

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

# 4 x 1= one

The High Performance Linear System and RPM<sup>+</sup> 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!



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Tel. +49 7931 493-0 Fax +49 7931 493-10915 E-Mail: info-wmc@wittenstein.de more compact more precise

# High Performance Linear System HPLS with Actuator RPM<sup>+</sup>

more dynamic





WITTENSTEIN - being one with the future

www.wittenstein-motion-control.de

# High Performance Linearsystem HPLS with Actuator RPM<sup>+</sup>

More dynamic, more compact, more precise

The RPM<sup>+</sup> 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.



## High Performance Linear System HPLS

The RPM<sup>+</sup> 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.





Size HPLS			4.3	4	1		5.4			5			6			8	
Modul size rack/pinion			3	4	1	4			5			6			8		
Max. moving force up to	F <sub>2T</sub>	N	19.000	22000		35.000			47.200			75.100			112.400		
Max. velociity up to**	V <sub>max</sub>	m/min	200	6	0		65			78		73			89		
Size RPM <sup>⁺</sup>			040	04	10		050			050		060			080		
Ratio		i	4 - 10	22 - 66	88 - 220	22 - 38,5	55 - 88	110 - 220	22 - 38,5	55 - 88	110 - 220	22 - 38,5	55 - 88	110 - 220	22 - 38,5	55 - 88	110 - 220
Torsional backlash	j <sub>τ</sub>	j <sub>⊤</sub> arcmin < 1		<1		< 1		< 1		< 1		< 1					
Motor size			180-135*	155-060	155-015	180-135*	220-030	155-060	180-135*	220-030	155-060	220-240*	220-060	220-030	220-360*	220-120	220-060
Max. motor power up to	P <sub>max</sub>	kW	44,4	18,4	5,9	44,4	17,2	18,4	44,4	17,2	18,4	120,1	34,5	17,2	183,5	55,1	34,5
Max. acceleration torque up to	T_2B	Nm	700	950	950	3100	2600	2600	3100	2600	2600	5500	5500	5500	10000	10000	10000

\*) Motor operation with water cooling possible

\*\*) Calculation with lowest ratio and highest input speed

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<sup>+</sup> actuator.

#### 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<sup>+</sup> actuator, you too can be optimally equipped for the future!





High Performance Linear System

Industry standard

## Dimensions HPLS with RPM<sup>+</sup>

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

Dimensions w/o excess length of plug socket and screws

#### **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.