

# LINEAR ROTARY MOTORS PR01-52X60-R/37X120F-HP-R-110\_SSCH



- Especially for pharmaceutical applications and the food sector
- Suitable for "wash-down" with protection class IP69 S
- High chemical resistance
- Motor housing and stroke rotation shaft made of stainless steel
- Integrated MagSpring® for load compensation
- Hollow shaft for vacuum and compressed air feed-through
- Guidance system with linear ball bearings and food-grade lubricant (NSF H1)
- Equipped with "plug and play" technology
- Independent linear and rotary movements



### **Product description**

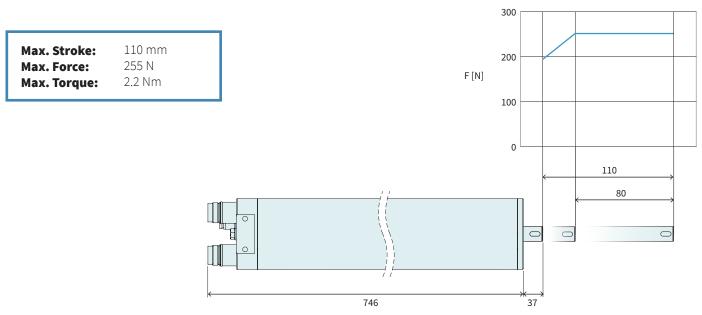
The PR01-52x60-R/37x120F-HP-R-110(-L) MSxx SSCH linear rotary motors are a further development of the well-tried PR01-52 product family, which have proven themselves without any problems in many years of field experience with a wide range of applications. The independent control of rotary and linear motion allows the machine builder a simple, compact realization of pick'n'place, closing and bolting applications in demanding environments. The latest development has been specifically designed for pharmaceutical or food applications, which require a stainless steel solution with a high degree of protection. The hygienic design focused on eliminating unnecessary edges and corners to prevent the buildup of dirt and bacteria. At the same time, the user is guaranteed easy cleaning. Thanks to the complete encapsulation, the motors are also safe from the ingress of dust and wa-(high-pressure/steam jet cleaning). Thanks to this tightness, they thus meet protection class IP66 S according to DIN EN 60529. In line with

is equipped with food-grade lubricant /NSF H1). Optionally, the modules can be ordered with a compensation element (MagSpring) for the purpose of load compensation. The proven "hollow shaft" option is also still available for this product family and, thanks to the integrated line that runs completely through the entire module, enables lean and elegant implementation of vacuum and compressed air applications. Commissioning of the drives is also extremely simple, as they are equipped with "plug and play" technology. The required type parameters do not have to be selected manually, but are read in automatically by the servo drive.





### PR01-52x60-R/37x120F-HP-R-110(-L)\_MSxx\_SSCH

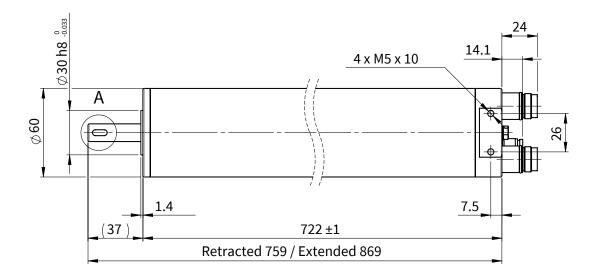


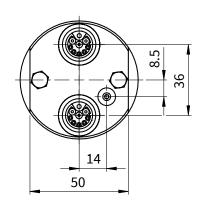
Dimensions in mm

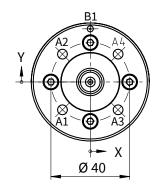
	Motor Specif	ications		
		PR01-52x60-R/37x120F-l	HP-R-110(-L)_N	//Sxx_SSCH
Linear Motion				
Extended Stroke ES	mm (in)	110	(4.33)	
Standard Stroke SS	mm (in)	80	(3.14)	
Peak Forc	N (lbf)	255 (-L 229)	(57.3 (-L 54.5))	(-L: reduzierte Kraft
Constant Force	N (lbf)	51 (-L 45)	(11.5 (-L 10.1))	werte bei Version Hohlwelle)
Force Constant	$N/A_{pk}(lbf/A_{pk})$	17	(3.8)	
Max. Current @ 72VDC	A <sub>pk</sub>	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 (lbfin)	2.2	(19.5)	
Constant Torque (Halt)	Nm (lbfin)	0.47	(4.2)	
Max. Number of revolutions	rpm	1500		
Torque Constant 1	Nm/A <sub>pk</sub> (lbfin/A <sub>pk</sub> )	0.16	(1.42)	
Torque Constant 2	Nm/A <sub>ms</sub> (lbfin/A <sub>ms</sub> )	0.23	(2.04)	
Max. Current @ 72VDC	$A_{pk}/A_{rms}$	13.5 / 9.55		
Position Repeatability	0	±0.1		
Mechanische Daten				
Length	mm (in)	783	(30.83)	
Diameter	mm (in)	60	(2.36)	
Weight total	g (lb)	6370	(14.04)	
Moving mass (linear) with Option MagSpring slider MS14	g (lb)	890	(1.96)	
Moving mass (linear) with Option MagSpring slider MS04	g (lb)	940	(2.07)	
Rotary Torque of Inertia	kgcm² (lbf²)	0.26	(0.00062)	
Axle Diameter	mm (in)	12h9	(0.47)	
Through bore-hole		Option-L	Hole diameter 2.5 m Connection (back) 1	nm Connection (front) M5, ./8" x 5
Protection Class		IP6	59 S	

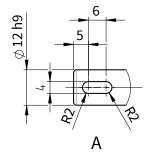


#### **DIMENSIONS**







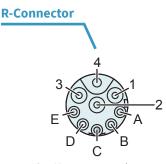


	X-Pos.	Y-Pos.			
A1	-14.14	-14.14	M6 ↓ 10		
A2	-14.14	14.14			
A3	14.14	-14.14	INO A TO		
A4	14.14	14.14			
B1	0	27	+0.018 Ø 3.21 H8 0 ↓		

Dimensions in mm

#### **CONNECTORS**

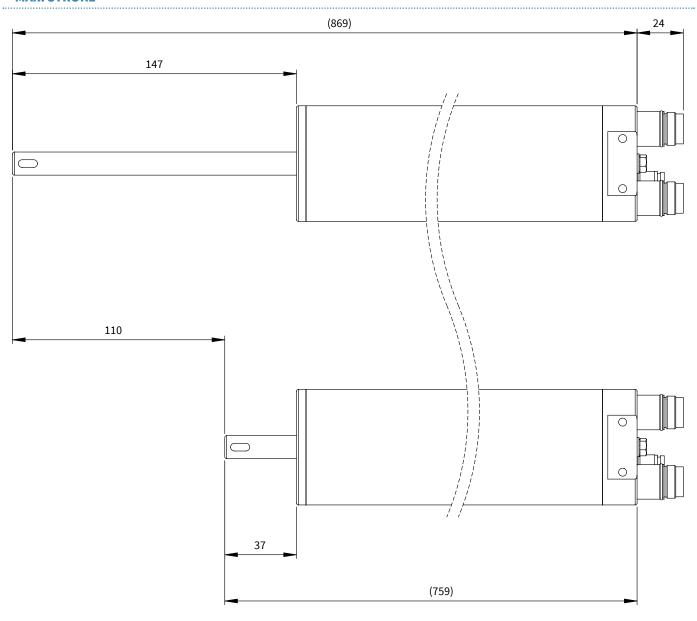
Motor Connector Wiring	Linear Unit: R-Connector	Rotary Unit: R-Connector	Wire Color Motor Cable
Ph 1+ / Ph A	1	1	red
Ph 1- / Ph B	2	2	pink
Ph 2+ / Ph C	3	3	blue
Ph 2- / (-)	4 (not connected)	4 (not connected)	grey
+5VDC	А	А	white
GND	В	В	inner shield
Sin	С	С	yellow
Cos	D	D	green
Temp.	E	E	black
Shield	Housing	Housing	outer shield



View: Motor connector, plug on



#### **MAX. STROKE**



#### **ORDERING INFORMATION**

LINEAR ROTARY MOTORS PR01-70		
Item	Description	Item-No.
PR01-52x60-R/37x120F-HP-R-110-L_MS14_SSCH	Linear Rotary Motor, SSCH, Hollow Shaft, MagSpring 25N	0150-4343
PR01-52x60-R/37x120F-HP-R-110-L_MS04_SSCH	Linear Rotary Motor, SSCH, Hollow Shaft, MagSpring 60N	<u>0150-4465</u>
PR01-52x60-R/37x120F-HP-R-110_MS14_SSCH	Linear Rotary Motor, SSCH, MagSpring 25N	0150-4498
PR01-52x60-R/37x120F-HP-R-110_MS04_SSCH	Linear Rotary Motor, SSCH, MagSpring 60N	0150-4499









# ALL LINEAR MOTION FROM A SINGLE SOURCE

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