

Drawings

Model UT52A
Digital Indicating Controller
(UT52A-NNN-xx-xx/x)

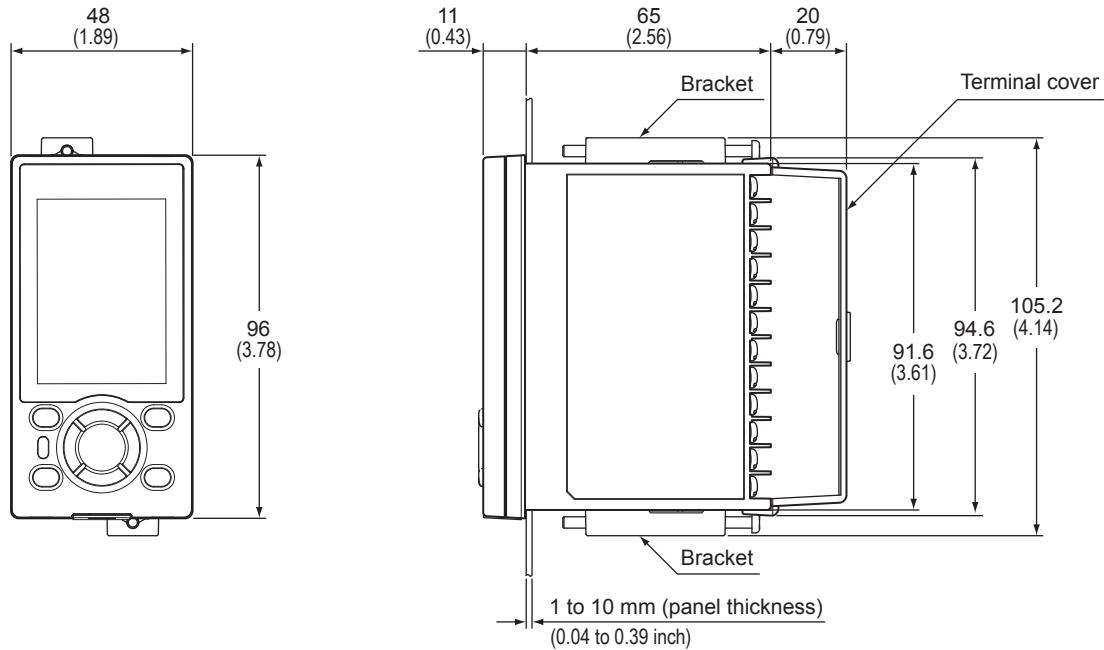


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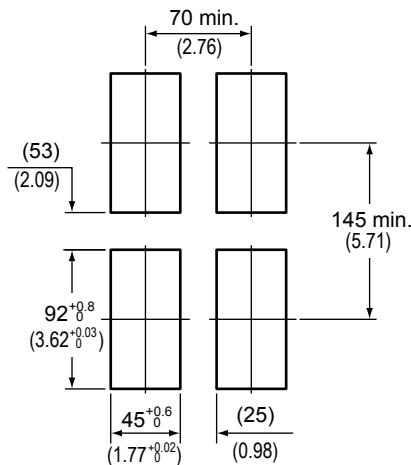
External Dimensions

Unit: mm
(approx. inch)

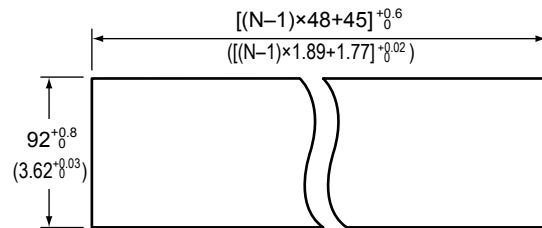


Panel Cutout Dimensions

General mounting



Side-by-side close mounting



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

Normal tolerance: $\pm(\text{value of JIS B 0401-1998 tolerance grade IT18}) / 2$

Terminal Wiring Diagrams

Control output

Suffix code: Output 1= -R or -U and Output 2= N or A

Suffix code: Output 1= -T

Triac output

Contact rating: 75 - 250 V AC
Allowable load current: 0.8 A

Relay contact output

Contact rating: 250 V AC, 3 A
30 V DC, 3 A (resistance load)

Equipped as standard Contact output

External contact output (relay)

Alarm-3 output (PV high limit)	AL3	104	105
Common		106	107
Alarm-2 output (PV low limit)	AL2	108	109
Common		110	111

Relay contact rating: 240 V AC, 1 A
30 V DC, 1 A (resistance load)

Power supply

100-240 V AC power supply

Allowable range:
100-240 V AC (±10%)
(free voltage)
50/60 Hz shared

24 V AC/DC power supply

24 V AC/DC power supply:
Optional suffix code /DC

Suffix code: Output 1= -P Position proportional control output

Relay contact output

Contact rating: 240 V AC, 3 A
30 V DC, 3 A (resistance load)

Feedback input

Resistance: 100 Ω to 2.5 kΩ

Current (mA) input

When feedback input is current

Heating/cooling control output

Suffix code: Output 1 and Output 2= -JU, -UR, -RU or -RR.

Terminal 102 has no function in -AU and -AR.

Heating/cooling relay contact output

Contact rating: 240 V AC, 3 A
30 V DC, 3 A (resistance load)

Suffix code: Output 2= U or A

Current/voltage pulse output

0-20 mA DC, 4-20 mA DC, Voltage pulse (12 V)

Retransmission output

Default: Undefined

15 V DC loop power supply

14.5-18.0 V DC (Max. 21 mA DC)

Equipped as standard PV input

TC input

RTD input

Current (mA) input

Voltage (mV, V) input

Factory default: PV input type is undefined.

Optional suffix code /RT Retransmission output

Retransmission output

Default: PV retransmission

4-20 mA DC or 0-20 mA DC

Load resistance 600 Ω or less

Default: 4-20 mA DC

15 V DC loop power supply

14.5-18.0 V DC (Max. 21 mA DC)

Can be used for 15 V DC loop power supply when not used for retransmission output.

Suffix code: Output 1= -A or -U Control output

Current/voltage pulse output

0-20 mA DC, 4-20 mA DC, Voltage pulse (12 V)

Retransmission output

Default: Undefined

0-20 mA DC, 4-20 mA DC

Default: 4-20 mA DC

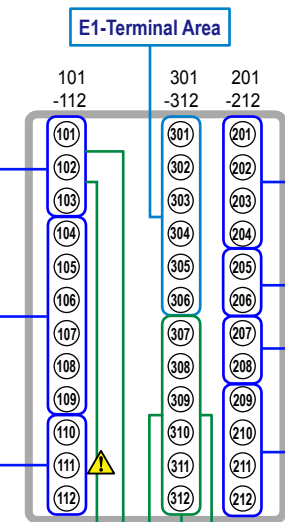
15 V DC loop power supply

14.5-18.0 V DC (Max. 21 mA DC)

Can be used for retransmission output or 15 V DC loop power supply when current/voltage pulse output is not used for control output.

Current output range can be changed.

In Position proportional type, can be used for retransmission output or 15 V DC loop power supply.



CAUTION

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

Equipped as standard Contact input

External contact input

Factory default: No function

STOP when DI2=ON
RUN when DI2=OFF

AUTO when DI1=ON
MAN when DI1=OFF

Common

Contact rating: 12 V DC, 10 mA or more

Function can be assigned to the terminals with no function.

Optional suffix code /HA Heater break alarm

External contact output (transistor)

Heater break alarm-1 output: HAL1 307

Heater break alarm-2 output: HAL2 308

Common: COM 309

Transistor contact rating: 24 V DC, 50 mA

Heater current detection input

CT1 310, CT2 311, COM 312

Terminal Wiring Diagrams (E1-Terminal Area)

Optional suffix code /R1

Remote input/ Contact input

External contact input

Common	No-voltage contact (UT)	Transistor contact (UT)

REMOTE when DI16=ON
LOCAL when DI16=OFF

Contact rating: 12 V DC, 10m A or more

Remote input

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

Optional suffix code /U1

Universal input

TC input	RTD input	Current (mA) input	Voltage (mV, V) input

Optional suffix code /CH1

RS-485 communication

RS-485

Optional suffix code /X1

Contact input

External contact input

Common	No-voltage contact (UT)	Transistor contact (UT)
Factory default: No function		

Factory default: No function

Factory default: No function

Factory default: No function

Factory default: No function

Factory default: No function

Contact rating: 12 V DC, 10 mA or more

Function can be assigned to the terminals with no function.

Optional suffix code /L1

24 V DC loop power supply

24 V DC loop power supply

21.6-28.0 V DC (Max. 30 mA DC)

Optional suffix code /Y1

Contact output

External contact output

Factory default: No function	DO15	301
Factory default: No function	DO14	302
Factory default: No function	DO13	303
Factory default: No function	DO12	304
Factory default: No function	DO11	305
Common	COM	306

Transistor contact rating: 24 V DC, 50 mA

Function can be assigned to the terminals with no function.

Optional suffix code /LCH1

RS-485 communication/24 V DC loop power supply

RS-485

24 V DC loop power supply

21.6-28.0 V DC (Max. 30 mA DC)

Optional suffix code /RCH1

RS-485 communication / Remote input / Contact input

RS-485

Remote input

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

External contact input

Common	No-voltage contact (UT)	Transistor contact (UT)
REMOTE when DI16=ON LOCAL when DI16=OFF		

Contact rating: 12 V DC, 10m A or more

Optional suffix code /W1

Contact input / Contact output

External contact input

Common	No-voltage contact (UT)	Transistor contact (UT)
Factory default: No function		

Factory default: No function

Contact rating: 12 V DC, 10 mA or more

External contact output

Factory default: No function	DO12	304
Factory default: No function	DO11	305
Common	COM	306

Transistor contact rating: 24 V DC, 50 mA

Function can be assigned to the terminal with no function.

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