VXT-REX-C Series

Digital PID Temperature Controllers

4-Digit Dual Display | PID / ON-OFF Control | Universal Input | SSR Output | Auto-Tuning

REX-C100
48 x 48 mm

REX-C400
48 x 96 mm

REX-C700
72 x 72 mm

REX-C900
96 x 96 mm

Product Overview

The VXT-REX-C Series is a family of intelligent digital PID temperature controllers designed for precise temperature regulation in industrial and commercial applications. Featuring a 4-digit dual LED display (PV/SV), advanced PID control with auto-tuning, and universal sensor input supporting all major thermocouple and RTD types, these controllers deliver reliable and accurate performance. Available in four industry-standard panel sizes (1/16, 1/8, 1/4, and 1/4 DIN), the series offers a cost-effective solution for heating and cooling control across diverse applications.

Key Features

✓ 4-digit dual LED display (PV: red, SV: green)
✓ PID / ON-OFF control with auto-tuning
✓ Universal input: TC (K, J, R, S, B, E, N, T)
✓ RTD input: Pt100, Cu50
✓ Analog input: 0-20mA, 0-5V, 0-50mV, 0-400Ω
✓ SSR output (voltage pulse drive)

✓ 1 alarm output (deviation / absolute)
✓ Measurement accuracy: 0.5% / 1% FS (three grades)
✓ Power supply: 100-240VAC, 50/60Hz
✓ Operating range: 0 to 50°C
✓ Available in 4 standard DIN panel sizes
✓ Front panel keys: SET, shift, up, down

Applications

Packaging Machinery • Plastic Injection Molding • Heat Treatment Furnaces • Ovens & Dryers • Extruders • Food Processing • Textile Machinery • HVAC Systems • Laboratory Equipment • Incubators • Sealing Machines

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Product Datasheet

Input Specifications

Input Type	Sensor	Range	Input Type	Sensor	Range
TC	K	0 ~ 1372°C	TC	E	0 ~ 800°C
TC	J	0 ~ 1200°C	TC	N	0 ~ 1300°C
TC	R	0 ~ 1769°C	TC	T	-200 ~ 400°C
TC	S	0 ~ 1769°C	RTD	Pt100	-200 ~ 650°C
TC	B	0 ~ 1820°C	RTD	Cu50	-50 ~ 150°C

Additional analog inputs: 0-400Ω, 0-50mV, 0-20mA, 0-5V (0-10V) with scalable display range (-1999 to 9999)

General Specifications

DISPLAY

Display Type	4-digit, 7-segment dual LED display
Upper Display (PV)	Red LED — Process Value / Measured Temperature
Lower Display (SV)	Green LED — Set Value / Parameter Display
LED Indicators	OUT1, OUT2, AT (Auto-Tune), ALM1, ALM2

CONTROL

Control Action	PID / ON-OFF, selectable
Auto-Tuning	Self-tuning PID parameters (P, I, D)
Proportional Band (P)	0 ~ Full Scale
Integral Time (I)	0 ~ 3600 seconds (default: 240s)
Derivative Time (D)	0 ~ 3600 seconds (default: 60s)
Control Cycle	1 ~ 100 seconds (time proportional output)

OUTPUT

Control Output	SSR: Voltage pulse output
Alarm Output	1 alarm output (upper/lower deviation, upper/lower absolute, in-range alarm selectable)

INPUT

Sensor Input	Universal: TC (K, J, R, S, B, E, N, T) / RTD (Pt100, Cu50) / Analog
Measurement Accuracy	Three grades: ±1% FS ±1°C / ±0.5% FS ±1°C
Cold Junction Compensation	± 2°C (0 ~ 50°C range), Temp. coefficient ≤ 0.05%/°C
Resolution	1°C or 0.1°C (selectable via decimal point setting, PGdP: 0-3)

ELECTRICAL

Power Supply	100 - 240VAC, 50/60Hz
Power Consumption	4W

ENVIRONMENT

Operating Temperature	0°C to 50°C
Operating Humidity	35% - 85% RH (non-condensing, non-corrosive environment)
Installation	Panel mount (from front, secured with bracket clips)
Mounting	Standard DIN panel cutout

ADDITIONAL FEATURES

Data Lock	4-level parameter lock (LCK: 0000 - 0111)
Return Difference (Hysteresis)	Adjustable: 1 ~ 100 units (PV)
Correction of PV	Adjustable: -200 to +200 units
Error Display	Err (instrument failure), 0000/UUUU (input disconnection/out of range)

Model Selection & Dimensions

Parameter	REX-C100	REX-C400	REX-C700	REX-C900
DIN Size	1/16 DIN	1/8 DIN	1/4 DIN	1/4 DIN
Bezel Size (W x H)	48 x 48 mm	48 x 96 mm	72 x 72 mm	96 x 96 mm
Panel Cutout (W x H)	45 x 45 mm	45 x 93 mm	69 x 69 mm	93 x 93 mm
Depth (behind panel)	100 mm	100 mm	100 mm	100 mm

Rear Panel & Wiring Reference

Shown: VXT-REX-C100-A1 (SSR output variant). Terminal layout is consistent across all models.

Ordering Information

Model Number Format: VXT-REX-CXXX-A1

Size Code	Model	Panel Size	Output
C100	VXT-REX-C100	48 x 48 mm	A1 = SSR output
C400	VXT-REX-C400	48 x 96 mm	SSR
C700	VXT-REX-C700	72 x 72 mm	SSR
C900	VXT-REX-C900	96 x 96 mm	SSR

Example: VXT-REX-C100-A1 = 48x48mm temperature controller with SSR output, 1 alarm

Please specify when ordering: (1) Instrument size (2) Sensor type (3) Temperature range (4) Any special functional requirements

Notes

1. Ensure the correct input type is selected in the controller settings to match the connected sensor.
2. For thermocouple input, use compensation wire of the same material as the thermocouple.
3. For RTD input, use the same specification of low resistance wire and try to maintain equal wire lengths.
4. Power input lines and sensor signal input lines must not be confused; incorrect connection may damage the instrument.
5. Output terminals must not be short-circuited by strong currents.
6. Instrument power and signal lines should be separated from high current output lines to reduce electromagnetic interference. Shielding of connection lines is recommended.
7. Install in a non-corrosive environment, away from strong electromagnetic field radiation sources.
8. Power supply specification: Product label indicates 100-240VAC 50/60Hz. Refer to specific model label for confirmation.
9. Specifications are subject to change without prior notice. Please contact Voxintech for latest specifications.

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