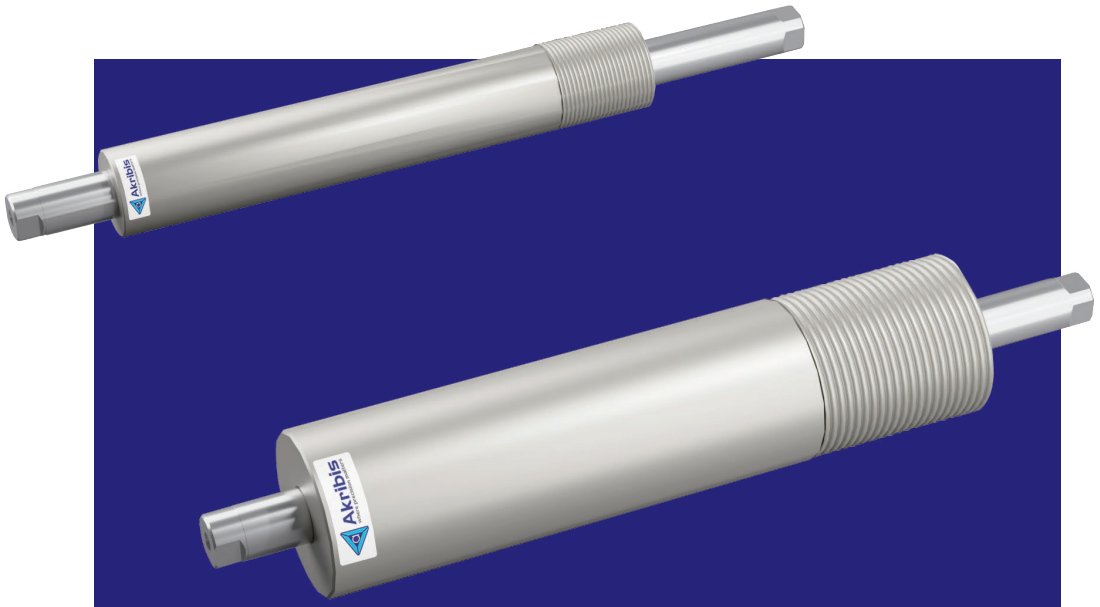


MSP-A SERIES

- Simple structure
- Constant force
- Instant response
- Free of power supply
- Free of linear guide
- Simple maintenance

EN-26.3.1

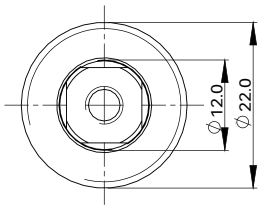
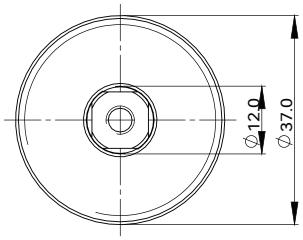
Akribis systems

Features

- Simple structure
- Constant force
- Instant response
- Free of power supply
- Free of linear guide
- Simple maintenance

Applications

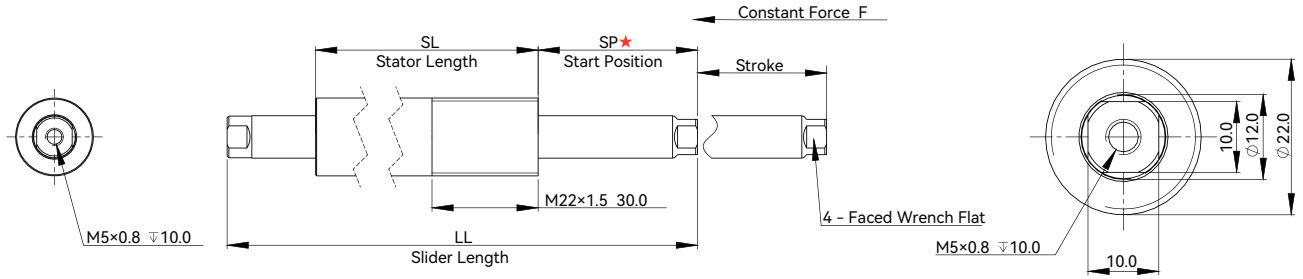
Based on the features of magnetic springs, it can be used in many application scenarios, including but not limited to gravity compensation, ensuring Z-axis module self-locking when power off, and supplying constant force within specific travel range.

Dimension	Stroke (mm)	Constant force F (N) ±10%	Combination
	40-280	15	MSP-A-S022-XXX★-H-000
			MSP-A-L012-XXX★-A-000
	40-280	20	MSP-A-S022-XXX-H-000
			MSP-A-L012-XXX-B-000
	40-280	25	MSP-A-S022-XXX-H-000
			MSP-A-L012-XXX-C-000
	50-275	40	MSP-A-S037-XXX-A-000
			MSP-A-L012-XXX-A-000
	50-275	50	MSP-A-S037-XXX-A-000
			MSP-A-L012-XXX-B-000
	50-350	60	MSP-A-S037-XXX-A-000
			MSP-A-L012-XXX-C-000

★ XXX means slider or stator length. Please refer to the part numbering for specific instructions.

Combination parameters

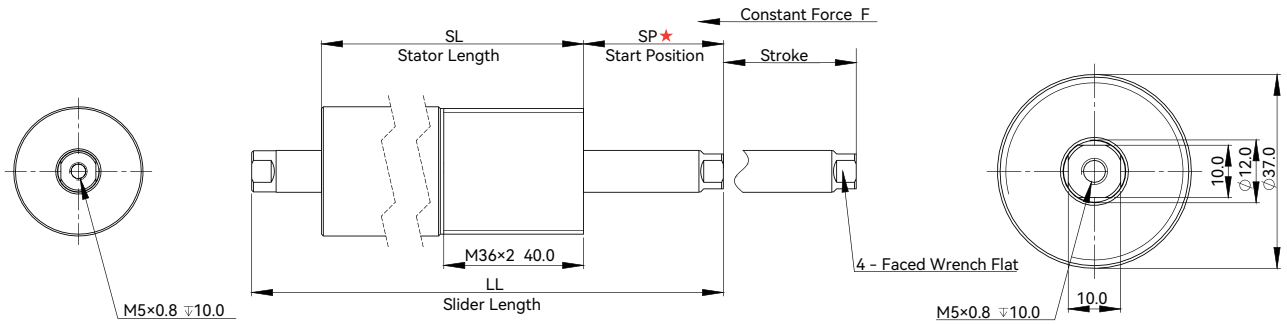
■ Dimension



★ The distance SP is measured between the end of slider (4 - faced wrench flat) and the end of stator (threaded end)

Combination Parameters				Stator			Slider		
NO.	Stroke (mm)	F(N)±10%	SP(mm)	Part Number	SL (mm)	m_{Stator}(g) ±10%	Part Number	LL (mm)	m_{Slider}(g) ±10%
1	40	15	45	MSP-A-S022-060-H-000	60	72	MSP-A-L012-130-A-000	130	106
2	40	20	45	MSP-A-S022-060-H-000			MSP-A-L012-130-B-000		
3	40	25	45	MSP-A-S022-060-H-000			MSP-A-L012-130-C-000		
4	120	15	45	MSP-A-S022-140-H-000	140	173	MSP-A-L012-210-A-000	210	174
5	120	20	45	MSP-A-S022-140-H-000			MSP-A-L012-210-B-000		
6	120	25	45	MSP-A-S022-140-H-000			MSP-A-L012-210-C-000		
7	200	15	45	MSP-A-S022-220-H-000	220	274	MSP-A-L012-290-A-000	290	242
8	200	20	45	MSP-A-S022-220-H-000			MSP-A-L012-290-B-000		
9	200	25	45	MSP-A-S022-220-H-000			MSP-A-L012-290-C-000		
10	280	15	45	MSP-A-S022-300-H-000	300	375	MSP-A-L012-370-A-000	370	310
11	280	20	45	MSP-A-S022-300-H-000			MSP-A-L012-370-B-000		
12	280	25	45	MSP-A-S022-300-H-000			MSP-A-L012-370-C-000		

Dimension

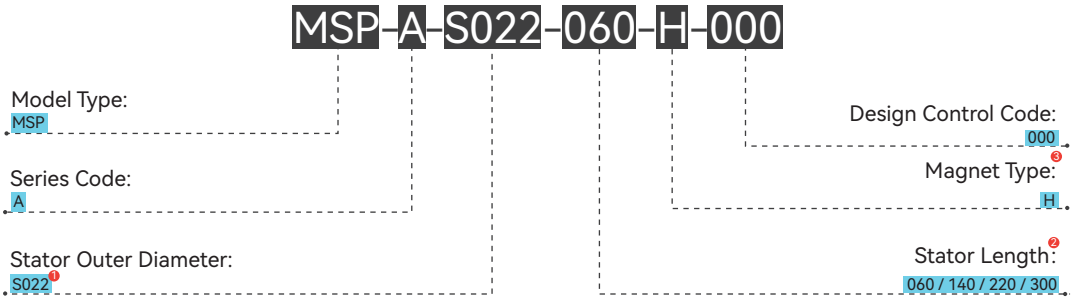


★ The distance SP is measured between the end of slider (4 - faced wrench flat) and the end of stator (threaded end)

Combination Parameters				Stator			Slider		
NO.	Stroke (mm)	F(N)±10%	SP(mm)	Part Number	SL (mm)	m_{Stator}(g) ±10%	Part Number	LL (mm)	m_{Slider}(g) ±10%
1	50	40	30	MSP-A-S037-080-A-000	80	456	MSP-A-L012-130-A-000	130	106
2	50	50	30	MSP-A-S037-080-A-000			MSP-A-L012-130-B-000		
3	50	60	30	MSP-A-S037-080-A-000			MSP-A-L012-130-C-000		
4	125	40	35	MSP-A-S037-155-A-000	155	919	MSP-A-L012-210-A-000	210	174
5	125	50	35	MSP-A-S037-155-A-000			MSP-A-L012-210-B-000		
6	125	60	35	MSP-A-S037-155-A-000			MSP-A-L012-210-C-000		
7	200	40	40	MSP-A-S037-230-A-000	230	1382	MSP-A-L012-290-A-000	290	242
8	200	50	40	MSP-A-S037-230-A-000			MSP-A-L012-290-B-000		
9	200	60	40	MSP-A-S037-230-A-000			MSP-A-L012-290-C-000		
10	275	40	45	MSP-A-S037-305-A-000	305	1845	MSP-A-L012-370-A-000	370	310
11	275	50	45	MSP-A-S037-305-A-000			MSP-A-L012-370-B-000		
12	275	60	45	MSP-A-S037-305-A-000			MSP-A-L012-370-C-000		
13	350	60	50	MSP-A-S037-380-A-000	380	2308	MSP-A-L012-450-C-000	450	378

Part Numbering

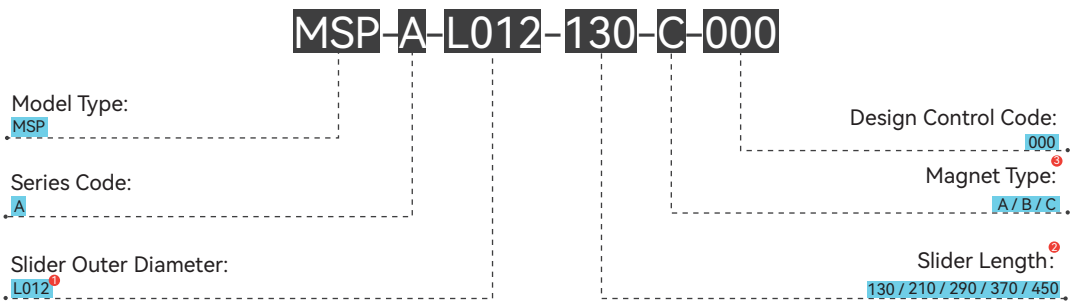
Stator



1. S022 = Stator Outer Diameter 22mm
2. E.g. 060 = 60mm
3. Magnet Type = Different Magnet Designs

1. S037 = Stator Outer Diameter 37mm
2. E.g. 080 = 80mm
3. Magnet Type = Different Magnet Designs

Slider



1. L012 = Slider Outer Diameter 12mm
2. E.g. 130 = 130mm
3. Magnet Type = Different Magnet Designs

The stator and slider shall be used in pairs according to the combination parameters to achieve the specific performance (stroke & force).