

## RM-AC700 – Advanced Control Devices

### Description

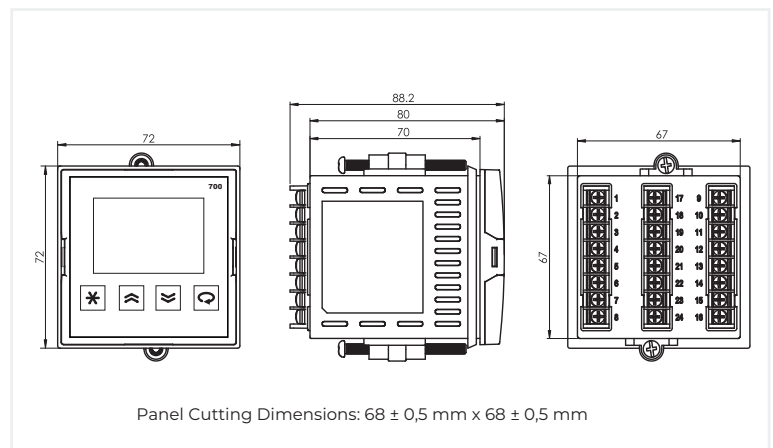
AC700 Model devices are designed in 72x72 mm dimensions for measuring many industrial process variables (temperature, pressure, speed, level, humidity, current, voltage, resistance, and other physical units) and for ON/OFF and PID control purposes. They are completely modular devices, and each module can be configured independently. They are used in Food, Plastic, Iron & Steel, Chemical, Metallurgy, Cement, Ceramic, Petro-Chemical, Refineries, Glass, and other industrial branches. They are ergonomic devices designed with a focus on compliance with international standards, reliability, and ease of use.



### General Features

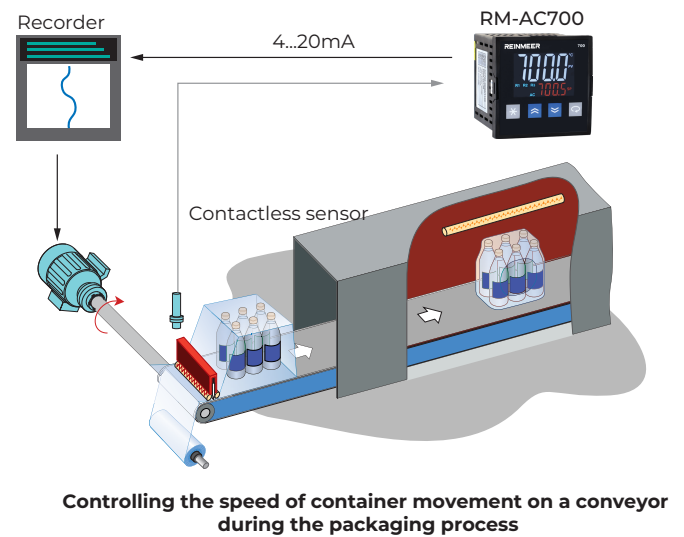
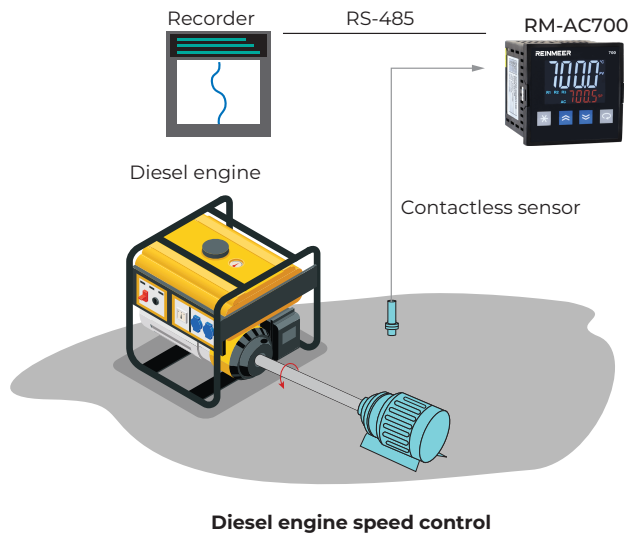
- 2 x 4-Digit Numeric Displays on LCD.
- LED Indicators for Relays.
- 4 Capacitive Touch Keys.
- 1 Transmitter Supply Output (24VDC).
- 1 Universal Sensor Input (TC, RT, mA, mV, V).
- 1 Auxiliary Analog Input (0/4-20mA).
- 3 Digital Inputs (15V).
- 1 Analog Output (0/4-20mA, 0/2-10V).
- 1 RS485 Communication Unit.
- 3 Relay or Logic Outputs (24VDC).
- 100-240V AC/DC Universal or 24V AC/DC Supply.
- Isolation Between Input/Output Modules.
- Control According to the Difference Between Two Inputs.
  
- Feedback-free Proportional Valve Control (Floating Control) and PID Heating/Cooling.
- Automatic/Manual Operating Modes.
- Auto-Tuning (automatic adjustment of PID parameters).
- Bumpless Transfer Feature.
- Sensor Failure Detection.
- Remote Set Point (determining set value remotely).
- 8 Selectable Set Points.
- Ramp Function.
- Retransmission (For Process and Set Value).
- 15 Different Relay Functions.
- ON/OFF, P, PI, PD, PID Control.
- Linear and Time-Proportional Control Output.
- 100ms Sampling and Control Cycle.
- Standard MODBUS RTU Communication Protocol.
- Master-Slave and Cascade Control Applications.
- Configuration via Computer.

### Device Dimensions



### Applications

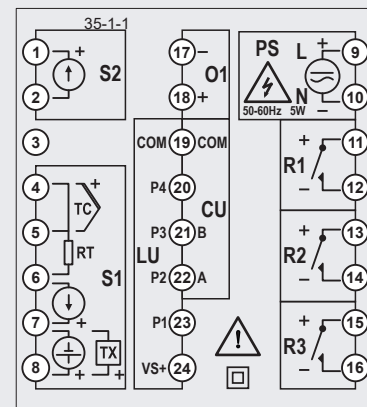
Food, Plastic, Iron & Steel, Chemical, Metallurgy, Cement, Ceramic, Petrochemical, Refineries, Glass, and other industrial sectors.



## Technical Specifications

Supply Voltage (PS)	100-240 Vac/dc +10% -15% 24 Vac/dc +10% -20%
Power Consumption	5W, 8VA.
Universal Sensor Input (S1)	Thermocouple: B, E, J, K, L, N, R, S, T, U Two-wire transmitter: 4-20mA Resistance thermometer: Pt-100 Current: 0/4-20mA Voltage: 0-50mV, 0/2-10V
Transmitter Supply (TX)	24Vdc (Isc = 30mA)
Analog Input Impedances	Thermocouple, mV: 10MΩ Current: 10Ω Voltage: 1MΩ
Analog Outputs (O1, O2)	Current: 0/4-20mA (RL ≥ 500Ω) Voltage: 0/2-10V (RL ≥ 1MΩ)
Relay Outputs (R1, R2, R3)	Contact (R1, R2, R3): 250VAC 10A Logic Output = 24Vdc 20mA
Contact Life	No load: 10,000,000 operations 250V 10A resistive load: 1,000,000 operations
Other	Memory: 100 years / 100,000 rewrites Accuracy: ± 0.2% Sampling time: 100 ms Operating temperature: -10...+55°C Storage temperature: -20...+65°C
Protection class:	Front panel IP54 / Rear panel IP20
Mechanical Specifications	Width: 72 mm Height: 72 mm Depth: 78.2 mm Weight: 292 g
Panel Cut-out Dimensions	68 +/- 0.5 mm x 68 +/- 0.5 mm.

## Electrical Wiring Diagram



Module	Description
S1	Universal sensor input module (The sensor used to measure the process value is connected to the terminals with the appropriate symbol on this module).
S2	0/4-20mA Auxiliary analog input module (The function of this module can be selected via the device).
O1	Analog output module (The content of this module is determined by the product code, and its functions can be selected via the device).
R1,R2,R3	Relay output modules (The content of this module is determined by the product code, and its function is selected via the device).
LU	Logic input module.
CU	RS485 MODBUS RTU module.
PS	Supply voltage input (The supply voltage is determined by the product code).