



Thermo

Digital Controller

SHIMADEN

SR23 Series

BASIC FEATURES

- 2-channel controller (Basic type: 1-channel controller)
- Independent 2-loop / Internal cascade / 2-input operation control
- High accuracy $\pm (0.1\% \text{ FS} + 1 \text{ digit})$
- 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-232 / RS-485 (MODBUS / Shimaden)
- The front dust / splash-proof IP66
- Universal power supply (100~240V AC $\pm 10\%$)
- Sensor power supply



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		
			05	1 ~ 5V DC, Input resistance: approx. 500kΩ		
			14	4 ~ 20mA DC, Input resistance: 250Ω		
		15	1 ~ 5V DC, Input resistance: approx. 500kΩ		Insulated input	
		16	0 ~ 10V DC, Input resistance: approx. 500kΩ			
		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)			
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		
REMARKS			A	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.