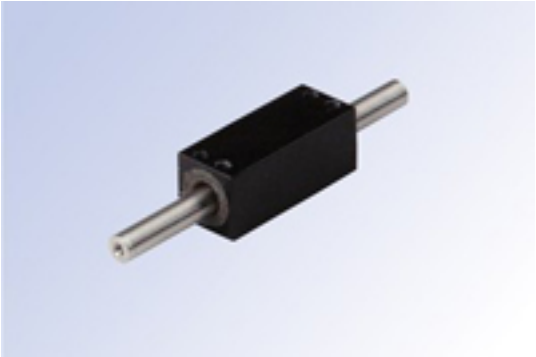
4-mm Linear Servomotor Aims to Replace Piezo Motors



Nippon Pulse America introduced its smallest linear servomotor, the 4-mm Linear Shaft Motor. The 4-mm shaft diameter, a small forcer size (10 mm x 10 mm), a total weight of 9 grams, and strokes as long as 40 mm make the motor a suitable replacement in piezo type applications, according to the company. The motor is quiet due to the absence of friction since the only mechanical contact section is the linear guide. Its coreless construction totally eliminates cogging. The Linear Shaft Motor's high motor stiffness allows it to be used in high precision positioning applications where a resolution of 0.09 nanometers is achievable. Durable construction makes it possible to operate the Linear Shaft Motor in harsh conditions, including a vacuum situation and underwater. The motor has no backlash, and the company asserts users will have virtually no fluctuation in speed.

Specifications for S040D Linear Shaft Motor:
Continuous stall thrust - 0.5N
Continuous stall current - 0.4A
Peak thrust 2N
Peak current - 1.8A
Shaft diameter (D) 4mm (0.16in)
Slider length (A) 25mm (0.98in)
Slider width (B) 10mm (0.39in)
Mounting pitch (P x P1) 21.5 x 4mm
Mounting screw (M x l) 4-M2
Gap 0.5mm (0.02in)
Slider weight 0.01kg/F
Available stroke 20, 30 & 40mm
Magnetic pitch (N-S) 9mm (0.354in) (N-S)

Nippon Pulse America
540 633 1677, www.nipponpulse.com [1]

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