



**Digital Indicating Controllers** UT55A/UT52A/UT35A/UT32A

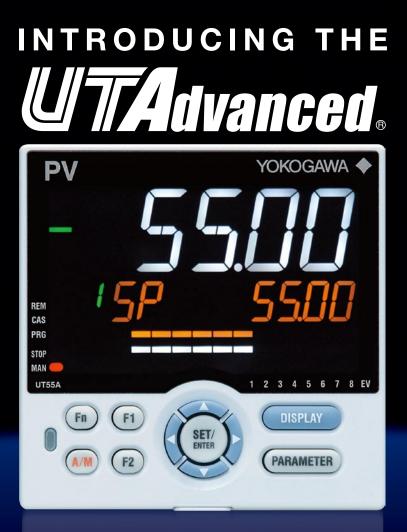
**Program Controllers** UP55A/UP35A **Digital Indicator with Alarms** UM33A

Bulletin 05P01A01-01EN

www.utadvanced.com







### **Balancing Simplicity and Power**

The UTAdvanced was designed as a result of knowledge obtained in Yokogawa's fifty plus years of experience in the control market. Significant changes in the market are setting the tone for the future and Yokogawa will be leading the way meeting the challenging needs of the control segment. Balancing an easy to use controller with the power to handle your most challenging applications, that's the UTAdvanced.



# features

### Advanced Control

PID Control — 8 Built-in Control Modes - 8 Built-in Control Types Ladder Sequence Control Fuzzy Logic Control

### Simplicity

Bright & Easy to Read Active Color LCD Display **Scrolling Text** Navigation Guide & Navigation Keys Programmable Function Keys User Settable Default Values Multiple Language Support **Compact Design** 

### Networking

Ethernet (Modbus/TCP) RS-485 (Modbus/RTU, Peer to Peer, Coordinated Operation, PC-Link) **Open Network** (PROFIBUS-DP, CC-Link, DeviceNet)

### Reliability

3 Year Warranty \*Note 1 **RoHS/WEEE** NEMA4\*Note 2/IP56 Front Panel

Note 1 : The 3 year warranty extends 36 months after shipment from our factory. Note 2 : Hose down test only.



CSA C22.2 61010-1



UL61010-1



### 8 Built-in Control Modes

The control mode allows easily configuring settings and making changes with parameters.

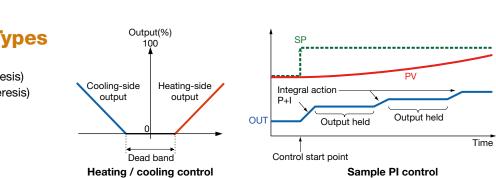
**PV** auto-selector

-¥-Υ

SELECT

PID

- Single-loop control
- Cascade primary-loop control
- Cascade secondary-loop control
- Cascade control
- Loop control for backup
- Loop control with PV switching
- Loop control with PV auto-selector
- Control with PV-hold function



PV switching

PID

8 Built-in Control Types

- PID control
- ON/OFF control (1 point of hysteresis)
- ON/OFF control (2 points of hysteresis)
- Two-position, two-level control
- Heating/cooling control
- Sample PI control
- Batch PID control
- Feedforward control

For the correspondence between the above control mode and control types for each model, please refer to the specifications of each model.

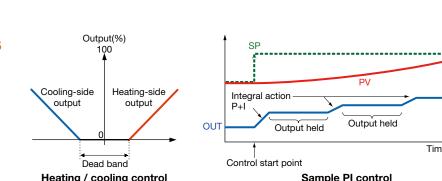
### Ladder Sequence Control

With built-in ladder sequence control, the range of applications are dramatically increased. This feature is standard in all the UTAdvanced controllers (except UM33A). The ladder sequence control function can replace a small PLC required by the application. Sequence control and PID control can be performed simultaneously.

- Monitoring and control of external machinery Eg. Lamps, switches, timers
- Solve digital input / output logic functionality easily. Number of basic instruction types : 13 Number of application instruction types : 73

Symbol Name I oad SET Set тім Timer CNT Counter > Compare & Logic моу Data transfer HSL High selector TCMP1 Temperature correction \* LL50A Parameter Setting Software (sold separately) is required to build Temperature PV>SP DI2 OFF: Control stop Timer time out Control stop Timer start SP Hardening time PV in control stop Time DI2 ON: Control start PV in time out X DI2 SET M01 Control start relay Control start flag BST S.R Control run mode M01 ΡV SP SET M02 Control start flag PV>SP flag M02 тім CLK1 TIM1 K1 Hardening time X\_DI2 RST M01 Control stop relay Control start flag TIM1 TIM1 RST Quenching timer Hardening timer RST M02 PV>SP flag S. R SET X\_DI2: DI2 M01 to M02: Internal relay Control stop mode K1: 3600

functions.



**Cascade control** 

PID

PID

Loop control for backup

4......

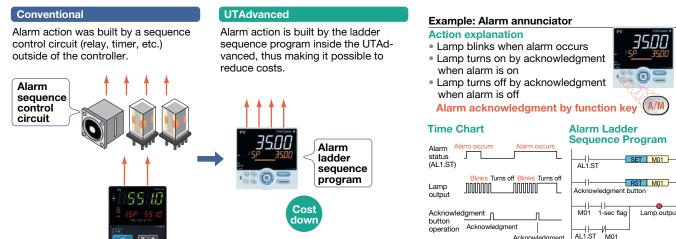
PID



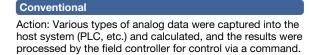
### **Application Examples of Ladder Sequence Program**

#### Alarm Sequence Control Circuits Can be Reduced

The ladder sequence program is built in the UTAdvanced as standard. The ladder sequence function enables monitoring and controlling peripheral devices such as relays, thus making it possible to reduce costs.



#### Host System Load is Reduced





# UTAdvanced Host system Communication V OUT OUT OUT The UTAdvanced with up to 4 analog inputs\* enables various types of

analog data to be captured directly into the controller and calculated by

the ladder program, thus reducing the system-building load of the host.

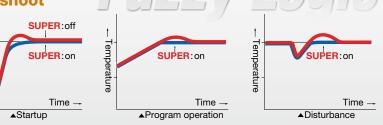


### SUPER Function suppresses overshoot

「emperature

The field-proven **SUPER** function utilizes a built-in operator experience and fuzzy theory to deliver fine control and suppress overshoot.

- When wishing to suppress overshoot
- When wishing to reduce the startup time
- When load changes are significant
- When setpoint is changed frequently



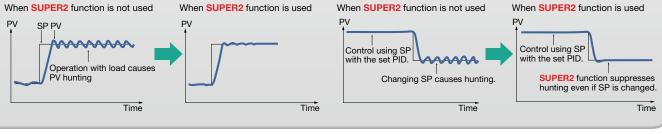
#### **SUPER2** Function suppresses hunting

The new SUPER2 function utilizes a built-in operator experience and modern control theory to deliver fine control and suppress hunting.

Merit

Effect 1 : Material change or load change with the same PID.

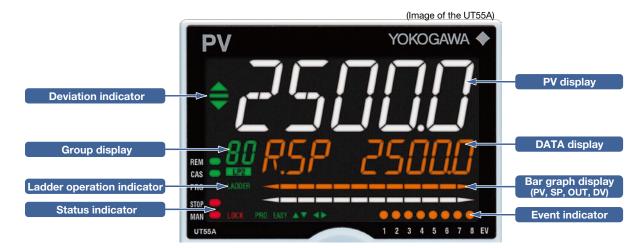
Effect 2: Setpoint (SP) change with the same PID.



Advanced Simplicity

### Digital Indicating Controller UT55A / UT52A / UT35A / UT32A

### **Bright & Easy to Read Active Color LCD Display**



### **Optimal Display**



The controller menus and layout are adjusted in accordance with the level (EASY, STD, PRO) of information required by the user. If simple temperature or level control is needed, then select the easy configuration. Very sophisticated applications are no problem for the UTAdvanced. Just select the PRO setting and make use of the additional functionality shown in this mode. Advanced applications can be programmed in the PRO setting and then changed back to the easy setting to lock out functions not required by operators.

### **Active Color LCD Display**

With Yokogawa's active color display you can instantly tell, at a glance, the status of your process.

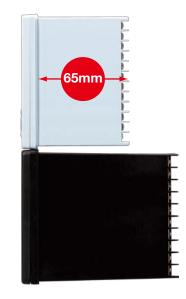
Alarm Status : Active color display changes from white (normal) to red (alarm). Deviation Status : Color changes based on a PV deviation from SP.

User-defined Color : Choose between white or red display for constant readings.



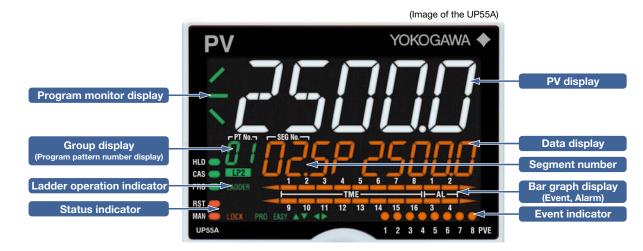
### **Compact Design**

The 65-mm depth of the controller reduces the constraints on installation location.



### Program Controller UP55A / UP35A

### Versatile Color LCD Display



### **Operation Displays of the Program Controller**











Soak and ramp





Alarm 1 to 4

\* The same operation displays as those of the UT are also available.

**Event Display** 10 11 12 13 15 9 2 1 3 7 8 PVE 4 5

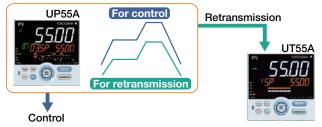
#### PV event 1 to 8 Time event 1 to 16

### Functions of the Program Controller

#### Fast-forwarding of program operation

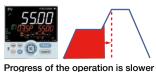
Use this function when checking the program pattern setting. Only times of segments and time events can be faster. **Program pattern-2 retransmission** 

The controller can serve as a program pattern generator.



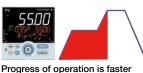
#### Synchronized program operation

If the progress of the operation of one unit is faster, the program operation can be forcibly stopped by digital input when switching between segments. Thus, synchronized program operation can be performed.





Continue operation until both units are synchronized

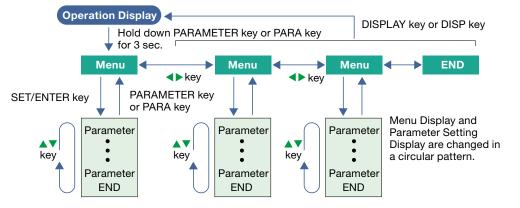


Forcibly stop the operation by digital input

Continue the stoppage until both units are synchronized

Simplicity

### Easy Operation Map, Navigation Guide and Navigation Keys





The parameter groups can be switched using  $\blacktriangleleft$ ,  $\triangleright$  keys.

The navigation keys is an intuitive method to navigate the controller's configuration menus and setting its various menus. Navigation arrows even tell you what button to push next.

### **Programmable Function Keys**



It is easy to assign frequently used functions, such as the operation mode switch, Run/Stop, program pattern selection, Remote/Local, alarm latch release, and PID parameter display. The function of an external switch can also be assigned to the front panel key in conjunction with a ladder sequence program.

### **Scrolling Text**



The UTAdvanced is equipped with a scrolling text feature that fully lists the parameter being modified. There is no guessing what parameter you are looking at. It is possible to turn off scrolling text function.

### **Multiple Language Support**

#### Example : TARGET SET POINT



The UTAdvanced is fluent in multiple languages—English, Spanish, French, and German. The use of the UTAdvanced by local language operators is not an obstacle.

### **User Settable Default Values**

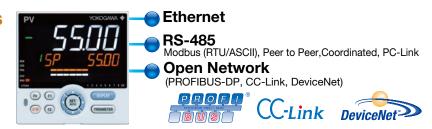


Parameter values (SP, P, I, D, ALM1, etc.) configured by the user can be stored in the controller as the default values. LL50A Parameter Setting Software (sold separately) is required. Even if a parameter set value is accidentally changed, it can be restored to the original value with a simple operation.

## Muanced *n*etworking

### **Communication Functions**

A network function is built into the back panel of the controller to make wiring simple.



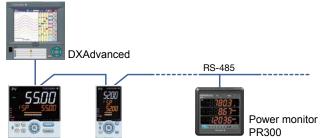
### Modbus/TCP

Modbus TCP/IP, a protocol that allows the controller to connect to any Ethernet network and have the ability to exchange data with the computers or devices on that network.

- Allows control devices to be integrated into an application simply.
  Works with any Modbus TCP/IP compliant software.
- Works with any Modbus TCP/IP compliant software
   Support for Modbus function codes 02, 06, 08 & 16
- Support for Modbus function codes 03, 06, 08 & 16.
  Gateway function allows RS-485 Modbus devices to communicate via Ethernet.
- Reduced labor costs in wiring and setup of a communications network.
- Physical layer : 10 BASE-T/100 BASE-TX
- Max. number of connection : 2

### Modbus/RTU

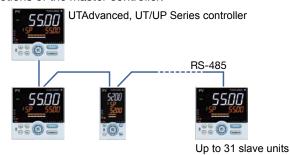
The data of UTAdvanced (slave units) can be displayed and saved on the DXAdvanced using the Modbus RTU function. Modbus master



Modbus slave units

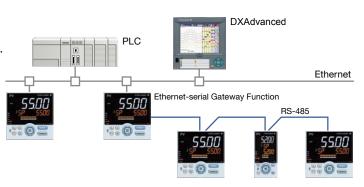
### **Coordinated Operation**

In coordinated operation, a single UTAdvanced controller is used as a master controller and multiple UTAdvanced or other UT digital indicating controllers as slave controllers. The slave controllers are operated in accordance with the actions of the master controller.



### **PC-Link**

A protocol used for communicating with a generalpurpose personal computer, or UT link module and serial communication module of FA-M3R (range-free controller).



### **Peer to Peer**

The use of the ladder sequence program makes it possible to exchange analog data and status data between communication-capable UTs.

Example: A UT in which an input error occurs sends a signal to another UT to enable that UT switch to MAN operation, thus shifting the whole system into a safe mode. In such a case, the safety mechanism can be built into the UT Advanced and is not required in the host system.

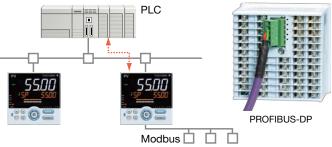


Up to 4 master units, total 32 units

### **Open Network** (PROFIBUS-DP, CC-Link, DeviceNet)

Embedded open networks will provide direct connection to PLC's. • Reads data from UTAdvanced

Writes parameter setting value to UTAdvanced



• FA-M3R, Daqstation and DXAdvanced are registered trademark of Yokogawa

- Electric Corporation.
- Ethernet is a registered trademark of Xerox Corporation.
- Modbus is a registered trademark of AEG Schneider Automation Inc.
   DROFINUS DB is a registered trademark of DDOFINUS Lear Organized
- PROFIBUS-DP is a registered trademark of PROFIBUS User Organization.
- CC-Link is a registered trademark of CC-Link Partner Association (CLPA.)
   DeviceNet is a registered trademark of Open DeviceNet Vonder Association lac
- DeviceNet is a registered trademark of Open DeviceNet Vender Association, Inc.

product line-up

### Digital Indicating Controller UT55A / UT52A / UT35A / UT32A

						damagenered.
Model			UT55A	UT52A	UT35A	UT32A
	1/4 DIN		~		~	
Size	1/8 DIN		_	~	_	~
		the panel surface (mm)	65	65	65	65
Control Scan Period	(msec)		Choice 50/100/200	Choice 50/100/200	200	200
	· /	PV Display Digits	5	5	5	5
		or PV Display Function	~	~	~	<b>v</b>
		Il Display Function	~	<b>v</b>	~	<b>v</b>
		hisplay Function	~	~	~	<b>v</b>
		display (Number)	✓ (2)	✓ (2)	✓ (1)	✓ (1)
PV Input Indication Accuracy			0.1	0.1	0.1	0.1
	TC		~	~	~	<b>v</b>
	RTD (3-wire	e)	~	<ul> <li>✓</li> </ul>	<b>v</b>	<ul> <li>✓</li> </ul>
PV Input Type	RTD (4-wire	e)	~	<ul> <li>✓</li> </ul>	_	_
	mV, V	,	~	~	~	×
	mA		~	~	~	×
Number of Analog Inputs	Standard (I	Maximum)	1 (4)	1 (2)	1	1
	Maximum		8	8	4	4
	Maximum		8	8	1	1
Number of Control Types	Maximum		8	8	5	5
Control Output	Туре	Relay Contact Output, Voltage pulse output, Current output	V	~	~	~
	Algorithm	ON/OFF	~	~	~	~
		PID (Continuance, Time Proportion)	~	~	~	~
		Position proportional	~	~	~	~
	Heating / cooling		~	~	~	~
Number of Analog Outputs	Standard (I	Maximum)	2 (3)	2 (3)	2	2
Number of Digital Inputs	Standard (I	Maximum)	3 (9)	3 (5)	2 (7)	2 (4)
Number of Alarms			8	8	4	4
Number of Digital Outputs	Standard (I	Maximum)	3 (18)	3 (5)	3 (8)	3 (5)
	RS-485 co	mmunication (Maximum)	✓ (2)	✓ (1)	✓ (1)	✓ (1)
Communication	Ethernet co	ommunication	~	_	~	_
Communication	Open Netw /DeviceNet	vork (CC-Link/PROFIBUS-DP )	~	—	v	—
	Quick Setti	ng Function	~	~	~	~
	Split Comp	utation Output Function	~	<ul> <li>✓</li> </ul>	—	—
	Ratio and S	Square Root Extraction Function	~	~	_	
Various Function	Remote SF	PFunction	~	~	_	
	24 V DC Lo	oop Power Supply Function	~	~	~	~
	Heater Bre	ak Alarm Function	✓ (Standard type)	✓ (Standard type)	✓ (Standard type or Heating/cooling type)	✓ (Standard type or Heating/cooling type)
Ladder Sequence Function	(Number of	max. steps)	✓ (500)	✓ (500)	✓ (300)	✓ (300)
	Power	AC100 V to 240 V	~	<ul> <li>✓</li> </ul>	~	<ul> <li>✓</li> </ul>
	Supply	AC/DC 24 V	~	<ul> <li>✓</li> </ul>	~	~
Other Specifications	Dust and w	vaterproof Level of Front Panel	NEMA4*1 (IP56)	NEMA4*1 (IP56)	NEMA4*1 (IP56)	NEMA4*1 (IP56)
		Via Light-loader Communication	~	~	~	~
	Configuration Tool	Via Maintenance Port Communication	~	~	~	~
		Via RS-485/Ethernet communication	V / V	<b>v</b> / —	V / V	<b>v</b> / —

The table above includes specifications of the standard models only.

\* 1: Hose down test only.

#### **Input Range**

Input type	
тс	K, J, T, B, S, R, N, E, L, U, W PL-2, PR20-40, W97Re3-W75Re25
RTD	JPt100, Pt100
DC Voltage	0.4 to 2.0 V, 1.0 to 5.0 V, 0.0 to 2.0 V, 0 to 10 V, -10 to 20 mV, 0 to 100 mV
DC Current	4 to 20 mA, 0 to 20 mA

### Program Controller UP55A / UP35A, Digital Indicator with Alarms UM33A

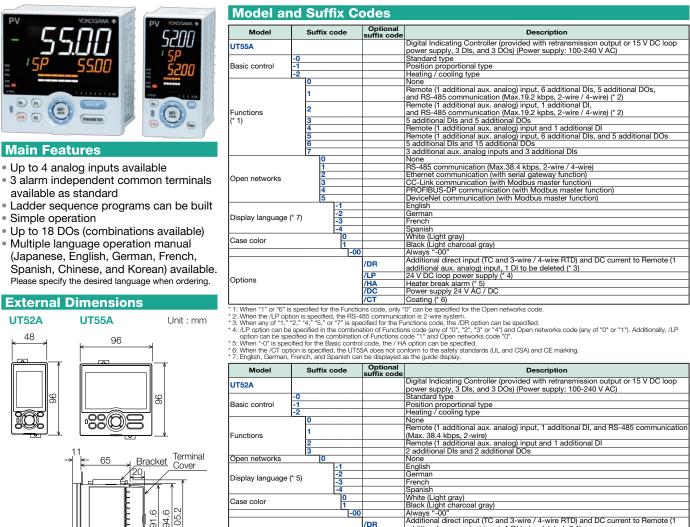
					<u> </u>
Model			UP55A	UP35A	UM33A
Model	1/4 DIN				UNIOUA
Size	1/4 DIN 1/8 DIN		✓	✓ 	
Size		the panel surface (mm)	65	65	65
Control Scan Period	(msec)	The parler surface (mm)	Choice 100/200	200	Choice 50/100/200
Control Scan Penod	· /	PV Display Digits	5	5	5
		or PV Display Function		~	~
Display Function		Il Display Function	V	~	· ·
Biopidy Function		Display Function	V	~	~
		display (Number)	✓ (2)	✓ (1)	_
PV Input Indication Accuracy	- · ·		0.1	0.1	0.1
	TC		V	V	×
	RTD (3-wire	e)	<b>v</b>	~	<b>v</b>
PV Input Type	RTD (4-wire		<b>v</b>	_	_
	mV, V		<b>v</b>	~	~
	mA		<b>v</b>	~	~
Number of Analog Inputs	Standard (I	Maximum)	1 (4)	1	1
Number of SPs (PIDs)	Fixed		8	4	—
Number of Control Modes	Maximum		5	1	—
Number of Control Types	Maximum		4	4	
Control Output	Туре	Relay Contact Output, Voltage pulse output, Current output	~	~	_
		ON/OFF	<b>v</b>	<ul> <li>✓</li> </ul>	
	Algorithm	PID (Continuance, Time Proportion)	<b>v</b>	<ul> <li>✓</li> </ul>	_
	Aigonain	Position proportional	~	~	
		Heating / cooling	<b>v</b>	<b>v</b>	_
Number of Analog Outputs	· · · · ·		2 (3)	2	1
Number of Digital Inputs	Standard (I	, ,	8 (9)	3 (8)	2
Number of Program Patterns	Standard (I	Maximum)	30	2 (4)	
Number of Programs Number of Segments per Pattern	Standard (I	Maximum)	300 99	20 (40) 10	_
Number of PV Events	(Per segme	ent)	8	2	_
Number of Time Events	(Per segme	ent)	16	4	_
Number of Alarms	Maximum		8	2	8
Number of Digital Outputs	· · ·		8 (18)	3 (8)	3 (9)
		mmunication (Maximum)	✓ (2)	✓ (1)	✓ (1)
Communication		ommunication	v	<b>v</b>	
	/DeviceNet	1	~	~	_
		ng Function	<b>v</b>	<b>v</b>	<b>v</b>
		outation Output Function	V	—	<ul> <li>✓</li> </ul>
Various Function		Square Root Extraction Function	V	—	✔ *3
	Remote SF		V		~
		pop Power Supply Function	✓ *2	✓ *2	<i>v</i>
Laddan 0 ann		ak Alarm Function	✓ (Standard type)	✓ (Standard type)	
Ladder Sequence Function	· · · · · · · · · · · · · · · · · · ·		✔ (500)	✔ (300)	
	Power Supply	AC100 V to 240 V AC/DC 24 V	<u> </u>	V	V
		AC/DC 24 V vaterproof Level of Front Panel	► NEMA4*1 (IP56)	✓ NEMA4*1 (IP56)	✓ NEMA4*1 (IP56)
	Dust and W	Via Light-loader Communication	NEMA4** (IP56)	NEIVIA4 <sup>™</sup> (IP56)	NEMA4 <sup>™</sup> (IP56)
Other Specifications	Configuration	Via Maintonanco Port	V	· ·	· ·
	Tool	Via RS-485/Ethernet communication	V / V	v / v	V/-
<b>T</b>		of the standard models only		<u> </u>	1

The table above includes specifications of the standard models only.

\* 1: Hose down test only.
\* 2: This function is available when the /L4 or /LC4 option is specified with the detailed code model.
\* 3: Square root extraction available

# product line-up

### Digital Indicating Controller UT55A / UT52A (Standard model)



Ø Ø 94.( 9 Bracket

1–10mm (Panel thickness)

Additional direct input (TC and 3-wire / 4-wire RTD) a additional aux. analog) input, 1 DI to be deleted. (\* 1) 24 V DC loop power supply (\* 2) Heater break alarm (\* 3) Power supply 24 V AC / DC Coating (\* 4)

/DR /LP /HA

 1: When "2" is specified for the Functions code, the /DR option can be specified.
 2: When "-0" or "-1" is specified for the Basic control code, the /LP option can be specified.
 When "0" is specified for the Functions code, the /LP option can be specified.
 "3: When "-0" is specified for the Basic control code, the /HA option can be specified.
 "4: When "-0" is specified for the Basic control code, the /HA option can be specified.
 "4: When "0" is specified for the Basic control code, the /HA option can be specified.
 "3: When "-0" is specified for the Basic control code, the /HA option can be specified.
 "4: When "0" is specified to the UT52A does not conform to the safety standards (UL and CSA) and CE marking. \* 5: English, German, French, and Spanish can be displayed as the guide display

#### Popular Universal I/O and Auto-Tuning Function Available

#### Universal Input

#### Select from TC, RTD, mV / DC voltage and DC current.

(Direct connection : No shunt resistor required)

The input type and range is user selectable via the front panel or by using the LL50A parameter setting software.

0.1% Indication Accuracy

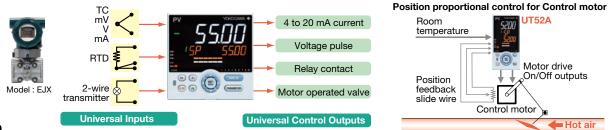
#### Connect up to two 2-wire transmitters simultaneously All instruments have a 15 V Loop Power Supply (15 V LPS) for a transmitter.

	Thermocouple Type	K, J, T, B, S, R, N, E, L, U, W, PL-2, PR20-40, W97Re3-W75Re25
•	RTD Type	Pt100, JPt100
	DC Voltage Input	0.4 to 2V, 1 to 5V, 0 to 2V, 0 to 10V,
		-10 to 20mV, 0 to 100mV
	DC Current Input	4 to 20mA, 0 to 20mA

In addition, a 24 V LPS is also available simultaneously for some instruments as optional function.

Options

Applicable models for 24 V LPS: UT55A, UT52A



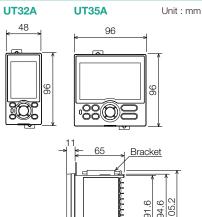
### Digital Indicating Controller UT35A / UT32A (Standard model)

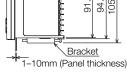


#### Main Features

- 4 target setpoints (PID numbers) available as standard
- 3 alarm independent common terminals available as standard
- Ladder sequence programs can be built Simple operation
- Up to 8 DOs (combinations available)
- Multiple language operation manual (Japanese, English, German, French, Spanish, Chinese, and Korean) available. Please specify the desired language when ordering.

#### **External Dimensions**





Model	Suffix o	ode	Optional suffix code	Description
UT35A				Digital Indicating Controller (provided with retransmission output or 15 V DC loop
UTSSA				power supply, 2 DIs, and 3 DOs) (Power supply: 100-240 V AC)
	-0			Standard type
Basic control	-1			Position proportional type
	-2			Heating / cooling type
	0			None
Functions 1				2 additional DIs and 2 additional DOs
	2			5 additional DIs and 5 additional DOs
	0			None
Open networks				RS-485 communication (Max.38.4 kbps, 2-wire / 4-wire)
				Ethernet communication (with serial gateway function)
Opennetworks	3			CC-Link communication (with Modbus master function)
	4			PROFIBUS-DP communication (with Modbus master function)
3 4 5				DeviceNet communication (with Modbus master function)
		-1		English
Display language	(*1)	-2		German
Display language	( ')	-3		French
		-4		Spanish
Case color		0		White (Light gray)
Case color 1		1		Black (Light charcoal gray)
		-00		Always "-00"
			/LP	24 V DC loop power supply (* 2)
Ontinen			/HA	Heater break alarm (* 3)
Options			/DC	Power supply 24 V AC / DC
			/CT	Coating (* 4)

- 1: English, German, French, and Spanish can be displayed as the guide display.
   2: The /LP option can be specified in combination with function code "0" or "11 and open network code "0" or "1."
   3: The /LA option can be specified when basic control 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	
UT32A				Digital Indicating Controller (provided with retransmission output or 15 V DC loop
	-			power supply, 2 DIs, and 3 DOs) (Power supply: 100-240 V AC)
	-0			Standard type
Basic control	-1			Position proportional type
Functions	-2			Heating / cooling type
0				None
Functions 1				RS-485 communication (Max.38.4 kbps, 2-wire / 4-wire) (* 2)
2				2 additional DIs and 2 additional DOs
Open networks 0			None	
-1 -2		-1		English
				German
Display language	, , ,	-3		French
		-4		Spanish
Case color		0		White (Light gray)
Case color		1		Black (Light charcoal gray)
		-00		Always "-00"
			/LP	24 V DC loop power supply (* 2)
Ontiona			/HA	Heater break alarm (* 3)
Options			/DC	Power supply 24 V AC / DC
			/CT	Coating (* 4)

\*1: English, German, French, and Spanish can be displayed as the guide display.
\*2: The /LP option can be specified in combination with basic control code ".0" or "-1" and function code "0" or "1." Futhermore, when the function code is "1," the RS-465 communication is 2-wire system.

3: The /HA option can be specified when basic control code is "-0" or "-2."
 4: When the /CT option is specified, the UT32A does not conform to the safety standards (UL and CSA) and CE marking

### Sold separately (Accessory)

Model Name	Model	Note			
Tampiaal Cause	UTAP001	For UT55A/UT35A/UP55A/UP35A			
Terminal Cover	UTAP002	For UT52A/UT32A/UM33A			
User's Manual (CD-ROM)	UTAP003				

#### Universal Output

#### User selectable for Relay, Voltage Pulse and Current outputs.

- Relay output: ON/OFF control, Time-proportional PID control
- Voltage Pulse output: Time-proportional PID control
- Current output: Continuous PID control

Heating/Cooling Control has two sets of universal outputs.

• Any combinations of Relay, Pulse and Current outputs are available.

Drive a Motorized Control Valve by using Position-Proportional PID.

• The position-proportional PID control function has two sets of relay outputs for direct / reverse rotation of motorized control valve.

• The slide wire input to feed back the valve position is also available.

#### Auto-Tuning (AT) Function

The following conditions can be set in order to increase the accuracy of calculating PID constants using AT .

- 1) Two types of algorithms to calculate PID constants are available for selection. Normal: Fast-rising PID constant
  - Stable: Slow-rising PID constant
- 2) High and low output limits can be set individually for control output values during AT runtime.

# p roduct line-up

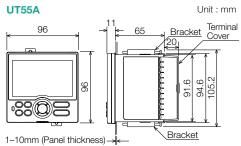
### **Program Controller UP55A (Standard model)**



#### Main Features

- Up to 30 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)
- Multiple language operation manual (Japanese, English, German, French, Spanish, Chinese, and Korean) available. Please specify the desired language when ordering.

#### **External Dimensions**



Model	Su	ffix o	code	Optional suffix code	Description
UP55A					Program Controller (provided with retransmission output or 15 V DC loop power supply, 8 DIs, and 8 DOs) (Power supply: 100-240 V AC 30 program patterns / 300 program segments (Max. 99 segments per pattern)
	-0	-			Standard type
Basic control -1					Position proportional type
	-2				Heating/cooling type
0					None
Functions (*1)		-			Remote (1 additional aux. analog) input, 1 additional DI
					RS-485 communication (Max.19.2 kpbs, 2-wire/4-wire)
					10 additional DOs
4					3 additional aux. analog inputs, 2 DIs and 5 DOs to be deleted
0				None	
		1			RS-485 communication (Max.38.4 kbps, 2-wire/4-wire)
		2			Ethernet communication (with serial gateway function)
Open networks		3			CC-Link communication (with Modbus master function)
		4			PROFIBUS-DP communication (with Modbus master function)
		5			DeviceNet communication (with Modbus master function)
		-	-1		English
Diamlay Janaysan	a (*0)		-2		German
Display languag	e (2)		-3		French
			-4		Spanish
Case color			0		White (Light gray)
Case color			1		Black (Light charcoal gray)
Fixed code			-00		Always "-00"
				/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)
Optional suffix o	odes			/HA	Heater break alarm (*4)
-				/DC	Power supply 24 V AC/DC
				/CT	Coating (*5)

\* 1: When "3" is specified for the Function code, only "0" can be specified for the \* 2: English, German, French, and Spanish can be displayed as the guide display.

\* 3: When any of "1" or "4" is specified for the Function code, the /DR option can be specified.
 \* 4: When "-0" is specified for the Basic control code, the /HA option can be specified.

\* 5: When the /CT option is specified, the UP55A does not conform to the safety standards (UL and CSA) and CE marking.

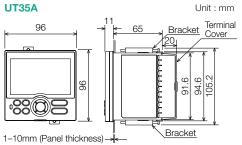
### **Program Controller UP35A** (Standard model)



#### 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) Multiple language operation manual (Japanese, English, German, French,
- Spanish, Chinese, and Korean) available. Please specify the desired language when ordering.

#### **External Dimensions**



#### Model and Suffix Codes

Model		Suff	ix c	ode	Optional suffix code	Description
UP35A						Program Controller (provided with retransmission output or 15 V DC loop power supply, 3 DIs, and 3 DOs) (Power supply: 100-240 V AC) 2 program patterns/20 program segments (Max. 20 segments per pattern)
-0						Standard type
Basic control	-1					Position proportional type
	-2					Heating/cooling type
Functions 0		0				None
		1				5 additional DIs, 5 additional DOs
			0			None
			1			RS-485 communication (Max.38.4 kbps, 2-wire/4-wire)
Open networks	Opon notworks		2			Ethernet communication (with serial gateway function)
Opennetworks		3			CC-Link communication (with Modbus master function)	
		4			PROFIBUS-DP communication (with Modbus master function)	
		5			DeviceNet communication (with Modbus master function)	
				-1		English
Display language	(*1)			-2		German
Display language	( )			-3		French
				-4		Spanish
Case color				0		White (Light gray)
0436 00101				1		Black (Light charcoal gray)
Fixed code				-00	0	Always "-00"
					/AP	2 additional patterns/20 additional segments
Optional suffix co	doo				/HA	Heater break alarm (*2)
	Jues	•			/DC	Power supply 24 V AC/DC
					/CT	Coating (*3)

1: English, German, French, and Spanish can be displayed as the guide display \* 2: The /HA option can be specified when the Basic control 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.

### **Digital Indicator with Alarms UM33A** (Standard model)



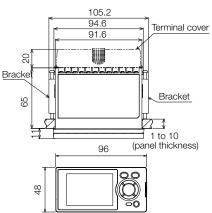
Unit : mm

#### 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
- Multiple language operation manual
- (Japanese, English, German, French, Spanish, Chinese, and Korean) available. Please specify the desired language when ordering.

#### **External Dimensions**

#### **UM33A**



#### Model and Suffix Codes Model Suffix code Optional uffix cod Description Digital Indicator with Alarms (provided with retransmission output UM33A or 15 V DC loop power supply, 2 DIs, and 3 DOs) (Power supply: 100-240 V AC) Basic control -0 Standard type None 1 additional DO (c-contact relay), RS-485 communication (Max. 38.4 1 kbps, 2-wire/4-wire) Functions 2 1 additional DO (c-contact relay) 6 additional DOs (c-contact relay; 1 point and open collector; 5 3 points) Open networks 0 None English -2 German Display language (\*1) -3 French Spanish White (Light gray) 0 Case color Black (Light charcoal gray) /LP 24 V DC loop power supply (\*2) Optional suffix codes Power supply 24 V AC/DC

/CT Coating (\*3)

\* 1: English, German, French, and Spanish can be displayed as the guide display.
 \* 2: The /LP option can be specified only when the code for Function is "0", "1" or "2" Additionally, the RS-485 communication for "1" of the Function code is 2-wire system.

\* 3: When the /CT option is specified, the UM33A does not conform to the safety standards (UL and CSA) and CE marking.

#### **Other Convenient Functions Available**

#### Parameter Setting

LL50A Parameter Setting Software (sold separately) allows for easily setting parameters.





#### Quick Setting Function

Minimum parameters necessary for operation can be set.

#### Security Function

The password function can prevent inadvertent changes to the parameter settings. If a password is set, the password is required when moving to the Setup Parameter Setting Display. When the password is verified, can be changed to the Setup Parameter Setting Display.

#### Message Function

Using the message function and turning the contact input on/ off, the message registered beforehand can be displayed on PV display by interrupt.

The message is registered using LL50A Parameter Setting Software. The messages are limited to 20 alphanumeric characters. A maximum of four messages can be registered.



**Operation Display** 



#### CLOSE VALVE

When the contact input is turned on, the scrolling message registered beforehand is displayed on PV Display.



# The detailed code model allows you to customize specifications best suited to you.

**Detailed model code** 

- Control output individual selection - Option selection
- Standard specifications One Universal input
- - Three digital inputs/outputs (Alarms) \* Note 1



Note 1: UT35A, UT32A: 2 points

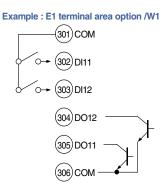
### Additional Functions

#### Triac output can be selected in Control Output: -T / - T

ITE	M	Specification		
Contact type		zero-cross		
Contact	Load voltage	75 to 250 V		
Contact capacity	Allowable	0.8 A (at an ambient temperature of 25°C)		
сарасну	load current	0.3 A (at an ambient temperature of 50°C)		
Applic	cation	Time proportional control output		
Time res	olution of	1/commercial frequency (sec)		
control	output	or 0.1% of the output value, whichever greater		

#### 2 DIs and 2 DOs combination specs can be selected: /W

The electrical specifications are the same as DI/DO incorporated in the standard model, except for the terminal arrangement.



### Terminal Positions when Additional Functions are Added

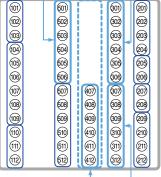
The positions of extended terminal areas E1 to E4 are shown below.

Please note that although the additional Functions are the same, the mount positions are different.

Example: When 5 DIs are added in the UT55A, the positions of the terminals to be mounted are different between /X1 (E1 area) and /X2 (E2 area) as shown below.

Terminal arrangement of UT55A/UT35A/UP55A/UP35A

E4 terminal area E1 terminal area



#### Terminal arrangement of **UT52A/UT32A** E1 terminal area

1	301	1
102	302	@2
103	- 303	<b>@</b> 3
104	304)	<b>6</b>
105	305	<b>100</b>
106	306	206
107	1	1
108	308	<b>208</b>
109	<b>309</b>	@
(110)	310	210
(11)	311	211
(112)	312	212

E3 terminal area

-E2 terminal area (UT55A/UP55A only)

#### General option Model and Suffix code Output1 Output2 UT55A-NNN-|

Model	Suffix code	Optional suffix code					(		
UT55A			Digital Indicating Controller (provided with 3 DIs and 3 DOs) (Power supply 100-240 V AC)			(B) (B)	Comments		
Fix	- <u>N N N</u>		Always "-NNN"						
	-1		English		ay languag	e ———			
Display languag	-2		German	Select	one type.				
Display language	-3		French						
	-4		Spanish						
Case color	0		White (Light gray)		color —				1
Case color	1		Black (Light charcoal gray)	Select	one type.				
	-A		Analog output (current/pulse)	Outpu	ut1				
Control output 1			Relay output (form C)	Select	one type.				
(Heating-side, P	osition -U		Universal output (current/pulse/relay)						
proportional) (* 1	1) -T		Triac output						
	-P		Position proportional output						
A			Analog output (current/pulse)	Outpu	ut2				
Control output ?	R		Relay output (form C)			eating/co	oling cont	rol	
Control output 2 Cooling-side) (* 1)			Universal output (current/pulse/relay)		When you perform heating/cooling control, select one type. If you select -P in Output 1,				
(Cooling-side) (	") T		Triac output	specify		Ju Sciect	i in Outp	ut i,	
	N		None	_ ' '	·				
General option		/DC	Power supply 24 V AC/DC	Gene	ral option-				
		/CT	Coating (* 3)	Select	any options y	ou			
		/HA	Heater break alarm	need.					
		/RT Retransion output or 15 V DC loop power supply							
E1 terminal area option (* 2)		/R1	Remote (1 additional aux. analog) input and 1 additional DI	Exten	nsion option	a1 —			
		/U1	1 additional universal input (TC/RTD/DCV/mA)		Select one type.				
		/X1	5 additional DIs	Select					
		/Y1	5 additional DOs						
		/W1	2 additional DIs and 2 additional DOs						
		/A2	1 additional aux. analog input and 1 additional DI	Exten	nsion option	12			
E2 terminal area option (* 2)		/X2	5 additional DIs		one type.				
		/Y2	5 additional DOs	00.000	one type:				
		/W2	2 additional DIs and 2 additional DOs						
	/11 //// //22 minal area option (* 2) //22 ///22 ///22 ///22		RS-485 communicaiton (Max.38.4 kbps, 2-wire/4-wire)	Exten	nsion option	n3———			
			CC-Link communication (with Modbus master function)		one type.				
		/PD3	PROFIBUS-DP communication (with Modbus master function)	Ocicci	one type.				
E3 terminal area	(* 2)	/DN3	DeviceNet communication (with Modbus master function)						
		/ET3	Ethernet communication (with serial gateway function)						
		/X3	5 additional DIs						
		/Y3	5 additional DOs						
		/W3	2 additional DIs and 2 additional DOs						
		/A4	1 additional aux. analog input and 1 additional DI	Exten	nsion option	14	-		
		/C4	RS-485 communicaiton (Max.19.2 kbps, 2-wire/4-wire)	Select	one type.				
		/L4	24 V DC loop power supply						
E4 terminal area option (* 2,4)		/AC4	1 additional aux. analog input, 1 additional DI, and RS-485 communicaiton (Max.19.2 kbps, 2-wire)						
	(2,4)		24 V DC loop power supply and RS-485 communication (Max.19.2 kbps, 2-wire)						
		/X4	5 additional DIs						
		/Y4	5 additional DOs						
		/W4	2 additional DIs and 2 additional DOs						

/W4 2 additional DIs and 2 additional DOs \*1) For heating /cooling output, specify both Output1 and Output2.Not available when Output2 is "N": For Position proportional output, specify "P" for Output1 and "N" for Output2. The /HA option can be selected from each of E1 to E4 terminal area option.
 \*2) One option can be selected from each of E1 to E4 terminal area options.
 \*3) When the /CT option is specified, the UT55A does not conform to the safety standards (UL and CSA) and CE marking.
 \*3) When the /CT option is specified, the UT55A does not conform to the safety standards (UL and CSA) and CE marking.
 \*4) The ?L4 4 terminal area option can be specified when E3 terminal area option is "Not select", "CH3, "K3," "N3," or "M3".

### Detailed code model

**Detailed code model** 

5500

Model and S	uffix and			<b>.</b>	Q 1 10		General op	tion		xtension			PV VOID		
<b>UT52</b>		Language	Case color			_/	_/	_/[		ption1			521 ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	10 00	
Model	Suffix code	Optional suffix code					cription								
UT52A					oller (provided	with 3 DIs	and 3 DOs) (	Power supp	ly 100-240	0 V AC)	_				<b>—</b>
Fix	-N N N		NNN "-NNN	V											
Display langua	-1 -2	0	nglish German									Display language - Select one type.			
	-3		rench								_				
	-4		Spanish									Case color			
Case color	1		Vhite (Light g Black (Light c								- 1	Select one type.			
	-A		Analog output									Output1			
Control output			Relay output (		Juisej										
(Heating-side, I					t/pulse/relay)						-	Select one type.			
proportional) (*			riac output	Jui (cuirein	/puise/relay)						- 1				
proportional) (	-P		Position prop	ortional out	tout										
	A		Analog output									Output2			
Control output			Relav output (										na/aaalina aa	stral calest	<u>، النام</u>
(Cooling-side) (			Universal output (current/pulse/relay)					When you perform heating/cooling control, select one type. If you select -P in Output 1, specify N.							
() (	N		Vone									one type. If you select -	In Output 1,	specity N.	
		/DC F	Power supply	24 V AC/D	oc							General option —			
		/CT C	Coating (* 3)											<b>—</b>	T
General option		/HA ⊦							Select any options you						
		/RT F	Retransmissio	on output o	or 15 V DC loo	op power s	upply					need.			
					x. analog) inpu		dditional DI								
		/ <b>U1</b> 1	additional u	niversal inp	put (TC/RTD/E	DCV/mA)						Extension option1			
E1 terminal area option (* 2, 5)			4 V DC loop									Select one type.			
					(Max.38.4kbp										
			Max.38.4kbp	s, 2-wire)	x. analog) inpu	-				on					
					oply and RS-4	185 commu	unication (Ma	<.38.4kbps,	2-wire)						
			additional D												
			additional D												
					dditional DOs										
* 1) For heating (coo	ling output, specify both Output	t1 and Output	it? Not availab	la when Out	tout2 is "N" Fo	r Position n	roportional outr	out enacify "F	P" for Outpu	ut1 and "N" for					

\* 1) For heating /cooling output, specify both Output1 and Output2.Not available when Output2 is "N". For Position proportional output, specify "P" for Output1 and "N" for Output2. The /HA option can be specified when the code of Output1 and Output2 is "AN", "-RN", "-UN" or "-TN".
\* 2) One option can be specified from E1 terminal area option.
\* 3) When the /CT option is specified, the UTS2A does not conform to the safety standards (UL and CSA) and CE marking.
\* 4) When Output1 is "R", "c, "onlard point ic is changed to contact point A when Output2 is "R" or "U". When Output1 is "T," only "A " or "N" can be specified for Output2.
\* 5) The "/L1" and "/LCH1" can be specified when Output2 is "N".

# *C*ustomize

#### **Detailed code model**

#### General option Model and Suffix code Language Case color Output1 Output2 UT35A-NNN-

35.0

Model	Suf	fix code		Optional suffix code				
UT35A					Digital Indicating Controller (provided with 2 DIs and 3 DOs) (Power supply 100-240 V AC)			
Fix	-N N N				Always "-NNN"			
	-1				English		Display language	
	-2				German		Select one type.	
Display languag	le <u>-3</u>				French			
	-4	_			Spanish			
Case color		0			White (Light gray)		Case color	
Case color		1			Black (Light charcoal gray)	_	Select one type.	
		-A			Analog output (current/pulse)		Output1	
Control output <sup>-</sup>	1	-R			Relay output (form C)		Select one type.	
(Heating-side, F	osition	-U			Universal output (current/pulse/relay)			
proportional) (*		) -Т			Triac output			
•••		-P			Position proportional output			
			Α		Analog output (current/pulse)		Output2	
Control output 2	2		R		Relay output (form A)		When you perform heating/cooling control, select	
(Cooling-side) (*	1.2.4 an	id 5)	U		Universal output (current/pulse/relay)		one type. If you select -P in Output 1, specify N.	
(	, , .	,	N		None		one type. If you select of in Output 1, specify N.	
				/DC	Power supply 24 V AC/DC		General option	
Consul antion			[	/CT	Coating (* 3)		Select any options you	
General option			[	/HA	Heater break alarm (* 4)		need.	
			[	/RT	Retransmission output or 15 V DC loop power supply (* 5)		need.	
				/X1	5 additional DIs		Extension option1	
E1 terminal area	a option (*	6)	- 1	/Y1	5 additional DOs			
	• •	,	- 1	/W1	2 additional DIs and 2 additional DOs		Select one type.	
				/CH3	RS-485 communicaiton (Max.38.4 kbps, 2-wire/4-wire)			
				/CC3	CC-Link communication (with Modbus master function)			
E3 terminal area	a option (*	6 and 7	) [	/PD3	PROFIBUS-DP communication (with Modbus master function)		Extension option3	
		/DN3	DeviceNet communication (with Modbus master function)		Select one type.			
			/ET3	Ethernet communication (with serial gateway function)				
			24 V DC loop power supply	=				
					5 additional DIs		Extension option4	
E4 terminal area	a option (*	6 and 7			5 additional DOs		Select one type.	
			/W4 2 additional DIs and 2 additional DOs		Coloci ono type.			

\*1) For heating /cooling output, both Output 1 and Output 2 should be specified. Not available when Output 2 is "N".
For position proportional output, specify "P" for Output 1 and "N" for Output 2.
\*2) When the code for Output 1 is specified to \*1", only \*4 or "U". Output 1 is changed from the contact point c to the contact point a. When the code for Output 1 is specified to \*1", only \*4 or "U". Output 1 is changed from the contact point c to the contact point a.
\*3) When the C/T option is specified, the UT35A does not conform to the safety standards (UL and CSA) and CE marking.
\*4) The /HA option can be specified in the combination of Output 1 as "Utput 12".
\*5) The /RT option can be specified only when the code for Output 2 is "R" or "N".
\*6) Only one option is available for each terminal area of E1. E3 and E4.
\*7) The /L4 option for E4 terminal area can be specified only when the E3 terminal area option is not specified or specified /CH3.

#### **Detailed code model**

3200

#### Model and Suffix code Language Case color Output1 Output2 UT32A-NNN-

Model	IVIODEI SUTTIX CODE suffix		Optional suffix code								
UT32A					Digital Indicating Controller (provided with 2 DIs and 3 DOs) (Power supply 100-240 V AC)	_					
Fix	-N N N				Always "-NNN"		Dianlay language				
		-1			English	_	Display language				
Display languag	ne	-2			German	_	Select one type.				
	5-	-3			French	_					
		-4			Spanish						
Case color		0			White (Light gray)		Case color				
		1	1.		Black (Light charcoal gray)		Select one type.				
			-A		Analog output (current/pulse)		_ Output1				
Control output			-R		Relay output (form C)		Select one type.				
(Heating-side, F			-U		Universal output (current/pulse/relay)	_					
proportional) (*	1, 2 and	d 4)	-T		Triac output						
			-P		Position proportional output						
			Α		Analog output (current/pulse)		Output2				
Control output			R		Relay output (form A)		When you perform heating/cooling control, select				
(Cooling-side) (	* 1, 2, 4	and 5)	U		Universal output (current/pulse/relay)		one type. If you select -P in Output 1, specify N.				
			N		None						
				/DC	Power supply 24 V AC/DC						
General option			/CT		Coating (* 3)		Select any options you				
				/HA	Heater break alarm (* 4)						
1				/RT	Retransmission output or 15 V DC loop power supply (* 5)		need.				
				/L1	24 V DC loop power supply		┨ <u>╸</u> ╷╴╷╴╷ <mark>└──┴──┴──┘</mark>				
				/CH1	RS-485 communicaiton (Max.38.4kbps, 2-wire/4-wire)		Extension option1				
			/LCH1	24 V DC loop power supply and RS-485 communication (Max.38.4kbps, 2-wire)		Select one type.					
E1 terminal area	a optior	ר ("וט")		/X1	5 additional DIs						
				/Y1	5 additional DOs						
				/W1	2 additional DIs and 2 additional DOs						

(W1 | 2 additional Dis and 2 additional Dos
 \*1) For heating /cooling output, both Output 1 and Output 2 should be specified. Not available when Output 2 is "N". For position proportional output, specify "-P" for Output 1 and "N" for Output 2.
 \*2) When the code tor Output 1 is "+P" for Output 2 is "R" or "U". Output 1 is changed from the contact point c to the contact point a. When the code tor Output 1 is specified to "T," only "A" or "N" is available for Output 2.
 \*3) When the C/T option is specified in the UT32A does not conform to the safety standards (UL and CSA) and CE marking.
 \*4) The /HA option can be specified in the code for Output 2 is "R" or "N".
 \*6) Only one option is specified only when the code for Output 2 is "R" or "N".
 \*6) Only one option is specified only when the code for Output 2 is "R" or "N".

Model       Suffix code       Select one type.         Pissa       In N N       In Select one type.         Display language (1)       In Certain       In Certain         Image: International control of growded with 3 Dia and 3 Dia growden according to the select one type.       International control of growded with 3 Dia and 3 Dia growden according to the select one type.         Display language (1)       International control of growded with 3 Dia and 3 Dia growden according to the select one type.       Display language (1)         Case color       International control of growded with 3 Dia and 3 Dia growden according to the select one type.       Display language (1)         Case color       International control of growded with 3 Dia and 3 Dia growden according to the select one type.       Display language (1)         Case color       International control of growded with 3 Dia and 3 Dia growden according to the select one type.       Display language (1)         Control Output 1 (2 and 3)       International control or the select one type.       Display language (1)         Model       International control or the select one type.       Display language (1)         General option       International control or the select one type.       Display language (1)         Model       International control or the select one type.       Display language (1)         International control or the select one type.       Dinternational control or the select one type.<	Model and S	uffix code		Langua	ge Case color Output1 Output2 General option Extension Extension Extension option option option	sion Extension Extension				
Note         Sum of the set of the			IN ·			1 1 5500 1 035P 5500				
UP55A         Image: Control of the program Control (Max: 82 Storp (Max: 82 Sto	Model	Suffix ood			Description					
Fix     HNN     Awags "-NNY"       Display language (*1)     1     -     Genighh.       Display language (*1)     2     -     Genighh.       Case color     0     -     Select one type.       Case color     0     -     Select one type.       Case color     0     -     Select one type.       Control Output 1 (*2 ard 3)     A.     A ratio coptic four environment on the color of the contract in the color of the co	WIDdei		-	suffix code						
Fix     HNN     Awags "-NNY"       Display language (*1)     1     -     Genighh.       Display language (*1)     2     -     Genighh.       Case color     0     -     Select one type.       Case color     0     -     Select one type.       Case color     0     -     Select one type.       Control Output 1 (*2 ard 3)     A.     A ratio coptic four environment on the color of the contract in the color of the co	UP55A				Program Controller (provided with 3 Dis, and 3 DOs) (Power supply: 100-240 V AC)					
Image:	Fix	-N N N								
Display language (11)     2     German       Select of the type.     Select of the type.       Case color     0     White (Light earcoal gray)       Control Output 1 (*2 and 3)     A       A     A field output (contraining pulse)       Control Output 2 (*2 and 3)     A       A     A field output (contraining pulse)       Control Output 2 (*2 and 3)     A       A     A field output (contraining pulse)       Control Output 2 (*2 and 3)     A       Base (Light Contraining pulse)     B       Control Output 2 (*2 and 3)     A       Control Output 2 (*2 and 3)     A       Beersal output (contraining pulse)     B       Control Output 2 (*2 and 3)     B       A     A field output (contraining pulse)       Beersal output (contraining pulse)     B       Control Output 2 (*2 and 3)     B       Control Output 3 (*2 contraining pulse)     B       Control Output 4 (*2 contraining pulse)     B       Control Output 5 (*2 Contraining pulse)     B       Control Output 1 (*2 contraining pulse)     B       Control Output 2 (*2 and 3)     B       Control Output 3 (*2 Contraining pulse)     B       Control Output 4 (*2 contraining pulse)     B       Control Output 5 (*2 Contraining pulse)     B       Contrai		-1				Display language				
Case color     Search       Case color     1     Back Light charced any       Control Output 1 (*2 and 3)     A     A hadig output (control)       A     A hadig output (control)     Select one type.       Control Output 1 (*2 and 3)     A     A hadig output (control)       B     Relay output (-contrach)     Select one type.       Control Output 2 (*2 and 3)     A     A hadig output (contrach)       B     Relay output (-contrach)     When you perform heating/cooling control, select one type.       Control Output 2 (*2 and 3)     B     Relay output (-contrach)       B     Relay output (-contrach)     When you perform heating/cooling control, select one type.       General option     Control Output 2 (*2 and 3)     U     Universal output (-contrach)       B     Relay output (-contrach)     Select ane type.     When you perform heating/cooling control, select one type.       General option     R     Relay output (-contrach)     Select ane type.       Cot Coding     Mark     Heaternamission output or 15 V DC power supply     Select ane type.       Fit     Remote (1 additional aux, analog input and 1 additional D     Select one type.       Cit     Control Output 2 (*2 and 3)     Katernamission output or 15 V DC power supply     Extension option1       E1 terminal area option (* 4)     Kit     Select one type.     <	<b>_</b>	-2				Select one type.				
Case color     O     White (upin tray)       Case color     Select one type.       Control Output 1 (*2 and 3)     A     Analog output (current/voltage pulse/relay)       Control Output 2 (*2 and 3)     A     Analog output (current/voltage pulse/relay)       Control Output 2 (*2 and 3)     A     Analog output (current/voltage pulse/relay)       Control Output 2 (*2 and 3)     A     Analog output (current/voltage pulse/relay)       Control Output 2 (*2 and 3)     A     Analog output (current/voltage pulse/relay)       Control Output 2 (*2 and 3)     A     Analog output (current/voltage pulse/relay)       M     P     Position proportional output       Mone     Mone     B       General option     Trac output       MO     Mone       Mone     Mone       Miter Stark alarm     Bendet (1 additional Do       Miter Stark alarm     Bendet (1 additional Do       Miter Stark alarm     Mone       Miter Stark alarm     Bendet (1 additional Do       Miter Stark alarm     Bendet (1 additional aux, analog input and 1 additional D       Miter Stark alarm     Bendet (1 additional aux, analog input and 1 additional D       Miter Stark alarm     Miter Stark alarm       Miter Stark alarm     Bendet (1 additional Do       Miter Stark alarm     Miter Stark alarm       Mi	Display languag	ge (^1) -3			French					
Case color     Image: Case color     Image: Case color     Image: Case color     Image: Case color     Select one type.       Control Output 1 (*2 and 3)     A     A ratego output (corrent/votage pulse/relay)     Output 1       P     Position proportional output     Select one type.       Control Output 2 (*2 and 3)     A     A ratego output (corrent/votage pulse/relay)     Output 1       Control Output 2 (*2 and 3)     A     A ratego output (corrent/votage pulse/relay)     Select one type.       Control Output 2 (*2 and 3)     A     A ratego output (corrent/votage pulse/relay)     Select one type.       Control Output 2 (*2 and 3)     A     A ratego output (corrent/votage pulse/relay)     Select one type.       Control Output 2 (*2 and 3)     A     A ratego output (corrent/votage pulse/relay)     Select one type.       General option     (*C)     Control A rate output     Select one type.       (*C)     Control A rate output     Select one type.     Select one type.       (*C)     Power supply 24 VAC/DC     General option     Select one type.       (*C)     Control A rate output and 1 additional D     Select one type.     Select one type.       E1 terminal area option (* 4)     A     A additional De and 2 additional De     Select one type.       (*A)     2 additional De and 2 additional De     Select one type.     Select one type. <td></td> <td>-4</td> <td></td> <td></td> <td>Spanish</td> <td></td>		-4			Spanish					
L     Bask (Light Charlos gray)     Select one type.       Control Output 1 (*2 and 3)     A     Analog output (control/output dag pulse)       Control Output 1 (*2 and 3)     A     Analog output (control/output dag pulse)       A     Analog output (control/output dag pulse)     A       A     Analog output (control/output dag pulse)     A       A     Analog output (control/output dag pulse)     A       A     Analog output (control/output durent/voltage pulse)     A       B     Responder (control durent voltage pulse)     A       A     Analog output (control/output durent/voltage pulse)     A       B     Responder (control durent voltage pulse)     A       B     Responder (control durent voltage pulse)     A       A     Analog output (control/output durent/voltage pulse)     A       Control Output 2 (*2 and 3)     DC     Control Control       A     A     A     A       B     Restroncontoutp	Case color	0								
Control Output 1 ('2 and 3)       R Belay output (co-contact)       Select one type.         Control Output 1 ('2 and 3)       A Analog output (current/voltage pulse/relay)       Output 2         A       Analog output (current/voltage pulse/relay)       Output 2         Control Output 2 ('2 and 3)       A Analog output (current/voltage pulse/relay)       Output 2         R       Aelay output (cornet/voltage pulse/relay)       Select one type.         T       Trine output       Select one type.         None       Select one type.       When you perform heating/cooling control, select one type.         General option       T       Trine output       Select one type.         M       None       Select one type.       Select one type.         B       Remote (t additional aux, analog input and 1 additional D       Select one type.       Select one type.         FT       Trine output (TCPTD/DCV/mA)       Select one type.       Select one type.         E1 terminal area option (* 4)       At additional Dis       Select one type.       Select one type.         FT       additional Dis       Select one type.       Select one type.         F2 terminal area option (* 4)       At additional DOs       Select one type.       Select one type.         F2 terminal area option (* 4 and 5)       GCG 2       CC-Lik comm	Case color	1			Black (Light charcoal gray)					
Control Output 1 (*2 and 3)       U       U       Universal output (current/voltage pulse/relax)         T       Triac output       Position proportional output       Output 2         Control Output 2 (*2 and 3)       A       A enalog output (current/voltage pulse/relax)       When you perform heating/cooling control, select one type. If you select -P in Output 1, select one type. If you select -P in Output 1, select one type. If you select -P in Output 1, select and option         General option       //C       Power supply 24 V AC/DC       General option         M       None       //D       Power supply 24 V AC/DC       General option         M       Hater break alam       Rit Retransition output of 15 VDC power supply       General option         M       None       //HA       Heater break alam       General option         R1       Retransition output of 15 VDC power supply       General option       General option         K1       Sadditional DS       ////////////////////////////////////						Output1				
T       Triac output         P       Position proportional output.         A       Analog output (current/voltage pulse)         R       Relax output (current/voltage pulse)         R       Melay output (current/voltage pulse)         N       None       General option         HA       Heater break alarm       General option         HA       Heater break alarm       General option         HA       Heater break alarm       General option       Extension option1         HA       Bernote (t additional universal input (TC/RTD/DCV/mA)       Extension option1         K1       S additional Dos       Extension option2         K1       S additional Dos       Select one type.       Select one type.         K2       I additional aux, analog input and 1 additional Di       Extension option2       Select one type.         K2       Sadditional Dos       Mina Select one type.       Select one type.       Select one type.         K1       S additional Dos       Mina Select one type.       Select one type.       S						Select one type.				
P       P       Periodic proportional output         A Analog output (current/voltage pulse)       Analog output (current/voltage pulse)       When you perform heating/cooling control, select one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type. If you select -P in Output 1, gelect one type.         General option       /DC Over supply 24 VAC/DC       General option       General option P is output 1, gelect one type.       Fettersion option 1         E1 terminal area option (* 4)       /U 1 additional Dos       /// 1 additional Dos       Fettersion option 2       Fettersion option 2         E2 terminal area option (* 4)       // 2 5 additional Dos       // 2 5 additional Dos       Fettersion option 3       Select one type.         E3 terminal area option (* 4 and 5)       // 2 Hord Hord Select onomunication (with Modbus master function)       Fettersion option 4       Select one type.         E4 terminal area option (* 4 and 5)       // 4 additional Dos <td>Control Output</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Control Output									
A       A analog output (current/voltage pulse)         Control Output 2 (*2 and 3)       Belay output (current/voltage pulse/relay)         T       U         T       Trice output         M       None         General option       P         AT       Heater output of control, specify N.         General option       P         AT       Heater break dam         F1       Heater break dam         F1       Heater break dam         F1       Heater break dam         F2       Henter f1 additional aux, analog input and 1 additional DI         F1       Heater break dam         F2       terminal area option (* 4)       F1         F2       terminal area option (* 4)       F1         F2       terminal area option (* 4)       F3         F3       additional Dos       F4         F2       terminal area option (* 4)       F3         F3       additional Dos       F4         F4       additional Dos       F4         F4       additional Dos       F4         F4       additional Dos       F4         F4       additional Dos       F4         F2       additional Dos       F4						_				
Control Output 2 (*2 and 3)       R       Relevantput (c-contact)         When you perform heating/cooling control, select and toptal (current/voltage pulse/relay)       Select any options you need.         More       ////       Control Output of 15 V DC power supply         General option       ////       Retransition of Upt of 15 V DC power supply         R1       Retransition of Upt of 15 V DC power supply       Retransition of Upt of 15 V DC power supply         R1       Retransition of Upt of 15 V DC power supply       Retransition of Upt of 15 V DC power supply         R1       Retransition of Upt of 15 V DC power supply       Retransition of Upt of 15 V DC power supply         R1       Retransition of Upt of 15 V DC power supply       Retransition of Upt of 15 V DC power supply         R1       Retransition of Upt of 15 V DC power supply       Retransition of Upt of 15 V DC power supply         R1       Retransition of Upt of 15 V DC power supply       Retransition of Upt of 15 V DC power supply         R2       sadditional Dis and 2 additional Dis		-								
Control Output 2 (*2 and 3)       U       Universal output (current/voltage pulse/relay)       select one type. If you select -P in Output 1, select P in Output 1, is outpu			A							
T     Triac output     Triac output     Select one type.       M     None       General option     //C     Power supply 24 VAC/DC       //T     Coating       //T     Sadditional Dos       //T     Sadditional Dos       //T     Sadditional Dos       //Y     Sadditional Dos       //Y </td <td></td> <td>0 (*0</td> <td>R</td> <td></td> <td></td> <td></td>		0 (*0	R							
None     Spectry N.       General option     //CC     Power supply 24 VAC/DC       //A     Heater break alarm     General option       //R1     Retransision output or 15 VDC power supply     Select any options you need.       //R1     Retraining area option (* 4)     //R1     Raditional universal input (TC/RTD/DC/mA)       //R1     Sadditional universal input (TC/RTD/DC/mA)     //R1     Select any options you need.       //R1     Raditional universal input (TC/RTD/DC/mA)     //R1     //R1       //R1     Sadditional Universal input (TC/RTD/DC/mA)     //R1       //R1     Sadditional Dis     //R1       //R1     Sadditional Dos     //R1       //R1     Sadditional Dos     //R1       //R1     Sadditional Dos     //R1       //R2     Sadditional Dos     //R2       //R2     Sadditional Dos     //R2       //R2     Sadditional Dos     //R2       //R2     Sadditional Dos     //R2       //R3     Sadditional Dos     //R2       //R3     Sadditional Dos     //R2       //R3     Sadditional Dos     //R2       //R3     Sadditional Dos     //R2       //R4     I additional Dos     //R2       //R4     Sadditional Dos     //R2       //R	Control Output	2 ( 2 and 3)	U T							
IDC         Power supply 24 V AC/DC           General option         IDC         Coating         General option           IdE         Coating         Select any options you need.         Select any options you need.           IdE         Remove (1 additional aux. analog) input and 1 additional DI         Extension option1         Select any options you need.           IdE1         terminal area option (* 4)         If Alditional dux. analog input and 1 additional DIS         Extension option2           IdE2         terminal area option (* 4)         If Alditonal DIS and 2 additional DOS         Extension option2           IdE3         terminal area option (* 4)         If Alditonal DIS and 2 additional DOS         Extension option3           IdE3         terminal area option (* 4 and 5)         If Alditonal DIS and 2 additional DOS         Extension option3           IdE3         terminal area option (* 4 and 5)         If Alditional DIS and 2 additional DOS         Extension option3           IdE3         terminal area option (* 4 and 5)         If Alditional DIS and 2 additional DOS         Extension option3           IdE3         terminal area option (* 4 and 5)         If Alditional DIS and 2 additional DOS         Extension option4           IdE3         terminal area option (* 4 and 5)         If Alditional DIS and 2 additional DOS         Extension option4           IdE4			I			specify N.				
General option       ICT       Coating       Select any options you need.         HA       Heater break alarm       need.       need.         Iterminal area option (* 4)       RT       Retransmission output or 15 V DC power supply       Extension option1         E1 terminal area option (* 4)       X1       1 additional universal input (TC/RTD/DCV/mA)       Extension option2         K1       5 additional D0s       M1       2 additional D0s       Extension option2         K1       2 additional D0s       M1       2 additional D0s       Extension option2         K2       1 additional aux, analog input and 1 additional D1       Extension option2       Extension option2         K2       5 additional D0s       Extension option3       Extension option3         K2       5 additional D0s       Extension option3       Extension option3         K2       5 additional D0s       Extension option3       Extension option3         K2       6CG3       CC-Link communication (with Modbus master function)       Extension option3         F13       Ethernet communication (with Modbus master function)       Extension option4         K3       5 additional D0s       M3       2 additional D0s         M3       2 additional D0s       M3       2 additional D0s       Extension option4			IN			General option				
General option       I/HA       Heater break alam       Image: Constraint output or 15 VDC power supply         IRT       Remote (1 additional aux. analog input and 1 additional DI       Image: Constraint output or 15 VDC power supply         E1 terminal area option (* 4)       Image: Constraint output or 15 VDC power supply       Extension option1         E1 terminal area option (* 4)       Image: Constraint output or 15 VDC power supply       Extension option2         E2 terminal area option (* 4)       Image: Constraint output on 15 VDC power supply       Extension option2         E2 terminal area option (* 4)       Image: Constraint output on 15 VDC power supply       Extension option2         E3 terminal area option (* 4 and 5)       Image: Constraint output on 15 VDC power supply       Extension option3         E4 terminal area option (* 4 and 5)       Image: Constraint output on 15 VDC power supply       Extension option4         E4 terminal area option (* 4 and 5)       Image: Constraint output outp										
Image: Constraint of the image: Constraint of the image of the im	General option									
R1       Remote (1 additional aux. analog) input and 1 additional DI         L1       1 additional universal input (TC/RTD/DCV/mA)         X1       5 additional DIs         Y1       5 additional DIs         Y1       5 additional DOs         Y1       5 additional DOs         Y1       5 additional DOs         Y1       5 additional DOs         Y2       5 additional DOs         Y2       5 additional DOs         Y2       5 additional DOs         W2       2 additional DOs         W3       3 additional DOs         V3						need.				
E1 terminal area option (* 4)       I additional universal input (TC/RTD/DCV/mA)       Select one type.         E1 terminal area option (* 4)       X1 is additional D0s       Select one type.         K2 is additional D0s       X2 is additional D0s       Select one type.         K2 is additional D0s       X2 is additional D0s       Select one type.         K2 is additional D0s       X2 is additional D0s       Select one type.         K2 is additional D0s       X2 is additional D0s       Select one type.         K2 is additional D0s       X2 is additional D0s       Select one type.         K2 is additional D0s       X2 is additional D0s       Select one type.         K2 is additional D0s       X2 is additional D0s       Select one type.         K2 is additional D0s       X2 is additional D0s       Select one type.         K2 is additional D0s       X2 is additional D0s       Select one type.         K2 is additional D0s       Y3 is additional D0s       Select one type.         K3 is additional D0s       Y3 is additional D0s       Select one type.         K4 is additional D0s       X4 is additional D0s       Select one type.         K4 is additional D0s       X4 is additional D0s       Select one type.         K4 is additional D0s       X4 is additional D0s       Select one type.         K4 is										
E1 terminal area option (* 4)       IX1       5 additional Dis       Select one type.         F1       s additional Dis       MV1       2 additional Dis       EXtension option2         F2       terminal area option (* 4)       IX2       5 additional Dos       Select one type.         F2       terminal area option (* 4)       IX2       5 additional Dos       Select one type.         F2       terminal area option (* 4)       IX2       5 additional Dos       Select one type.         F2       terminal area option (* 4)       IX2       5 additional Dos       Select one type.         F2       terminal area option (* 4)       IX2       5 additional Dos       Select one type.         F3       terminal area option (* 4 and 5)       FX-485 communication (With Modbus master function)       Extension option3         F43       Ethernet communication (with Modbus master function)       F13       Ethernet communication (with Modbus master function)       Select one type.         F43       additional DOs       VX3       5 additional DOs       Select one type.       Select one type.         F44       tadditional DOs       VX3       5 additional DOs       Select one type.       Select one type.         F44       tadditional DOs       VX3       5 additional DOs       Select one type.										
M1       § additional DOs         M41       2 additional DOs         A2       1 additional aux. analog input and 1 additional DI         X2       § additional DOs         M2       2 additional DOs         M2       § additional DOs         M2       2 additional Dos         PBOFIBUS-DP communication (with Modus master function)         /PD3       PROFIBUS-DP communication (with Modus master function)         /K3       5 additional Dos         W3       2 additional Dos         W3       2 additional Dos         W3       2 additional Dos         M3       2 additional Dos         K4       1 additional aux. analog input, 1 additional DI, and RS-485 communication (Max.19.2 kbps, 2-wire)         /L4       24 V D loop power supply	E1 terminal area	a option (* 4)		/X1		Select one type.				
Image: Application of the state option (* 4)       Image: Additional Dis in the additional Dis in the additional Dis in the additional Dos (M2 & 5 additional Dos (M2 & 5 additional Dos (M2 & 2 additional Dos (M2 & 0 additional Dos (M3 & 5 additional Dos (M3 & 2 additional Dos (M3 & 5 additional Dos (M3 & 2 additional Dos (M4 & 1 additional aux. analog input, 1 additional Di (M4 & 5 additional DOs (M4 & 5 additio				/Y1	5 additional DOs					
E2 terminal area option (* 4)       //2       \$ additional DIs       Select one type.         M2       \$ additional Dos       //2       \$ additional Dos       Extension option3         M2       \$ additional Dos       //2       \$ additional Dos       Extension option3         M2       \$ additional Dos       //2       \$ additional Dos       Extension option3         M2       \$ additional Dos       //2       \$ additional Dos       POFIBUS-DP communication (with Modbus master function)         //2       \$ additional Dos       //2       \$ additional Dos       POFIBUS-DP communication (with Modbus master function)       POFIBUS-DP communication (with Modbus master function)         //2       \$ additional Dos       //3       \$ additional Dos       POFIBUS-DP communication (with Modbus master function)         //3       \$ additional Dos       //3       \$ additional Dos       POS         //3       \$ additional Dos       //4       1 additional Dos       POS         //4       1 additional aux. analog input and 1 additional D1       POS loop power supply       POS loop power supply         //4       1 additional aux. analog input, 1 additional D1, and RS-485 communication (Max.19.2 kbps, 2-wire)       Poselect one type.         //4       1 additional D0s       //4       1 additional D0       Poselect one type.				/W1	2 additional DIs and 2 additional DOs	]				
E2 terminal area option (* 4)       /Y2       § additional DOs       Select one type.         W2       2 additional DIs and 2 additional DOs       Extension option3         /CH3       RS-485 communication (with Modbus master function)       Extension option3         /PD3       PROFIBUS-DP communication (with Modbus master function)       Select one type.         /DN3       DeviceNet communication (with Modbus master function)       Fig. 3         /P3       FROFIBUS-DP communication (with Modbus master function)       Select one type.         /W3       5 additional DOs       Select one type.         W3       2 additional Dos       Select one type.         W3       2 additional Dos       Select one type.         (A4       1 additional DIs       Select one type.         (A4       1 additional aux. analog input and 1 additional DI       Select one type.         (A4       1 additional aux. analog input, 1 additional DI.       Select one type.         (A4       1 additional aux. analog input, 1 additional DI.       Select one type.         (A2       1 additional aux. analog input, 1 additional DI.       Select one type.         (A4       1 additional aux. analog input, 1 additional DI.       Select one type.         (A2       4 additional DOs       Select one type.         (A4				/A2	1 additional aux. analog input and 1 additional DI	Extension option2				
Image: Additional DOS       Image: Additional DOS         Image: Additional DOS       Image: Additional DOS and 2 additional DOS         Image: Additional DOS       Image: Additional DOS and 2 additional DOS         Image: Additional DOS       Image: Additional DOS and 2 additional DOS         Image: Additional DOS       Image: Additional DOS and 2 additional DOS         Image: Additional DOS additional DOS       Image: Additional DOS additional DOS         Image: Additional DOS additional DOS       Image: Additional DOS additional DOS         Image: Additional DOS additional DOS       Image: Additional DOS additional DOS         Image: Additional DOS additional DOS       Image: Additional DOS additional DOS         Image: Additional DOS additional DOS add 2 additional DOS       Image: Additional DOS additional DOS         Image: Additional DOS add 2 additional DOS additio	E2 terminal area	a option $(* 1)$				Select one type.				
Image: CH3       RS-485 communication (Max. 38.4 kbps, 2-wire/4-wire)       Image: CC-Link communication (with Modbus master function)         Image: CC3       CC-Link communication (with Modbus master function)       Image: CC3       CC-Link communication (with Modbus master function)         Image: CC3       CC-Link communication (with Modbus master function)       Image: CC3       CC-Link communication (with Modbus master function)         Image: CC3       CC-Link communication (with Modbus master function)       Image: CC3       CC-Link communication (with Modbus master function)         Image: CC3       CC-Link communication (with Modbus master function)       Image: CC3       CC-Link communication         Image: CC3       CC-Link communication (with Modbus master function)       Image: CC3       CC-Link communication         Image: CC3       CC-Link communication (with Modbus master function)       Image: CC3       CC-Link communication         Image: CC3       CC-Link communication (with modbus master function)       Image: CC3       CC-Link communication         Image: CC3       Select one type       Image: CC3       CC-Link communication (Max. 19.2 kbps, 2-wire)       Image: CC3         Image: CC3       CC4       1 additional aux. analog input, 1 additional DI, and RS-485 communication (Max. 19.2 kbps, 2-wire)       Image: CC4       Image: CC4       Image: CC4       Image: CC4       Image: CC4       Image: CC4       Image: C										
Image: Process of the communication (with Modus master function)       Image: Process of the communication (with Modus master function)         Image: Process of the communication (with Modus master function)       Image: Process of the communication (with Modus master function)         Image: Process of the communication (with Modus master function)       Image: Process of the communication (with Modus master function)         Image: Process of the communication (with Modus master function)       Image: Process of the communication (with Modus master function)         Image: Process of the communication (with serial gateway function)       Image: Process of the communication (with Modus master function)         Image: Process of the communication (with serial gateway function)       Image: Process of the communication (with Modus master function)         Image: Process of the communication (with serial gateway function)       Image: Process of the communication (with Modus master function)         Image: Process of the communication (with serial gateway function)       Image: Process of the communication (with Modus master function)         Image: Process of the communication (Wax. analog input, 1 additional DI, and PS-485 communication (Max.19.2 kbps, 2-wire)       Image: Process of the communication (Max.19.2 kbps, 2-wire)         Image: Process of the communication Process of the communication Process of the communication (Max.19.2 kbps, 2-wire)       Image: Process of the communication (Max.19.2 kbps, 2-wire)         Image: Process of the communication Process of the communication Process of the communication (Max.19.2 kbps, 2-wire)										
E3 terminal area option (* 4 and 5) <sup>/PD3</sup> <sup>PROFIBUS-DP communication (with Modbus master function)         <sup>/PD3</sup> <sup>/PEV3</sup> <sup>Ethemet communication (with serial gateway function)         <sup>/X3</sup> <sup>S</sup> additional DIs         <sup>/X3</sup> <sup>S</sup> additional DOs         <sup>/X4</sup> <sup>I</sup> additional DOs         <sup>/A4</sup> <sup>I</sup> additional aux. analog input and 1 additional DI         <sup>/C4</sup> <sup>/C4</sup> <sup>/C4</sup> <sup>I</sup> additional aux. analog input and 1 additional DI         <sup>/C4</sup> <sup>/C4</sup> <sup>I</sup> additional aux. analog input and 1 additional DI         <sup>/C4</sup> <sup>/C4</sup> <sup>I</sup> additional aux. analog input and 1 additional DI         <sup>/C4</sup> <sup>I</sup> additional aux. analog input, 1 additional DI, and RS-485 communication (Max.19.2 kbps, 2-wire)         <sup>//A4</sup> <sup>I</sup> additional DIs         <sup>/A4</sup> <sup>I</sup> additional DIs         <sup>/A4</sup> <sup>I</sup> additional DIs         <sup>/A44</sup> <sup>I</sup> additional DIS         <sup>/A44</sup> <sup>I</sup> additional DI, and RS-485 communication (Max.19.2 kbps, 2-wire)         <sup>/A445</sup> <sup>I</sup> additional DIs         <sup>/A4565</sup> <sup>I</sup> additional DIS         <sup>/A4565</sup> <sup>I</sup> additional DIS         <sup>/A4565</sup> <sup>I</sup> additional DIS         <sup>/A456567</sup> <sup>I</sup> additional DIS         <sup>/A456767777777777777777777777777777777777</sup></sup></sup>						Extension option3				
E3 terminal area option (* 4 and 5) E3 terminal area option (* 4 and 5) E4 terminal area option (* 4 and 5) E5 additional D0s (* 4 and 5) E6 terminal area option (* 4 and 5) E6 terminal area option (* 4 and 5) E7 terminal area option (* 4 and 5) E6 terminal area option (* 4 and 5) E7 terminal area option (* 4 and 5) E6 terminal area option (* 4 and 5) E7 terminal area						Select one type.				
E3 terminal area option (* 4 and 5) /ET3 Ethernet communication (with serial gateway function) /X3 5 additional DS /Y3 5 additional DOs /W3 2 additional DOs /W3 2 additional DOs /W3 2 additional DOs /A4 1 additional aux. analog input and 1 additional DI /C4 RS-485 communication (Max. 19.2 kbps, 2-wire) /L4 24 V DC loop power supply /AC4 1 additional aux. analog input, 1 additional DI, and RS-485 communication (Max.19.2 kbps, 2-wire) /L4 24 V DC loop power supply and RS-485 communication (Max.19.2 kbps, 2-wire) /L4 3 additional DS /L4 5 ad						· · ·				
/X3       § additional DIs         /Y3       § additional DOs         /W3       § additional DOs         /W43       § additional DIs and 2 additional DOs         /W44       1 additional DIs and 2 additional DI         /C4       RS-485 communication (Max. 19.2 kbps, 2-wire/4-wire)         /L4       24 V DC loop power supply         /AC4       1 additional DI, and RS-485 communication (Max.19.2 kbps, 2-wire)         /L4       24 V DC loop power supply         /AC4       1 additional DI, and RS-485 communication (Max.19.2 kbps, 2-wire)         /K4       § additional DIs         /K4       § additional DOs	E3 terminal area	a option (* 4 and	5)							
/Y3       S additional DOs         /W3       2 additional DIs and 2 additional DOs         /W3       2 additional DIs and 2 additional DOs         /A4       1 additional aux. analog input and 1 additional DI         /C4       RS-485 communication (Max. 19.2 kbps, 2-wire)         /L4       24 V DC loop power supply         /L4       1 additional aux. analog input, 1 additional DI, and RS-485 communication (Max.19.2 kbps, 2-wire)         /L4       24 V DC loop power supply and RS-485 communication (Max.19.2 kbps, 2-wire)         /K4       5 additional DIs         /X4       5 additional DOs										
W3       2 additional DIs and 2 additional DOs         /A4       1 additional aux. analog input and 1 additional DI         /C4       RS-485 communication (Max. 19.2 kbps, 2-wire/4-wire)         /L4       24 V DC loop power supply         /AC4       1 additional DIs, and RS-485 communication (Max.19.2 kbps, 2-wire)         /L4       24 V DC loop power supply         /L4       24 V DC loop power supply         /L4       24 V DC loop power supply and RS-485 communication (Max.19.2 kbps, 2-wire)         /L4       5 additional DIs         /Y4       5 additional DIs										
I additional aux. analog input and 1 additional DI       I additional aux. analog input and 1 additional DI       Image: Constraint of the second sec										
E4 terminal area option (* 4 and 5)     /C4     RS-485 communication (Max. 19.2 kbps, 2-wire)/L4     24 V DC loop power supply       L4     24 V DC loop power supply     /L4     1 additional DL, and RS-485 communication (Max.19.2 kbps, 2-wire)/LC4     24 V DC loop power supply and RS-485 communication (Max.19.2 kbps, 2-wire)/LC4     Select one type.       /X4     5 additional DUs     //Y4     5 additional DOs     Select one type.						Extension ontion4				
E4 terminal area option (* 4 and 5) $ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$										
E4 terminal area option (* 4 and 5) K4 4 and 5) K4 4 and 5) K4 5 additional Dis K4 5 additional Dis					Select one type.					
L4 terminal area option (* 4 and 5)       /LC4       24 V DC loop power supply and RS-485 communication (Max.19.2 kbps, 2-wire)         /X4       5 additional DIs         /Y4       5 additional DOs			-			1				
/X4     5 additional DIs       /Y4     5 additional DOs	E4 terminal area	E4 terminal area option (* 4 and 5)				1				
				/X4		]				
/W4 2 additional DIs and 2 additional DOs				/Y4	5 additional DOs					
				/W4	2 additional DIs and 2 additional DOs					

General option

I'W4 | 2 additional UIs and 2 additional UOs
 '1 English, German, French, and Spanish can be displayed as the guide display.
 '2) For heating/cooling output, both Output 1 and Output 2 should be specified. Not available when Output 2 is "N." For position proportional output, specify "-P" for Output 1 and "N" for Output 2.
 '3) The /HA option can be specified only when the code for Output 1 and 2 is "-AN", "FN", "-UN" or "TN."
 '4) Only one option is available for each terminal area of E1 to E4.
 '5) The /L4 and /LC4 options for E4 terminal area can be specified only when the E3 terminal area of E4 terminal area can be specified only when the E3 terminal area option is not specified or specified any of /CH3, /X3, /Y3 or /W3.
 '6) When the C7 option is specified, the UFSA does not conform to the safety standards (UL and CSA) and CE marking.

UP35					_/			
Model	Suffix code	Optional suffix code Program Cor 2 program pa	troller (provided with 3 DIs	Description , and 3 DOs) (Power s	supply: 100-240 V	AC)		

UP35A       Program Controller (provided with 3 Dis, and 3 Dob) (Power supply: 100-240 V AC) 2 program segments (Max. 20 expanses per pattern)       Display language         Fix       N N N       Always "-NNN"       Always "-NNN"         Display language (*1)       -2       German       German         -2       German       German       German         Case color       0       White (Light charcoal gray)       German         Case color       1       Black (Light charcoal gray)       Select one type.         Control Output 1 (*2, 3 and 5)       -4       Analog output (current/voltage pulse/relay)       German         Control Output 2 (*2, 3, 4 and 5)       -4       Analog output (current/voltage pulse/relay)       General output (current/voltage pulse/relay)       General output (current/voltage pulse/relay)         Control Output 2 (*2, 3, 4 and 5)       -4       Analog output (current/voltage pulse/relay)       General output (current/voltage pulse/relay)         M       None       None       -2       Control Output 2 (*2, 3, 4 and 5)       -2         General option       -1/2       -2       additional Dis       -2       -2         I/1       Relay output (current/voltage pulse/relay)       None       -2       -2         General option       -1/2       -2       -2       -2	modol	Gamix Go		suffix code	Decemption					
Fix       INN       Always "-NNN"         Display language (*1)       1       English         -2       German       Select one type.         Case color       0       Write (Light gray)         Case color       1       Black (Light charcoal gray)         A       Analog output (corrent/voltage pulse/ -1       Case color         A       Analog output (corrent/voltage pulse/ -1       Control Output 1 (*2, 3 and 5)       A         A       Analog output (corrent/voltage pulse/relay)       Control Output 2 (*2, 3, 4 and 5)       B         A       Analog output (corrent/voltage pulse/relay)       Control Output 2 (*2, 3, 4 and 5)       B         A       Analog output (corrent/voltage pulse/relay)       Control Output 2 (*2, 3, 4 and 5)       B       Relay output 6 contrate         M       Analog output (corrent/voltage pulse/relay)       Control Output 2 (*2, 3, 4 and 5)       Case control Output 1 (*2, *2, *3, 4 and 5)       B         A       Analog output (corrent/voltage pulse/relay)       Control Output 2 (*2, 3, 4 and 5)       Case contput 0       Output 2         Control Output 2 (*2, 3, 4 and 5)       N       None       Case contput 0       Output 2         General option       //AP       Patter break alarm       Case contput 0       Case contput 0         I/AP </td <td>UP35A</td> <td></td> <td></td> <td></td> <td>Program Controller (provided with 3 Dls, and 3 DOs) (Power supply: 100-240 V AC) 2 program patterns/20 program segments (Max. 20 segments per pattern)</td> <td></td>	UP35A				Program Controller (provided with 3 Dls, and 3 DOs) (Power supply: 100-240 V AC) 2 program patterns/20 program segments (Max. 20 segments per pattern)					
Display language (*1)       2       German       Select one type.         Case color       0       White (Light gray)       Case color       Select one type.       Case color       <	Fix	-N N N			Always "-NNN"					
Display language (*1)       3       French         Case color       0       White (Light gray)       Case color       Select one type.         Control Output 1 (*2, 3 and 5)       U       U/urent/voltage pulse/relay)       Control Curput/       Control Curput (current/voltage pulse/relay)       Control Curput (current/voltage pulse/relay)       Control Curput 2 (*2, 3, 4 and 5)       Analog output (current/voltage pulse/relay)       Control Quiput 2 (*2, 3, 4 and 5)       Case color       Case color       Case color       Case color       Case color       Case color       Select one type.       Curput 1       Select one type.       Cutput 2       Value 2 (*2, 3, 4 and 5)       Case color       Cas		-1			English	Display language				
A       Spanish         Case color       0       White (Light charcoal gray)         Case color       1       Black (Light charcoal gray)         Control Output 1 (*2, 3 and 5)       A       Analog output (current/voltage pulse)         R       Relay output (corrent/voltage pulse)       Output1         Select one type.       Output1         Control Output 1 (*2, 3 and 5)       H       Relay output (corrent/voltage pulse)         A       Analog output (current/voltage pulse)       Output2         Control Output 2 (*2, 3, 4 and 5)       R       Relay output (corrent/voltage pulse)         R       Relay output (corrent/voltage pulse)       When you perform heating/cooling control, select one type.         Control Output 2 (*2, 3, 4 and 5)       R       Relay output (corrent/voltage pulse/relay)       When you perform heating/cooling control, select one type.         M       None       None       Relay output (corrent/voltage pulse/relay)       When you perform heating/cooling control, select one type.         General option       /AP       2 additional patterns/20 additional segments       Relay output to 15 VDC power supply         /HA       Heater break alarm       Heater break alarm       Beater break alarm       Relay output (averaminuton (with Modus master function)         /HA       Heater break alarm       /A1	Diamlassian	-2			German	Select one type.				
Case color       0       White (Light gray)       Black (Light charcoal gray)         Case color       Black (Light charcoal gray)       Black (Light charcoal gray)         Control Output 1 (*2, 3 and 5)       A adago autput (current/voltage pulse)       Output1         P       Position proportional output       Output1         Control Output 2 (*2, 3, 4 and 5)       A       A adago autput (current/voltage pulse)       Output1         Control Output 2 (*2, 3, 4 and 5)       A       A adago autput (current/voltage pulse)       Output1         Control Output 2 (*2, 3, 4 and 5)       A       A adago autput (current/voltage pulse)       Output2         When you perform heating/cooling control, select /P in Output 1, specify N.       Output1       Output1, specify N.         General option       // DC Power supply 24 VAC/DC       General option       General option 1         // T E additional Dis       // T E additional Dos       Select any options you need.       Extension option1         E1 terminal area (*6 and 7)       // H E additional Dos       // H E additional Dos       Extension option3         E3 terminal area (*6 and 7)       // PD3 PROFIBUS-DP communication (with Modbus master function)       Extension option3         E4 terminal area (*6 and 7)       // A dational Dis       Extension option4	Display languag	e(I) -3			French					
Case color       I       Black (Light charcoal gray)       Select one type.         Control Output 1 (*2, 3 and 5)       IA       Analog output (current/voltage pulse)       Output1         Control Output 1 (*2, 3 and 5)       IA       Relay output (corrent/voltage pulse/relay)       IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		-4			Spanish					
Image: Control Output 1 (*2, 3 and 5)       Image: Control Output 1 (*2, 3 and 5)       Image: Control Output 1 (*2, 3 and 5)       Image: Control Output 1 (*2, 3, 4 and 5)       Image: Control Output 1 (*2, 3, 4 and 5)       Image: Control Output 2 (*2, 3, 4 and 5)       Image: C	Coop color	0			White (Light gray)					
Control Output 1 (*2, 3 and 5)       -R       Relay output (c-contact)       Select one type.         U       Universal output downersal output       Output 1         P       Position proportional output       P         Control Output 2 (*2, 3, 4 and 5)       A       Analog output (current/voltage pulse/relay)       P         A       Analog output (current/voltage pulse/relay)       P       Position proportional output       P         Control Output 2 (*2, 3, 4 and 5)       A       Analog output (current/voltage pulse/relay)       P       P         N       None       Relay output (a-contact)       When you perform heating/cooling control, select one type.       P         General option       /OC       Power supply 24 V AC/DC       Power supply 24 V AC/DC       Power supply 24 V AC/DC         It terminal area (*6)       /Y1       S additional D0s       Extension option1       Select any options you need.         E1 terminal area (*6 and 7)       /PB3       PROFIBUS-DP communication (with Modbus master function)       Extension option3       Select one type.         E4 terminal area (*6 and 7)       /L4       24 V DC loop power supply       Extension option4       Extension option4	Case Color	1			Black (Light charcoal gray)					
Control Output 1 (*2, 3 and 5)       -U       Universal output (current/voltage pulse/relay)         -T       Triac output         -P       Position proportional output         Control Output 2 (*2, 3, 4 and 5)       A         A       Analog output (current/voltage pulse)         R       Relay output (current/voltage pulse)         R       Relay output (current/voltage pulse)         N       None         J       Universal output (current/voltage pulse/relay)         N       None         General option       /AP         /CT       Coating         /HA       Heater break alarm         /RT       Retransmission output or 15 V DC power supply         /HA       Heater break alarm         /RT       Retransmission output or 15 V DC power supply         /HA       Heater break alarm         /RT       Retransmission output or 15 V DC power supply         /K1       S additional DOs         /W1       2 additional DOs         /W1       2 additional DOs         /W1       2 additional DOs         /W1       2 additional OOs         /W1       2 additional DOs         /W1       2 additional Medusu saster function)         /D23			-A		Analog output (current/voltage pulse)	Output1				
T       Triac output         P       Position proportional output         A       Analog output (current/voltage pulse)         R       Relay output (accontact)       Output2         U       Universal output (current/voltage pulse/relay)       Output2         Mone       (AP 2 additional patterns/20 additional segments       Output2         General option       /AP 2 additional patterns/20 additional segments       General option         Image: Control Output 2 (*2, 3, 4 and 5)       /AP 2 additional patterns/20 additional segments       General option         Image: Control Output 2 (*2, 3, 4 and 5)       /AP 2 additional patterns/20 additional segments       General option       Select any options you need.         General option       /AP 2 additional D0s       /A Heatar break alarm       Select any options you need.       Select one type.         E1 terminal area (*6)       /Y1 5 additional D0s       //A select one type.       Extension option1       Select one type.         E3 terminal area (*6 and 7)       /PD3 PROFIBUS-DP communication (with Modbus master function)       Extension option3       Select one type.         E4 terminal area (*6 and 7)       //A 2 to Cop power supply       //A set on the set of th			-R		Relay output (c-contact)	Select one type.				
P       Position proportional output         A Analog output (current/voltage pulse)       Output2         Control Output 2 (*2, 3, 4 and 5)       A Analog output (current/voltage pulse/relay)       Output2         B Relay output (current/voltage pulse/relay)       When you perform heating/cooling control, select one type. If you select -P in Output 1, specify N.         General option       /AP 2 additional patterns/20 additional segments       General option         /AP 2 additional patterns/20 additional segments       General option       Select any options you need.         /AT Retransmission output or 15 V DC power supply       Select any options you need.       Select any options you need.         E1 terminal area (*6)       /Y1 5 additional D0s       Extension option1       Select one type.       Extension option3         E3 terminal area (*6 and 7)       PROFIBUS-DP communication (with Modbus master function)       Extension option3       Select one type.         E4 terminal area (*6 and 7)       /L4 24 V DC loop power supply       Extension option3       Select one type.       Extension option4         L4       24 V DC loop power supply       L4 24 V DC loop power supply       Extension option4       Extension option4	Control Output	1 (*2, 3 and 5)	-U							
A       Analog output (current/voltage pulse)         R       Relay output (a-contact)         U       Universal output (current/voltage pulse/relay)         None       /AP 2 additional patterns/20 additional segments         /OCC       Power supply 24 V AC/DC         /CC       Power supply 24 V AC/DC         /CC       Power supply 24 V AC/DC         /RT       Retaronication output or 15 V DC power supply         /RT       Retaronication Output or 15 V DC power supply         /RT       Retaronication Output or 15 V DC power supply         /RT       Retaronication Obs         /W1       2 additional D0s         /W1       2 additional Motus master function)         /D23       PROFIBUS-DP communication (with Modus master function)         /D144       24 V DC loop power supply <td< td=""><td></td><td></td><td colspan="2">-T Triac output</td><td></td><td></td></td<>			-T Triac output							
Control Output 2 (*2, 3, 4 and 5)       R       Relay output (a-contact)       When you perform heating/cooling control, select one type. If you select -P in Output 1, specify N.         General option       /AP       2 additional patterns/20 additional segments       General option         /OC       Power supply 24 V AC/DC       Select any options you need.       Select any options you need.         /HA       Heater break alarm       /RT       Retransmission output or 15 V DC power supply       Retransmission output or 15 V DC power supply         K1       5 additional Dls       /Y1       5 additional Dls       Extension option1         K1       5 additional Dls       /V1       2 additional DOs       Retransmission (Max. 38.4 kbps, 2-wire/4-wire)       Extension option3         K2       5 additional Dls       /CC3       CC -CLink communication (with Modus master function)       Extension option3         K3       5 additional Dls       //CC3       CC -Lik communication (with Modus master function)       Extension option3         K4       5 additional Dls       //CC3       CC -Lik communication (with Modus master function)       Extension option3         K4       5 additional Dls       //CC3       CC -Lik communication (with Modus master function)       Extension option4         //D3       PROFIBUS-DP communication (with serial gateway function)       //L4       Z4			-P							
Control Output 2 (°2, 3, 4 and 5)       U       Universal output (current/voltage pulse/relay)       Initial output (current/voltage pulse/relay)         M       None       None       If you select -P in Output 1, specify N.         General option       /AP       2 additional patterns/20 additional segments       General option         /CT       Coating       /HA       Heater break alarm       Select any options you need.         /RT       Retransmission output or 15 V DC power supply       Factor (Carrel output 2)       Extension option1         /AI       5 additional Dis       Extension option1       Select any options you need.         (AT       6 additional Dos       Select one type.       Extension option1         (AI       5 additional Dos       Select one type.       Select one type.         (CG3       CC-Link communication (Max 38.4 kbps, 2-wire/4-wire)       Select one type.       Extension option3         (DB3       DeviceNet communication (with Modbus master function)       Select one type.       Extension option3         (IA       24 V DC loop power supply       Idadeway function)       Extension option4         (IA       24 V DC loop power supply       Extension option4       Select one type.			Α			Output2				
Output E (12) of National Output (current/voltage pulse/relay)       Interval output (current/voltage pulse/relay)         None       /AP       2 additional patterns/20 additional segments         /DC       Power supply 24 V AC/DC       General option         /CT       Coating       /AP         /HA       Heater break alarm       Select any options you need.         /RT       Retransmission output or 15 V DC power supply       Extension option1         /X1       5 additional D0s       Select one type.         /V1       2 additional D0s       Select one type.         /V1       2 additional D0s       Select one type.         /CC3       CC-Link communication (with Modus master function)       Extension option3         /PD3       PROFIBUS-DP communication (with Modus master function)       Extension option3         /E1 terminal area (*6 and 7)       /AB       Extension option1       Select one type.         /L4       24 V DC loop power supply       Extension option4       Extension option4	Control Output	2 (*2 3 1 and	5) R			When you perform heating/cooling control, select				
IN       None         APP       2 additional patterns/20 additional segments         /DC       Power supply 24 V AC/DC         /CT       Coating         /HA       Heater break alarm         /RT       Retransmission output or 15 V DC power supply         /R1       Retransmission output or 15 V DC power supply         /K1       5 additional D0s         /W1       2 additional D0s         /W1       2 additional D0s         /W1       2 additional D0s         /W1       2 additional D0s         /CC3       CC-Link communication (Max. 38.4 kbps, 2-wire/4-wire)         /CC3       CC-Link communication (with Modbus master function)         /PD3       PROFIBUS-DP communication (with Modbus master function)         /E1 terminal area (*6 and 7)       /L4         /L4       24 V DC loop power supply	Control Output	2 ( 2, 3, 4 anu -	<sup>3)</sup> U							
General option       IDC       Power supply 24 V AC/DC       Select any options you need.         V1       Coating       Select any options you need.       Select any options you need.         K1       Retransmission output or 15 V DC power supply       Extension option1       Select any options you need.         K1       S additional D0s       Image: Select any options you need.       Select any options you need.         K1       S additional D0s       Image: Select any options you need.       Select any options you need.         K1       S additional D0s       Image: Select any options you need.       Select any options you need.         K1       S additional D0s       Image: Select any options you need.       Select any options you need.         K2       Select any options you need.       Select any options you need.       Select any options you need.         K2       Select any options you need.       Select any options you need.       Select any options you need.         K2       Select any options you need.       Select any options you need.       Select any options you need.         K2       Select any options you need.       Select any options you need.       Select any options you need.         K2       Select any options you need.       Select any options you need.       Select any options you need.         K2       Select any options you			N							
General option       //DC       Power supply 24 V AC/DC       Select any options you need.         /CT       Coating       //HA       Heater break alarm       options you need.         /RT       Retransmission output or 15 V DC power supply       ////////////////////////////////////					2 additional patterns/20 additional segments	General option				
General option       //C1       Coating         /HA       Heater break alarm       options you need.         /RT       Retransmission output or 15 V DC power supply       need.         E1 terminal area (*6)       //Y1       5 additional D0s         /W1       2 additional D0s       Select one type.         //CH3       RS-485 communication (Max. 39.4 kbps, 2-wire/4-wire)       Select one type.         //CC3       CC-Link communication (with Modbus master function)       Extension option3         //DN3       PROFIBUS-DP communication (with Modbus master function)       Select one type.         //E13       Ethernet communication (with serial gateway function)       Extension option4         /L4       24 V DC loop power supply       Extension option4										
Image: International area (*6)       Image: Im	General option			/CT Coating						
International Dis       International Dis         Iterminal area (*6)       International Dis         Iterminal area (*6)       International Dis         Iterminal area (*6 and 7)       International Dis										
E1 terminal area (*6)       Y1       5 additional DOs /W1       Select one type.         V1       2 additional DIs and 2 additional DOs /V1       Select one type.         E3 terminal area (*6 and 7)       /PD3       PROFIBUS-DP communication (with Modbus master function) /DN3       Extension option3         E4 terminal area (*6 and 7)       /L4       24 V DC loop power supply       Extension option4         E4 terminal area (*6 and 7)       /X4       5 additional DIs       Extension option4										
W1       2 additional DIs and 2 additional DOs       CH3       RS-485 communication (Max. 38.4 kbps, 2-wire/4-wire)       CC3       CC-Link communication (Mix. 38.4 kbps, 2-wire/4-wire)         E3 terminal area (*6 and 7)       /CH3       PROFIBUS-DP communication (with Modbus master function)       Extension option3         E4 terminal area (*6 and 7)       /L4       24 V DC loop power supply       Extension option4						Extension option1				
/W1       2 additional Dis and 2 additional Dos         /CH3       RS-485 communication (with Wax 384 kbps, 2-wire/4-wire)         /CC3       CC-Link communication (with Modbus master function)         /PD3       PROFIBUS-DP communication (with Modbus master function)         /DN3       DeviceNet communication (with Modbus master function)         /E13       Ethernet communication (with serial gateway function)         /L4       24 V DC loop power supply         E4 terminal area (*6 and 7)       /X4         /X4       5 additional Dis	E1 terminal area	a (*6)				Select one type.				
E3 terminal area (*6 and 7) /CC3 CC-Link communication (with Modbus master function) /PD3 PROFIBUS-DP communication (with Modbus master function) /DN3 DeviceNet communication (with Modbus master function) /E13 Ethernet communication (with serial gateway function) /L4 24 V DC loop power supply E4 terminal area (*6 and 7) /X4 5 additional Dis Extension option4 CC3 CC-Link communication (with Modbus master function) Extension option4 CC3 CC-Link communication (with Modbus master function) Extension option4 CC3 CC-Link communication (with Modbus master function) Fer and the serial gateway function) L4 24 V DC loop power supply CC3 CC-Link communication (with Modbus master function) CC3 CC-Link communication (with Modbus master function) Extension option4 CC3 CC-Link communication (with Modbus master function) Select one type. CC3 CC-Link communication (with Modbus master function) CC3 CC-Link communication (with Modbus master func										
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E3 terminal area (*6 and 7) /PD3 PROFIBUS-DP communication (with Modbus master function) /DN3 DeviceNet communication (with Modbus master function) /E13 Ethernet communication (with serial gateway function) /L4 24 V DC loop power supply E4 terminal area (*6 and 7) /X4 5 additional Dis						Extension option3				
/DN3       DeviceNet communication (with Modbus master function)         /ET3       Ethernet communication (with serial gateway function)         /L4       24 V DC loop power supply         E4 terminal area (*6 and 7)       /X4       5 additional DIs	E3 terminal area	a (*6 and 7)			PROFIBUS-DP communication (with Modbus master function)					
E4 terminal area (*6 and 7) // 4 5 additional DIs Extension option4			/DN3	DeviceNet communication (with Modbus master function)	Select one type.					
E4 terminal area (*6 and 7) /X4 5 additional DIs				/ET3	Ethernet communication (with serial gateway function)					
E4 terminal area ( 6 and 7)	E4 terminal area (*6 and 7)									
			/X4	5 additional DIs						
		,		/Y4	5 additional DOs	Select one type.				
/W4 2 additional DIs and 2 additional DOs				/W4	2 additional DIs and 2 additional DOs					
1: English, German, French, and Spanish can be displayed as the guide display.	1: English, German.	French, and Spanis	ish can be c	displayed a	s the guide display.	L				

\*2: For Insiding/cooling output, both Output 1 and Output 2 should be specified. Not available when Output 2 is \*N". For position proportional output, specify \*P" for Output 1 and "N" for Output 2.
\*3: When the code for Output 1 is \*Pr" or "L" and Output 2 is \*P" or "N" is available when Output 2 is \*N". For position proportional output, specify \*P" for Output 1 is specified to "-T", only \*A" or \*N" is available for Output 2.
\*4: The (AT option can be specified in when the code for Output 1 is \*P" or "L".
\*5: The (AH option can be specified in the volume 1 is \*P" or "N" or "N" is available for Output 2.
\*6: The (At option can be specified in the specified at a start of the contact point is a volume 1 is volume 1.
\*7: The (AT option can be specified in the specified at a start of the contact point is a volume 1.
\*7: The (AT option can be specified in the specified in the COL of the contact point is available for each terminal area of the specified in the specified in

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	,		,		
				General	option
age Case color	Output1	Output2			
	-				

### Configuration Tool

### **LL50A Parameters Setting Software**

#### Parameter Setting/Program Pattern Creating Function

Parameters that determine controller functions can easily be set: controller model type, controller mode (single-loop control, cascade control, loop control with PV switching, etc.), universal input/ output functions, setup parameters and others. It also allows you to create program patterns.

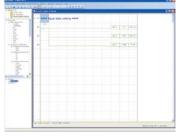
#### Tuning Function

Used to tune a controller's PID parameters. Displays measured input value, target setpoint, and control output value as a trend graph on a personal computer screen, allowing PID parameter modification, AUTO/MAN switching, control output modification in manual operation, etc.



#### **Ladder Building Functions**

Ladder sequence programs can be created and ladder programs can be monitored.



Ladder programs building display

#### Network Profile Creating Function

Can be used to create an electronic device data sheet for Open Network.

