Reliable and secure lineup

Welcome new members: 2-loop and DIN rail models, and the UP32A

UTAdvanced ™

UP55A

Program Controller

UP35A

UP32A

UT75A

UT55A

UT52A

UT35A

UT32A

Digital Controller

UT52A/MDL
UT55A/MDL
DIN Rail Mounting Controller

UT32A/MDL
UT35A/MDL
DIN Rail Mounting Controller

UT32A-D
(Dual-loop type)

UM33A

Digital Indicator with Alarms

Configuration and Programming Software

LL50A

UTAdvanced

Tools and functions that go easy on your equipment

Operation and clear display that go easy on the user

A variety of functions, and easy-to-connect communication

Helpful ladder sequence control function

Reliability
- RoHS/WEEE
- NEMA4*/IP66 Front Panel

* Hose down test only.
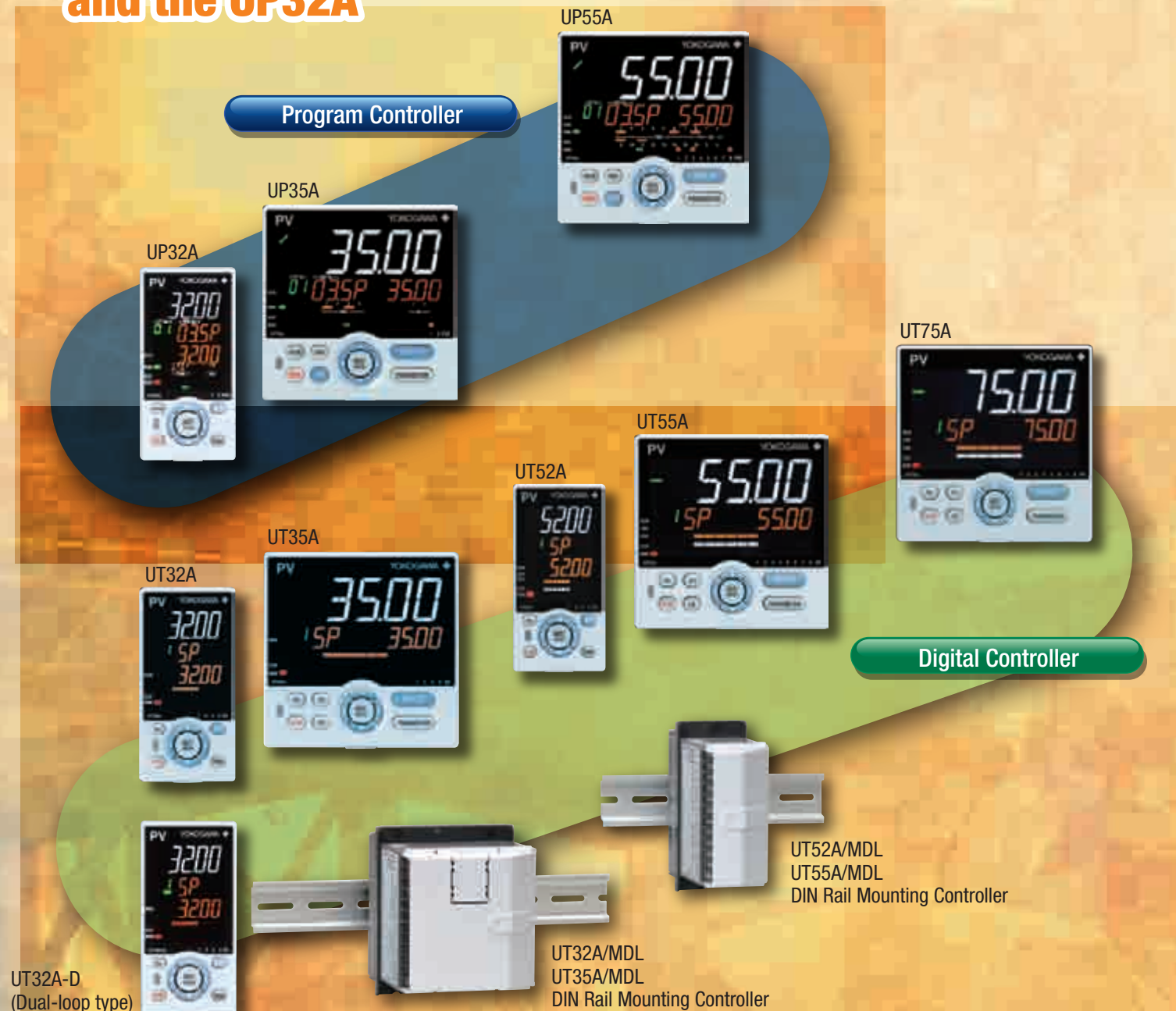
CSA C22.2 61010-1   UL61010-1   CE
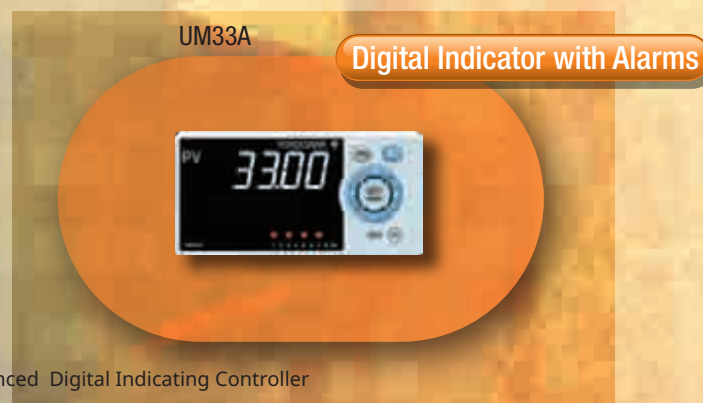
Space saving options
- 1/8th DIN 2-loop controller (UT32A-D)
- CC-Link communication available in a 48 x 96 mm (1/8 DIN) size
- 1/8th DIN Program controller (UP32A)
- DIN rail mounting controller (/MDL option)

More UP55A program patterns
- 99 program patterns (/AP option)

Product Line-up

Model		UT75A	UT55A	UT52A	UT35A
Size (W x H x D)		96×96×65mm		48×96×65mm	96×96×65mm
Weight		500 g or less			
DIN rail mountable (no display/keys)		No	Yes (option)		
Input sampling period (control scan period)		50, 100, 200ms			200ms
Number of analog inputs	PV input	1: Standard type 2: Dual-loop type	1		
	Aux. analog input	2 (max.)	3 (max.)	1 (max.)	1 (non-isolated)
PV input indication accuracy		±0.1 % of F.S.			
PV input type		TC : K, J, T, B, S, R, N, E, L, U, W, PL-2, PR20-40, W97Re3-W75Re25 RTD : JPt100, Pt100 mA : 4 to 20mA, 0 to 20mA mV, V : 1 to 5V, 0 to 10V, 0 to 2V, 0.4 to 2V, -10 to 20mV, 0 to 100mV			
Number of analog outputs	Control output	1 (max. 2)			
	Retransmission output	1			1 (only with 1 control output)
Control output type		Relay output : Contact rating (250VAC, 3A or 30 VDC, 3A)Normally open, 2 point (Heating/cooling output in UT52A/UT32A) Current output : 4 to 20mA, 0 to 20mA, 20 to 4mA, 20 to 0mA Voltage pulse output			
Retransmission output (aux. output)		4 to 20mA, 0 to 20mA, 20 to 4mA, 20 to 0mA			
Number of digital inputs	Standard	3	3	3	2
	Maximum	14	9	5	7
Number of digital outputs	Standard	3	3	3	3
	Maximum	8	18	5	8
Communication		RS485 Ethernet CC-Link PROFIBUS-DP DeviceNet		RS485 CC-Link	RS485 Ethernet CC-Link PROFIBUS-DP DeviceNet
Number of SP groups		20			
Number of PID groups		16	8		4
Number of alarm groups		8			
Number of ladder steps		1000	500		300
Number of ladder instructions		Basic instruction : 15 Application instruction : 111	Basic instruction : 13 Application instruction : 73		
Number of program patterns	Standard	1	None		
	Max. (option)				
Total number of segments	Standard	20			
	Max. (option)				
Power supply		100-240VAC or 24VAC/DC			
Power consumption (at 100 V AC)		18VA		15VA	18VA
Screw terminal size		M3.0			
24 V DC loop power supply		No	Yes (option)		
Heater burnout alarm			Yes (option) Excludes DIN rail mounting types		
Dust and waterproof level of front panel		NEMA4*/IP66 Front Panel Excludes DIN rail mounting types			
RoHS/WEEE		Compliant			
Safety and EMC standards		CSA C22.2 61010-1 UL61010-1 CE KC			
GS (General Specifications)		GS 05P01B41-01EN	GS 05P01C31-01EN GS 05P01C81-01EN		GS 05P01D31-01EN GS 05P01D81-01EN

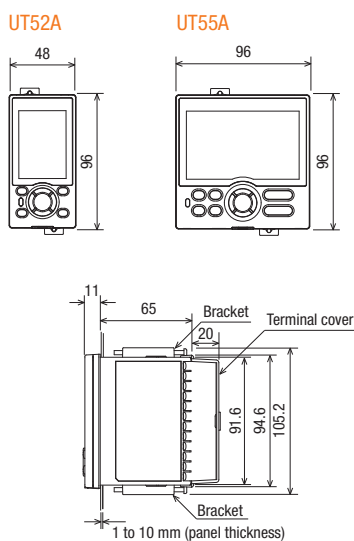| UT32A	UT32A-D	UP55A	UP35A	UP32A	UM33A
48×96×65mm		96×96×65mm		48×96×65mm	96×48×65mm
500 g or less					
Yes (option)		No			
200ms		100, 200ms	200ms		50, 100, 200ms
1	2	1			
1 (non-isolated)	None	3 (max.)	None		
±0.1 % of F.S.					
TC : K, J, T, B, S, R, N, E, L, U, W, PL-2, PR20-40, W97Re3-W75Re25 RTD : JPt100, Pt100 mA : 4 to 20mA, 0 to 20mA mV, V : 1 to 5V, 0 to 10V, 0 to 2V, 0.4 to 2V, -10 to 20mV, 0 to 100mV					
1 (max. 2)	2	1 (max. 2)			None
1 (only with 1 control output)	None	1	1 (only with 1 control output)		1
Relay output : Contact rating (250VAC, 3A or 30 VDC, 3A) Normally open (UT32A-D) Normally open, 2 point (Heating/cooling output in UP32A) Current output : 4 to 20mA, 0 to 20mA, 20 to 4mA, 20 to 0mA Voltage pulse output					None
4 to 20mA, 0 to 20mA, 20 to 4mA, 20 to 0mA	None	4 to 20mA, 0 to 20 mA, 20 to 4 mA, 20 to 0 mA			
2	3	8	3	3	2
4		9	8	5	
3	3	8	3	3	3
5		18	8	5	9
RS485 CC-Link	RS485	RS485 Ethernet CC-Link PROFIBUS-DP DeviceNet		RS485 CC-Link	RS485 CC-Link
4		1			None
		8	4		8
			2		
300		500	300		None
None		Basic instruction : 13 Application instruction : 67			None
		30	2		
		99	4		
		300	20		
		600	40		
100-240VAC or 24VAC/DC					
15VA		18VA		15VA	
M3.0					
Yes (option)		No			Yes (option)
Yes (option)	Yes (option) Excludes DIN rail mounting types	Yes (option)			No
NEMA4*/IP66 Front Panel Excludes DIN rail mounting types Compliant					
CSA C22.2 61010-1 (172608) · UL61010-1 · CE · RCM · KC					
GS 05P01D31-01EN GS 05P01D81-01EN	GS 05P08D31-01EN GS 05P08D81-01EN	GS 05P02C41-01EN	GS 05P02D41-01EN		GS 05P03D21-01EN

Digital Indicating Controller UT55A/UT52A (Standard model)

Main Features

- Up to 4 analog inputs available
- 3 alarm relays with independent common terminals
- 500 steps of ladder logic control
- Simple operation
- Up to 18 DOs (various combinations available)

External Dimensions

Unit: mm

UT52A   UT55A

48   96

96   96

11
65   Bracket
20   Terminal cover
91.6 94.6 105.2
Bracket
1 to 10 mm (panel thickness)

Model	Suffix code		Optional suffix code	Description
UT55A				Digital Indicating Controller (Power supply 100-240 V AC)(provided with retransmission output or 15 V DC loop power supply , 3 DIs, and 3 DOs)
Type 1: Basic control	-0			Standard type
	-1			Position proportional type
	-2			Heating/cooling type
Type 2:Functions		0		None
		1		Remote (1 additional aux. analog) input, 6 additional DIs, 5 additional DOs, and RS-485 communication (Max. 19.2 kbps, 2-wire/4-wire) (*1) (*2)
		2		Remote (1 additional aux. analog) input, 1 additional DI, and RS-485 communication (Max. 19.2 kbps, 2-wire/4-wire) (*2)
		3		5 additional DIs and 5 additional DOs
		4		Remote (1 additional aux. analog) input and 1 additional DI
		5		Remote (1 additional aux. analog) input, 6 additional DIs, and 5 additional DOs
		6		5 additional DIs, and 15 additional DOs (*1)
		7		3 additional aux. analog inputs and 3 additional DIs
Type 3: Open networks		0		None
		1		RS-485 communication (Max. 38.4 kbps, 2-wire/4-wire)
		2		Ethernet communication (with serial gateway function)
		3		CC-Link communication (with Modbus master function)
		4		PROFIBUS-DP communication (with Modbus master function)
		5		DeviceNet communication (with Modbus master function)
Display language (*3)		-1		English (Default. Can be switched to other language by the setting.)
		-2		German (Default. Can be switched to other language by the setting.)
		-3		French (Default. Can be switched to other language by the setting.)
		-4		Spanish (Default. Can be switched to other language by the setting.)
Case color		0		White (Light gray)
		1		Black (Light charcoal gray)
Fixed code		-00		Always "-00"
Optional suffix codes			/DR	Additional direct input (TC &, 3-wire/4-wire RTD) and current to Remote (1 additional aux. analog) input, 1 DI to be deleted (*4)
			/LP	24 V DC loop power supply (*5)
			/HA	Heater break alarm (*6)
			/DC	Power supply 24 V AC/DC
			/CT	Coating (*7)

*1: When the Type 2 code is "1" or "6", only "0" can be specified for the Type 3 code.
*2: When the /LP option is specified, the RS-485 communication of the Type 2 code "1" or "2" is 2-wire system.
*3: English, German, French, and Spanish are available for the guide display.
*4: The /DR option can be specified when the Type 2 code is any of "1", "2", "4", "5", or "7".
*5: The /LP option can be specified in the combination of Type 2 code (any of "0", "2", "3", or "4") and Type 3 code (any of "0" or "1"). Additionally the /LP option can be specified in the combination of Type 2 code "1" and Type 3 code "0".
*6: The /HA option can be specified only when the Type 1 code is "-0."
*7: When the /CT option is specified, the UT55A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).

Model	Suffix code		Optional suffix code	Description
UT52A				Digital Indicating Controller (Power supply 100-240 V AC)(provided with retransmission output or 15 V DC loop power supply , 3 DIs, and 3 DOs)
Type 1: Basic control	-0			Standard type
	-1			Position proportional type
	-2			Heating/cooling type
Type 2: Functions		0		None
		1		Remote (1 additional aux. analog) input, 1 additional DI, and RS-485 commuication (Max. 38.4 kbps, 2-wire)
		2		Remote (1 additional aux. analog) input and 1 additional DI
		3		2 additional DIs, and 2 additional DOs
Type 3: Open networks		0		None
		3		CC-Link communication (with Modbus master function) (*1)
Display language (*2)		-1		English (Default. Can be switched to other language by the setting.)
		-2		German (Default. Can be switched to other language by the setting.)
		-3		French (Default. Can be switched to other language by the setting.)
		-4		Spanish (Default. Can be switched to other language by the setting.)
Case color		0		White (Light gray)
		1		Black (Light charcoal gray)
Fixed code		-00		Always "-00"
Optional suffix codes			/DR	Additional direct input (TC &, 3-wire/4-wire RTD) and current to Remote (1 additional aux. analog) input, 1 DI to be deleted (*3)
			/LP	24 V DC loop power supply (*4)
			/HA	Heater break alarm (*5)
			/DC	Power supply 24 V AC/DC
			/CT	Coating (*6)

*1: The Type 3 code "3" can be specified only when the Type 1 code is "-0" and the Type 2 code is "0."
*2: English, German, French, and Spanish are available for the guide display.
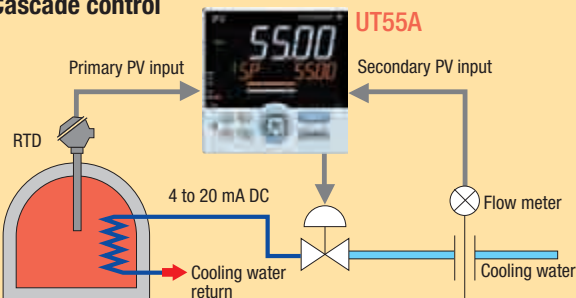*3: The /DR option can be specified only when the Type 2 code is "2" and the Type 3 code is "0."
*4: The /LP option can be specified only when the Type 1 code is "-0" or "-1." Furthermore both Type 2 and Type 3 codes should be "0."
*5: The /HA option can be specified only when the Type 1 code is "-0" and the Type 3 code is "0."
*6: When the /CT option is specified, the UT52A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).
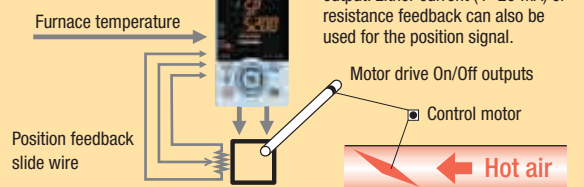
Application examples

• Cascade control

UT55A

Primary PV input   Secondary PV input

RTD

4 to 20 mA DC

Cooling water return   Flow meter
Cooling water

• Industrial furnace temperature control

Position proportional control for actuator motor

UT52A

Furnace temperature

Position feedback slide wire

Controlling temperature in an industrial furnaces by modulating an actuator with a position proportional output. Either current (4 -20 mA) or resistance feedback can also be used for the position signal.

Motor drive On/Off outputs

Control motor

Hot air

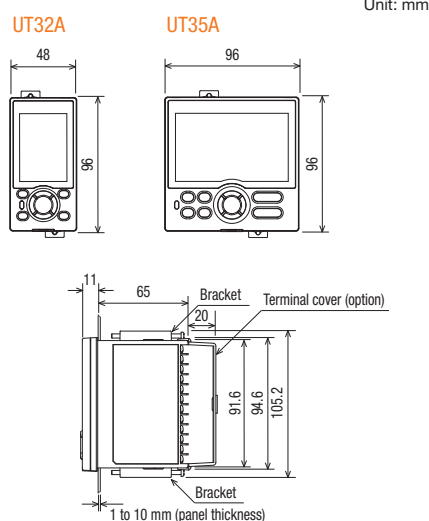# Digital Indicating Controller UT35A/UT32A (Standard model)

Main Features

- 4 target setpoints and PID sets available
- 3 alarm relays with independent common terminals
- 300 steps of ladder logic control
- Simple operation
- Up to 8 DOs (various combinations available)
  Maximum 4 points for alarm setting.

External Dimensions

Unit: mm

UT32A   UT35A

1 to 10 mm (panel thickness)

Model	Suffix code	Optional suffix code	Description
UT35A			Digital Indicating Controller (Power supply: 100-240 V AC)(provided with retransmission output or 15 V DC loop power supply, 2 DIs, and 3 DOs)
Type 1: Basic control	-0		Standard type
	-1		Position proportional type
	-2		Heating/cooling type
Type 2:Functions	0		None
	1		2 additional DIs, 2 additional DOs
	2		5 additional DIs, 5 additional DOs
Type 3: Open networks	0		None
	1		RS-485 communication (Max.38.4 kbps, 2-wire/4-wire)
	2		Ethernet communication (with serial gateway function)
	3		CC-Link communication (with Modbus master function)
	4		PROFIBUS-DP communication (with Modbus master function)
	5		DeviceNet communication (with Modbus master function)
Display language[*2]		-1	English (Default. Can be switched to other language by the setting.)
		-2	German (Default. Can be switched to other language by the setting.)
		-3	French (Default. Can be switched to other language by the setting.)
		-4	Spanish (Default. Can be switched to other language by the setting.)
Case color	0		White (Light gray)
	1		Black (Light charcoal gray)
Fixed code		-00	Always "-00"
Optional suffix codes		/LP	24 V DC loop power supply [*2]
		/HA	Heater break alarm [*3]
		/DC	Power supply 24 V AC/DC
		/CT	Coating [*4]
		/CV	Terminal cover
		/RSP	Non-isolated remote input (please see the General Specifications GS 05P01D31-81EN.)

*1: English, German, French, and Spanish are available for the guide display.
*2: The /LP option can be specified in the combination of Type 2 code (any of "0" or "1") and Type 3 code (any of "0" or "1".)
*3: The /HA option can be specified only when the Type 1 code is "-0" or "-2.".
*4: When the /CT option is specified, the UT35A does not conform to the safety standards (UL and CSA) and CE marking.

Model	Suffix code	Optional suffix code	Description
UT32A			Digital Indicating Controller (Power supply: 100-240 V AC) (provided with retransmission output or 15 V DC loop power supply, 2 DIs, and 3 DOs)
Type 1: Basic control	-0		Standard type
	-1		Position proportional type
	-2		Heating/cooling type
	-V		UT32A Digital Indicating Controller (Entry model) (please see the General Specification GS 05P01F31-01EN.)
	-C		
	-R		
Type 2:Functions	0		None
	1		RS-485 communication (Max. 38.4 kbps, 2-wire/4-wire) [*1]
	2		2 additional DIs and 2 additional DOs
Type 3: Open networks	0		None
	3		CC-Link communication (with Modbus master function) [*2]
Display language[*3]		-1	English (Default. Can be switched to other language by the setting.)
		-2	German (Default. Can be switched to other language by the setting.)
		-3	French (Default. Can be switched to other language by the setting.)
		-4	Spanish (Default. Can be switched to other language by the setting.)
Case color	0		White (Light gray)
	1		Black (Light charcoal gray)
Fixed code		-00	Always "-00"
Optional suffix codes		/LP	24 V DC loop power supply [*4]
		/HA	Heater break alarm [*5]
		/DC	Power supply 24 V AC/DC
		/CT	Coating [*6]
		/CV	Terminal cover
		/RSP	Non-isolated remote input (please see the General Specifications GS 05P01D31-81EN.)

*1: When the /LP option is specified, the RS-485 communication of the Type 2 code "1" is 2-wire system.
*2: The type 3 code "3" can be specified only when the Type 1 code is "-0" and the Type 2 code is "0."
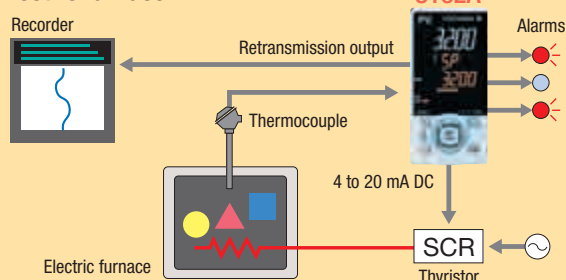*3: English, German, French, and Spanish are available for the guide display.
*4: The /LP option can be specified in the combination of Type 1 code (any of "-0" or "-1"), Type 2 code (any of "0" or "1") and Type 3 code "0."
*5: The /HA option can be specified in the combination of Type1 code "-0" or "-2." and Type 3 code "0."
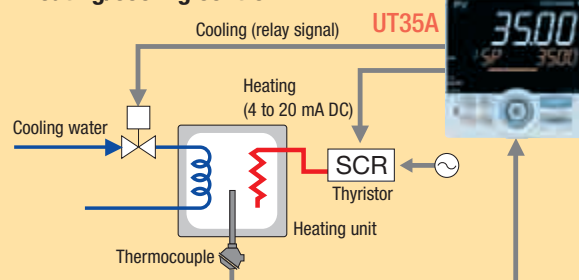*6: When the /CT option is specified, the UT32A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).

Application examples

- Electric furnace

- Heating/cooling control
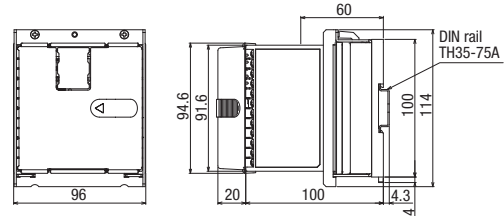
DIN Rail Mounting Controller

Main Features

- DIN rail mounting
- Tidy appearance
- Up to 4 analog inputs available
- 3 alarm relays with independent common terminals
- 500 steps of ladder logic control
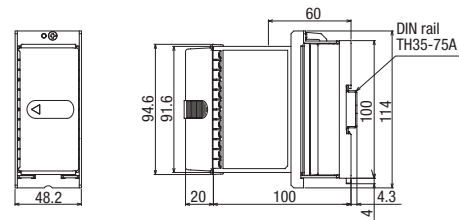- Comes with a wealth of functions

External Dimensions

UT55A/UT35A (with option /MDL)

Unit: mm

UT52A/UT32A (with option /MDL)

UT55A/UT52A: terminal cover comes standard
UT35A/UT32A: terminal cover sold separately

Model		Suffix code		Optional suffix code	Description
UT55A				/MDL (Required)	Digital Indicating Controller (Power supply 100-240 V AC) (provided with retransmission output or 15 V DC loop power supply , 3 DIs, and 3 DOs) (without the display parts and keys)
Type 1:	-0				Standard type
Basic control	-2				Heating/cooling type
Type 2: Functions		0			None
		2			Remote (1 additional aux. analog) input, 1 additional DI, and RS-485 communication (Max.19.2 kpbs, 2-wire or 2-wire/4-wire) (*1)
		3			5 additional DIs and 5 additional DOs
		4			Remote (1 additional aux. analog) input and 1 additional DI
		5			Remote (1 additional aux. analog) input, 6 additional DIs, and 5 additional DOs
		7			3 additional aux. analog inputs and 3 additional DIs
Type 3: Open networks			1		RS-485 communication (Max. 38.4 kbps, 2-wire/4-wire)
			2		Ethernet communication (with serial gateway function)
			3		CC-Link communication (with Modbus master function)
			4		PROFIBUS-DP communication (with Modbus master function)
			5		DeviceNet communication (with Modbus master function)
Fixed code			-1		Temperature unit: deg C & deg F
Case color			1		Black (Light charcoal gray)
Fixed code			-00		Always "-00"
Optional suffix codes				/MDL (Required)	Mount on DIN rail (without the display parts and keys) (*2)
				/DC	Power supply 24 V AC/DC
				/LP	24 V DC loop power supply (*2)
				/CT	Coating (*3)

*1: When the /LP option is specified, the RS-485 communication of the Type 2 code "2" is 2-wire system.
*2: The /MDL option and /LP option can be specified in the combination of Type 2 code (any of "0", "2", "3", or "4") and Type 3 code "1".
*3: When the /CT option is specified, the UT55A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).

Model		Suffix code		Optional suffix code	Description
UT52A				/MDL (Required)	Digital Indicating Controller (Power supply 100-240 V AC) (provided with retransmission output or 15 V DC loop power supply , 3 DIs, and 3 DOs) (without the display parts and keys)
Type 1: Basic control	-0				Standard type
Type 2: Functions		0			None
		1			Remote (1 additional aux. analog) input, 1 additional DI, and RS-485 commuication (Max. 38.4 kbps, 2-wire)
Type 3: Open networks			0		None
			3		CC-Link communication (with Modbus master function)
Fixed code			-1		Temperature unit: deg C & deg F
Case color			1		Black (Light charcoal gray)
Fixed code			-00		Always "-00"
Optional suffix codes				/MDL (Required)	Mount on DIN rail (without the display parts and keys) (*1)
				/DC	Power supply 24 V AC/DC
				/CT	Coating (*2)

*1: When the /MDL option is specified, the model and the suffix codes are as follows:
 UT52A-010-11-00/x/MDL
 UT52A-003-11-00/x/MDL
*2: When the /CT option is specified, the UT52A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).

Model		Suffix code		Optional suffix code	Description
UT35A				/MDL (Required)	Digital Indicating Controller (Power supply: 100-240 V AC) (provided with retransmission output or 15 V DC loop power supply, 2 DIs, and 3 DOs)(without the display parts and keys)
Type 1:	-0				Standard type
Basic control	-2				Heating/cooling type
Type 2: Functions		0			None
		2			5 additional DIs, 5 additional DOs
Type 3: Open networks			1		RS-485 communication (Max.38.4 kbps, 2-wire/4-wire)
			2		Ethernet communication (with serial gateway function)
			3		CC-Link communication (with Modbus master function)
			4		PROFIBUS-DP communication (with Modbus master function)
			5		DeviceNet communication (with Modbus master function)
Fixed code			-1		Temperature unit: deg C & deg F
Case color			1		Black (Light charcoal gray)
Fixed code			-00		Always "-00"
Optional suffix codes				/MDL (Required)	Mount on DIN rail (without the display parts and keys) (*1)
				/LP	24 V DC loop power supply (*1)
				/DC	Power supply 24 V AC/DC
				/CT	Coating (*2)
				/CV	Terminal cover

*1: The /MDL option and /LP option can be specified in the combination of Type 2 code "0" and Type 3 code "1".
*2: When the /CT option is specified, the UT35A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).

Model		Suffix code		Optional suffix code	Description
UT32A				/MDL (Required)	Digital Indicating Controller (Power supply: 100-240 V AC) (provided with retransmission output or 15 V DC loop power supply, 2 DIs, and 3 DOs) (without the display parts and keys)
Type 1:	-0				Standard type
Basic control	-2				Heating/cooling type
Type 2: Functions		0			None
		1			RS-485 communication (Max. 38.4 kbps, 2-wire/4-wire) (*1)
Type 3:			0		None
Open networks			3		CC-Link communication (with Modbus master function)
Fixed code			-1		Temperature unit: deg C & deg F
Case color			1		Black (Light charcoal gray)
Fixed code			-00		Always "-00"
Optional suffix codes				/MDL (Required)	Mount on DIN rail (without the display parts and keys) (*2) (*3)
				/LP	24 V DC loop power supply (*3)
				/HA	Heater break alarm (*4)
				/DC	Power supply 24 V AC/DC
				/CT	Coating (*5)
				/CV	Terminal cover

*1: When /LP option is specified, the RS-485 communication of the type 2 code "1" is 2-wire system.
*2: The /MDL option is specified, the model and suffix codes are follows:
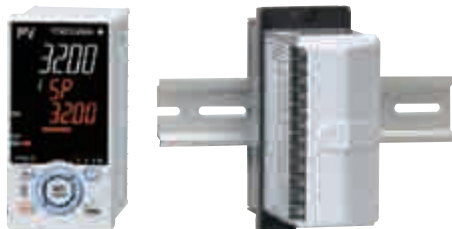 UT32A-010-11-00/x/MDL
 UT32A-003-11-00/x/MDL
 UT32A-210-11-00/x/MDL
*3: When /MDL option and /LP option is combined, "3" can not be specified for Type 3 code.
*4: The /HA option can be specified only in the combination of Type2 code "1" and Type 3 code "0."
*5: When the /CT option is specified, the UT32A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).
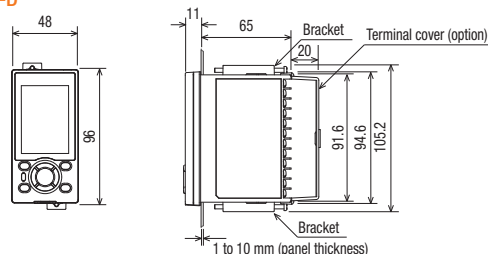
Dual-loop Controller UT32A-D

Main Features

- Dual-loop control
- Space-saving
- Simple operation
- Ladder sequence programs can be built
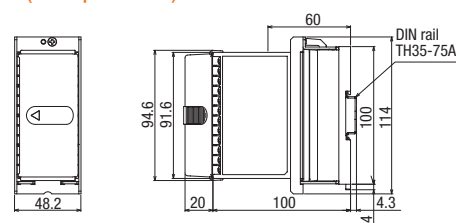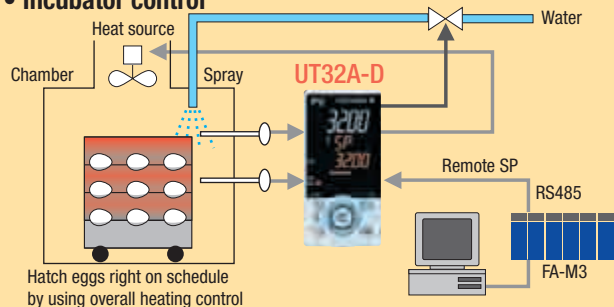- 3 alarms available as standard

External Dimensions

Unit: mm

UT32A-D

UT32A-D (with option /MDL)

Panel mounting

Model	Suffix code		Optional suffix code	Description
UT32A				Digital Indicating Controller (Power supply: 100-240 V AC) (provided with 3 DIs and 3 DOs)
Type 1: Basic control	-D			Dual-loop type
Type 2: Functions	0			None
	1			RS-485 communication (Max. 38.4 kbps, 2-wire/4-wire)
Type 3: Fixed code		0		None
Display language (*1)			-1	English (Default. Can be switched to other language by the setting.)
			-2	German (Default. Can be switched to other language by the setting.)
			-3	French (Default. Can be switched to other language by the setting.)
			-4	Spanish (Default. Can be switched to other language by the setting.)
Case color			0	White (Light gray)
			1	Black (Light charcoal gray)
Fixed code			-00	Always "-00"
Optional suffix codes			/HA	Heater break alarm (*2)
			/DC	Power supply 24 V AC/DC
			/CT	Coating (*3)
			/CV	Terminal cover

*1: English, German, French, and Spanish are available for the guide display.
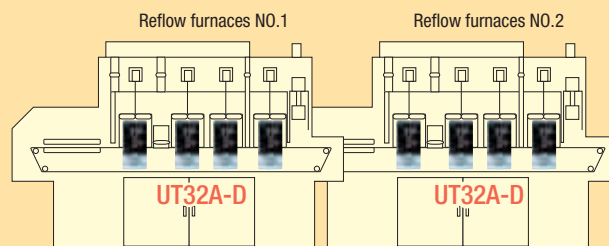*2: The /HA option can be specified when the Type 2 code is "0."
*3: When the /CT option is specified, the UT32A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).

DIN rail mounting

Model	Suffix code	Optional suffix code	Description
UT32A		/MDL (Required)	Digital Indicating Controller (Power supply: 100-240 V AC) (provided with 3 DIs, and 3 DOs) (without the display parts and keys)
Type 1: Basic control	-D		Dual-loop type
Type 2: Functions	1		RS-485 communication (Max. 38.4 kbps, 2-wire/4-wire)
Type 3: Fixed code	0		None
Fixed code	-1		Temperature unit: deg C & deg F
Case color	1		Black (Light charcoal gray)
Fixed code	-00		Always "-00"
Optional suffix codes		/MDL (Required)	Mount on DIN rail (without the display parts and keys)
		/DC	Power supply 24 V AC/DC
		/CT	Coating (*1)
		/CV	Terminal cover

*1: When the /CT option is specified, the UT32A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).
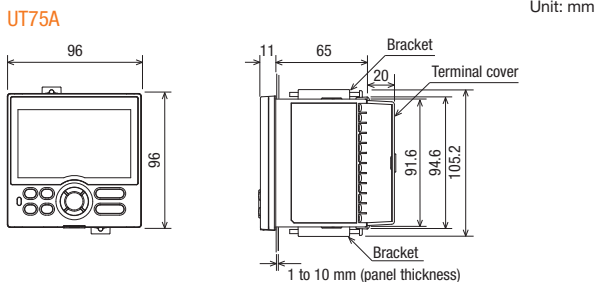
Application examples

• Incubator control

Hatch eggs right on schedule by using overall heating control

• Control of reflow furnaces

Digital Indicating Controller UT75A

External Dimensions

UT75A

Unit: mm

Model	Suffix code		Optional suffix code	Description
UT75A				Digital Indicating Controller (provided with retransmission output or 15 V DC loop power supply , 3 DIs, and 3 DOs) (Power supply 100-240 V AC)
Type 1: Basic control	-0			Standard type
	-1			Position proportional type
	-5			Dual-loop type
Type 2:Functions		0		5 additional DIs and 5 additional DOs
		1		Remote (1 additional aux. analog) input, RS485 communication (Max.19.2 kbps, 2-wire), 1 additional DI, and 5 additional DOs
		2		Remote (2 additional aux. analog) inputs, RS485 communication (Max.19.2 kbps, 2-wire), 2 additional DIs
		3		Remote (1 additional aux. analog) input, 6 additional DIs, 5 additional DOs (*1)
Type 3: Open networks		0		None
		1		RS-485 communication (Max.38.4 kbps, 2-wire/4-wire) and 5 additional DIs
		2		Ethernet communication (with serial gateway function)
		3		CC-Link communication (with Modbus master function)
		4		PROFIBUS-DP communication (with Modbus master function)
		5		DeviceNet communication (with Modbus master function)
Display language(*2)			-1	English (Default. Can be switched to Spanish by the setting.)
			-2	German (Customized order)
			-3	French (Customized order)
			-4	Spanish (Default. Can be switched to English by the setting.)
Case color			0	White (Light gray)
			1	Black (Light charcoal gray)
Fixed code			-00	Always "-00"
Optional suffix codes			/DC	Power supply 24 V AC/DC
			/CP	Carbon potential calculation function (*3)
			/CT	Coating (*4)

*1: When Type 1 code is "-5", "3" cannot be specified for Type 2 code.
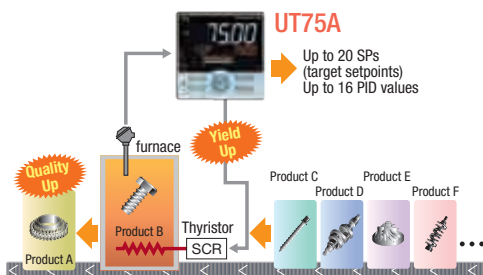*2: English and Spanish are available for the guide display.
   (German and French guide displays are customized. Contact our representatives for inquiries.)
*3: Only when Type 2 code is "1", "2" or "3", the /CP option can be specified.
*4: When the /CT option is specified, the UT75A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).
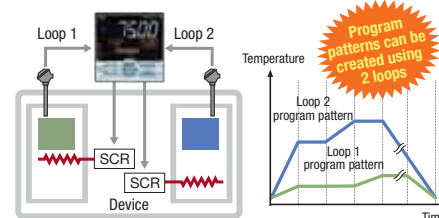
🟠 Enhancing Productivity by Managing a Variety of Recipes

Switching between 20 Recipes

Up to 20 SPs (target setpoints)
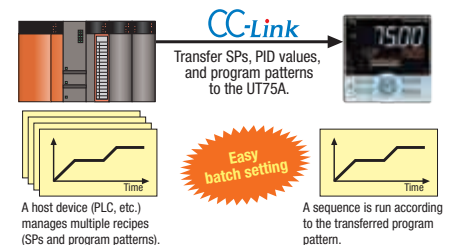Up to 16 PID values

Program pattern operation

■ Program pattern consists of up to 20 segments
■ 2-loop program pattern can be operated

Easy to switch between recipes with a PLC

■ Since CC-Link, Profibus, and DeviceNet are supported, it is easy to link to a PLC that manages recipes

Transfer SPs, PID values, and program patterns to the UT75A.

A host device (PLC, etc.) manages multiple recipes (SPs and program patterns).

A sequence is run according to the transferred program pattern.
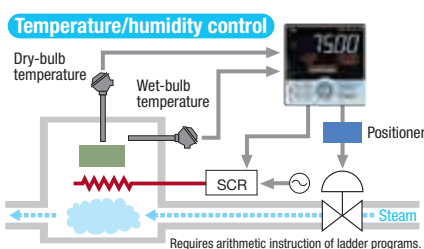
Application examples

2-loop control with a single controller

■ **2-loop synchronous and independent operation is available**
  • The start and stop instructions can be run synchronously or independently.
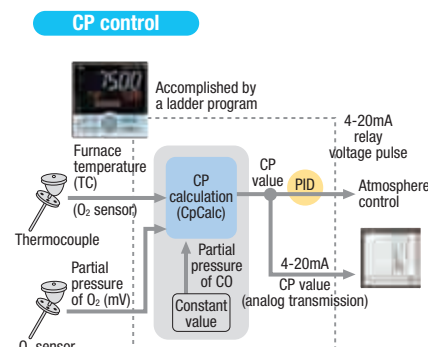
■ **Program pattern operation and constant value operation are available for 2-loop control**
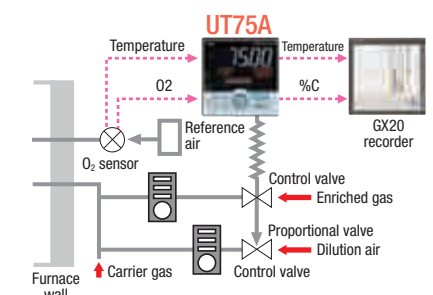 • A sequence can be run by combining the program pattern operation and fixed-point operation.

Temperature/humidity control

Requires arithmetic instruction of ladder programs.

A variety of arithmetic instructions and large capacity ladder programs

■ **15 basic instructions and 111 application instructions**
■ **Ladder program capacity up to 1,000 steps**

CP control

■ **Square root, exponential, and logarithmic calculations are available**
■ **Temperature/humidity and CP calculations are available**
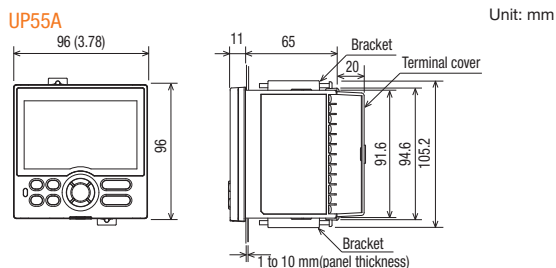
CP control

Program Controller UP55A (Standard model)

Main Features

- Up to 99 program patterns
- 8 PV events, 16 time events, and 8 alarms can be monitored simultaneously
- Ladder sequence programs can be built
- Simple operation
- Up to 9 DIs and 18 DOs (combinations available)

External Dimensions

UP55A
Unit: mm

Model	Suffix code		Optional suffix code	Description
UP55A				Program Controller (Power supply: 100-240 V AC) 30 program patterns / 300 program segments (99 program patterns / 600 program segments when the option /AP is specifed. Max. 99 segments per pattern)(provided with retransmission output or 15 V DC loop power supply, 8 DIs, and 8 DOs)
Type 1: Basic control	-0			Standard type
	-1			Position proportional type
	-2			Heating/cooling type
Type 2:Functions		0		None
		1		Remote (1 additional aux. analog) input, 1 additional DI
		2		RS-485 communication (Max.19.2 kpbs, 2-wire/4-wire)
		3		10 additional DOs [*1]
		4		3 additional aux. analog inputs, 2 DIs and 5 DOs to be deleted
Type 3: Open networks		0		None
		1		RS-485 communication (Max.38.4 kbps, 2-wire/4-wire)
		2		Ethernet communication (with serial gateway function)
		3		CC-Link communication (with Modbus master function)
		4		PROFIBUS-DP communication (with Modbus master function)
		5		DeviceNet communication (with Modbus master function)
Display language[*2]			-1	English (Default. Can be switched to other language by the setting.)
			-2	German (Default. Can be switched to other language by the setting.)
			-3	French (Default. Can be switched to other language by the setting.)
			-4	Spanish (Default. Can be switched to other language by the setting.)
Case color			0	White (Light gray)
			1	Black (Light charcoal gray)
Fixed code			-00	Always "-00"
Optional suffix codes			/AP	69 additional patterns/300 additional segments
			/DR	Additional direct input (TC and 3-wire/4-wire RTD) and current input to Remote (1 additional aux. analog) input, 1 DI to be deleted [*3]
			/HA	Heater break alarm [*4]
			/DC	Power supply 24 V AC/DC
			/CT	Coating [*5]

*1: When the Type 2 code is "3", only "0" can be specified for the Type 3 code.
*2: English, German, French, and Spanish are available for the guide display.
*3: The /DR option can be specified only when the Type 2 code is "1" or "4."
*4: The /HA option can be specified only when the Type 1 code is "-0."
*5: When the /CT option is specified, the UP55A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).
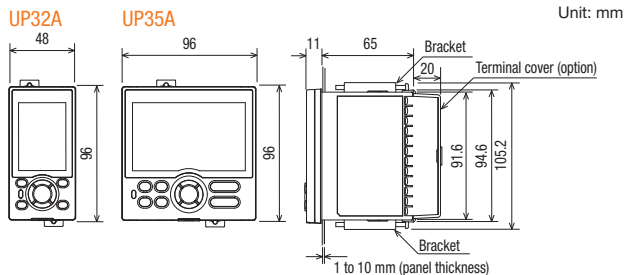
Program Controller UP35A/UP32A (Standard model)

Main Features

- Up to 4 program patterns
- 2 PV events, 4 time events, and 2 alarms can be monitored simultaneously.
- Ladder sequence programs can be built
- Simple operation
- Up to 8 DIs and 8 DOs (combinations available)

External Dimensions

UP32A   UP35A
Unit: mm

Model	Suffix code		Optional suffix code	Description
UP35A				Program Controller (Power supply: 100-240 V AC) 2 program patterns/ 20 program segments (When the /AP option is specified, 4 program patterns/ 40 program segments, max. 20 segments per pattern.) (provided with retransmission output or 15 V DC loop power supply, 3 DIs, and 3 DOs)
Type 1: Basic control	-0			Standard type
	-1			Position proportional type
	-2			Heating/cooling type
Type 2: Functions	0			None
	1			5 additional DIs, 5 additional DOs
Type 3: Open networks		0		None
		1		RS-485 communication (Max.38.4 kbps, 2-wire/4-wire)
		2		Ethernet communication (with serial gateway function)
		3		CC-Link communication (with Modbus master function)
		4		PROFIBUS-DP communication (with Modbus master function)
		5		DeviceNet communication (with Modbus master function)
Display language[*1]			-1	English (Default. Can be switched to other language by the setting.)
			-2	German (Default. Can be switched to other language by the setting.)
			-3	French (Default. Can be switched to other language by the setting.)
			-4	Spanish (Default. Can be switched to other language by the setting.)
Case color			0	White (Light gray)
			1	Black (Light charcoal gray)
Fixed code			-00	Always "-00"
Optional suffix codes			/AP	2 additional patterns/20 additional segments
			/HA	Heater break alarm [*2]
			/DC	Power supply 24 V AC/DC
			/CT	Coating [*3]
			/CV	Terminal Cover

Model	Suffix code		Optional suffix code	Description
UP32A				Program Controller (Power supply: 100-240 V AC) 2 program patterns/ 20 program segments (When the /AP option is specified, 4 program patterns/ 40 program segments, max. 20 segments per pattern.) (provided with retransmission output or 15 V DC loop power supply, 3 DIs, and 3 DOs)
Type 1: Basic control	-0			Standard type
	-1			Position proportional type
	-2			Heating/cooling type
Type 2:Functions	0			None
	1			RS-485 communication (Max.38.4 kbps, 2-wire/4-wire)
	2			2 additional DIs, 2 additional DOs
Type 3: Open networks		0		None
		3		CC-Link communication (with Modbus master function) [*1]
Display language[*2]			-1	English (Default. Can be switched to other language by the setting.)
			-2	German (Default. Can be switched to other language by the setting.)
			-3	French (Default. Can be switched to other language by the setting.)
			-4	Spanish (Default. Can be switched to other language by the setting.)
Case color			0	White (Light gray)
			1	Black (Light charcoal gray)
Fixed code			-00	Always "-00"
Optional suffix codes			/AP	2 additional patterns/20 additional segments
			/HA	Heater break alarm [*3]
			/DC	Power supply 24 V AC/DC
			/CT	Coating [*4]
			/CV	Terminal Cover

UP35A *1: English, German, French, and Spanish are available for the guide display.
*2: The /HA option can be specified only when the Type 1 code is "-0" or "-2."
*3: When the /CT option is specified, the UP35A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).

UP32A *1: Type 3 code "3" can be specified only when both Type 1 and Type 2 code are "0".
*2: English, German, French, and Spanish are available for the guide display.
*3: The /HA option can be specified only when the Type 1 code is "-0" or "-2" and Type 3 code is "0".
*4: When the /CT option is specified, the UP32A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).
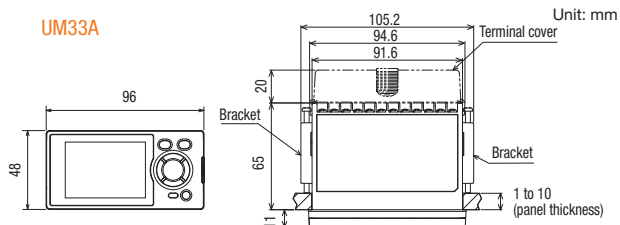
Digital Indicator with Alarms UM33A

Main Features

- Up to 9 alarm outputs (including one Fail)
- Input correction function
  (PV bias, polygonal line approximation, polygonal line bias)
- 24 VDC sensor power supply available
- Simple operation
- CC-Link communication support

Model	Suffix code			Optional suffix code	Description
UM33A					Digital Indicator with Alarms (Power supply: 100-240 V AC) (provided with retransmission output or 15 V DC loop power supply, 2 DIs, and 3 DOs)
Type 1:Basic	-0				Standard type
Type 2:Functions		0			None
		1			1 additional DO (c-contact relay), RS-485 communication (Max.38.4 kbps, 2-wire/4-wire) (*1)
		2			1 additional DO (c-contact relay)
		3			6 additional DOs (c-contact relay; 1 point and open collector; 5 points)
Type 3: Open networks		0			None
		3			CC-Link communication (with Modbus master function) (*2)
Display language (*3)			-1		English (Default. Can be switched to other language by the setting.)
			-2		German (Default. Can be switched to other language by the setting.)
			-3		French (Default. Can be switched to other language by the setting.)
			-4		Spanish (Default. Can be switched to other language by the setting.)
Case color				0	White (Light gray)
				1	Black (Light charcoal gray)
Optional suffix codes				/LP	24 V DC loop power supply (*4)
				/DC	Power supply 24 V AC/DC
				/CT	Coating (*5)
				/CV	Terminal cover
				/S006	Modbus RTU Master/Data monitoring function

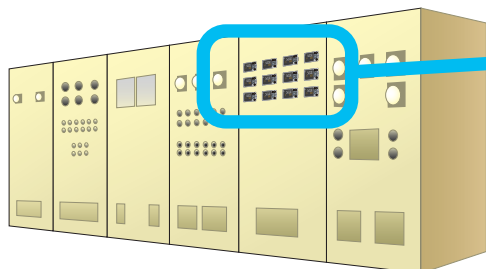*1: When /LP option is specified, the RS-485 communication of the Type 2 code "1" is 2-wire system.
*2: Type 3 code "3" can be specified only when the Type 2 code is "0" or "2".
*3: English, German, French, and Spanish are available for the guide display.
*4: The /LP option can be specified only when the code for Type 2 code is any of "0", "1" or "2", and the Type 3 code is "0".
*5: When the /CT option is specified, the UM33A does not conform to the safety standards (UL and CSA) and CE marking (Products with /CT option are not intended for EEA-market).

External Dimensions

UM33A

Unit: mm

105.2
94.6
91.6
Terminal cover
96
48
20
65
11
Bracket
Bracket
1 to 10 (panel thickness)

5 digits, 14-segment large LCD display with PV color changing function
You can set the display to change colors during alarms.
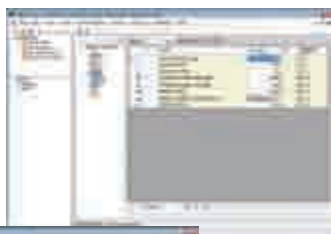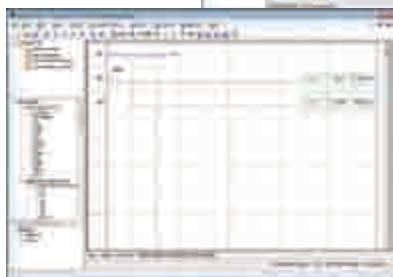
Active Color PV Display

Normal → Alarm
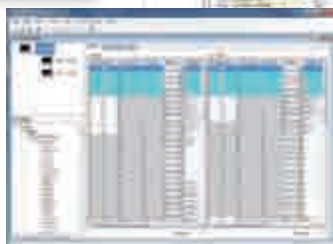
LL50A Parameter Setting Software

Parameter setting display

Model	Suffix code	Description
LL50A	-00	Parameter Setting Software with Ladder Program Building Function

Program pattern creating display

LL50A contents
Light-loader adapter
Dedicated cable

Tuning display
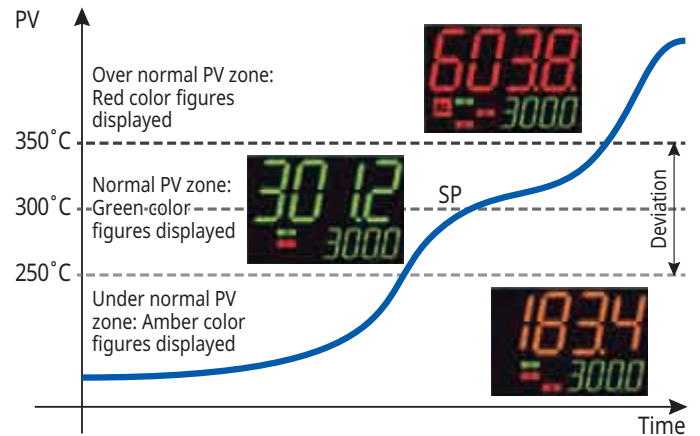
Ladder program building display

Network profile creating display
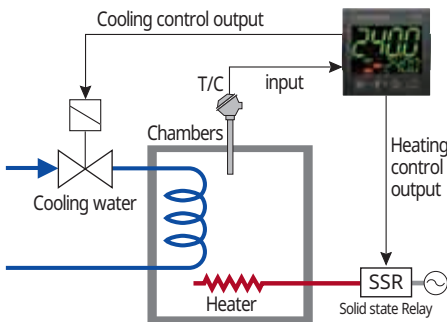
Temperature Controller TC10

Small Cubic Controller

- Compact size (48 x 48 mm (1/16 DIN), depth 48 mm + 14 mm (terminals))
- Universal Input
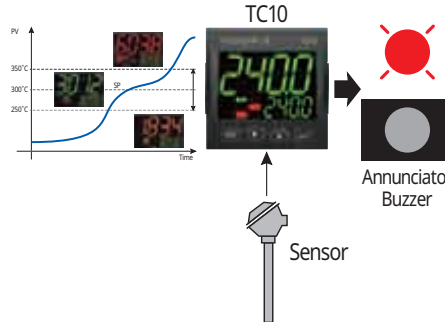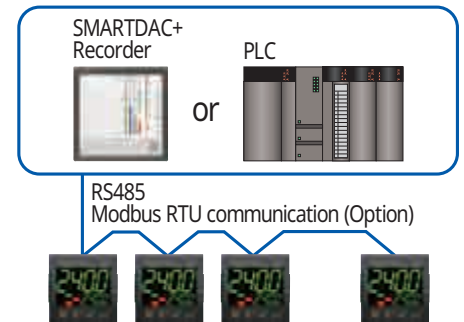- 3 colors active display
- Serial Communication

PV

Over normal PV zone:
Red color figures
displayed

350°C

Normal PV zone:
Green color
figures displayed

SP

300°C

250°C

Deviation

Under normal PV
zone: Amber color
figures displayed

Time

CE c(UL)us

Application

Heating and cooling (two outputs model)

Cooling control output

T/C input

Chambers

Cooling water

Heater

Heating control output

SSR

Solid state Relay

Alarm detection with active display

TC10

350°C
300°C
250°C

SP

Time

Annunciator
Buzzer

Sensor

Monitoring and setting from external device

SMARTDAC+
Recorder

PLC

or

RS485
Modbus RTU communication (Option)

Model Code	Suffix codes										Description
TC10	-N	□	C	□	□	□	D	□	F	/□	Temperature Controller with an universal input, one logic input, and one selectable I/O
Fixed code	-N										Always "-N"
Power supply		L									24 VAC/DC (Custom order)
		H									100 to 240 VAC
Fixed code			C								Always "C"
OUT1-3				R	N	N					Relay output for On/Off control
				R	R	R					Relay output with two alarm relays, or On/Off Heat/Cool control with one alarm
				V	N	N					DCV output for SSR
				V	R	R					DCV output for SSR with two alarm relays, or DCV and Relay output for Heat/Cool control with one alarm
				V	V	R					Two DCV outputs for SSR with one relay (Custom order)
				A	R	R					Analog output with two alarm relays, or Analog output and Relay output for Heat/Cool control with one alarm
IN/OUT4 (Fixed code)							D				Always "D" Selectable I/O (logic input / 12 V SSR drive output / 12 VDC 20 mA transmitter power supply)
Serial communication								S			RS485 Modbus
								N			None
Fixed code									F		Always "F"
Option code										/GK	Panel gasket for IP65

General Specifications: GS05C01E81-01EN