

Measuring Devices for Building Material Testing

Longitudinal Strain Gauge Type LD-DD1-2 for Determining Modulus of Elasticity on various Test Specimens

- for recording the average change in length at two opposite generatrices of concrete prisms or cylinders
- suitable for determining the modulus of elasticity in accordance with EN 12390-13, DIN 1048, EN 13412 on concrete cylinders, drill cores and prisms
- with storage case
- only in conjunction with PROTEUS software - specific module available acc. to standard
- also available as a retrofit

Functional Description:

- The sample dimensions and the measuring length L₀ can be set using the scale attached to the measuring rod. The strain gauge is then clamped to the specimen.

Advantage: by clamping it to the side of the specimen, the strain gauge can be attached to a specimen placed in the testing machine and also removed again – no need to install and remove the specimen from the testing machine.

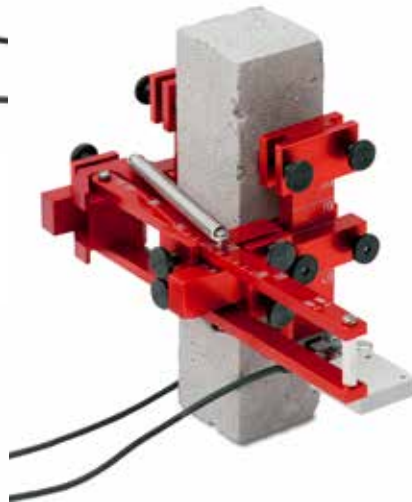
- when the strain gauge is precisely aligned, the locking levers are swung out and the measuring tongues are then free.
- perform zero adjustment and carry out the test as specified
- The sample must not be loaded to the point of breakage with the strain gauge attached (risk of damage to the sensor!)

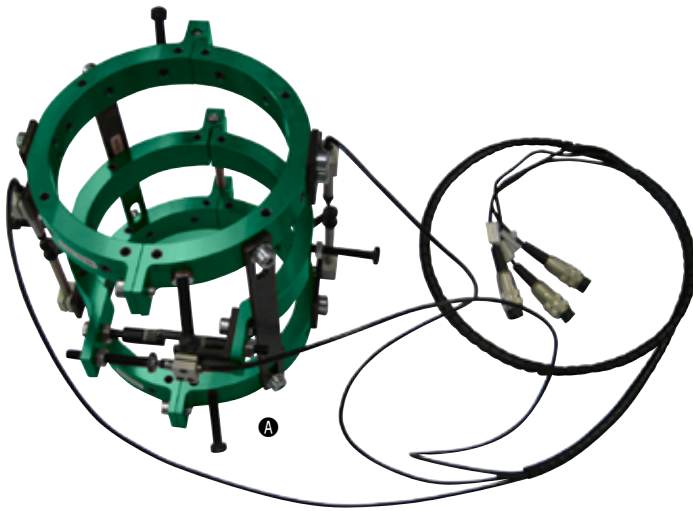
Technical Data:

- measuring length: 40-220 mm (with extension up to 320 mm, see options)
- measuring path: ± 2 mm
- clamping device for prisms and cylinders: 30-200 mm
- linearity based on nominal travel: 0.1 %
- resolution: 0.001 mm
- weight approx.: 450 g

Optional:

- extension of the measuring rod for measuring lengths 200...320 mm
- extension to longitudinal strain gauge type LD-DD1-3 with 3 strain gauges





Measuring Devices for Building Material Testing

A Longitudinal and Transverse Strain Gauges acc. to ASTM

- transducer for precise calculation of the modulus of elasticity based on the longitudinal and transverse strain of concrete cylinders
- acc. to the standards DIN EN 12390-13, ISO 6748, ASTM C469
- only possible in conjunction with PROTEUS software

Scope of Delivery:

- 2 pairs of retaining rings for sample dimensions \varnothing 50-120 mm or \varnothing 120-160 mm
- 2 sets of spacer bolts for measuring lengths of 100 or 150 mm, 3 linear encoders

Technical Data:

- accuracy class 0.5 acc. to EN ISO 9513
- standard measuring length in longitudinal direction: 100 mm, 150 mm, 200 mm
- longitudinal direction measuring range: \pm 1 mm
- transverse expansion measuring range: \pm 1 mm
- linearity error incl. hysteresis: $<$ \pm 0,25%
- sample diameter: 50-120 mm, 120-160 mm, 160-200 mm
- sample height: 200 mm, 300 mm or others

B Equipment for Deflection Measurement

- measuring arm with LVDT displacement sensor
- magnetic stand for placement in/on the testing machine
- measurement amplifier

Technical Data:

- accuracy class: 0.1%
- measuring length: 5 mm
- linearity relative to nominal travel: 0.01%
- measuring arm length: approx. 175 mm





Measuring Devices for Building Material Testing

Circumference Measuring Device MFU4

- for determining the circumferential change in cylinders with a diameter of 100 to 160 mm under pressure load in accordance with ASTM C-469
- the MFU 4 essentially consists of a roller chain with a locking system and an extensometer that is engaged in the roller chain to record measurements.

Technical Data:

- measuring principle:
350 Ω full-bridge strain gauge
- instrumentation amplifier: 1
- output signal: 2 mV/V
- measuring path: 4 mm
- display error (esp.):* $\pm 0.5\%$
- display error*: 1.5 μm
- weight: approx. 0,4 kg

for sample diameters of 160 mm

* the larger value is permissible

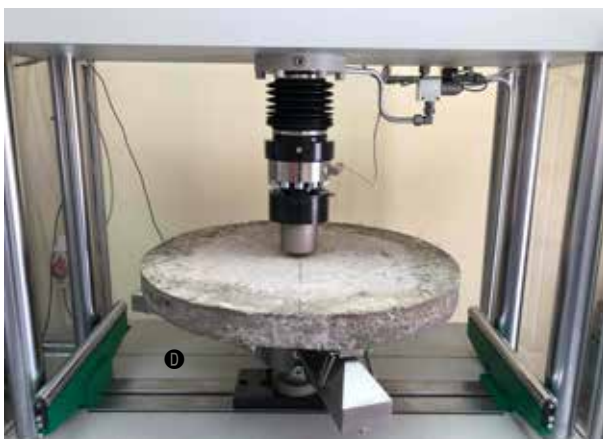
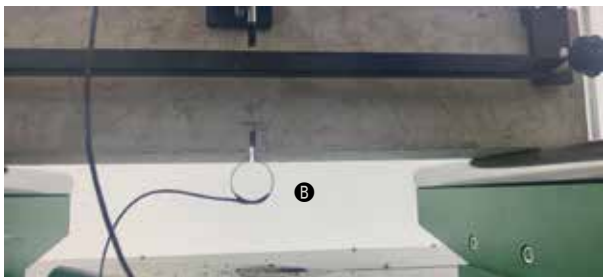
Dimensions:

- sample diameter: 160 ± 2 mm
- chain length: 504 mm
(other chain lengths available on request)

Scope of Delivery:

- 1 roller chain with tensioning device
- 1 extensometer
- 1 calibration device
- 3 rolls with tabs
- 10 seagull rings
- 1 linearity diagram

Measuring Devices for Fibre-Reinforced Concrete/Shotcrete acc. to DAfStb/EN/ASTM



Ⓐ Bending Measurement Device acc. to EN 14651 / DAfStb-Rili

- for deflection measurement on test beams
150x150x700 mm

Scope of Delivery:

- 2 clamp holder for holding the measuring rail
- 1 clamp holder for mounting the two limit switches
- 2 LVDT displacement sensor with pressure spring
- 2 measurement amplifier, averaging module

Technical Data:

- accuracy class: +/- 1%
- measuring length: +/- 5 mm
- linearity deviation: +/- 0.1%
- measuring arm length: approx. 175 mm

Ⓑ CMOD-Clip

- for measurements acc. to EN 14651
- for measuring the crack width on the underside of the beam

Ⓒ Device acc. to EN 14488-5

Ⓓ Device acc. ASTM C 1550



FORM+TEST Seidner & Co. GmbH
Zwiefalter Str. 20 • D-88499 Riedlingen

☎ +49 (0) 7371 9302-20 • 📠 -99

www.formtest.de
sales@formtest.de