

**Most suited for:**

Cooking-, baking- units and cooking vats, refrigeration units, tumblers

**Function:**

After the operating time has run out, the regulator will switch off. The signal output will alert you to the **end of the program or a sensor failure**. One output is available for either the **heating- or refrigeration control**, another one for either the **signal, operation status report or upper-/lower Value** (selectable). One **Pt100 sensor input for temperature measurement** of the operating temperature is available.

In case of a power cut, the regulator MKA 109 resumes the interrupted program automatically after power is restored.



Graphic with optional WP-frame

**Special features:**

- **Function with two steps** can be set
- heating- and cooling operation can be set
- signal output or operational relay can be set
- various signal functions can be set
- optional waiting time before every program start
- control action for the heating can be set : 2-point, XP or clocking, hysteresis can be set
- adjustable window for 2-level-heating
- option of starting the operating time only after a certain adjustable temperature has been reached

**Rang of settings:** Operating time from 00h : 01min to 99h : 59min **or can be changed over**  
from 00min : 01sec to 99min : 59sec; 00 : 00 = continuous operation  
Temperature range for the chamber temperature from 0°C to 250°C

**Technical data**

**Mechanical data**

Casing: DIN 43700  
Front frame 96 x 96 mm  
with WP frame 138 x 138 mm  
Mounting dims. 90 x 90 mm  
Mounting depth 55 mm  
with terminals 70 mm  
reinforced fibre-glass Noryl,  
shock-resistant, black colour,  
temperature-resistant up to 110°C  
(low flammability)  
Own weight: 600 g

**In-/outputs**

Inputs: 1x Pt100, two-wire circuit,  
can be digitally aligned  
Outputs: 2x relay outputs,  
Switching capacity 250V AC/5A  
potential free, of which  
1x change-over contact for signal,  
operation or upper-/lower value  
1x closer for heating or cooling

**Options:**

- waterproof frame (WP), protection IP 67  
from the front

**Electrical data**

Operating voltage (standard): 230V 50/60Hz +/-10%  
Special design: 24/42/48/110/127/240 V  
Own consumption: ca. 6 VA  
Safeguards on front side: with rubber seal IP 65  
**optional:** with WP frame IP 67  
Connections: connection terminals 1,5 mm<sup>2</sup> (detachable)  
Permissible ambient temperature: -10/+70°C

**Displays**

digital (7-segment display, red)  
Height of numbers: 14 mm  
3-digit for temperature, resolution 1°C  
4-digit for operating time, resolution 1 min  
Switching status display: light-emitting diodes (LED)

**Circuit diagram**

