# Digital Controllers
# E5AR

CSM_E5AR_DS_E_3_5

**E5AR Digital Controllers offer high speed, high precision, and multiple I/O and use a 5-digit, 3-row LCD display for high visual clarity.**

- A short sampling period of 50 ms enables use in applications requiring high-speed response.
- PV, SP, and MV data is displayed simultaneously in a 3-row, negative LCD display with a backlight.
- Multiloop control, cascade control, and proportional control are possible with a single Controller.
- When using models with CompoWay/F communications, initial settings can be downloaded and settings can be masked using Support Software (CX-Thermo version 4.0 or higher).
- Equipped with calculation functions as a standard (e.g., square root calculation and broken-line approximation).
- DeviceNet Communications
  Data setting and monitoring can be performed without special programming.


For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

⚠ Refer to *Safety Precautions for All E5□R Models*.

Refer to *E5AR/E5ER Operation* for operating procedures.

# Model Number Structure

## ■ Model Number Legend

**Note:** When your order, specify the power supply voltage.

**E5AR-□□□□□□□□□-□□□**
**1 2 3 4 5 6 7 8 9 10**

1. **Constant Values/Program**
   None: Constant value
2. **Control Method**
   Blank: Standard or heating/cooling control
   P: Position proportional control
3. **Output 1**
   R: DPST-NO relay outputs
   Q: Pulse voltage and pulse voltage/current outputs
   C: Current and current outputs
4. **Output 2**
   Blank: None
   R: Relay outputs
   Q: Pulse voltage and pulse voltage/current outputs
   C: Current and current outputs
5. **Auxiliary Outputs**
   Blank: None
   4: 4PST-NO relay outputs
   T: 2 transistor outputs
6. **Optional Function 1**
   Blank: None
   3: RS-485 communications
7. **Optional Function 2**
   Blank: None
   D: 4 event inputs
8. **Input 1**
   B: Universal-input and 2 event inputs
   F: Universal-input and FB
   W: Universal-input and universal-input
9. **Input 2**
   Blank: None
   W: Universal-input and universal-input
10. **Communications Method**
    Blank: None
    FLK: CompoWay/F
    DRT: DeviceNet

**Note:** The above model number legend is intended as a functional description of models. Not all possible combinations of functions are available. Confirm model availability in *Ordering Information* when ordering.

The CX-Thermo Support Software (version 4.0 or higher) can be used to easily set parameters in conversational form.

**Note: Be sure to read the precautions for correct use and other precautions in the following user's manual before using the Digital Controller.**
**E5AR/E5ER Digital Controller User's Manual (Cat. No. Z182)**
**E5AR/E5ER Digital Controller DeviceNet Communication User's Manual (Cat. No. H124)**

# Ordering Information

## ■ Digital Controllers

**When your order, specify the power supply voltage.**

### Standard Controllers (100 to 240 VAC)

| Size | Control type | Control mode | Outputs (control/transfer) | Optional functions | | | Model |
|---|---|---|---|---|---|---|---|
| | | | | Auxiliary outputs (SUB) | Event inputs | Serial communications | |
| 96 × 96 mm | Basic control (1 loop) | Single-loop standard control<br>Single-loop heating and cooling control | 2 points: Pulse voltage and Pulse voltage/current | 4 | 2 | No | E5AR-Q4B |
| | | | 2 points: Current and Current | | | | E5AR-C4B |
| | | | 2 points: Pulse voltage and Pulse voltage/current | | | RS-485 | E5AR-Q43B-FLK |
| | | | 2 points: Current and Current | | | | E5AR-C43B-FLK |
| | | | 2 points: Pulse voltage and Pulse voltage/current | | 6 | | E5AR-Q43DB-FLK |
| | | | 2 points: Current and Current | | | | E5AR-C43DB-FLK |
| | | | 4 points: Pulse voltage and Pulse voltage/current and Current (2 points) | | | | E5AR-QC43DB-FLK |
| | 2-loop control | 2-loop standard control<br>Single-loop heating and cooling control<br>Single-loop cascade control<br>Single-loop control with remote SP<br>Single-loop proportional control | 2 points: Pulse voltage and Pulse voltage/current | 4 | 4 | RS-485 | E5AR-Q43DW-FLK |
| | | | 2 points: Current and Current | | | | E5AR-C43DW-FLK |
| | | 2-loop standard control<br>2-loop heating and cooling control<br>Single-loop cascade control<br>Single-loop control with remote SP<br>Single-loop proportional control | 4 points: Pulse voltage (2 points) and Pulse voltage/current (2 points) | | | | E5AR-QQ43DW-FLK |
| | 4-loop control | 4-loop standard control<br>2-loop heating and cooling control | 4 points: Current output (4 points) | 4 | 4 | RS-485 | E5AR-CC43DWW-FLK |
| | | | 4 points: Pulse voltage (2 points) and Pulse voltage/current (2 points) | | | | E5AR-QQ43DWW-FLK |
| | Position-proportional control (1 loop) | Single-loop position-proportional control (See note.) | Relay output (1 open, 1 close) | 4 | 4 | No | E5AR-PR4DF |
| | | | Relay output (1 open, 1 close) and 1 current (transfer) output | | | RS-485 | E5AR-PRQ43DF-FLK |

**Note:** Can be switched between close control and floating control.

## Standard Controllers (24 VAC/DC)

| Size | Control type | Control mode | Outputs (control/transfer) | Optional functions | | | Model |
|---|---|---|---|---|---|---|---|
| | | | | Auxiliary outputs (SUB) | Event inputs | Serial communications | |
| 96 × 96 mm | Basic control (1 loop) | Single-loop standard control<br>Single-loop heating and cooling control | 2 points: Pulse voltage and Pulse voltage/current | 4 | 2 | No | E5AR-Q4B |
| | | | 2 points: Current and Current | | | | E5AR-C4B |
| | | | 4 points: Pulse voltage and Pulse voltage/current and Current (2 points) | | 6 | RS-485 | E5AR-QC43DB-FLK |
| | 2-loop control | 2-loop standard control<br>2-loop heating and cooling control<br>Single-loop cascade control<br>Single-loop control with remote SP<br>Single-loop proportional control | 4 points: Pulse voltage (2 points) and Pulse voltage/current (2 points) | 4 | 4 | RS-485 | E5AR-QQ43DW-FLK |
| | 4-loop control | 4-loop standard control<br>2-loop heating and cooling control | 4 points: Current output (4 points) | 4 | 4 | RS-485 | E5AR-CC43DWW-FLK |
| | Position-proportional control (1 loop) | Single-loop position-proportional control (See note.) | Relay output (1 open, 1 close) | 4 | 4 | No | E5AR-PR4DF |
| | | | Relay output (1 open, 1 close) and 1 current (transfer) output | | | RS-485 | E5AR-PRQ43DF-FLK |

**Note:** Can be switched between close control and floating control.

## DeviceNet-compatible Controllers (100 to 240 VAC)

| Size | Control type | Control mode | Outputs (control/transfer) | Optional functions | | | Model |
|---|---|---|---|---|---|---|---|
| | | | | Auxiliary outputs (SUB) | Event inputs | DeviceNet communications | |
| 96 × 96 mm | Basic control (1 loop) | 1 loop for standard control<br>Single-loop heating and cooling control | 2 points: Pulse voltage and Pulse voltage/current | 4 | 2 | Yes | E5AR-Q4B-DRT |
| | | | 2 points: Current and Current | | | | E5AR-C4B-DRT |
| | | | 4 points: Pulse voltage and Pulse voltage/current and Current (2 points) | | | | E5AR-QC4B-DRT |
| | 2-loop control | 2-loop standard control<br>2-loop heating and cooling control<br>Single-loop cascade control<br>Single-loop control with remote SP<br>Single-loop proportional control | 4 points: Pulse voltage (2 points) and Pulse voltage/current (2 points) | 4 | None | Yes | E5AR-QQ4W-DRT |
| | 4-loop control | 4-loop standard control<br>2-loop heating and cooling control | 4 points: Current (4 points) | 4 | None | Yes | E5AR-CC4WW-DRT |
| | Position-proportional control (1 loop) | Single-loop position-proportional control (See note.) | Relay output (1 open, 1 close) | 4 | None | Yes | E5AR-PR4F-DRT |
| | | | Relay output (1 open, 1 close) and 1 current (transfer) output | | | | E5AR-PRQ4F-DRT |

**Note:** Can be switched between close control and floating control.

## DeviceNet-compatible Controllers (24 VAC/DC)

| Size | Control type | Control mode | Outputs (control/transfer) | Optional functions | | | Model |
|---|---|---|---|---|---|---|---|
| | | | | Auxiliary outputs (SUB) | Event inputs | DeviceNet communications | |
| 96 × 96 mm | Basic control (1 loop) | 1 loop for standard control<br>Single-loop heating and cooling control | 2 points: Pulse voltage and Pulse voltage/current | 4 | 2 | Yes | E5AR-Q4B-DRT |
| | | | 2 points: Current and Current | | | | E5AR-C4B-DRT |
| | | | 4 points: Pulse voltage and Pulse voltage/current and Current (2 points) | | | | E5AR-QC4B-DRT |
| | 2-loop control | 2-loop standard control<br>2-loop heating and cooling control<br>Single-loop cascade control<br>Single-loop control with remote SP<br>Single-loop proportional control | 4 points: Pulse voltage (2 points) and Pulse voltage/current (2 points) | 4 | None | Yes | E5AR-QQ4W-DRT |
| | 4-loop control | 4-loop standard control<br>2-loop heating and cooling control | 4 points: Current (4 points) | 4 | None | Yes | E5AR-CC4WW-DRT |
| | Position-proportional control (1 loop) | Single-loop position-proportional control (See note.) | Relay output (1 open, 1 close) | 4 | None | Yes | E5AR-PR4F-DRT |
| | | | Relay output (1 open, 1 close) and 1 current (transfer) output | | | | E5AR-PRQ4F-DRT |

**Note:** Can be switched between close control and floating control.

## Inspection Results

The Inspection Report can be ordered at the same time as the Digital Controller using the following model number.

### Inspection Report (Sold Separately)

| Descriptions | Model |
|---|---|
| Inspection Report for E5AR | E5AR-K |

## ■ Accessories (Order Separately)

### Terminal Cover (Sold Separately)

| Descriptions | Model |
|---|---|
| Terminal Cover for E5AR | E53-COV14 |

### Unit Label Sheet

| Model |
|---|
| Y92S-L1 |

### Rubber Packing

| Model |
|---|
| Y92S-P4 |

**Note:** The Rubber Packing is provided with the Digital Controller.

### Mounting Adapters

| Model |
|---|
| Y92H-9 |

**Note:** These Mounting Adapters are provided with the Digital Controller.

# Specifications

## ■ Ratings

| Item | | Supply voltage (See note 1.) | 100 to 240 VAC, 50/60 Hz | 24 VAC, 50/60 Hz; 24 VDC |
|---|---|---|---|---|
| Operating voltage range | | | 85% to 110% of rated supply voltage | |
| Power consumption | | | 22 VA max. (with maximum load) | 15 VA/10 W max. (with maximum load) |
| Sensor input (See note 2.) | | | Thermocouple: K, J, T, E, L, U, N, R, S, B, W<br>Platinum resistance thermometer: Pt100<br>Current input: 4 to 20 mA DC, 0 to 20 mA DC (including remote SP input)<br>Voltage input: 1 to 5 VDC, 0 to 5 VDC, 0 to 10 VDC (including remote SP input)<br>(Input impedance: 150 Ω for current input, approx. 1 MΩ for voltage input) | |
| Control output | Voltage (pulse) output | | 12 VDC, 40 mA max. with short-circuit protection circuit (E5AR-QQ□WW-□: 21 mA max.) | |
| | Current output | | 0 to 20 mA DC, 4 to 20 mA DC; load: 500 Ω max. (including transfer output)<br>(Resolution: Approx. 54,000 for 0 to 20 mA DC; Approx. 43,000 for 4 to 20 mA DC) | |
| | Relay output | | Position-proportional control type (open, closed)<br>N.O., 250 VAC, 1 A (including inrush current) | |
| Auxiliary output | | | Relay Output<br>N.O., 250 VAC, 1 A (resistive load) | |
| Potentiometer input | | | 100 Ω to 2.5 kΩ | |
| Event input | Contact | | Input ON: 1 kΩ max.; OFF: 100 kΩ min. | |
| | No-contact | | Input ON: Residual voltage of 1.5 V max.; OFF: Leakage current of 0.1 mA max. | |
| | | | Short circuit current: Approx. 4 mA | |
| Remote SP input | | | Refer to the information on sensor input. | |
| Transfer output | | | Refer to the information on control output. | |
| Control method | | | 2-PID or ON/OFF control | |
| Setting method | | | Digital setting using front panel keys or setting using serial communications | |
| Indication method | | | 7-segment digital display and single-lighting indicator<br>Character Height<br>PV: 12.8 mm; SV: 7.7 mm; MV: 7.7 mm | |
| Other functions | | | Depends on model. | |
| Ambient operating temperature | | | –10 to 55°C (with no icing or condensation)<br>For 3 years of assured use: –10 to 50°C (with no icing or condensation) | |
| Ambient operating humidity | | | 25% to 85% | |
| Storage temperature | | | –25 to 65°C (with no icing or condensation) | |

**Note 1:** The supply voltage (i.e., 100 to 240 VAC or 24 VAC/VDC) depends on the model. Be sure to specify the required type when ordering.
**2:** The Controller is equipped with multiple sensor input. Temperature input or analog input can be selected with the input type setting switch. There is basic insulation between power supply and input terminals, power supply and output terminals, and input and output terminals.
**3:** Do not use an inverter output as the power supply. (Refer to *Safety Precautions for All E5□R Models*.)

## ■ Input Ranges

### Platinum Resistance Thermometer, Thermocouple, Current, or Voltage Input

| Input type | Platinum Resistance Thermometer | | Thermocouple | | | | | | | | | | | | | Current | | Voltage | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Name | Pt100 | | K | | J | | T | E | L | U | N | R | S | B | W (W/Re 5-26) | [mA] | | [V] | | |
| Temperature Range (°C) | 850.0 / –200.0 | 150.00 / –150.00 | 1300.0 / –200.0 | 500.0 / –20.0 | 850.0 / –100.0 | 400.0 / –20.0 | 400.0 / –200.0 | 600.0 / 0.0 | 850.0 / –100.0 | 400.0 / –200.0 | 1300.0 / –200.0 | 1700.0 / 0.0 | 1700.0 / 0.0 | 1800.0 / 100.0 | 2300.0 / 0.0 | 20 to 4 | 20 to 0 | 5 to 1 | 5 to 0 | 10 to 0 |
| Setting | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| Minimum setting unit (SP and alarm) | 0.1°C | 0.01°C | 0.1°C | | | | | | | | | | | | | (Depends on scaling and number of decimal places.) | | | | |
| Input type setting switch | Set to TC.PT. | | | | | | | | | | | | | | | Set to ANALOG. | | | | |

The shaded area indicates the setting status at the time of purchase.

## ■ Characteristics

| | |
|---|---|
| **Indication accuracy** | Thermocouple input with cold junction compensation: (±0.1% of PV or ±1°C, whichever is greater) ±1 digit max. (See note 1.)<br>Thermocouple input without cold junction compensation: (±0.1% FS or ±1°C, whichever is smaller) ±1 digit (See note 2.)<br>Analog input: ±0.1% FS ±1 digit max.<br>Platinum resistance thermometer input: (±0.1% of PV or ±0.5°C, whichever is greater) ±1 digit max.<br>Position-proportional potentiometer input: ±5% FS ±1 digit max. |
| **Control mode** | Standard control (heating or cooling control), heating/cooling control, standard control with remote SP (2-input models only), heating/cooling control with remote SP (2-input models only), cascade standard control (2-input models only), cascade heating/cooling control (2-input models only), proportional control (2-input models only), position-proportional control (control-valve control models only) |
| **Influence of temperature**<br>**Influence of voltage**<br>**Influence of EMS. (at EN61326-1)** | Thermocouple input (R, S, B, W): (±1% of PV or ±10°C, whichever is greater) ±1 digit max.<br>Other thermocouple input: (±1% of PV or ±4°C, whichever is greater) ±1 digit max.<br>*K-type thermocouple at −100°C max.: ±10°C max.<br>Platinum resistance thermometer: (±1% of PV or ±2°C, whichever is greater) ±1 digit max.<br>Analog input: (±1%FS) ±1 digit max. |
| **Control period** | 0.2 to 99.0 s (in units of 0.1 s) for time-proportioning control output |
| **Proportional band (P)** | 0.00% to 999.99% FS (in units of 0.01% FS) |
| **Integral time (I)** | 0.0 to 3,999.9 s (in units of 0.1 s) |
| **Derivative time (D)** | 0.0 to 3,999.9 s (in units of 0.1 s) |
| **Hysteresis** | 0.01% to 99.99% FS (in units of 0.01% FS) |
| **Manual reset value** | 0.0% to 100.0% (in units of 0.1% FS) |
| **Alarm setting range** | −19,999 to 99,999 EU (See note 3.) (The decimal point position depends on the input type and the decimal point position setting.) |
| **Input sampling period** | 50 ms |
| **Insulation resistance** | 20 MΩ min. (at 500 VDC) |
| **Dielectric strength** | 2,000 VAC, 50/60 Hz for 1 min (between charged terminals of different polarities) |
| **Vibration resistance** | 10 to 55 Hz, 20 m/s² for 10 min each in X, Y, and Z directions |
| **Shock resistance** | 100 m/s², 3 times each in X, Y, and Z directions |
| **Inrush current** | 100 to 240-VAC models: 50 A max.<br>24 VAC/VDC models: 30 A max. |
| **Weight** | Controller only: Approx. 450 g; Mounting bracket: Approx. 60 g; Terminal cover: Approx. 30 g |
| **Degree of protection** | Front panel: NEMA4X for indoor use (equivalent to IP66); Rear case: IP20; Terminals: IP00 |
| **Memory protection** | Non-volatile memory (number of writes: 100,000) |
| **Applicable standards** | UL61010C-1, CSA C22.2 No. 1010-1<br>EN61010-1 (IEC61010-1): Pollution degree 2/overvoltage category 2 |
| **EMC** | EMI: EN61326-1 (See note 5.)<br>Radiated Interference Electromagnetic Field Strength: EN55011 Group 1 Class A<br>Noise Terminal Voltage: EN55011 Group 1 Class A<br><br>EMS: EN61326-1 (See note 5.)<br>ESD Immunity: EN61000-4-2: 4 kV contact discharge (level 2)<br>8 kV air discharge (level 3)<br>Electromagnetic Immunity: EN61000-4-3: 10 V/m (amplitude-modulated, 80 MHz to 1 GHz, 1.4 GHz to 2 GHz) (level 3)<br>Burst Noise Immunity: EN61000-4-4: 2 kV power line (level 3)<br>2 kV output line (relay output) (level 4)<br>1 kV measurement line, I/O signal line (level 4)<br>1 kV communications line (level 3)<br>Conducted Disturbance Immunity: EN61000-4-6: 3 V (0.15 to 80 MHz) (level 3)<br>Surge Immunity: EN61000-4-5: 1 kV line to line (power line, output line (relay output)) (level 2)<br>2 kV line to ground (power line, output line (relay output)) (level 3)<br>Power Frequency Magnetic Field Immunity: EN61000-4-8: 30 A/m (50 Hz) continuous field<br>Voltage Dip/Interrupting Immunity: EN61000-4-11: 0.5 cycle, 100% (rated voltage) |

**Note 1:** K-, T-, or N-type thermocouple at −100°C max.: ±2°C ±1 digit max.
U- or L-type thermocouple: ±2°C ±1 digit max.
B-type thermocouple at 400°C max.: No accuracy specification.
R- or S-type thermocouple at 200°C max.: ±3°C ±1 digit max.
W-type thermocouple: (±0.3% of PV or ±3°C, whichever is greater) ±1 digit max.

**2:** U- or L-type thermocouple: ±1°C ±1 digit
R- or S-type thermocouple at 200°C max.: ±1.5°C ±1 digit

**3:** "EU" (Engineering Unit) represents the unit after scaling. If a temperature sensor is used it is either °C or °F.

**4:** Conditions: Ambient temperature from −10 to 23 to 55°C and voltage of −15% to 10% of rated voltage.

**5:** Industrial electromagnetic environment (EN/IEC 61326-1 Table 2)

## ■ Communications Specifications

| | |
|---|---|
| **Transmission path connection** | Multiple points |
| **Communications method** | RS-485 (two-wire, half duplex) |
| **Synchronization method** | Start-stop synchronization |
| **Baud rate** | 9,600, 19,200, or 384,000 bps |
| **Transmission code** | ASCII |
| **Data bit length** | 7 or 8 bits |
| **Stop bit length** | 1 or 2 bits |
| **Error detection** | Vertical parity (none, even, odd)<br>Block check character (BCC): CompoWay/F<br>CRC-16: Modbus |
| **Flow control** | None |
| **Interface** | RS-485 |
| **Retry function** | None |
| **Communications buffer** | 217 bytes |
| **Communications response send wait time** | 0 to 99 ms, Default: 20 ms |

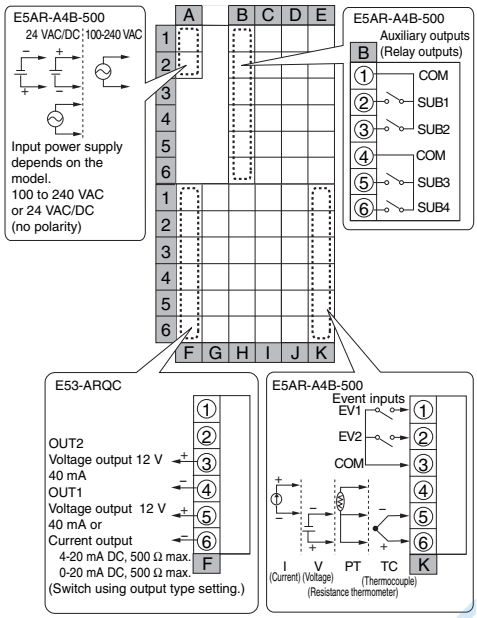
### DeviceNet

| Item | | Specifications | | | |
|---|---|---|---|---|---|
| **Communications protocol** | | Conforms to DeviceNet | | | |
| **Communications functions** | **Remote I/O communications** | • Master-slave connections (polling, bit-strobe, COS, or cyclic)<br>• Conform to DeviceNet specifications. | | | |
| | **I/O allocations** | • Can allocate any I/O data from the Configurator.<br>• Can allocate any data, such as parameters specific to the DeviceNet and the Digital Controller variable area.<br>• Up to 2 blocks for the IN Area, up to a total of 100 words.<br>• One block for the OUT Area, up to 100 words (first word is always allocated to Output Enable Bits). | | | |
| | **Message communications** | • Explicit message communications<br>• CompoWay/F communications commands can be sent (commands are sent in explicit message format). | | | |
| **Connection format** | | Combination of multidrop and T-branch connections (for trunk and drop lines) | | | |
| **Baud rate** | | DeviceNet: 500, 250, or 125 kbps, or automatic detection of master baud rate | | | |
| **Communications media** | | Special 5-wire cable (2 signal lines, 2 power lines, and 1 shield line) | | | |
| **Communications distance** | | Baud rate | Network length | Drop line length | Total drop line length |
| | | 500 kbps | 100 m max. (100 m max.) | 6 m max. | 39 m max. |
| | | 250 kbps | 250 m max. (100 m max.) | 6 m max. | 78 m max. |
| | | 125 kbps | 500 m max. (100 m max.) | 6 m max. | 156 m max. |
| | | The values in parentheses apply when Thin Cables are used. | | | |
| **Supply voltage** | | DeviceNet power supply: 24 VDC | | | |
| **Allowable voltage range** | | DeviceNet power supply: 11 to 25 VDC | | | |
| **Current consumption** | | 50 mA max. (24 VDC) | | | |
| **Maximum number of nodes that can be connected** | | 64 (includes Configurator when used) | | | |
| **Maximum number of slaves that can be connected** | | 63 | | | |
| **Error control** | | CRC error detection | | | |
| **Power supply** | | Power supplied from DeviceNet communications connector. | | | |

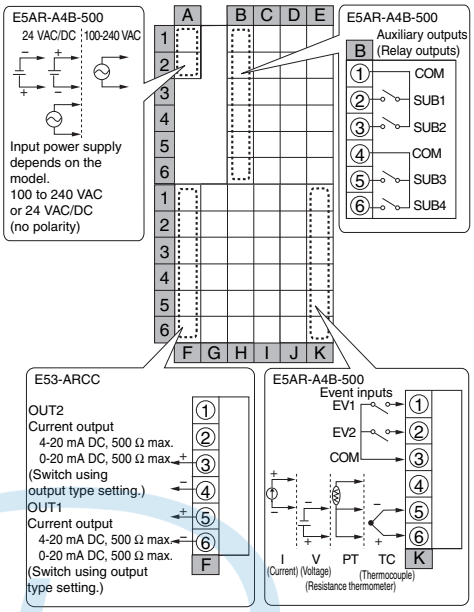
# Wiring Terminals

## ■ E5AR Standard Controller Connections

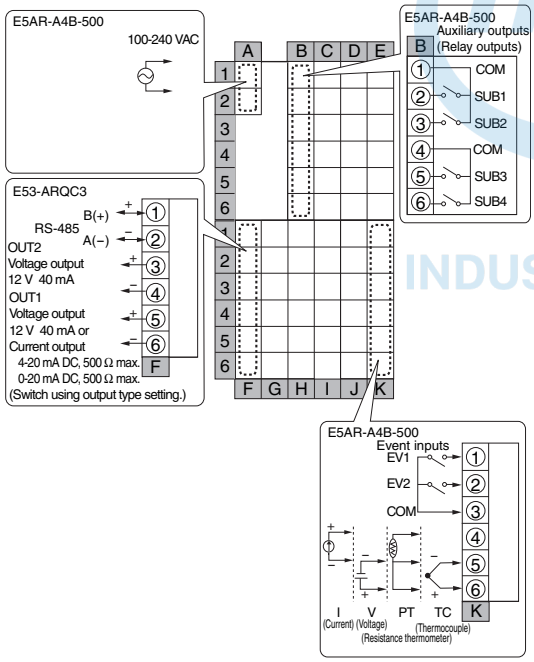
### E5AR-Q4B



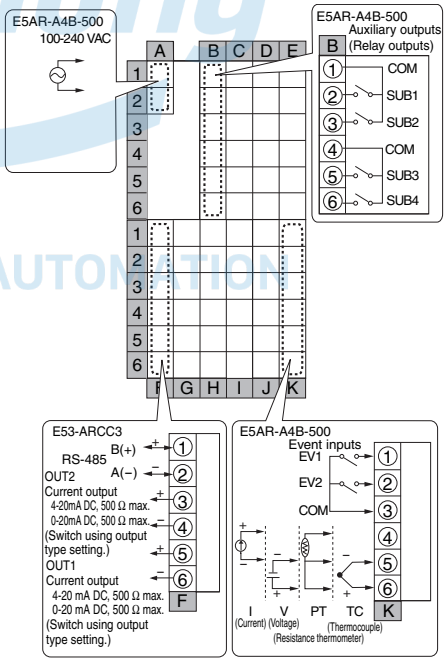

### E5AR-C4B



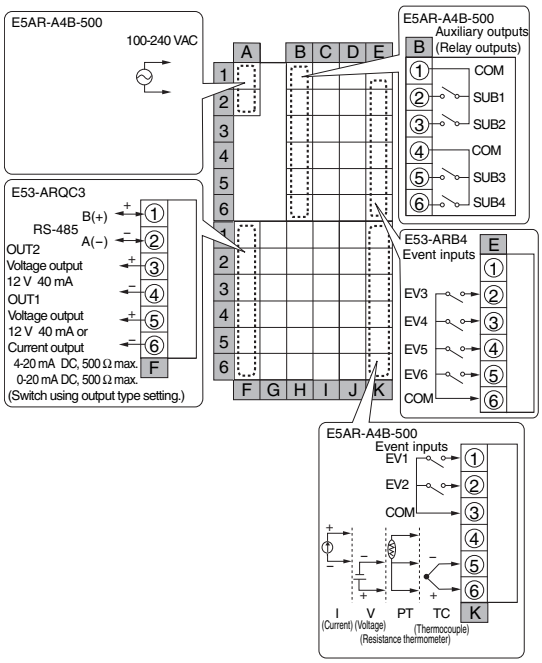

### E5AR-Q43B-FLK



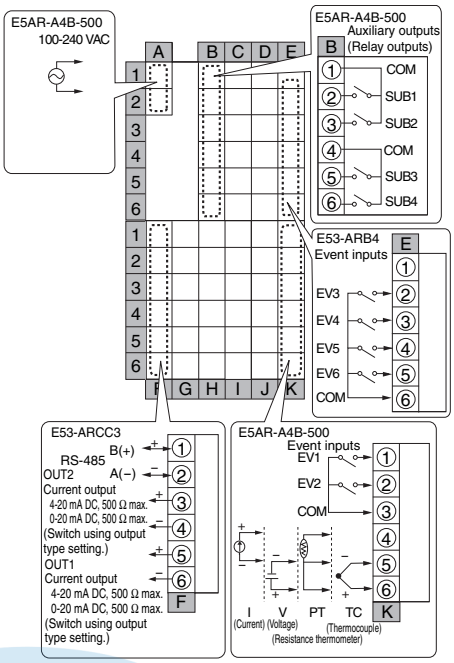

### E5AR-C43B-FLK



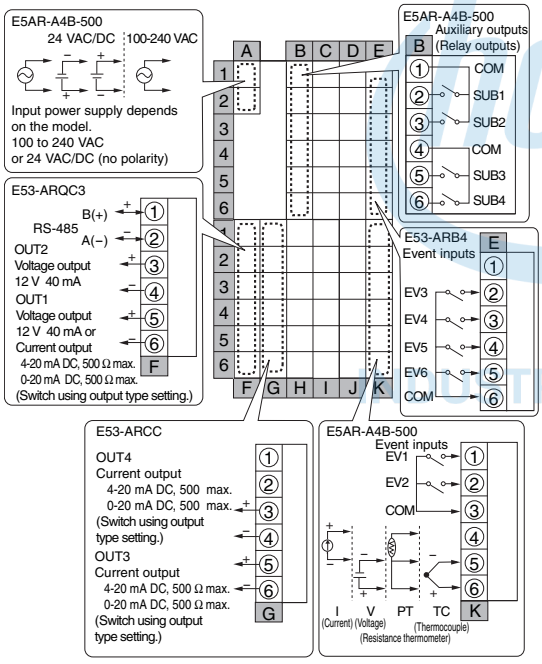
### E5AR-Q43DB-FLK



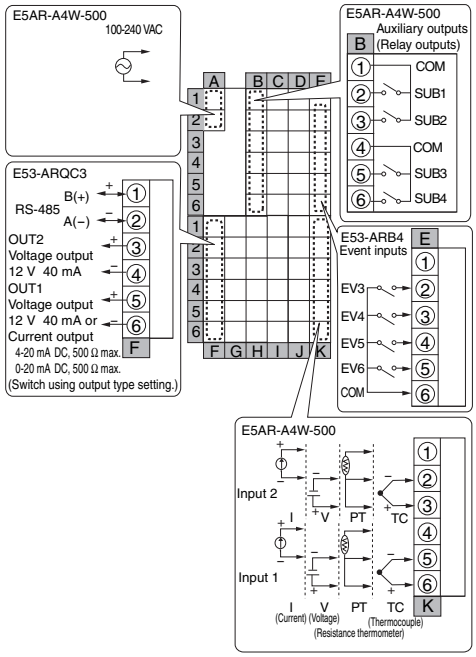

### E5AR-C43DB-FLK




### E5AR-QC43DB-FLK



### E5AR-Q43DW-FLK (2-loop Control)

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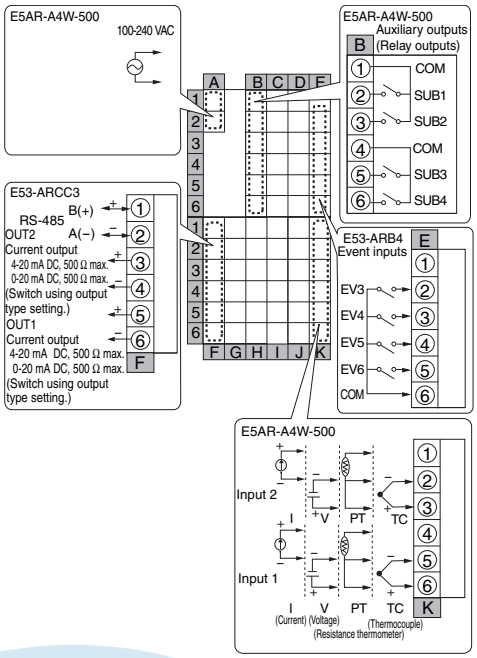


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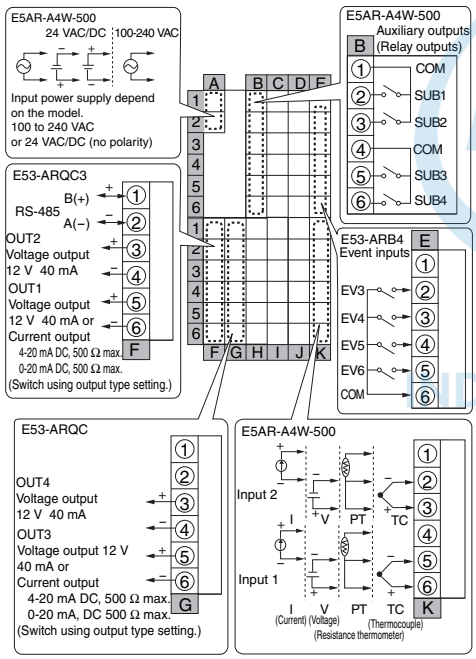
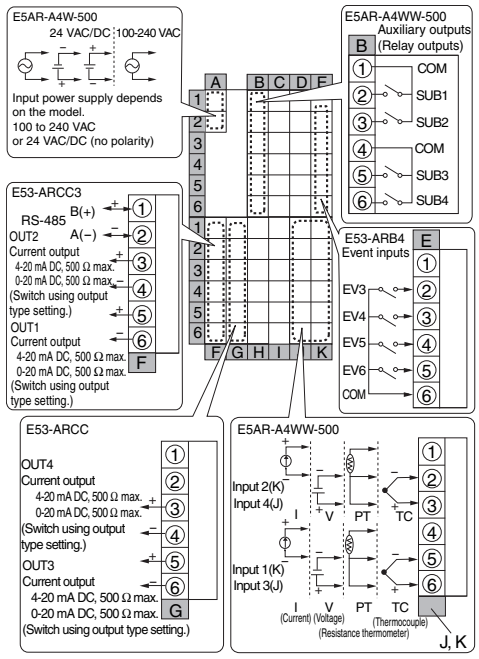
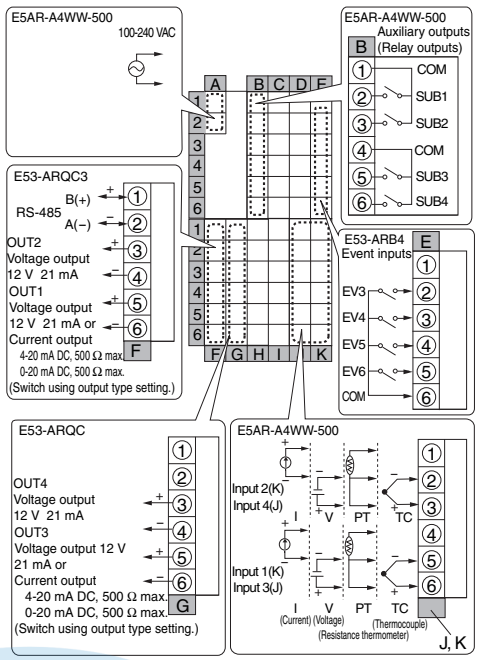


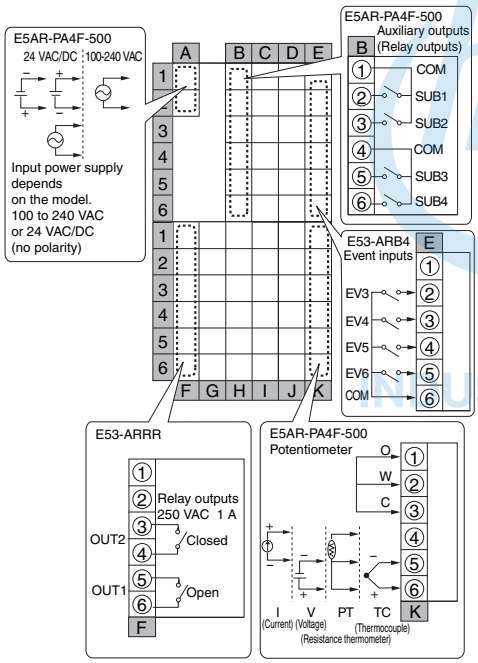
## E5AR-CC43DWW-FLK (4-loop Control)




## E5AR-QQ43DWW-FLK (4-loop Control)




## E5AR-PR4DF

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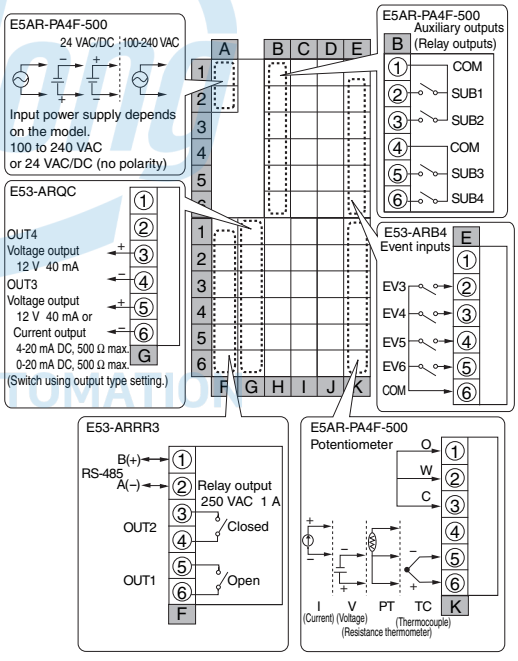
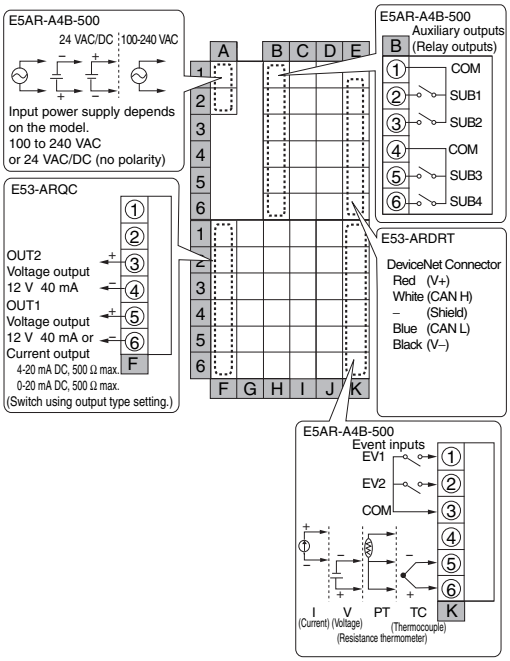


# ■ E5AR DeviceNet-compatible Controller Connections

## E5AR-Q4B-DRT

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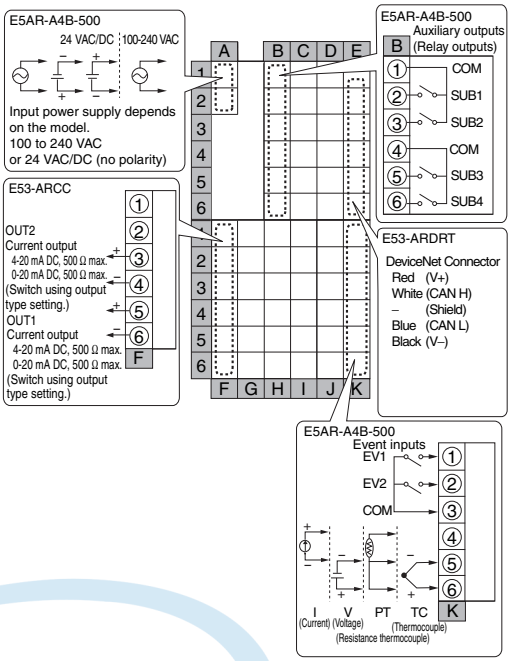


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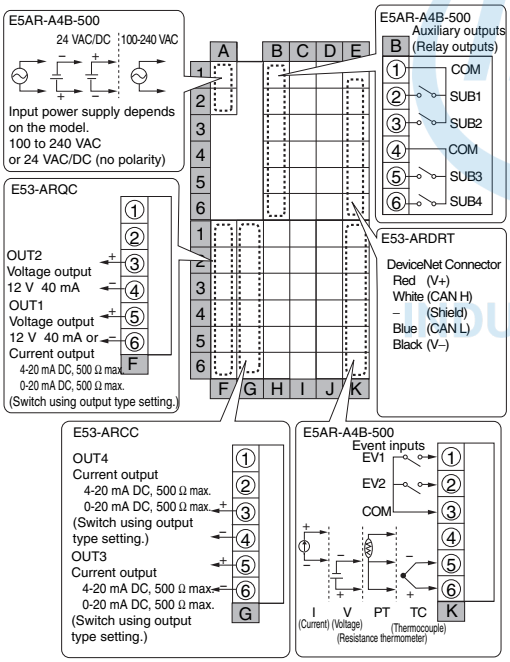
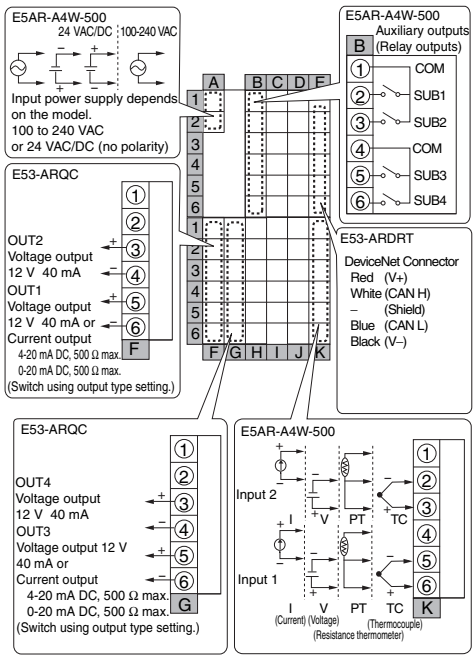
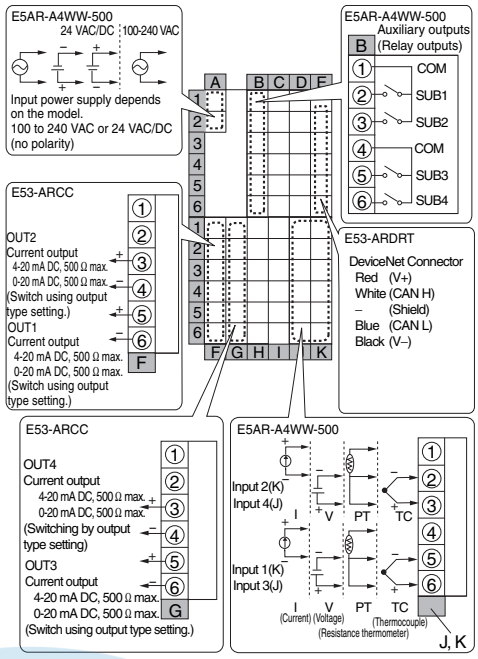


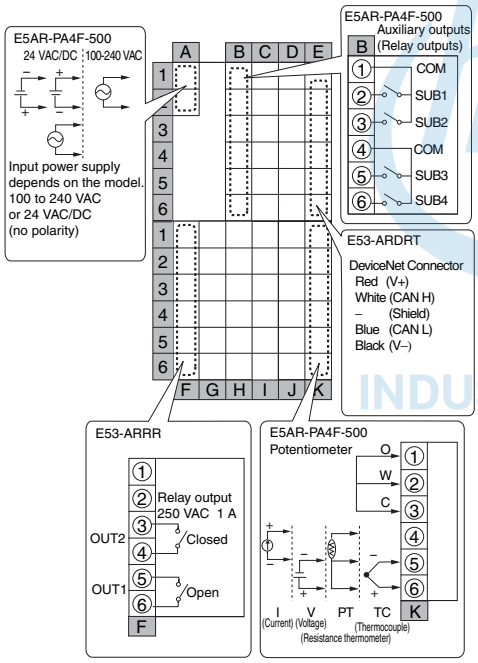
## E5AR-QQ4W-DRT (2-loop Control)



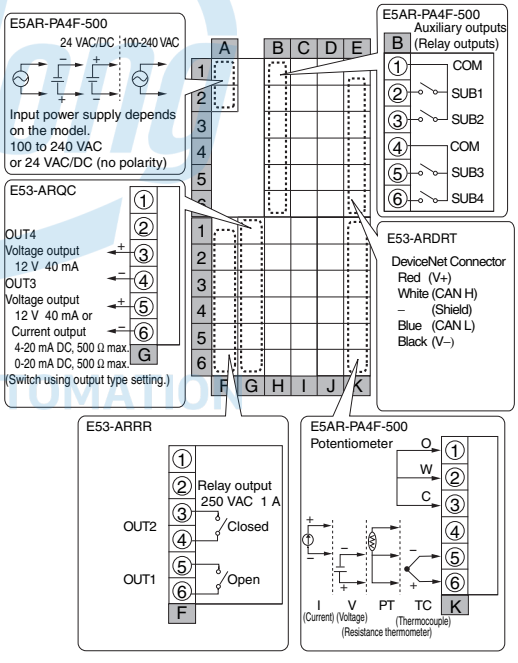

## E5AR-CC4WW-DRT (4-loop Control)




## E5AR-PR4F-DRT

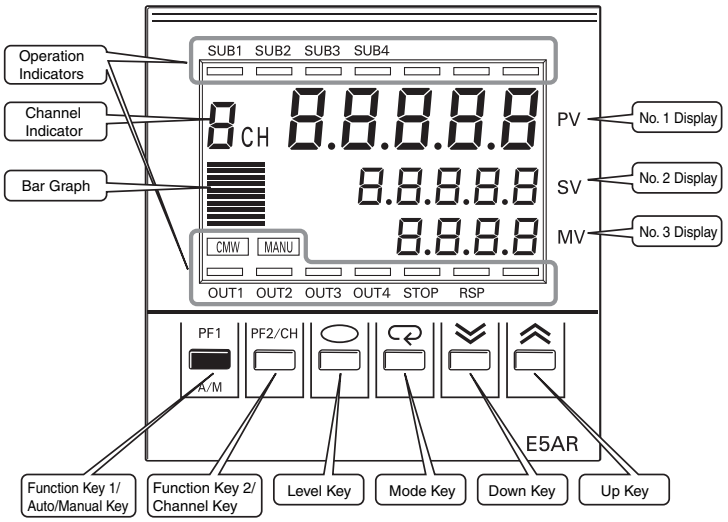



## E5AR-PRQ4F-DRT

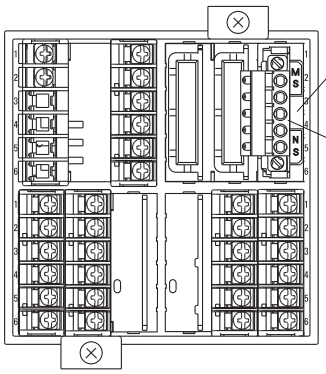


# Nomenclature

**E5AR**




**DeviceNet-compatible Controllers, Rear Panel**



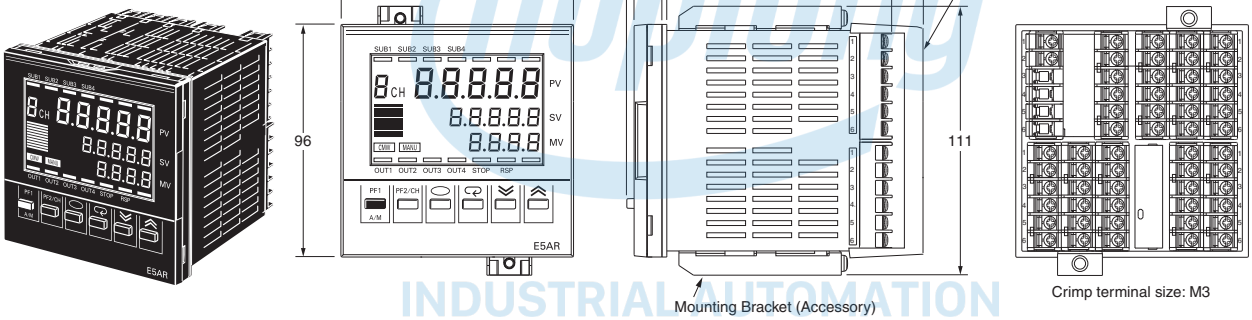

MS/NS indicators
Top: MS
Bottom: NS

**DeviceNet communications connector**
Used to connect the DeviceNet communications cables.
The DeviceNet communications power is also supplied through this connector.
The connector included with the DeviceNet-compatible Controllers is the FKC 2.5/5-STF-5.08 AU M (PHOENIX CONTACT).

# Dimensions

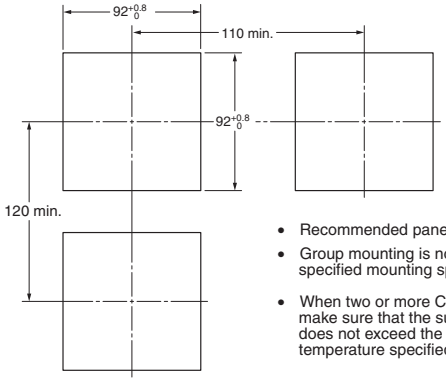
**Note:** All units are in millimeters unless otherwise indicated.

**E5AR**




* The value in parentheses is for DeviceNet-compatible Controllers.

**Panel Cutouts**

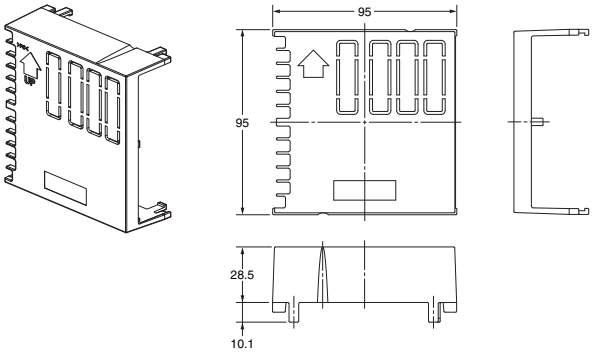



- Recommended panel thickness is 1 to 8 mm.
- Group mounting is not possible. (Maintain the specified mounting space between Controllers.)
- When two or more Controllers are mounted, make sure that the surrounding temperature does not exceed the allowable operating temperature specified in the specifications.

# ■ Accessories (Order Separately)

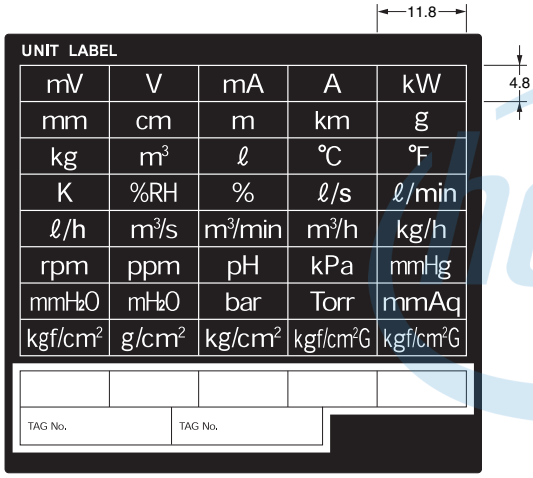
## Terminal Cover

**E53-COV14 (for E5AR)**



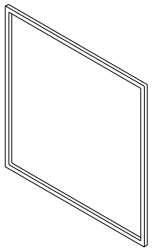

## Unit Label Sheet

**Y92S-L1**




## Rubber Packing

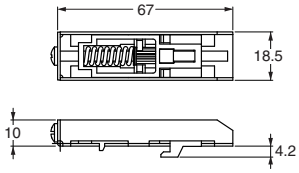
**Y92S-P4 (for DIN96 × 96)**



Order the Rubber Packing separately if it becomes lost or damaged. (Refer to page 4.)
The Rubber Packing can be used to achieve an IP66 degree of protection.
(Deterioration, shrinking, or hardening of the rubber packing may occur depending on the operating environment. Therefore, periodic replacement is recommended to ensure the level of waterproofing specified in NEMA4. The time for periodic replacement depends on the operating environment. Be sure to confirm this point at your site. Consider one year a rough standard. OMRON shall not be liable for the level of water resistance if the customer does not perform periodic replacement.)
The Rubber Packing does not need to be attached if a waterproof structure is not required.

## Mounting Adapters

**Y92H-9 (2pcs)**




One set is packaged with the product.
Order Mounting Adapters separately if yours are lost or damaged.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

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2017.8

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