°C
%RH
SHIMADEN

Series SR23

SHIMADEN DIGITAL CONTROLLER

CE, UL standard being applied to

BASIC FEATURES

- ☐ *2-channel controller (Basic type: 1-channel controller)*
- ☐ *Independent 2-loop / Internal Cascade / 2-input operation control*
- ☐ *High accuracy ± (0.1% FS + 1 digit)*
- ☐ *High Sampling Cycle 0.1 sec.*
- ☐ *High resolution 1/1000 °C display achieved*
  **Only for R.T.D. input (scale: 0.000~30.000 °C)*
- ☐ *Auto-Tuning PID / Expert PID / Self-Tuning PID*
- ☐ *Multi-Setting of 10 Set Values*
- ☐ *Independent Universal-Input*
- ☐ *User Friendly Operation (Menu Driven: 4 Lines LCD Display)*
- ☐ *Easy Setting & Maintenance via Infrared COM port on the front panel*
- ☐ *Interface RS-232C/RS-485 (MODBUS / Shimaden)*
- ☐ *The front dust/splash-proof IP66*
- ☐ *Universal Power Supply (100~240V AC ±10%)*
- ☐ *Sensor power supply*

1-input Specification

- **1-output control**

Ordering Information

ITEM	CODE	SPECIFICATIONS
SERIES	SR23-	96 × 96 DIN size, high-performance digital controller
BASIC FUNCTIONS	SS	Universal-input, 1-input/1-output control, 3 event outputs
CONTROL OUTPUT 1	Y	Contact 1c, contact rating: 240V AC 2.5A/resistive load, 1A/inductive load
	I	Current 4 ~ 20mA DC, Load resistance: max. 600Ω
	P	SSR drive voltage output 12V±1.5V DC, Load current: max. 30mA
	V	Voltage 0 ~ 10V DC, Load current: max. 2mA
CONTROL OUTPUT 2	N-	None
REMOTE SETTING INPUT /HEATER BREAK ALARM (FOR SINGLE-PHASE)	standard 06	0 ~ 10V DC, Input resistance: approx. 500kΩ — Non-insulated input
	04	4 ~ 20mA DC, Input resistance: 250Ω — Non-insulated input
	05	1 ~ 5V DC, Input resistance: approx. 500kΩ — Non-insulated input
	14	4 ~ 20mA DC, Input resistance: 250Ω — Insulated input
	15	1 ~ 5V DC, Input resistance: approx. 500kΩ — Insulated input
	16	0 ~ 10V DC, Input resistance: approx. 500kΩ — Insulated input
	31	Heater break alarm* (heater current 30A with CT) — * Selectable only when Control Output 1 is Y or P
	32	Heater break alarm* (heater current 50A with CT) — * Selectable only when Control Output 1 is Y or P
ANALOG OUTPUT 1	0	None
	3	0 ~ 10mV DC, Output resistance: 10Ω
	4	4 ~ 20mA DC, Load resistance: max. 300Ω
	6	0 ~ 10V DC, Load current: max. 2mA
ANALOG OUTPUT 2/ SENSOR POWER SUPPLY	0	None
	3	0 ~ 10mV DC, Output resistance: 10Ω
	4	4 ~ 20mA DC, Load resistance: max. 300Ω
	6	0 ~ 10V DC, Load current: max. 2mA
	8	Sensor power supply 24V DC 25mA
EXTERNAL INPUT/ OUTPUT CONTROL SIGNAL (DI/DO) *1	standard 0	DI 4 points, DO 5 points (SV No. switching not available)
	1	DI 10 points, DO 9 points (SV No. switching available)
	2	DI 10 points, DO 13 points (SV No. switching available)
COMMUNICATION FUNCTION	0	None
	5	RS-485 — Shimaden standard protocol / MODBUS (RTU/ASCII) communication protocol
	7	RS-232C — Shimaden standard protocol / MODBUS (RTU/ASCII) communication protocol
REMARKS	0	Without
	9	With

*1 When switching the SV No. by DI, 10 points of DI (CODE 1 or 2) are required.
*2 Ten DI points (code 1 or 2) are required for switching the SV No. by DI.

Optional Accessories

Name	Model	Description
Infra-red Communication Adapter	S5004	USB connector cable (2m), Setup Software (CD-ROM)
Shunt Resistor	QCS002	250Ω ±0.1%, external input resistance at current input
Relay Unit	AP2MC	Converts open collector output to contact output. 2 circuits built-in
SV No. Selector	KA251	BIN code. SV1 ~ SV10 can be switched and selected.

Relay Unit Model AP2MC
(Converts open collector output to contact output. 2 circuits built-in)

SV No. Selector Model KA251
(BIN code. SV1 ~ SV10 can be switched and selected.)

Infra-red Communication Adapter Model S5004 with USB connector cable