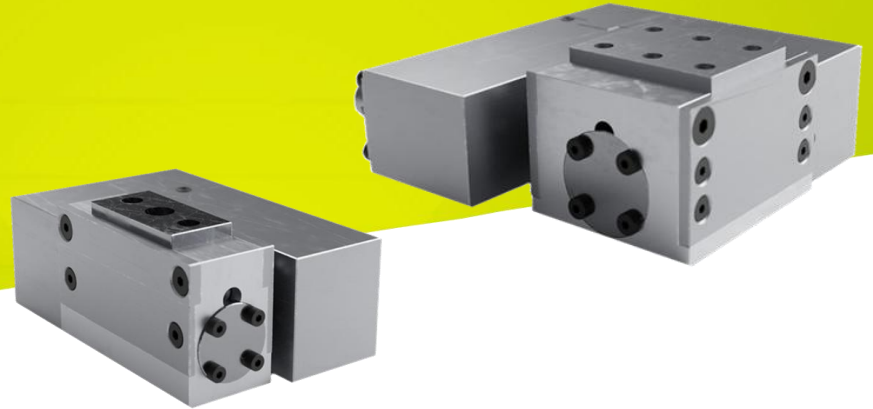




Electromechanical Shim – [e-Shim]

For positioning assemblies in the micrometer range

Description

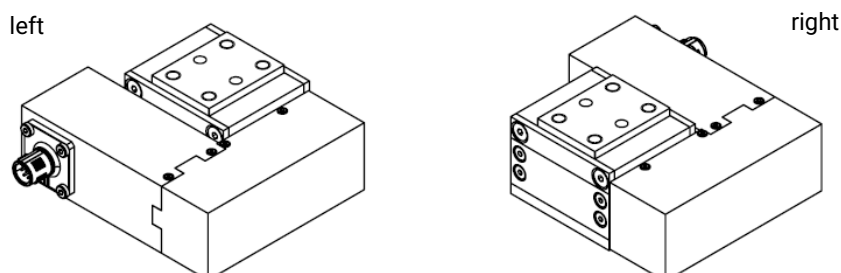
The e-Shim is an electromechanical actuator used, among other applications, to automatically adjust tolerances in body-in-white fixtures, adapt clamping points, or compensate for gaps. It is used wherever components and assemblies have previously been leveled manually using shim plates.

Functionality

The e-Shim is controlled via the PROMESS Motion Controller (PMC). A single PMC can control up to two e-Shims simultaneously. Operation, visualization, and monitoring of the shimming process are carried out via a control computer with software and user interface. Up to 12 e-Shims can be controlled per control computer.

Adjustment operations can be triggered either directly via the control computer's HMI or via the PROFINET interface. Required adjustment actions can also be transmitted to the control computer via OPC UA.

The e-Shim mechanism is driven by a servo motor, which can be mounted on either the right or left side of the shim surface depending on the installation position, enabling flexible integration into existing systems. Targeted positioning can be carried out as required in an unloaded state between individual process cycles.



Varianten

PROMESS offers the e-Shim in two different sizes:

	e-Shim 55 x 48		e-Shim 53 x 22	
Adjustment range	±2 mm		±1 mm	
Repeat accuracy	±5 µm		±5 µm	
Adjustment speed	7 seconds per 0.1 mm stroke		14 seconds per 0.1 mm stroke	
Weight	1.1 kg		0.5 kg	
Max. load (mounted weight)	10 kg		2 kg	

The connection of permissible attachments can be individually designed within the defined installation space. The mounting areas as well as the various load limits for each variant can be found in the technical data sheets.

Advantages

- Easy integration into existing systems
- Adjustment / shimming during ongoing operation
- Higher accuracy compared to manual shimming
- Reduction of time and costs
- Reduction of tolerances in components

Contact

PROMESS Montage- und Prüfsysteme GmbH
Guido Paulsen
paulsen@promessmontage.de
+49 30 / 62 88 72-37

How to e-Shim!

