

Orientalmotor



New**m**otion

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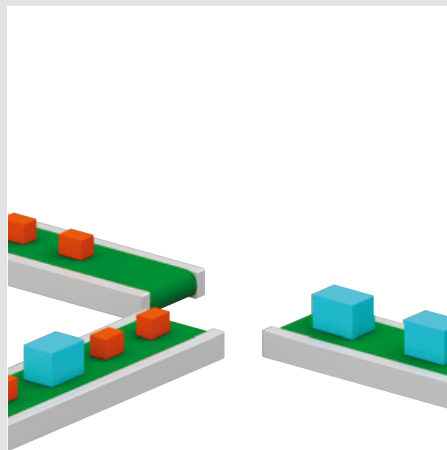
Machine Dexterity at Work

with Grippers and Drivers from Oriental Motor

Measuring and Sorting

a Variety of Objects

Sorting systems are becoming increasingly automated in many different ways. Increasingly often, complex sorting processes are required that can only be achieved with elaborate camera systems.



Application: Sorting system

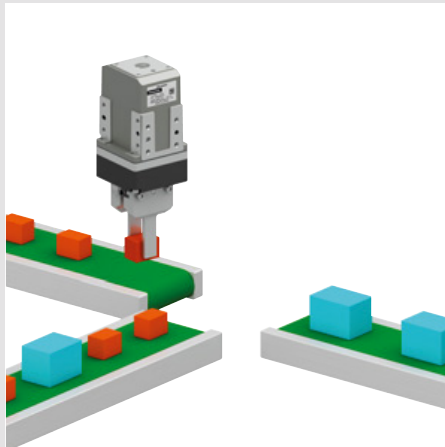
Costly CCD camera systems and measuring devices are required to determine the workpiece sizes, especially when it comes to the precise measurement of very minor product deviations.

Electric Gripper

As a measuring Device

Solution

EH Series Electric Grippers with battery-free absolute sensor, and driver with communication interface.



Application: Sorting system

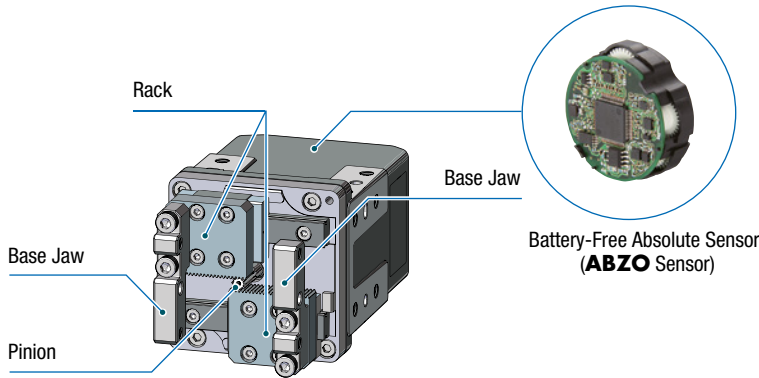
Sensorless Verification of the Presence of a Workpiece and its Size

By checking the driver's position information and output signals (e.g. TLC and AREA outputs), it is possible to verify the presence and determine the size of a workpiece without an external sensor. The AREA outputs make it possible to define the permissible limit values for the dimensions.



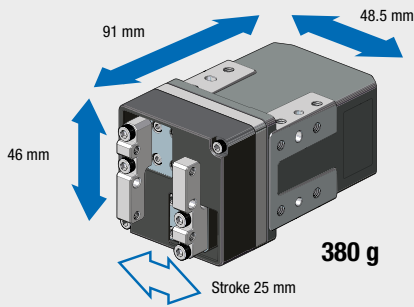
Solution:

EH Series Electric Gripper

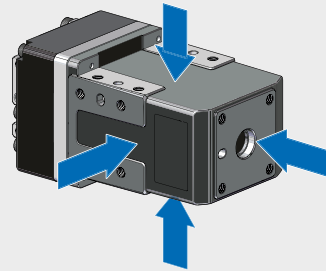













- High reliability through closed loop control
- Open & close to absolute positions.
- No need for external sensors.
- Effective space and weight saving, with simple wiring.

Compact and Lightweight



Multi-Surface Installation is possible



Electric Gripper	AZ Series Driver (DC Input)			
 <p>EH Series</p>	<p>Built-in Controller Type</p> 	<p>Pulse input type with RS-485 communication</p> <p>EtherNet/IP </p> <p>Modbus RTU </p> <p>EtherCAT </p> 	<p>Pulse Input Type</p> 	<p>Multi-Axis Driver</p> <p> MECHATROLINK</p> <p> SSCNET III/H  EtherCAT</p> 

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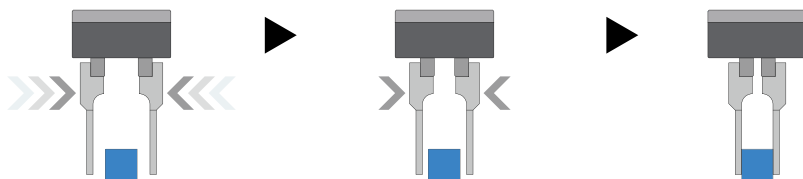
Grab, Align and Measure

with the Electric Gripper

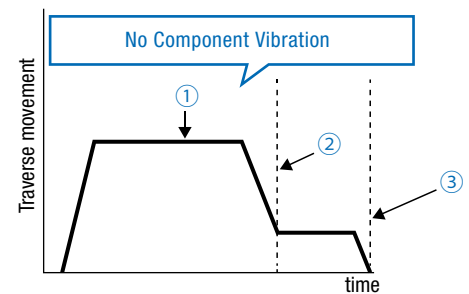
Grip force control / speed control

Close quickly → Grip slowly

Approach the component at high speed. Decelerate once in close proximity to the target, and grip at low speed.

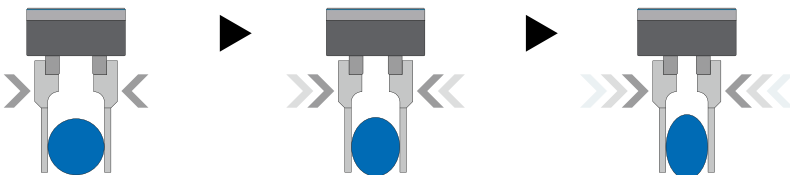


- ① Approach the component with high speed and low grip force.
- ② Decelerate when approaching the contact position, and grip the component slowly.
- ③ Hold the component with pre-set grip force.

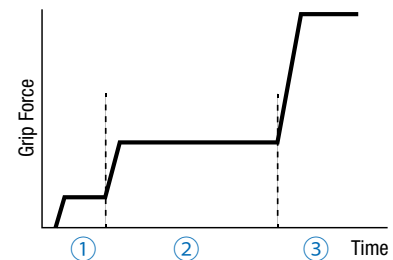


Gently grip → Gradually increase the gripping force

The gripping force and time can be changed easily.



- ① Grip with low force at first
- ② Increasing the grip force
- ③ Maximum grip force



Sensorless detection of the size and presence of components within the finger movement range

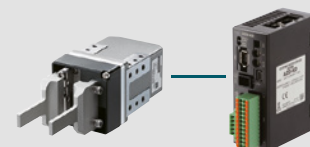
By checking the finger movement range with the output signals from the driver (TLC output, AREA output), you can determine the size and presence of the component.



- ①,② Judging the size of the piece. You can check the position of the attachment when holding the component, and sort by size.
- ③ Checking for the presence of a component. It is possible to tell whether a piece is being held.

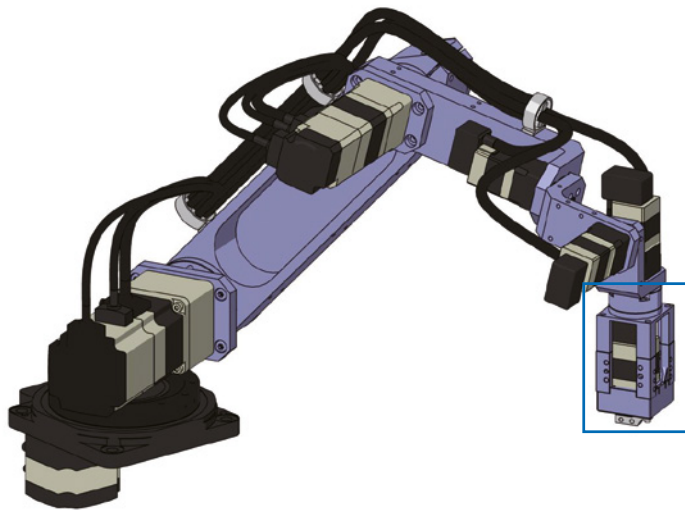
Monitor position information from gripper to determine the size of the component

The position of the gripper jaws can be read by the coordinate information monitor function in the driver. This can be read and evaluated by the host PLC.



Using the EH Series

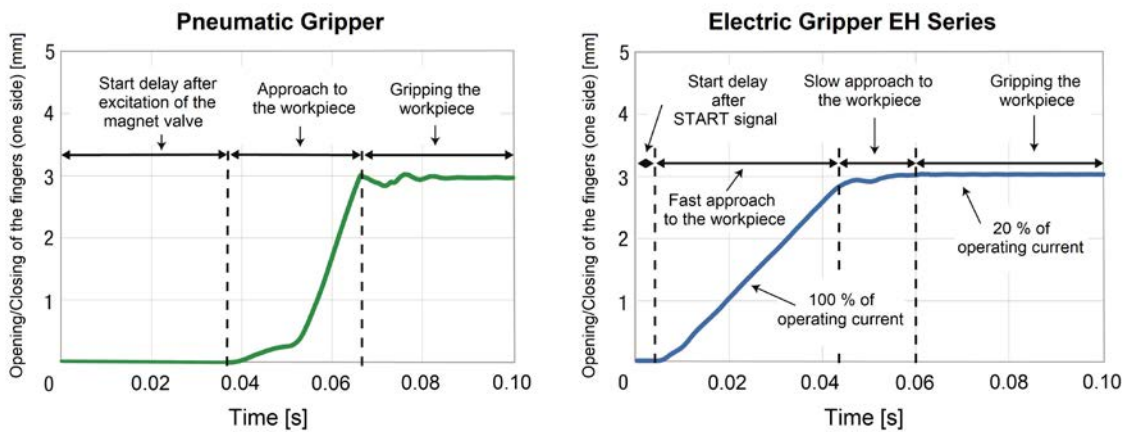
with Outstanding Features



Advantages of an Electric Gripper:

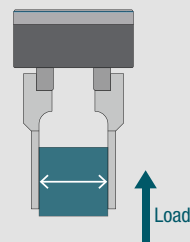
- No pneumatic connection necessary
- Lower operating costs compared to pneumatics
- High flexibility
- Low noise operation
- Adjustable force, position, and speed

The EH Series has a faster Cycle Time compared to a Pneumatic Gripper



Characteristics

Product Name		EH4-AZAKH
Maximum Gripping Force [N]		25
Repetitive Positioning Accuracy [mm]	each side	± 0,02
Accuracy [mm]	each side	0,1
Stroke [mm]		25
	each side	12,5
Maximum Speed [mm/s]		156
	each side	78
Opening/Closing Speed [mm/s]		20
	each side	10
Minimum Positioning Distance [mm]		0,02
	each side	0,01
Permissible Load [N]		5



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EH - Series Electric Gripper	EH Series: PDF (2.6 MB)		PDF

If you have any questions, please do not hesitate to contact us on 00800-22 55 66 22 (Free Call Europe).



ORIGAMI GIRAFFE

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WE'RE EXHIBITING 2022

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Hannover, Germany

30.05. until 02.06.2022



Orientalmotor

IMPRESSUM

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