

High Performance Linear System HPLS with Actuator RPM⁺

more dynamic more compact more precise



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More dynamic, more compact, more precise

The RPM⁺ actuator is extremely dynamic, extremely compact and perfectly adapted to linear applications with a pinion and rack. It combines superior power density and a functional design in one unit – leading to effective length savings and a more compact design than ever!

The integrated motor guarantees extra performance while the unique architecture of the permanently excited synchronous motor results in unprecedented power density.



When extended with the RPM⁺ integrated motor-gearhead unit from WITTENSTEIN motion control, the High Performance Linear System acquires another new dimension:

$4 \times 1 = one$

The High Performance Linear System and $\mathsf{RPM}^{^{\dagger}}$ actuator impress with optimal power density

- When your drive needs maximum output
- When an even more compact system is called for
- When precision is paramount to your application
- When optimal consulting is a key priority

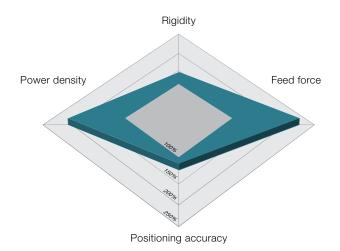
A motor, gearhead, pinion and rack all from one supplier!

High Performance Linear System HPLS

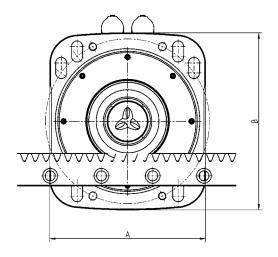
The RPM⁺ actuator helps you maximize the synergy effects for your High Performance Linear System. The integrated motor gives you twice the power in a smaller space envelope. The four optimally interacting components provide maximum dynamics, compactness and precision

More Feed force and Power density

The new system delivers substantial benefits compared to the industry standard.



- High Performance Linear System
- Industry standard



Size HPLS			4.3	4	4
Modul size rack/pinion			3	4	4
Max. moving force up to	F _{2T}	Ν	19.000	220	00
Max. velociity up to**	V _{max}	m/min	200	6	0
Size RPM ⁺			040	04	40
Ratio		i	4 - 10	22 - 66	
Torsional backlash	j_{τ}	arcmin	< 1	<1	
Motor size			180-135*	155-060	
Max. motor power up to	P _{max}	kW	44,4	18,4	
Max. acceleration torque up to	T _{2B}	Nm	700	950	

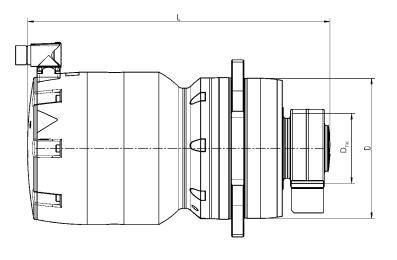
^{*)} Motor operation with water cooling possible

More technical Data upon request.

Quality & reliability

We define quality as a philosophy by which we live. The consistent application of our quality system, based on the most advanced measurement and testing techniques, is pivotal to the quality and reliability of your one-stop High Performance Linear System and RPM⁺ actuator.

^{**)} Calculation with lowest ratio and highest input speed



		5.4			5	
		4			5	
0		35.000			47.200	
		65			78	
		050			050	
88 - 220	22 - 38,5	55 - 88	110 - 220	22 - 38,5	55 - 88	110 - 220
		< 1			< 1	
155-015	180-135*	220-030	155-060	180-135*	220-030	155-060
5,9	44,4	17,2	18,4	44,4	17,2	18,4
950	3100	2600	2600	3100	2600	2600

Almost 30 years experience in drive technology

An unconditional commitment to innovation and constant openness to change have been pillars of WITTENSTEIN's success over the last thirty years. Trust in the technology leader in the market for servo actuator systems. With the High Performance Linear System and RPM⁺ actuator, you too can be optimally equipped for the future!

Dimensions HPLS with RPM⁺

HPLS	RPM [⁺]	i	L	D	D _{TK}	Α	В	Pinion
4.3	040	4-10	472	170h7	63,662	190h7	215	m3 z20
4		22-66	364		84,883			m4 z20
4		88 - 220	354					1114 ZZU
	050	22-38,5	555		101,859	260h7	280	
5.4		66-88	474	240h7				m4 z24
		110-220	486					
	050	22-38,5	565,5	240h7	122,019	260h7	280	m5 z23
5		66-88	484,5					
		110-220	496,5					
	060	22-38,5	795,5	285h7	146,423	315h7	335	m6 z23
6		66-88	644,5					
		110-220	614,5					
8	080	22-38,5	938	320h7		350h7	390	m8 z21
		66-88	694		178,254			
		110-220	629					

Dimensions w/o excess length of plug socket and screws

	6		8			
	6		8			
	75.100		112.400			
	73		89			
	060		080			
22 - 38,5	55 - 88	110 - 220	22 - 38,5	55 - 88	110 - 220	
	< 1		< 1			
220-240*	220-060	220-030	220-360*	220-120	220-060	
120,1	34,5	17,2	183,5	55,1	34,5	
5500	5500	5500	10000	10000	10000	

Consulting & engineering

Please do not hesitate to ask for information about a drive solution that is optimally aligned to your requirements. We will also be pleased to take care of the simulations on your behalf. Profit from the longstanding experience and rich expertise of our highly qualified staff and take advantage of the comprehensive services of WITTENSTEIN engineering.



motion control

Contact:

WITTENSTEIN, Inc. 1249 Humbracht Circle Bartlett, IL 60103 USA

Tel. +1 630 540-5300 info@wittenstein-us.com

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