### Operation Guide

**UT55A, UT52A Digital Indicating Controller**

#### Introduction

Thank you for purchasing the UT55A, UT52A Digital Indicating Controller.

The operation guide describes the basic operations related to the single-channel control function of the UT55A and UT52A. This guide should be provided to the end user of this product.

Before using this operation guide, read the manual and follow all instructions. Using the product without reading the manual will result in damage to the product or injury to the user.

#### 1. Safety Precautions

**The following section is used on the instrument and indicates the possibility of injury to the user or damage to the instrument, and signifies that the user must refer to the operation guide or user's guide for special instructions.**

- **Digital Indicating Controller:**
  - Set of Breakers:
  - Terminal Cover (L4020P for UT55A/L4020PX for UT52A):
  - Unit Label (L4025VZ):
  - Tag Label (only ordered)

- **Target Readers**
  - This guide is intended for the following personnel:
  - Engineers responsible for installation, wiring, and maintenance of the equipment.
  - Personnel responsible for normal daily operation of the equipment.

#### Protection of Environment

**Waste Electrical and Electronic Equipment (WEEE), Directive**

This is an explanation of how to dispose of this product based on Waste Electrical and Electronic Equipment (WEEE) Directive. This directive is only valid in the EU and its member states.

This product complies with the WEEE Directive marking requirement. This marking indicates that you must not discard this electrical and electronic equipment as general waste. Instead, you should return the product to an official collection point. The use of this product could cause interference in which case the user needs to take suitable measures.

#### 2. Model and Suffix Codes

**UT55A «Detailed Model Codes»**

<table>
<thead>
<tr>
<th>Model</th>
<th>Suffix Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UT55A</td>
<td>-A1</td>
<td>Digital indicating controller (power supply: 100-240V, 50/60Hz, or 200-240V, 50/60Hz for optional adapter)</td>
</tr>
<tr>
<td></td>
<td>-A2</td>
<td>Digital indicating controller (power supply: 100-240V, 50/60Hz, or 200-240V, 50/60Hz for optional adapter)</td>
</tr>
<tr>
<td></td>
<td>-B1</td>
<td>Digital indicating controller (power supply: 100-240V, 50/60Hz, or 200-240V, 50/60Hz for optional adapter)</td>
</tr>
<tr>
<td></td>
<td>-B2</td>
<td>Digital indicating controller (power supply: 100-240V, 50/60Hz, or 200-240V, 50/60Hz for optional adapter)</td>
</tr>
</tbody>
</table>

**UT52A «Detailed Model Codes»**

<table>
<thead>
<tr>
<th>Model</th>
<th>Suffix Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UT52A</td>
<td>-A1</td>
<td>Digital indicating controller (power supply: 100-240V, 50/60Hz, or 200-240V, 50/60Hz for optional adapter)</td>
</tr>
<tr>
<td></td>
<td>-A2</td>
<td>Digital indicating controller (power supply: 100-240V, 50/60Hz, or 200-240V, 50/60Hz for optional adapter)</td>
</tr>
<tr>
<td></td>
<td>-B1</td>
<td>Digital indicating controller (power supply: 100-240V, 50/60Hz, or 200-240V, 50/60Hz for optional adapter)</td>
</tr>
<tr>
<td></td>
<td>-B2</td>
<td>Digital indicating controller (power supply: 100-240V, 50/60Hz, or 200-240V, 50/60Hz for optional adapter)</td>
</tr>
</tbody>
</table>

#### 3. How to Install

**Installation Location**

The instrument should be installed in indoor locations reading the following conditions:

- **Instrument panel**
  - This instrument is intended to be mounted in an instrument panel. Mount the instrument in a location where its terminals will not inadvertently be touched.

- **Well-ventilated locations**
  - Mount the instrument in well ventilated locations to prevent the instrument's internal temperature from becoming too high.

- **Humidity**
  - Install the instrument in a location subject to little mechanical vibration. Mount the instrument horizontally and ensure that there is no inclination to the right or left.

#### 4. Customized Product

For customized product, the instrument is identified by the option code or IRA (where *X* is the optional code).

Consult your supplier in case your instrument has option/S or IRA and you are in possession of P1 (Model code) SR or IRA (Model code) 1SR (where SR/1SR means, for example, UT55A).

**Accessories (sold separately)**

- ** gastronorm, glass, stainless steel, and other materials**
- **LSID-Parameter Setting Software**

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4. Hardware Specifications

This instrument is for Measurement Category No.1.
Do not use it for measurements in locations falling under Measurement Categories No.2, No.3, and No.4.

- **Input Specifications**
  - **Universal Input (Equipped as standard)**
    - **Number of inputs:** 1
    - **Input type, range, and measurement accuracy:** See the table below.

<table>
<thead>
<tr>
<th>Input Type</th>
<th>Measurement Range</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>0 V to ±500 V DC</td>
<td>±0.05 V DC or 0.05% of input, whichever is larger</td>
</tr>
<tr>
<td>Current</td>
<td>0 mA to ±200 mA DC</td>
<td>±0.05 mA or 0.05% of input, whichever is larger</td>
</tr>
<tr>
<td>Resistance</td>
<td>0 MΩ to ±20 kΩ</td>
<td>±0.05 Ω or 0.05% of input, whichever is larger</td>
</tr>
<tr>
<td>Temperature</td>
<td>-200.0°C to +1370.0°C</td>
<td>±0.1°C or ±0.1% of reading, whichever is larger</td>
</tr>
</tbody>
</table>

- **Measuring time:** 10 s
- **Alarm detection:** Functions at standard signal level
- **Input voltage of 2 V DC is determined as "ON" and leakage current must not exceed 0.1 µA when OFF.**
- **Minimum status hold time:** Control period +50 ms
- **Use:** SP switch, operation mode switch, and event input

**Contact Input Specifications**
- **Number of inputs:** See the table of Model and Specifications
- **Input type:** No-voltage contact input
- **Contact input:** Contact input rating: 12 V DC, 10 mA or more
- **Use a contact with a minimum on-current of 1 mA or less.**
- **ONOFF detection:**
  - **Contact resistance:** 100 kΩ or less is determined as "ON" and contact resistance of 50 kΩ or more is determined as "OFF."
  - **Minimum status hold time:** Control period +50 ms
- **Use:** SP switch, operation mode switch, and event input

**Alarm Output Specifications**
- **Number of outputs:**
  - Control output: 1
  - Cooling-side output of Heating-cooling type: 2
- **Output type:**
  - Current output: 0 to 20 mA DC
  - Voltage output: 0 to 10 V DC
- **Current output:**
  - Current output accuracy: ±0.1% of span or 0.05 mA, whichever is larger
  - Nominal value: 0 mA (for CT and RTD)
  - Measured current (RTD): About 0.16 mA
  - Measured current (TC and RTD): About 0.16 mA
  - Measured current (TC): About 0.16 mA
- **Voltage output:**
  - Voltage output accuracy: ±0.1% of span or 0.05 V, whichever is larger
  - Nominal value: 0 V (for CT and RTD)

**Retransmission Output Specifications**
- **Number of outputs:** Retransmission output, 1 shared with 15 VDC loop power supply
- **Current output:**
  - Current output accuracy: ±0.1% of span or 0.05 mA, whichever is larger
- **Voltage output:**
  - Voltage output accuracy: (conversion accuracy from PV display on the set scale) ±0.1% of span (350 V for 1 mA or less)

**DC Loop Power Supply Specifications**
- **Power supply:** 14.5 to 18 V DC
- **Maximum supply current:** About 1 mA (with short-circuit current limiting circuit)

**Relay Output Specifications**
- **Control type and number of contacts:**
  - Control output: contact point 1c 1p
t
  - Cooling-side output: heating/cooling type: contact point 1c 1p
t
- **Normal tolerance:**
  - 1500 V AC, 30 V DC or 30 V AC, 3 A resistance load
  - 1000 V AC, 30 V DC or 30 V AC, 3 A resistance load
- **Use:**
  - Use time proportional output, alarm output, FAIL, output, etc.
  - Time to disconnection: 30 ms or 0.1% of output, whichever is larger

**Positional Output Specifications**
- **Position signal input:** Slide resistance: 100 kΩ to 5 MΩ of total resistance
- **Loop power supply:** 15 V DC
- **Internal wiring:** 200 mA or more
- **Response time:**
  - Min. 50 ms
  - Use:** Alarm output, FAIL, output, etc.

**Transistor Contact Output Specifications**
- **Number of outputs:**
  - Use:**
  - Output type: Open collector (SNK current)
  - Output contact rating: Max. 24 V DC, 50 mA
  - Output time resolution: Min. 50 ms

**Heater Break Alarm Specifications**
- **Number of inputs:** 2
- **Use:**
  - Heaters the heater current using an external current transformer (CT) and generates a status signal whenever the measured value is less than the heater break detection value.
  - **Maximum current transformer input resistance:** About 5.4 kΩ
  - **Current transformer input range:** 0 to 0.1 Ams (0.12 Ams or more cannot be applied.)
  - **Current transformer sensing range:** Off: 0 to 0.5 Ams, On: 0.5 to 2 Ams
  - **Heater current measurement range:** 0.1 to 500 Ams
  - **Heater current measurement accuracy:** To 300 Ams: ±1% of the measured value, To 500 Ams: ±2% of the measured value

**24 V DC Loop Power Supply Specifications**
- **Use:** Power supply for a 2-wire transmitter
- **Power supply:** 21.6 to 28.0 V DC
- **Rated current:** 20 mA
- **Maximum supply current:** About 30 mA (with short-circuit current limiting circuit)

**Safety and EMC Standards**
- **Safety Compliance:**
  - CE: EN60101-10 (CE), EN61010-2-030 (CE), EN61010-10 (IEC)
  - UL: UL61010-1-10
  - IEC: IEC61010-1-10
  - CE: EN61010-2-030 (CE), EN61010-1-10 (IEC), EN61010-1-10 (UL)

**Pollution degree:**
- **Measurement category:** 1 (CAT I) (UL, CSA)
- **Degree:** (Other) (CE)
### Environmental Conditions

#### Normal Operating Conditions
- Ambient temperature: -10 to 50°C (side-by-side mounting); -70 to 40°C (for UT55A)
- If the CC-Link option is specified, 0 to 50°C for UT55A; 0 to 40°C for UT552A
- Side-by-side mounting: 0 to 40°C (for UT55A and UT52A with CC-Link option)
- Humidity: 20 to 90% RH (no condensation allowed)

#### Transport and Storage
- Temperature: -25 to 70°C
- Humidity: 5 to 95% RH (no condensation allowed)

### Power Supply Specifications and Isolation

- **Power supply**
  - Rated voltage: 100-240 V AC (+10%/-15%), 50/60 Hz
  - 24 V AC: +10%/-15% (for the instrument)
- **Power consumption**
  - UT55A: 15 VA (DC 9 V, AC: 14 VA (DC input option is specified))
  - UT52A: 15 VA (DC 9 V, AC: 14 VA (DC input option is specified))
- **Data backup**
  - NVRAM: Nonvolatile memory
  - Power backup: 20 min. (for 100 V AC drive)

### Wiring Considerations
- **Wiring**
  - Wiring must be carried out by a person with basic electrical knowledge and practical experience.
  - Be sure to turn OFF the power supply to the controller before wiring to avoid an electric shock. Use a tester or similar device to ensure that no power is being supplied to a cable to be connected.

### Terminal Wiring Diagrams

**Terminals**
- **Output terminals**
  - Relay contact output: 250 V AC, 3A
  - DC relay contact output: 250 V DC, 3A
  - Switching contact output: 250 V AC, 3A
  - 15 V DC output: 3A

**Input terminals**
- **PV input**
  - PV input: 0-20 mA DC, 4-20 mA DC, 0-20 mA DC, 4-20 mA DC
  - Feedback input: 0-20 mA DC, 4-20 mA DC, 0-20 mA DC
  - Heater current detection input: 0-20 mA DC, 4-20 mA DC, 0-20 mA DC

**Communications terminals**
- **Communication**

**Note**: For detailed wiring diagrams, refer to the manual.
1. Names and Functions of Display Parts

2. Setup Procedure

3. Quick Setting Function (Setting of Input and Output)

- The Quick setting function is a utility to set the basic function of the controller.
- When you start the Quick setting function, the function allows you to set the operation modes, input type, output, and quickly start the control.
- The items (parameters) to be set by the Quick setting function are as follows:
  - (1) Control type (PID control, Heating/cooling control, etc.)
  - (2) Input function (PV input type, range, scale, (at voltage input, etc.))
  - (3) Output function (control output type and cycle time)

- After turning on the controller, first decide whether or not to use the Quick setting function.
- The Quick setting function can be used only when the control mode is Single-loop control.
- For other control modes, set the functions without using the Quick setting function.

4. Operation for Setting

- To select the parameter setting displayed as the initial value, press the Down arrow key to move to the next parameter.
- To change and set the parameter setting, press the SET/ENTER key to start the setting blinking.
- Use the Up/Down/Left/Right arrow keys to change the setting, Press the SET/ENTER key to register the setting.

■ Making Settings Using Quick Setting Function

Example: Setting to PID control, thermocouple type K (range of 0 to 1000°C), and current output

For the detailed procedures for each control display, see "Flow of Quick Setting Function" below. For the parameters to set, see the next page.

1. Press the SET/ENTER key while YES for GSM (Quick setting mode) is displayed.
2. Set the control type parameter (CNT) to PID (PID control).
3. Set the PV input type parameter (IN) to K1 (-270.0 to 1370.0°C).
4. Set the PV input unit parameter (UNIT) to °C (Degree Celsius).
5. Set the maximum value of PV input range parameter (RH) to 500.0.
6. Set the minimum value of PV input range parameter (RL) to 0.0.
7. Set the output type selection parameter (OUT) to O/U (out) terminal.
8. Finally, EXIT is displayed. Change NO to YES and press the SET/ENTER key to complete the setup. Operation Display appears.

Flow of Quick Setting Function in the setting mode, the parameter guide appears on P/Display. This guide can be turned on/off with the Fn key.
### Parameters to be set

#### Control Type

<table>
<thead>
<tr>
<th>Parameter Symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUT</td>
<td>Control type</td>
<td></td>
</tr>
</tbody>
</table>

#### Input Function

<table>
<thead>
<tr>
<th>Parameter Symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV input type</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Output Function

<table>
<thead>
<tr>
<th>Parameter Symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Note

1. **Note 1**: "Open/closed" shows status of relay contact, and "lit/unlit" shows status of EV (event) lamp.
2. **Note 2**: Positive setpoint, Negative setpoint

### Setting Alarm Setpoint

The following operating procedure shows an example of setting the alarm-1 setpoint of group 1 to 180.0.

1. Show the Operation Display.
2. Display MODE menu with the same procedure as described in Setting Alarm Type.
3. Press the Down arrow key until A1 appears.
4. The parameter A1 is displayed. A1 to A8 represent the alarm-1 to 8 setpoints.

### Each parameter and group can be changed in the Parameter Setting Displays of alarms for use with the Up/Down arrow keys: parameters, keys to increase and decrease the value and the Left/Right arrow keys to move between digits.

### Display the parameter and group that need to be changed.

#### Press the SET/ENTER key.

#### Each setting display shows different setpoints of alarm-1 to 8 for use with the Left/Right arrow keys.

### Initializing parameter values

#### Parameters that you can change have been initialized to factory default values or user default values. For details, see "Parameter Initialization" in the User's Manual (IM 05P01C31-01EN).

### Changing the parameter display levels

#### This operation guide does not explain all the parameters. To display all the parameters, you need to change the parameter display level to professional setting mode. For details, see "Setting Security Functions" in the User's Manual (IM 05P01C31-01EN).
Operation Guide

This operation guide describes key entries for operating the UT55A and UT52A, although the display of UT52A is used in this guide. YOKOGAWA can be operated similarly. For operations using external contact inputs, see “DIG Terminal Wiring Diagrams” in “Installation and Wiring.”

1. Monitoring-purpose Operation Displays Available during Operation

- Setting Target Setpoint (SP)
- Performing/Cancelling Auto-tuning
- Selecting Target Setpoint Numbers (SPNO)
- Switiching between AUTO and MAN
- Switching between RUN and STOP
- Switching between REM (Remote) and LCL (Local)
- Manipulating Control Output in Manual Mode
- Troubleshooting

2. Setting Target Setpoint (SP)

- Show the SP Display (Operation Display).
- Press the SET/ENTER key to start the last digit of the setpoint blinking.
- Using the Up/Down arrow keys to move between digits and the Up/Down arrow keys to increase and decrease the value.
- When the required value is displayed, press the SET/ENTER key to register the setpoint.

3. Performing/Cancelling Auto-tuning

- Auto-tuning should be performed after setting a target setpoint. Make sure that the controller is in automatic mode (AUTO) and in run mode (RUN) before performing. For setting to AUTO, see “Selecting AUTO and MAN,” and for setting to RUN, see “Switching between RUN and STOP.”
- The setpoint value advance or auto-tuning does not find any appropriate PID constants, set the PID manually. For setting the PID manually, see User’s Manual (M-50P1C21-01EN).
- Do not perform auto-tuning for the following processes.
- Processes with fast response such as flow rate control and pressure control.
- Processes which do not allow the output to be turned on and off between Run and STOP.
- Processes which prohibit severe output changes at control valves (or other actuators).
- Processes in which product quality can be adversely affected if PV values fluctuate beyond their allowable ranges.

4. Selecting Target Setpoint Numbers (SPNO)

5. Switching between AUTO and MAN

- AUTO and MAN switching can be performed using any of the following: 1) AKEY command, 2) Contact input, 3) Communication, and 4) User function key.
- When AUTO and MAN switching function is assigned to the contact input, and the contact input is ON, the switching by key operation cannot be performed. For details, see User’s Manual (M-50P1C21-01EN).
- Switching between RUN and STOP

- When AUTO is switched into MAN, the control output value in AUTO mode is held. The controller can be operated manually from the hold value.
- When the manual preset output is set (MP0N parameter #0), the controller can be operated manually from the arbitrary output value (MP01 to MP05 parameters).

Display in STOP mode

- "STOP" is displayed on Symbol display and "preset output value" is displayed on Data display.

Display in STOP mode in Heating/cooling control

- "Cooling-side preset output value" is displayed on the left side of the "°C" symbol, and "Heating-side preset output value" is displayed on the right side.

6. Displaying in STOP mode

- Each time you press the ON/OFF key, AUTO and MAN is switched alternately.

7. Manual operation

- The MAN lamp is lit in MAN mode.
7. Switching between REM (Remote) and LCL (Local)

Remote and local switching can be performed using any of the following:
- (1) Contact input, (2) Parameter, (3) Communication, and (4) User function key.
- LCL (Local): Control is performed using the local set point on the controller.
- REM (Remote): Control is performed using an external analog signal that is used as the set point.

When the contact input is ON, operation cannot be performed using the parameter, communication, or key. When the contact input is OFF and the setting is switched using the parameter, communication, or key, the last switching operation is performed.

1. Show the Operation Display.
2. Hold down the PARAMETER key or PARA key for 3 seconds to display MODE menu.
3. Press the SET/ENTER key to display the parameter.
4. Press the PARAMETER or PARA key to change the operation mode using the Up/Down arrow keys. Blinking the change.
5. The REM lamp is lit.

8. Manipulating Control Output in Manual Mode

In manual mode, output control is manipulated by operating the keys (the value is changed using the Up/Down arrow keys, then outputted as %). Even if the SET/ENTER key is not pressed, the control output value changes according to the displayed value.

In step mode (when the STOP lamp is lit), control output cannot be manipulated.

9. Troubleshooting Flow

If the Operation Display does not appear after turning on the controller’s power, check the procedures in the following flowchart. If a problem appears, contact us for repair.

- Problems if Power Failure Occurs during Operations
  - Instantaneous power failure within 20 ms: A power failure is not detected. Normal operation continues.
  - Power failure for less than about 5 seconds, or for about 5 seconds or more: Affects the “settings” and “operation status.”
  - For details, see User’s Manual (IM OSP501C13-01EN).

- Errors at Power On
  The errors shown below may occur during operation. (For input/output action when each error occurs, see User’s Manual (IM OSP501C13-01EN).

- Errors during Operation
Operation Parameters

Hold down the PARAMETER key or PARA key for 3 seconds to move from the Operation Display to the Operation Parameter Setting Display. Press the DISPLAY key or DISP key once to return to the Operation Display. This parameter can be switched using [E] and [P].

For the parameter SP [targets], 8 groups are displayed for the factory default. The number of groups can be changed by the setup parameter SPGR (number of SP groups). For the alarm setpoint parameter, alarm 1 to 4 are displayed for the factory default. The number of alarms can be changed using the setup parameter ALNO. (number of alarms). To change the number of SP groups or alarms, see User’s Manual (IM 08P01C31-01EN).

Use the following key to move SP alarm session.

- Operation Mode

Menu symbol ▼ [W305].

- SP-related Setting Parameter

Menu symbol ▼ [SP5].

- PV-related Setting Parameter

Menu symbol ▼ [PV5] (PID).

- SP and Alarm Setpoint Setting Parameter

Menu symbol ▼ [SP2] (A ARM).

- Alarm Function Setting Parameter

Menu symbol ▼ [SFR] (I AIM).

- PID Setting Parameter

Menu symbol ▼ [PFR] (F PFR).

For the PID setting parameter, 8 groups are displayed for the factory default. The number of groups can be changed by the setup parameter PAGS (number of PID groups). To change the number of PID groups, see User’s Manual (IM 08P01C31-01EN).
### Zone Control Parameter

<table>
<thead>
<tr>
<th>Parameter symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
<th>Initial value</th>
<th>Upper setting</th>
<th>Display level</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 to P5</td>
<td>Off/On</td>
<td>Standalone</td>
<td>1</td>
<td>10</td>
<td>STD</td>
</tr>
<tr>
<td>SUHYR</td>
<td>Manual preset output</td>
<td>1 to 10</td>
<td>1</td>
<td>10</td>
<td>STD</td>
</tr>
</tbody>
</table>

For Zone control, set the setup parameter ZON (zone PID selection) to Zone PID selection.

Use the following table to record the reference point setting value.

<table>
<thead>
<tr>
<th>Parameter symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
<th>Initial value</th>
<th>Upper setting</th>
<th>Display level</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 to P5</td>
<td>Parameter</td>
<td>1 to 10</td>
<td>1</td>
<td>10</td>
<td>STD</td>
</tr>
</tbody>
</table>

### P Parameter (for Ladder Program)

<table>
<thead>
<tr>
<th>Parameter symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
<th>Initial value</th>
<th>Lower setting</th>
<th>Display level</th>
</tr>
</thead>
<tbody>
<tr>
<td>P5</td>
<td>Manual preset output</td>
<td>1 to 10</td>
<td>1</td>
<td>10</td>
<td>STD</td>
</tr>
</tbody>
</table>

### 10-segment Linearizer-1, 2 Setting Parameter

<table>
<thead>
<tr>
<th>Parameter symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
<th>Initial value</th>
<th>Upper setting</th>
<th>Display level</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 to P5</td>
<td>Parameter</td>
<td>1 to 10</td>
<td>1</td>
<td>10</td>
<td>STD</td>
</tr>
</tbody>
</table>

### Setup Parameters

Hold down the PARAMETER key or PARA key and Left arrow key simultaneously for 3 seconds to move from the Operation Display or Operation Parameter Setting Display to the Setup Parameter Setting Display. Press the DISPLAY key or DSP key once to return to the Operation Display.

### PV Input Setting Parameter (E1-terminal Area)

<table>
<thead>
<tr>
<th>Parameter symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
<th>Initial value</th>
<th>Upper setting</th>
<th>Display level</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Manual preset output</td>
<td>1 to 10</td>
<td>1</td>
<td>10</td>
<td>STD</td>
</tr>
</tbody>
</table>

### RSP Input Setting Parameter (E1-terminal Area)

<table>
<thead>
<tr>
<th>Parameter symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
<th>Initial value</th>
<th>Upper setting</th>
<th>Display level</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Manual preset output</td>
<td>1 to 10</td>
<td>1</td>
<td>10</td>
<td>STD</td>
</tr>
</tbody>
</table>
### Setup (Continued from page 10)

#### RS-IP Input Setting Parameter (E1-terminal Area) (Continued)

<table>
<thead>
<tr>
<th>Parameter symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
<th>Initial value</th>
<th>User setting</th>
<th>Display list</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIN2/AIN4</td>
<td>analog input</td>
<td>3-98</td>
<td>STD</td>
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#### AIN2/AIN4 Aux. Analog Input Setting Parameter (E2/E4-terminal Area)

### Output Setting Parameter

<table>
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<th>Name of Parameter</th>
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<th>Initial value</th>
<th>User setting</th>
<th>Display list</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper type</td>
<td>output type selection</td>
<td>0:0 0.4-2 0.000</td>
<td>STD</td>
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</table>

### Heater Break Alarm Setting Parameter

<table>
<thead>
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<th>Parameter symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
<th>Initial value</th>
<th>User setting</th>
<th>Display list</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>heater break alarm 1</td>
<td>1.0-99.9999</td>
<td>STD</td>
<td></td>
<td></td>
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#### PROFIBUS-DP Communication Setting Parameter (E3-terminal Area)

<table>
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<tr>
<th>Parameter symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
<th>Initial value</th>
<th>User setting</th>
<th>Display list</th>
</tr>
</thead>
<tbody>
<tr>
<td>IO</td>
<td>baud rate</td>
<td>125K: 115.2K, 9600: 19.2k (12800), 38400: 125K, 57600: 38400</td>
<td>STD</td>
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<td></td>
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#### DeviceNet Communication Setting Parameter (E3-terminal Area)

<table>
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<th>Setting Range</th>
<th>Initial value</th>
<th>User setting</th>
<th>Display list</th>
</tr>
</thead>
<tbody>
<tr>
<td>IO</td>
<td>baud rate</td>
<td>125K: 115.2K, 9600: 19.2k (12800), 38400: 125K, 57600: 38400</td>
<td>STD</td>
<td></td>
<td></td>
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</table>

#### CC-Link Communication Setting Parameter (E3-terminal Area)

<table>
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<tr>
<th>Parameter symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
<th>Initial value</th>
<th>User setting</th>
<th>Display list</th>
</tr>
</thead>
<tbody>
<tr>
<td>IO</td>
<td>baud rate</td>
<td>125K: 115.2K, 9600: 19.2k (12800), 38400: 125K, 57600: 38400</td>
<td>STD</td>
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</table>

#### Ethernet Communication Setting Parameter (E3-terminal Area)

<table>
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<th>Parameter symbol</th>
<th>Name of Parameter</th>
<th>Setting Range</th>
<th>Initial value</th>
<th>User setting</th>
<th>Display list</th>
</tr>
</thead>
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