



The Penetrologger PRO is a robust and precise instrument for measuring soil penetration resistance in the upper 80 cm of the soil profile. It is designed to be future proof, with the capability to connect to WiFi. Designed for professionals who need fast, accurate, and actionable insights, it helps to eliminate guesswork in soil compaction testing.

The Penetrologger PRO is lightweight and easy to use. Its housing has an ergonomic design with a protection rate of IP54. The 5-inch-high quality colour LCD screen can be operated with gloves and is readable in demanding outside conditions.

## Key Features

- Digital data logging with precise and fast internal GPS locations
- Touchscreen designed for demanding field conditions
- Rechargeable battery: up to 48h of operation
- Visual and audio penetration speed feedback
- Quick switch between measuring units
- Megapascals (MPa), Newtons (N), PSI, and California Bearing Ratio (CBR)\*
- Wi-Fi ready
- Optional soil moisture sensor
- Durable, maintenance-free design for field reliability

## Applications

- Civil engineering – evaluation of foundation suitability, infrastructure and work platform stability
- Agriculture – monitoring soil compaction and workability
- Sports fields and public green spaces – ensuring optimal maintenance and usability
- Mining & dike monitoring - soil



## PenetroPROviewer PC application

Special software has been developed for the Penetrologger PRO. It is a data viewing software so you can show the data or export this data in several file formats.

## Optional Extras

- Soil moisture set – D0043272
- CBR Cone kit
- Extension depth kit up to 3.2m

## Set contains

- Case Set Penetrologger PRO
- Penetrologger PRO
- 60 ° Cone, base area: 1, 2, 3 1/3 & 5cm<sup>2</sup>
- Probing rod (cone 1 cm<sup>2</sup>) Ø 8 mm
- Probing rod (cones 2 cm<sup>2</sup> - 5 cm<sup>2</sup>) Ø 10 mm
- Inspection jig for cones
- Depth reference plate
- Penetrologger PRO tool kit
- USB-C to USB-C cable, 1 m
- Penetrologger PRO User manual

| Specification                           |                                                       |
|-----------------------------------------|-------------------------------------------------------|
| Operating temperature                   | 0 ... +50 °C                                          |
| Water resistance                        | IP54                                                  |
| Housing Penetrologger                   | Aluminium, steel, plastic                             |
| Dimensions (excl. rod):                 | LxWxD: 61.77 x 49.53 x 22.50 cm                       |
| Weight (excl. rods and cone)            | Approx. 3,250 g                                       |
| Total length measuring rod (excl. cone) | 97 cm                                                 |
| Measurement storage size                | 1500                                                  |
| Selectable cones                        | 1, 2, 3, 4, 7, 8 and CBR                              |
| Selectable units                        | MPa, PSI, Newton, CBR*                                |
| Transport case                          |                                                       |
| Materials                               | Impact resistant plastic, foam inlay                  |
| Main dimensions                         | (LxWxD): 61.77 x 49.53 x 22.50 cm                     |
| Penetrologger PRO set weight            | Approx. 11.5 kg                                       |
| Force measurement                       |                                                       |
| Maximum penetration force               | 1,000 N                                               |
| Load cell resolution                    | 1 N                                                   |
| Accuracy                                | Better than 1 N                                       |
| Depth measurement                       |                                                       |
| Depth registration                      | Max. 80 cm                                            |
| Depth resolution                        | Better than 1 cm accuracy                             |
| GNSS location using multiple satellite  |                                                       |
| GPS accuracy                            | Better than 2.5 m CEP                                 |
| GPS                                     | Including GPS, GLONASS and Galileo                    |
| Soil moisture measurement               |                                                       |
| Compatibility sensor                    | SM150T - soil moisture sensor set (art. no. D0043272) |
| Range                                   | 0-70% ... 0-100%                                      |
| Accuracy                                | Accuracy 3% ... 5%                                    |
| Rechargeable battery                    |                                                       |
| Battery status indication               | 4 level indication of charging                        |
| Battery lifetime                        | Up to 48 hours of operation                           |

