

iProtocol 55.13032.530

iProtocol EGO Capillary Thermostat 55.13032.530 User Manual

Model: 55.13032.530

1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of the iProtocol EGO Capillary Thermostat, Model 55.13032.530. This device is designed for constant temperature control and overheat protection in various applications.

Intended Use: The thermostat is suitable for use in a wide range of appliances and industrial equipment, including but not limited to:

- Refrigeration units (fridges, freezers)
- Hot and cool dispensers
- Air conditioners
- Cooking equipment (fryers, electric ovens, microwave ovens, waffle makers)
- Sauna heaters
- Water beds
- ATM machines
- Electric water heaters, water boilers, warm air heaters, washing machines, and other kitchen equipment.

Please read this manual thoroughly before installation and operation to ensure proper function and safety.

2. SAFETY INSTRUCTIONS

WARNING: Risk of electric shock. Installation and servicing should only be performed by qualified personnel.

- Always disconnect power to the appliance before installing, servicing, or removing the thermostat.
- Ensure all wiring connections comply with local electrical codes and regulations.
- Do not exceed the specified voltage and current ratings of the thermostat.
- Handle the capillary tube and probe with care to avoid kinking or damage, which can affect accuracy and

performance.

- Ensure the thermostat is securely mounted to prevent movement or damage during operation.
- Keep the thermostat and its components away from water or excessive moisture unless specifically designed for such environments.
- Do not attempt to repair a damaged thermostat. Replace it with a new, compatible unit.

3. PRODUCT OVERVIEW

The EGO Capillary Thermostat 55.13032.530 consists of a control unit with a temperature dial, a capillary tube, and a temperature sensing probe. It operates as a thermal switch to maintain a desired temperature range.



Figure 3.1: Front view of the thermostat, highlighting the main control knob, the coiled capillary tube, and the elongated temperature sensing probe. The knob features temperature markings from 60 to 190 degrees Celsius.

60-190°C
55.13032.530



Figure 3.2: Top view of the thermostat's control knob, clearly displaying the temperature scale from 60 to 190 degrees Celsius and the model number 55.13032.530 printed on the face.



Figure 3.3: Side profile of the thermostat, illustrating the main body and the electrical connection terminals located at the bottom for wiring into an appliance circuit.



Figure 3.4: Rear view of the thermostat, providing a clear look at the electrical terminals and the product identification label on the housing, including the model number 55.13032.530.

4. SPECIFICATIONS

Feature	Specification
Product Name	EGO Temperature Controller
Model	55.13032.530
Material	Metal, Plastic, Resin
Operating Temperature Range	60-190 degrees Celsius
Differential	3 ± 2 degrees Celsius
Voltage Rating	AC 250V

Feature	Specification
Current Rating	16A
Probe Length	77mm (3.03 inches)
Capillary Length	830mm (32.68 inches)
Capillary Material	SUS (Stainless Steel)
Switch Type	NC (Normally Closed)
Product Certification	CQC
Life Expectancy	10,000 cycles
Package Dimensions	0.39 x 0.39 x 0.39 inches
Weight	2.2 Pounds

5. SETUP AND INSTALLATION

IMPORTANT: Installation must be performed by a qualified electrician or service technician. Ensure power is disconnected before proceeding.

- Power Disconnection:** Turn off the main power supply to the appliance or system where the thermostat will be installed. Verify that power is off using a voltage tester.
- Mounting the Thermostat:** Secure the thermostat control unit in a suitable location within the appliance. The thermostat typically mounts using a nut (included) through a panel opening. Ensure it is stable and accessible for temperature adjustment.
- Positioning the Capillary and Probe:** Carefully route the capillary tube to the area where temperature needs to be sensed. The probe (the tip of the capillary) must be placed directly in the environment or on the surface whose temperature is to be controlled. Avoid sharp bends or kinks in the capillary tube. Ensure the probe is not exposed to direct airflow that could cause inaccurate readings.
- Electrical Connections:** Connect the thermostat's terminals to the appliance's electrical circuit according to the appliance's wiring diagram. This thermostat is a Normally Closed (NC) type, meaning the circuit is closed (power flows) when the temperature is below the set point, and opens (power cuts off) when the temperature reaches or exceeds the set point.
- Verify Connections:** Double-check all electrical connections for tightness and correct polarity. Ensure no bare wires are exposed.
- Restore Power:** Once installation is complete and verified, restore power to the appliance.

6. OPERATING INSTRUCTIONS

The iProtool EGO Capillary Thermostat is designed for straightforward temperature control.

1. **Initial Power-Up:** After installation and power restoration, the thermostat will begin sensing the temperature via its probe.
2. **Setting the Temperature:** Rotate the control knob on the front of the thermostat to the desired temperature setting within the 60-190 degrees Celsius range. The markings on the knob indicate the temperature at which the thermostat will open its contacts (turn off the heating/cooling element).
3. **Temperature Regulation:** The thermostat will automatically switch the connected appliance's heating or cooling element on or off to maintain the set temperature. Due to the differential (3 ± 2 degrees Celsius), the actual temperature will fluctuate slightly around the set point.
4. **Turning Off:** To completely turn off the controlled function, rotate the knob to the 'OFF' position if available, or disconnect the main power supply to the appliance.

7. MAINTENANCE

The iProtool EGO Capillary Thermostat requires minimal maintenance to ensure long-term reliable operation.

- **Cleaning:** Periodically clean the exterior of the thermostat control unit with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure no liquids enter the thermostat housing.
- **Inspection:** Regularly inspect the capillary tube and probe for any signs of damage, kinks, or corrosion. Ensure the probe remains securely in its intended sensing location.
- **Electrical Connections:** Periodically check electrical connections for tightness. Loose connections can lead to overheating or intermittent operation.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature and humidity limits for the thermostat.

WARNING: Always disconnect power before performing any maintenance or inspection.

8. TROUBLESHOOTING

If you experience issues with your iProtool EGO Capillary Thermostat, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Appliance not heating/cooling	No power to the appliance Thermostat set too low/high Faulty wiring Damaged thermostat	Check main power supply and circuit breaker. Adjust thermostat setting. Inspect wiring for loose connections or damage (with power off). Replace thermostat if damaged.

Problem	Possible Cause	Solution
Temperature is inaccurate or inconsistent	Improper probe placement Damaged capillary tube/probe External heat sources affecting probe	Ensure probe is correctly positioned in the sensing area. Inspect capillary for kinks or damage; replace if necessary. Relocate probe away from drafts or direct heat/cold sources not intended for control.
Thermostat does not switch off/on	Incorrect wiring Internal thermostat failure	Verify wiring against appliance diagram (with power off). Replace the thermostat.

If the problem persists after attempting these solutions, contact a qualified service technician.

9. WARRANTY AND SUPPORT

Specific warranty information for the iProtool EGO Capillary Thermostat 55.13032.530 may vary depending on the retailer and region of purchase. Please refer to your purchase documentation or contact your seller for details regarding warranty coverage.

For technical support or inquiries, please contact the manufacturer, iProtool, or your authorized distributor.

When contacting support, please have your product model number (55.13032.530) and purchase information readily available.