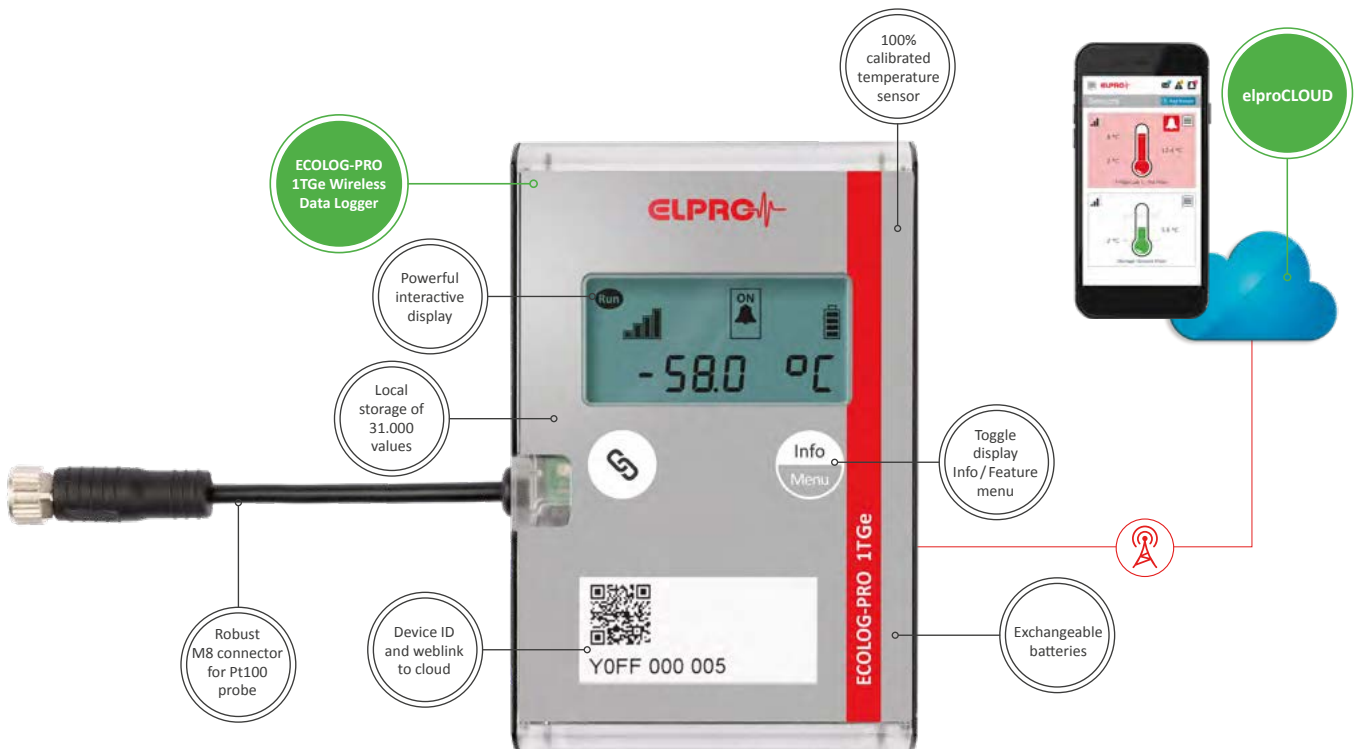# ECOLOG-PRO 1TGe

Wireless IoT data logger for elproCLOUD with internal sensor and M8 connector
for external temperature probe

ECOLOG-PRO 1TGe is an easy and versatile solution to monitor your valuable goods stored in re...gerators, freezers
or ambient conditions. Having an external probe (Pt100 probe with M8 connector for safe temperature data transfer),
ECOLOG-PRO 1TGe covers a wide measurement range from -200 °C..+400 °C and allows monitoring of ultra-low freezers
and cryo containers. Battery-operated and wireless, cellular network ensure plug and play – set-up is easy and only
takes a few minutes. Simply register the sensor on your elproCLOUD account and place it in your room or equipment.
A reliable internal storage capacity for thousands of measurements ensures all your valuable data are sent to
elproCLOUD. The elproCLOUD web application aggregates all your sensor data to provide a convenient, comprehensive
overview, sending out alerts if alarm limits are breached. Optionally, a robust, lockable bracket is available.

we prove it.

> Monitors your valuable goods in rooms, refrigerators or freezers
> Highly accurate and 100 % calibrated internal temperature sensor
> External Pt100 probe for ultra-low freezers and cryo containers
> Simple and safe in use and application
> Flexible positioning thanks to cellular communication
> Compliant, Scalable IoT Data Logger Solution

Technical Specifications ECOLOG-PRO 1TGe

Type	Wireless IoT data logger with internal and external temperature sensor
Application area	Climate monitoring for rooms, refrigerators, freezers, ultra-low freezers and cryo containers
Sensors	Internal temperature sensor External Pt100 probe (requires M8 connector) Light sensor
Measurement range	Measurement range (depending on probe): -200 °C..+400 °C Measurement range of internal sensor: -40 °C..+70 °C
Application range	On probe -200 °C..+400 °C Internal sensor: 0 °C.. +55 C for Alkaline battery / -35 C..+55 °C for LiFe battery (Standard) (only short term use above and below application range allowed)
Measurement accuracy	**Internal Sensor** ±1.0 °C for -30.0 °C..-20.1 °C ±0.5 °C for -20.0 °C..-0.1 °C ±0.4 °C for 0.0 °C..+65.0 °C ±0.5 °C for +65.1 °C..+70 °C **External Probe (System accuracy*)** ± 1.4 °C in the range of -200.0 °C..-100.1 °C (Class B) ± 1.0 °C in the range of -100.0 °C..-50.1 °C (Class B) ± 0.4 °C in the range of -50.0 °C..-10.1 °C (Class A) ± 0.3 °C in the range of -10.0 °C..+25.0 °C (Class A) ± 0.5 °C in the range of +25.1 °C..+100.0 °C (Class A) ± 0.7 °C in the range of +100.1 °C..+200.0 °C (Class A) ± 1.1 °C in the range of +200.1 °C..+400.0 °C (Class A) *Includes data logger and external Pt100 probe of stated class
Measurement Resolution	0.1 °C
Measurement interval	5, 10, 15, 20, 30, 60 minutes; user programmable via software (elproCLOUD)
Cellular network	LTE-M and NB-IoT (Global Roaming)
Communication interval	30 minutes to 2 hours according to communication mode (Standard/Performance), user configurable via elproCLOUD, event-driven immediate communication (e.g. temperature excursion)
Measurement capacity	31'000 measurement values (equal 215 days at 10 min measurement interval)
Battery life	Started data logger runs up to 14 months, batteries are exchangeable. Use below 0 °C and above +40 °C over a longer period of time and / or intensified communication behavior (e.g. bad connection) can shorten battery life
Battery type	2 × Alkaline AA (for refrigerators or ambient) or 2 × LiFe AA (for freezer applications)
Configurable alarms	7 temperature thresholds with alarm delay (4 upper limits, 3 lower limits)
Display	Multifunction LCD, size: 42 × 20 mm
Certificate	Manufacturer validation certificate per delivery, production validation and 3-point calibration certificate (ILAC/NIST/ISO 17025 traceable) per ID number via compliance.elpro.com, additional customer-specific calibration points optionally available.
Traceability	Unique ID number (traceable to component level) + IMEI (International Mobile Equipment Identity)
Reporting	Via software (elproCLOUD)
Case | dimension | weight | IP code	ABS plastic material | 100 × 65 × 19 mm (3.9 x 2.5 x 0.7 in) | 132 g (4.7 oz) | IP52
Conformity	CE | FCC | UKCA | ICES | RoHS | UN38.3 | WEEE | NCC | RSM | TDRA | ENACOM | IMDA | MIC | ACMA/RCM
Standards	EN 12830 | RTCA DO-160 (EMC) | GAMP5

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