**Model UT55A**

**Digital Indicating Controller**

(UT55A-NNN-xx-xx/x)

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**External Dimensions**

- **Bracket Terminal cover**
  - 1 to 10 mm (panel thickness)
  - 0.04 to 0.39 inch

- **Panel Cutout Dimensions**
  - **General mounting**
    - 117 min.
    - 145 min.
  - **Side-by-side close mounting**
    - 

  "N" stands for the number of controllers to be installed. However, the measured value applies if N≥5.

- **Normal tolerance:** ±(value of JIS B 0401-1998 tolerance grade IT18)/2
Terminal Wiring Diagrams

**Control output**

Suffix code: Output 1= -T

- **Trac output**
  - NO
  - NC
  - COM

Contact rating: 250 V AC, 3 A
Allowable load current: 2.8 A

**Suffix code: Output 1= -R or U**

- **Relay contact output**
  - NO
  - NC
  - COM

Contact rating: 250 V AC, 3 A
Allowable load current: 0.6 A

**Suffix code: Output 1= -A or -U**

- **Triac output**
  - NO
  - NC
  - COM

Contact rating: 30 V DC, 3 A

**Suffix code: Output 1= -P**

- **Position proportional control output**
  - Relay contact output
  - Feedback input

Contact rating: 230 V AC, 3 A
Allowable load current: 0.6 A

**PV input**

- **TC input**
- **RTD input**

**Equipped as standard**

Contact output

- **Alarm-3 output** (PV high limit)
- **Alarm-2 output** (PV low limit)
- **Alarm-1 output** (PV high limit)

Contact rating: 250 V AC, 3 A

Factory default: PV input type is undefined.

**Power supply**

- **100-240 V AC power supply**

Allowable range: 100-240 V AC (±10%)

- **4-20 mA DC, 0-20 mA DC, or Current (mA) input**

**E4-Terminal Area**

- **E1-Terminal Area**
- **E2-Terminal Area**
- **E3-Terminal Area**

**Suffix code: Output 1= -A or -U**

- **Control output**
  - **Current/voltage pulse output**
  - **Retransmission output**

Current/voltage pulse output: Default: 4-20 mA DC
Retransmission output: Default: 4-20 mA DC

**Suffix code: Output 1= -T**

- **Relay contact output**
- **Triac output**

Contact rating: 250 V AC, 3 A

**Suffix code: Output 2= A or U**

- **Current/voltage pulse output**
- **Retransmission output**

Current/voltage pulse output: Default: 4-20 mA DC
Retransmission output: Default: 4-20 mA DC

**Suffix code: Output 2= R or U**

- **Relay contact output**

Contact rating: 250 V AC, 3 A

**Contact input**

External contact input

- **No voltage contact**
- **STOP when DI1=ON**
- **AUTO when DI1=ON**
- **MAN when DI1=OFF**

Contact rating: 12 V DC, 10 mA or more

Function can be assigned to the terminal with no function.

**Cooling-side control output**

- **Suffix code: Output 2= R or U**

Contact rating: 250 V AC, 3 A

- **Suffix code: Output 2= T**

Contact rating: 250 V AC, 3 A

**Heater break alarm**

- **External contact output (Transistor)**

- **Common**

Contact rating: 24 V DC, 50 mA

**CAUTION**

Do not use a 100-240 V AC power supply for the 24 V AC/DC model; otherwise, the instrument will malfunction.

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## Terminal Wiring Diagrams (E1-Terminal Area)

### Optional suffix code /R1

**Remote input / Contact input**

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-112</td>
<td>Remote input</td>
</tr>
<tr>
<td>501-512</td>
<td>Contact input</td>
</tr>
<tr>
<td>401-412</td>
<td>Remote input</td>
</tr>
<tr>
<td>301-312</td>
<td>Contact input</td>
</tr>
</tbody>
</table>

### Optional suffix code /U1

**Universal input**

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-112</td>
<td>Remote input</td>
</tr>
<tr>
<td>501-512</td>
<td>Contact input</td>
</tr>
<tr>
<td>401-412</td>
<td>Remote input</td>
</tr>
<tr>
<td>301-312</td>
<td>Contact input</td>
</tr>
</tbody>
</table>

### Optional suffix code /X1

**Contact input**

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-112</td>
<td>Remote input</td>
</tr>
<tr>
<td>501-512</td>
<td>Contact input</td>
</tr>
<tr>
<td>401-412</td>
<td>Remote input</td>
</tr>
<tr>
<td>301-312</td>
<td>Contact input</td>
</tr>
</tbody>
</table>

### Optional suffix code /W1

**Contact output**

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-112</td>
<td>Remote input</td>
</tr>
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<tr>
<td>401-412</td>
<td>Remote input</td>
</tr>
<tr>
<td>301-312</td>
<td>Contact input</td>
</tr>
</tbody>
</table>

### Optional suffix code /Y1

**Contact input / Contact output**

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-112</td>
<td>Remote input</td>
</tr>
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<tr>
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<td>Remote input</td>
</tr>
<tr>
<td>301-312</td>
<td>Contact input</td>
</tr>
</tbody>
</table>

*Function can be assigned to the terminals with no function.*

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**Terminal Wiring Diagrams (E2-Terminal Area)**

**Optional suffix code /A2**

**Aux. analog input / Contact input**

Function can be assigned to the terminals with no function.

**Optional suffix code /X2**

**Contact input**

Function can be assigned to the terminals with no function.

**Optional suffix code /W2**

**Contact input / Contact output**

Function can be assigned to the terminals with no function.

**Optional suffix code /Y2**

**Contact output**

Function can be assigned to the terminals with no function.
Terminal Wiring Diagrams (E3-Terminal Area)

**Contact output**

Optional suffix code /Y3

- **External contact output**
- Factory default: No function
- Function can be assigned to the terminals with no function.

Optional suffix code /PD3

- PROFIBUS-DP communication (with Modbus master)
  - If the UT is located at the end of a segment for the PROFIBUS communication wiring, terminating resistors are separately needed. These are to be prepared by users. (110 Ω: 1 pc.)

Optional suffix code /X3

- Contact input
- Common
- Factory default: No function
- Contact rating: 12 V DC, 10 mA or more

Optional suffix code /CC3

- Ethernet communication (with gateway function)
- 10BASE-T/100BASE-TX
  - RJ45 connector
  - DeviceNet power supply 24V

Optional suffix code /DN3

- DeviceNet communication (with Modbus master)
  - If the UT is located at the end of a segment for the DeviceNet communication wiring, terminating resistors are separately needed. These are to be prepared by users. (121 Ω: 1 pc.)

Optional suffix code /ET3

- CC-Link communication (with Modbus master)
  - If the UT is located at the end of a segment for the CC-Link communication wiring, terminating resistors are separately needed. These are to be prepared by users. (110 Ω: 1 pc.)

- **Ethernet communication (with gateway function)**
- 10BASE-T/100BASE-TX
  - RJ45 connector
  - RS-485

**Contact input**

Optional suffix code /X3

- External contact input
- Normal (green)
- Connected (green/red, flashing)
- Communication timeout (red, flashing)

Optional suffix code /W3

- Contact input / Contact output
- External contact input
- Common
- Factory default: No function
  - Factory default: No function
  - Factory default: No function
  - Function can be assigned to the terminals with no function.

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Terminal Wiring Diagrams (E4-Terminal Area)

Optional suffix code /A4

Aux. analog input/Contact input

External contact input

Common

No-voltage contact

Transistor contact

Factory default: No function

Contact rating: 12 V DC, 10 mA or more

Aux. analog input

Specify within a range of 1-5 V DC, 0-2 V DC, 0-10 V DC

Function can be assigned to the terminal with no function.

E4-Terminal Area

Optional suffix code /C4

RS-485 communication

24 V DC loop power supply

RS-485

RSB(+)

RSA(-)

SG

Default: No function

Factory default: No function

Function can be assigned to the terminals with no function.

Optional suffix code /L4

RS-485 communication/24 V DC loop power supply

24 V DC loop power supply

RS-485

RSB(+)

RSA(-)

SG

Default: No function

Factory default: No function

Function can be assigned to the terminals with no function.

Optional suffix code /LC4

RS-485

24 V DC loop power supply

RS-485

RSB(+)

RSA(-)

SG

Default: No function

Factory default: No function

Function can be assigned to the terminals with no function.

Optional suffix code /AC4

RS-485 communication/Aux. analog input/Contact input

Aux. analog input

Specify within a range of 1-5 V DC, 0-2 V DC, 0-10 V DC

Function can be assigned to the terminal with no function.

Optional suffix code /X4

Contact input

External contact input

Common

No-voltage contact

Transistor contact

Factory default: No function

Function can be assigned to the terminals with no function.

Function can be assigned to the terminals with no function.

Optional suffix code /W4

Contact output

External contact output

Factory default: No function

Function can be assigned to the terminals with no function.

Function can be assigned to the terminals with no function.