SInteSY

engineering for life science

**S210
.smartSensor
V6x**

WIRELESS TEMPERATURE DATA LOGGER FOR LABORATORY EQUIPMENT

Nowdays a very important necessity in laboratories is the possibility to monitor equipment, such as mechanical freezers, refrigerators, liquid nitrogen dewars, controlled rate freezers, etc.

SINTESY S210.smartSensor V6x is an electronic device designed to monitor temperature, using wireless RTD (Resistance Temperature Detector) PT1000 probes, named S116-wiProbe.

The detected values are shown on the touchscreen LCD display.

According to the warning and alarm thresholds set, the device can trigger acoustic an visual indications so that the users are always aware of any anomalies or malfunctions.
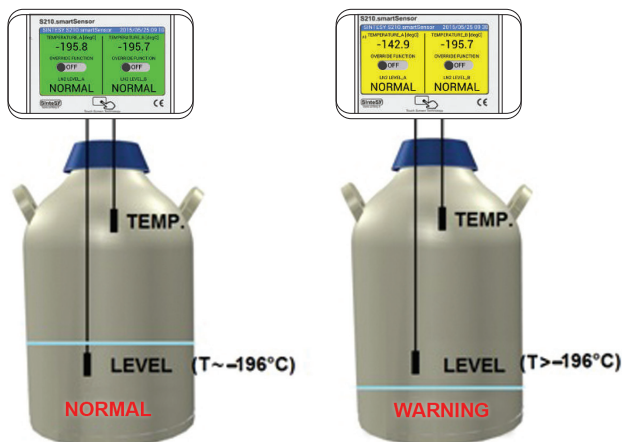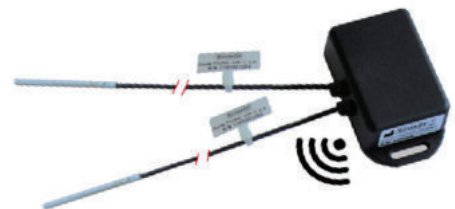
S210.smartSensor V6x can be connected to a S185 (visual and acoustic indicator), so that all the alarms are forwarded to a further alarm panel.
The datalogger can detect up to six different wireless temperature probes workings in a range of 30 meters in free air.

A typical application is the monitoring of temperature and nitrogen level inside cryogenic freezers as it is shown in the following picture.

S210.smartSensorV60

S210.smartSensor V6x has two relays (NC/NO contact) which can be connected to external alarm systems.
The device also allows the user to deactivate the control of the equipment for a programmable time, so that, meanwhile, no alarm is triggered and the usual operative activities can be carried out (i.e. refilling of aluminium vessels).

S210.smartSensor V6x can also work connected to the monitoring system based on S200.smartOxygen through the RS485 bus.
Using this port, the device can be connected to the SINTESY.eagle.lab supervisory system showing the working conditions of all the laboratory equipment.
Thanks to a micro SD card, data can be exported in CSV format, and readable in Excel tables.

V6x Series technical features

Power supply 24V=; up to 150 mA according to installed options

Two programmable relays with NC/NO contacts 48V/5A

Four 24V= digital outputs; normal, warning, alarm, beeper

Two 24V= digital inputs; temporary and permanent remote muting.

LCD status with green, yellow and red background.

Clear values indication printed as digit number and analog gauge.

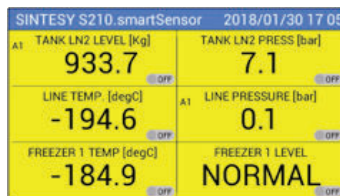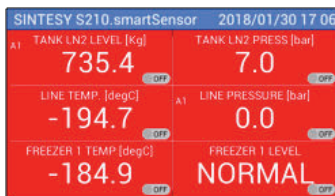Programmable Audio: EN 60601-1-8 type, double tone, single tone, siren.

Alarm acoustic pressure >70dB @ 1 m

Temporary muting (max 15 min); permanent muting by password.

RS485 2/4 wires interface, Ethernet 10/100 Mb

MODBUS-RTU protocol and MODBUS-TCP/IP protocol

According to the number of the input activated, the display can be divided in one, two, four o six rectangles.

Four programmable 4/20 o 0/20 mA analog outputs

Easy exporting function to Excel file format (.csv → .xls)

Internal Data logger with 60000 records, 10000 events, sampling time from 1 to 65000 seconds and 4 GB micro SD card

Automatic indication on LCD for calibrating/replacing

Wireless probe using bluetooth low energy (BLE 4.2 Technology)

Wireless probe uses standard lithium battery type CR2450

EN 61010-1:2010-10 Safety requirements for electrical

equipment for measurement, control and laboratory use

DIRECTIVE 2014/53/EU (Radio Equipment Directive – RED)

Dimensions: W=90mm x L=160mm x H=50mm

Working temperature -10/50 °C; storage temperature -20/60 °C

Available versions

Version	inputs	RS485 + Beeper	4 outputs 4/20 mA	2 relays	Outputs 24V	SD card RTC	Ethernet	LCD displays
V60	6 x wiProbe	✔	✔	✔	✔	✔	✔	6 measures / 6 rectangles
V61	6 x wiProbe	✔	✔	✔	✔	✔		6 measures / 6 rectangles

Option	Description	Picture
/RJ45	This option allows a very fast, secure and efficient installation, using standard CAT6/FTP cables. In addition it is compatible with the S212.crossMatrix module. Specify this option in the order code. For example: S210.smartSensor V54 / RJ45	
/PCG	Cable gland option: it allows strong and secure installation of the power supply and I/O signals cable of the sensor. Specify this option in the order code. For example: S210.smartSensor V54 / PCG	

SINTESY S.r.l. is certified
ISO 13485:2016 Medical Device – Quality management systems
ISO 9001:2015 Quality management systems

CE

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