



JRI WIRELESS MONITORING SOLUTIONS

Wireless monitoring for

Cryogenic freezers
ULT freezers
Plasma freezers
Biomedical freezers
Pharmaceutical freezers
Blood bank refrigerators
CO₂ incubators
Multigas incubators
Cooled incubators
Heated incubators
Plant Growth Chambers

PHC stands for quality and control, our customers expect nothing less. To add even more control we co-promote a cloud-based temperature monitoring solution. Connected sensors for a simple, continuous quality control.

Wireless monitoring solutions

The complete line of PHC Europe B.V. products includes an array of laboratory equipment with the most advanced technology, controls, construction and performance attributes in the industry. PHC stands for quality and control and our customers expect nothing less. To add even more control we co-promote a cloud-based temperature monitoring solution for a wide range of applications: JRI MySirius Wireless temperature monitoring

This cloud-based temperature monitoring solution is adapted to a wide range of applications. Monitoring of storage areas: warehouses, cold rooms, thermostatic or climatic chambers, fridges, freezers, incubators.

JRI MySirius is compatible with the Nano SPY wireless data loggers that are perfectly fit to meet the needs of temperature and humidity monitoring of storage areas and during transport. The LoRa® SPY range of wireless sensors equipped with LoRaWAN long-range technology ensures tracking temperature, humidity and other environmental parameters and allows to monitor storage areas scattered over a large territory and perform real-time monitoring.

Data collected by the temperature data loggers and sensors are managed on the JRI MySirius monitoring web platform, via any type of terminal: PC, tablet, smartphone. The application can also be installed in local mode or on your servers. Meet requirements of the ISO 17025 and ISO EN 15 189 standards with reliable and accurate measurements thanks to the next generation of Nano SPY and LoRa SPY connected sensors !



Nano SPY Wireless Mini Data loggers

The Nano SPYs are 100% wireless sensors and can be placed directly in the unit, the closest possible to the thermo-sensible products.

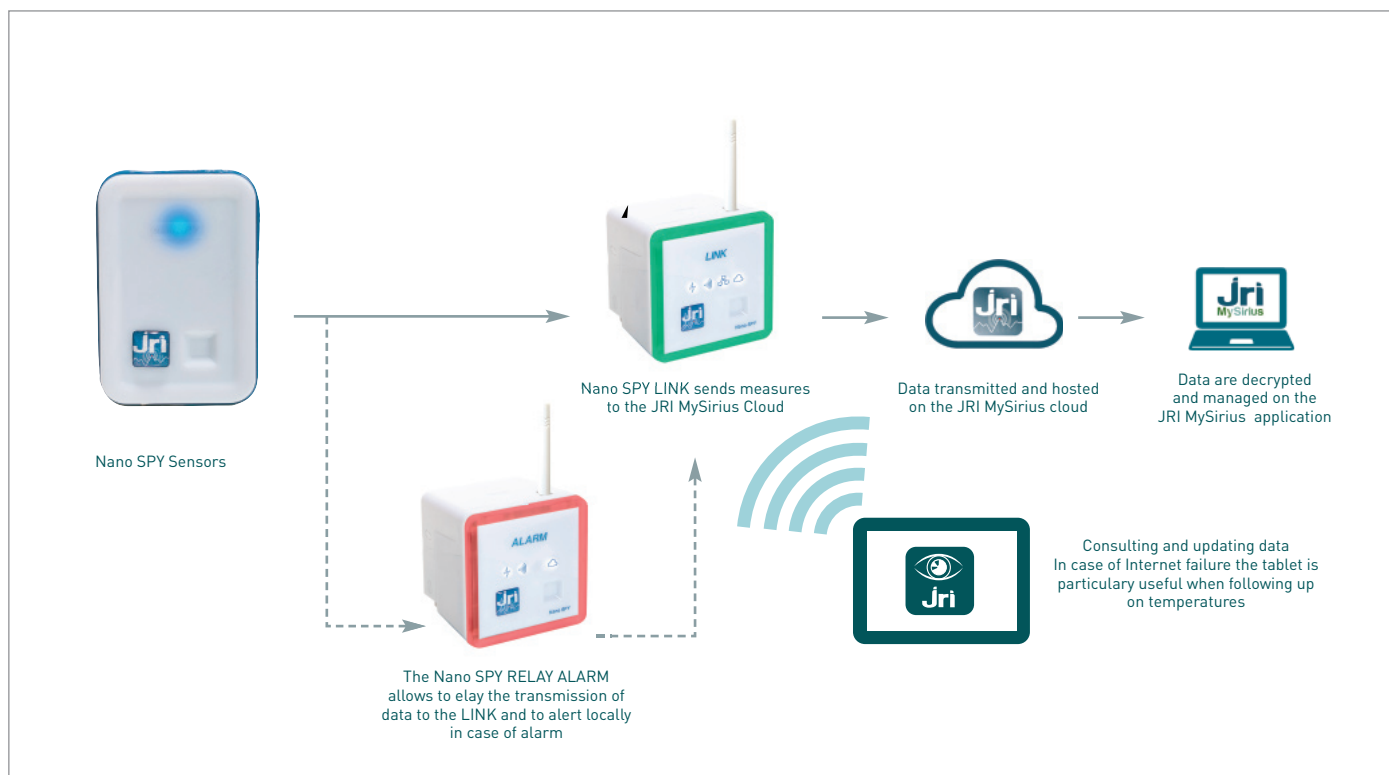
The recorded data are transmitted to the module Nano SPY LINK by a 2,4GHz radiofrequency communication, uploaded to the secure JRI Cloud and managed through the Web application JRI MySirius from anywhere using a tablet or computer, 24/24.

Nano SPY data loggers are compatible with the wireless temperature monitoring solution JRI MySirius.



dimensions : 63x42x25mm

- Monitoring of temperature, humidity, etc...
- Suitable for the monitoring of units, transport cases and critical cabinets that require high measurement frequency
- Battery life up to 6 years
- Visual alerts via the LED indicator on the Nano SPY sensors and the warning light indicator of the Nano SPY Link
- Bluetooth communication between the Nano SPY Link and a smartphone or tablet equipped with the MyNanoView mobile app
- Particularly suitable for critical cabinets that require high measurement frequency
- Other models with external probe are available for monitoring equipments through the door seal (extreme temperature) or for recording data coming from analog transmitters.



LoRa SPY Long Range Connected Sensors

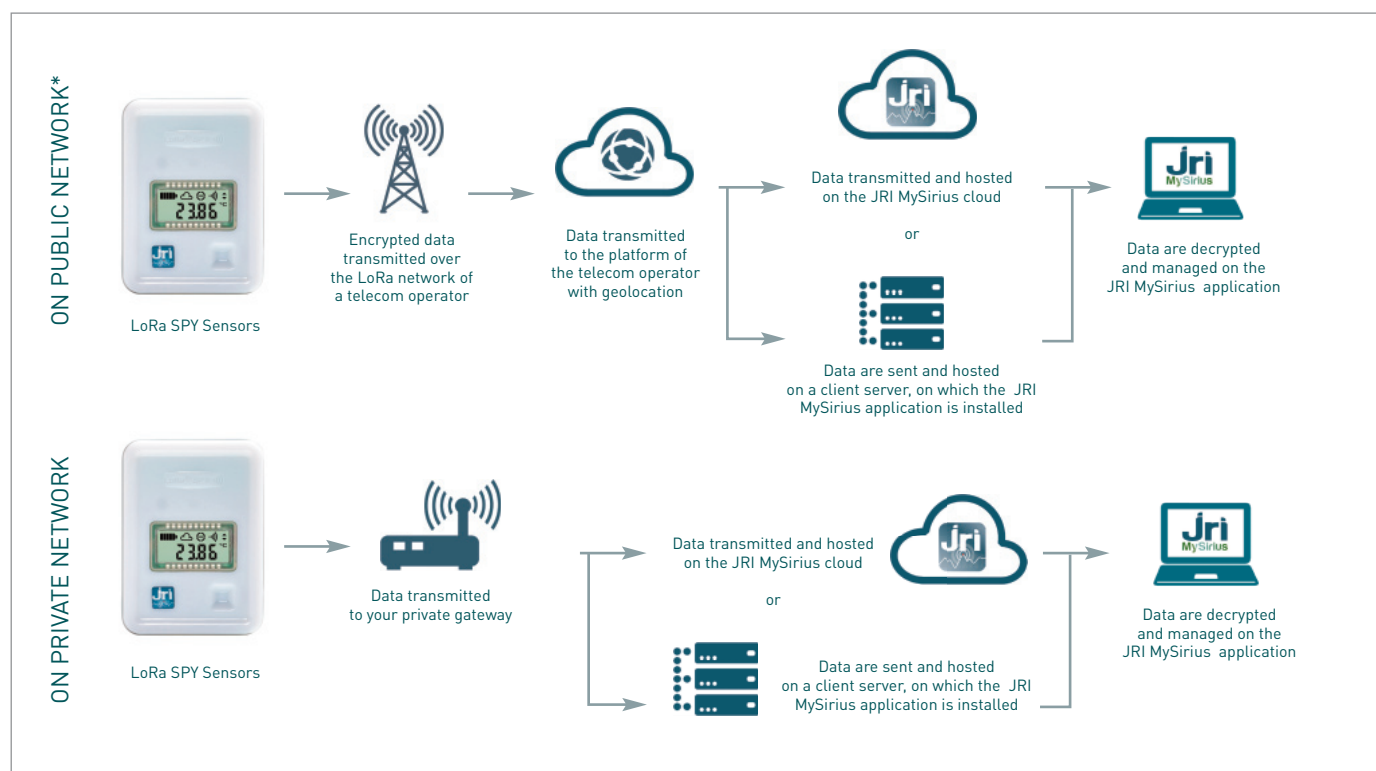
The LoRa® SPY connected sensors ensure a wireless monitoring for temperature and other environmental parameters. Based on the LoRa™ technology, the sensors are designed for monitoring equipments and thermo-sensitive products during transport and storage thanks to the long distance coverage offered by LoRa Alliance Operators (telecom) or by a Micro Gateway private network data transmission module. The JRI MySirius web application allows you to monitor and manage your data on a unique platform, specifically tailored to answer needs of the user's job.

LoRa® SPY are compatible with the wireless temperature monitoring solution JRI MySirius.



dimensions : 87x64x25mm

- Data transmission via the LoRaWAN network:
 - via the network of a private gateway
 - via the network of a telecom operator member of LoRa Alliance™
- Particularly suitable for monitoring:
 - Sites with low sensor concentration
 - Storage areas spread on a wide territory
 - A need of real-time transportation (if operator network available)
- Radio range up to 16 km in open field
- Very low power consumption: battery life up to 2 years
- Direct reading on the LCD display



* If operator LoRa network available.

JRI MySirius A modular and customizable supervision platform

Measurements are automatically uploaded to the secure JRI MySirius Cloud to be hosted and operated on a user-friendly and intuitive interface.



- Access to data 24/7.
Your data is accessible wherever you are and you can share it with your colleagues over different countries.
- Programmed updates to give you more time to prepare your partial qualifications and training of your teams. (JRI cloud-based version only)
- Data integration in third party software (via web API)
- Mobile apps to view measurements and manage alerts

Mobile apps to view measurements and manage alerts



MyNanoView

Simple and intuitive screen of measurements data of Nano SPY mini-sensor

- Visualization of measurements in graphs and tables
- Continuous display of Nano SPY data near the Nano LINK module
- The Bluetooth BLE option of the Nano SPY LINK allows to communicate with a tablet equipped with the MyNanoView app
- Operation without Internet connection to ensure the monitoring of your site even in case of computer network failure
- Use in remote screen mode to dedicate to a zone or in nomadic mode to perform spot checks
- Download on Google play and App Store



MySiriusAlert

Mobile app for alarm management of Nano SPY and LoRa SPY connected sensors

- Alert notifications
- Consultation and acknowledgement of the current alarms
- Visualization of the measurements of your monitored chambers
- Modification of the sensor settings: alarm inhibition, changing of threshold values with predefined configuration modes, etc...
- Download on Google play and App Store

PHCbi product combinations

	Parameters to log				Access ports				
Model Number	Temp	CO ₂	O ₂	RH%	Qty	Position on model	Ø mm	Solutions Nano SPY	Solutions LoRa SPY
Cryogenic freezers -152°C									
MDF-1156-PE	x				1	Left	40	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-1156ATN-PE	x				1	Left	40	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-C2156VAN-PE	x				1	Right	40	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-C2156VANW-PE	x				1	Right	40	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
ULT chest freezers -86°C									
MDF-C8V1-PE	x				2	Back/ Bottom	17	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-DC500VX-PE	x				1	Back	17	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-DC700VX-PE	x				1	Back	17	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
ULT upright freezers -86°C									
MDF-DU300H-PE	x				3	Back/ Bottom (2x)	17	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-DU502VH-PE	x				3	Back/ Bottom (2x)	17	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-DU502VHW-PE	x				3	Back/ Bottom (2x)	17	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-DU702VH-PE	x				3	Back/ Bottom (2x)	17	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-DU702VHW-PE	x				3	Back/ Bottom (2x)	17	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-DU901VHL-PE	x				2	Back/ Bottom	17	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-DU302VX-PE	x				3	Back/ Bottom (2x)	17	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-DU502VX-PE	x				3	Back/ Bottom (2x)	17	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-DU702VX-PE	x				3	Back/ Bottom (2x)	17	Nano SPY T3 (-200°C; 0°C)	LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
Plasma upright freezers -40°C									
MDF-MU549DH-PE*	x (2x)				1	Back	30	2x Nano SPY T3 (-200°C; 0°C)	2x LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
MDF-U443-PE	x				1	Left	40	2x Nano SPY T3 (-200°C; 0°C)	2x LoRa SPY D + Digital probe low T°C (-200°C; 0°C)
Biomedical chest freezers -30°C									
MDF-137-PE	x				2	Right/ Bottom Left	17	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MDF-237-PE	x				2	Right/ Bottom Left	17	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MDF-437-PE	x				2	Right/ Bottom Left	17	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
Biomedical upright freezers -30°C									
MDF-MU339HL-PE	x				1	Back	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MDF-MU539HL-PE	x				1	Back	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MDF-U731M-PE	x				2	Left and Cabinet top	30/20	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
Pharmaceutical freezer and refrigerator combi **									
MPR-N250FH-PE	x (2x)				2	1 Left/ 1 left (Ref/Frz)	30	Nano SPY TWIN (Channel freezer -50°C;+105°C + Channel refrigerator -40°C;+80°C)	2x LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MPR-N450FH-PE	x (2x)				2	1 Back/ 1 Back (Ref/Frz)	30	Nano SPY TWIN (Channel freezer -50°C;+105°C + Channel refrigerator -40°C;+80°C)	2x LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MPR-715F-PE	x (2x)				2	1 Back/ 1 Back (Ref/Frz)	30	Nano SPY TWIN (Channel freezer -50°C;+105°C + Channel refrigerator -40°C;+80°C)	2x LoRa SPY D + Digital probe T°C [-40°C; +80°C]
Pharmaceutical upright refrigerators sliding doors									
MPR-S163-PE	x				1	Back side	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MPR-S313-PE	x				1	Back side	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MPR-S150H-PE	x				1	Back side	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MPR-S300H-PE	x				1	Back side	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MPR-514-PE	x				1	Left side	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MPR-514R-PE	x				1	Left side	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MPR-1014-PE	x				1	Left side	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MPR-1014R-PE	x				1	Left side	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]

	Parameters to log				Access ports				
Model Number	Temp	CO ₂	O ₂	RH%	Qty	Position on model	Ø mm	Solutions Nano SPY	Solutions LoRa SPY
Pharmaceutical upright refrigerators swing doors									
MPR-722-PE	x				3	2 in sides, 1 in cabinet top	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MPR-722R-PE	x				3	2 in sides, 1 in cabinet top	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MPR-1412-PE	x				3	2 in sides, 1 in cabinet top	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MPR-1412R-PE	x				3	2 in sides, 1 in cabinet top	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
Blood bank refrigeratos									
MBR-305GR-PE	x				1	Left side	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
MBR-705GR-PE	x				2	Left and right side	30	Nano SPY T2 [-50°C; +105°C]	LoRa SPY D + Digital probe T°C [-40°C; +80°C]
CO₂ incubators									
MCO-50AIC-PE series	x	x		x	1	Top rear	30	Nano SPY TH Precision Nano SPY U + CO2 transmitter	LoRa SPY D + TH Probe LoRa SPY U + CO2 transmitter
MCO-170AC-PE series	x	x		x	1	Top rear	30	Nano SPY TH Precision Nano SPY U + CO2 transmitter	LoRa SPY D + TH Probe LoRa SPY U + CO2 transmitter
MCO-170AIC-PE series	x	x		x	1	Top rear	30	Nano SPY TH Precision Nano SPY U + CO2 transmitter	LoRa SPY D + TH Probe LoRa SPY U + CO2 transmitter
MCO-170AICD-PE series	x	x		x	1	Top rear	30	Nano SPY TH Precision Nano SPY U + CO2 transmitter	LoRa SPY D + TH Probe LoRa SPY U + CO2 transmitter
MCO-230AIC-PE series	x	x		x	1	Top rear	30	Nano SPY TH Precision Nano SPY U + CO2 transmitter	LoRa SPY D + TH Probe LoRa SPY U + CO2 transmitter
MCO-80IC-PE series	x	x		x	2	On each side	40	Nano SPY TH Precision Nano SPY U + CO2 transmitter	LoRa SPY D + TH Probe LoRa SPY U + CO2 transmitter
Multigas incubators									
MCO-50M-PE series	x	x	x	x	1	Top rear	30	Nano SPY TH Precision Nano SPY U + CO2 transmitter Nano SPY U + O2 transmitter	LoRa SPY D + TH Probe LoRa SPY U + CO2 transmitter LoRa SPY U + O2 transmitter
MCO-170M-PE series	x	x	x	x	1	Top rear	30	Nano SPY TH Precision Nano SPY U + CO2 transmitter Nano SPY U + O2 transmitter	LoRa SPY D + TH Probe LoRa SPY U + CO2 transmitter LoRa SPY U + O2 transmitter
Cooled incubators (-10~50°C)									
MIR-154-PE	x				1	Left side	40	Nano SPY T2 I [-50°C; +105°C] special incubator	LoRa SPY D + Digital probe T°C I [-40°C; +80°C] special incubator
MIR-254-PE	x				1	Left side	40	Nano SPY T2 I [-50°C; +105°C] special incubator	LoRa SPY D + Digital probe T°C I [-40°C; +80°C] special incubator
MIR-554-PE	x				2	Left and right side	40	Nano SPY T2 I [-50°C; +105°C] special incubator	LoRa SPY D + Digital probe T°C I [-40°C; +80°C] special incubator
Heated incubators [AT+5~80°C]**									
MIR-H163	x				0	N/A	0	Nano SPY T2 I [-50°C; +105°C] special incubator	LoRa SPY D + Digital probe T°C I [-40°C; +80°C] special incubator
MIR-H263	x				0	N/A	0	Nano SPY T2 I [-50°C; +105°C] special incubator	LoRa SPY D + Digital probe T°C I [-40°C; +80°C] special incubator
Plant Growth Chambers (-10~50°C)									
MLR-352-PE	x			x	1	Cabinet top	40	Nano SPY TH Precision	LoRa SPY D + TH Probe
MLR-352H-PE	x			x	1	Cabinet top	40	Nano SPY TH Precision	LoRa SPY D + TH Probe

* Has 2 independent chambers, so 2x temperature

** Has a freezer and refrigeration compartment, so 2x temperature

*** The heated incubators dont have an access port





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