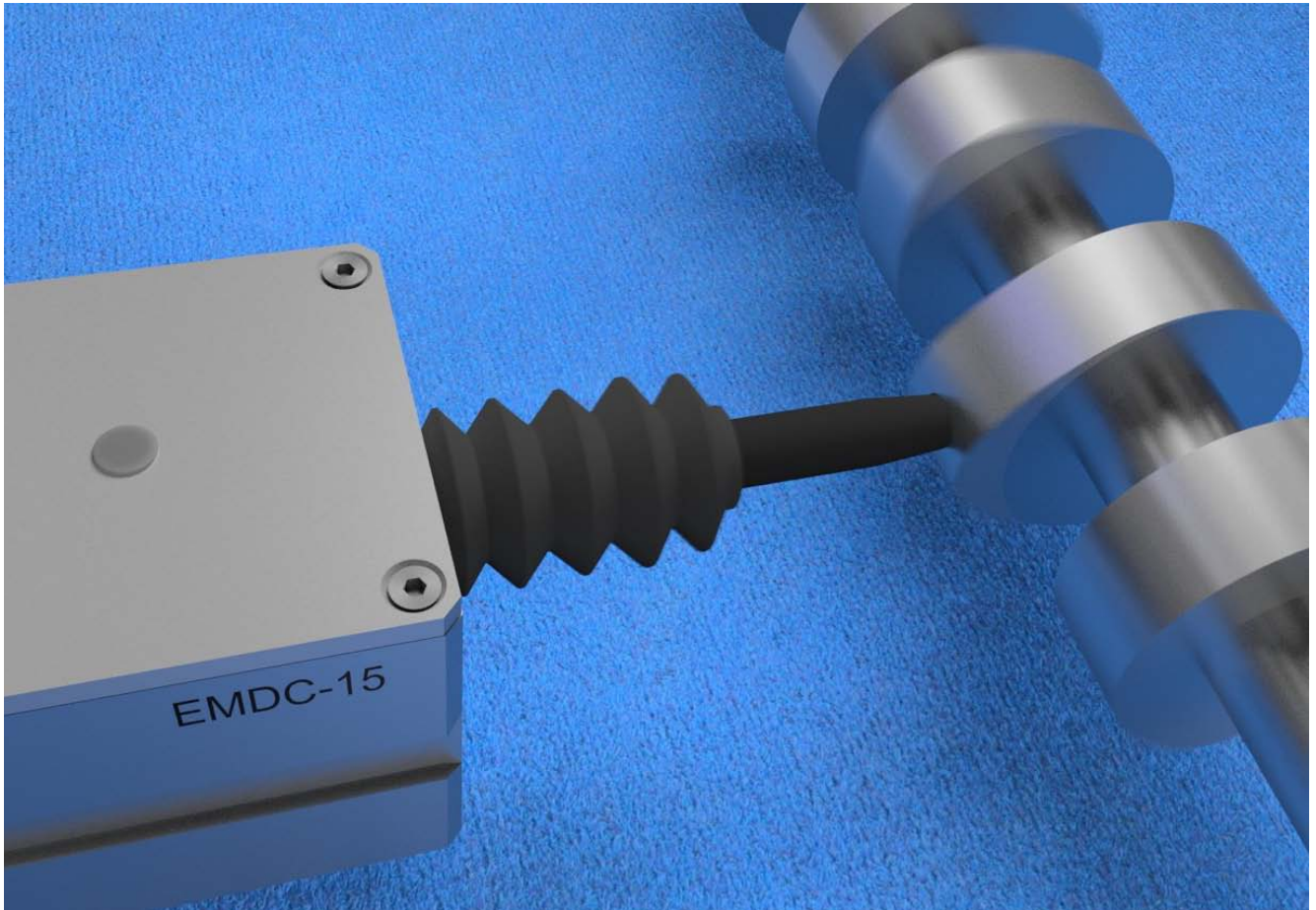


## Electromechanical distance compensation – EMDC – Technology from Rohmann



**EMDC** - Electro **M**echanical **D**istance **C**ompensation

***Difficult inspection tasks can be carried out using Rohmann's EMDC-Technology, for example, on:***

- ***non-circular test parts***
- ***test parts with complex geometries***
- ***parts presenting concentricity problems***

***The distance between the sensor and the test part is electromechanically controlled and ensures:***

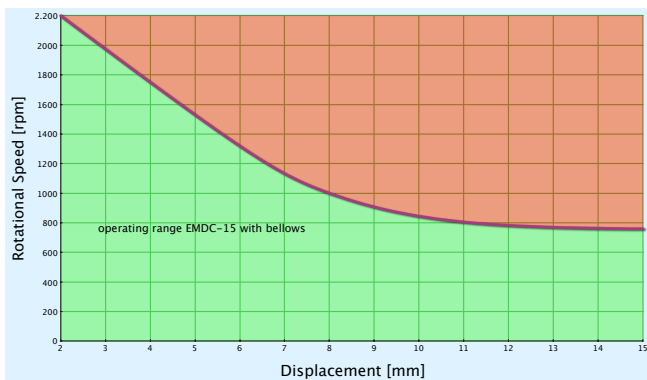
- ***a consistently high level of sensitivity, even if the parts are non-circular and difficult to centre, as well as***
- ***almost perfect compensation, even if the changes in distance are very large.***

The **Rohmann EMDC** was developed to carry out challenging inspection tasks in fully automated eddy current inspections. In combination with our digital instruments ELOTEST IS500 and ELOTEST PL500, it provides an integrated distance control system, which maintains a constant nominal distance between the sensor and the test sample surface over the entire test period.

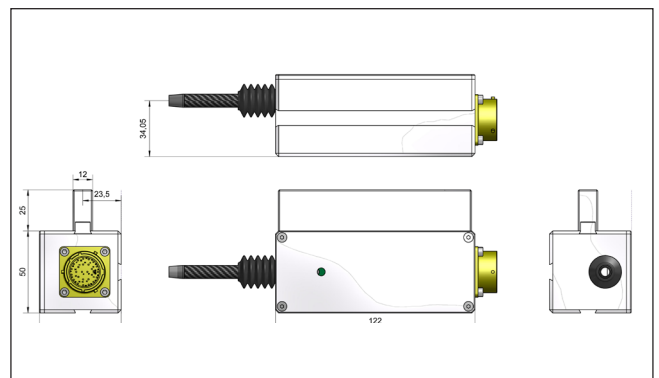
The **EMDC-15 Model** has a control range of up to 15 mm and a maximum control bandwidth of 500 Hz. Ultra-light exchangeable sensors in a carbon tube can be optimized to fit the requirements of the different inspection tasks. The EMDC-15 is controlled via a plug-in card in the ELOTEST test instrument, the parameterization is fully integrated into the instrument software and is carried out via the graphical user interface. Control signals for integration in automatic testing devices are provided via the test instrument's IO-cards.

A safety circuit, integrated in the control electronics, pulls the sensor back quickly if a chosen minimum distance is not maintained.

Dovetail guides on all three sides allow for flexible installation in the testing machine.



Graph: Sinusoidal excitation deflection



EMDC: registered for patent

**Technical data EMDC-15:**

- Dimensions:** 50 x 50 x 120 mm  
(without sensor and mounting bar)
- Weight:** 645 gr
- Maximum control range:** 15 mm
- Maximum control frequency for sinusoidal excitation:** 40 Hz
- Control range at 40 Hz:** 2 mm
- Maximum coil current:** 4 A
- Control bandwidth:** 500 Hz

**Required components:**

- EMDC-15
- ELOTEST PL500 or IS500 19" with two testing channels CHM-500
- EMDC control card
- Cable

**Optional:**

- IO-card
- Mechanical mounting accessories

**Order number:**

**The following articles are required:**

Article	Article number	Description
EMDC-15	A0M0330101001011	Electromechanical distance compensation, registered for design patent
EMDC-Adapter A-190.16.1	A0M0030190001161	Plug-in module for EMDC IS500 19"/ PL500, 3HE / 12TE
Adapter A-190.08.1	A0M0030190001081	Connection adapter for A-190.xx.x for rotor operation, 2-channel, with ELOTEST PL500 or ELOTEST IS500 19"
Sensor cable RK-5-064	A0MW070000064011	Cable IS/PL500 to HDR 18/2-2 rotor or EMDC, 26 Mpol. on 26 Fpol. Amphenol, length 5 m (customization possible)
Test sensor for EMDC	A0M0330201001011	KA-61/H-KDS-16, customized to fit the inspection task