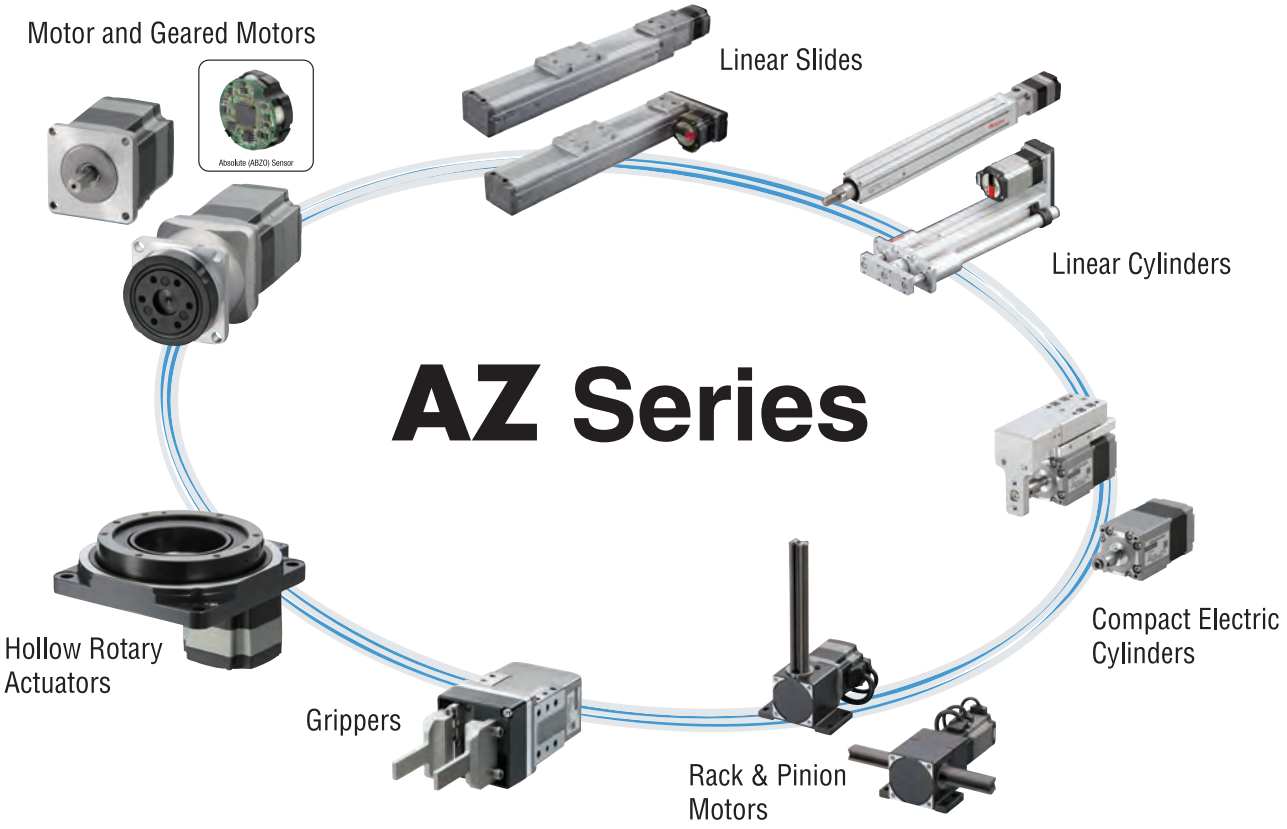
Oriental motor

Battery-Free Absolute Sensor Equipped

αSTEP AZ Series

AZ Series Family of Products

Controllability is consolidated across all product groups that contain the AZ Series. All specifications and performance results are built-in and guaranteed. Enables the sharing of maintenance parts such as driver and cables.



AC Input Drivers

EtherNet/IP EtherCAT

DC Input Drivers

PROFINET Modbus

Multi-Axis Controllers / Drivers

EtherCAT

Compact Driver

Modbus

What is AZ Series?

Newly Developed Absolute Mechanical Sensor

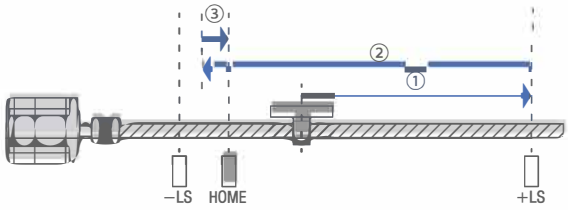
A newly developed compact, low cost, battery-free and patented absolute mechanical sensor that contributes to productivity improvements and cost reduction.

$746.00
Motor and Driver
[Frame Size 60 mm (2.36 in.), DC Input Type]

Traditional System - Sensors Required

Previous Home Detection Example

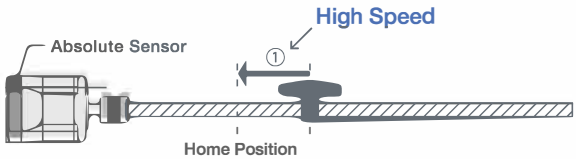
The home position is detected at low speed by detecting the limit sensor (±LS) and home sensor (HOME).



System with AZ Series

Return-to-Home Operation of the AZ Series

There is no need to detect the limit sensor, and it moves directly at high speed to the home position recorded by the absolute sensor.



What is αSTEP?

αSTEP is a "hybrid" stepper motor-based motor & driver that together, performs independent control which combines the advantages of "open loop" and "closed loop" performance. In addition to high-accuracy positioning and speed control, it can perform control that restricts the motor's generated torque to a user set value (such as push-motion operation).

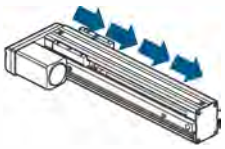
Hybrid Control System

The hybrid control system constantly monitors the motors position allowing for the benefits of performance from "open loop" control while providing the assurance of "closed loop" performance.

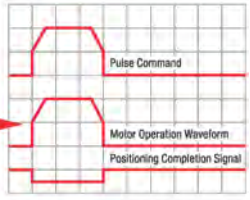
Normal Condition (Positioning deviation is less than ±1.8°)

Motor is controlled in open loop mode like a stepper motor.

- The tuning-free feature allows for high accuracy and high responsiveness to commands
- Hunting-free (Complete stop)
- Constant monitoring of the motor's status



No time lag between command and actual operation



Overload Condition (Positioning deviation is ±1.8° min.)

The closed loop mode is engaged to maintain the positioning operation.

Reliability as a result of monitoring and correction of positions and speed

●Closed Loop Control System