

## Controllers

### SR90 Digital controllers.

- ◆ Autotuning controller with PID.
- ◆ Inputs; Thermocouple, RTD, Current, Voltage.
- ◆ Outputs; Current, SSR drive, Voltage, Relay.
- ◆ Optional power supply of 24Vac or 24Vdc.

- ◆ Retransmission of process value or set value.
- ◆ Set value bias by digital input.
- ◆ Alarms, Event output, Heater break alarm.
- ◆ Manual control, SV limit, PV filter, Output limit.
- ◆ Comms; RS232C, RS485 Modbus/Shimaden.
- ◆ Front panel IP66.
- ◆ Heating cooling outputs



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	Set value bias / DI	\$63.00
SR93	96 x 96	\$355.00	Retransmission	\$100.00
SR94	48 x 96	\$335.00	Comms RS232, RS485 Modbus/Shimaden	\$160.00
24Vac/dc power supply				\$80.00

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

### SR80 Digital controllers.

- ◆ Autotuning controller with expert PID processing.
- ◆ Inputs; Thermocouple, RTD, Current, Voltage.
- ◆ Outputs; Current, SSR drive, Voltage, Relay.
- ◆ Remote setting, analogue or digital.

- ◆ Comms; RS232C, RS485.
- ◆ Retransmission of process value or set value
- ◆ Set value bias by digital input
- ◆ Event output, Heater break alarm.
- ◆ Heating cooling outputs
- ◆ Front panel IP66.



MODEL	SIZE	BASE PRICE Includes Alarms.	OPTIONS	ADD PRICE
SR82	72 x 72	\$635.00	Retransmission	\$100.00
SR83	96 x 96	\$660.00	Comms	\$200.00
			Remote input	\$60.00
SR83 option only: Control output 2				\$120.00
24Vac/dc power supply				\$100.00

[www.intech.co.nz/sr80](http://www.intech.co.nz/sr80)

### 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

# Input type must be the same for 3 channels.



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

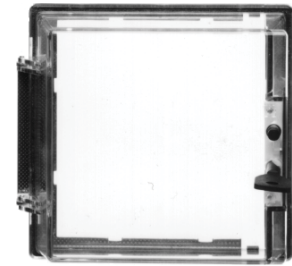
[www.intech.co.nz/mr13](http://www.intech.co.nz/mr13)

Lockable clear protection covers are available for protection against mechanical damage and unintentional or unauthorised manipulation, as well as protecting against dust and splashing water.

The panel mounting instrument (eg. Controller) is passed through the cover frame and pushed into the panel cut-out, where it is secured from behind.

**Jumo**

**Protection cover AK-96**



[www.intech.co.nz/ak-96](http://www.intech.co.nz/ak-96)

MODEL	DESCRIPTION	PRICE
AK-96	<b>Protection cover.</b> Lockable (plastic lock) High-impact clear plastic (polycarbonate) Heat-resistant up to 130°C Suitable for flush-panel mounting instruments with 96 x 96mm bezel Protection; IP65 JUMO Datasheet; 70.9710	\$138.00

**SR253 Digital controllers.**

- ◆ Autotuning controller with expert PID processing.
- ◆ Inputs; Thermocouple, RTD, Current, Voltage.
- ◆ Outputs; Current, SSR drive, Voltage, Relay.
- ◆ Remote setting, analogue or digital.
- ◆ Timer functions.
- ◆ Ramp control (10 steps).
- ◆ Event output, Heater break alarm.

- ◆ Comms; RS232C, RS422A, RS485.
- ◆ Communicates with Intech software.
- ◆ Retransmission of process value or set value.
- ◆ Set value bias by digital input.
- ◆ High and low alarms.



[www.intech.co.nz/sr253](http://www.intech.co.nz/sr253)

MODEL	SIZE	BASE PRICE	OPTIONS	ADD PRICE
SR253	96 x 96	\$1310.00	Event outputs	\$180.00
			Retransmission	\$225.00
			Comms	\$270.00
			Second output	\$135.00

**FP93 Programmable ramp controllers.**

- ◆ 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.
- ◆ Communicates with Intech software.
- ◆ Retransmission of process value or set value.
- ◆ High and low alarms.
- ◆ Event output, Heater break alarm.



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

MODEL	SIZE	BASE PRICE Includes Events	OPTIONS	PRICE
FP93	96 x 96	\$630.00	Retransmission	\$100.00
			Comms	\$160.00
			24Vac/dc Power Supply	\$90.00
			Status Output	\$80.00

## Controllers / Shimaden Lite software

### EM51 Servo controller.



- ◆ 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
EM51	80 x 50	\$425.00

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

### EM70 Intelligent Servo controller.



- ◆ 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
EM70	96 x 96	\$990.00

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

## Shimaden Lite software



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

Shimaden Controllers/Indicators	
RS485 or RS232	RS422 or RS232
SR90	FP21
SD16A	SR25
SR80	SD20
FP93	SR253
SR23	SR73A
FP23	
SRS10	
MR13	

**Notes;**

- ◆ The MR13 has no set value (SV) facility from the computer.
- ◆ 2100-IS / 2100-NS not required when using RS232.
- ◆ RS232 will connect to one controller only.

## 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 - connection example



**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.
- ◆ Two alarm relay outputs SPST.
- ◆ Comms; RS232C, RS485 Modbus/Shimaden.
- ◆ 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	Alarms	\$60.00
			Retransmission (with Alarms) OR Sensor Supply 24Vdc 25mA	\$160.00
			Retransmission (without Alarms) OR Sensor Supply 24Vdc 25mA	\$100.00
			24Vac/dc power supply	\$50.00
			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)

**KR16** Selector switch.

- ◆ Six way selector.
- ◆ Two pole push button switches.
- ◆ Panel mount.
- ◆ Ideal for use with the SD16A digital indicator.

MODEL	SIZE	PRICE
KR16	96 x 48	\$400.00

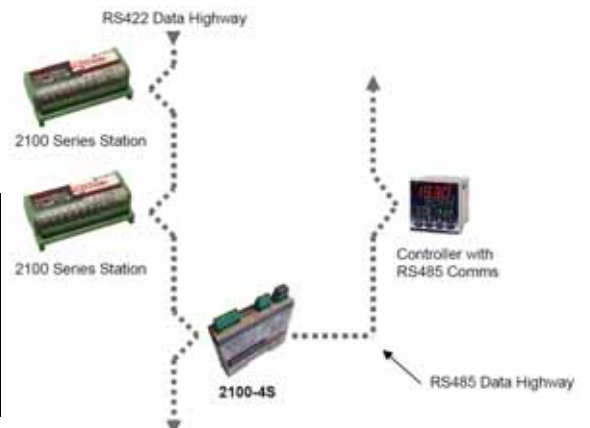


[www.intech.co.nz/kr16](http://www.intech.co.nz/kr16)

**RS422 to RS485 converter**

The **2100-4S** allows a cost effective solution for connecting equipment with RS485 COMMS (i.e. Shimaden controllers), to an existing RS422 Data highway without the expense of running a separate RS485 Data Hi-Way around the plant.

MODEL	DESCRIPTION	PRICE
2100-4S	<b>RS422 to RS485 converter.</b> <u>Comms baud rate;</u> RS422 / 485 (Software Selectable) 19200, 9600, 4800. <u>Power supply;</u> 85~264Vac/dc; 50/60Hz; 10VA. 23~90Vdc; 10VA. 10~28Vac/dc; 50/60Hz; 10VA.	\$390.00



[www.intech.co.nz/2100-4s](http://www.intech.co.nz/2100-4s)

## Controllers

### SR23 - High Accuracy Digital Controller



[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 communication protocol

Shimaden protocol

#### 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
			Comms RS232, RS485 Modbus/Shimaden	\$80.00
			Ext control DI 10 points/DO 9 points	\$160.00
			Ext control DI 13 points/DO 9 points	\$200.00

#### 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 communication protocol

Shimaden protocol

#### 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
			Comms RS232, RS485 Modbus/Shimaden	\$80.00
			Ext control DI 10 points/DO 9 points	\$160.00
			Ext control DI 13 points/DO 9 points	\$200.00



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

## Thyristor power regulators

SHIMADEN

### PAC 03

Solid state relays.

- ◆ Single phase; 100~240Vac.
- ◆ Control input; 3.5~30Vdc.
- ◆ Indication; Red LED for 'on'.
- ◆ Heat sink foot print; 100 x 100 x 60mm.

MODEL	DESCRIPTION	SIZE	PRICE
PAC03B 010-00	Relay only	10 amp	\$90.00
PAC03B 020-00	Relay only	20 amp	\$135.00
PAC03B 010-10	Relay with heat sink	10 amp	\$120.00
PAC03B 020-10	Relay with heat sink	20 amp	\$170.00



[www.intech.co.nz/pac03](http://www.intech.co.nz/pac03)

### PAC 16

Single phase power regulators.

- ◆ Easy front key setting.
- ◆ 7-segment LED displays input and output values and various parameters
- ◆ Phase angle or Zero voltage switching.
- ◆ Universal Power supply; 100~240Vac.
- ◆ Control input; 4~20mA or contact.
- ◆ Current capacity; 20/30, 50, 70, & 100 amps.

MODEL	SIZE	PRICE
PAC16-020/030	20/30 amp	\$450.00
PAC16-050	50 amp	\$585.00
For larger models		POA



[www.intech.co.nz/pac16](http://www.intech.co.nz/pac16)

### PAC 26

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)

### PAC 35

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	\$1425.00
PAC35-030	30 amp	\$1550.00
For larger models		POA



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