

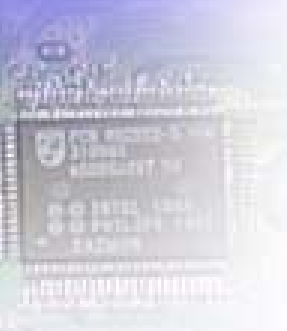


CAREL



CAREL

Wireless Probe



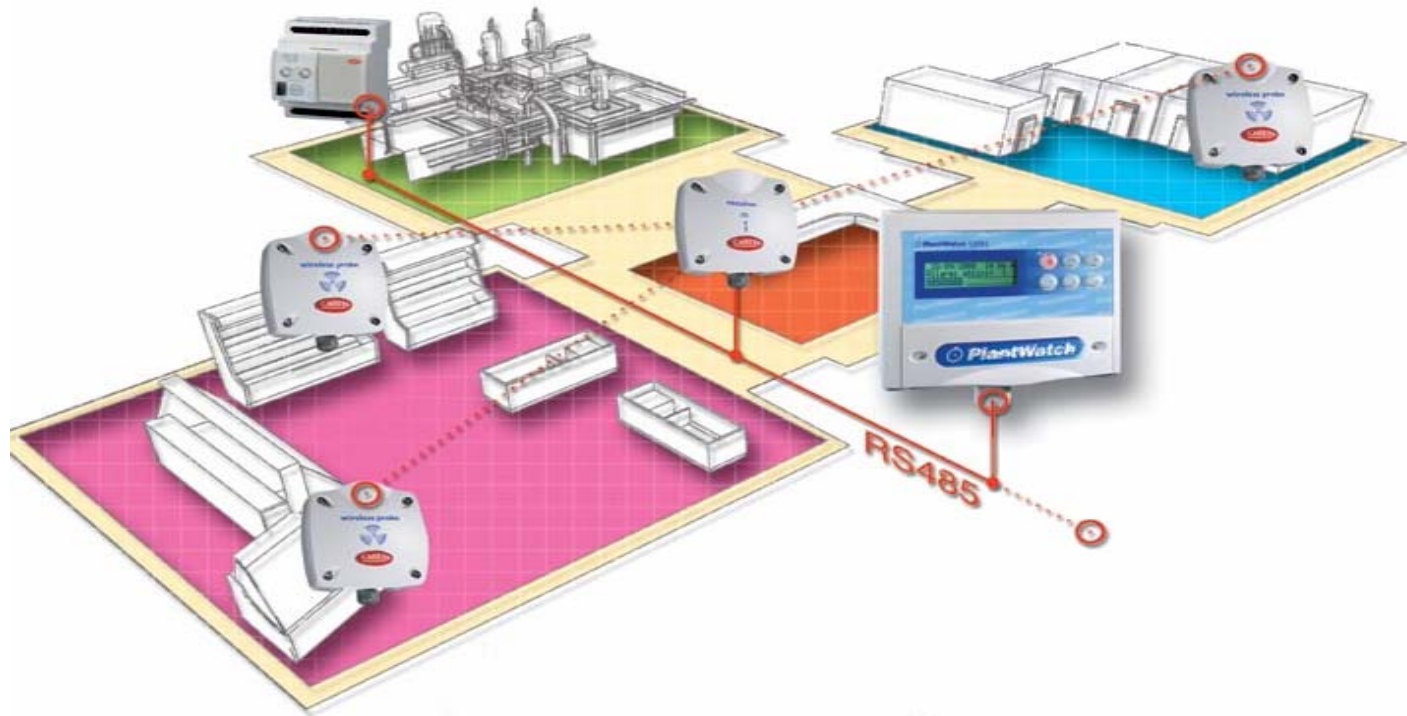
HACCP WIRELESS RETROFIT SOLUTION

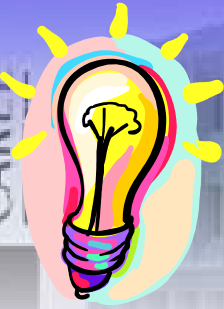
*New solution for the
electronic
controllers to simplify the
procedures required to
adapt
the systems to the food
safety and hygiene*



What Wireless Probe is

- It's a new product that completes the Carel retrofit solution for the monitoring and supervision.





What we have developed

➡ It is a family of products: Transmitter – Receiver.

The transmitter

The receiver



What Wireless Probe can do

- It permits to measure the temperature in every showcase, to monitor the defrost status and any alarms.





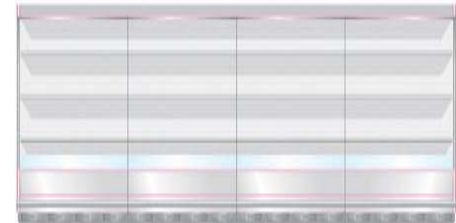
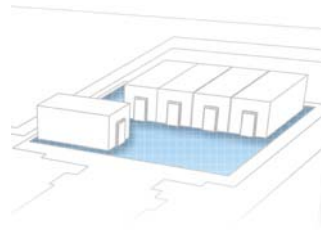
Why it is advantageous?

- *reduces and simplifies the connection, so reducing the global cost*
- *offers a valid support for the monitoring and HACCP system*
- *easy to install system with IP65 protection*
- *long life , 5 years with the same battery*
- *total compatibility with PlantWatch and PlantVisor*

Applications

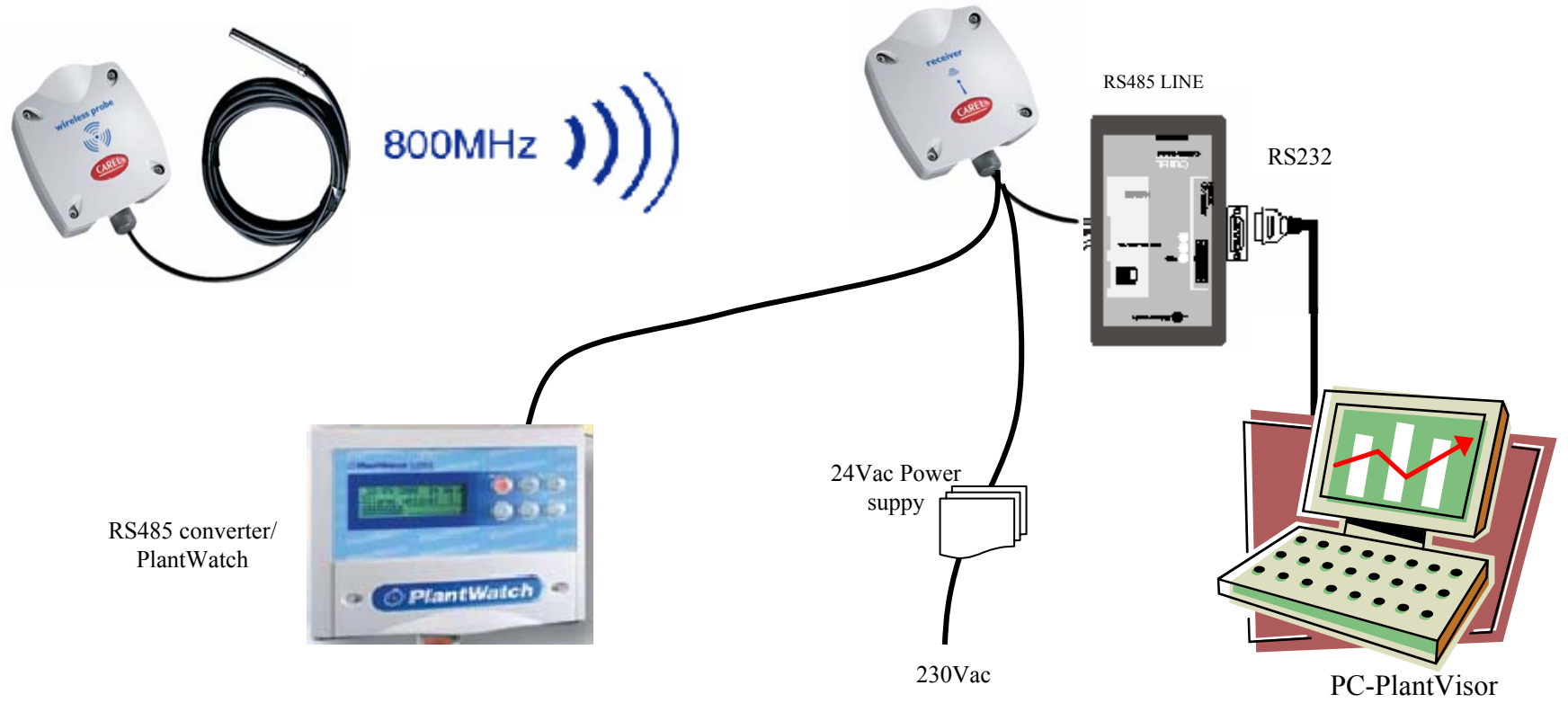
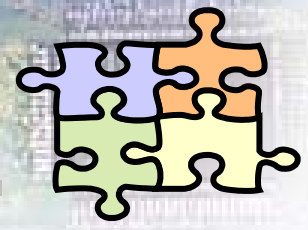
New but also old installations: thanks to the possibility of the wireless installation you can use and install it everywhere without problems

- ***showcases***
- ***cabinets***
- ***cold rooms***

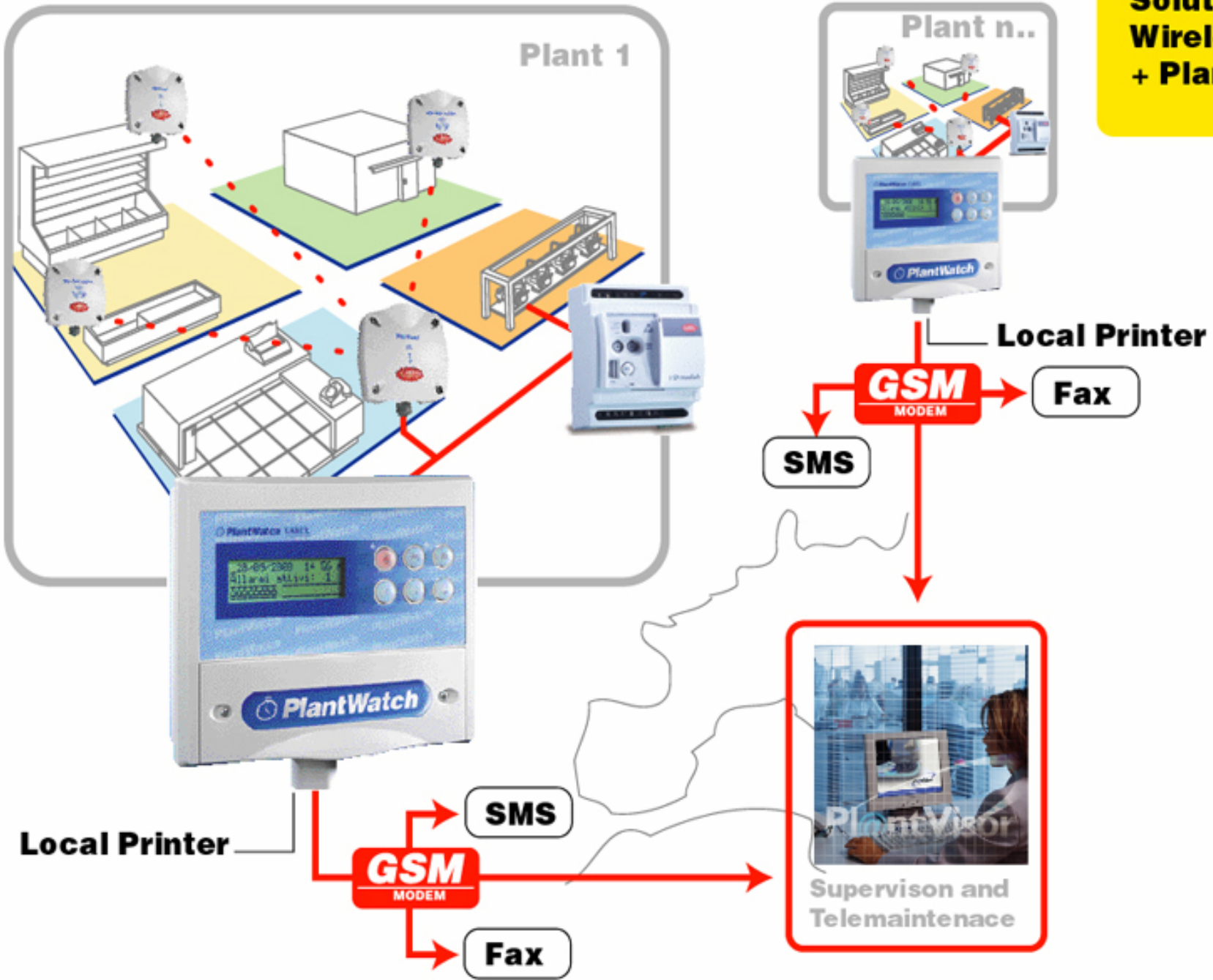


In every place – from supermarkets to little systems - where you need a telemaintenance system and where you want to comply with the HACCP standards

Plant connections



**Solution A
Wireless Probe
+ PlantWatch**



CODES :

IOR0002400 Receiver - Radio receiver with 24Vac power output RS485 supply and

ASWT013000 Probe transmitter– radio probe with 2 analog inputs with supply inputs and 2 digital battery power



Why two probes?

- ➡ *The first one is for the usual thermostat regulation (S1)*
- ➡ *The second one is the defrost-end probe (S2)*

NTC standard probes

- **NTC*WP00:**

Range from -50 to 105°C

IP67

Dim. 6 x 40mm



- **NTC*HP00:**

Range from -50 to 50°C

IP68

Dim. 6 x 15mm





Why two DI?

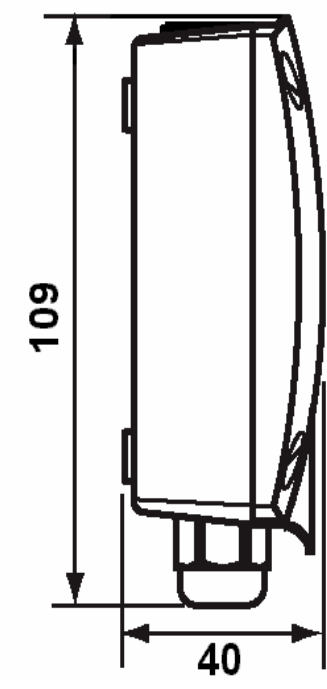
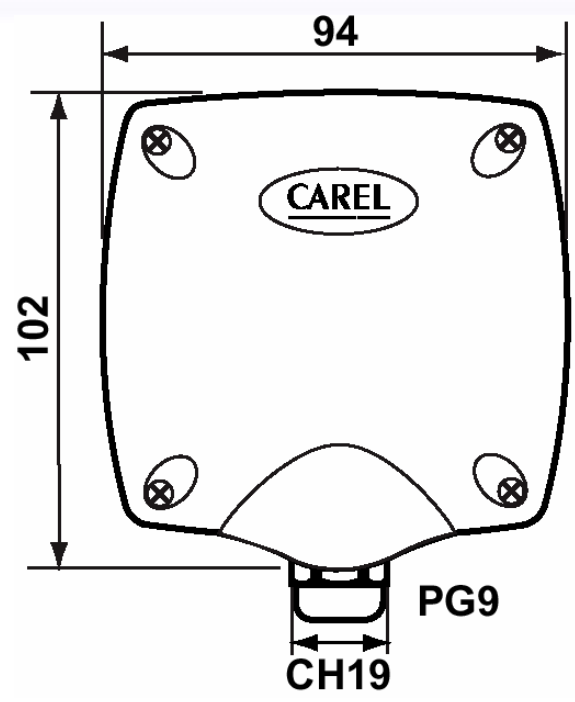
- ➡ *The first one is for the ON/OFF of the showcase*
- ➡ *The second one is the defrost-end digital input*



Main Features

- ➡ **Max number of Wireless Probes managed: 20**
- ➡ **Power supply Receiver: 24Vac $\pm 10\%$ 50/60Hz**
- ➡ **Power supply transmitters: 3V Li battery**
- ➡ **Length of the battery in normal operating conditions: 5 years**
- ➡ **Frequency RX: 869,850MHz**
- ➡ **Operating condition range: from -20 to $+55^{\circ}\text{C}$**
- ➡ **Connection to the supervisory system by the RS 485**

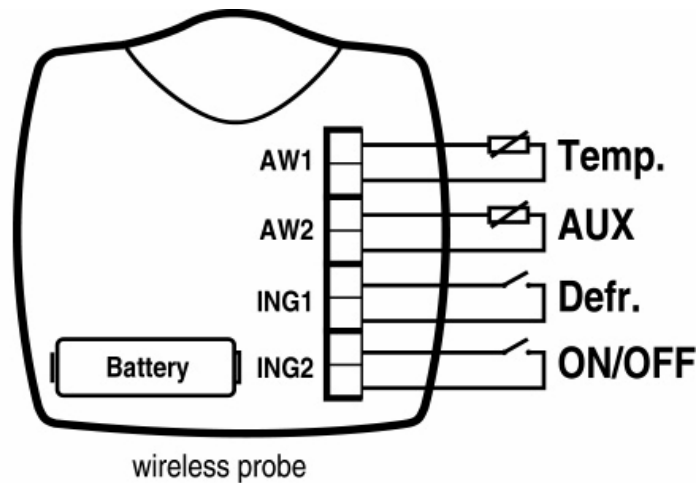
User Interfaces and dimension



Trasmmitter

Future :

- 1. 2 NTC probes (standard Carel)**
 - **Control probe**
 - **Auxiliary or defrost probe**
- 2. 2 digital inputs**
 - **Defrost status**
 - **ON/OFF status**
- 3. long life battery power supply**
- 4. transmission frequency 800Mhz compatible in all**



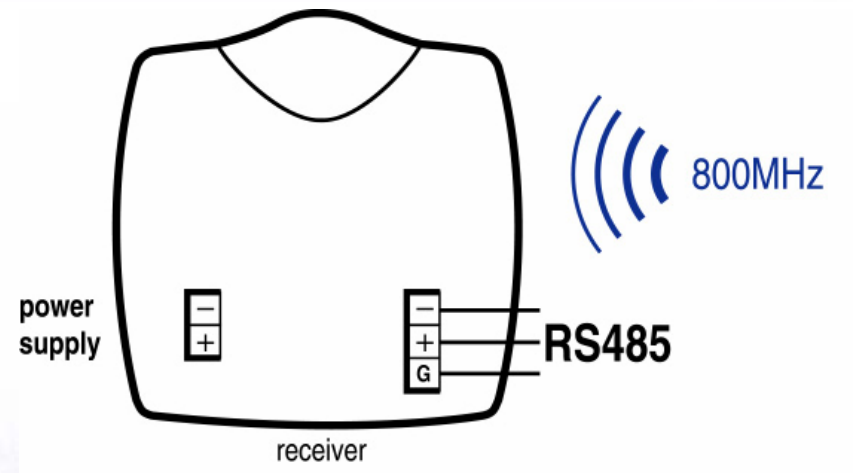


- It gathers the data from the temperature probes and the “ON/OFF” statuses of the switches connected to its inputs
- The wireless transmission grants a maximum capacity of 50m in ideal environment conditions.
- It also signals possible anomalies (flat battery or temperature probes malfunction) to the receiver which connected to the supervisor allows to intervene with a quick maintenance.

Receiver

Future :

1. Possibility to connect up to 20 wireless probes
2. Maximun distance from the probe 50m
3. RS485 to connect with the supervisor system
4. High temperature management, low temperature and power fault alarm





- The reception of the signal from the wireless probes occurs in accordance with a coding that allows to recognize every single wireless probe, identified by a single serial number.
- The receiver allows to detect and interpret the data coming from the probes and to turn them into the format compatible with Carel supervisor.



Programming Software

- Set up the software Wireless Probe - supplied by Carel - on a PC
- Connect the cable to RS485 in the 3-way vertical connector placed on the left of the receiver and to the PC parallel port
- Start-up the configuration software “wireless probes”

Receiver setup

Commands

- Write to receiver
- Read from receiver
- Erase data of receiver

Write

Read

Erase

Receiver's list of transmitters

Insert receiver's serial number: 00003E

Cancel selected

```
01. TX serial number: 000041 Net address: 001 Status: Device configured
02. TX serial number: 0000DF Net address: 002 Status: Device configured
03. TX serial number: 0000EE Net address: 003 Status: Device configured
04. TX serial number: 0000E7 Net address: 004 Status: Device configured
05. TX serial number: 0000ED Net address: 005 Status: Device configured
06. TX serial number: 0000EC Net address: 006 Status: Device configured
07. TX serial number: FFFF01 Net address: 007 Status: Device configured
08.
```

About...

Options

Port: COM1

Serial mode

RS232 mode installed

Driver installed

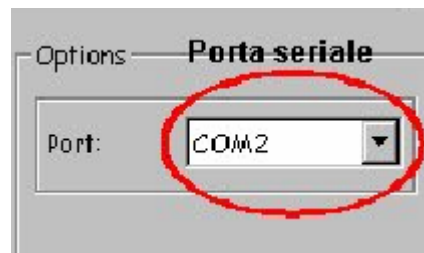
- Carel driver
- External driver

Configure
selected

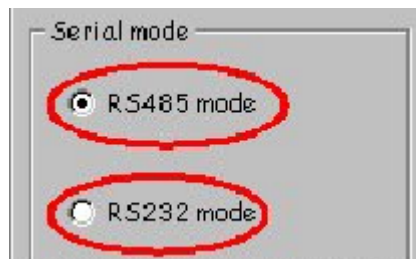
Exit Setup



- 1) Select to which serial port the receiver is connected



- 2) Select the network converter type connected between the serial port and the receiver





- 3) In this window, it is possible to select: write new device into EEPROM; read devices from EEPROM and erase receiver's EEPROM





- 4) Insert the receiver's serial number in the proper section of the configuration software

Devices	Numero seriale ricevitore Carel	Tasto di cancellazione
Insert receiver's serial number:	<input type="text" value="000001"/>	<input type="button" value="Cancel selected"/>



5) Insert the transmitter's serial number/s that the configured receiver has to recognise and their reading address

01.	Transmitter's serial number: FFFF07	Carel address: 001	Status: Device configured
02.	Transmitter's serial number: FFFF06	Carel address: 002	Status: Device configured
03.	Transmitter's serial number: FFFF05	Carel address: 003	Status: Device configured
04.	Transmitter's serial number: FFFF04	Carel address: 004	Status: Device configured
05.	Transmitter's serial number: FFFF03	Carel address: 005	Status: Device configured
06.			

5

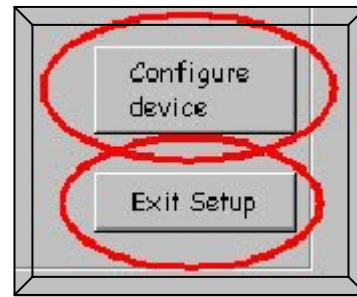
Insert new device [X]

Transmitter's serial number:

Carel address:



- 6) Program the probe and digital inputs parameters after having selected the transmitter on which you have to make the operation



Parameters Window

TDH / TDD (0 - 120 min)
TDH: 20 TDD: 40

Alarm setting
 '1' Alarm ON '0' Alarm OFF

Input 1 polarity
 '1' - Active close '0' - Active open

Input 2 polarity
 '1' - Active close '0' - Active open

Selected device **Trasmettitore selezionato**
Transmitter: FFFF07
Carel address: 1

SHP (-10°C/+80°C)
Probe 1: 30 Probe 2: 30

SLP (-10°C/+10°C)
Probe 1: -40 Probe 2: -40

Device parameters
Lista parametri ricevuti dal ricevitore

Write parameters Exit Read parameters Clear list

Tasto invio parametri Tasto chiusura finestra Tasto lettura parametri Tasto cancellazione

Parameters

Variables	Type	Value	Reading/writing	Remarks/limits
Probe 1	ANL	1	Reading	
Probe 2	ANL	2	Reading	
High temperature alarm threshold for probe 1	ANL	3	Reading / writing	-10/+80
High temperature alarm threshold for probe 2	ANL	4	Reading / writing	-10/+80
Low temperature alarm threshold for probe 1	ANL	5	Reading / writing	-50/+10
Low temperature alarm threshold for probe 2	ANL	6	Reading / writing	-50/+10
High temperature alarm delay	INT	1	Reading / writing	0-120 minutes
Defrost alarm delay	INT	2	Reading / writing	0-120 minutes
Dig Inlet 1	DIG	1	Reading	1=open 0= closed
Dig inlet 2	DIG	2	Reading	1=open 0= closed
Low battery alarm	DIG	3	Reading	1=low battery
Faulty probe alarm (NTC)	DIG	4	Reading	1=alarm
High temperature alarm for probe 1	DIG	6	Reading	1= alarm
High temperature alarm for probe 2	DIG	7	Reading	1= alarm
Low temperature alarm for probe 1	DIG	8	Reading	1= alarm
Low temperature alarm for probe 2	DIG	9	Reading	1= alarm
High temperature alarm enabling	DIG	10	Reading / writing	1=enabled
Digital inlet polarity 1	DIG	11	Reading / writing	1=active close
Digital inlet polarity 2	DIG	12	Reading / writing	1=active close
Long defrost alarm	DIG	13	Reading	1= alarm

Prices :

<i>Code</i>	<i>Description</i>	<i>Price list</i>
ASWT013000	Trasmittter	Euro 102.00

<i>Code</i>	<i>Description</i>	<i>Price list</i>
CRSWR00000	Riceiver	Euro 201.00





www.carel.com