



# Red Star Bakery Top Level



**Product presentation**

## Electronics for bakery ovens, performance without any compromises at your fingertips



### Red Star

The product line dedicated to professional ovens. Over 20 years of experience have allowed ECS to develop products capable of managing all the oven functions.

### Dedicated

Control board and user interface are designed in order to fulfill any deck oven needs for bread and pizza baking. The touch display ensures a quick and efficient machine usage.

### Connected

All the products of the Red Star line come with a Wi-Fi module. The Connecty.cloud allows you to exploit all the opportunities offered by the IoT.

# Cloud service



The final user can: manage the recipe-book, monitor the machine, browse the log HACCP.



Servicing can: monitor I/O section, locate the machines in order to perform an accurate service.



Manufacturer can: Update board software, collect data regarding customer habits usage in order to arrange servicing or promotional campaign.

## Free

- ✓ Connecty.cloud
- ✓ User functions
- ✓ Service functions
- ✓ Manufacturer functions

Free



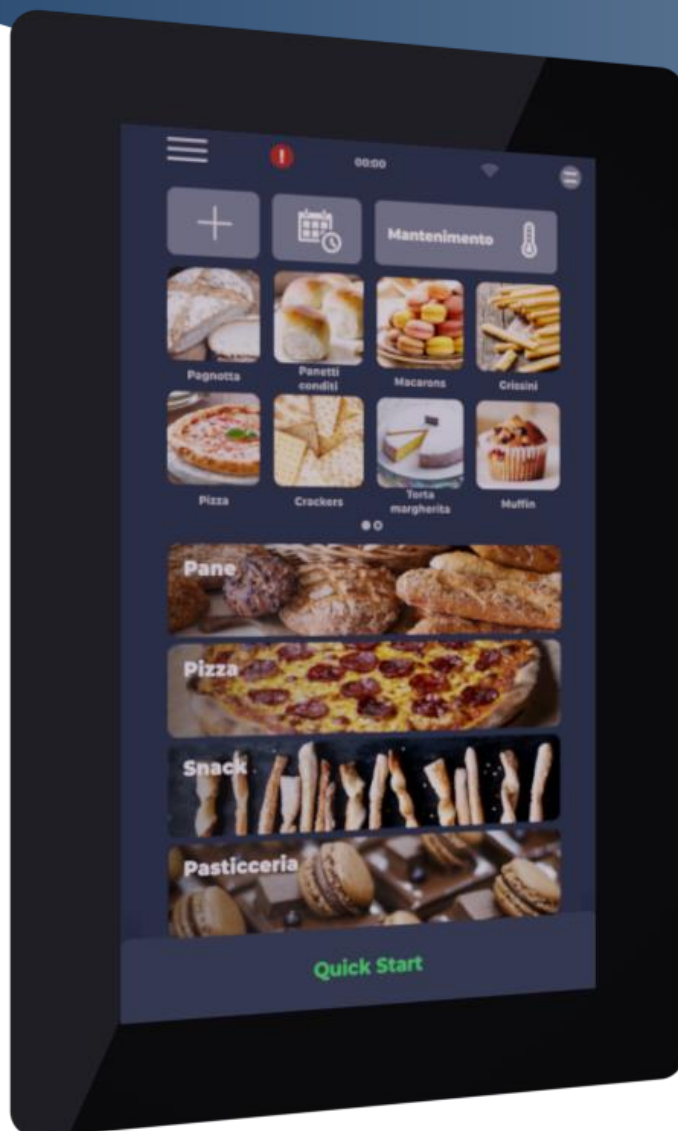
## Company

- ✓ All free plan functions
- ✓ Access to all machines
- ✓ Platform and branding customizations

Fee



**Quick and intuitive interface made available for technology**

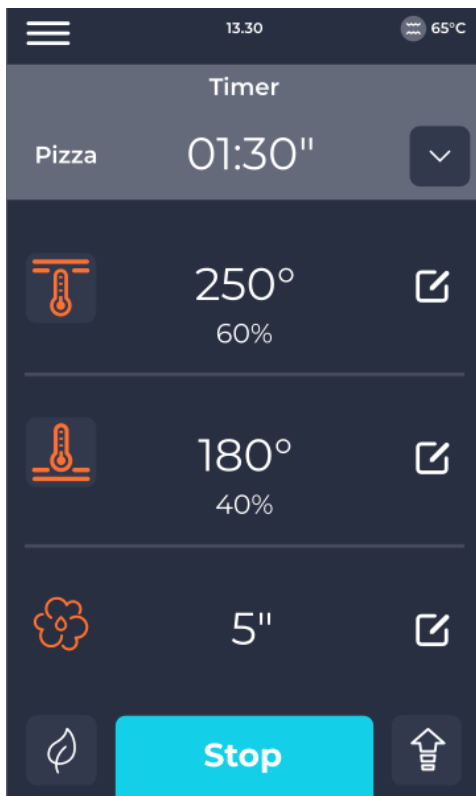


**7" Touch display**

# User interface



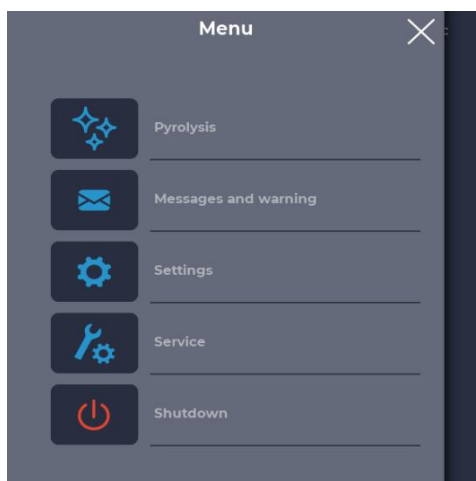
## Procedure



### Quick edit

The oven main page enables all the most important functions setting: temperature and power of ceiling and floor, timing, humidity and eco/boost functions.

Any adjustment is automatically saved with no confirmation needed in order to optimize timing and use.



### Contextual menu

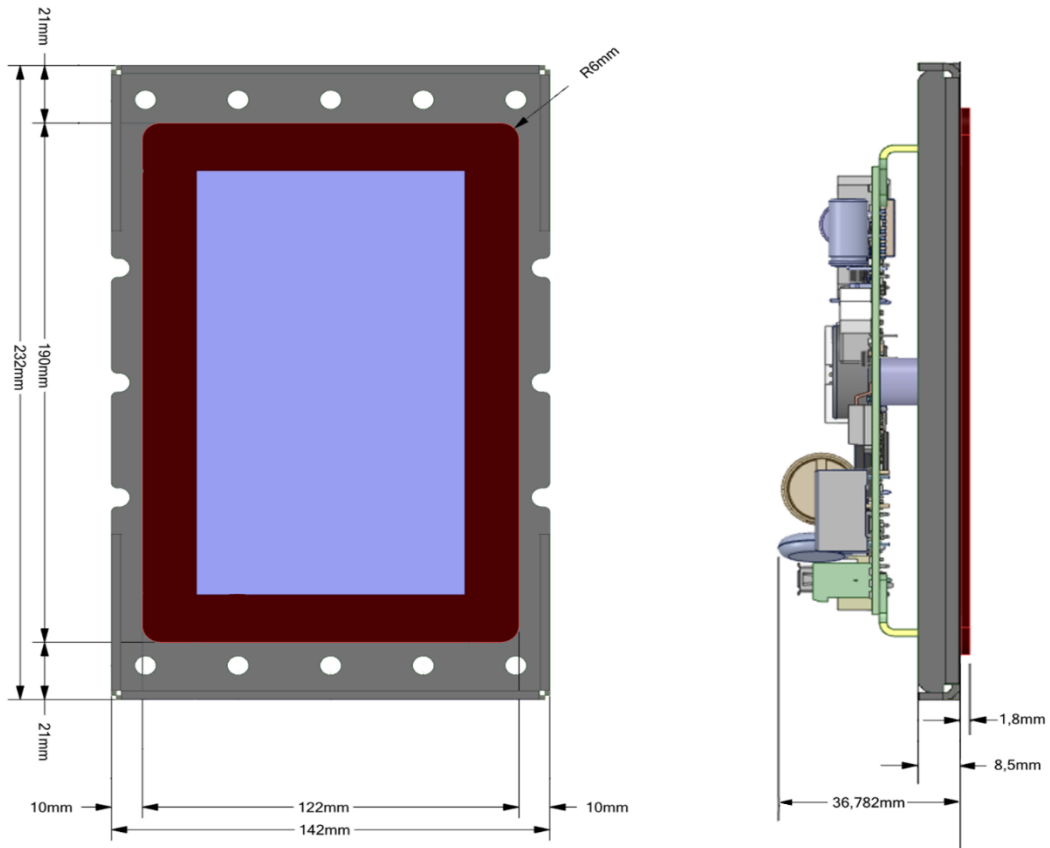
The menu contains both contextual functions related to the origin page and global functions like general settings or statistics.



### Eco/Boost functions

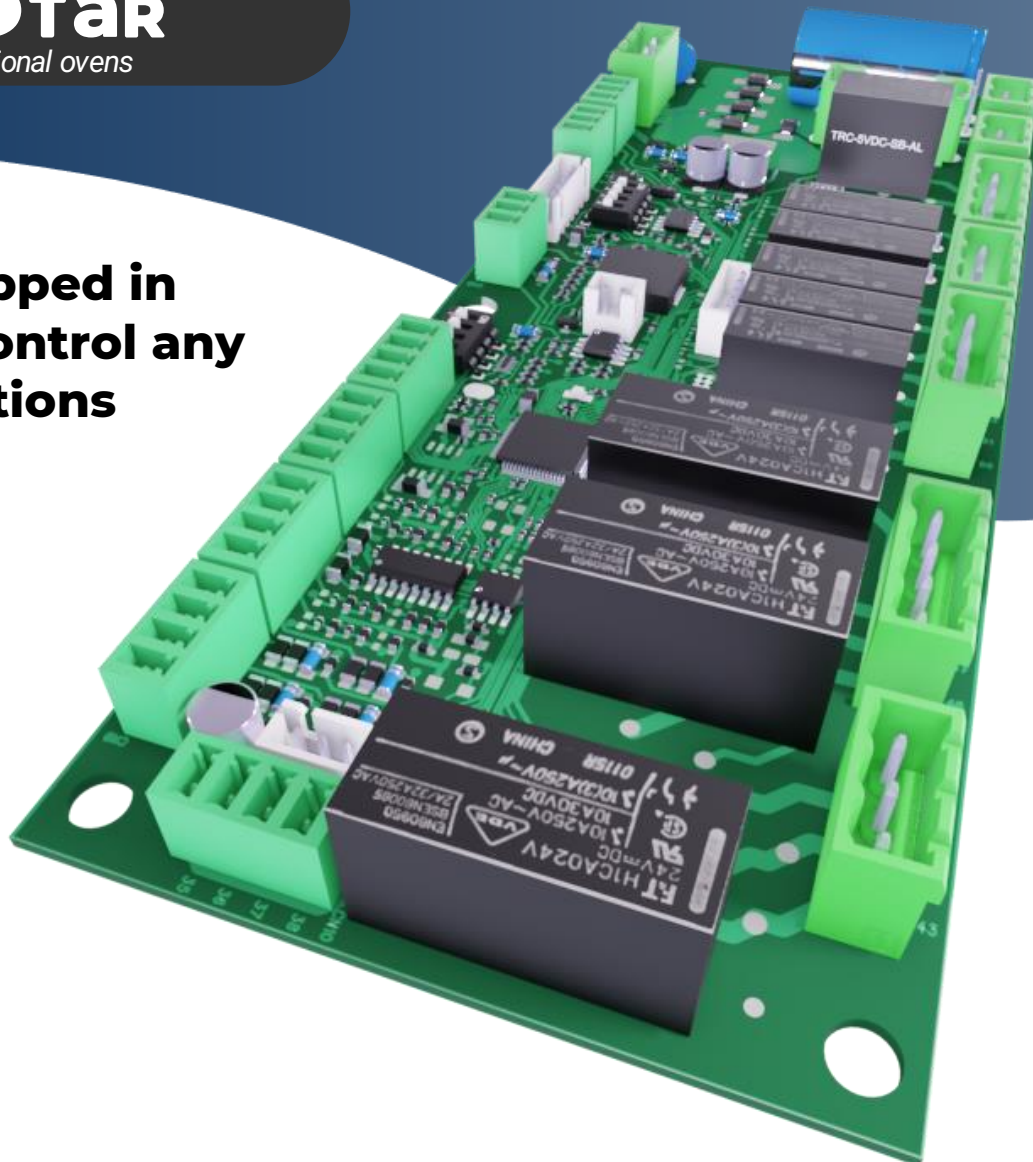
Energetic management features provide accurate regulation of the oven power. Depending on specific needs, boost and eco functions ensure efficient control consumption.

## Display 7"



Equipment 7"	Description
Resolution	Resolution 1024x600   Touch Capacitive
Dimensions	142 x 232 x 37 mm
Weight	702 gr
Power supply	12 ÷ 18Vdc provided by main board
Power requested	10W rated output
Inputs/Outputs	1 Removable connector 3 ways p. 5mm 2 Connectors 3 ways for analogue inputs (optional) 1 Connector JST 4 ways for encoder/digital inputs (optional) 1 Connector 14 ways for keys board (optional)
Communication	1 serial RS485 1 serial CAN (optional) 1 serial ECS Bus for connection with main board 1 USB A type Software updating 1 Connector for Micro SD card for mass-storage
Connectivity	Integrated WiFi module
Container	Not provided

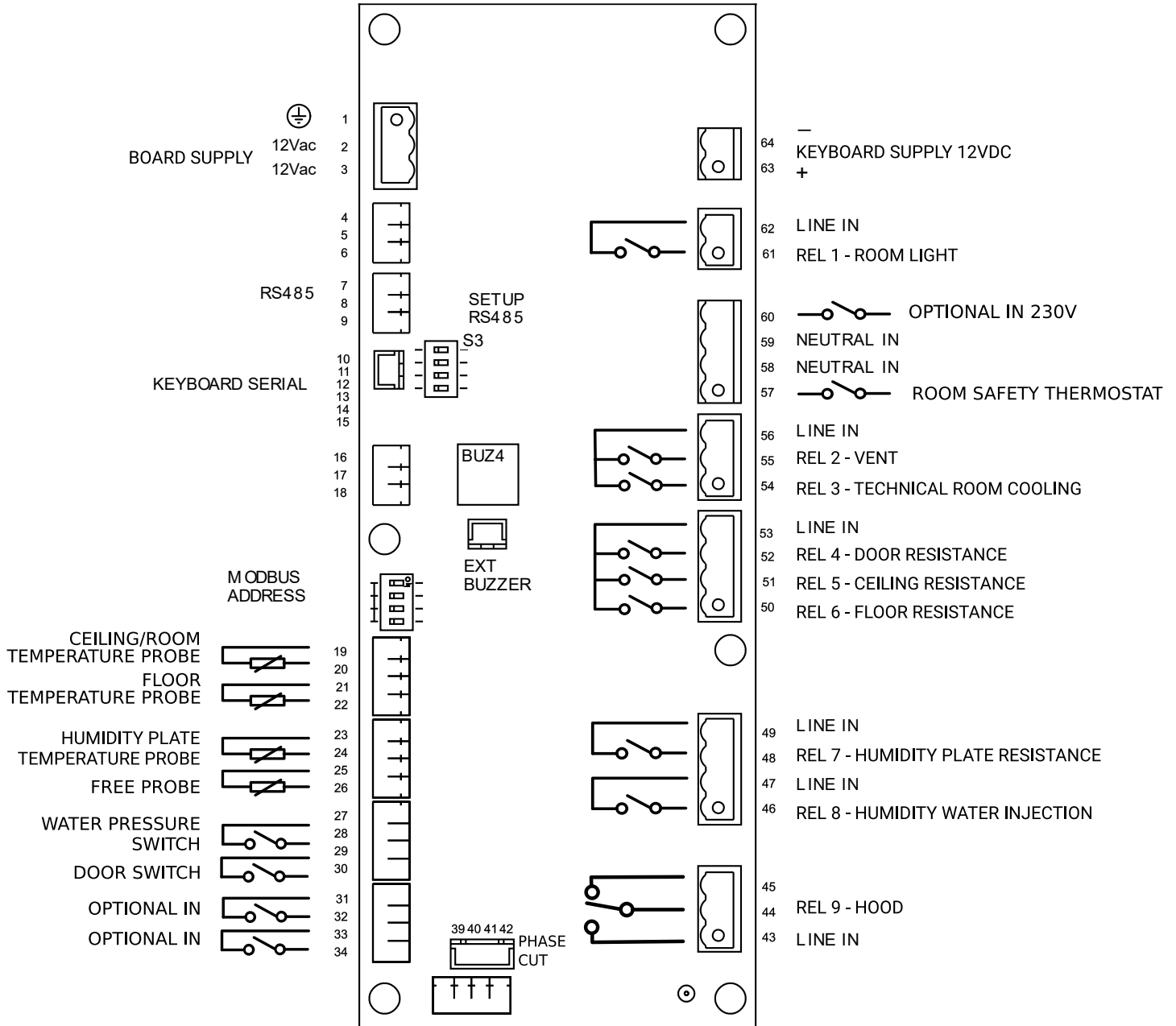
**Fully equipped in  
order to control any  
oven functions**



## **RS09 I/O control board**



# RS09 I/O Connections



## RS09 I/O Equipment

Equipment	Description	Characteristics
Max overall dimensions	L 203 x H 78.50 x 35 mm	
Weight	156 gr	
Power supply	12 Vac + uscita dc per HMI 12Vdc 2 A	
9 Digital outputs (*)	Room light relay	5 A (AC1 @230/12-24Vac-dc)
	Vent relay	5 A (AC1 @250 Vac )
	Technical room cooling relay	5 A (AC1 @250 Vac )
	Door resistance relay	5 A (AC1 @250 Vac )
	Ceiling resistance relay	5 A (AC1 @250 Vac )
	Floor resistance relay	5 A (AC1 @250 Vac )
	Humidity plate resistance relay	16 A (AC1 @250 Vac )
	Humidity water resistance relay	16 A (AC1 @250 Vac )
	Hood relay	16 A (AC1 @250 Vac )
(*)max power range of the terminals is 12 A for each one		
4 Digital inputs LV	Door switch	Clean contact
	Water pressure switch	Clean contact
	Free	Clean contact
	Free	Clean contact
2 Digital input HV	Room heating/Gas block	115-230 Vac
	Free/Zero cross optional	115-230 Vac
4 Analogue inputs	Ceiling probe	PT1000/Thermocouple J/K
	Floor probe	PT1000/Thermocouple J/K
	Humidity probe	PT1000/Thermocouple J/K
	Free	PT1000/Thermocouple J/K
1 NTC cool joint	NTC	NTC on board
2 I/O analog 0-10V		In and Out 0-10v 4-20mA
3 Digital outputs LV	External SSR command	open collector NPN
2 Digital outputs LV	Phase cut expansion control	open collector NPN
Analog output	1 output	0÷10V o 0÷20mA
Communication	ECSBUS	Yes not isolated
	RS485	Yes not isolated
	RS232 TTL	Yes not isolated
Buzzer	4kHz / 85dB @ 10cm	On board or external



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