



# Hegewald & Peschke

Meß- und Prüftechnik GmbH

## Product information

# Video extensometer for tensile tests on reinforcing steel

acc. to ISO 15630, DIN 488, ISO 6892-1



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The ONE-ROD video extensometer is an easy-to-use optical extensometer optimized for tensile testing on reinforcing steel and wire rods. Configuration and height of the extensometer are optimally designed for tensile tests on rebar according to EN ISO 15630 and DIN 488.

### Advantages:

- Enables longitudinal/transverse strain measurement on specimens with a falling off oxide or rust layer  
→ No loss of measurement marks when surface layers are falling off
- Minimal requirements for specimen preparation and calibration
- Operates reliably even under challenging conditions
- Robust against slightly bent specimens
- Determination of strain distribution over the entire length
- Solid industrial housing

### Technical data:

<b>Cameras</b>	2x 2.3 MPx
<b>Field of view (H x W)</b>	550 x 100 mm (larger field of view on request)
<b>Accuracy class</b>	Class 1 according to ISO 9513 Class B-1 according to ASTM E83-10a
<b>Working distance</b>	fixed approx. 560 mm
<b>Initial measuring length</b>	L0 > 25 mm
<b>Resolution</b>	<1 µm
<b>Measured value acquisition rate</b>	>40 Hz (reduction of the field of view width increases the sampling rate)
<b>Digital output</b>	Ethernet or RS232
<b>Illumination</b>	500 mm LED band blue emitting (integrated in camera housing)

### Evaluation software (in combination with material testing software LabMaster):

The strain measurement is contactless via a two-camera system. The signals from the two cameras are processed in real time using DIC (Digital Image Correlation) software.

The averaged deformation is typically determined between several measurement points. The determined deformation is displayed time-synchronously in the LabMaster material testing software, for example as a stress-strain curve, and is used, among other things, to determine the percentage total extension at maximum force  $A_{Gt}$  and the elongation after fracture  $A_{10}$ ,  $A_5$ ,  $A_{11,2}$ .

### Scope of delivery:

- 2-camera system in compact housing with integrated 500 mm LED illumination
- Evaluation unit incl. 2 TFT screens
- Evaluation software Alpha with ITT (Intelligent Tensile Testing Algorithm) including license for longitudinal strain on hardware dongle
- Calibration plate

### Optionally available:

- Holder for camera, e.g. for mounting on testing machines
- Option for strain control according to video extensometer
- Option DIC Area Module with post-processing (area overview of local strain)
- Upgrade of license from longitudinal or transverse strain to combined longitudinal and transverse strain

