



NEW!



PROtect Generation 2 and Mini

Sample Monitoring Made Easy



ESCO
SCIENTIFIC

PROtect Generation 2

Remote Monitoring, Programming, and Data Logging Software

The PROtect sensors measure, record, and transmit data measurements via the Esco operator network or a private Esco gateway.

The Next Generation of Connected Sensors

The next generation of connected sensors monitor sensitive products during storage and transportation, and ensure the reliable and precise monitoring required by standards and regulations: ISO 17025, GMP, and GLP.

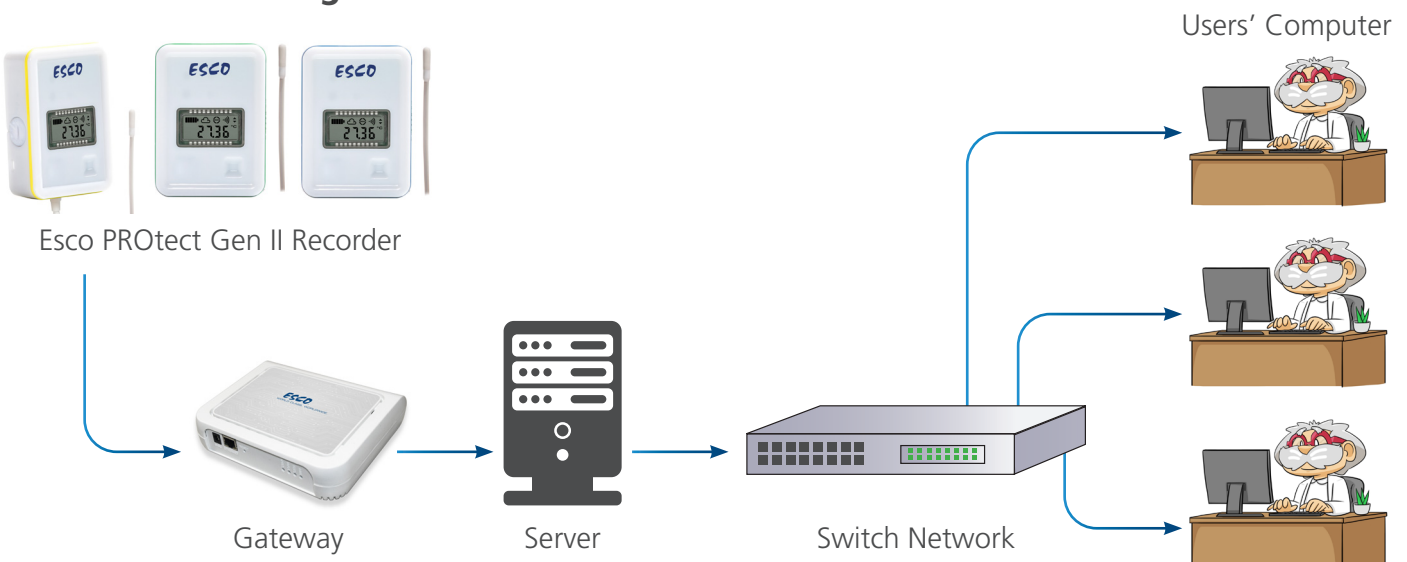
Key Features

- Monitoring of temperature, humidity, gas, pressure, and countable events
- Very low power consumption (battery life up to 4 years)
- Frequency: 902 - 928 MHz and 863 - 870 MHz
- Direct-reading on the LCD display
- Suitable for monitoring locations with:
 - few sensors
 - storage areas spread on a wide territory
 - a need of real-time transportation



| | |
|--|--|
| Measuring of various parameters | Temperature, Humidity, Pressure, Gas, Door opening, etc. |
| Real-time alarms | The sensors are equipped with operating and warning light indicators. Alerts are sent through SMS, e-mail, and voice message according to your planning alerts. |
| Metrology | The sensors can be delivered with calibration certificates. |
| 10,000 data points recording | The sensors are equipped with an internal memory that can record up to 10,000 data points. |
| Easy installation and use | Miniaturized sensors can be placed close to sensitive products and are automatically detected on the Esco platform. Colour rings make it easy to determine the configuration of each sensor. |

PROtect Gen II Diagram



| INCLUSIONS | SERVER LICENSE | | |
|---|--------------------|--------------------|--------------------------------------|
| | INITIAL | SERENITY | ADVANCED |
| Data Reading (maximum) Measurements, Graphs, History, Activity Report | The last 2 months | The last 18 months | The last 5 years |
| Data Archives (Data reading period included) | The last 12 months | The last 3 years | The last 10 years |
| Technical Support (Online Help, Tutorial) | Provided | Provided | Provided |
| Number of User Accounts | 2 | Unlimited | Unlimited with customizable profiles |
| 21 CFR Part 11 Compliance | | | Provided |

Models



PROtect G2 T0

- -40°C to +85°C temperature sensor
- Ambient



PROtect G2 T1

- -30°C to +70°C temperature



PROtect G2 T2

- -50°C to +105°C temperature sensor with external probe for freezer, refrigerator, and incubator



PROtect G2 T3

- -200°C to 0°C extreme low temperature sensor with external probe



PROtect G2 Digital

- Temperature and humidity sensor with external digital probes



PROtect G2 U

- Universal analog input sensor PT100 / 0-1V
- 0-20mA / 4-20mA
- Counting / Dry contact
- Door Contact



PROtect G2 TH1

- -30°C to +70°C
- 0 - 100% RH
- Temperature and humidity sensor
- Ambient



Gateway

- Transmission of data to the Local Server

ORDERING INFORMATION

| 868 MHz | |
|-----------|--|
| ITEM CODE | MODEL CODE |
| 1081482 | Protect G2 T0, 868 MHz, -35°C to +85°C, temperature probe without LCD display |
| 1081483 | Protect G2 T1, 868 MHz, -30°C to +70°C, temperature probe with LCD display & light sensor |
| 1081484 | Protect G2 T2, pt100, 868 MHz, -50°C to +105°C, moduled probe cl.A ø5x20mm, with 30cm cable flat sentoprene |
| 1081485 | Protect G2 T2, pt100, 868 MHz, -50°C to +105°C, moduled probe cl.A ø5x20mm, with 3m cable flat sentoprene |
| 1081534 | Protect G2 T2i, pt100 868MHz, -50°C to +105°C, moduled probe cl.A ø5x20mm, with 3m cable flat sentoprene for incubator |
| 1081486 | Protect G2 T3, pt100, 868 MHz, -200°C to +0°C, stainless steel probe ci.A ø3x20mm, with 0.5m teflon cable ø2.9mm |
| 1081487 | Protect G2 T3, pt100, 868 MHz, -200°C to +0°C, stainless steel probe ci.A ø3x20mm, with 6m teflon cable ø2.9mm |
| 1081489 | Protect G2 TH1, 868 MHz, -30°C to +70°C / 0-100%RH, ambient temperature and humidity probe |
| 1081490 | Protect G2 universal, 868 MHz, for pt100 - on/off - count 4 - 20ma sensor |
| 1081491 | Protect G2 digital, 868 MHz, with binder connector without sensor |
| 1081492 | Protect G2 reference pt100, 868 MHz, -196°C to +150°C, stainless steel probe ci.A ø3x20mm, with 3m teflon cable ø2.9mm |
| 1081556 | Protect G2 tester for 868MHz gateway, excluding batteries |
| 1081503 | Micro gateway ethernet 868 MHz |
| 1081504 | Micro gateway 4G 868 MHz |
| 1081552 | Gateway PROtect G2, ethernet Lora® gateway 868, with 3db external antenna 20cm |
| 1081553 | Gateway PROtect G2, 4G/eth Lora® gateway 868, with 3db external antenna 20cm (excluding subscription) |

| 915 MHz | |
|---------|---|
| 1081493 | Protect G2 T0, 915 MHz, -40°C to +85°C, temperature probe without LCD display |
| 1081494 | Protect G2 T1, 915 MHz, -30°C to +70°C, temperature probe with LCD display & light sensor |
| 1081495 | Protect G2 T2, pt100, 915 MHz, -50°C to +105°C, moduled probe cl.A ø5x20mm with 30cm cable flat sentoprene |
| 1081496 | Protect G2 T2, pt100, 915 MHz, -50°C to +105°C, moduled probe cl.A ø5x20mm with 3m cable flat sentoprene |
| 1081535 | Protect G2 T2i, pt100, 915MHz, -50 to +105°C, moduled probe cl.A ø5x20mm with 3m cable flat sentoprene for incubator |
| 1081497 | Protect G2 T3, pt100, 915 MHz, -200°C to +0°C, stainless steel probe ci.A ø3x20mm, with 0.5m teflon cable ø2.9mm |
| 1081498 | Protect G2 T3, pt100, 915 MHz, -200°C to +0°C, stainless steel probe ci.A ø3x20mm, with 6m teflon cable ø2.9mm |
| 1081499 | Protect G2 TH1, 915 MHz, -30°C to +70°C / 0-100%RH, ambient temperature and humidity probe |
| 1081500 | Protect G2 universal, 915 MHz, for pt100 - on/off - count 4 - 20ma sensor |
| 1081501 | Protect G2 digital, 915 MHz, with binder connector without sensor |
| 1081502 | Protect G2 reference pt100, 915 MHz, -196°C to +150°C, stainless steel probe ci.A ø3x20mm with 3m teflon cable ø2.9mm |
| 1081557 | Protect G2 tester for 915MHz gateway, excluding batteries |
| 1081505 | Micro gateway ethernet 915 MHz |
| 1081506 | Micro gateway 4G 915 MHz |
| 1081554 | Gateway PROtect G2, ethernet Lora® gateway 915, with 3db external antenna 20cm |
| 1081555 | Gateway PROtect G2, 4G/eth Lora® gateway 915, with 3db external antenna 20cm (excluding subscription) |

OPTIONS AND ACCESSORIES

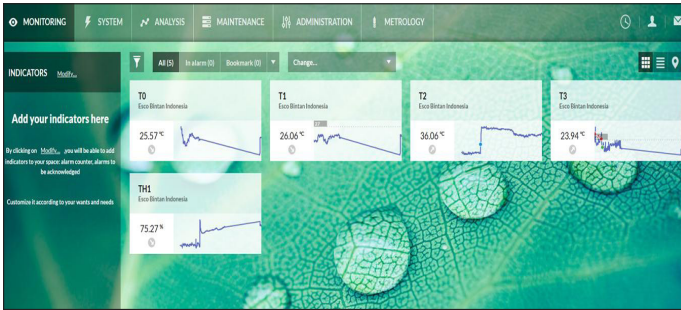
| ITEM CODE | MODEL CODE |
|-----------|---|
| 1081536 | Wall mounting bracket pack (10 pcs.) for PROtect G2 & PROtect mini |
| 1081075 | Protect battery lithium 3.6V (only for sea and land transport) |
| 1081537 | Battery covers pack (10 pcs.) for PROtect G2, & PROtect mini, wall mounting, 2x4-20ma output |
| 1081538 | Protective housing, for PROtect G2, duct mounting, 4-20ma output |
| 1081539 | TH transmitter (15-35vcc / 5ma), -40 +60°C/0-100 %RH, output 2x0-1v |
| 1081540 | TH transmitter (15-35vcc / 5ma), -30 +70°C/0-100 %RH, output 2x0-1v |
| 1081541 | Precision ambient TH transmitter, -40 +60°C/0-100 %RH, with power supply and 1.5m cable (round) |
| 1081542 | Precision industrial TH transmitter, configurable from -100 to +200°C/0-100 %RH |
| 1081543 | CO ₂ transmitter, 0-20 % |
| 1081544 | Flat cable for CO ₂ probe |
| 1081545 | CO ₂ probe holder |
| 1081546 | O ₂ transmitter (8-33vcc / 24ma) 4-20ma output, 0-25% |
| 1081547 | Atmospheric pressure transmitter, 800-1100hpa 4-20ma (8-35vdc), power supply & universal adapter to be ordered separately |
| 1081548 | DP transmitter (±30/50/100 pa) 24 VDC with 2m pipe, with 50 cm cable |
| 1081549 | Lux transmitter 0-20 klux 10-40 VDC, saline or corrosive conditions, universal adapter to be ordered separately |
| 1081550 | Door contact for thermostatic cabinet |
| 1081551 | Door contact for cold room (sliding door) |
| 1081488 | GSM router ethernet for SMS |

| ITEM CODE | SUBSCRIPTION |
|-----------|---|
| 1081507 | Cloud annual subscription, basic, up to 10 measurements points |
| 1081508 | Cloud annual subscription, basic, up to 100 measurements points |
| 1081509 | Cloud annual subscription, plus, up to 10 measurements points |
| 1081510 | Cloud annual subscription, plus, up to 100 measurements points |
| 1081511 | Cloud annual subscription, PRO, up to 10 measurements points |
| 1081512 | Cloud annual subscription, PRO, up to 100 measurements points |
| 1081517 | Server system PRO, up to 100 measurements |
| 1081608 | Server system PRO, up to 500 measurements |
| 1081558 | Pack of 100 SMS zone 1, (France/USA/Canada/China/UAE/Saudi Arabia) |
| 1081559 | Pack of 500 SMS zone 1, (France/USA/Canada/China/UAE/Saudi Arabia) |
| 1081560 | Pack of 1000 SMS zone 1, (France/USA/Canada/China/UAE/Saudi Arabia) |
| 1081561 | Pack of 100 SMS zone 2, (Europe/Martinique/Guadeloupe/Réunion) |
| 1081562 | Pack of 500 SMS zone 2, (Europe/Martinique/Guadeloupe/Réunion) |
| 1081563 | Pack of 1000 SMS zone 2, (Europe/Martinique/Guadeloupe/Réunion) |
| 1081564 | Pack of 100 SMS zone 3, (rest of world) |
| 1081565 | Pack of 500 SMS zone 3, (rest of world) |
| 1081566 | Pack of 1000 SMS zone 3, (rest of world) |

PROtect Mini Generation 2

Remote Monitoring, Programming, and Data Logging Software

Measurements are automatically uploaded on a secure Cloud and data are managed via user-friendly web application.



The screenshot shows a data table with columns for Date, T1, T2, T3, and TH1. The table contains multiple rows of data points, including timestamps and numerical values. A 'DOWNLOAD MEASURES' button is visible at the top right of the table area.

A wide range of alarm options and management

- Multi-cascades, snooze, and temporary inhibition

Customized interface

- Different indicators and favorites
- Optional modules adapted to different user's needs: maintenance, metrology, plan, geolocation, etc.

Customizable user profile management

- Unlimited user number
- Different rights to assign per profile: Administrator, Site Manager, Supervisor, User, Metrologist, etc.

Access to data 24/7

- Visualize your data from any PC, tablet, smartphone and share it with your colleagues from anywhere.

Data integration in third-party system via web Application Programming Interface (API)

Delay updates give you more time to prepare for partial qualifications and training of your team

Simplified configuration of the sensor

PROtect Mini Range

High-speed Mini Sensors

Key Features

- Temperature monitoring from -40°C to $+85^{\circ}\text{C}$ and humidity monitoring from 0 to 100% RH
- Easy installation in the unit or in transport box due to its compact size
- Visual alerts via warning light indicator of the PROtect Mini LINK, in case of alarm
- Frequency : 2.4 GHz Frequency - Modulation 802.11 b and 802.11 g
- Suitable for monitoring locations where:
 - many sensors are within a short distance from each other
 - the sensors are not accessible and a remote display is possible
- No loss of measurements data in case of power failure due to the internal memory



| INCLUSIONS | CLOUD SUBSCRIPTION | | |
|--|--------------------|--------------------|--------------------------------------|
| | INITIAL | SERENITY | ADVANCED |
| Data Reading (maximum) Measurements, Graphs, History, Activity Report | The last 2 months | The last 18 months | The last 5 years |
| Data Archives (Data reading period included) | The last 12 months | The last 3 years | The last 10 years |
| Technical Support (Online Help, Tutorial) | Provided | Provided | Provided |
| Number of User Accounts | 2 | Unlimited | Unlimited with customizable profiles |
| 21 CFR Part 11 Compliance | | | Provided |

Models



PROtect Mini T1

-40°C to +85°C

- Temperature sensor for freezer, refrigerator ambient
- Temperature sensor can be placed directly inside the refrigerator or freezer



PROtect Mini T2

-50°C to +105°C

- Temperature sensor with external probe to be placed inside the chamber through the door seal of freezer and incubator



PROtect Mini T3

0°C to +260°C

-200°C to 0°C

- Extreme temperature sensor with external probe



PROtect Mini TH

-30°C to +70°C

0 to 100% RH

Temperature

- With mini temperature and humidity (ambient) sensor, particularly adapted for HVAC applications



**PROtect Mini LINK
Transmission Relay
Module**

- Connected to the network and sends recorded data via PROtect Mini sensors to the PROtect Mini App



**PROtect Mini ALARM
Alarm and Module**

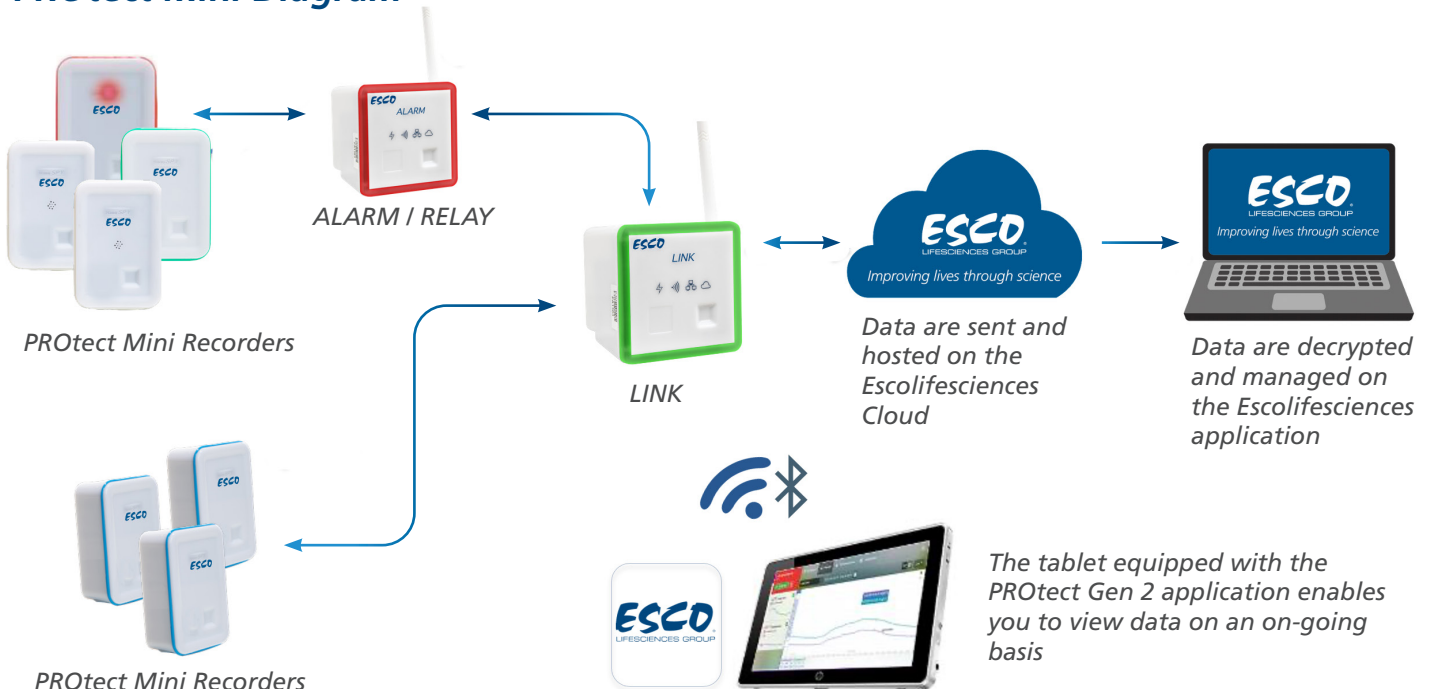
- Allows to alert locally in case of alarm and allows to double the radio range between the PROtect Mini sensors and the PROtect Mini LINK



PROtect Mini Universal

- Universal analog input sensor PT100 / 0-1V
- 0-20mA / 4-20mA
- Counting / Dry contact
- Door Contact

PROtect Mini Diagram



ORDERING INFORMATION

| ITEM CODE | MODEL CODE |
|-----------|---|
| 1081518 | PROtect Mini T2, -50 +105°C, Pt100 Moulded Probe CL.A, Ø5x20mm, With 3m Sentoprene Flat Cable |
| 1081519 | PROtect Mini T2i, -50 +105°C, Pt100 Moulded Probe CL.A, Ø5x20mm, With 3m Sentoprene Flat Cable |
| 1081520 | PROtect Mini T2, -50 +105°C, Pt100 Moulded Probe CL.A, Ø5x20mm, With 8m Sentoprene Flat Cable |
| 1081521 | PROtect Mini T2i, -50 +105°C, Pt100 Stainless Steel Probe, Cl. A, Ø3x20mm, With 3m Teflon/teflon Cable Ø2.9mm |
| 1081522 | PROtect Mini T2, -50 +105°C, Pt100 Stainless Steel Probe, Cl. A, Ø3x20mm, With 3m Teflon/teflon Cable Ø2.9mm |
| 1081523 | PROtect Mini T3 High Temp, 0 +260°C, Pt100 Stainless Steel Probe, Cl. A, Ø3x20mm, With 0.5cm Teflon/teflon Cable Ø2.9mm |
| 1081524 | PROtect Mini T3 Low Temp, Ambient Temperature and Humidity Probe |
| 1081525 | PROtect Mini T3 Low Temp, -50 +105°C |
| 1081527 | PROtect Mini, Link Ethernet VDC (int) |
| 1081528 | PROtect Mini, Link Ethernet VDC/BLE (int) + Nano View |
| 1081529 | PROtect Mini, Link Ethernet Poe |
| 1081530 | PROtect Mini, Link Ethernet Poe/BLE + Nano View |
| 1081531 | PROtect Mini, Link Wifi (int) |
| 1081532 | PROtect Mini, Link Wifi/BLE (int) + Nano View, Pt100 Moulded Probe CL.A, Ø5x20mm, With 3m Sentoprene Flat Cable |
| 1081533 | PROtect Mini, Relay/alarm (int), Pt100 Moulded Probe CL.A, Ø5x20mm, With 3m Sentoprene Flat Cable |

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