

## RM-SC500 – Standard Control Devices

### Description

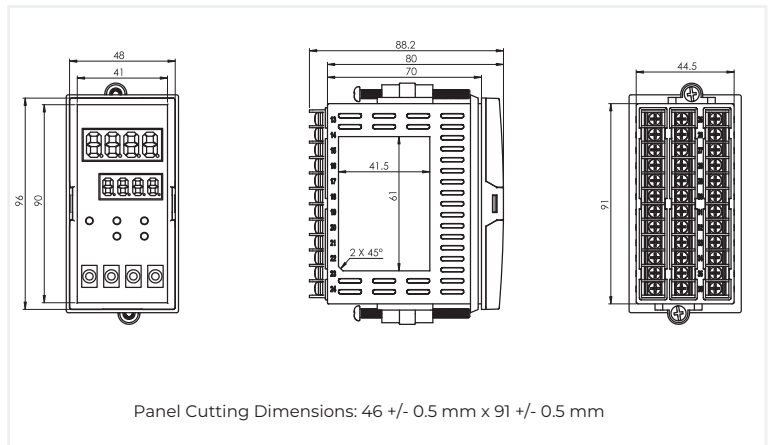
SC500 Model devices are 48x96 mm size devices designed for the measurement of process variables such as temperature, pressure, speed, level, humidity, current, voltage, resistance, and other physical units in industrial environments, and for open/closed and PID control purposes. They are completely modular, and each module can be configured independently. They are used in the Food, Plastic, Iron and Steel, Chemistry, Metallurgy, Cement, Ceramics, Petro-Chemistry, Refineries, Glass, and other industrial branches. They are ergonomic devices designed with a foundation of compliance with international standards, reliability, and ease of use.



### General Features

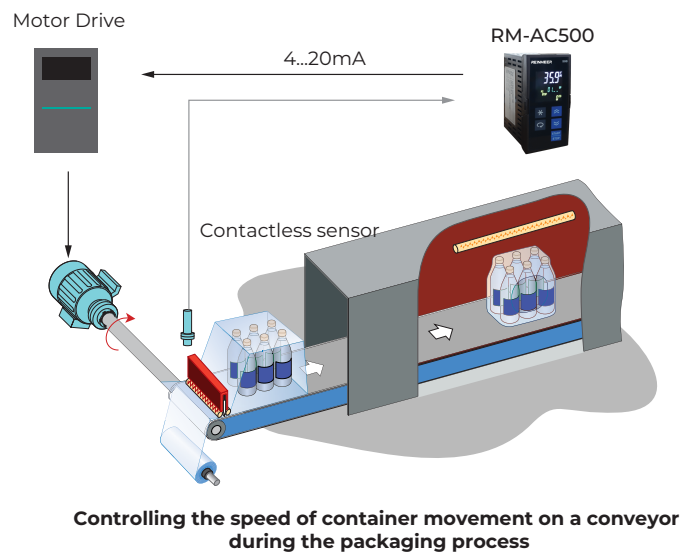
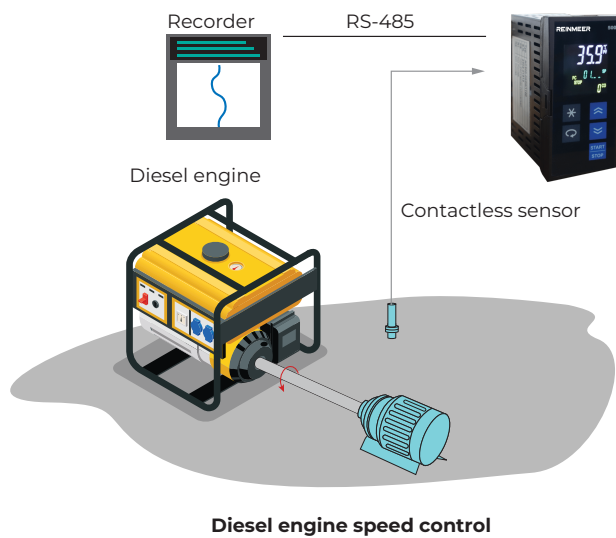
- On LCD Display
- 2 Pieces 4 Digit Numeric Display
- LED Indicators for Relays
- 4 Pieces Capacitive Touch Buttons
- 1 Piece Transmitter Supply Output (24VDC)
- 1 Piece Universal Sensor Input (TC, RT, mA, mV, V)
- 1 Piece Analog Output (0/4-20mA, 0/2-10V)
- 1 Piece RS485 Communication Unit
- 4 Pieces Relay or Logic Output (24VDC)
- 100-240V AC/DC Universal or 24V AC/DC Supply
- Isolation Between Input/Output Modules
- Auto-Tuning (Automatic adjustment of PID parameters)
- Sensor Failure Detection
- 9 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
- Configuration via Computer

### Device Dimensions



### Applications

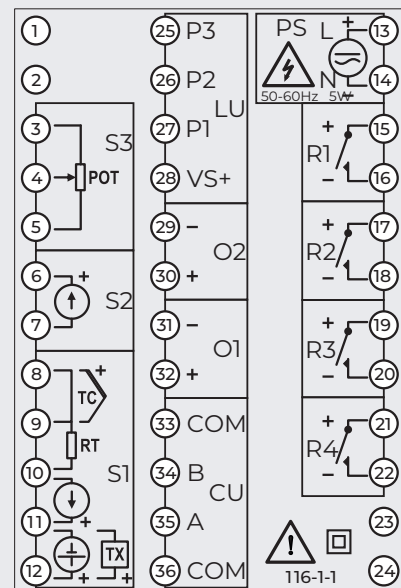
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## Technical Specifications

Supply Voltage (PS)	100-240 Vac/dc +10% -15% 24 Vac/dc +10% -20%
Power Consumption	6W, 10VA
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
Auxiliary Analog Input (S2)	0/4-20mA
Potentiometer Input (S3)	100-1500Ω
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, R4)	250VAC 10A contact Logic output: 24Vdc 20mA
Contact Life	Unloaded = 10,000,000 Switching 250V 10A Resistive Load = 1,000,000 Switching
Other	Memory: 100 Years, 100,000 Renewals 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: 48 mm Height: 96 mm Depth: 78.2 mm Panel cut-out: 46+/-0.5 mm x 91+/-0.5 mm (Note: Source also mentions 92+/-0.5 mm x 92+/-0.5 mm in another section) Weight: 430 g

## Electrical Wiring Diagram



Module	Description
S1	Universal sensor input module (The sensor used for process value measurement is connected to the terminals with the appropriate symbol on this module).
S2,S3	Not used in this model.
LU	Not used in this model.
CU	RS485 communication module. (The content of this module is determined by the product code, and its functions can be selected on the device).
O1	Analog output modules (The content of this module is determined by the product code, while its functions can be selected via the device).
O2	Not used in this model.
R1, R2, R3, R4	Relay output modules. (The content of this module is determined by the product code, and its function is selected via the device).
PS	Supply voltage input (Supply voltage is determined by the product code).