

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.

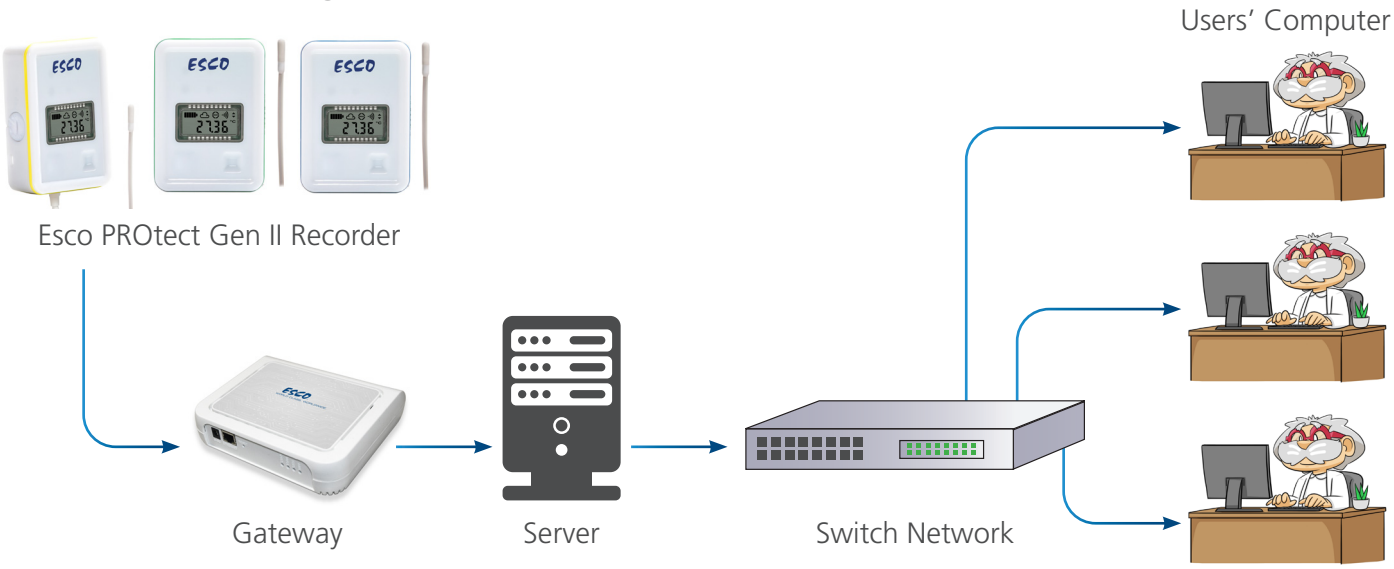
Key Features

- 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

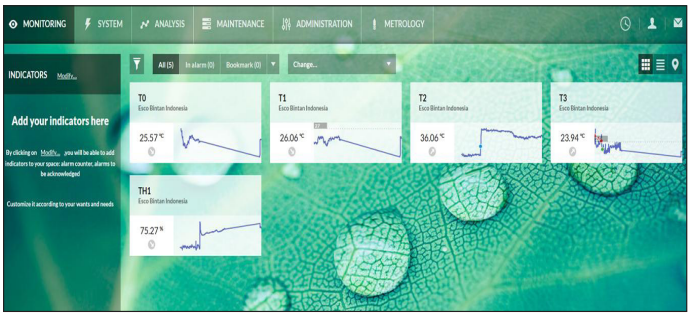
ITEM CODE	MODEL CODE
1081536	Wall mounting bracket pack (10 pcs.) for PROtect G2 & PROtect mini
1081075	Protect battery lithium 3.6V (only for sea and land transport)
1081537	Battery covers pack (10 pcs.) for PROtect G2, & PROtect mini, wall mounting, 2x4-20ma output
1081538	Protective housing, for PROtect 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

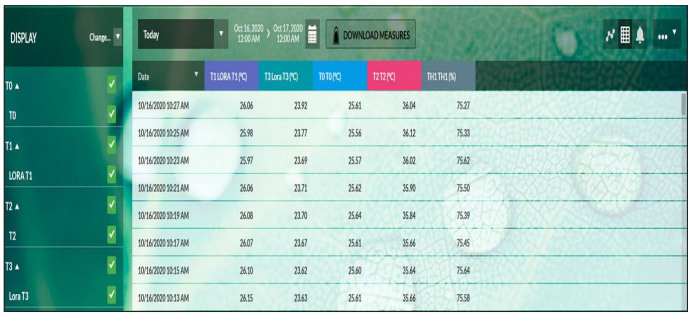
ITEM CODE	SUBSCRIPTION
1081507	Cloud annual subscription, basic, up to 10 measurements points
1081508	Cloud annual subscription, basic, up to 100 measurements points
1081509	Cloud annual subscription, plus, up to 10 measurements points
1081510	Cloud annual subscription, plus, up to 100 measurements points
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.





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°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 warming 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

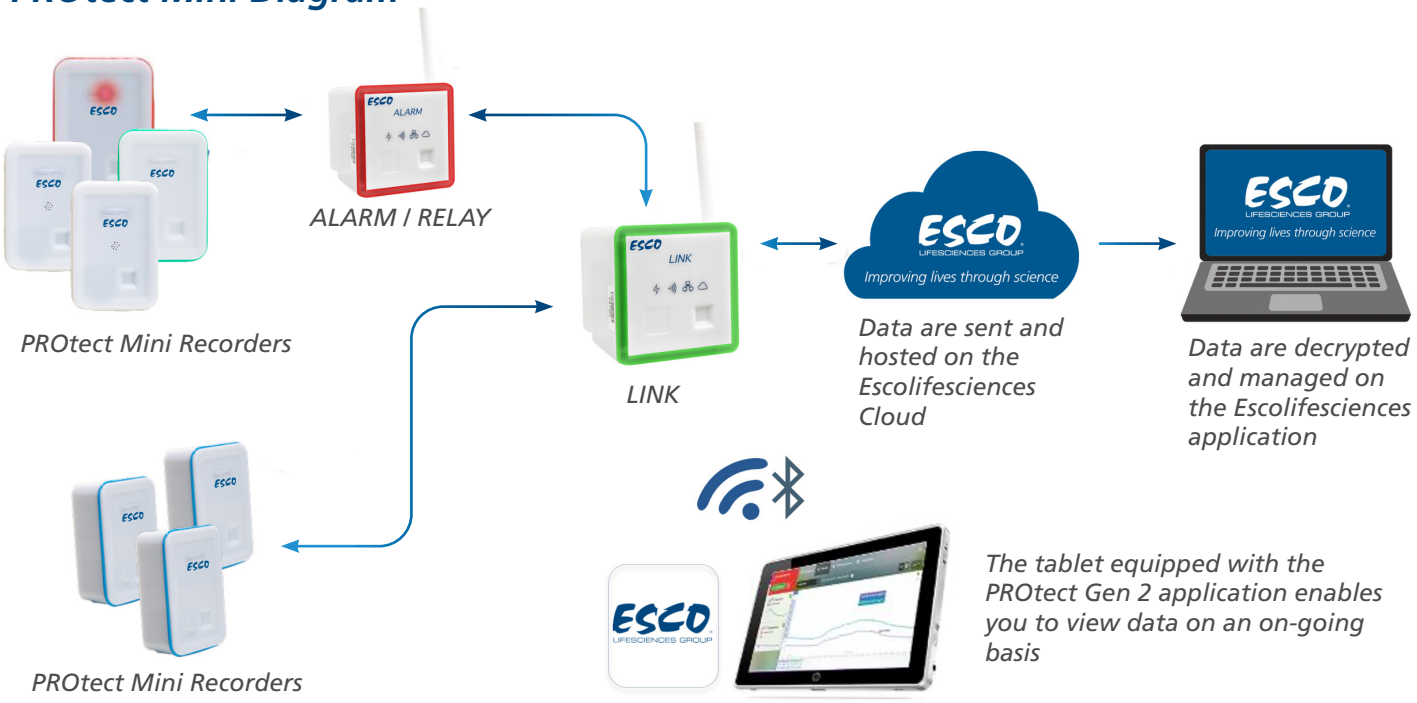
- Allows to alert locally in case of alarm and allows to double the radio range between the PROtect Mini sensors and the PROtect Mini LINK



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 30 cm Sentoprene Flat Cable
1081519	PROtect Mini T2i, -50 +105°C, Pt100 Moulded Probe CL.A, Ø5x20mm, With 30 cm 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
1081778	PROtect Mini Digital New Generation 2.4 Ghz compatible to probe (1081776)
1081776	Green Digital Sensor Low Temperature -200 - 0°C
1081527	PROtect Mini, Link Ethernet VDC (int)
1081595	PROtect Mini, Universal Transmitter
1081782	PROtect Mini, PT100 Probe SS 5mm x 3m 3 wire (+260)
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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