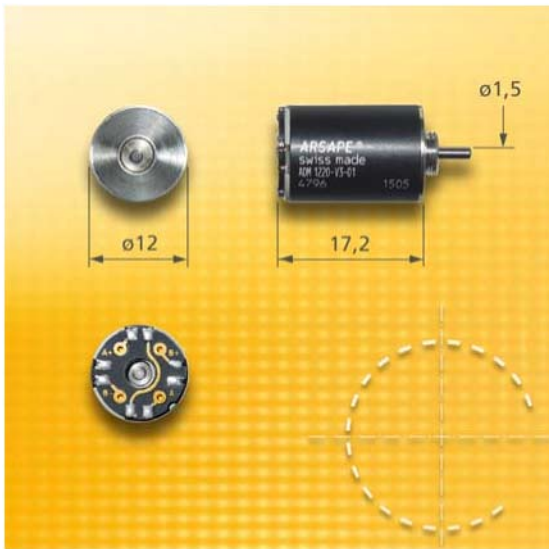


EMS

Ø 12mm precision disc magnet stepping motor



EMS are delighted to announce the latest miniature stepper motor from ARSAPE a member of the Faulhaber Group, and leader in high precision, micro-mechanical stepper motors.

The new Ø12x17.2mm motor with 2.4mNm holding torque and boost torque of 4.1mNm complements the existing Ø6-22mm range of stepper motors but the design is such that new levels of precision, torque, speed range and mechanical rigidity are achieved.

The motor is available in two versions with the ADM1220 offering, like any stepper motor, a holding torque without current. The ADM1220S however has no holding torque without current and as a consequence offers higher motion precision. The disc magnet rotor technology used in this motor

is a proprietary design ensuring the uniformity of parts the magnetic circuit design needs to achieve a high precision motor.

The ADM1220S motor offers 20 full-steps per revolution. Due to its unmatched sinusoidal torque it is fully micro-stepping compatible, resulting in a precise 160 steps per revolution. This feature gives the motor the excellent ability to run precisely at very low speeds resulting in a wide useable speed range from below 10rpm to over 6000 rpm.

Over the entire speed range the motor provides a useable output torque of over 1 mNm. Boost capabilities help to increase the torque to 4.1mNm during critical phases of the motion. Mechanical stability is assured by a large shaft diameter of 1.5mm and rear ball bearing as standard. Strong magnetic axial forces ensure that axial play on the shaft is eliminated resulting in very low noise.

The new steppers are also available with lead-screws M1.2 and M2 for precise linear motion, or alternatively are compatible with Minimotor gearheads of Ø10 & 12mm.

This particular motor design offers a low cost alternative to more complex motion control systems in high precision motion applications.

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