

## Controllers

### SR90 Series - Digital controllers.

The SR90 series are low cost, high featured controllers. With  $\pm 0.3\%$  accuracy and a list of options including selectable input, second control output for Heat cool control, Auto / Manual, RS232/485 Communications, selectable event outputs, analogue retransmission output and 240Vac or 24Vac/dc power supply. The SR90 series is extremely versatile which makes it suitable for a wide range of applications.

#### Features:

- ◆ Auto tuning controller with PID.
- ◆ Inputs: Thermocouple, RTD, Current, Voltage.
- ◆ Outputs: Current, SSR drive, Voltage, Relay.
- ◆ Optional power supply of 24Vac or 24Vdc.
- ◆ Optional retransmission of process value or set value.
- ◆ Optional set value bias by digital input.
- ◆ Standard alarms and event output.
- ◆ Optional heater break alarm.
- ◆ Manual control, SV limit, PV filter, Output limit.
- ◆ Comms: RS232C, RS485; Modbus/Shimaden.
- ◆ Communicates with MicroScan SCADA and Shimaden Lite software.
- ◆ Front panel IP66.
- ◆ Heating cooling outputs (optional).



[www.intech.co.nz/sr90](http://www.intech.co.nz/sr90)

MODEL	SIZE	BASE PRICE Includes Alarms.	OPTIONS	ADD PRICE
SR91	48 x 48	\$315.00	Control output 2	\$100.00
SR92	72 x 72	\$342.00	24Vac/dc power supply	\$80.00
SR93	96 x 96	\$355.00	Retransmission (4~20mA or 0~10V)	\$100.00
SR94	48 x 96	\$335.00	Set value bias / DI	\$63.00
Comms RS232, RS485 Modbus/Shimaden				\$160.00

### MR13 - 3 Input/Output Controller.

- ◆ 3-channel controller, 3-channel input#, 3-channel setting and simultaneous 3-channel display are possible.
- ◆ Accuracy:  $\pm(0.3\% \text{ FS} + 1 \text{ digit})$ .
- ◆ Programmable 1 pattern with 9-step function.
- ◆ PID Auto tune.
- ◆ Comms: RS232C, RS485; Shimaden.

# Input type must be the same for 3 channels.



MR13

[www.intech.co.nz/mr13](http://www.intech.co.nz/mr13)

MODEL	SIZE	BASE PRICE	OPTIONS	ADD PRICE	
MR13	96 X 96	\$960.00	Program Function	\$160.00	
				Events	\$120.00
				Remote Input/ Digital Input	\$60.00
				Retransmission	\$120.00
				Comms RS232, RS485	\$200.00

# Controllers / Shimaden Lite Software

## FP93 - Programmable ramp controller.

- ◆ Autotuning controller with expert PID processing.
- ◆ Inputs: Thermocouple, RTD, Current, Voltage.
- ◆ Outputs: Current, SSR drive, Voltage, Relay.
- ◆ Remote setting, analogue or digital.
- ◆ Timer functions.
- ◆ Set value bias by digital input.
- ◆ Ramp control, 10 steps per pattern.
- ◆ 4 Patterns.
- ◆ Comms: RS232C, RS485; Shimaden.
- ◆ Communicates with MicroScan SCADA and Shimaden Lite software.
- ◆ Retransmission of process value or set value.
- ◆ High and low alarms.
- ◆ Event output, Heater break alarm.

MODEL	SIZE	BASE PRICE Includes Events	OPTIONS	PRICE
FP93	96 x 96	\$630.00	24Vac/dc Power Supply	\$90.00
			Status Output	\$80.00
			Retransmission (4~20mA or 0~10V)	\$100.00
			Comms	\$160.00



FP93

[www.intech.co.nz/fp93](http://www.intech.co.nz/fp93)

## FREE DOWNLOAD

### Features:

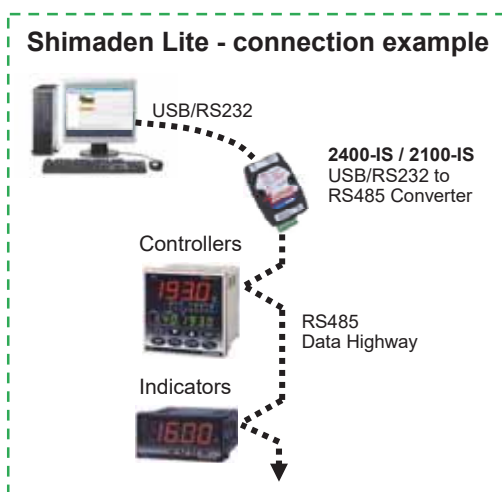
- ◆ User friendly controller configuration from computer.
- ◆ Auto seek - Finds controllers automatically.
- ◆ Auto configuration: Shimaden Lite automatically adopts controller configuration.
- ◆ Password protection.
- ◆ Trend graph of process value and set value.
- ◆ Trend graph has last 100 scans.
- ◆ Scan settings 1 sec, 15 sec, 1 min.
- ◆ Controller identification label.

## Shimaden Lite Software



[www.intech.co.nz/shimaden-lite](http://www.intech.co.nz/shimaden-lite)

**Note:** Shimaden Controllers can also be used with **MicroScan SCADA software**—see pages 30~35 >>



Shimaden Controllers/Indicators	
RS485 or RS232*	RS422 or RS232*
SR90 Series	SR253
SD16A	SR25
SD24	SD20
SR80 Series	SR73A
FP93	FP21°
SR23	
FP23	
SRS10A Series	
MR13^	

**Notes:**  
 \* 2400-IS / 2100-IS not required when using RS232.  
 \* RS232 will connect to one controller only.  
 ^ The MR13 has no set value (SV) facility from the computer.  
 ° Important: When an FP21 is present all devices in the Data Highway must use 4800 baud rate.

## Controllers

### SR23 - High Accuracy Digital Controller



CE approved UL applied

[www.intech.co.nz/sr23](http://www.intech.co.nz/sr23)

**2 Channel Control (Option).**  
**(Independent Dual Loop Control).**  
**High resolution:** 1/1000°C \*at Pt100 : 0.001 to 30.000°C.  
**High accuracy:** 0.1% FS.  
**Universal input.**  
**Various display:** LED & 128 x 32 DOT LCD Screen.  
**Easy operation and maintenance:**  
 Infrared Communication.  
 Parameter setting software.  
**Versatile communication function:**  
 Modbus/Shimaden communication protocols.  
 Communicates with MicroScan SCADA and Shimaden Lite software.  
**Versatile external control:**  
 DI: Digital input 10 points max.  
 DO: Digital output 13 points max.  
**Proven control stability & reliability:**  
 Shimaden Expert PID.

MODEL	SIZE	BASE PRICE	OPTIONS	ADD PRICE
SR23	96 X 96	\$1050.00	Control output No 2	\$100.00
			Isolated remote set point	\$390.00
			Retransmission 1	\$80.00
			Retransmission 2	\$160.00
			Ext control DI 10 points/ DO 9 points	\$160.00
			Ext control DI 13 points/ DO 9 points	\$200.00
Comms RS232, RS485 Modbus/Shimaden	\$80.00			

### FP23 - High Accuracy Programmable Controller



CE approved UL applied

[www.intech.co.nz/fp23](http://www.intech.co.nz/fp23)

**2 Channel Control (Option).**  
**(Independent Dual Loop Control).**  
**High resolution:** 1/1000°C \*at Pt100 : 0.001 to 30.000°C.  
**High accuracy:** 0.1% FS.  
**Max. 400 flexible step program.**  
**Max. up to 20 patterns** (Total steps not to exceed 400).  
**Universal input.**  
**Various display:** LED & 128 x 32 DOT LCD Screen.  
**Easy operation and maintenance:**  
 Infrared Communication.  
 Parameter setting software.  
**Versatile communication function:**  
 Modbus/Shimaden communication protocols.  
 Communicates with MicroScan SCADA and Shimaden Lite software.  
**Versatile external control:**  
 DI: Digital input 10 points max.  
 DO: Digital output 13 points max.  
**Proven control stability & reliability:**  
 Shimaden Expert PID.

MODEL	SIZE	BASE PRICE	OPTIONS	ADD PRICE
FP23	96 X 96	\$1440.00	2nd output	\$100.00
			Heater break 30/50 amps	POA
			Retransmission 1	\$80.00
			Retransmission 2	\$80.00
			Ext control DI 10 points/ DO 9 points	\$160.00
			Ext control DI 13 points/ DO 9 points	\$200.00
Comms RS232, RS485 Modbus/Shimaden	\$80.00			

# Digital Indicators & Selector switch

## SD16A - Digital Indicator.

- ◆ Microprocessor based. 4 digit display.
- ◆ Inputs: Thermocouple, RTD, Current, Voltage.
- ◆ Display accuracy of  $\pm(0.3\% \text{ FS} + 1 \text{ digit})$ .
- ◆ Analogue output 4~20mA or 0~10V.
- ◆ Two alarm relay outputs SPST.
- ◆ Comms: RS232C, RS485; Modbus/Shimaden.
- ◆ Communicates with MicroScan SCADA and Shimaden Lite software.
- ◆ IP66 front panel.
- ◆ LED display with 20mm high digits.
- ◆ Optional power supply of 24Vac/dc.

MODEL	SIZE	BASE PRICE	OPTIONS	ADD PRICE
SD16A	96 x 48	\$279.00	24Vac/dc power supply	\$50.00
			Alarms	\$60.00
			Retransmission *	\$100.00
			Sensor Supply * 24Vdc 25mA	\$100.00
			Comms RS232, RS485 Modbus/ Shimaden	\$120.00

**Notes:**

Specify 4~20mA when ordering.

\* Can have either Retransmission OR Sensor supply (not both).



[www.intech.co.nz/sd16a](http://www.intech.co.nz/sd16a)

## SD24 - High Accuracy Digital Indicator.

- ◆ Microprocessor based. 5 digit display (40,000 count).
- ◆ Inputs: Thermocouple, RTD, Current, Voltage.
- ◆ High display accuracy of  $\pm(0.1\% \text{ FS} + 1 \text{ digit})$ .
- ◆ 3 Display modes: Peak hold, Bottom hold, Display hold.
- ◆ Two external control inputs standard (configurable).
- ◆ 2 or 4 Relays for events.
- ◆ Comms: RS232C, RS485; Modbus/Shimaden.
- ◆ Communicates with MicroScan SCADA and Shimaden Lite software.
- ◆ IP66 front panel.
- ◆ LED display with 14.3mm high digits.
- ◆ Optional power supply of 24Vac/dc.
- ◆ Analogue output 4~20mA or 0~10V.

MODEL	SIZE	BASE PRICE	OPTIONS	ADD PRICE
SD24	96 x 48	\$430.00	24Vac/dc power supply	\$50.00
			Alarms x2	\$60.00
			Alarms x4	\$90.00
			Retransmission *	\$100.00
			Comms * RS232, RS485 Modbus/ Shimaden	\$120.00
			Sensor Power Supply	\$100.00

**Note:**

\* Can have either Retransmission OR Comms (not both).



[www.intech.co.nz/sd24](http://www.intech.co.nz/sd24)

## KR16A - Selector switch.

- ◆ Six way selector rotary switch.
- ◆ Panel mount.
- ◆ Ideal for use with the SD16A or SD24 digital indicators.

MODEL	SIZE	PRICE
KR16A	96 x 48	\$250.00



[www.intech.co.nz/kr16a](http://www.intech.co.nz/kr16a)

## Servo Controllers

### EM51 - Servo controller.



[www.intech.co.nz/em51](http://www.intech.co.nz/em51)

- ◆ Inputs: Current or Voltage.
- ◆ Plug-in to DIN rail mount base.
- ◆ Outputs: SSR drive or Relay.
- ◆ Feedback resistance: 100 to 2000 ohms. 3 wire.

MODEL	SIZE	PRICE
<b>EM51</b>	80 x 50	\$425.00

### EM70 - Intelligent Servo controller.



[www.intech.co.nz/em70](http://www.intech.co.nz/em70)

- ◆ Inputs: Current, Voltage or Potentiometer.
- ◆ Panel mount.
- ◆ Outputs: SSR drive or Relay.
- ◆ Feedback resistance: 100 to 2000 ohms. 3 wire.
- ◆ Remote setting by digital inputs.

MODEL	SIZE	PRICE
<b>EM70</b>	96 x 96	\$990.00

## Thyristor Power Regulators

### PAC04 - Solid state relay with Radiating Fin.

- ◆ Single phase: 100~240Vac.
- ◆ Control input: 4.5~32Vdc.
- ◆ Indication: Red LED for 'on'.
- ◆ Built-in heat sink.
- ◆ DIN rail mountable.

MODEL	SIZE	PRICE
PAC04-020	20 amp	\$98.00
PAC04-040	40 amp	\$175.00



[www.intech.co.nz/pac04](http://www.intech.co.nz/pac04)

### PAC18A - Single phase power regulators.

PAC18A is a Thyristor for smooth, fast switching of power loads for ultimate control.

- ◆ Easy front key setting.
- ◆ 7-segment LED displays input and output values and various parameters.
- ◆ Phase angle or Zero voltage switching (user configurable).
- ◆ Universal Power supply: 100~240Vac.
- ◆ Control input: 4~20mA or contact.
- ◆ Current capacity: 20, 30, 45, 60, 80 & 100 amps.

MODEL	SIZE	PRICE
PAC18A-020	20 amp	\$495.00
PAC18A-030	30 amp	\$528.00
PAC18A-045	45 amp	\$726.00
For larger models.		POA



[www.intech.co.nz/pac18a](http://www.intech.co.nz/pac18a)

### PAC26 - Single phase power regulators.

- ◆ Phase angle or Zero voltage switching.
- ◆ Power supply: 200~240Vac.
- ◆ Control input: 4~20mA or contact.
- ◆ Current capacity: 20, 30, 45, 60, 80, 100, 150, 250, 350, 450 amps.
- ◆ Features: Over current protection, Soft start, Constant voltage output by voltage feedback.

MODEL	SIZE	PRICE
PAC26-031	30 amp	\$1170.00
PAC26-101	100 amp	\$2025.00
For other models.		POA



[www.intech.co.nz/pac26](http://www.intech.co.nz/pac26)

### PAC35 - Three phase power regulators.

- ◆ Phase angle or Zero voltage switching.
- ◆ Power supply: 380~440Vac.
- ◆ Control input: 4~20mA or contact.
- ◆ Current capacity: 20, 30, 45, 60, 90 & 135 amps.

MODEL	SIZE	PRICE
PAC35-020	20 amp	\$1045.00
PAC35-030	30 amp	\$1135.00
For larger models.		POA



[www.intech.co.nz/pac35](http://www.intech.co.nz/pac35)