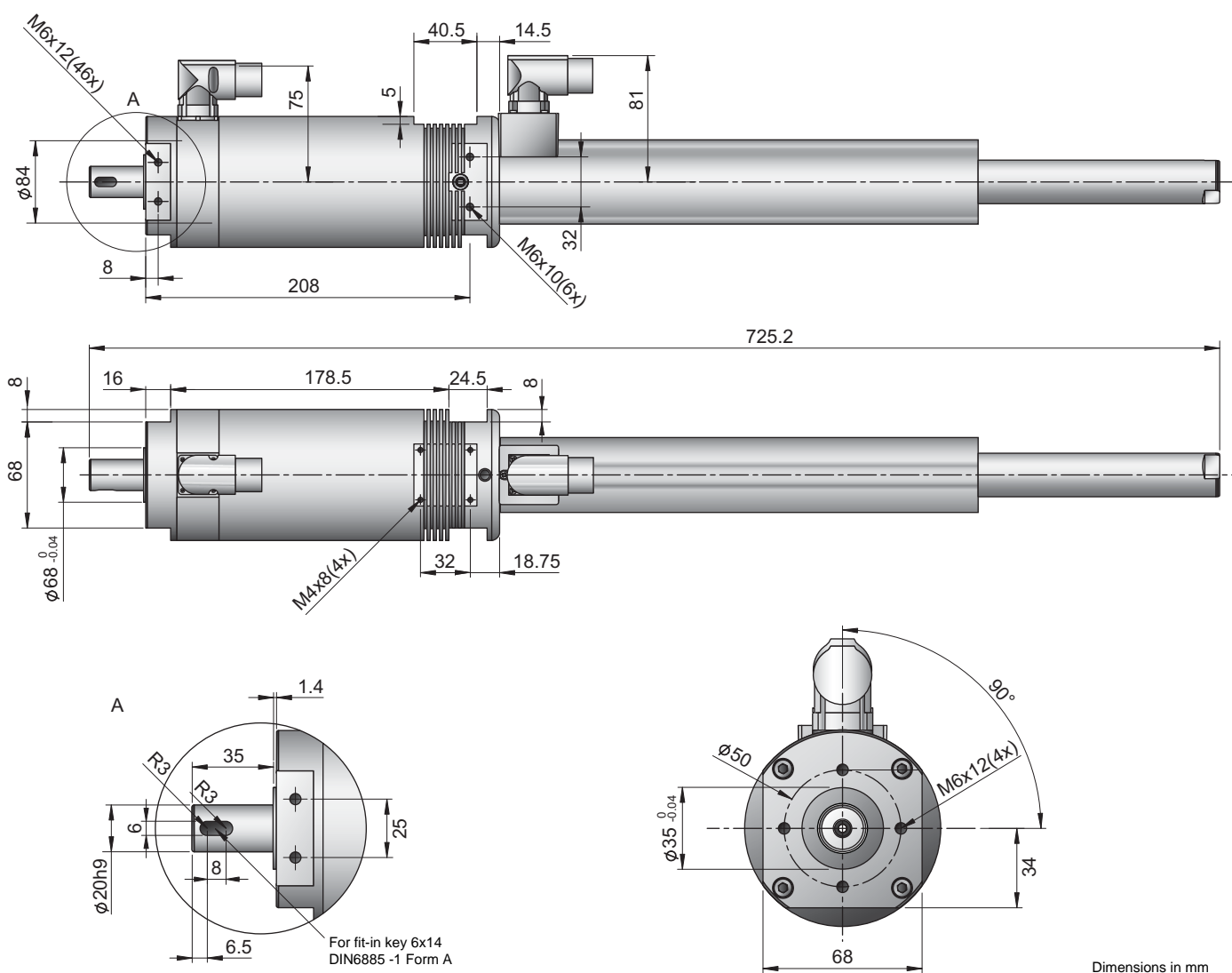


Max. Stroke: 130mm
Peak Force: 572N



Motor Specifications

		PR01-84x80-C/48x240F-C-100 (-L)
Linear Motion		
Stroke Max	mm (in)	130 (5.12)
Stroke SS	mm (in)	100 (3.94)
Peak Force E12x0 - UC	N (lbf)	572 (128.6)
Cont. Force	N (lbf)	145 (74.2)
Cont. Force Fan cooling	N (lbf)	258 (58.0)
Force Constant	N/A (lbf/A)	22 (5.0)
Max. Current @ 72VDC	A	26
Max. Velocity @ 72VDC	m/s (in/s)	3.0 (118)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.15
Rotary Motion		
Peak Troque	Nm (lbf·in)	7.5 (66.4)
Constant Torque (Halt)	Nm (lbf·in)	3 (26.6)
Max. Number of revolutions	Rpm	1000
Torque Constant	Nm/A _{rms} (lbf·in/A _{rms})	0.31 (2.74)
Max. Current @ 72VDC	A _{rms}	25
Repeatability	°	±0.05
Mechanical Dimensions		
Overall Length	mm (in)	726 (28.58)
Diameter Linear Unit	mm (in)	48 (1.89)
Diameter Rotary Unit	mm (in)	84 (3.31)
Connection flange front	mm (in)	35 (1.38)
Mass	g (lb)	8850 (19.51)
Mass linear moved	g (lb)	2450 (5.40)
Rotary Torque of inertia	kgcm ² lbf·ft ²	2.0 (0.0047)
Axle Diameter	mm (in)	20h9 (0.79h0.35)
Optional Axel with hole		yes
Protection Class		IP64



Dimensions in mm

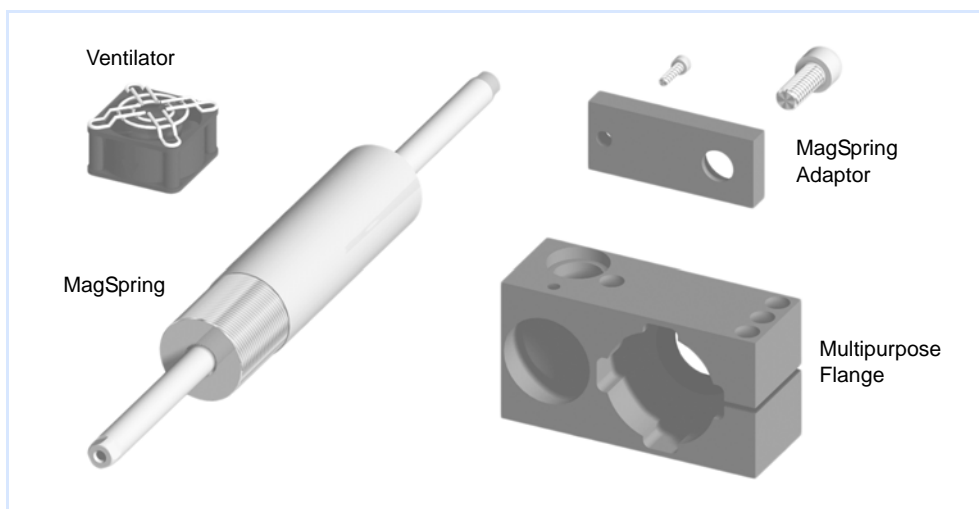
Ordering information

Item	Description	Part Number
PR01-84x80-C/48x240F-C-100	Linear Rotary Motor	0150-1194
PR01-84x80-C/48x240F-C-100-L	Linear Rotary Motor with hollow Shaft	0150-1196

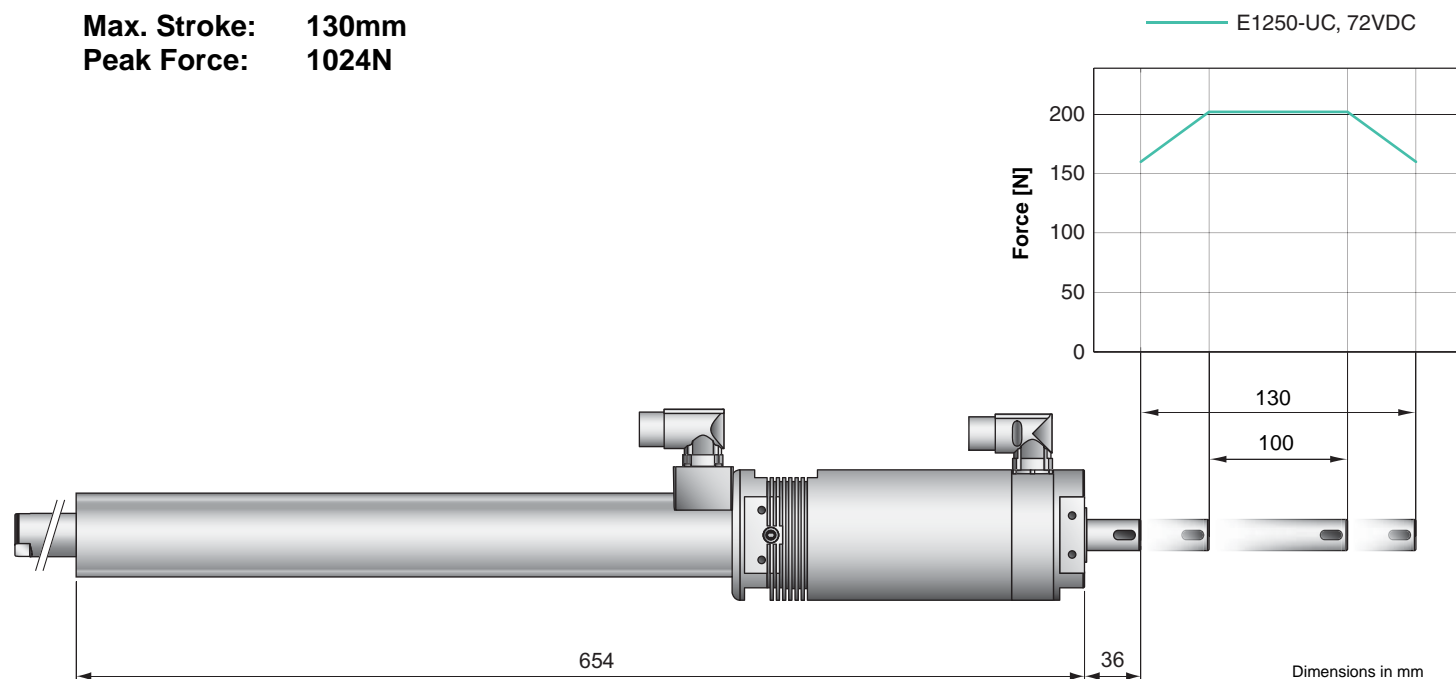
Connectors

Motor Connector Wiring		Linear Motor: C-Connector	Rotary Motor: C- or R-Connector
Ph 1+ / A	red	A	1
Ph 1- / B	pink	B	2
Ph 2+ / C	blue	C	3
Ph 2- / NC	gray	D	4
+5VDC	white	E	A
GND	inner Shield	F	B
Sine	yellow	G	C
Cosine	green	H	D
Temp.	black	L	E
Shield	outer Shield	Case	Case

Accessories

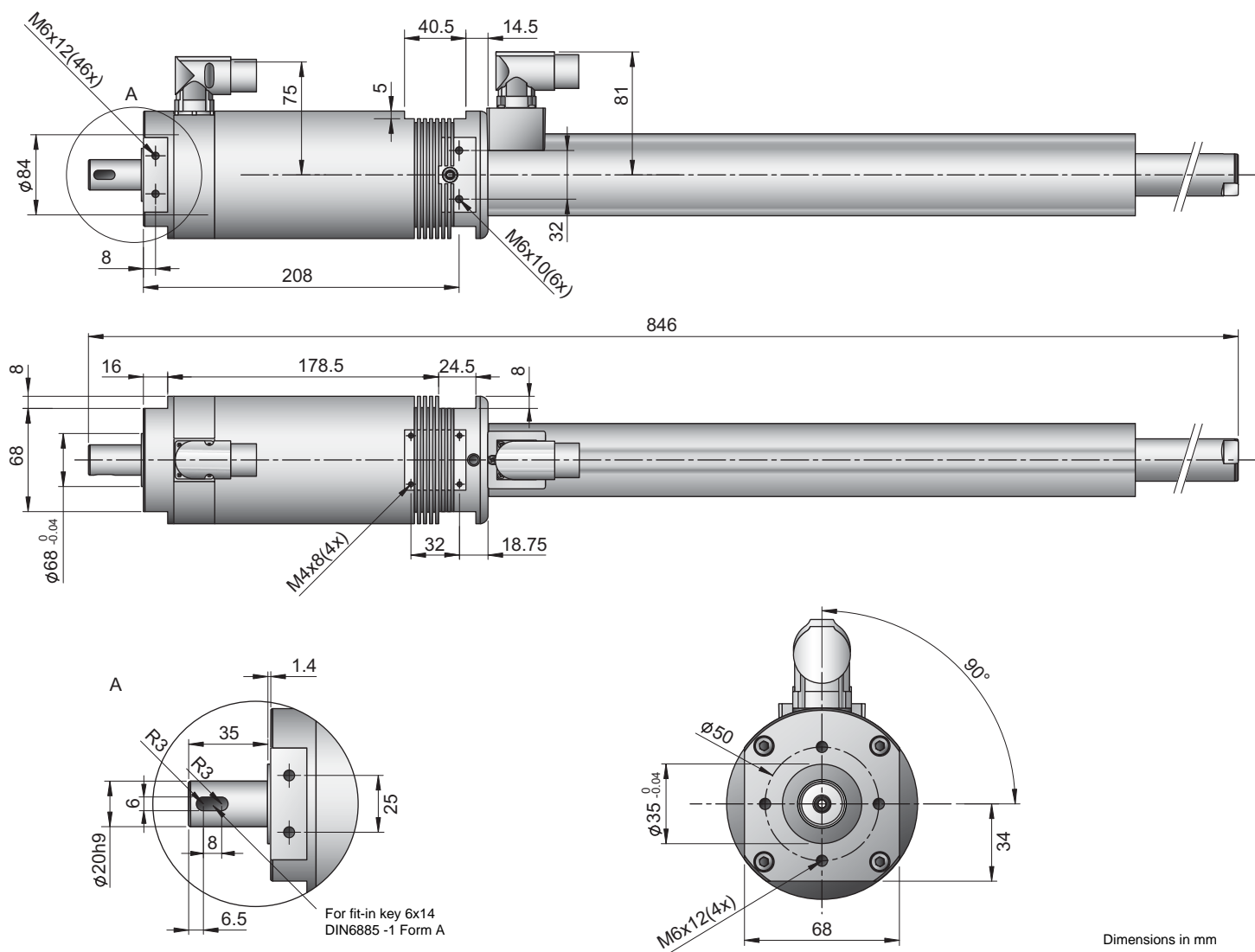


Max. Stroke: 130mm
Peak Force: 1024N



Motor Specifications

PR01-84x80-C/48x360F-C-100 (-L)		
Linear Motion		
Stroke Max	mm (in)	130 (5.12)
Stroke SS	mm (in)	100 (3.94)
Peak Force E12x0 - UC	N (lbf)	1024 (230.2)
Cont. Force	N (lbf)	203 (45.6)
Cont. Force Fan cooling	N (lbf)	354 (79.6)
Force Constant	N/A (lbf/A)	22 (4.9)
Max. Current @ 72VDC	A	32
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (83)
Position Repeatability	mm (in)	±0.05 (±0.0020)
Linearity	%	±0.15
Rotary Motion		
Peak Troque	Nm (lbf·in)	7.5 (66.4)
Constant Torque (Halt)	Nm (lbf·in)	3 (26.6)
Max. Number of revolutions	Rpm	1000
Torque Constant	Nm/A _{rms} (lbf·in/A _{rms})	0.31 (2.74)
Max. Current @ 72VDC	A _{rms}	25
Repeatability	°	±0.05
Mechanical Dimensions		
Overall Length	mm (in)	849 (33.43)
Diameter Linear Unit	mm (in)	48 (1.89)
Diameter Rotary Unit	mm (in)	84 (3.31)
Connection flange front	mm (in)	35 (1.38)
Mass	g (lb)	10480 (23.10)
Mass linear moved	g (lb)	2900 (6.39)
Rotary Torque of inertia	kgcm ² lbf·ft ²	2.0 (0.0047)
Axle Diameter	mm (in)	20h9 (0.79h0.35)
Optional Axel with hole		yes
Protection Class		IP64



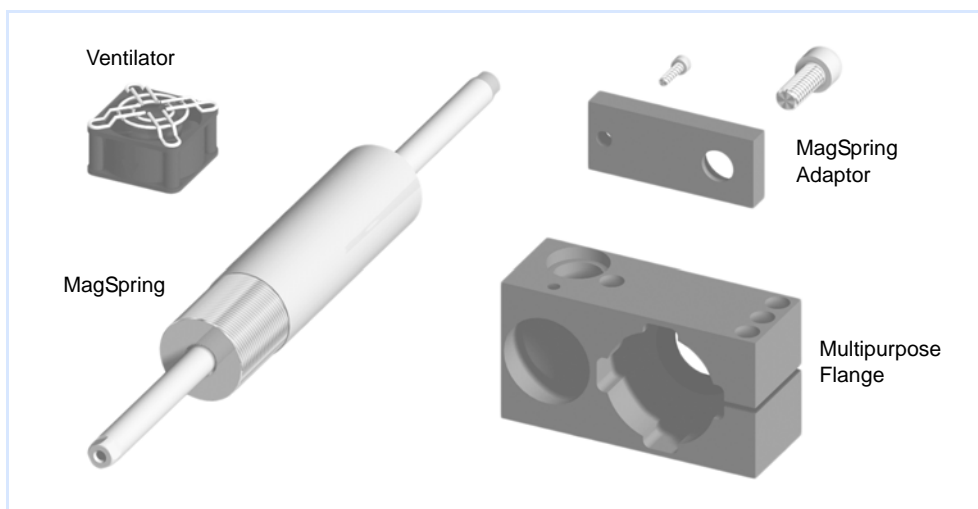
Ordering information

Item	Description	Part Number
PR01-84x80-C/48x360F-C-100	Linear Rotary Motor	0150-1199
PR01-84x80-C/48x360F-C-100-L	Linear Rotary Motor with hollow Shaft	0150-1200

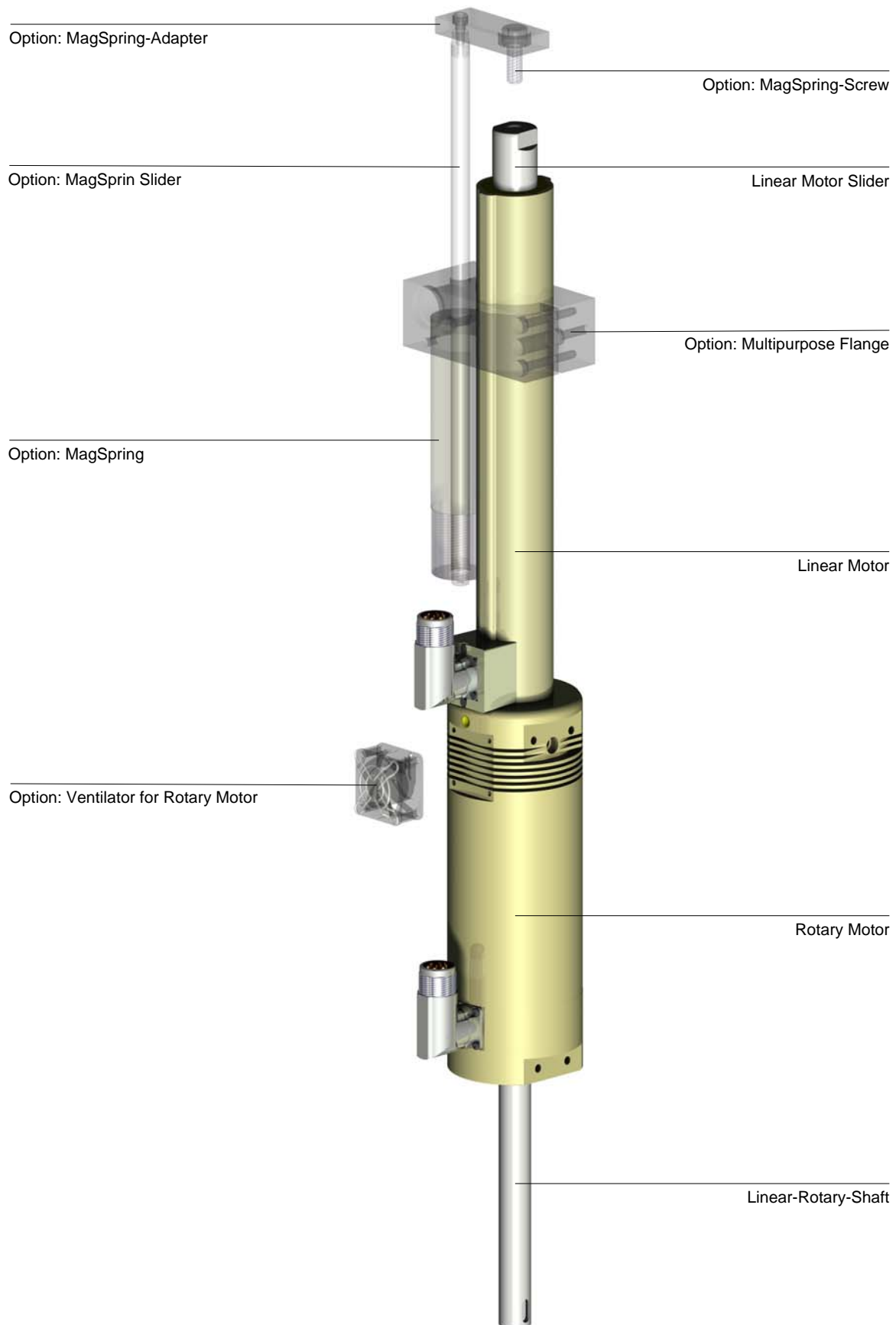
Connectors

Motor Connector Wiring		Linear Motor: C-Connector	Rotary Motor: C- or R-Connector
Ph 1+ / A	red	A	1
Ph 1- / B	pink	B	2
Ph 2+ / C	blue	C	3
Ph 2- / NC	gray	D	4
+5VDC	white	E	A
GND	inner Shield	F	B
Sine	yellow	G	C
Cosine	green	H	D
Temp.	black	L	E
Shield	outer Shield	Case	Case

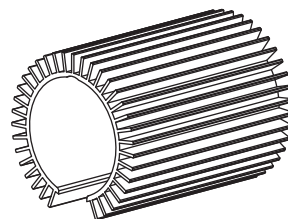
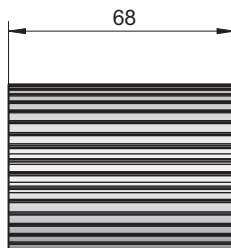
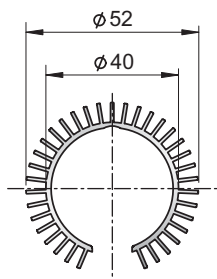
Accessories



Parts



Optional cooling element for PS01-37x120F-HP-C-100

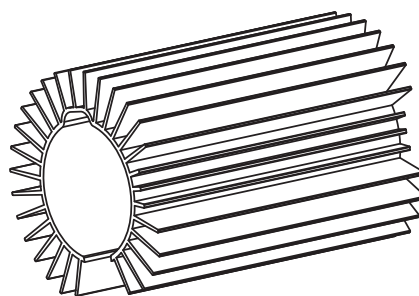
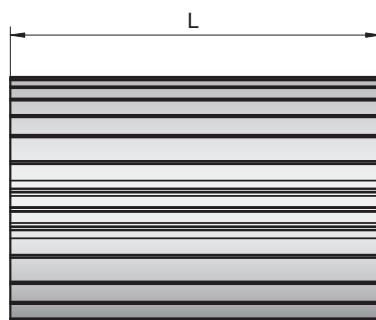
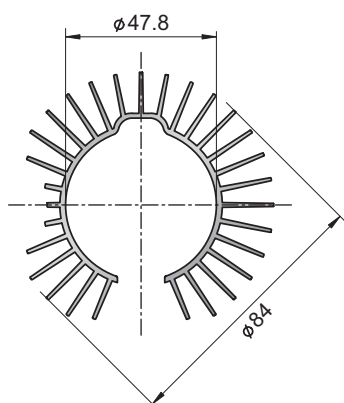


Material: Aluminum (AlMgSi)
Mass: approx. 7g (0.015lb)

Dimensions in mm

Item	Description	Part Number
PC01-37x68	Cooling Element	0160-2131

Optional cooling element for PS01-48x240F-C-100 and PS01-48x360F-C-100

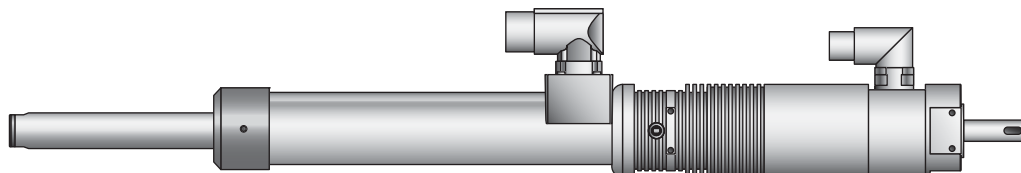
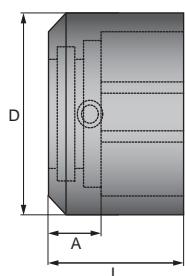


Material: Aluminum (AlMgSi)

Dimensions in mm

Item	Description	L [mm]	Weight [g]	Part Number
PC01-48x100	Cooling Element	99	0.21	0160-2145
PC01-37x68	Cooling Element	117	0.25	0160-2138

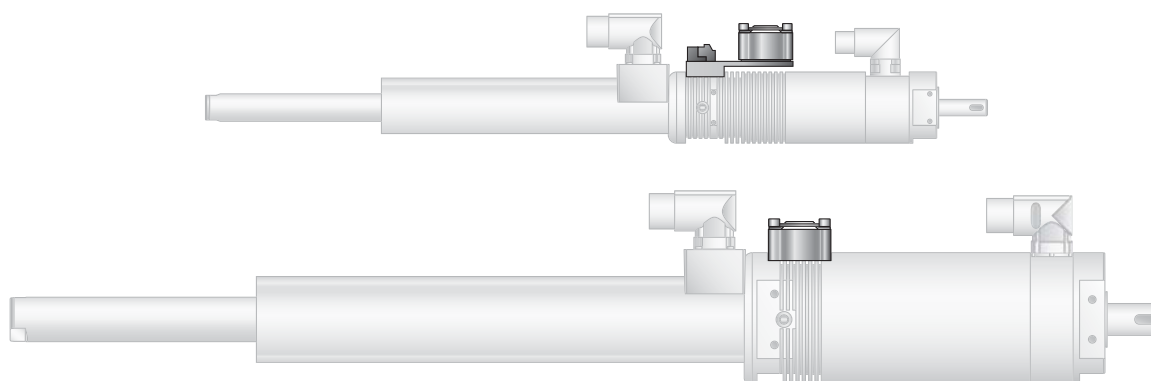
Optional wipers for linear motorparts



Item	D	L	A	Weight
PA01-37	45mm (1.77in)	32mm (1.26in)	12mm (0.47in)	0.028kg
PA01-48	58mm (2.28in)	32mm (1.26in)	14mm (0.55in)	0.056kg

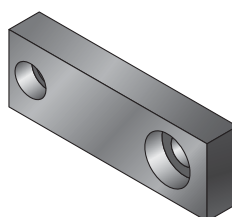
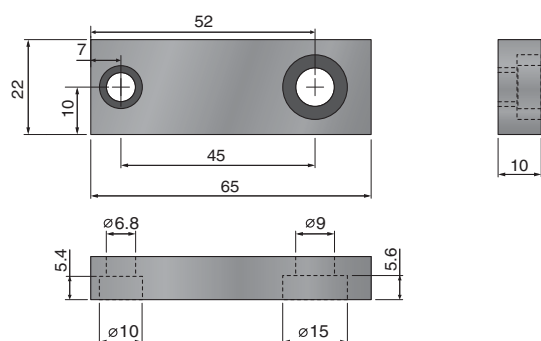
Item	Description	Part Number
PA01-37/20-F	Wiper for PS01-37x... (front wiper)	0150-3126
PA01-48/28-F	Wiper for PS01-48x... (front wiper)	0150-3127

Optional ventilator for rotational motor RS01-52x60-R



Item	Description	Weight [g]	Part Number
RS01-VA70x40-Kit	Ventilator for rotational motor RS01-52x60-R	75	0150-1599
RS01-VA84	Ventilator for rotational motor RS01-84x80-C	30	0150-1600

Adaptor for MagSpring M01-37 and Guides H01-37 / B01-37



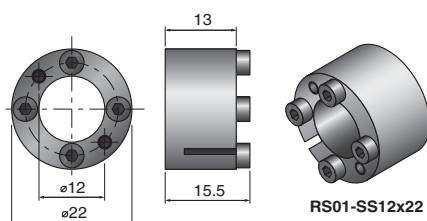
MA01-PR01-52x40-37

Material: Aluminum (AlMgSi), black anodized
Mass: approx. 34g (0.075lb)

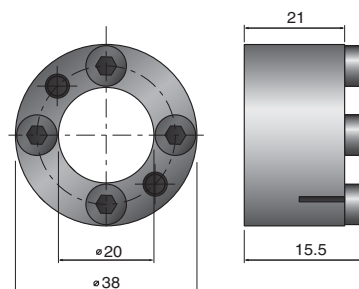
Dimensions in mm

Item	Description	Part Number
MA01-PR01-52x40-37	Adaptor for PR01-52x60-R/37x120F-HP-C-100	0250-0121
MA01-PR01-70x40-37	Adaptor for PR01-84x80-C/48x240F-C-100	0250-0120
MA01-PR01-70x40-37-L	Adaptor for PR01-84x80-C/48x240F-C-100-L	0250-0124

Shaft Clamping Set



RS01-SS12x22



RS01-SS20x38

Material: Aluminum (AlMgSi), black anodized
Mass: RS01-SS12x22 approx. 22g (0.049lb)
RS01-SS20x38 approx. 100g (0.220lb)

Dimensions in mm

Item	Description	Part Number
RS01-SS12x22	Shaft Clamping Set for PR01-52x60-R/37x120F-HP-C-100	0230-0101
RS01-SS20x38	Shaft Clamping Set PR01-84x80-C/48x240F-C-100	0230-0100

An exploded view diagram of a mechanical assembly. The components are numbered as follows:

- 1: A dark grey rectangular block with a circular hole on top and a semi-circular cutout on the side.
- 2: A black O-ring.
- 3: A long, silver-colored shaft with a threaded section on the left end.
- 4: A smaller silver-colored shaft section.
- 5: A dark grey rectangular block with a circular hole on the side.
- 6: A small black bush or spacer.
- 7: A small silver-colored screw or pin.
- 8: A long, silver-colored threaded shaft.

Multipurpose Flanges



21012011
subject to change

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