

T-1000

TELEPENDULUM

INCLINOMETERS
& PENDULUMS

SISGEO®

T-1000_EN_03_11/2026



T-1000 APP
compatible with:

ANDROID



T-1000

TELEPENDULUM

T-1000 Telependulum was designed to take automatic readings of the coordinates of pendulum's plumb line.
Thanks to the new optical technology, without any moving part, it allows very high accuracy and resolution, wide measuring range and the possibility to measure plumb lines with different diameters.

T-1000 can be settled and read locally with dedicated mobile APP through Bluetooth connection, or can be integrated into automatic data acquisition system network through RS485 or 4-20mA output.

T-1000 is supplied with Calibration Report. Within the APP a tool is dedicated to check possible damages to the instrument's functionality and calibration after its delivery.

APPLICATIONS

- Arch dams
- Concrete dams
- Skyscrapers
- Slender structures
- Bell towers
- Minarets

FEATURES

- Simple and fast installation
- Wide measuring range
- Contactless measuring technology
- Simple local set-up with dedicated mobile APP
- FW upgrade through APP

Meet the essential requirements of RED Directive 2014/53/EU and EMC Directive 2014/30/EU
This device complies with: Part 15 of the FCC Rules; CAN ICES-(B) / NMB-(B)

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TECHNICAL SPECIFICATIONS(1)

	MODEL 0TELT100000
Measurement principle	optical (without moving parts)
Measurement range	X-axis: 0-150 mm (±75 mm) Y-axis: 0-150 mm (±75 mm)
Resolution	0.01 mm
Repeatability (both axis): in core area(2) whole measuring area(3)	 ±0.02 mm ±0.05 mm
Accuracy MPE (4) in core area(2) for movements < 30mm in meas. area(3) for movements < 30mm in meas. area(3) for movements ≥ 30mm	 ±0.05 mm for both axis ±0.10 mm for both axis ±0.25 mm (±0.17%FS) for both axis
Stability @60 hours	±0.05 mm
Offset temperature dependancy	±0.01 mm / °C
Power supply	6 to 30 V DC, IP67 AC/DC converter overvoltage category: OVC II
Internal UPS battery	Supercapacitor 15F 5V Li-Po, 3.7 V, 2600 mAh
Output: - Local readings - Remote monitoring	Mobile APP through Bluetooth 4.2 RS-485 with Modbus RTU protocol (5) gauge not powered by modbus master 4-20mA 4-wires recommended power supply 8-26V dc
Sensitivity (6)	see Calibration Report
On-board temperature sensor (7) • measuring range • accuracy / resolution	 - 40°C to +125°C ±0.5°C (-10°C to +85°C) / 0.01 °C
On-board humidity sensor (7) • measuring range • accuracy / resolution	 0 to 100% RH ±5% RH (0 to 95% RH) / 0.025% RH
On-board supply voltage monitor (7) • measuring range • accuracy / resolution	 0 to 36 V ±5% FS / 0.01 V
Detectable wire (diameter)	from 0.8 mm to 2 mm best performance with 1 mm wire

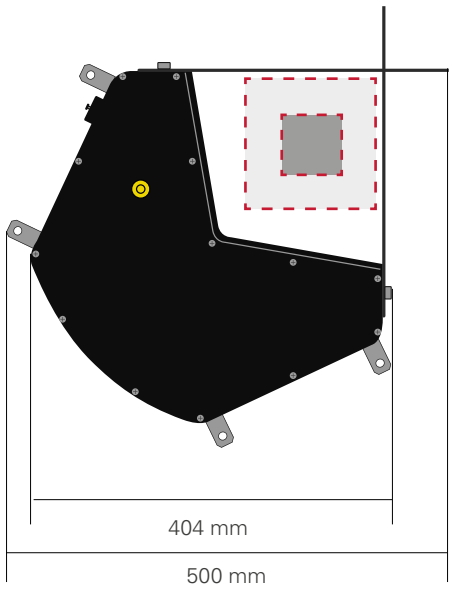
(1) All performance data refer to 1mm wire
(2) Core area is the central measuring area for a range of 80x80mm
(3) Measuring area is the whole area where the gauge is able to read (see sketch)
(4) MPE is the Maximum Permitted Error on the measuring range (FSR). In the Calibration Report, the accuracies of the gauge are calculated using both linear regression (≤ Lin. MPE) and polynomial correction (≤ Pol. MPE). The accuracy value declared in this document is the Linear MPE.
(5) RS485 optoisolated Modbus communication with RTU Protocol. Default output is mm.
Sisgeo Modbus protocol manual is available for download at www.sisgeo.com.
(6) Sensitivity is a specific paramenter different for every gauge. The sensitivity is calculated during gauge calibration test and inserted into the calibration report.
(7) On-board diagnostic sensors installed on the internal electronic board.

ENVIRONMENTAL FEATURES

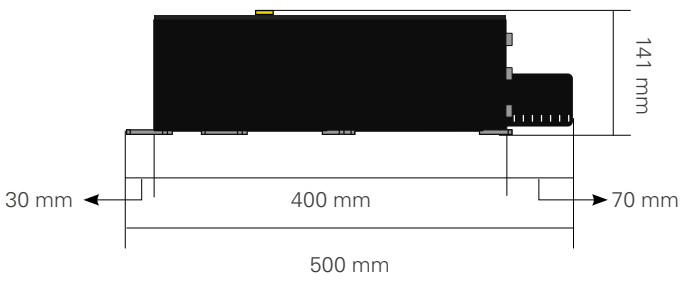
Environment	Indoor and outdoor (protect from brightness variations)
Maximum working altitude	5000 m asl (T-1000 gauge only)
Temperature range	operating: -25°C to +60°C storage: -25°C to +85°C
Relative humidity (without condensation)	operating: 0 to 99% storage: 0 to 99%
Pollution degree	3
IP class	IP67 as for EN 60529:1991 + A1:2000 + A2:2013

PHYSICAL FEATURES

Gauge Dimensions (WxLxH)	404x404x141 mm
Overall Dimensions (WxLxH)	500x500x141 mm
Weight	15 kg
Housing material	Aluminium



Measuring area 150x150 mm
Core area 80x80 mm



T-1000 APP



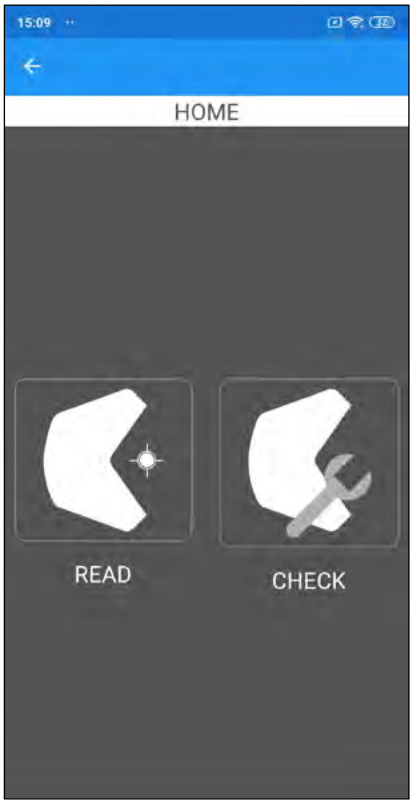
Welcome page



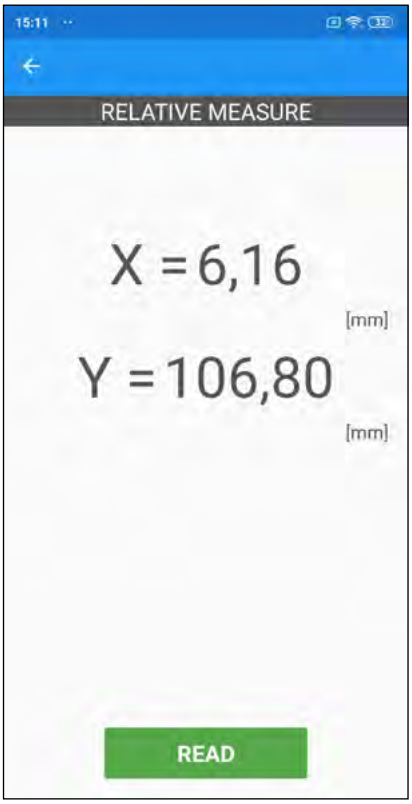
Device selection page



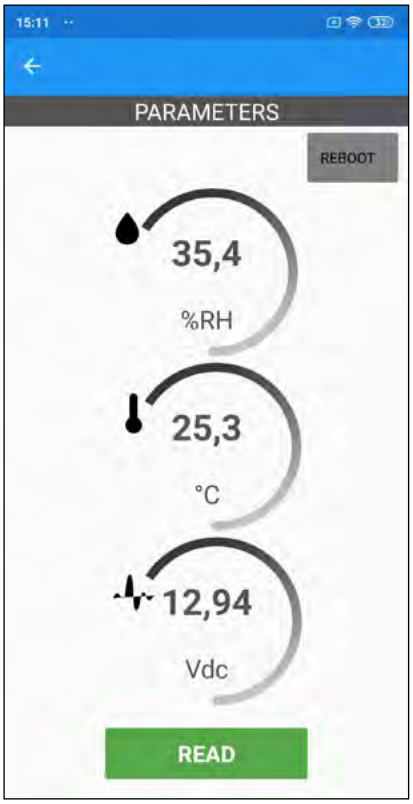
General information page with self-check and other options.



Main operations selection page



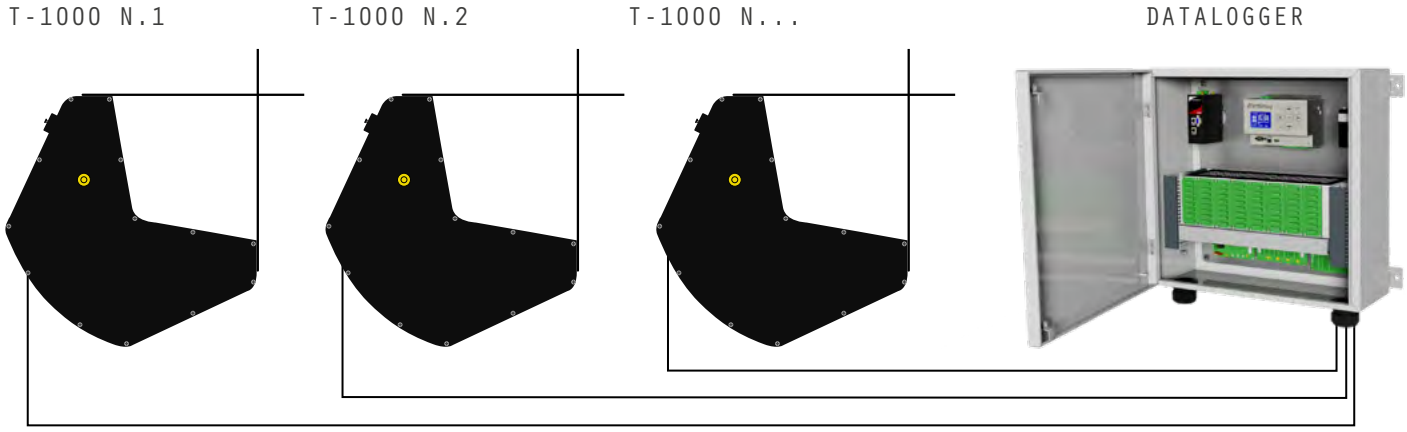
Output reading page



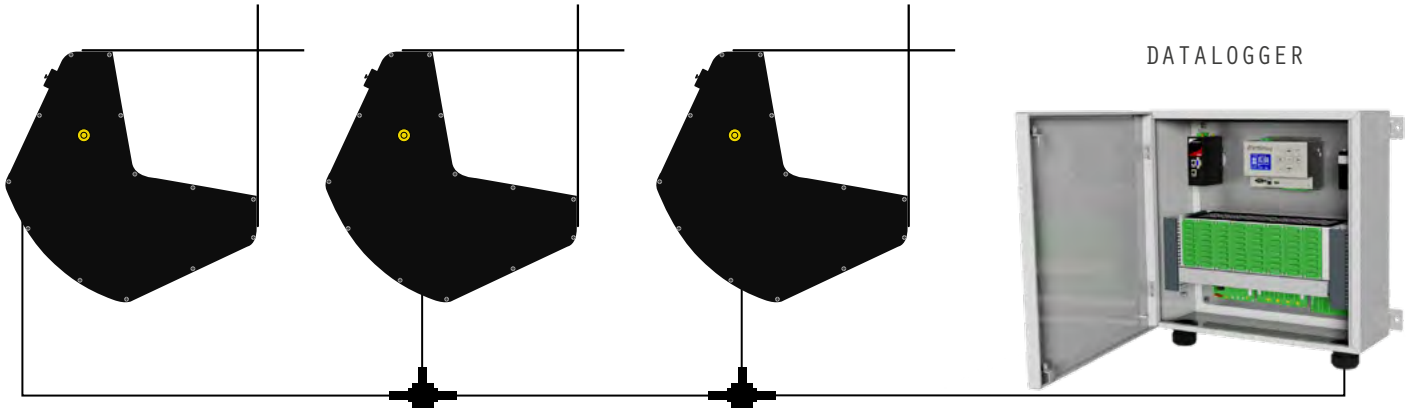
Diagnostic parameters output page

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4-20mA CONNECTION



RS485 NETWORK



ACCESSORIES AND SPARE PARTS

OPTION MOUNTING PLATE
OTELT100PLT

Optional steel plate for installing T-1000 telependulum.
It fits with adjustable Sisgeo TEL-310S support and Huggenberger Telelot support: needed only where old telependulum has to be substituted with T-1000.

SIGNAL CABLE
OWE106IPOZH

Signal cable with 6 conductors, 22 AWG wires and LSZH jacket.
External diameter 5.0 mm.
Rated from -30° to + 80°C.

DIGITAL CONNECTORS KIT (SPARE)
OECON05T3K

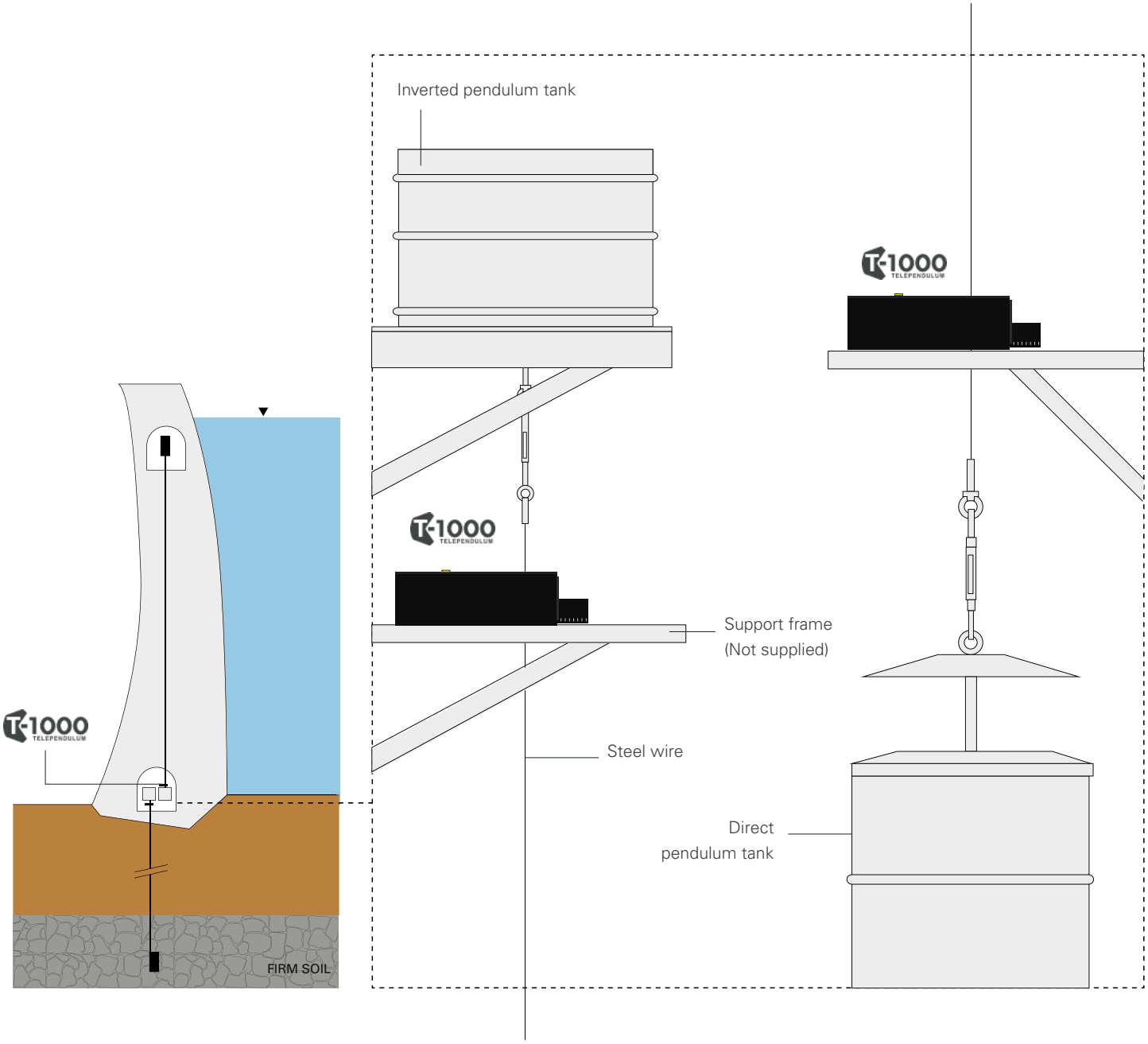
Kit composed by three complete "T" shaped digital connectors, including three female and three male 5-pins M12 connectors.

MAINS POWER SUPPLY (SPARE)
OAXBC022058

AC/DC charger, IP67 protection class
Operating temperature -25 to +60°C
Vin 90-264 Vac, 47-63 Hz
Vout 12 Vcc, 2.1 A
Supplied with military connector for linking to T-1000 body.

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TYPICAL DAM INSTALLATION



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TECHNICAL ASSISTANCE

SISGEO offers customers e-mail and phone assistance to ensure proper use of instruments and readout and to maximize performance of the system.

For more information, email us: *assistance@sisgeo.com*