RF500A Gateway for RF500 Wireless Monitoring System

The RF500A Gateway for Wireless Monitoring is used to control Comark's RF500 wireless temperature and humidity monitoring system and to provide an economic and flexible solution to most measurement applications.

- Monitors Temperature, Humidity and Door Events
- Full Record-Keeping and Choice of Alarm Notification via Screens, E-Mail, SMS or Voice
- Multi-User Access via Web Browser – No Software Required
- Warranty: 2 Years

Gateway for Wireless Monitoring

The RF500A Gateway for Wireless Monitoring is used to control Comark's RF500 wireless temperature and humidity monitoring system and to provide an economic and flexible solution to most measurement applications.

Self-healing network properties, data encryption and automatic data retrieval ensures high data integrity with elimination of data loss.

For details of Transmitters see entries for [RF512](#), [RF513](#), [RF515](#) and [RF516](#).

- Solid state memory via two SD cards
- Automatic backup between the two cards provides additional data protection
- Monitors temperature, humidity and door events
- Full record keeping and choice of alarm notification via screens, email, SMS or voice
- Multi-user access via web browser – no software required
- Aids HACCP compliance as required by EU Regulation 852/2004
- An essential component of a [21 CFR Part 11 system](#)

This Product is available in the variants shown below, each comes with a power supply suitable for that region:

- RF500A (4902133) – UK Version
- RF500A/EU (3927721) – EU Version
- RF500A/AUS (4088006) – Australian Version
- RF500A/USA (3927717) – US Version

Home (https://www.comarkinstruments.net) / Products (https://www.comarkinstruments.net/product-category/products/) / Wireless Temperature Monitoring (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/) / RF500 Wireless Monitoring System (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/) / System Components (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/system-components/) / RF500A Gateway for RF500 Wireless Monitoring System

RF500A Gateway for RF500 Wireless Monitoring System

Part No: RF500A/UK (4902133)

The RF500A Gateway for Wireless Monitoring is used to control Comark's RF500 Wireless temperature and humidity monitoring system and to provide an economic and flexible solution to most measurement applications.

- Monitors Temperature, Humidity and Door Events
- Full Record-Keeping and Choice of Alert Notification via Screen, E-Mail, SMS or Voice
- Multi-User Access via Web Browser – No Software Required
- Warranty: 2 Years

(https://www.comarkinstruments.net/wp-content/uploads/2014/05/RF500A_Product_Image_2018.jpg)

Overview | **Tech Specs** | Support | Knowledgebase

Technical Specifications

Name	Value
Channels	Up to 256
Transmitters	Up to 64
Storage Capacity	Up to 10 years storage
RF Frequency	2.4GHz (Using IEEE 802.15.4 physical layer and proprietary application layer)
Centre Frequency	2.405 GHz
Bandwidth	5MHz
Transmitted Power	1mW
Raw Data Rate	250 Kbs
Actual Throughput (Estimated)	2Kbps
Modulation Technique	QPSK (Quadrature Phase Shift Keying) with half sine pulse shaping modulation
Spread Spectrum Technique	DSSS
Operating Range	0°C to +40°C / +32°F to +104°F, 10-90% RH non-condensing
Power Adaptor	100-240VAC 310mA 50/60Hz
Battery Backup	4.3Ah Ni-Mh Rechargeable Battery. Running time approx 1 hour
Power Sources	AC power adaptor, rechargeable NiMh battery
Clock Accuracy	4ppm (2 minutes per year)
Relay Outputs (SW1 &SWT)	Two individual 2.5mm jack sockets. Contacts: 24Vdc 500mA maximum
Power Consumption	12W typical
Dimensions	L 225mm x W 150mm x D 40mm
Weight	1.3Kg
Default IP Address	192.168.25.220
Storage Allocations	Bytes per day = 50KB (No Transmitters), 50KB x 30 Transmitters = 1.5MB per Day, 5.475GB over 10 Years
Operating System	Linux running Apache Server version 1.3.33. Kernel version 2.4.31
Warranty	2 Years

RF512 Wireless Temperature Transmitter

RF512 Wireless Temperature Transmitter for temperature measurement in RF500 Wireless Monitoring Systems.

- Integral Thermistor Sensor Range: -30°C to 70°C / -22°F to 158°F
- External Sensor Range: -40°C to +125°C / -40°F to +257°F
- Selectable Scales °C/°F
- Warranty: 2 Years

RF512 Wireless Temperature Transmitter

RF512 Wireless Temperature Transmitter for temperature measurement in RF500 Wireless Monitoring Systems. The RF512 Wireless Temperature Transmitter features an integral temperature sensor plus connectors for two external temperature sensors and an external door sensor.

Note: If you wish to purchase a Door Switch or other Accessory, along with your Transmitter and Probe, please **click here** to see our current RF500 Accessories. Simply add those you want to the Basket before placing your order.

- LCD screen for local temperature display at point of measurement
- LEDs allow checks of active/alarm indication in situ

- Selectable scales °C/°F
- [BioCote Antimicrobial Protection](#) to inhibit growth of bacteria, mould and fungi providing an extra line of defence in high-risk environments

For a full list of probes that are compatible with this Transmitter, please view the 'Accessories' tab.

Battery Change Process

To change the battery in your RF512 Temperature Transmitter simply follow the following steps:
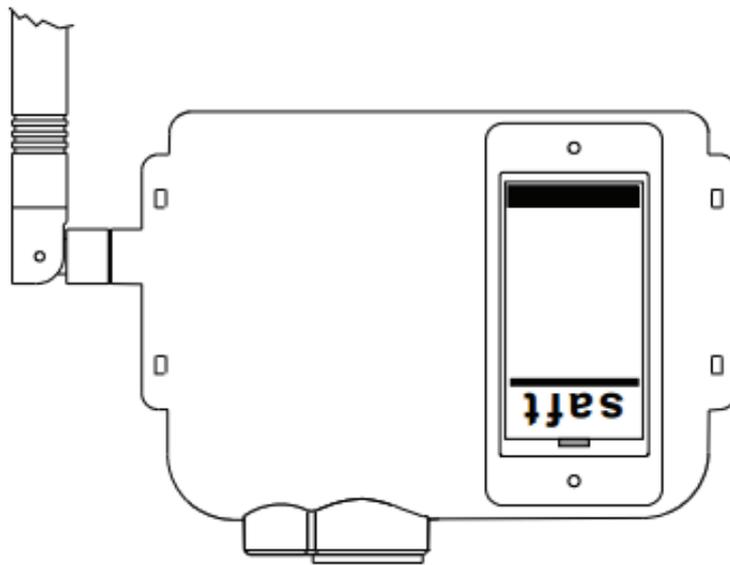
- If a Meshing Transmitter remove mains power from the RF512 Temperature Transmitter
- Undo the battery cover and remove the Lithium C battery
- Wait for the screen to go off completely
- Insert the new RFBATT and re-fit the battery cover
- If a Meshing Transmitter re-connect the mains power
- The RF512 Temperature Transmitter should re-connect to the Gateway automatically
- Dispose of the old battery safely – Note Lithium batteries should not be disposed of in general waste

Home (https://www.comarkinstruments.net) / Products (https://www.comarkinstruments.net/product-category/products/) / Wireless Temperature Monitoring (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/) / RF500 Wireless Monitoring System (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/) / System Components (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/system-components/) / RF512 Wireless Temperature Transmitter

RF512 Wireless Temperature Transmitter

Part No: RF512 (3063390)

RF512 Wireless Temperature Transmitter for temperature measurement in RF500 Wireless Monitoring Systems.

- Integral Thermistor Sensor Range: -30°C to 70°C / -22°F to 158°F
- External Sensor Range: -40°C to +125°C / -40°F to +257°F
- Selectable Scales °C/°F
- Warranty: 2 Years

Products (https://www.comarkinstruments.net/product-category/products/)

Register (https://www.comarkinstruments.net/support/general-support/how-to-order)

Markets (https://www.comarkinstruments.net/markets/)

News (https://www.comarkinstruments.net/news/)

Support (https://www.comarkinstruments.net/support/)

Software (https://www.comarkinstruments.net/software/)

Training (https://www.comarkinstruments.net/product-category/training/)

(https://www.comarkinstruments.net/wp-content/uploads/2015/06/RF512_Product_Image_2018.jpg)

Overview **Tech Specs** Support Knowledgebase

## Technical Specifications

Name	Value
Scales	°C and °F
Temperature Measurement Range - Integral Thermistor Sensor	-30°C to +70°C (-22°F to +158°F)
Temperature Measurement Range - External Sensor	-40°C to +125°C (-40°F to +257°F)
System Accuracy with Integral Thermistor (0°C to +70°C / -32°F to +158°F)	±0.5°C (±0.9°F)
System Accuracy with External Thermistor (-20°C to +70°C / -4°F to +158°F)	±0.5°C (±0.9°F)
Temperature Thermistor Full Range	±1°C (±1.8°F)
Resolution Temperature	0.1°C (0.2°F)
Door Sensor (Resolution)	7.5 seconds
Operating Temperature Range	-30°C to +70°C (-22°F to +158°F) - 10-90% RH - Non-Condensing
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
RF Frequency	2.4GHz using IEEE 802.15.4
Standard Antenna	External, removable, Omni directional with pivot. Length: 90mm from pivot
High-Gain Antenna (Optional)	Length: 235mm from pivot
Radio Range	Typically 50 metres indoors
Clock Accuracy	20ppm (1 minute/month) at +25°C (+77°F)
Logging Memory	32000 records
Logging Frequency	Programmable between 1 minute and 60 minutes
Monitoring Frequency	1 Minute
LEDs	Red - Warning / Green - External Power
Case Material	Over Moulded food safe clear Polycarbonate with BioCote® antimicrobial
Environmental Protection	Case enclosure designed to meet IP67 BS EN 60529
Battery Type	Replaceable Lithium 'C' Cell - Saft LSH14 Light or Saft LS26500 (Restricted for transport)
Battery Life	Up to 2 years
Dimensions	L 134mm x W 83mm x D 34mm
Weight	270g
Mains PSU	Optional Mains PSU Part No RF520 (100-240VAC 0.3A 50/60Hz)
Maximum Probe Lead Length	Not to exceed 30m
Warranty	2 Years

PST Penetration Probe Duplex (2 x 5m Lead)

The RFPX500D PST Penetration Probe Duplex is for use with RF wireless monitoring systems. Each probe is connected to a 5.0m lead.

- Temperature Range: -40 to +125°C / -40°F to +257°F
- Sensor Type: PST (Thermistor)
- Connector Type: Lumberg (6-Pin)
- Warranty: 6 Months

The RFPX500D PST Penetration Probe Duplex is for use with RF wireless monitoring systems. Each probe is connected to a 5.0m lead.
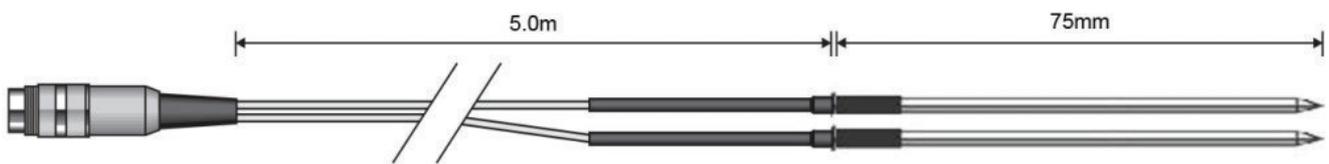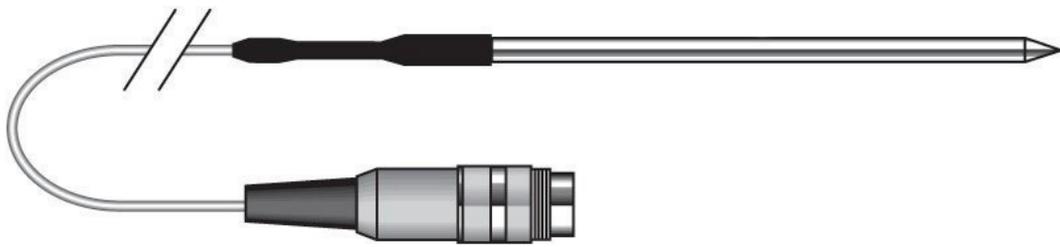

The RFPX500D PST Penetration Probe Duplex is fitted with a 6-Pin Lumberg connector with locking screw, to provide a strong and secure probe-to-instrument connection with better prevention of liquid ingress.

Penetration Probes Explained

All of the Penetration Probes for **RF500 Wireless Monitoring System** are designed to be robust, yet at the same time unobtrusive. That is why the standard Penetration Probes for RF500 do not come with probe handles.

The Penetration Probes for **RF500 Wireless Monitoring System,** come in the form of a stainless steel pointed shaft, as shown below.

The **Penetration Probes** are designed to be inserted into samples so that the temperature recorded will accurately represent the sample. However, unlike the Air Probes, the Penetration Probes potentially are destructive to the sample, i.e. it cannot be used as intended. Or alternatively, the sample is simply representative of the true item, e.g. A Glycol filled Blood Bag. The whole purpose of all RF500 Penetration Probe design is to ensure that you do not receive false alarms.

All **RF500 System Penetration Probes** are fitted with a **6-Pin Lumberg Connector** and a stainless steel **Pointed Penetration End** end, as shown below.

Home (https://www.comarkinstruments.net) / Products (https://www.comarkinstruments.net/product-category/products/) / Wireless Temperature Monitoring (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/) / RF500 Wireless Monitoring System (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/) / Probes and Accessories (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/probes-and-accessories/) / Probes (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/probes-and-accessories/probes-professional-wireless-system/) / Duplex Penetration Probes (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/probes-and-accessories/probes-professional-wireless-system/duplex-penetration-probes/) / PST Penetration Probe Duplex (2 x 5m Lead)

PST Penetration Probe Duplex (2 x 5m Lead)

Part No: RFPX500D (3359412)

RFPX500D PST Penetration Probe Duplex is for use with RF wireless monitoring systems. Each probe is connected to a 5.0m lead.

- Temperature Range: -40 to +125°C / -40°F to +257°F
- Sensor Type: PST (Thermistor)
- Connector Type: Lumberg (6-Pin)
- Warranty: 6 Months

(https://www.comarkinstruments.net/wp-content/uploads/2016/01/RFPX500D_02_500_300dpi.jpg)

Overview | **Tech Specs** | Support | Knowledgebase

Technical Specifications

Name	Value
Lead Length	2 x 5.0m
Connector Type	Lumberg (6-Pin)
Stem Length	75mm
Stem Diameter	4mm
Temperature Range	-40°C to +125°C / -40°F to +257°F
Wire Type	Flat-Twin
Lead Material	PVA
Sensor Type	PST (Thermistor)
Warranty	6 Months

Related Products

RF513 Wireless Humidity and Temperature Transmitter

RF513 Wireless Humidity and Temperature Transmitter for use for humidity and temperature measurement in RF500 Wireless Monitoring Systems.

- Integral Thermistor Sensor Range: -30°C to +70°C / -22°F to +158°F
- Humidity Measurement Range: 10 to 90% RH
- Supported Scales: °C/°F/%RH/DP
- Warranty: 2 Years

Wireless Humidity and Temperature Transmitter

RF513 Wireless Humidity and Temperature Transmitter for use for humidity and temperature measurement in RF500 Wireless Monitoring Systems.

Integral temperature and humidity sensors and connector for external door sensor.

- LCD Screen for local temperature display at point of measurement
- LEDs allow checks of active/alarm indication in situ
- Selectable scales °C/°F/%RH/DP

- [BioCote Antimicrobial Protection](#) to inhibit growth of bacteria, mould and fungi providing an extra line of defence in high-risk environments
- High gain antenna available

For a full list of probes that are compatible with this Transmitter, please view the 'Accessories' Tab.

Battery Change Process

To change the battery in your RF513 Temperature Transmitter simply follow the following steps:
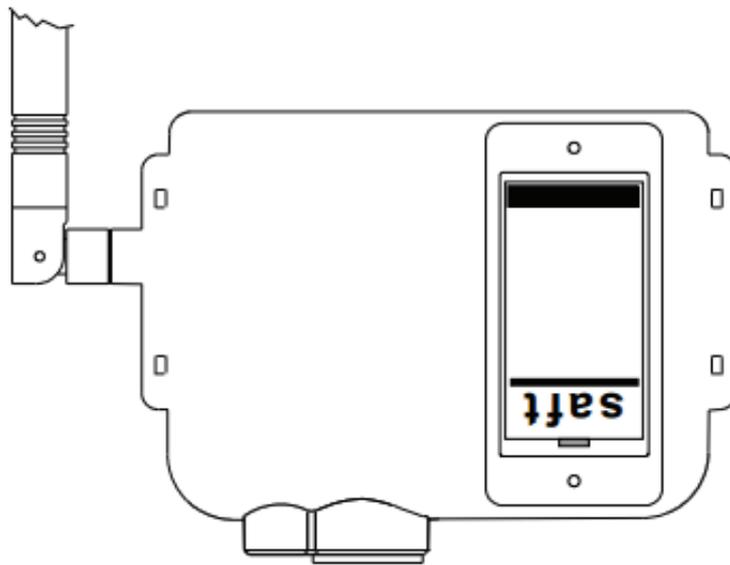
- If a Meshing Transmitter Remove mains power from the RF513 Temperature Transmitter
- Undo the battery cover and remove the Lithium C battery
- Wait for the screen to go off completely
- Insert the new RFBATT and re-fit the battery cover
- If a Meshing Transmitter Re-connect the mains power
- The RF513 Temperature Transmitter should re-connect to the Gateway automatically
- Dispose of the old battery safely – Note Lithium Batteries should not be disposed of in General Waste

Home (https://www.comarkinstruments.net) / Products (https://www.comarkinstruments.net/product-category/products/) / Wireless Temperature Monitoring (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/) / RF500 Wireless Monitoring System (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/) / System Components (https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/system-components/) / RF513 Wireless Humidity and Temperature Transmitter

RF513 Wireless Humidity and Temperature Transmitter

Part No: RF513 (3063413)

A Comark Register (https://www... Humidity and Temperature Transmitter for use for humidity and temperature measurement in RF500 Wireless Monitoring Systems.

- Integral Thermistor Sensor Range: -30°C to +70°C / -22°F to +158°F
- Humidity Measurement Range: 10 to 90% RH
- Supported Scales: °C/°F/%RH/DP
- Warranty: 2 Years

(https://www.comarkinstruments.net/wp-content/uploads/2015/12/RF513_Product_Image_2018.jpg)

Overview   **Tech Specs**   Support   Knowledgebase

Technical Specifications

Name	Value
Temperature Measurement Range - Integral Thermistor Sensor	-30°C to +70°C / -22°F to +158°F
Humidity Measurement Range	10 to 90% RH
Scales	°C/°F/%RH/DP
System Accuracy - Integral Thermistor Sensor (0°C to 45°C/32°F to +113°F)	±0.5°C / ±0.9°F
System Accuracy - Temperature Thermistor Full Range	±1°C / ±1.8°F
System Accuracy - Humidity 10-90% RH	±5% RH
Resolution Temperature	0.1°C / 0.2°F
Resolution Humidity 10 to 90% RH	±0.1%
Resolution Door Sensor	7.5 seconds
Storage Temperature	-40°C to +85°C / -40°F to +185°F
RF Frequency	2.4GHz using IEEE 802.15.4
Standard Antenna	External, removable, Omni directional with pivot. Length: 90mm from pivot
High-Gain Antenna (Optional)	Length: 235mm from pivot
Radio Range	Typically 50 metres indoors
Clock Accuracy	20ppm (1 minute/month) at 25°C
Logging Memory	32000 records
Logging Frequency	Programmable between 1 minute and 60 minutes
Monitoring Frequency	1 Minute
LEDs	Red - Warning / Green - Active
Case Material	Over Moulded food safe clear Polycarbonate with BioCote® antimicrobial
Environmental Protection	Case enclosure designed to meet IP67 BS EN 60529
Battery Type	Replaceable Lithium 'C' Cell Saft LSH14 Light
Dimensions	L 115mm x W 107mm x D 34mm
Weight	270g
Mains PSU	Optional Mains PSU Part No RF520
Warranty	2 Years

Part No: RF521 (3063449)

The RF521 Standard Door Event Sensor works with RF5xx Transmitters to monitor activity on doors such as those on refrigerators and freezers.

- Works with RF5xx Transmitters
- 2.5m Cable Supplied
- 3 Pin SM3 Plug
- Warranty: 6 Months

Overview   Tech Specs   Support   Knowledgebase

Standard Door Event Sensor

The RF521 Standard Door Event Sensor works with RF5xx Transmitters to monitor activity on doors such as those on refrigerators and freezers.

When used as part of an RF500 monitoring system it can be used to trace changes in activity which lead to a rise or fall in temperatures beyond accepted limits.

Mains Power Supply Unit

Part No: RF520 (3618435)

The RF520 Mains Power Supply Unit (PSU) for RF500 Transmitters. It is suitable for use with the following products;

- RF512/RF513
- RF516*
- RF542
- Warranty: 1 Year

Overview | **Tech Specs** | Support

Technical Specifications

Name	Value
Power Supply Voltage	100-240VAC (5V / 1.1A)
Power Supply Frequency	50-60Hz
Compliance	IP40
Warranty	1 Year

RF516 PT100 Wireless Temperature Transmitter

Part No: RF516 (3063424)
RF516 PT100 Wireless Temperature Transmitter for precision temperature measurement in RF500 Wireless Monitoring Systems.

Please see below for Configurator Instructions.

- Integral Thermistor Sensor Range: -30°C to 70°C / -22°F to 158°F
- External Pt100 Sensor Range: -200°C to 400°C / -328°F to +752°F
- Scales: °C, °F, K
- Warranty: 2 Years

RF516 PT100 Wireless Temperature Transmitter for precision temperature measurement in RF500 Wireless Monitoring Systems.

Integral temperature sensor and connectors for one external Pt100 temperature sensor and an external door sensor.

- PT100 temperature sensor for precision readings in sensitive applications
- LCD screen for local temperature display at point of measurement
- LEDs allow checks of active/alarm indication in situ
- Selectable scales °C/°F/K
- BioCote Antimicrobial Protection to inhibit growth of bacteria, mould and fungi providing an extra line of defence in high-risk environments
- High gain antenna available

For a full list of probes that are compatible with this Transmitter, please view the 'Accessories' Tab.

RF516 Probe and UKAS Configurator Instructions

Using the drop down menus above, it is possible to build your RF516 package, by adding the probe you require and then adding UKAS certification at one of our pre-defined temperature ranges.

If you need an option, or temperatures, that is not available as part of this configurator please **click here** to contact us and we'll be happy to help.

Battery Change Process

To change the battery in your RF516 Temperature Transmitter simply follow the following steps:
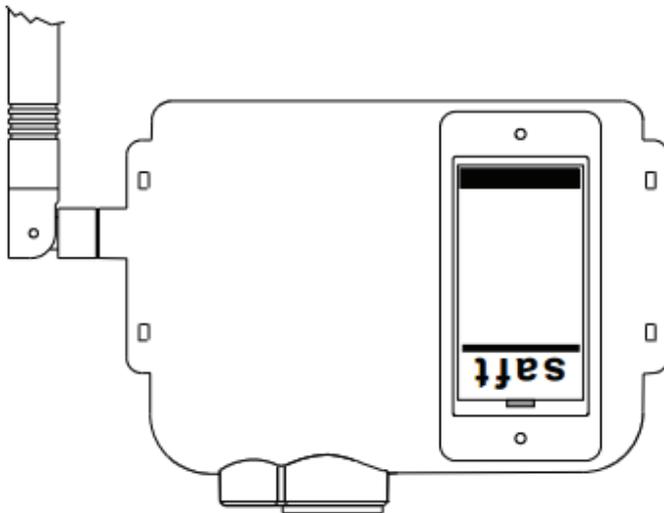
- If a Meshing Transmitter Remove mains power from the RF516 Temperature Transmitter
- Undo the battery cover and remove the Lithium C battery
- Wait for the screen to go off completely
- Insert the new RFBATT and re-fit the battery cover
- If a Meshing Transmitter Re-connect the mains power
- The RF516 Temperature Transmitter should re-connect to the Gateway automatically
- Dispose of the old battery safely – Note Lithium Batteries should not be disposed of in General Waste

Technical Specifications

Name	Value
Temperature Measurement Range - Integral Thermistor Sensor	-30°C to +70°C / -22°F to +158°F
Temperature Measurement Range - External Pt100 Sensor	-200°C to +400°C / -328°F to +752°F
Scales	°C, °F, K
System Accuracy with Temperature Internal Thermistor (0°C to +70°C)	±0.5°C
System Accuracy with Temperature Internal Thermistor Full Range	±1°C
Instrument Accuracy - Full Range	±0.05°C
System Accuracy - Full Range	±0.05°C + Probe Accuracy (Please refer to probe specifications for Accuracy Calculation)
Pt100 Connection Type	4-Wire
Pt100 Sensor Drive Current	400µA Nominal
Resolution Temperature - Thermistor	0.1°C
Resolution Temperature - Pt100	0.01°C
Door Sensor	7.5 seconds
Storage Temperature	-40°C to +85°C

Name	Value
RF Frequency	2.4GHz using IEEE 802.15.4
Standard Antenna	External, removable, Omni directional with pivot. Length: 90mm from pivot
High-Gain Antenna (Optional)	Length: 235mm from pivot
Radio Range	Typically 50 metres indoors
Clock Accuracy	20ppm (1 minute/month) at 25°C
Logging Memory	32000 records
Logging Frequency	Programmable between 1 minute and 60 minutes
Monitoring Frequency	1 Minute
LEDs	Red - Warning / Green - Active
Case Material	Over Moulded food safe clear Polycarbonate with BioCote Antimicrobial Protection
Environmental Protection	Case enclosure designed to meet IP67 BS EN 60529
Battery Type	Replaceable Lithium 'C' Cell Saft LSH14 Light
Battery Life	Up to 2 years
Dimensions	L 84 x W 107mm x D 34mm

Name	Value
Weight	270g
Mains PSU	Optional Mains PSU Part No RF520
Warranty	2 Years

PT100 Penetration Probe (3m Lead)

Part No: RFPP300 (3359577)
The RFPP300 PT100 Penetration Probe is for use with RF wireless monitoring systems. The probe is connected to a 3.0m lead.

- Temperature Range: -200°C to +150°C / -328°F to +302°F
- Sensor Type: PT100
- Connector Type: Lumberg (6-Pin)
- Warranty: 6 Months

PT100 Penetration Probe (3m Lead)

The RFPP300 PT100 Penetration Probe is for use with RF wireless monitoring systems. The probe is connected to a 3.0m lead.
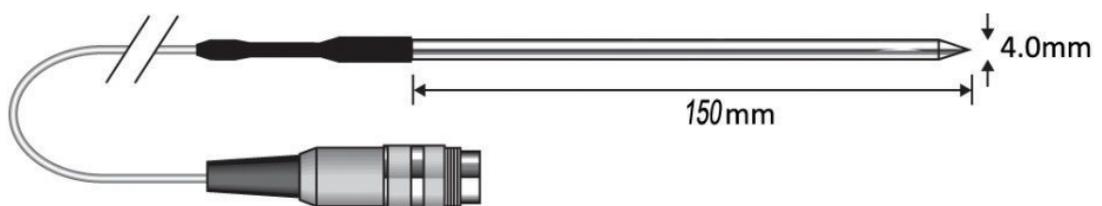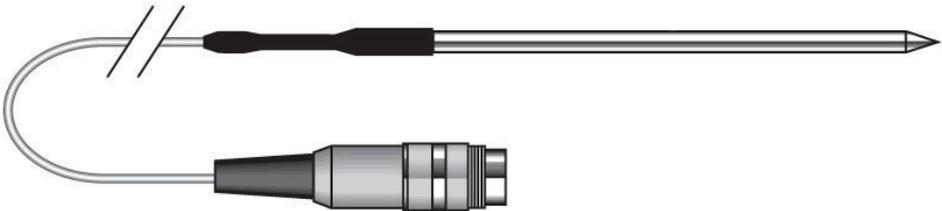
The RFPP300 PT100 Penetration Probe is fitted with a 6-Pin Lumberg connector with locking screw, to provide a strong and secure probe-to-instrument connection with better prevention of liquid ingress.

Penetration Probes Explained

All of the Penetration Probes for RF500 Wireless Monitoring System are designed to be robust, yet at the same time unobtrusive. That is why the standard Penetration Probes for RF500 do not come with probe handles.

The Penetration Probes for RF500 Wireless Monitoring System, come in the form of a stainless steel pointed shaft, as shown below.

The Penetration Probes are designed to be inserted into samples so that the temperature recorded will accurately represent the sample. However, unlike the Air Probes, the Penetration Probes potentially are destructive to the sample, i.e. it cannot be used as intended. Or alternatively, the sample is simply representative of the true item, e.g. A Glycol filled Blood Bag. The whole purpose of all RF500 Penetration Probe design is to ensure that you do not receive false alarms.

All RF500 System Penetration Probes are fitted with a 6-Pin Lumberg Connector and a stainless steel Pointed Penetration End end, as shown below.

Technical Specifications

Name	Value
Lead Length	3.0m
Connector Type	Lumberg (6-Pin)
Stem Length	95mm
Stem Diameter	4mm
Stem Material	316 Grade Stainless Steel
Temperature Range	-200°C to +150°C / -328°F to 302°F
Wire Type	4 - Core Twisted
Lead Material	PTFE/FEP
Sensor Type	Pt100
Sensor Accuracy (Class A)	±(0.15 + 0.002*t) °C where t is the temperature in °C
Warranty	6 Months

COMARK
A Fluke Company
(https://www.comarkinstruments.net)

Products (https://www.comarkinstruments.net/product-category/products/)

Home (https://www.comarkinstruments.net) / RF500 Wireless Monitoring System

Markets (https://www.comarkinstruments.net/markets/)

News (https://www.comarkinstruments.net/news/)

Support (https://www.comarkinstruments.net/support/)

Software (https://www.comarkinstruments.net/software/)

Training (https://www.comarkinstruments.net/product-category/training/)

Search ...

RF500A

wireless system gateway

available in external and PoE powered versions, the wireless system gateway sits at the heart of our RF500 system - a powerful device with a built-in user interface

| more info | back | next |

take me straight to the system components >>>

(https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/system-components/)
(https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/system-components/)

take me straight to probes and accessories >>>

(https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/probes-and-accessories/)
(https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/probes-and-accessories/)

monitor and measure what matters

| temperature | humidity | pressure | door events | gases | light |

temperature

Measure the temperature of your perishable assets with air and penetration probes or predict the temperature of your critical food and perishable samples by using a special simulant probe.

Use temperature probes to measure liquid nitrogen vessels to alert you when the liquid level drops.

Track any temperature changes in your incubators that are on programmed cycles, by using dynamic alarms, to only alarm when necessary.

humidity

If humidity is critical to your processes and you need to maintain certain levels of humidity in your working environment, then the RF500 wireless monitoring system has the options you need.

Choose the RF513 wireless transmitter for general purpose temperature/RH monitoring.

Choose the RF515 multi-parameter wireless transmitter and a high quality transducer for when humidity and dew point levels are vital to your operation.

pressure

Perfect for anyone who is still reliant on old-fashioned, mechanical gauges for pressure monitoring. Especially if you need to know when the pressure differential between labs has reached a critical level.

The RF500 wireless system can measure your pressure levels with great accuracy and reliability.

It is also intelligent enough to only alarm when absolutely necessary, giving you a much needed early warning of any potential leak or other hazard.

door events

We all know that leaving a fridge door open can cause the temperature to rise, impacting the quality of your goods. But what if the door is opened multiple times during the day, but never long enough to trip your 'door open' alarm? The RF500 can still alarm on these multiple occurrences, through summation, by adding events together, because we feel that they also have an impact.

gases

Incubators are an essential part of tissue sample storage and the RF500 system will warn you when levels reach critical levels that may destroy precious, irreplaceable samples. We've teamed up with a leading UK supplier of CO2/O2/N2 sensors to provide you with accurate and reliable monitoring of your gas levels, ensuring samples are maintained in optimum condition.

light

If light is important to the growth of your plants, for example, but you still rely on handheld measurements, then use the RF500 system for 24/7 monitoring and out-of-hours alarms for when the light falls outside of planned levels. Use dynamic alarms to account for differing light levels during a 24 hour period, so that you are always assured of the correct levels.
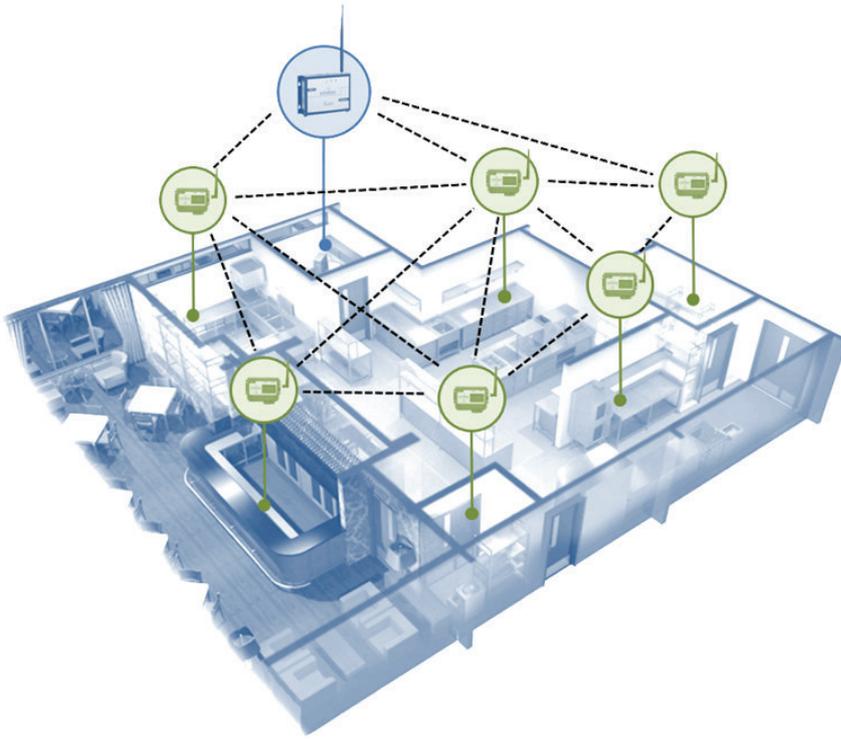
intelligent mesh networking

for the highest levels of data integrity

Established through powered transmitters, the intelligent mesh network enables the system to automatically adjust to any changes in the environment, re-routing signals as required to ensure that the data is always returned to the system gateway

FULLY SCALABLE

"...ensure any manual checks that you make on temperature and humidity a thing of the past. The RF500 system automatically reduces labour costs, eliminates errors and ensures complete records are maintained in accordance with regulatory requirements..."

"...in the event of readings falling outside pre-set limits, the system will send alarm notifications via screens, SMS*, email or voice to allow immediate corrective action to be taken. This can make all the difference in terms of saving your product and protecting your reputation..."

*Via an email to an SMS service such as Textmagic.com

adr

automatic data retrieval

never lose a reading again!

In the event of a power failure, data is stored in our transmitters and then automatically transmitted to the system gateway as soon as the network is restored, resulting in continuous data. RF500 transmitters can store up to 32,000 readings, or approximately three months of data

...trusted by the companies you trust...

RF500 in action
read case studies from our industry partners

Learn more about how our RF500 wireless monitoring system has helped to prevent high-volume, high-value inventory spoilage and significant revenue loss and how it has also alleviated temperature monitoring concerns.

read more
(https://www.com
case-studies/)

industries & applications

pharmaceutical   healthcare   life sciences   food   environmental   hospital

pharmaceutical

Temperature and humidity conditions should be strictly monitored throughout the supply chain of pharmaceuticals to protect valuable product inventory and meet MHRA requirements. It is mandatory that temperature and humidity measurements are recorded so reliable data is available for quality and 21CFR Part 11 compliance. Audit trails and reports prove to MHRA and other auditing bodies that procedures are in place to reduce compliance risks.

At every point in the chain, precautions should be taken to minimise the effect of external conditions on the quality and stability of the product. Full IQ OQ PQ validation is also a requirement of many operating in this sector.

healthcare

The healthcare industry relies heavily on temperature monitoring as it is regulated by bodies such as the MHRA and CPA, with laboratories operating to UKAS accreditation ISO/IEC 17025:2005. In order to comply with these regulations, robust audit trails must be in place. A reliable system must be in place to report that thermal cyclers, refrigerators, freezers, water baths and other equipment are operating within strict temperature parameters.

Automated monitoring of vaccines, pharmaceutical products, tissue stores, blood banks and any other biological samples, with alarms in the event of a failure, help staff operate to MHRA guidelines.

life sciences

Laboratories which are accredited to UKAS standard ISO/IEC 17025:2005 and those that are working to HTA guidelines, must all ensure that their refrigerators, freezers and incubators are maintained to very strict temperature levels. It is imperative that irreplaceable samples such as DNA, tissue and other biological matter are all stored in correct temperature controlled conditions and that any reagents and culture media are also similarly protected.

Organisations that are involved in life changing research and those wishing to safeguard criminal prosecutions, rely totally on these unique samples, so it is vital that they are protected by correct temperature monitoring.

food & drink

Busy food production companies need to comply with British Retail Consortium (BRC) legislation and meet the requirements of retailer or third party audits.

Keeping track of temperature records in HACCP plans can be time consuming and food business work to ever tighter margins. Wireless monitoring of temperature controlled storage areas 24/7 reduces labour time and the risk of errors.

Alarm notifications that prompt corrective actions help to meet BRC legislation and ensure temperatures are at optimum levels to avoid any food related health scares.

environmental

Product manufacture, where strict temperature and humidity tolerances need to be measured, can also benefit from wireless monitoring of the manufacturing environment.

The reliable monitoring of temperature and humidity conditions, is an important aspect of environmental monitoring.

If temperature and humidity in your working environment are not strictly monitored it can lead to a significant degradation in operational efficiency, as machinery and equipment become affected by adverse environmental conditions.

hospital

Healthcare professionals, in all clinical departments in hospitals, are subject to robust regulatory frameworks, based on hospital and MHRA, CPA, FDA, HTA, CQC and other organisational guidelines.

Budget efficiencies, as well as growing demands to do more with less in a heavily regulated environment, drive the need to automate the sort of temperature and humidity monitoring that is required for regulatory compliance.

Monitoring freezers, refrigerators, ultra-low temperature storage devices, incubators and room ambience is a priority as an undetected failure of a unit puts public health at risk and can have huge financial costs.

powerful
web-based user interface

Our intuitive web-based user interface offers users a quick and dynamic way to access and drill-down into the data from any device that is being monitored. Alarm notifications can be resolved more quickly, saving products, time and money.

The User Interface provides subscription-free, secure, multi-user access to data records and audit trails, from any web-browser enabled device. It is fully scalable to meet the demands of monitoring multiple devices across multiple sites, in line with your monitoring, data logging and compliance requirements.

RF500A

wireless system gateway

At the heart of the RF500 wireless monitoring system is the wireless system gateway - a powerful device with all the features you expect from a comprehensive monitoring device.

No specialist software is required as the system gateway contains a powerful web-server which provides a user interface in the form of web pages. All of the set-up pages and data viewing is via your web-browser on your PC or laptop.

view products (https://www.comarkinstruments.net/product-category/products/data-logging-solutions-monitoring-systems/professional-wireless-system/system-con

The RF500A wireless system gateway connects directly to your existing local area network permitting 24/7 single or multi-user access via your web-browser.

For 21 CFR part 11 compliance (https://www.comarkinstruments.net/21-cfr-part-11-compliance/), a real-time audit trail, electronic signatures and data protection are all provided by the system.

In the event of readings falling outside pre-set limits, alarm notification via screens, SMS, email or voice contact immediately, so that action can be taken.

The gateway includes local alarm notification LEDS, an internal buzzer, two additional alarm outputs for external devices and a USB port for initial set-up.

We offer the system gateway in versions powered via an external power supply or powered via PoE (power over ethernet).

The PoE version takes its power from a compatible network via the RJ45 cable, potentially saving you the need to install additional sockets.

All data is stored securely on your Network and not sent to the Cloud, meaning you have complete control over the system and the data with no third-party involvement.

RF512

wireless temperature transmitter

Used for general temperature and door switch monitoring in cold rooms, refrigerators, freezers, walk-ins and for industrial process temperature measurement.

Wireless, battery operated with up to two years' battery life
Local LCD display for all readings and alarm notifications
Local LEDs for visual activity and alarm awareness
Internal sensor for ambient temperature monitoring
Large range of external air and penetration probes
Up to four channels including the door switch capability
Lumberg socket for reliable single or duplex probe connection
Door switch input for monitoring door open events
Removable antenna with hi-gain antenna upgrade option
Real (intelligent) mesh networking capable

RF513

wireless temperature and humidity transmitter

Used for general temperature and humidity monitoring in workplaces or for industrial applications.

Wireless, battery operated with up to two years' battery life
Local LCD display for all readings and alarm notifications
Local LEDs for visual activity and alarm awareness
Internal temperature and humidity sensors
Door switch input for monitoring door open events
Removable antenna with hi-gain antenna upgrade option
Real (intelligent) mesh networking capable

RF515

multi-parameter wireless transmitter

Used for specialist applications in hospitals and laboratories.

Most commonly used for CO_2 monitoring, as well as high-accuracy temperature and humidity in remote locations and pressure management in clean rooms.

Wireless, battery operated with up to two years' battery life
Local LCD display for all readings and alarm notifications
Lumberg socket for reliable connection
Removable antenna with hi-gain antenna upgrade option
Real (intelligent) mesh networking capable

RF516

pt100 wireless temperature transmitter

Used for high-accuracy temperature monitoring and low temperature measurement for liquid nitrogen monitoring.

Wireless, battery operated with up to two years' battery life
Local LCD display for all readings and alarm notifications
Local LEDs for visual activity and alarm awareness
Internal sensor for ambient temperature monitoring
Door switch input for monitoring door open events
Removable antenna with hi-gain antenna upgrade option
Real (intelligent) mesh networking capable

RF542

remote temperature monitor

Used for general temperature and door switch monitoring in cold rooms, refrigerators, freezers, walk-ins and industrial process temperature management.

Monitor remote blood refrigerators using the RF542 remote monitor and a special blood bag/air probe.

Special networking transmitter for remote applications
Provides remote temperature monitoring where there is a local area network
Mains operated with additional battery back-up
Local LCD display for all readings and alarm notifications
Two channels via Lumberg socket for reliable single or duplex probe connection
Local LEDs for activity and alarm notifications

back to top

(https://www.comarkinstruments.net/product-category/products/wireless-temperature-monitoring/rf500-wireless-monitoring-system/probes-and-acc

...looking for all of our RF500 accessories and probes..?

Compliance with Medicines and Healthcare Products Regulatory Agency (MHRA) Blood Safety and Quality Regulations – If you store blood and are bound by the MRHA Blood Safety and Quality Regulations then RF500 can help with the storage temperature component. In 2015, storage was the second largest individual error category.

RF500 is trusted widely within the NHS and Blood Services to monitor and give advance warning of issues with blood storage. This is especially important when the blood storage facilities are remote to the Pathology departments. Comark also makes special duplex air/blood probes designed specifically for monitoring your blood fridges.

BRC requirement for accredited certification for storage facilities and distributors – The BRC Global Standard for food safety is developed by food industry experts from retailers, manufacturers and food service organisations to ensure it is rigourous and detailed, yet easy to understand. First published in 1998, the Standard is now in its seventh issue.

It provides a framework to manage product safety, integrity, legality and quality, and the operational controls for these criteria in the food and food ingredient manufacturing, processing and packing industry. Comark Instruments can help you meet these requirements with our leading range of wireless and HACCP products.

Food Standards Agency (FSA) compliance with temperature control legislation – safer food, better business (SFBB) helps small businesses with food safety management procedures and food hygiene regulations including recording temperatures within food production, storage and display.

Simplify your food storage with an RF500 wireless monitoring system, trusted throughout the food industry to provide temperature monitoring compliant with FSA guidelines. Eliminate errors and ensure records are maintained in accordance with regulatory requirements.

Compliance with MHRA storage of refrigerated products – Following manufacture, some medicinal products need to be stored and transported at lower than ambient temperatures in order to assure their quality and efficacy. These are often referred to as 'cold chain products' or 'fridge lines'.

Wholesale dealers are expected to store and distribute them in strict accordance with the product labelling requirements as stated in the EU GDP Guidelines. RF500 can help with this monitoring ensuring your cold chain products are stored at the right temperatures.

back to top

(https://www.comarkinstruments.net/plug-and-play-wifi-system/)

...looking for a smaller scale wireless monitoring solution..?

(https://www.comarkinstruments.net/plug-and-play-wifi-system/)
(https://www.comarkinstruments.net/plug-and-play-wifi-system/)

why choose us?

We have over fifty years in the thermometer business ...
... and twenty years' experience selling wireless monitoring into your industry!

The RF500 wireless monitoring system from Comark is the culmination of twenty years of experience, first with wired solutions for food processing and then two versions of our first wireless system 'Comark IceSpy', which is still widely used throughout food and pharmaceutical applications.

Comark will provide complete peace of mind throughout the whole process. If necessary, your system can be professionally surveyed with a unique software tool to ensure that you can be confident that the system will work as expected and without any nasty surprises.

Comark has country-wide service engineer cover, for professional installations, on-site service and UKAS calibration to a high standard. Comark leaves nothing to chance when it comes to your data, you can be sure that RF500 will provide the features and benefits you expect from your monitoring system.

It should be noted that, as the RF500 system is designed to be self-managed, there are NO compulsory ongoing service charges on any of the Comark systems/equipment that would normally be taken into consideration when evaluating true cost of ownership.

still have questions?

... that's ok ... we're only too happy to help ...

contact us (https://www.comarkinstruments.net/rf500-wireless-monitoring-system-enquiry/)

back to top

LOOKING FOR SOFTWARE?
DOWNLOAD FOR FREE TODAY

(https://www.comarkinstruments.net/software/)

(https://www.comarkinstruments.net/software/)

CATALOGUES & BROCHURES
VIEW THE WHOLE COLLECTION

(https://www.comarkinstruments.net/support/general-support/catalogues-brochures/)

(https://www.comarkinstruments.net/support/catalogues-brochures/)

Region

Lithuania

Company

About Us (https://www.comarkinstruments.net/aus/)

Integrity & Compliance (https://www.comarkinstruments.net/incompliance/)

Privacy Policy (https://www.comarkinstruments.net/ppolicy/)

Terms & Conditions (https://www.comarkinstruments.net/ssupport/terms-conditions/)

Change Cookie Consent

Support

Services (https://www.comarkinstruments.net/s

Product Returns (https://www.comarkinstruments.net/sreturns/)

General Support (https://www.comarkinstruments.net/ssupport/)

Comark Warranty (https://www.comarkinstruments.net/sreturns/comark-warranty/)

Stay in touch

Facebook (https://www.facebook.com/ComarkIns

Twitter (https://twitter.com/ComarkGlobal)

LinkedIn (https://www.linkedin.com/company/coinstruments)

Contact Us (https://www.comarkinstruments.net/ssupport/contact-us/)

Comark RF515
Multi-parameter Wireless Transmitter

Use the RF515 Multi-Parameter Wireless Transmitter in wide ranging applications to automate monitoring of parameters such as pressure, gas, flow, level, dissolved oxygen, CO2 and many more.

With inputs of current and voltage, the Comark RF515 transmitter can be easily connected to a control loop and programmed to measure an extensive range of parameters.

This product cannot be used without the RF515 Adapter.

As part of an RF500 Wireless Monitoring System, the transmitter caters for applications from manufacturing, food and beverage production, power generation, chemical and gas industries

Features
- Measure parameters such as pressure, flow, extra high temperatures, gases, light, turbidity, speed, pH and RH
- Suitable for almost any measurement application
- 4-20mA, 0-1V and 0-10V
- Up to 2 channels of multi-parameter monitoring
- Large LCD allows local view of measurement reading plus alarm and RF status
- Up to 1-2 year battery life
- Compact size case with BioCote® antimicrobial surface protection to provent cross contamination

The Professionals' Choice

Comark RF515

Multi-parameter Wireless Transmitter

Specifications

System Accuracy with RF515A at 23°C	0.3% of reading
Resolution @ 0-10V	1mV
Resolution @ 0-1V	0.1mV
Resolution @ 4-20mA	1µA
Operating Temperature Range	-30°C to + 70°C / -22°F to 158°F
Storage Temperature Range	-40°C to +85°C / -40°F to 185°F
RF Frequency	2.4GHz using IEEE 802.15.4
Standard Antenna	External, removable, Omni directional with pivot. Length: 90mm from pivot
High-Gain Antenna (Optional)	Length: 235mm from pivot
Radio Range	Typically 50 metres indoors
Clock Accuracy	20ppm (1 minute/month) at 25°C
Logging Memory	32000 records
Logging Frequency	Programmable between 1 minute and 60 minutes
Monitoring Frequency	1 Minute
LEDs	Red - Warning / Green - Active
Case Material	Over Moulded food safe clear Polycarbonate with BioCote® antimicrobial
Environmental Protection	IP67 BS EN 60529
Battery Type	Replaceable Lithium 'C' Cell Saft LSH14 Light
Battery Life	Up to 3 years
Dimensions	L 84mm x W 107mm x D34mm
Weight	270g
Warranty	Two Years
Channels	2 Channels
Measurement Range - Generic Current	4-20mA
Measurement Range - Generic Voltage	0-1V / 0-10V
EMC	ETSI EN 301489-1 v 1.71 (2006-7)

For more details please see www.comarkinstruments.com

BioCote®

Selected Comark thermometers, probes and data loggers have BioCote's silver techology incorporated into instrument cases and probe handles at the time of manufacture. The antimicrobial finish inhibits the growth of bacteria, reducing the risk of cross-contamination and infection in the environment. BioCote® has been officially recognised for its benefits within the food industry with HACCP International Certification. HACCP International Certification supports organisations that demonstrate food safety excellence in non-food products that are designed for, or are commonly used in, the food industry. BioCote® is the only antimicrobial solution to be awarded HACCP International Certification.

Warranty

All Comark instruments have a minimum one year warranty unless otherwise stated. The warranty for temperature probes is six months and all other probes are unwarranted because the conditions of use are beyond our control. The Comark Warranty covers manufacturing defects and component failure and applies worldwide. In line with our policy of continuous development, we reserve the right to alter any product specification without notice. Comark has an accredited UKAS (NIST equivalent) calibration laboratory for temperature and humidity measurement and offers full service and recalibration facilities.

Comark Instruments is committed to providing quality and affordable products to the food service industry. Our thermometers and humidity testers bring speed, accuracy and reliability to the transport, testing and storing of food under HACCP guidelines. A large variety of products, well-trained staff, and a commitment to customer satisfaction mean you can come to us for answers to all your temperature measurement needs!

COMARK

A Fluke Company

Comark Instruments

52 Hurricane Way

Norwich, Norfolk, NR6 6JB

United Kingdom

Tel: +44 (0) 207 942 0712

Fax: +44 (0) 207 942 0714

Email: sales@comarkinstruments.com

Comark Instruments

P.O. Box 500

Beaverton, OR 97077, USA

Tel: +1 (503) 643 5204

Toll Free: (800) 555 6658

Fax: +1 (503) 627 5311

Email: sales@comarkusa.com

UKAS CALIBRATION 0451

bsi. ISO 9001 Quality Managment FM29700

The Professionals' Choice