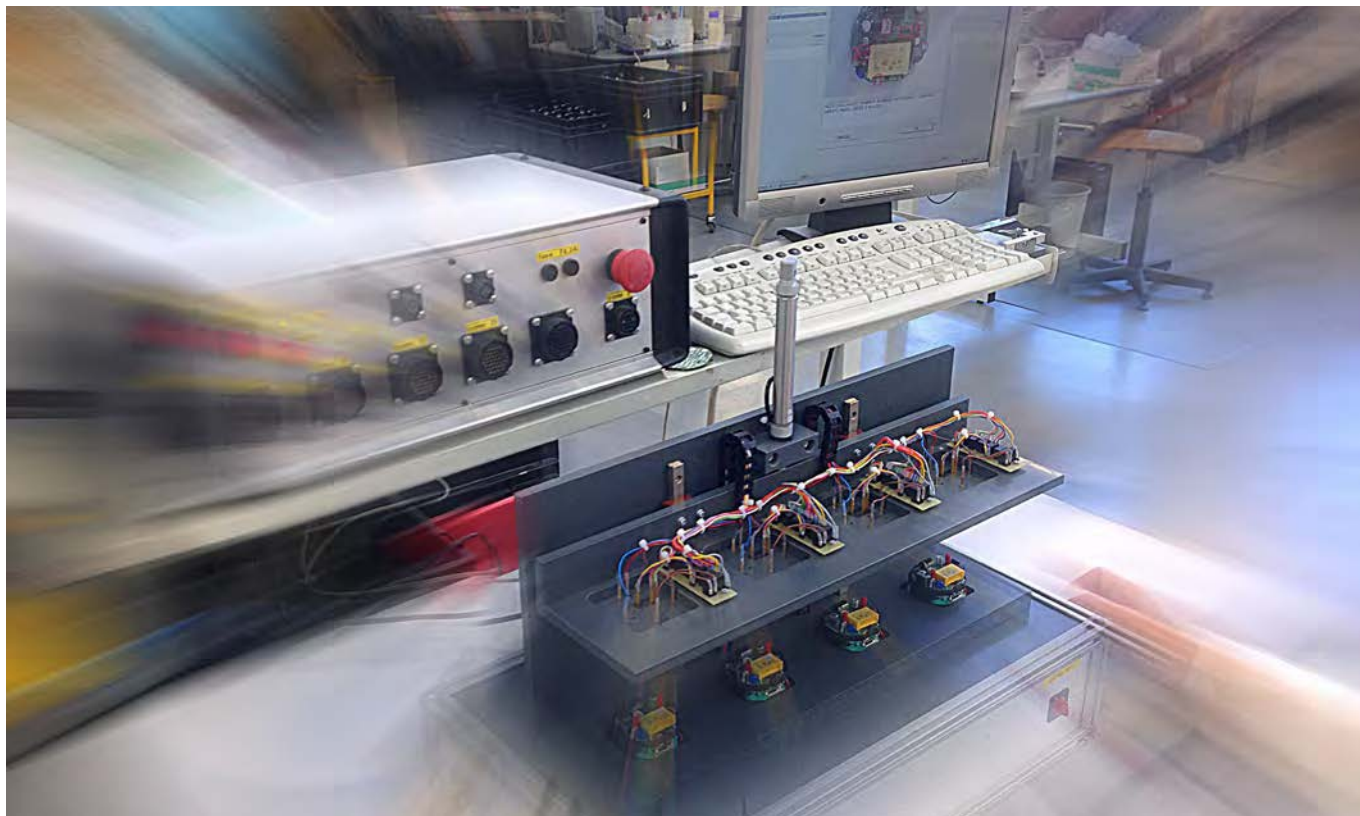


# Mec-tronic competences



Everel has strong R&D and Innovation departments which combine mechanic and electric/electronic competences.

Through a close cooperation with customers, a wide variety of Smart solutions are being designed and produced creating Adding Value and Cost Effectiveness.

## Applications

MEC-TRONIC Solutions are available for White Goods (Ovens, Cooker hobs, Refrigerators), as well as for Small appliances (Blenders, Coffee machines), or HVAC (Air treatment, Air Extractors).





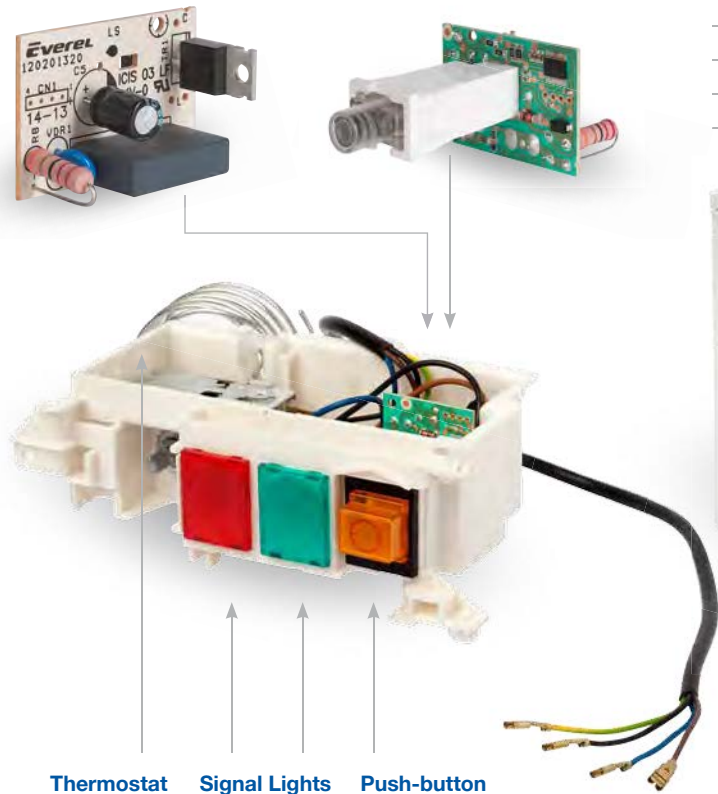


# ELECTRONIC ILLUMINATED PUSH-BUTTON SWITCH WITH TIMER

Led-illuminated momentary switch with embedded microprocessor circuit board and power supply

An illuminated mechanic push button is attached to a PCB managing the refrigerator's fast freezing.  
When the button is pushed, it switches on the super cooling, and automatically disconnecting it after 72 hours of service.

APPLICATION	Low-power switching control for small and large appliances
POWER SUPPLY	220-240 VAC
FREQUENCY	50-60Hz
LOAD TYPE	0,95A, 220-240 VAC
STAND-BY POWER	< 0,15W
TEMPERATURE	T65
SWITCHES	1 TRIAC





## COFFEE MACHINE TIMER

This control timer manages the heater and dispenser pump loads of a coffee machine

The system comprises a PCB board, which manages the coffee machine, and two illuminated push buttons, one for main on/off, the other to select the coffee.

Its flexibility and reliability allow a perfect integration in most coffee machines. More customizations are also possible.



<b>APPLICATION</b>	Electronic timer switch for coffee machine
<b>POWER SUPPLY</b>	230 VAC
<b>FREQUENCY</b>	50-60HZ
<b>LOAD TYPE 1</b>	max. 1kw, 230 VAC
<b>LOAD TYPE 2</b>	max. 50W, 230 VAC
<b>STAND-BY POWER</b>	<0,25W
<b>TEMPERATURE</b>	T85
<b>SWITCH 1</b>	Relay
<b>SWITCH 2</b>	Triac

### THE HARDWARE

All inputs and outputs necessary to manage the coffee machine are included in this hardware; an integrated system of energy saving switches the machine off after a pre set stand-by time. Many functions are available:

- counting capsule
- water heater temperature control
- safety function of the warm water delivery
- set up the stand by time

This sub assembly solution is composed by:

- 1 electronic PCB
- 1 software
- 2 electronical push button switches (made of polycarbonate to better spread break forth the ledlight)

The control timer is highly customizable:

- body shape and marking on demand
- cable lengths
- led light colour
- Taylor made software



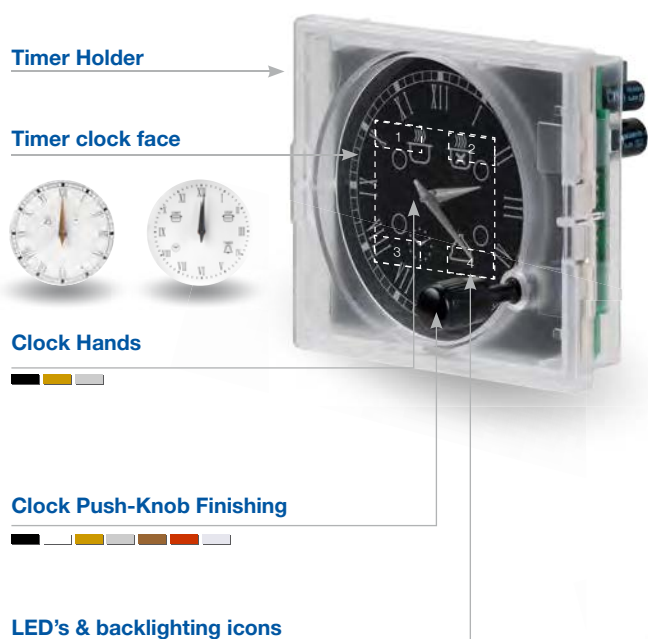




## ELECTRONIC TIMER WITH PUSH KNOB

Management of cooking time and delayed baking in Oven Applications

This timer governs the time display (with analog hands) and the operation of the oven (using push knob and indicator icons). Pushing on the knob, you can adjust the time, program the start time and end of cooking, set the alarm (Minute Minder).



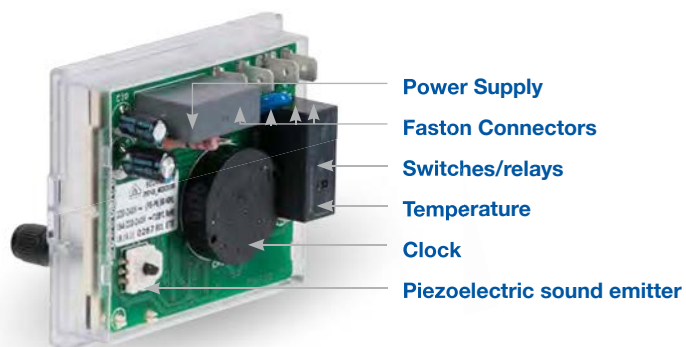
1. Setup Start of Cooking
2. Setup End of Cooking
3. Setup Minute Minder
4. Setup Clock



### CONNECTIONS

Power supply tab terminals  
Switch tab terminals relay integrated

<b>RATING</b>	220 - 240 VAC (110 - 120 VAC technical contingent)
<b>FREQUENCY</b>	50 - 60Hz
<b>LOAD TYPE</b>	16A, 220 - 240 VAC, $\cos\phi = 1$
<b>CONNECTION</b>	Flat push-on connectors (tab terminals 6.3x0.8mm)
<b>STAND-BY POWER</b>	< 0,5 W (< 0,35 W technical contingent)
<b>TEMPERATURE</b>	T105 (T120 technical contingent)
<b>SWITCHES</b>	1 Relay (2 independent relays technical contingent)
<b>TIMER HOLDER</b>	Lots of typologies to meet any needs (customization technical contingent)
<b>TIMER CLOCK FACE</b>	Lots of typologies to meet any needs (customization technical contingent)
<b>CLOCK HANDS AND KNOB</b>	Many colours available as indicated in the figure



### INPUT/OUTPUT FROM BOARD

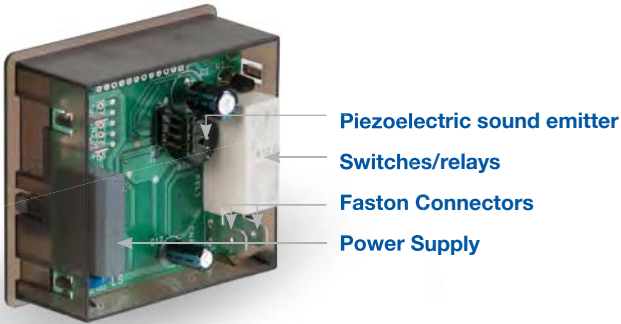
No. 1 Piezoelectric sound emitter  
No. 1 Led for backlighting icons  
No. 3 push knob program management



# ELECTRONIC DIGITAL TIMER

This timer/ Timer switch controls the time of the day (with led digit display), minute minder, cooking duration and cooking end time (using 3 touch buttons). The programmer buttons (touch control timer). There are three buttons on this type of timer.

<b>RATING</b>	220 - 240 VAC (110 - 120 VAC technical contingent)
<b>FREQUENCY</b>	50 - 60Hz
<b>LOAD TYPE</b>	16A, 220 - 240 VAC, cosφ = 1
<b>CONNECTION</b>	Flat push-on connectors (tab terminals 6.3x0.8mm)
<b>STAND-BY POWER</b>	< 0,5 W (< 0,35 W technical contingent)
<b>TEMPERATURE</b>	T105 (T120 technical contingent)
<b>SWITCHES</b>	1 Relay (2 independent relays technical contingent)
<b>TIMER HOLDER</b>	Lots of typologies to meet any needs (customization technical contingent)
<b>TIMER CLOCK FACE</b>	Lots of typologies to meet any needs (customization technical contingent)
<b>CLOCK HANDS AND KNOB</b>	Many colours available as indicated in the figure



### CONNECTIONS

Power supply tab terminals  
Switch tab terminals relay integrated

### INPUT/OUTPUT FROM BOARD

No. 1 Piezoelectric sound emitter  
No. 1 Led display  
No. 3 touch sensor program management

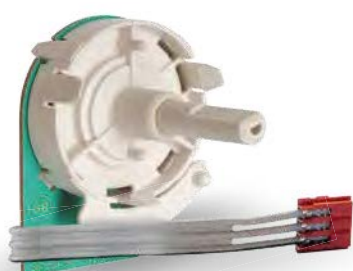


## SMART ENCODER

Great reliability under critical conditions:  
high operating temperatures, vibrations, dust

A wide variety of encoder platforms has been designed, matching customer's needs and giving extra features and high reliability.

- Output parameters: binary BCD, Resistor array, potentiometer, incremental
- Positions: up to 20
- Push to select function
- Possibility for momentary zones with automatic return or free rotations
- Different shaft torques available
- Different noise levels available
- Installation: welding Pins, wirings, terminals
- Integrated LEDs



### CS1

**Fixing Type:** Snap-in  
**H Shaft (mm):** 22,5  
**Number of positions:** 16 P



### MV2

**Fixing Type:** Soldering pin  
**H Shaft (mm):** 12,7  
**Number of positions:**  
Free rotation 360° with step





## OVEN CONTROL

Advanced integrated mechatronic user interfaces

Everel supplies customized oven control solutions, combining together user-friendly mechanical interfaces and advanced electronic technologies to allow customers to market exclusive easy-to-use appliance controls.

Our dual-rotary solution provides a way to set and control two variables, for example oven function and temperature, with just one knob. Advanced features such as LED lighting and DISPLAY can be embedded in the knob. Also the knob can become a push-button, for example to confirm the selected oven program.

The external knob is then interfaced to the electronic unit, which can be customized by Everel to meet the customer needs and includes power controls, touch capacitive displays and power supply.



Customizable images/text