

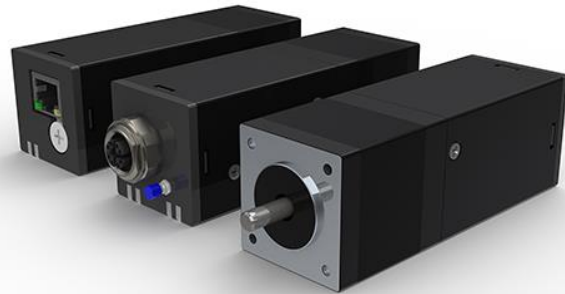
TSM14POE Integrated Motor

Preliminary Datasheet



Description

The TSM14POE StepSERVO™ Integrated Motor with Power over Ethernet (PoE) is a unique, single-cable solution for motion control applications requiring minimal wiring and a small footprint. By combining power and Ethernet communications into a single connector, wiring to the integrated motor is greatly simplified and the motor can be mounted almost anywhere.



Built upon Applied Motion Products' StepSERVO™ closed loop stepper technology, TSM14POE

integrated motors provide numerous performance benefits over conventional, open-loop step motor systems including higher torque and greater efficiency.

Benefits

- Simplified installation using single-cable connection for power and Ethernet. No other connections to the motor are required.
- Compact size and integrated control electronics allow the motor to be mounted almost anywhere.
- StepSERVO technology provides greater torque, higher acceleration rates, better efficiency, decreased motor heating, and less audible noise than traditional, open-loop step motor systems.
- Easily adapt to your existing industrial Ethernet network with support for common protocols.
- Compatible with readily available PoE+ switches and injectors.

Applications

The TSM14POE integrated motor is ideally suited for applications where compact, accurate motion control is required and minimal wiring is a plus. The single-cable PoE solution makes the motor particularly useful for...

- Building automation
- Electric grippers
- Robotic pipe inspection systems
- Medical devices
- End-of-arm tooling
- Small linear actuators
- Mobile robots
- and much more...

Details

For all inquiries contact your local sales rep or contact Applied Motion Products directly at applied-motion.com/contact.

- NEMA 14 frame size motor with integral 4096-count magnetic encoder and on-board closed-loop motor controller.
- High position and velocity accuracy, excellent control characteristics.
- Compatible with IEEE 802.3at Type 2 specifications for PoE+.
- Network compatible with Ethernet TCP/IP, EtherNet/IP and Modbus TCP industrial Ethernet protocols.
- Two connector options, X-coded M12 or modular RJ-45, allow the use of standard, widely available Ethernet cables.

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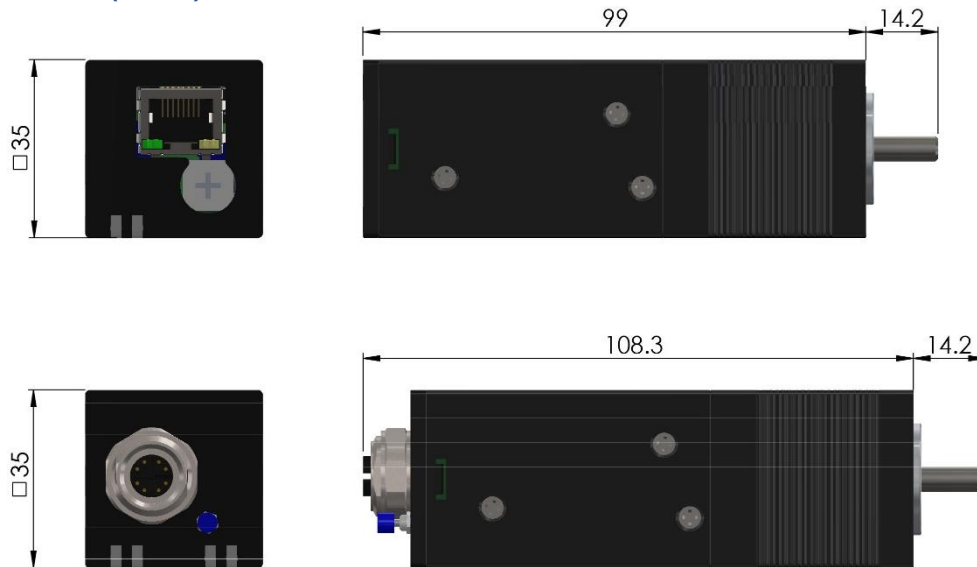
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- PC-based software tools for setup, configuration and tuning.
- On-board motion control with Q Programming.

Part Numbers	Frame Size	IP Rating	Holding Torque	Connector Type
TSM14POE-3IPMJ	NEMA 14	IP40	57 oz-in	RJ-45
TSM14POE-3IPMM	NEMA 14	IP40	57 oz-in	M12

Dimensions (mm)



Planetary Gearheads

TSM14POE integrated motors are available pre-assembled with [PH Mini Planetary Gearheads](#). These planetary gearboxes come in a wide range of ratios and significantly increase output torque for applications that require greater torque.

Standard ratios available:

- 4.62:1
- 5.70:1
- 12.07:1
- 32.50:1
- Additional ratios available upon request.

