REINMEER

RM-AC400 –
Advanced Control Devices

Description

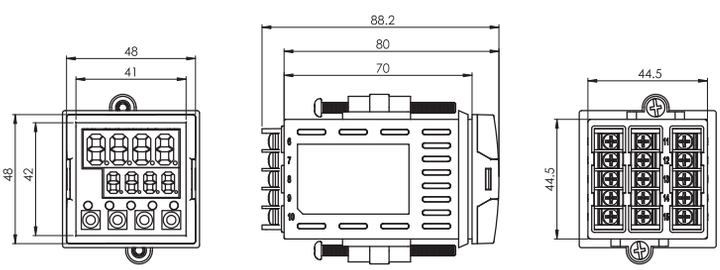
AC400 Model devices are designed in 48x48 mm dimensions for measuring many industrial process variables (temperature, pressure, speed, level, humidity, current, voltage, resistance, and other physical units) and for ON/OFF and PID control purposes. They are completely modular devices, and each module 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
- 1 Transmitter Supply Output (24VDC)
- 1 Universal Sensor Input (TC, RT, mA, mV, V)
- 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
- Feedback-free Proportional Valve Control (Floating Control)
- PID Heating/Cooling
- Auto-Tuning (automatic adjustment of PID parameters)
- Self-Tune Feature

- Automatic/Manual Operating Modes
- Bumpless Transfer Feature
- Sensor Failure Detection
- Ramp Function
- Retransmission (For Process and Set Value)
- 15 Different Relay Functions
- ON/OFF, P, PI, PD, PID Control
- Alarm Postponement Function
- Linear and Time-Proportional Control Output, 100ms
- Sampling and Control Cycle
- Standard MODBUS RTU Communication Protocol Configuration via Computer

Device Dimensions



Panel Cutting Dimensions: 45 ± 0,5 mm x 45 ± 0,5 mm

Applications

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

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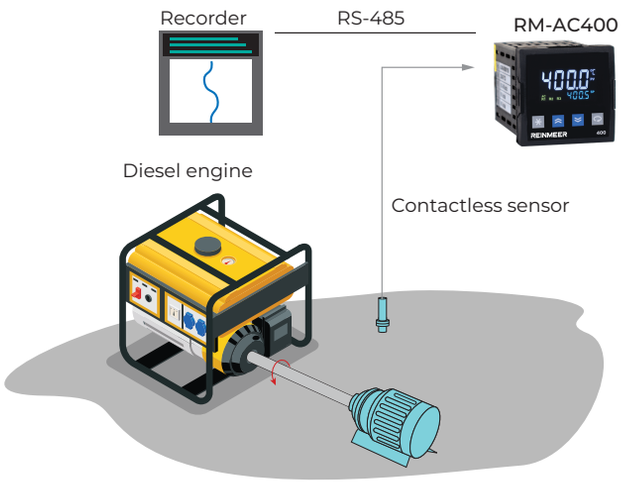
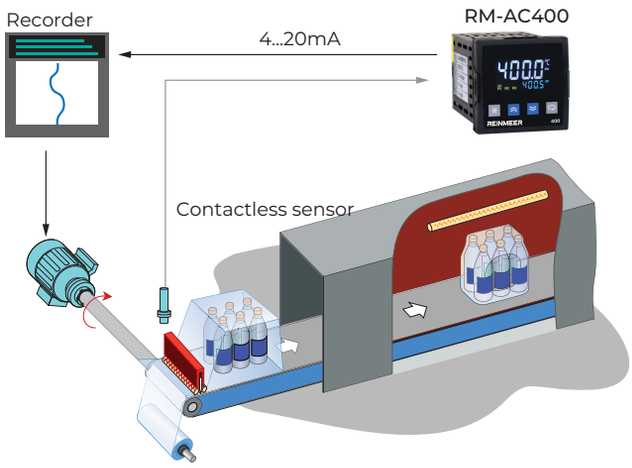


Diesel engine speed control

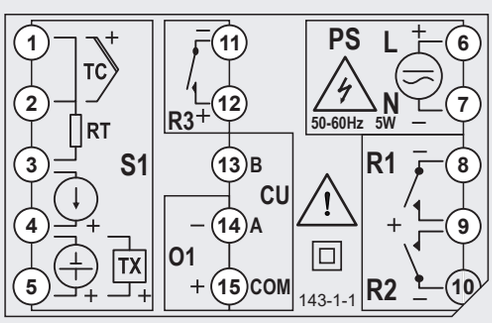


Controlling the speed of container movement on a conveyor during the packaging process

Technical Specifications

Supply Voltage (PS)	100-240 Vac/dc +10% -15% 24 Vac/dc +10% -20%
Power Consumption	4W, 6VA
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: 48 mm Height: 48 mm Depth: 78.2 mm Weight: 154 g
Panel Cut-out Dimensions	45 +/- 0.5 mm x 45 +/- 0.5 mm

Electrical Wiring Diagram



Module	Description
S1	Universal sensor input module.
O1	Analog output module.
R1,R2,R3	Relay output modules.
CU	RS485 communication module.
PS	Supply voltage input.