The plastic rod extensometer type Glötzl GKSE 16 is a further development of conventional rod extensometers.

Design: The plastic rod extensometer consists essentially of:

- A measuring head with an adjustable measuring stop
- Measuring rod consisting of a glass fibre rod with plastic sheathing, a protective PVC tube
- Anchor point made of ribbed Torsteel

Fig. 1 Single-point extensometer GKSE 16

Advantages:

- Delivered in preassembled form (see Fig. 2)
- No on-site assembly work on the extensometer itself
- Low installation costs
- No transportation problems
- High measuring accuracy
- Measuring head can be sunk in the borehole
- Lengthening and shortening possible
- Low weight

Fig. 2 Extensometer in packed condition, ready for installation, rolled up in a coil of approximately 1.2 m diameter

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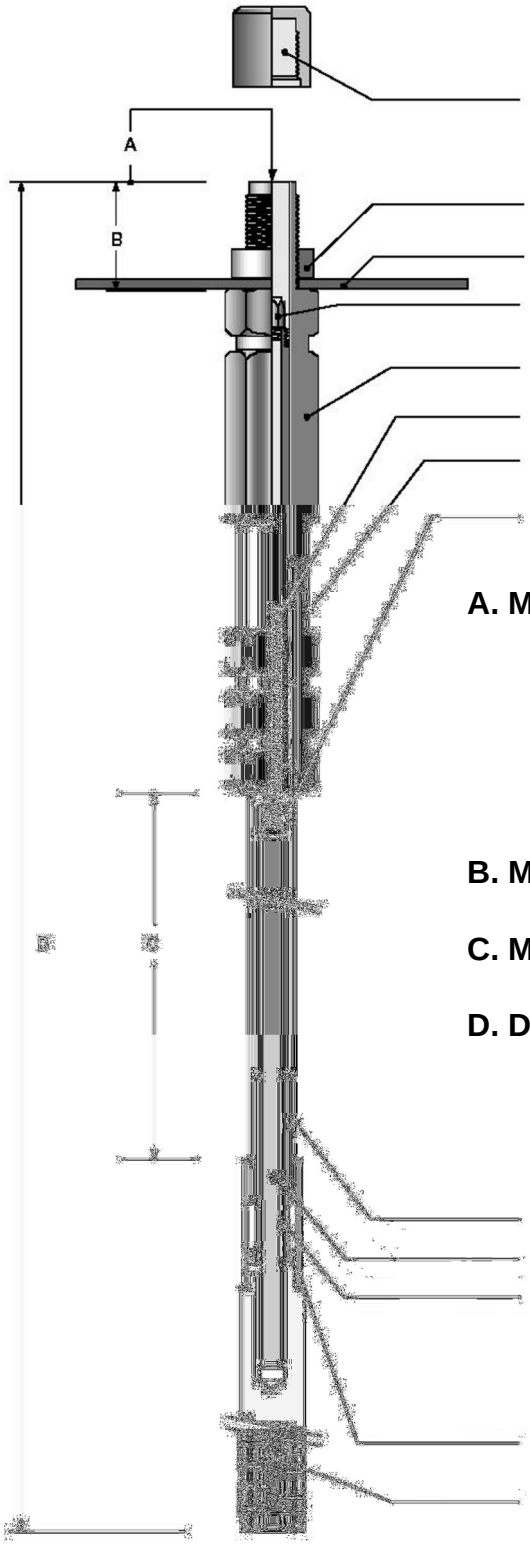

Protective cap dia. 26 mm

Measuring head

1. Locknut
2. Base plate for single/multiple heads
3. Measuring stop, adjustable ± 60 mm, with adjustable sleeve
4. Extensometer head, hexagonal SW 27 mm
5. Measuring rod
6. Turned groove for securing in concrete
7. Connection sleeve

A. Measuring point manual reading

1. Depth gauge with vernier ± 1/10 mm
2. Mechanical dial gauge ± 1/100 mm
3. Electrical transducer with digital readout unit

Remote reading

4. Electrical remote reading with transducer

B. Measuring range Adjustable with threaded rod ± 60 mm

C. Measuring rod Glass fibre rod and protective PVC tube, wound diameter 1 m

D. Dimensions Overall length = Measuring length
Minimum length 1 m,
maximum length 100 m

Measuring rod

1. Protective PVC tube dia. 16 mm
2. Glass fibre rod dia. 9 mm
3. Protective coating dia. 11 mm

Anchor point

1. Elastic connection of the protective tube to the anchor
2. Anchor rod dia. 22 mm, length 500 mm, made of ribbed Torsteel

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Multiple-point extensometers are formed by fixing several single-point extensometers to a base plate with a locknut. For the most part the measuring heads are sunk in the borehole; thus damage in the course of construction work is largely ruled out.

Fig. 3 6-point extensometer with base plate and plastic bracket. Transducers are screwed directly on the measuring head for remote reading.

Base plates designed specially for sinking in the borehole are available for installing the extensometers in boreholes. It is thus possible to sink single-point and multiple-point heads fully in the borehole. Damage during construction work, e. g. during blasting, is ruled out.

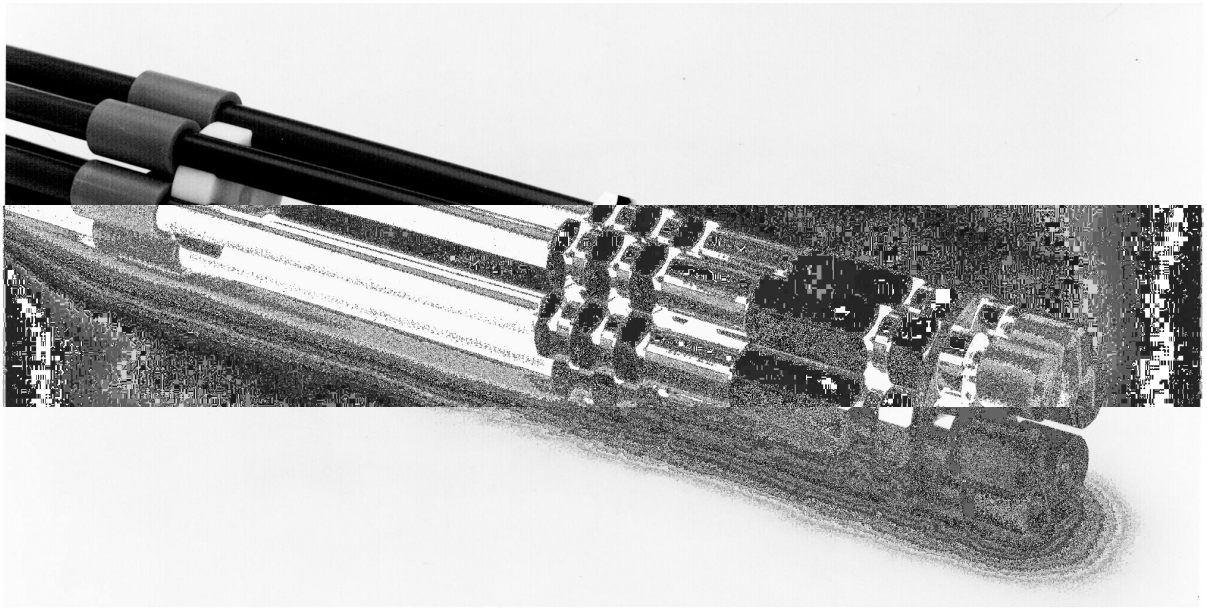

Fig. 4 6-point extensometer type GKSE 6/16 B, consisting of single-point extensometers with base plate for installation in boreholes

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Technical data

Extensometer rod: Glass fibre core dia. 11 mm with plastic sheathing
Protective tube: PVC 16 x 2 mm

Standard measuring range: min. 1 m
max. 100 m

Adjustment range for the measuring stop: ± 60 mm
Transmission accuracy: 1 - 20 m ± 0.02 mm
up to 50 m ± 0.10 mm
up to 100 m ± 0.30 mm
Extensometer head: hexagonal SW 27 mm
Base plates: 1 - 13 point, designed for sinking or surface mounting

Required borehole diameter (inside installation diameter) without allowance for injection and venting lines:

1	2-3	4	5-7	8-13 points
35	60	76	86	131 mm dia.

Weight: Extensometer rod, protective PVC tube and glass fibre core 1 m = 0.3 kg

Mechanical gauge: Measuring range 30 mm
Resolution ± 0.01 mm

Accessories: Calibration standard, locknut spanner, measurement stop adjustment tool, transport case

Digital readout unit: Measuring range 50 mm
Resolution ± 0.01 mm

Accessories: Calibration standard, locknut spanner, measurement stop adjustment tool, transport case

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Sales Information

2.4.3.1	Extensometer rod d = 16 mm, consisting of protective tube and glass fibre core
2.4.3.2	Extensometer head to 2.4.3.1 with measuring stop (140 mm) and anchor point l = 0.5 m
2.4.3.3	Extensometer rod d = 12 mm, consisting of protective tube and glass fibre core
2.4.3.4	Extensometer head to 2.4.3.3 with measuring stop (140 mm) and anchor point l = 0.5 m
	Base plate for
2.4.3.5.1	1 - 3 points extensometer
2.4.3.5.2	dito for 4 - 6 points extensometer
2.4.3.5.3	dito for 7 - 9 points extensometer
2.4.3.6	Measuring set consisting of mechanical gauge resolution 1/100 mm, measuring range ± 15 mm, calibration device, adjustment tool, transport case

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