

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the

product under warranty, and Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair or calibration,
2. Model and serial number of the product, and Repair instructions and/or specific problems relative to the product.
- 3.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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NOTES



CND3 Series Temperature Controller



omega.com info@omega.com

Servicing North America:

Omega Engineering, Inc.
800 Connecticut Ave, Suite 5N01, Norwalk, CT 06854
Toll-Free: 1-800-826-6342 (USA & Canada only)
Customer Service: 1-800-622-2378 (USA & Canada only)
Engineering Service: 1-800-872-9436 (USA & Canada only)
Tel: (203) 359-1660 Fax: (203) 359-7700
e-mail: info@omega.com

For Other Locations Visit omega.com/worldwide

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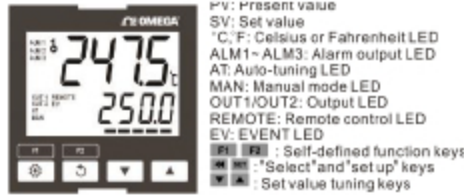
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CND3 Series Temperature Controller

■ Warning

- DANGER! Caution! Electric Shock!** When the power is on, DO NOT touch the AC terminals in case an electric shock may occur. Make sure the power is disconnected when you check the input power supply.
1. Prevent dust or metallic debris from falling into the controller and cause malfunctions. DO NOT modify or uninstall the controller.
 2. CND3 controller is an open-type device. Make sure it is installed in an enclosure free of dust and humidity in case of an electric shock.
 3. Wait for one minute after the power is switched off to allow the capacitor to discharge. DO NOT touch the internal wiring within this period of time.

■ Display, LED & Keys



■ Ordering Information

CN 1 2 D3- 3 4 - 5 6 - 7 - 8

Series	Omega CND3 series temperature controller		
1 2 Panel size	04: 1/4 DIN 08: 1/8 DIN	16: 1/16 DIN	
3 Output 1	R: Relay S: Voltage Pulse	M: Linear mA L: Linear voltage	
4 Output 2	R: Relay S: Voltage Pulse	M: Linear mA L: Linear voltage	blank: none
5 6 Option 1	1U: 1 User input 2U: 2 User inputs 1C: 1 CT input 2C: 2 CT inputs RT: Retransmission output RS: Remote Setup Input UC: User input + CT input	RR: Retrainsmission + Remote Setup input UR: User input + Retransmission output US: User input + Remote Setup input CR: CT input + Retrainsmission output CS: CT input + Remote Setup input blank: none	
7 Option 2	CM: RS-485 Communication	blank: none	
8 Power	AC: AC 100 to 240V	DC: DC 24V	

■ Specifications

Input power supply	AC 100 to 240 V, 50/60Hz, DC 24 V ±10%
Display method	LCD. Present temperature: yellow, Set temperature: green
Input sensors	Thermocouple: K, J, T, E, N, R, S, B, L, U, TXK
	Platinum RTD: Pt100, JPt100
	Resistance: Cu50, Ni120
	Analog input: 0 to 5 V, 0 to 10 V, 0 to 20 mA, 4 to 20 mA, 0 to 50 mV
Control modes	PID, PID programmable, Fuzzy, Self-tuning, manual, ON/OFF
Display accuracy	0 or 1 digit to the right of the decimal point
Sampling rate	Analog input: 0.1s, Thermocouple or platinum RTD: 0.1s
Ambient temperature	0 to +50°C
Ambient humidity	35 to 80% RH (non-condensing)

■ Parameters Operation

Regulation Mode	Operation Mode	Initial Setting Mode
P d Auto-tuning (Set in PID control and RUN mode) Press ◀ ▽	P d ▽ Use ▽ ▲ to set up target temperature Press ◀	P d ▽ Set up input type Press ◀ ▽
S t Self-tuning switch (set when in PID control and the TUNE parameter = ST)	R u n o f f o r S t o p Control loop RUN or STOP	U n i t T y p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e r U n i t S e t U p T e m p e