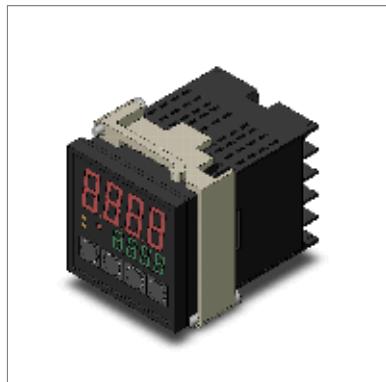


OMRON

サーマック温度調節器

E5CB-R1TCD



商品概要

Temperature Controller, 48 x 48 mm, Relay output, Thermocouple (K, J, T, R, S), Power supply voltage: 24 VAC/VDC

販売状況

2026/02/19 00:00 情報更新

販売状況	販売中
機種区分	標準在庫機種
標準価格(税別)	¥ 12,500

推奨代替品の最新情報につきましては、当社Webサイト(www.fa.omron.co.jp)の「生産終了品/推奨代替品」をご覧ください。
在庫状況/標準価格の最新情報につきましては、当社Webサイト(www.fa.omron.co.jp)の「在庫状況/標準価格 照会」をご覧ください。

詳細情報

Ratings / Performance

情報更新 : 2025/11/04

Ratings

Shape	DIN48 x 48	
Fixed/Programmable	Fixed	
Power supply voltage	24 VAC (50/60 Hz) 24 VDC	
Allowable voltage variable range	85 to 110% of the power supply voltage	
Power consumption	Approx. 2.5 W (at 24 VDC) Approx. 3.5 VA (at 24 VAC)	
Input	Number of input points	1 point
	Temperature input	Thermocouple: K, J, T, R, S
Control method	ON/OFF control or 2-PID control	
Control output	Number of total control output	1 point
	Control output 1	Relay output
	Control output 2	None
	Relay output	1 point 3 A at 250 VAC (resistive load) Minimum applicable load: 10 mA at 5 V
Alarm output	1 point 1 A at 250 VAC (resistive load)	
Setting method	Digital setting using front panel keys	
Indication method	7-segment digital display and indicators	
Sampling period	250 ms	
Hysteresis	0.1 to 999.9 °C/°F (in units of 0.1 °C/°F)	
Proportional band	0.1 to 999.9 °C/°F (in units of 0.1 °C/°F)	
Integral time	0 to 3999 s (in units of 1 s)	
Derivative time	0 to 3999 s (in units of 1 s)	
Control period	0.5 s or 1 to 99 s (in units of 1 s)	
Insulation resistance	20 MΩ min. (500 VDC megger)	
Dielectric strength	2800 VAC, 50/60 Hz for 1 min (Between current-carrying terminals of different polarity)	
Vibration resistance	Destruction: 10 to 55 Hz, 20 m/s ² for 2 h each in X, Y, and Z directions Malfunction: 10 to 55 Hz, 20 m/s ² for 10 min each in X, Y, and Z directions	

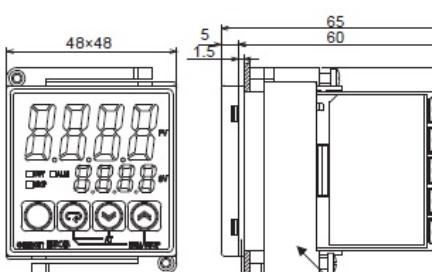
Shock resistance	Destruction: 300 m/s ² , 3 times each in X, Y, and Z directions Malfunction: 200 m/s ² , 3 times each in X, Y, and Z directions
Ambient temperature (Operating)	-10 to 55 °C (with no freezing or condensation) For 3-year warranty: -10 to 50 °C
Ambient temperature (Storage)	-25 to 65 °C (with no freezing or condensation)
Ambient humidity (Operating)	25 to 85 %
Degree of protection	Front panel: IP66, Rear case: IP20, Terminal section: IP00
Memory protection	Non-volatile memory (number of writes: 100,000)
Case color	Black
Terminal type	Screw terminal block
Accessories	Mounting adapter, Waterproof packing
Weight	Main Unit: Approx. 100 g Adapter: Approx. 10 g
Sold separately	USB Serial Conversion Cable: E58-CIFQ2 Terminal Cover: E53-COV19 Waterproof packing: Y92S-P6 Adapter: Y92F-49/Y92F-45 DIN track mounting adapter: Y92F-52 Waterproof Cover: Y92A-48N Hard Front Cover: Y92A-48B Soft Front Cover: Y92A-48D Unit label: Y92S-L2

Accuracy

Indication accuracy	Thermocouple: ($\pm 0.5\%$ of indicated value or ± 1 °C, whichever is greater) ± 1 digit max. (The indication accuracy of K and T thermocouples at a temperature of -100 °C max. is ± 2 °C ± 1 digit max. R and S thermocouples at a temperature of 200 °C max. is ± 3 °C ± 1 digit max.)
Influence of temperature/voltage	Thermocouple: R, S: ($\pm 1\%$ of PV or ± 10 °C, whichever is greater) ± 1 digit max. Other thermocouple: ($\pm 1\%$ of PV or ± 4 °C, whichever is greater) ± 1 digit max. Ambient temperature: -10 to 23 to 55 °C, Voltage range: -15 to 10% of rated voltage
Influence of EMS.	Thermocouple: R, S: ($\pm 1\%$ of PV or ± 10 °C, whichever is greater) ± 1 digit max. Other thermocouple: ($\pm 1\%$ of PV or ± 4 °C, whichever is greater) ± 1 digit max.
Influence of signal source resistance	Thermocouple (K, J, T): 0.1°C/Ω max. (100 Ω max.) Thermocouple (R, S): 0.2°C/Ω max. (100 Ω max.)

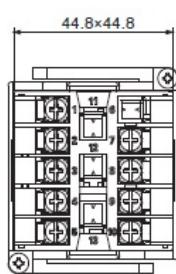
Dimensions

情報更新 : 2025/11/04



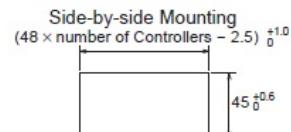
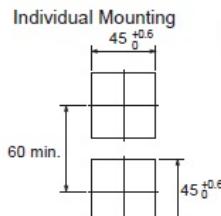
Package Contents

- Temperature Controller
- Mounting Adapter
- Instruction Manual
- Waterproof packing



- Solderless terminal size: M3.5
- Terminal Cover: E53-COV19 (sold separately)
- USB-Serial Conversion Cable: E58-CIFQ2 (sold separately)

Panel Cutout



- Recommended panel thickness is 1 to 5 mm.
- Do not vertically mount Controllers side by side. (Allow mounting clearance between the Controllers.)
- To install the Controller so that it is waterproof, insert the Waterproof Packing.
- When two or more Controllers are mounted, make sure that the surrounding temperature does not exceed the ambient operating temperature given in the specifications.
- Use a control panel thickness of 1 to 2.5 mm if a USB-Serial Conversion Cable is used when mounting the Controller to a control panel.

The Support Software port is on the top of the Temperature Controller.

This port is used to connect the Temperature Controller to a personal computer.

The E58-CIFQ2 USB-Serial Conversion Cable is required to make the connection.

For details on connection methods, refer to the *E58-CIFQ2 USB-Serial Conversion Cable Instruction Manual*.

*Do not leave the USB-Serial Conversion Cable connected while using the Temperature Controller.

Input ranges list

情報更新 : 2025/11/04

Models with Thermocouple Inputs

Model (temperature input)	Set value	Input type	Range	
			°C	°F
TC input	0	K	-200 to 1,300	-300 to 2,300
	1		-20.0 to 500.0	0.0 to 900.0
	2	J	-100 to 850	-100 to 1500
	3		-20.0 to 400.0	0.0 to 750.0
	4	T	-200 to 400	-300 to 700
	5		-199.9 to 400.0	-199.9 to 700.0
	6	R	0 to 1,700	0 to 3,000
	7	S	0 to 1,700	0 to 3,000

Default setting: 0

Applicable standards (K, J, T, R, S): JIS C1602-1995 and IEC 60584-1

Platinum Resistance Thermometer Input

Model (temperature input)	Set value	Input type	Range	
			°C	°F
Pt input	8	Pt100	-200 to 850	-300 to 1500
	9		-199.9 to 500.0	-199.9 to 900.0

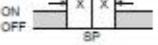
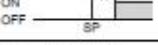
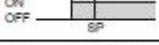
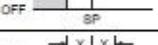
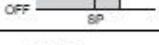
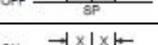
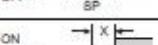
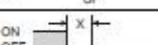
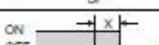
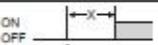
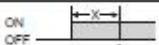
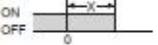
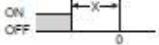
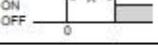
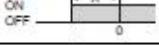
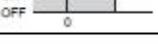
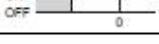
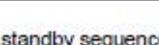
Default setting: 8

Applicable standards (Pt100): JIS C1604-1997 and IEC 60751

Alarm mode list

情報更新 : 2025/11/04

Select alarm types out of the 11 alarm types listed in the following table.

Setting	Alarm type	Positive alarm value (X)	Negative alarm value (X)	Deviation alarm/absolute value alarm
0	No alarm	Output OFF		
1	Upper/lower limit		Always ON	Deviation alarm
2	Upper limit			Deviation alarm
3	Lower limit			Deviation alarm
4	Upper/lower range		Always OFF	Deviation alarm
5 (See note 2.)	Upper/lower limit standby sequence ON		Always OFF	Deviation alarm
6 (See note 2.)	Upper limit standby sequence ON			Deviation alarm
7 (See note 2.)	Lower limit standby sequence ON			Deviation alarm
8	Absolute value upper limit			Absolute value alarm
9	Absolute value lower limit			Absolute value alarm
10 (See note 2.)	Absolute value upper limit standby sequence ON			Absolute value alarm
11 (See note 2.)	Absolute value lower limit standby sequence ON			Absolute value alarm
12	Do not set.			

Note: 1. The default is 2.

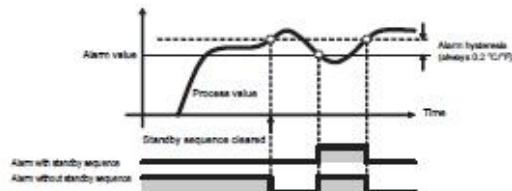
2. Alarms with a Standby Sequence

The alarm is blocked until the first safe-state is reached.
Unwanted alarm during start-up are prevented.

Example: Deviation Lower Limit Standby Sequence ON
The standby sequence is cleared when the alarm OFF condition has been met.

The standby sequence is started again when any of the following conditions is met.

- Operation is started (power is turned ON or operation is switched from stop to run).
- The alarm value is changed.
- The temperature input offset is changed.
- The set point is changed.



RoHS/REACH対応状況

情報更新：2026/2/18

EU RoHS

対応状況 ※1	対応予定期間 ※2	非含有証明書 ※3
 対応済み		ダウンロードはこちら

中国 RoHS

中国 RoHS表 ※1※2										
Pb	Hg	Cd	Cr(VI)	PBBs	PBDEs	DBP	DIBP	BBP	DEHP	環境保護使用期限
X	0	0	0	0	0	0	0	0	0	10

- ・“対応済み”や非含有の記載がされた商品であっても、流通在庫等で未対応品が混在する可能性があります。
- ・非含有品が必要な際は、弊社営業部門もしくは販売店へお問い合わせください。

[この製品のRoHS/REACH対応状況ページへ>](#)

注意事項・凡例

"対応済み"で記載される商品であっても、流通在庫等で未対応品が混在する可能性があります。
非含有品が必要な際は、弊社営業部門もしくは販売店へお問い合わせください。

※1 対応状況

- ・ **対応済み** : EU RoHS指令（10物質）の非含有に対応した製品が提供可能な商品です。
- ・ 対応予定 : EU RoHS指令（10物質）の非含有に対応した製品に切り替える予定のある商品です。
- ・ 対応予定なし : EU RoHS指令（10物質）の非含有に非対応の商品で、対応品を出す予定はありません。
- ・ 調査・確認中 : EU RoHS指令（10物質）の非含有の対応状況を調査中または確認中の商品です。
- ・ 非該当品 : ライセンス料など無形物で、有害物質有無と関係のない商品です。

仕入先様の事情により、非含有部品としていたものが、含有品と判明した場合などやむを得ず変更することがあります。

* EU RoHS指令（10物質） :

鉛(Pb) 1000ppm以下、水銀(Hg) 1000ppm以下、カドミウム(Cd) 100ppm以下、六価クロム(Cr(VI)) 1000ppm以下、
ポリ臭化ビフェニル類(PBB) 1000ppm以下、ポリ臭化ジフェニルエーテル類(PBDE) 1000ppm以下、
フタル酸ビス(2-エチルヘキシル) (DEHP)(別名:DOP) 1000ppm以下、フタル酸ブチルベンジル (BBP) 1000ppm以下、
フタル酸ジブチル (DBP) 1000ppm以下、フタル酸ジイソブチル (DIBP) 1000ppm以下
但し、RoHS指令で産業用監視および制御機器に対する適用除外項目は除く。
フタル酸エステル類の4物質については閾値を超える意図的な使用がないことを確認しています。

※2 対応予定月

部品在庫の切り替え状況などにより、予定月が前後することがあります。

※3 非含有証明書ダウンロード

下記の非含有証明書をダウンロードすることができます。

- ・ EU RoHS指令（10物質）の非含有証明書
- ・ 49物質の非含有証明書（当社基準）

※ 本証明書は発行日時点で非含有を証明するもので、過去に遡って非含有を証明するものではありません。

また、RoHS指令のフタル酸エステル類4物質の対応では、対応完了までの期間は出荷製品に未対応品が混在することから備考欄に
対応日を記載しておりました。

既に当社にて対応品への在庫切替を完了していることから、特段のことがない限り、2022年1月12日より割愛しております。

規格認証/適合状況

UL認証	CSA認証	CEマーキング適合	CCC認証
Yes	Yes	Yes	N/A

LR型式承認 (イギリス 船舶規格)	DNV型式承認 (ノルウェー 船舶規格)	BV型式承認 (フランス 船舶規格)	KR型式承認 (韓国 船舶規格)	NK型式承認 (日本 船舶規格)	ABS型式承認 (アメリカ 船舶規格)
No	No	No	No	No	No

[この製品の規格認証/適合状況ページへ>](#)

[その他の認証はこちらのページからご検索ください>](#)