

OMRON

Model E5CS-U/E5CSV Temperature Controller

English INSTRUCTION MANUAL

Thank you for purchasing the OMRON E5CS-U/E5CSV Digital Temperature Controller. This manual describes the functions, performance, and application methods needed for optimum use of the product.

- Please observe the following items when using the product.
• This product is designed for use by qualified personnel with a knowledge of electrical systems.
• Before using the product, thoroughly read and understand this manual to ensure correct use.
• Keep this manual in a safe location so that it is available for reference whenever required.

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Safety Precautions

Key to Warning Symbols

CAUTION Indicates a potentially hazardous situation which, if not avoided, is likely to result in minor or moderate injury or property damage. Read this manual carefully before using the product.

CS1

1618597-8A

Mounting

Dimensions section showing E5CS-U (mm) and E5CSV (mm) drawings with dimensions and mounting instructions.

Installation Diagrams

Installation diagrams for flush mounting (panel cutout) and side-by-side mounting (waterproof not possible).

Surface mounting diagram showing the unit mounted on a panel with a hook and duct.

Terminal Layout

Terminal layout diagrams for E5CS-R□□, -Q□□ (No alarm output type) and E5CSV-R□□, -Q□□ (No alarm output type).

Terminal Layout

Terminal layout diagrams for E5CS-R1□□, -R2□□, -Q1□□, -Q2□□ (Alarm output type) and E5CSV-R1□□, -R2□□, -Q1□□, -Q2□□ (Alarm output type).

Names of Front Parts

Diagrams showing the front panel components for E5CS-U and E5CSV, including mode indicators, keys, and switches.

Switch

Instructions for using the INIT switch, Control mode selector switch, and Alarm mode selector switch.

Operation

Setting

Step 1: Set the operating specifications with the switches. Includes Control mode selector switch and Temperature range selector switch.

Step 2: Set the control temperature. Includes Temperature indication flowchart and Control mode selector switch No.5.

Warning Symbols

CAUTION symbols and their meanings: Do not touch terminals while power is being supplied, Do not allow pieces of metal, wire clippings, or fine metallic shavings or filings from installation to enter the product, Do not use the product where subject to flammable or explosive gas, Never disassemble, modify, or repair the product or touch any of the internal parts.

CAUTION - Risk of Fire and Electric Shock. This product is UL listed as Open Type Process Control Equipment. It must be mounted in an enclosure that does not allow fire to escape externally.

Unexplained operation may result in equipment damage or accidents if the settings are not appropriate for the controlled system. Set the Temperature Controller as follows:

A malfunction in the Temperature Controller may occasionally make control operations impossible or prevent alarm outputs, resulting in property damage. To maintain safety in the event of malfunction of the Temperature Controller, take appropriate safety measures, such as installing a monitoring device on a separate line.

Faulty terminal contact or decreased waterproofing capability may result in a fire or equipment malfunction. When inserting the Temperature Controller into the rear case after setting the switches, check the watertight packing and make sure that the top and bottom hooks are locked securely in place. (E5CSV only)

Precautions for Safe Use. Be sure to observe the following precautions to prevent operation failure, malfunction, or adverse effects on the performance and functions of the product.

SELF-DIAGNOSTIC FUNCTION. If an error occurs, it will be displayed on the temperature display. Check the type of error and correct the error accordingly.

Conformity to Safety standards. Basic insulation is provided between the power supply, input, and output terminals.

Specifications. Power supply voltage: 100 to 240V AC type 50/60Hz, 24V AC type 50/60Hz / 24V DC type.

Installation environment. Installation category II, pollution degree 2 (as per IEC61010-1).

Memory protection. EEPROM (non-volatile memory).

Terminal protection. ESCV-U: Field wiring terminal (with P2CF-08 or P2CF-11).

Applicable Connection Sockets. Sockets for No Alarm (8-pin): P2CF-08, P2CF-08-E, and P3G-08.

Suitability for Use. OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of the products in the customer's application.

OMRON ELECTRONICS LLC. One Commerce Drive Schaumburg, IL 60173-5302 U.S.A. Phone 1-847-843-7900.

OMRON EUROPE B.V. Wegalaan 67-69 P.O. BOX 13 2130 AA Hoofddorp The Netherlands.

OMRON ASIA-PACIFIC PTE.LTD. 83, Clemenceau Avenue, #11-01, UE Square, Singapore 239920.

形 E5CS-U / 形 E5CSV
電子温度調節器

Japanese 取扱説明書

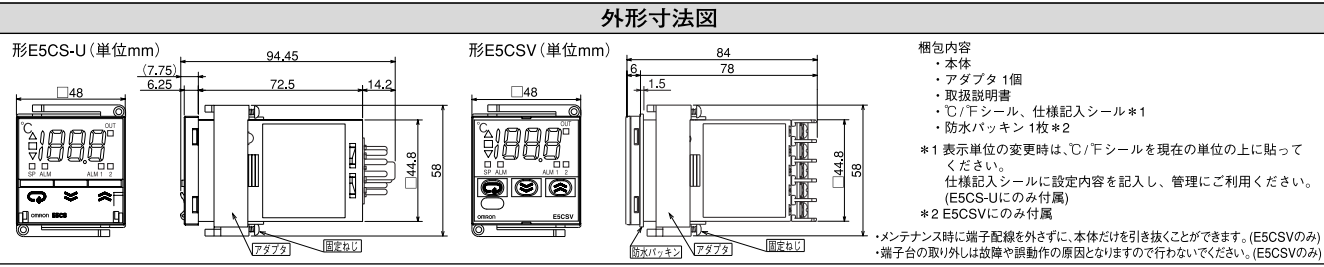
このたびは、オムロン製品をお買い上げいただきまして、まことにありがとうございます。この取扱説明書では、この製品を使用する上で、必要な機能、性能、使用方法などの情報を記載しています。

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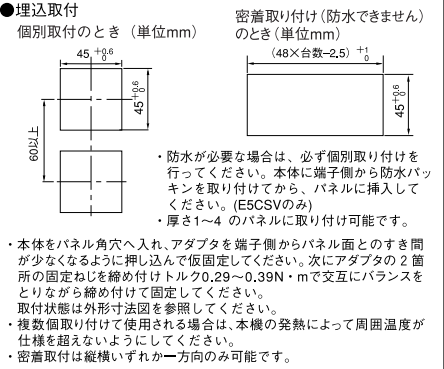
安全上のご注意

警告表示の意味
正しい取扱いをしなれば、この危険のために、時に軽傷・中程度の傷害を負ったり、あるいは物的損害を受ける恐れがあります。

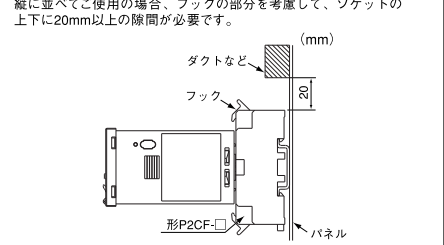
取付方法



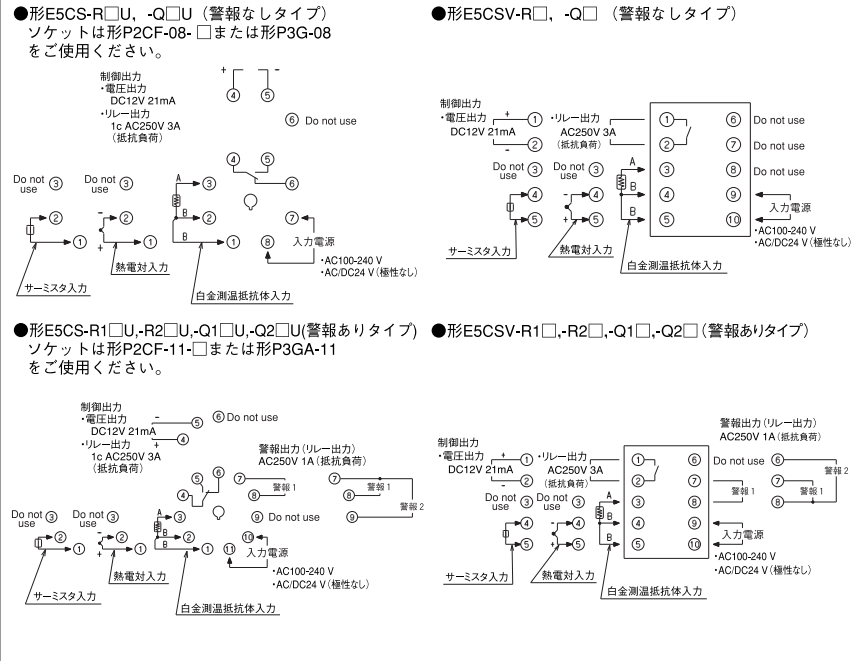
取付加工図



表面取付



端子配列



安全上の要点

- 製品の動作不良、誤動作または性能・機能への悪影響を防ぐため、以下のことを守ってください。
1) 屋内専用機器のため屋内のみで使用してください。
2) 周囲温度および湿度は仕様範囲内で使用および保存してください。
3) 放熱を妨げないよう、温度調節器の周辺をふさがずしてください。

自己診断機能

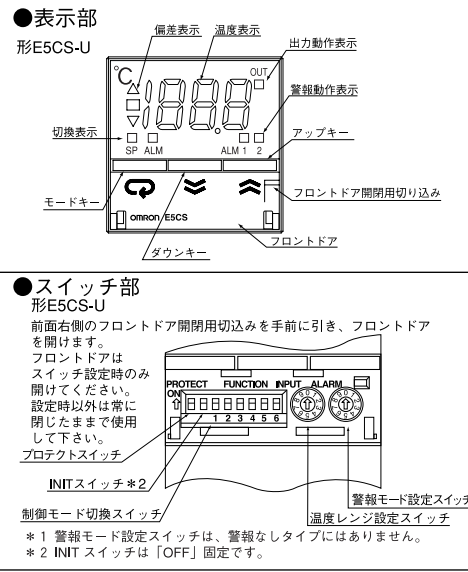
Table with 4 columns: 表示 (Display), 異常内容 (Abnormality Content), 原因 (Cause), 処置 (Action). Includes error codes like FFF, FFF点減, ---点減, E!!.

異常が発生すると、温度表示部にエラー内容を表示します。エラーの内容を確認し、その内容についての処置をしてください。

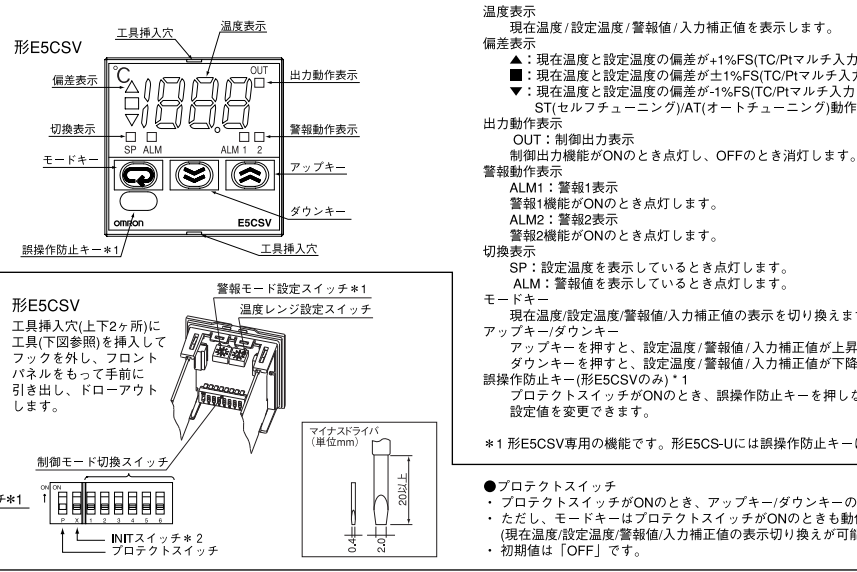
安全規格対応について

- 電源-入力端子間相互間は基礎絶縁です。
二重絶縁が必要な場合、空間距離や固体絶縁などにより最高使用電圧に達したIEC60664にて定義されている補助絶縁を施してください。

フロント部の名称



設定方法



仕様

仕様
電源電圧 AC100-240V/50/60Hz
許容電圧変動範囲 AC24V 50/60Hz / DC24V
消費電力 約5VA (AC100-240V)

操作手法



設定方法



ご使用に際してのご承諾事項

下記用途に使用される場合、当社営業担当者までご相談の上仕書書などによりご確認いただくとともに、定格・性能に対し余裕を持った使い方、万一故障があっても危険を最小にする安全回路などの安全対策を講じてください。
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