DATA ACQUISITION

Wireless sensor: TM6650

Radio frequency Communication Monitoring
Easy to install : no cable
Automatic Configuration

SIMPLE AND WIRELESS SOLUTIONS FOR YOUR MEASUREMENTS:
Designed for monitoring and data logging , they perfectly fit not only for healthcare businesses, but also for industrial applications.
Configuration is performed by addressing each module from a computer.
Each module can repeat data from other modules automatically according to the dimension of the complete system.

Temperature: TM66501T   Measurement and monitoring of 1 temperature channel, using PT100 for a better stability and accuracy

Process: TM6650 PRO: Measurement and transmission of data from pr[...] pressure, … can also measure doors closing and openings.

Humidity/Temp:TM6650-HR: Module with relative humidity and temperature sensor, type Hygroclip, digital sensor. Sensor is calibrated and is interchangeable. A cable can be used to adapt length.

Alarms:TM6640 AR: Send with putput relays ,alarm informations to a phone transmitter and trigger horns and lights.

Radio repeater:TM6650 R: Repeats digital data between receiver and modules, in case of no measurmeent point is needed.

A complete fleet of modules can have up to 255 adresses. Data are transmitted to the monitoring computer where they are stored. The modem can also store all the data during 2 weeks, in case of computer breakdown.

Applications
Monitoring

Temperature with door Opening/closing
Display of average, maximum, minimum and standard deviation of each sensor
Display is performed as mimic diagram, curves and values
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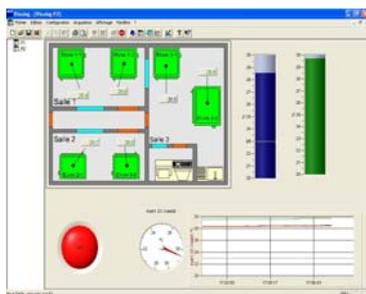
Control system and environmental monitoring
Real time survey , using Visulog software.
Complete traceability of data and events. This solution can be used also for chambers stability and homogeneity validations
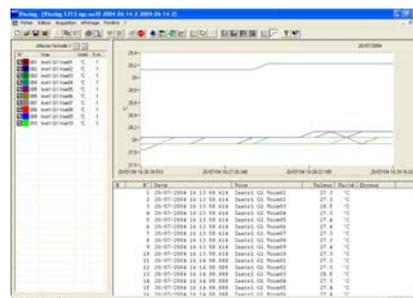
Technical specifications:

Temperature with RTD sensor IEC 751

sensor	range	Software resolution	Accuracy @1 year
PT100	- 200 °C to 850 °C	0,01°C	0.1% L+0,3°C
Current	0-24mA	0,01%	0,3%+20µA
Voltage	0-12V	0,01%	0,3%+ 10mV
Humidity/temperature	-40 to 85°C; 0-100% HR	0,01°C/ 0,01%	0,3°C; 1% HR

Power supply
4 batteries AA type; life time 1 year, (embedded battery voltage tester).
Option for supply by main (230v)and rechargeable batteries.

Modem:
Powered by USB or 4 batteries AA
Memory:30000 measurements

Data transmission checksum:
Radio transmission protocol include verification of transmitted data . If a received data is false, it is requested once again by modem. Modem also is verifying behaviour and presence of each module installed during commissioning.

Communication:
ISM radio transmission
200 meters outdoor
Frequency 868 MHz
European conformity:
 EN 300-220, EN 301-489

Associated software

VISULOG-TM: Monitoring , traceability and real time software,
Login, password, users and administrators functionalities. For CFR21 part 11 applications

VISULOG-web: this software allows distant access through Ethernet, to the Visulog data files, and real time values. Secured access with login and password.

Ordering instructions:

TM6650-1T:	**Stand alone temperature sensor delivered with 2 meters Pt100**
TM6650 Pro	**Sensor for process signal**
TM6650 DI/ HR/INT	**Sensor Humidity -Temperature**
TM6650 DI/ HR/EXT	**Sensor Humidity -Temperature with 2 meters cable**
TM6640 MM:	**USB Modem with memory**
TM6640 AR:	**Output relay sensor for triggering alarm and flash signals**
TM6650 R:	**Repeater**

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la mesure certifiée

afaq ISO 9001 Qualité AFNOR CERTIFICATION

cofrac ETALONNAGE N°2-1525 * Température
cofrac ETALONNAGE N°2-1144* Electricité Magnétisme
cofrac ETALONNAGE N°2-1227* Temps Fréquence
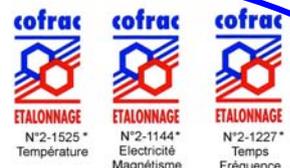
SOFIMAE laboratory on our premises of Ris-Orangis
*Ranges available on www.cofrac.fr