

RM-SC700 – Industrial Control Device

Description

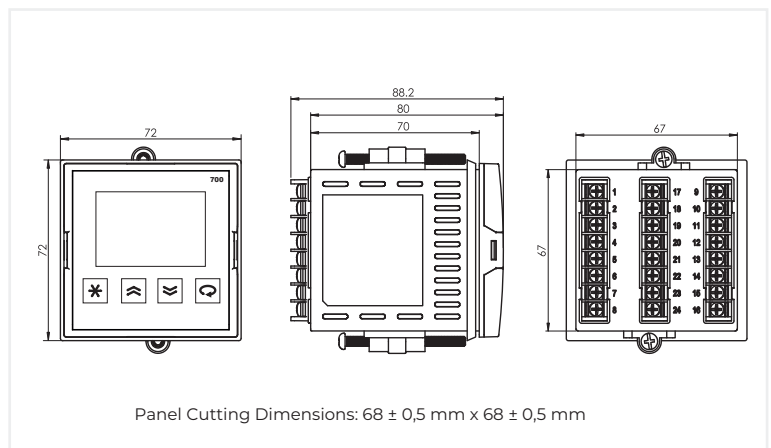
The SC700 is a modular industrial control device designed for measuring and controlling various process variables such as temperature, pressure, speed, level, humidity, current, voltage, and resistance. It features a 72 x 72 mm compact design and is suitable for both ON/OFF and PID control. Its modular structure allows each module to be configured independently, making it highly versatile for industries like food, plastics, iron-steel, chemistry, metallurgy, cement, ceramics, petro-chemistry, refineries, and glass.



General Features

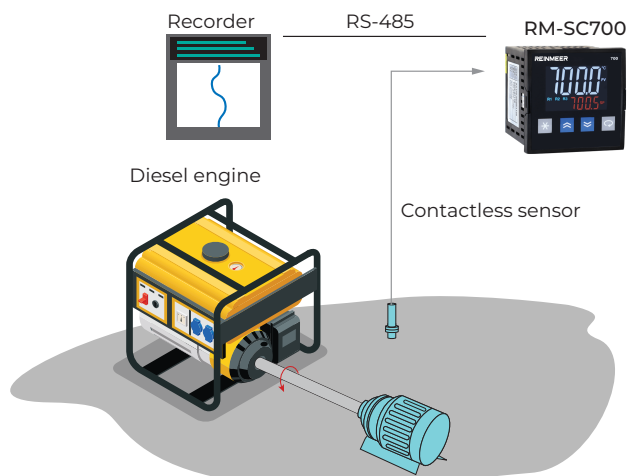
- Display: LCD screen with 2 rows of 4-digit numerical indicators and LED indicators for relays.
- Buttons: 4 capacitive touch keys.
- Control Types: ON/OFF, P, PI, PD, and PID control.
- Auto-Tuning: Automatic PID parameter adjustment.
- Sampling Time: 100 ms cycle.
- Communication: Standard MODBUS RTU protocol via RS485.

Device Dimensions

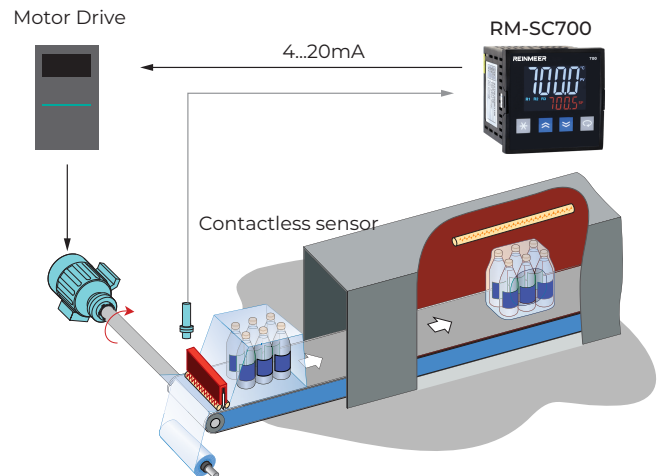


Applications

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



Diesel engine speed control

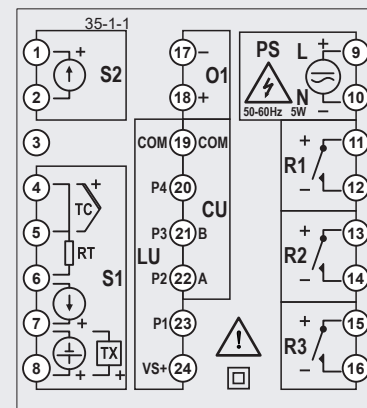


Controlling the speed of container movement on a conveyor during the packaging process

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)	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 Switching Cycles Under 250V 10A Resistive Load: 1,000,000 Switching Cycles
Other	Memory: 100 Years, 100,000 Refreshes 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).
CU	RS485 MODBUS RTU module.
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).
PS	Supply voltage input (The supply voltage is determined by the product code).