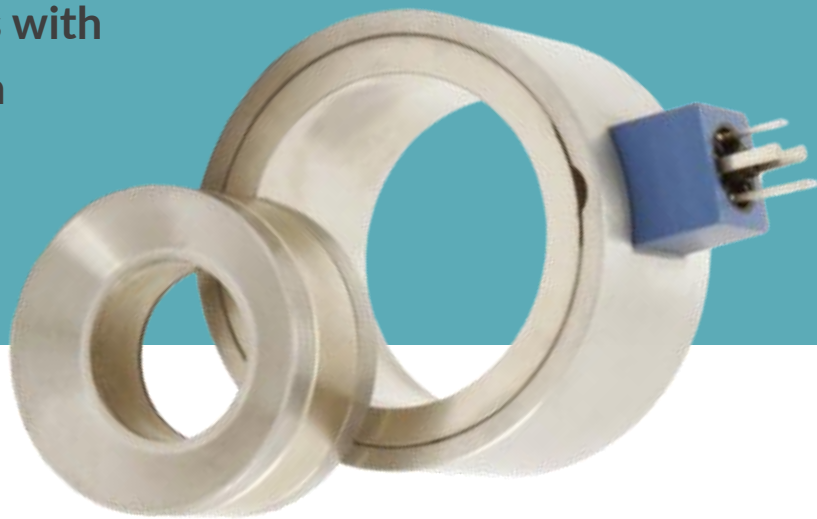


# VOICE COIL ACTUATOR

MI-MMA Series

Frameless linear actuator series with  
high reliability and long lifespan



Increase the overall performance and quality of your systems with the direct drive motor technology of Magnetic Innovations.

## Are you having problems with?

- High system cost
- High maintenance cost
- Moving wires, causing system failure
- Control complexity
- Poor motor life

## If so, you are looking for our Voice Coil Actuators!

The design of the the Moving Magnet Voice Coil Actuators have been proven in various high end industrial equipment. These actuators can be applied frequently where high speed and high force density are required.

Key parameters of our motor are:

- Compact design
- No heat load on the moving part
- Suitable for vacuum environments
- High peak and continuous force possible
- Very high acceleration
- A fair price

## MMA Series: Frameless Voice Coil Actuators

Frameless means there's no bearing or guiding system provided with the actuator. This allows engineers to optimise their design and embed the motor in a way that is best suited for their application. These actuators are also applicable in applications in a vacuum environment. With a Frameless Voice Coil Actuator you can count on a motor with **high speed, high force density, high reliability and a long lifetime.**

## MMA Actuator Series Performance Parameters

The working principle of the moving magnet voice coil actuators is that the moving part is a magnet. The coils are attached to the static part of the actuator which enables a good thermal path.

The absence of moving wires leads to a very high reliability and does not limit the achievable accelerations and speeds. In the basics this actuator, operates as a linear single phase DC-motor.

Parameter [unit]	Models MI-MMA Series				
	1525	1555	3070	5536	9054
OD [mm] <sup>1</sup>	15	15	30	55	90
Height [mm] <sup>1</sup>	25	55	70	36	54
Stroke [mm] <sup>1</sup>	5	18	25	8	12
F continuous [N] middle position <sup>2</sup>	2.6	2.6	16.6	39	140
F peak [N] <sup>3</sup>	6.2	6.2	60	131	605
Maximum Voltage [Vdc]	48	48	48	48	48
Moving mass [kg]	0.0063	0.015	0.090	0.175	0.7

<sup>1</sup> Standard range. Other dimensions and force ranges available upon request.

<sup>2</sup> Continuous force at 40°C ambient and 120°C coil temperature

<sup>3</sup> Peak force for 5 sec. at 25°C ambient and 155 °C coil temperature

## Frameless Voice Coil Actuator

Mechanical drawings are available upon request.



# GO DIRECT DRIVE!

Compact actuator design with high dynamic capability and high force density to suit your linear motion system

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