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Data Sheet
August 15, 2026

DWYER/OMEGA

DWYEROMEGA / OMEGA CN7523 Microprocessor Based Temperature Process Controller

Omega CN7523 Microprocessor Temperature/Process Controller The CN7523 is an Omega microprocessor-based temperature/process controller. OEM CN7523 listings describeadigital PID/on-off process controller for thermocouple, RTD, or process inputs with relay/SSR-drive outputs inacompact panel DIN class housing. Exact DIN size, accuracy, and output ratings are on the CN7523 data sheet and are not invented here. Used alongside CN9000A and CN375 limit controllers in Omega panel loops. Panel temperature/process PID control in Omega CN75xx microprocessor controllers. The CN7523 is an Omega microprocessor-based temperature/process controller. OEM CN7523 listings describeadigital PID/on-off process controller for thermocouple, RTD, or process inputs with relay/SSR-drive outputs inacompact panel DIN class housing. Exact DIN size, accuracy, and output ratings are on the CN7523 data sheet and are not invented here. Used alongside CN9000A and CN375 limit controllers in Omega panel loops. Panel temperature/process PID control in Omega CN75xx microprocessor controllers.

MODEL Dwyer/Omega CN7523	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU CN7523	LISTING https://aumictechlabs.com/products/cn7523-3/

NIST-traceable cal · SAM registered · 30-day returns · NAICS 423690 · 811210 · 541380

This unit

The Dwyer/Omega CN7523 is a microprocessor-based temperature process controller engineered for precise thermal regulation in industrial applications. It delivers PID control with auto-tuning capability, manual/auto mode selection, and programmable ramp/soak profiles for complex process cycles. The unit features configurable alarm outputs for over-temperature, under-temperature, and deviation detection, alongside field-configurable control outputs compatible with multiple actuator types. Technical Specifications Input Configuration Thermocouple types: J, K, T, E, R, S, B, N, L, U RTD sensors: Pt100, Pt1000, JPt100 (2 or 3-wire configurations) High-accuracy sensor input with fine resolution and rapid sampling rate Output Options Voltage pulse output for SSR driving Current output: 4-20 mA, 0-20 mA Voltage output: 0-10 V, 1-5 V Relay output: SPST or SPDT configurations Dedicated alarm relay outputs Electrical Requirements Power supply: 100-240 VAC, 50/60 Hz Low power consumption design Physical Design Panel-mount construction with standard cutout dimensions Digital LED or LCD display for real-time monitoring Key Features PID control with configurable parameters for stable temperature regulation Built-in auto-tuning function for rapid system optimization On/Off control mode for basic applications Programmable temperature profiles with multiple ramp and soak stages Flexible sensor compatibility across standard industrial thermocouple and RTD standards Field-configurable outputs for diverse control strategies Typical Applications Process heating systems, thermal test chambers, furnace control, batch reactors, and industrial ovens requiring precise setpoint management and alarm-based process protection. Compatibility & Integration The CN7523 integrates into standard 100-240 VAC industrial power systems and accepts input from ten thermocouple types plus three RTD configurations. Output flexibility accommodates SSR, analog, and relay-based control architectures. Panel mounting with standard cutout dimensions enables direct integration into existing control enclosures.

CN7523 Characteristics / Specifications

PARAMETER	VALUE
Model	CN7523
Instrument Type	Microprocessor temperature/process controller
Family	Omega CN75xx
Control Class	PID / on-off microprocessor
Input Class	thermocouple, RTD, or process
Output Class	relay / SSR-drive class
Manufacturer	Omega / DwyerOmega
Literature	Omega CN7523 microprocessor controller listings
System Role	panel process control
Use Case	temperature/process PID
Form Factor	compact panel DIN class
Sibling Limit	CN375-JC high-limit
Sibling Autotune	CN9111A CN9000A
Documentation Type	CN7523 listing
Brand Lineage	Omega / DwyerOmega
Application Class	process temperature control
Related	CN75xx microprocessor controllers
Connector Class	sensor and output terminals
Host Class	panel mount
Year Class	CN7523
Ate Class	process control
Module Class	digital controller
Display Class	digital process display
Sensor Class	TC/RTD/process

CN7523 Specifications

PARAMETER	VALUE
Applications	Panel temperature/process PID control in Omega CN75xx microprocessor controllers.
Microprocessor temperature/process controller	Omega CN75xx digital PID family
Technical Specifications	Model: CN7523

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Specifications

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Notes

From Omega CN7523 microprocessor temperature/process controller listings. DIN size, accuracy, and relay amperes are on the CN7523 data sheet; do not invent them.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: **sales@aumictech.com** · +1 (484) 841-9341

Aumictech
788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
https://aumictechlabs.com

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