

STN	Geotechnický prieskum a skúšky Geotechnický monitoring pomocou terénnych prístrojov Časť 7: Meranie deformácií: tenzometre (ISO 18674-7: 2025)	STN EN ISO 18674-7 72 1034
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Geotechnical investigation and testing - Geotechnical monitoring by field instrumentation - Part 7: Measurement of strains: Strain gauges (ISO 18674-7:2025)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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Geotechnische Erkundung und Untersuchung - Geotechnische Messungen - Teil 7: Dehnungsmesszellen (ISO 18674-7:2025)

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EN ISO 18674-7:2025 (E)

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European foreword

This document (EN ISO 18674-7:2025) has been prepared by Technical Committee ISO/TC 182 "Geotechnics" in collaboration with Technical Committee CEN/TC 341 "Geotechnical Investigation and Testing" the secretariat of which is held by BSI.

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International Standard

ISO 18674-7

Geotechnical investigation and testing — Geotechnical monitoring by field instrumentation —

Part 7: Measurement of strains: Strain gauges

*Reconnaissance et essais géotechniques — Surveillance
géotechnique par instrumentation in situ —*

Partie 7: Mesure des déformations : jauges de déformation

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ISO 18674-7:2025(en)**Foreword**

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Geotechnical investigation and testing — Geotechnical monitoring by field instrumentation —

Part 7: Measurement of strains: Strain gauges

1 Scope

This document specifies the measurement of strain by means of strain gauges and strainmeters carried out for geotechnical monitoring. General rules of performance monitoring of the ground, of structures interacting with the ground, of geotechnical fills and of geotechnical works are presented in ISO 18674-1.

This document is applicable to:

- performance monitoring of
 - 1-D structural members such as piles, struts, props and anchor tendons;
 - 2-D structural members such as foundation plates, sheet piles, diaphragm walls, retaining walls and shotcrete/concrete tunnel linings;
 - 3-D structural members such as gravity dams, earth- and rock-fill dams, embankments and reinforced soil structures;
- checking geotechnical designs and adjustment of construction in connection with the observational design procedure;
- evaluating stability during or after construction.

With the aid of a stress-strain relationship of the material, strain data can be converted into stress and/or forces (for 1-D members; see ISO 18674-8) or stresses (for 2-D and 3-D members, see ISO 18674-5).

NOTE This document fulfils the requirements for the performance monitoring of the ground, of structures interacting with the ground and of geotechnical works by the means of strain measuring instruments as part of the geotechnical investigation and testing in accordance with References [1] and [2].

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 18674-1:2015, *Geotechnical investigation and testing — Geotechnical monitoring by field instrumentation — Part 1: General rules*

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