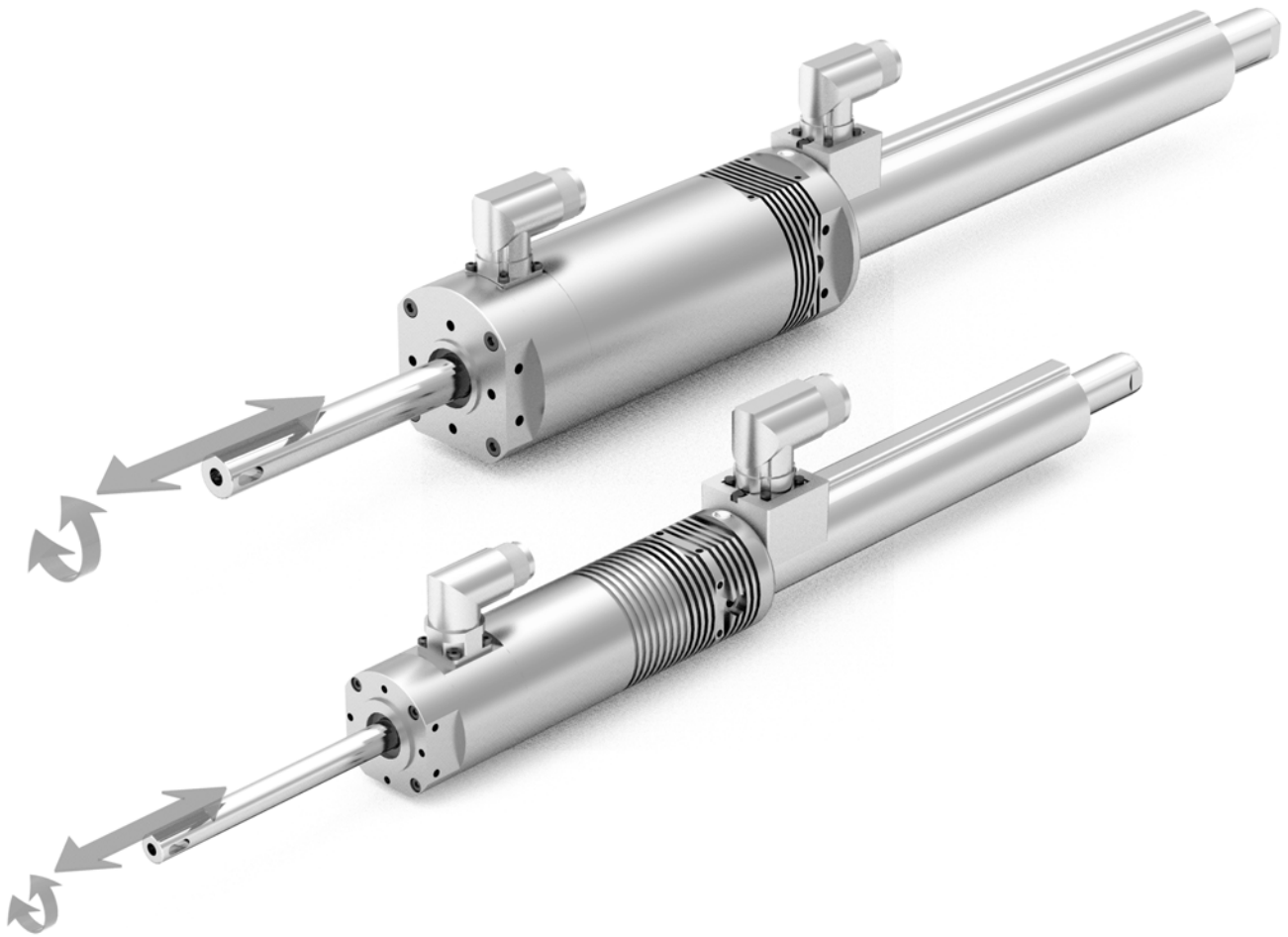


LinMot®

Linear-Rotary Motors



Linear and rotary direct drive



Independent linear and rotary motion



Synchronised linear and rotary motion

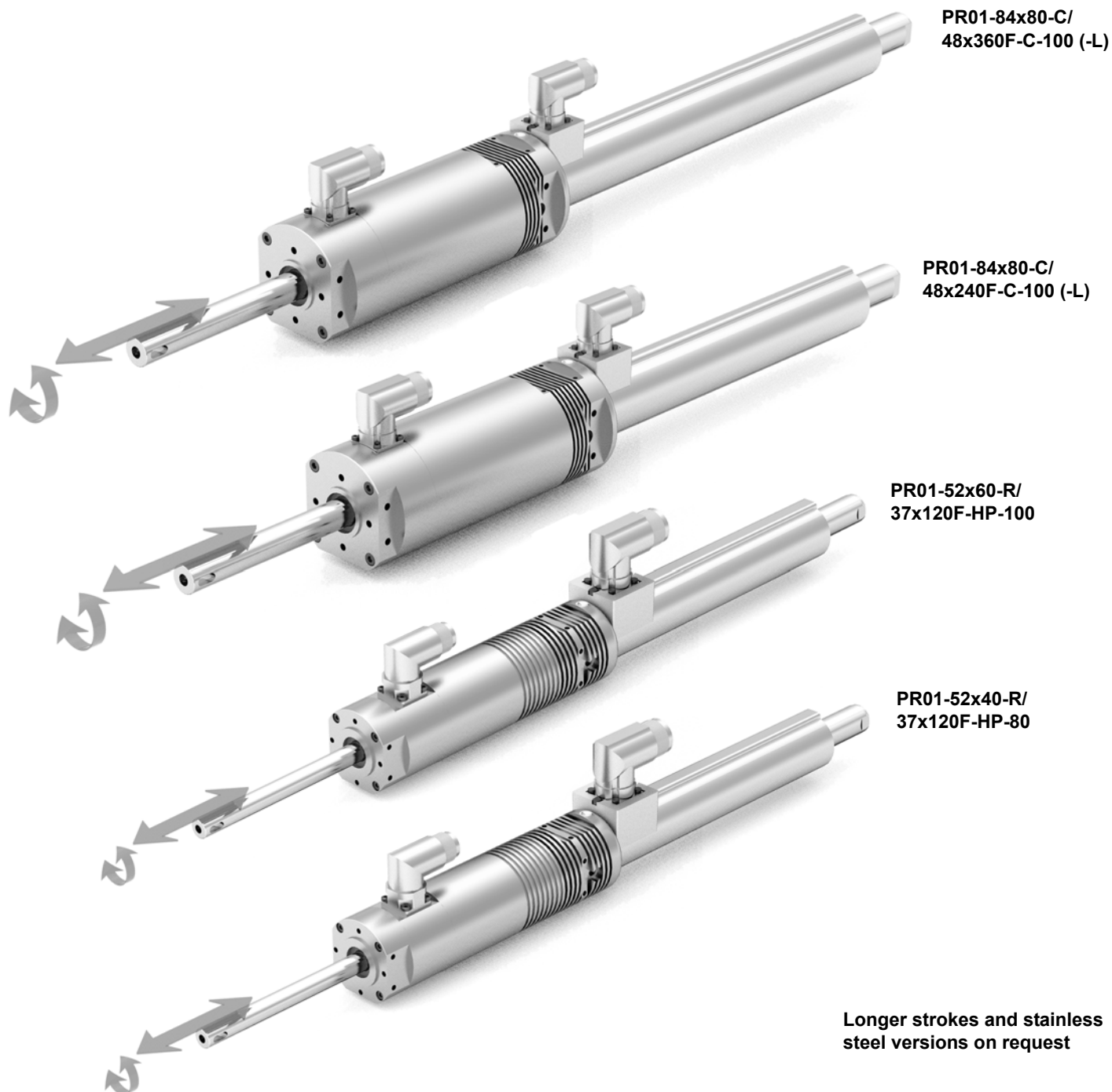


Programmable press force up to 1'024N



Programmable tightening torque up to 7,5Nm

The linear motor technology for industrial applications

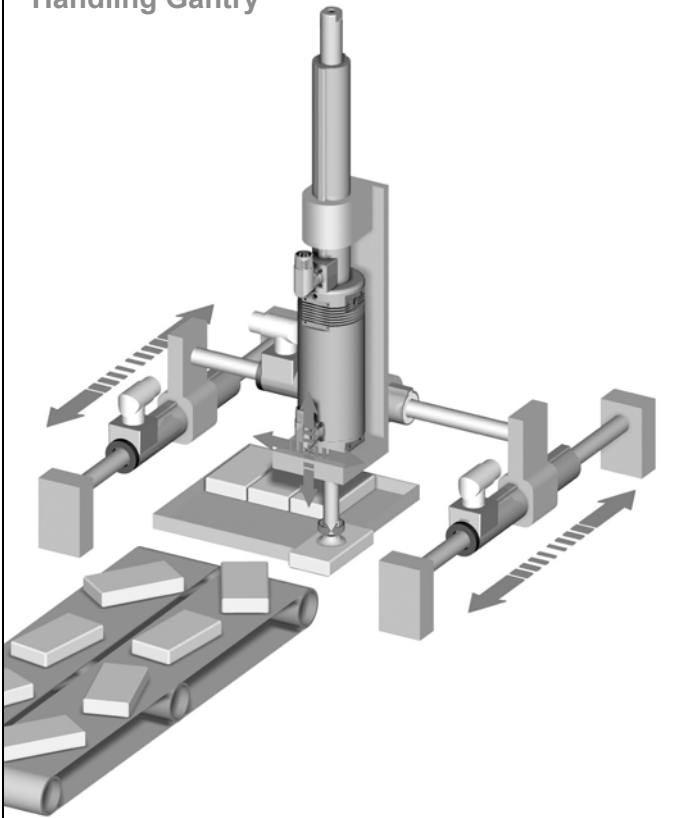


Models

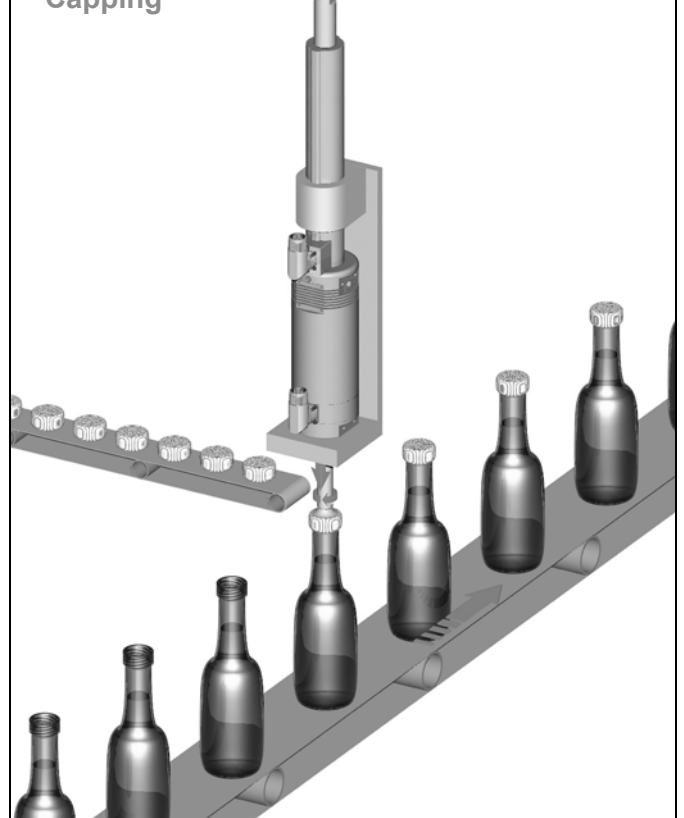
Model	Stroke [mm / in]	Linear	Rotary	
		Peak Force [N / lbf]	Max. Revolutions [rpm]	Torque [Nm / lbf·in]
PR01-52x40-R/37x120F-HP-80	80 / 3.15	255 / 57.3	2000	1.4 / 12.39
PR01-52x60-R/37x120F-HP-100	100 / 3.94	255 / 57.3	1500	2 / 17.70
PR01-84x80-C/48x240F-C-100 (-L)	130 / 5.12	572 / 128.6	1000	7.5 /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

Application Example

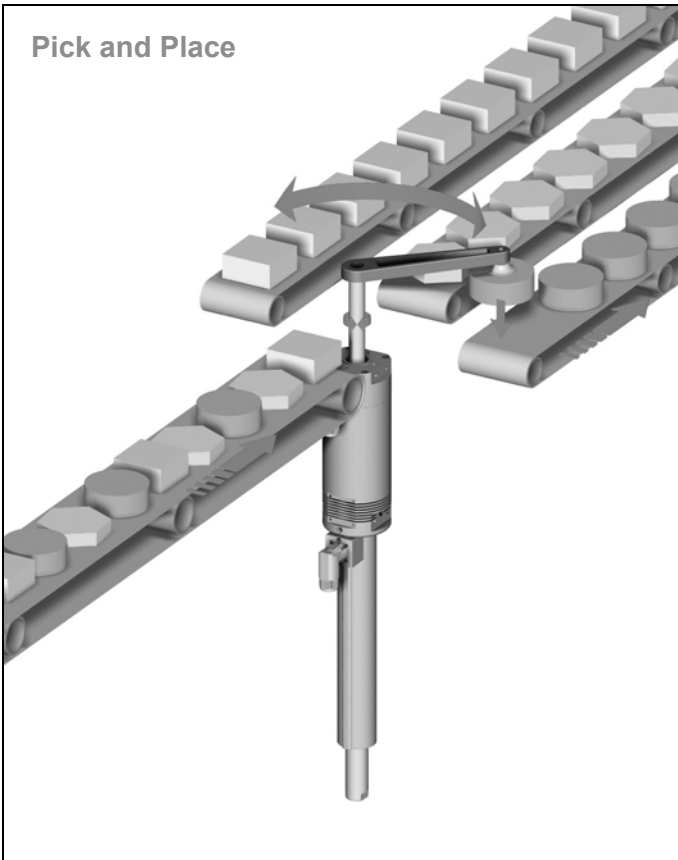
Handling Gantry



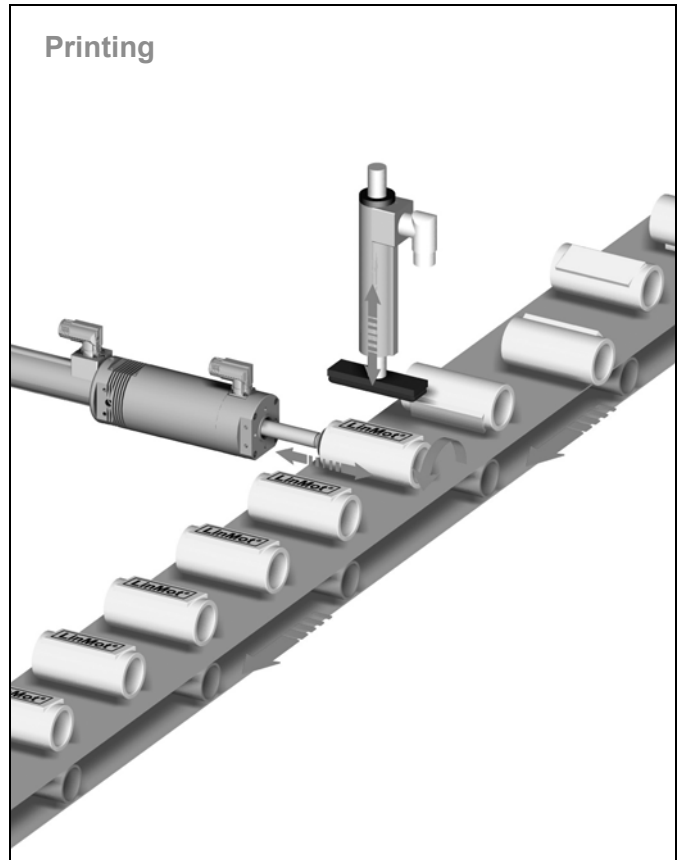
Capping



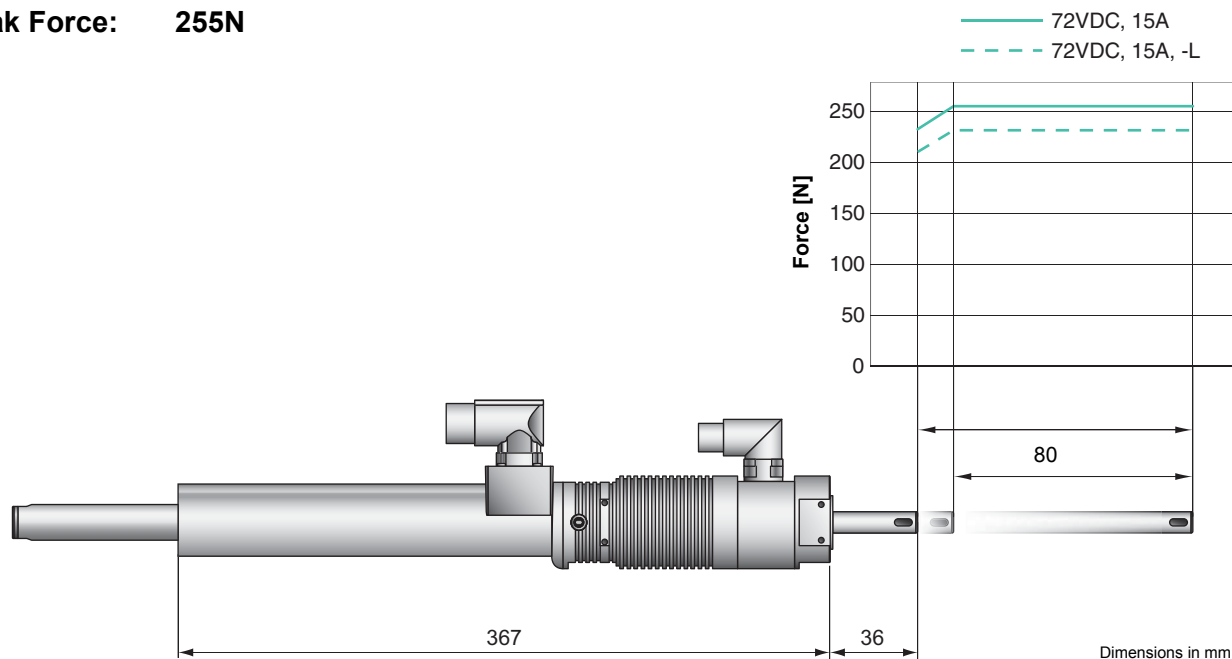
Pick and Place



Printing

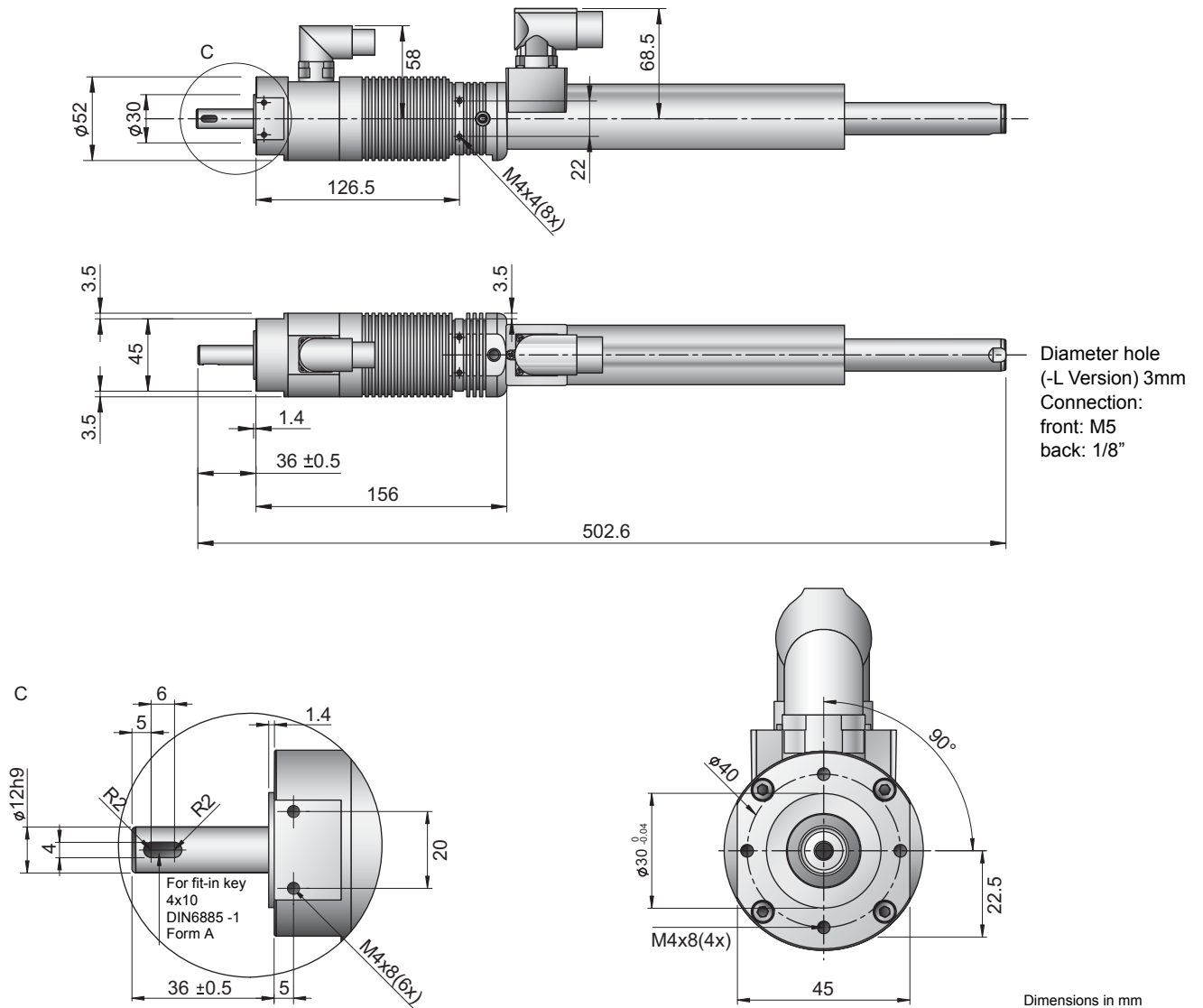


Max. Stroke: 80mm
Peak Force: 255N



Motor Specifications

PR01-52x40-R/37x120F-HP-C-80 (-L)		
Linear Motion		
Extended Stroke ES	mm (in)	80 (3.15)
Standard 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 Torque	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 Axle with hole		option -L
Protection Class		IP60



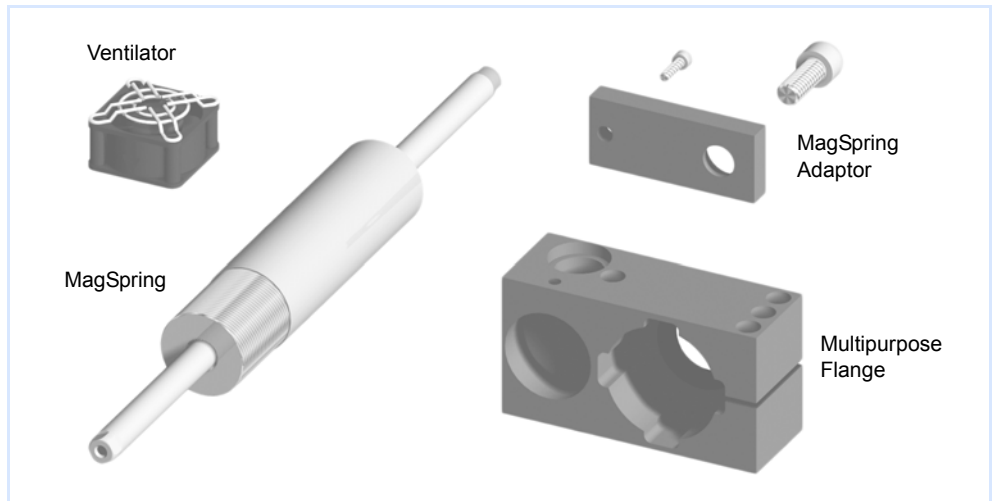
Ordering information

Item	Description	Part Number
PR01-52x40-R/37x120F-HP-C-80	Linear Rotary Motor	0150-1573
PR01-52x40-R/37x120F-HP-C-80-L	Linear Rotary Motor with hollow Shaft	0150-2703

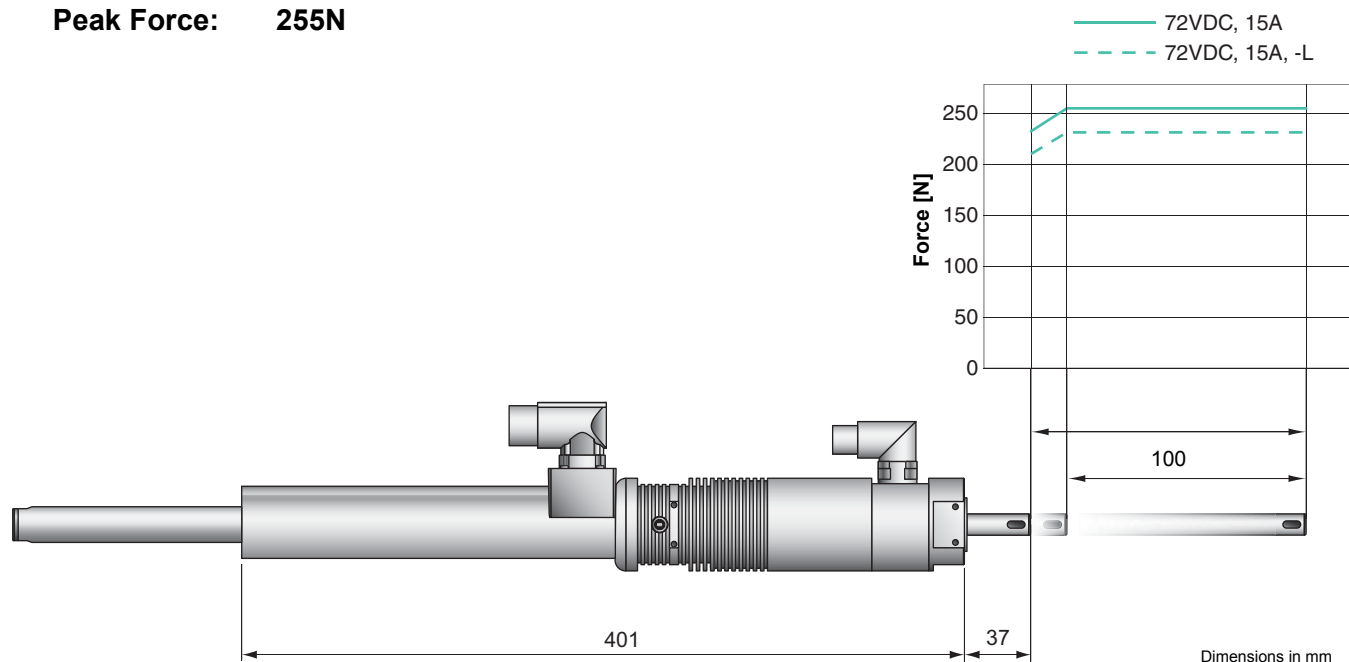
Connectors

Motor Connector Wiring		Linear Motor: C-Connector	Rotary Motor: R-Connector
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	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

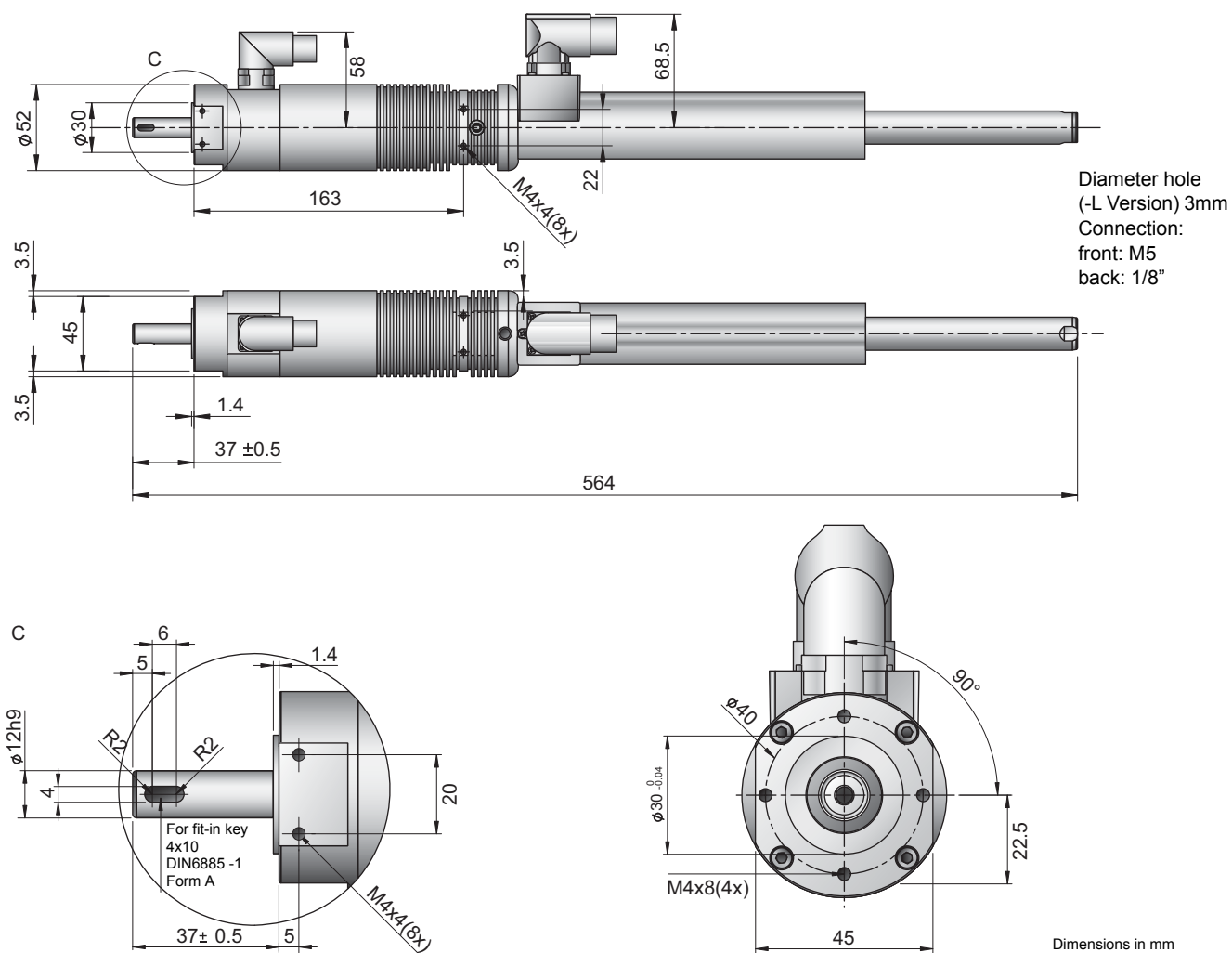


Max. Stroke: 100mm
Peak Force: 255N



Motor Specifications

PR01-52x60-R/37x120F-HP-C-100 (-L)		
Linear Motion		
Extended Stroke ES	mm (in)	100 (3.94)
Standard 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)	564 (22.20)
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 (0.00062)
Axle Diameter	mm (in)	12h9 (0.47h0.35)
Optional Axle with hole		option -L
Protection Class		IP60



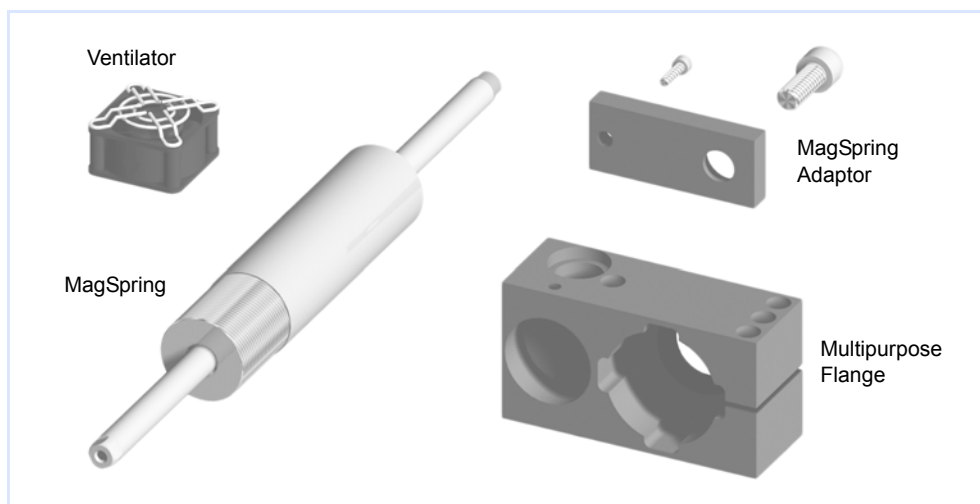
Ordering information

Item	Description	Part Number
PR01-52x60-R/37x120F-HP-C-100	Linear Rotary Motor	0150-1197
PR01-52x60-R/37x120F-HP-C-100-L	Linear Rotary Motor with hollow Shaft	0150-2704

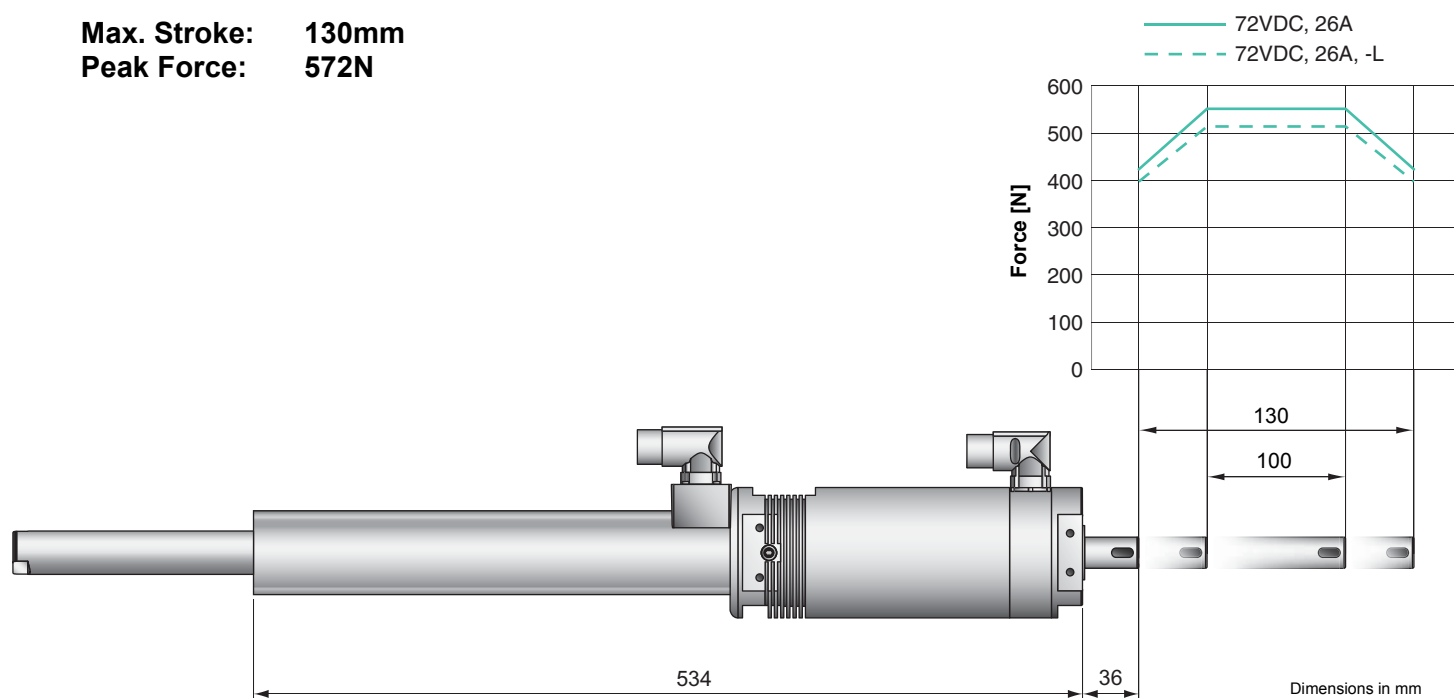
Connectors

Motor Connector Wiring		Linear Motor: C-Connector	Rotary Motor: R-Connector
Ph 1+	red	A	1
Ph 1-	pink	B	2
Ph 2+	blue	C	3
Ph 2-	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

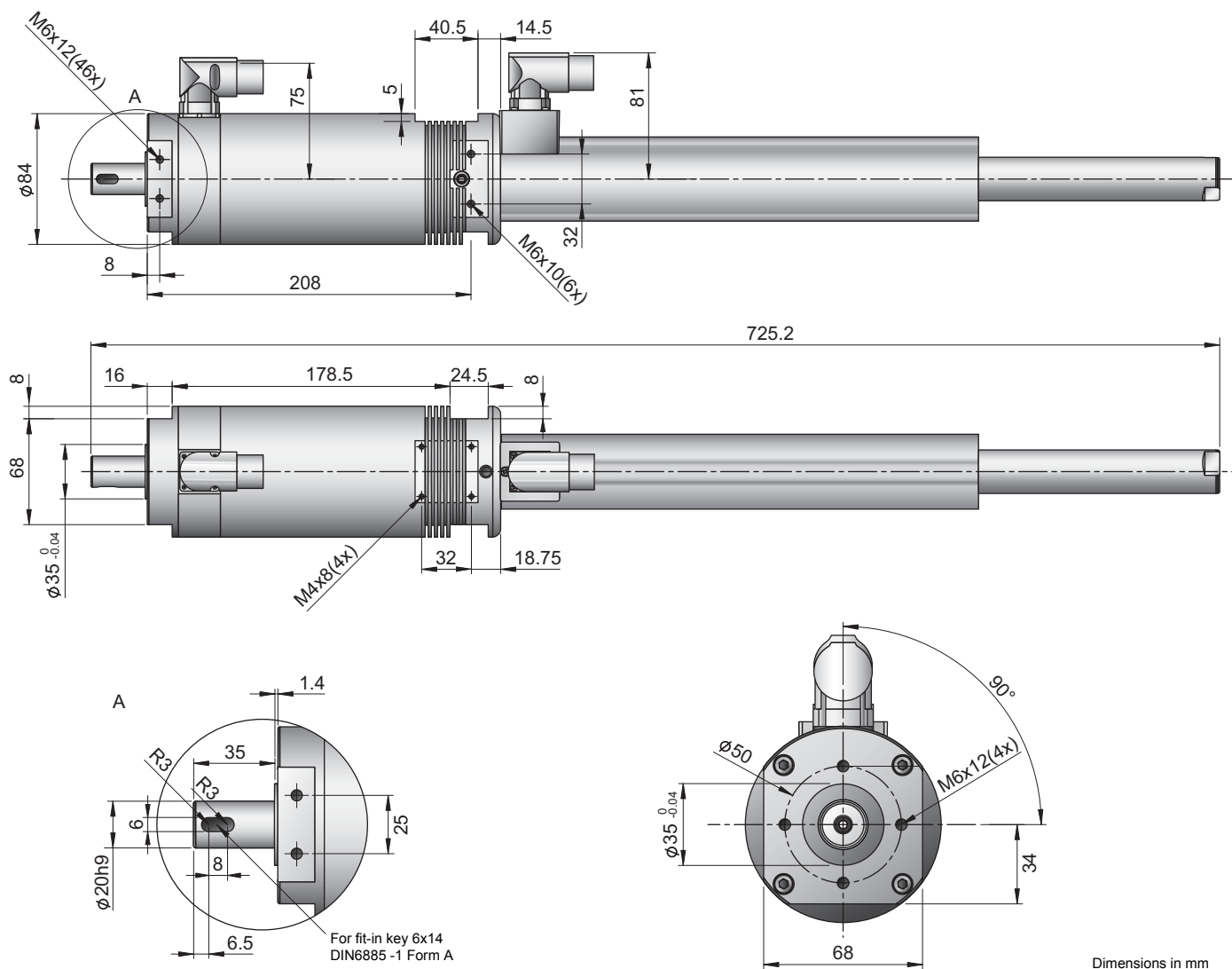


Max. Stroke: 130mm
Peak Force: 572N



Motor Specifications

PR01-84x80-C/48x240F-C-100 (-L)		
Linear Motion		
Extended Stroke ES	mm (in)	130 (5.12)
Standard 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 Torque	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)
Axle with hole		option -L
Protection Class		IP60



Dimensions in mm

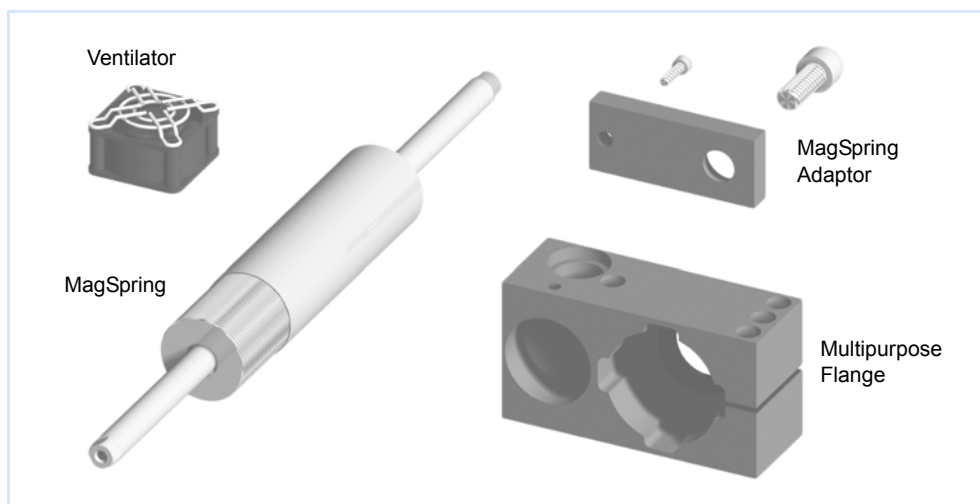
Ordering information

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

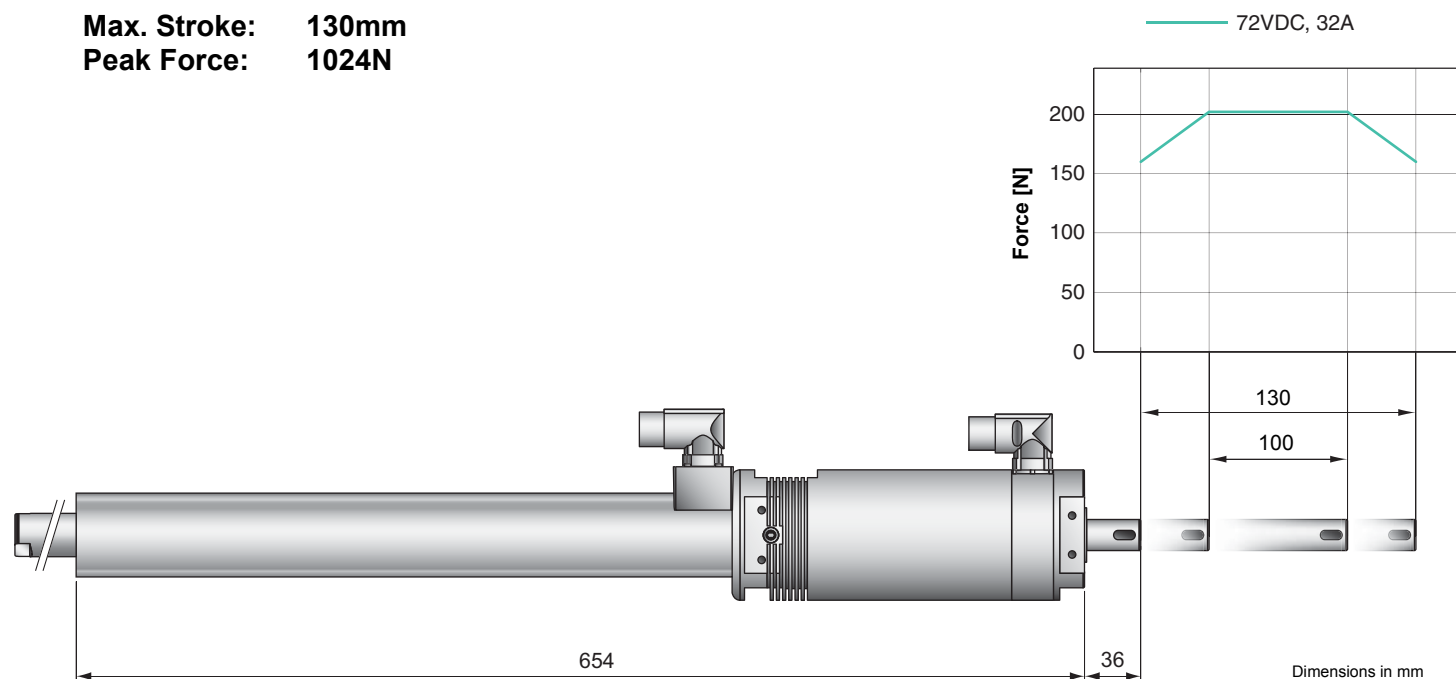
Connectors

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

Accessories

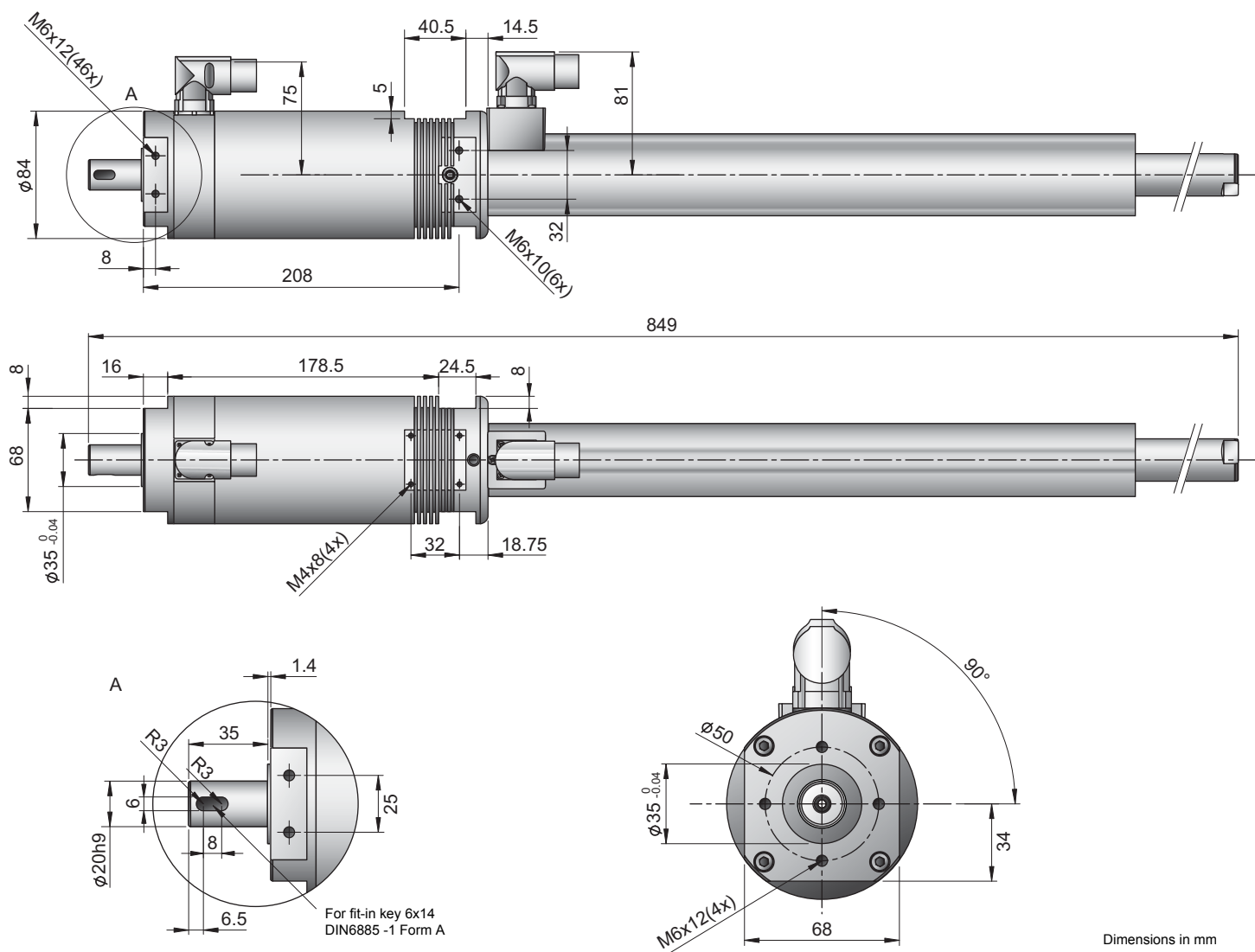


Max. Stroke: 130mm
Peak Force: 1024N



Motor Specifications

PR01-84x80-C/48x360F-C-100 (-L)		
Linear Motion		
Extended Stroke ES	mm (in)	130 (5.12)
Standard 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 Torque	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)
Axle with hole	option -L	
Protection Class	IP60	



Dimensions in mm

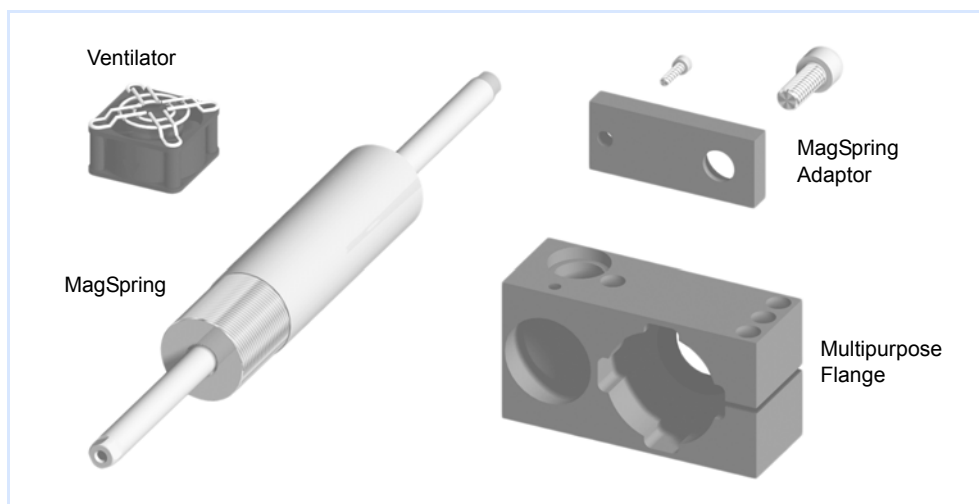
Ordering information

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

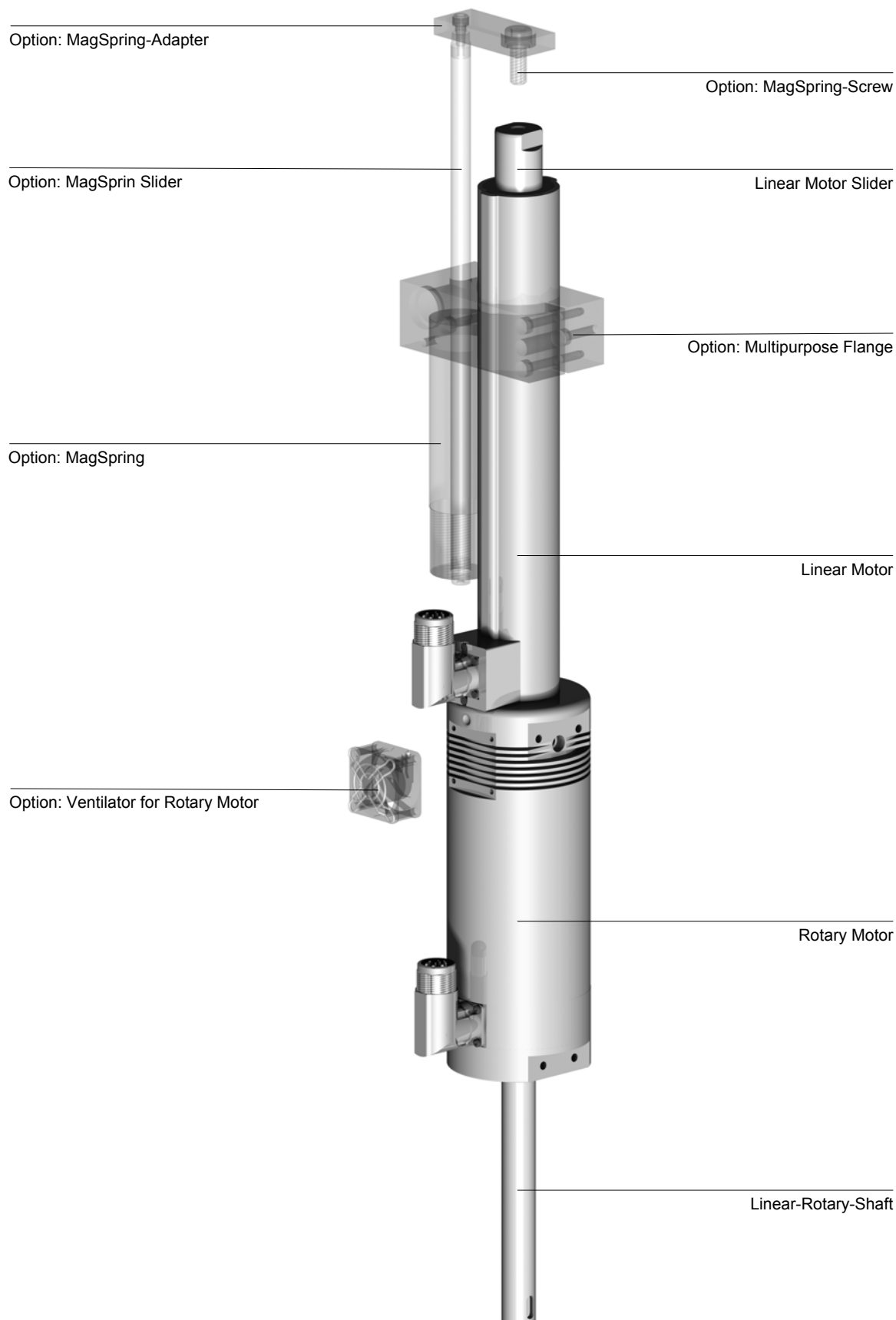
Connectors

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

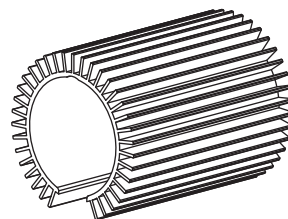
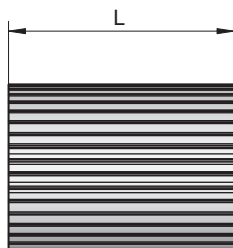
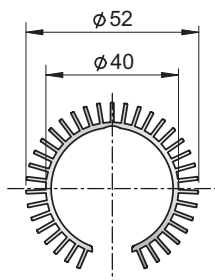
Accessories



Parts



Optional cooling element for PS01-37

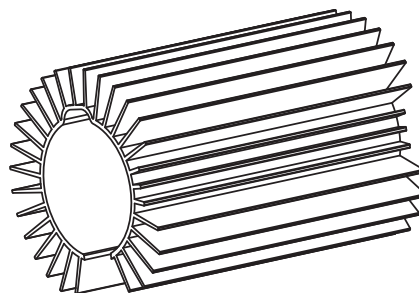
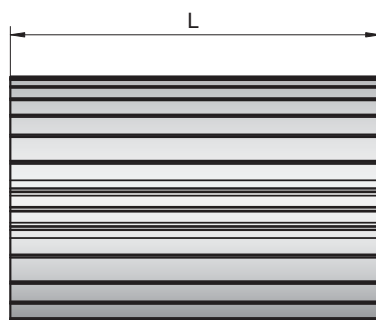
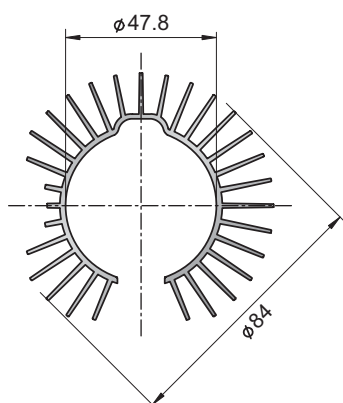


Material: Aluminum (AlMgSi)

Dimensions in mm

Item	Description	L [mm]	Weight [g]	Part Number
PC01-37x68	Cooling Element	68	70	0160-2131

Optional cooling element for PS01-48

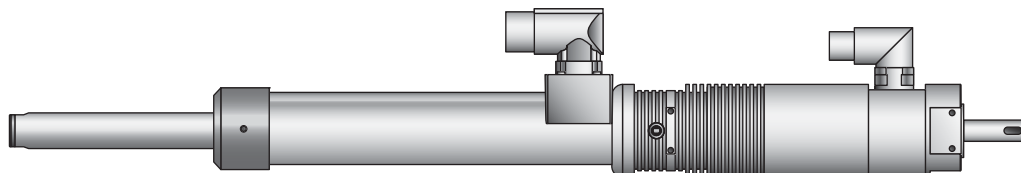
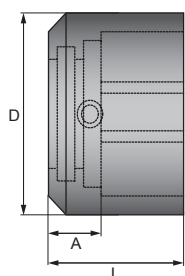


Material: Aluminum (AlMgSi)

Dimensions in mm

Item	Description	L [mm]	Weight [g]	Part Number
PC01-48x100	Cooling Element	99	208	0160-2145
PC01-48x117	Cooling Element	117	247	0160-2138

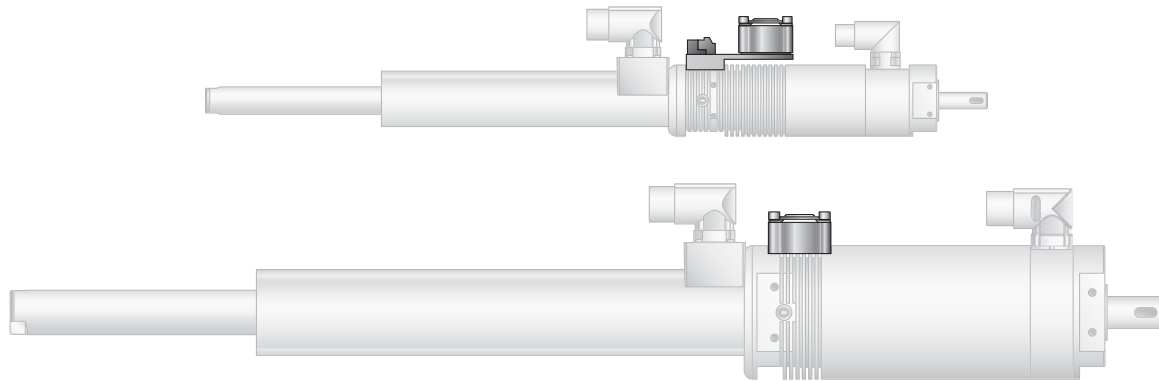
Optional wipers for linear motorparts



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

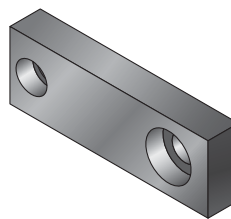
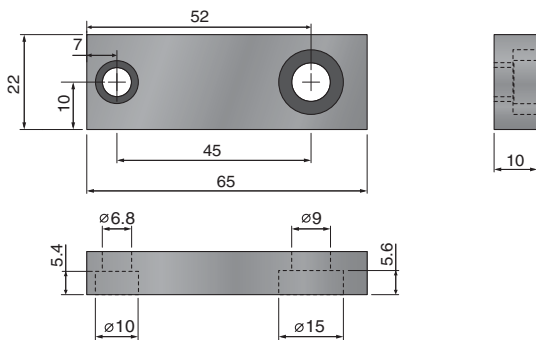
Item	Description	Part Number
PA01-37/20-F	Wiper for PS01-37x... (front wiper)	0150-3126
PA01-48/28-F	Wiper for PS01-48x... (front wiper)	0150-3127

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



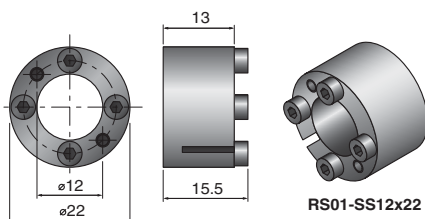
MA01-PR01-52x40-37

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

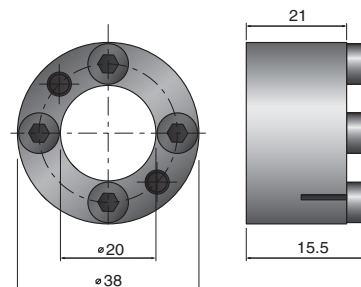
Dimensions in mm

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



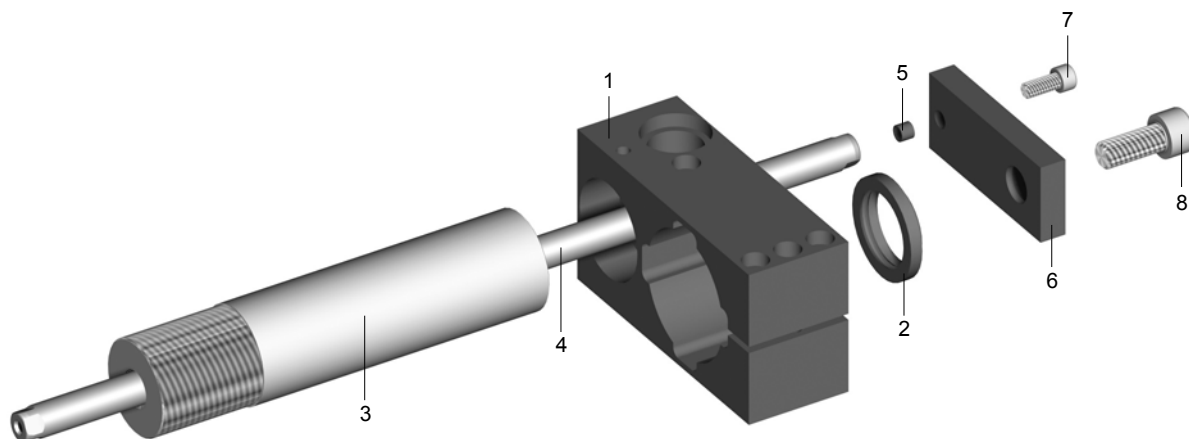
RS01-SS20x38

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

Dimensions in mm

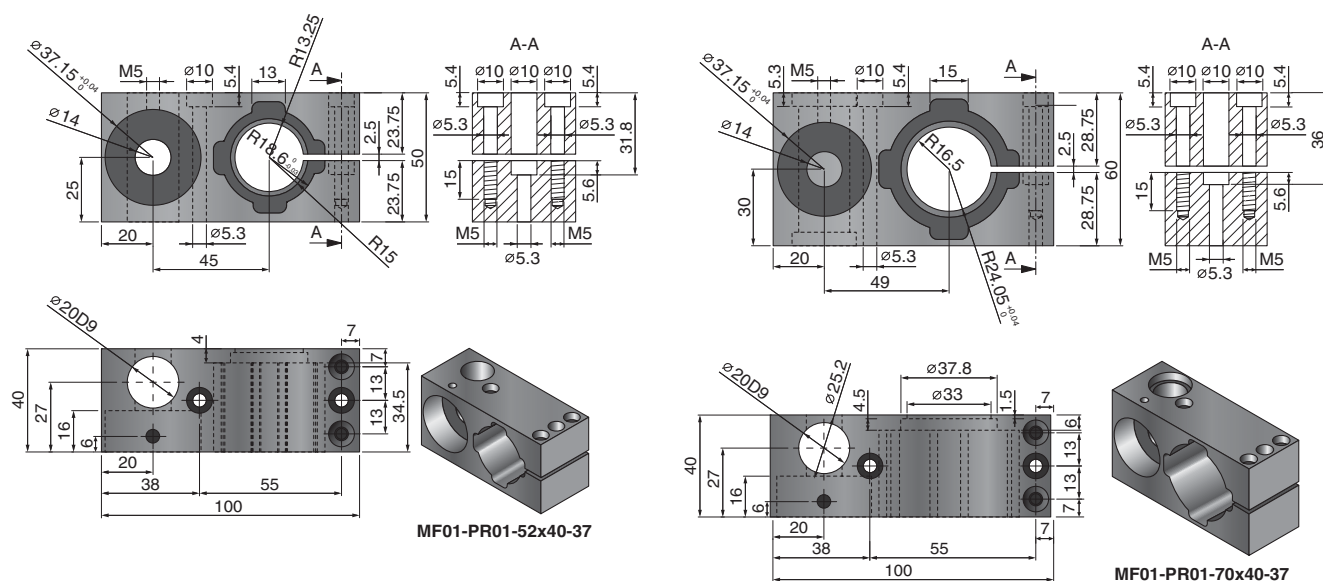
Item	Description	Part Number
RS01-SS12x22	Shaft Clamping Set for PR01-52x60-R/37x120F-HP-C-100	0230-0101
RS01-SS20x38	Shaft Clamping Set PR01-84x80-C/48x240F-C-100	0230-0100

Optional multiflange and MagSpring



		PR01-52x40-R/37x120F-HP-C-80 PR01-52x60-R/37x120F-HP-C-100		PR01-84x80-C/48x240F-C-100 PR01-84x80-C/48x360F-C-100		PR01-84x80-C/48x240F-C-100-L PR01-84x80-C/48x360F-C-100-L	
		Item	Part Number	Item	Part Number	Item	Part Number
1	Multiflange	MF01-PR01-52x40-37	0250-2319	MF01-PR01-70x40-37	0250-2318	MF01-PR01-70x40-37	0250-2318
2	Wiperseal	PAW01-20 (delivered with Pos 1)	0150-3112	PAW01-28 (delivered with Pos 6)	0150-3133	PAW01-28 (delivered with Pos 6)	0150-3133
3	MagSpring Stator	MS01-37x155	0250-2204	MS01-37x155	0250-2204	MS01-37x155	0250-2204
4	MagSpring Slider 40N	ML01-12x350/160-10	0250-2333	ML01-12x350/160-10	0250-2333	ML01-12x350/160-10	0250-2333
	60N	ML01-12x335/160-20	0250-2320	ML01-12x350/160-20	0250-2321	ML01-12x350/160-20	0250-2321
5	Distance tube	MA01-PR01-Huelse 4,9 (delivered with Pos 6)	0250-0123	MA01-PR01-Huelse 4,9 (delivered with Pos 6)	0250-0123	MA01-PR01-Huelse 4,9 (delivered with Pos 6)	0250-0123
6	MagSpring Adaptor	MA01-PR01-52x40-37	0250-0121	MA01-PR01-70x40-37	0250-0120	MA01-PR01-70x40-37-L	0250-0124
7	Hexagon Socket	Socket M5x14 (delivered with Pos 6)		Socket M5x14 (delivered with Pos 6)		Socket M5x14 (delivered with Pos 6)	
8	Hexagon Socket or coupling device	Socket M8x14 (delivered with Pos 6)		Socket M10x14 (delivered with Pos 6)		Socket or coupling device (delivered with Pos 6)	

Multipurpose Flanges



Material: Aluminum (AlMgSi), black anodized
Mass: MF01-20/H23 approx. 310g (0.683lb)
MF01-20/H37 approx. 390g (0.860lb)

Dimensions in mm

Item	Description	Part Number
MF01-PR01-52x40-37	Multipurpose Flange for PR01-52x60-R/37x120F-HP-C-100	0250-2319
MF01-PR01-70x40-37	Multipurpose Flange for PR01-84x80-C/48x240F-C-100	0250-2318