



# S. S. Controls

Resistance Welding Controllers

"S. S. Controls" was incepted in the year 1994 at Pune, Maharashtra. Mr. Sandeep Vilekar is the CEO of the company under whose headship it has been scaling new heights in its endeavor. The followings are some of the salient features of the company that set it apart in the international market:

The company has sound support of its state of the art infrastructure at its manufacturing unit. It is well furnished with all kinds of modern and sophisticated machines for meeting the increasing demand of our products like Welding Controllers, Seam Welding Controllers etc.

With our well established network, the company has been able to spread its market in the international market as well. Our network has also enabled in the timely and efficient distribution of our products. Subsequently, we are counted as a leading Pre Wired Control Panels Manufacturer and one of the foremost Exporters of the same.

Our products and services are offered with an assurance of high quality and standard. They are tested on different parameters by our quality control supervisors. Our team of professionals works constantly for maintaining and up gradating the constant quality of our products.



# Spot Welding Controllers

For the best quality Spot Welding Controllers, "S. S. Controls" is the perfect destination for you. The Micro Controller Based Spot Welding Controllers made accessible by us are find their application in different kinds of welding machines like table mounted microspot welders and manually operated (rocker arm type or similar) spot welding machine. They are known for their low maintenance cost. The precise time and energy control of these controllers ensures consistent weld quality. Besides, we are one of the eminent Spot Welding Machine Controller Manufacturers in India.

## Micro controller Based Spot Welding Controllers

### Features

- Compact User-Friendly micro controller based circuitry.
- 3W-OL/15 : Three consecutive programmable weld timings - preheat (W1), weld (W2), anneal (W3) with intermediate cool timings in one weld schedule to achieve high quality splash free welding.
- WCU/15 : Programmable WELD Time and Cool Time in a schedule.
- Non-Volatile Memory (EEPROM) to store up to 15 weld schedules.
- Easy to program with UP/DOWN and ENTER keys. Values programmed are indicated by a two-digit LED display. Individual operations within a weld schedule indicated by LEDs.
- Key lock switch provided for SET and RUN mode.
- Timings settable in terms of HALF / FULL cycles of mains supply frequency to achieve better resolution. Half cycle = 10msec / cycle for 50Hz supply. OR Full cycle = 20msec / cycle for 50Hz supply.
- Precise time and energy control ensures consistent weld quality.
- ONE CYCLE and REPEAT CYCLE mode selectable by toggle switch. WELD / NO WELD switch provided on the front panel.
- Two weld schedules Externally Selectable by Two Foot Switches. This features is suitable for spot welding Guns and multispot welding machines.
- Dual Gun operation option available.



### Specifications

- Input Supply : 230V / 415V AC, 50Hz/60Hz
- Output : Gate- Cathode Drive signal to drive a pair of back to Back thyristors of any capacity.
  - Built in back to back thyristors for up to 95A primary current.
  - Normally Open Relay contacts for Solenoid valves.
  - 2 Footswitch, 2 Valve operation suitable for Spot Welding Guns.
- Compensation : Supply voltage fluctuation compensation. (Output Voltage remains within  $\pm 3\%$  as against  $\pm 15\%$  variation in mains voltage.)
- Trigger : External Normally Open contacts of Footswitch. There are two options available:
  - Single / Double Initiation Footswitch
  - Two different schedules selectable by independent footswitches.
  - Option available for drive signal for two pairs of thyristors and two solenoid valves.

## Adjustment of various parameters possible as per table : .....

Squeeze Time	0-99 half cycles	Weld Energy (W <sub>2</sub> )	0-99% programmable
Preheat Time (W <sub>1</sub> )	0-99 half cycles	Cool (2) Time	0-99 half cycles
Energy Level (W <sub>1</sub> )	0-99% programmable	Anneal Time (W <sub>3</sub> )	0-99 half cycles
Cool (1) Time	0-99 half cycles	Energy Level (W <sub>3</sub> )	0-99% programmable
Slope of W <sub>1</sub>	0-9 half cycles	Hold Time	0-99 half cycles
Weld Time (W <sub>2</sub> )	0-99 half cycles	Off Time (in repeat mode)	0-99 half cycles

## Applications : .....

- Precision Control of Resistance Spot Welding Machines of any capacity 0.1kVA to 300kVA.
- Precision Control of Resistance Spot Welding Guns / Dual Guns etc.
- Multi-Spot welding machines.
- Retrofitting controls for any make / any capacity spot welders.

## Microcontroller Based Spot Welding Controller Spotpic

### Features .....

- Compact user-friendly micro controller based circuitry.
- Double initiation foot switch, FS1 operates the solenoid valve and FS2 controls welding operation.
- Non-Volatile Memory (EEPROM) to store up to 15 weld schedules.
- Easy to program with UP / DOWN and ENTER keys. A two-digit LED display indicates set values. Individual operations within a weld schedule indicated by LEDs.
- Key lock Switch provided for SET & RUN mode. WELD / NO WELD switch provided on the front panel.
- Timings settable in terms of HALF / FULL cycles of mains supply frequency to achieve better resolution. Precise time and energy control ensures consistent weld quality.
- Relay contact output provided to actuate the Motor Drive of the welding machine.



### Specifications .....

- Input Supply : 230V / 415V AC, 50Hz / 60Hz
- Output : Gate-Cathode Drive signal to drive a pair of back to back thyristors of any capacity.
- Compensation : Supply voltage fluctuation compensation. (Output voltage remains within  $\pm 3\%$  as against  $\pm 15\%$  variation in mains voltage).
- Trigger : External Normally Open contact of footswitch or limit switch.

## Adjustment of various parameters possible as per table :

Squeeze Time  
Slope for Weld (Wi)  
Weld Time  
Weld Energy  
Cool Time

0-99 half cycles  
0-9 half cycles  
0-99 half cycles  
0-99% Programmable  
0-99 Half cycles

## Applications : .....

- Resistance Seam welding machines of Any Capacity/ Any Make. ▼

# Seam Welding Controllers

We bring forth high precision Seam Welding Controllers in the national and international markets. The Micro Controller Based Seam Welding Controllers that we supply in the industry are used in Resistance Seam welding machines of any capacity and make. They have compact user-friendly micro controller based circuitry with non-volatile memory (EEPROM) to store up to 15 welding schedules. The key lock switch is provided for SET & RUN mode and WELD / NO WELD switch is also there on their front panel. In addition to this, we are one of the major Resistance Seam Welding Controllers Manufacturers in the country.



## Features .....

- Compact user-friendly micro controller based circuitry. ▼
- Double initiation foot switch, FS1 operates the solenoid valve and FS2 controls welding operation.
- Non-Volatile Memory (EEPROM) to store up to 15 weld schedules.
- Easy to program with UP / DOWN and ENTER keys. A two-digit LED display indicates set values. Individual operations within a weld schedule indicated by LEDs.
- Key lock Switch provided for SET & RUN mode. WELD / NO WELD switch provided on the front panel.
- Timings settable in terms of HALF / FULL cycles of mains supply frequency to achieve better resolution.
- Precise time and energy control ensures consistent weld quality.
- Relay contact output provided to actuate the Motor Drive of the welding machine.

## Specifications .....

- Input Supply : 230V / 415V AC, 50Hz / 60Hz
- Output : Gate-Cathode Drive signal to drive a pair of back to back thyristors of any capacity.
- Compensation : Supply voltage fluctuation compensation. (Output voltage remains within  $\pm 3\%$  as against  $\pm 15\%$  variation in mains voltage).
- Trigger : External Normally Open contact of footswitch or limit switch.

## Adjustment of various parameters possible as per table : ▼

Squeeze Time  
Slope for Weld (Wi)  
Weld Time  
Weld Energy  
Cool Time  
Hold Time

0-99 half cycles  
0-9 half cycles  
0-99 half cycles  
0-99% Programmable  
0-99 Half cycles  
0-99 half cycles



## Applications : .....

- Resistance Seam welding machines of Any Capacity/ Any Make.

## Synchronous Digital Controllers

We provide technically advanced Synchronous Digital Controllers in domestic as well as global markets. The Automatic Digital Controller of Synchronous is widely used for manually operated simple Resistance Spot Welders. It can also replace simple timer contactor configuration of the welding machines. These kinds of Synchronous Digital Controllers are available with easy to easy to read thumbwheel switches for setting number of weld cycles. In addition to this, the company is regarded as one of the leading Synchronous Digital Vlsi Controllers Exporters in India.



## Features .....

- Compact user friendly low cost controller. Precise time & energy control ensures consistent weld quality.
- Easy to read thumbwheel switches for setting number of weld cycles.
- Built in compensation against fluctuations in the mains supply voltag

## Specifications .....

- Input Supply : 230V/415V AC, 50Hz/60Hz
- Output : Gate-Cathode drive signal to drive a pair of back to back thyristors of any capacity.
- Built in back to back thyristors ( 95A Max).
- Weld Time : 0-99 cycles ( 1/2 cycle of I/P supply frequency).
- Weld Energy : 0-100% adjustable by potentiometer.
- Trigger : External N/O contact. Actuates on contact closure.
- Trigger Delay : 0.1 sec - 3 sec, adjustable by potentiometer.
- Indicators : Mains ON, WELD

## Applications : .....

- Manually operated simple Resistance Spot Welders.
- Can be used as a perfect Product for Upgradation of existing spot welders.
- Replaces Simple Timer Contactor Configuration.

## Pre Wired Panels

The company is engaged in offering the finest quality Pre Wired Panels in the industry. These Pre Wired Control Panels for Resistance Spot Welding Machines are also used in Spot Welding Guns, Resistance Projection Welding Machines and Resistance Seam Welding Machines. These pre-wired panels are known for their compact designs and are free from any wear and tear for a longer period of time. They also save a lot of space and consequently, we are considered as one of the leading Pre Wired Panel Manufacturers and suppliers of India



## Pre-wired Panels will consists of .....

- S.S.Controls Controllers as per Models described.
- Back to Back Thyristors as per Capacity of the machine – Water Cooled, Air Cooled options available.
- In-built sensor inputs for Thyristor Overheat, Transformer Overheat, Water Flow etc.
- MCB / ELCB / RCCB for operator safety.
- Compact design, Saves floor space.

## Applications : .....

- Spot Welding Guns.
- Resistance Spot welding Machines.
- Resistance Projection Welding Machines.
- Resistance Seam Welding Machines.

## Thyristor Power Controllers

"S. S. Controls" brings in superior quality Thyristor Power Controllers in the international market. The Microprocessor Based Thyristor Power Controllers made available by us, have single, two and three phase A.C. SCR power controllers for resistive inductive loads. These Thyristor Power Controllers can also be availed in analog version. They find numerous applications in A. C. power control of inductive and resistive loads of any capacity. Apart from the above fact, the company is identified as one of the chief Thyristorised Power Controllers Manufacturers in India.



### Thyristor (SCR) Power Controllers / Power Control Circuits.

- Single / Three Phase / Two Phase A.C. SCR Power Controllers for Resistive Inductive Loads.
- Microcontroller / Analog Versions available.

## Applications : .....

- A.C. Power Control of Inductive / Resistive Loads of any Capacity.
- Resistance Metal Gathering / Heating Machines.

### Thyristor Control Cards / Circuits .....

- Single Phase / Two phase Thyristor control Cards for Resistive / Inductive Loads.
- Microcontroller (Digital) / Analog version available.

## Wire Feeder Motor Drive

The company is dedicatedly engaged in the manufacturing and supplying of high performing Wire Feeder Motor Drive in the international market. The Gear Drive Wire Feed Motor that we supply in the industry is available with DC motor drive widely used in MIG Welding Machines. These wire feeder motor drives are compact in design and are easy to fit in the welding machines. They are known for their durability and long lasting functional life. In addition to this, we are one of the distinguished Electric Wire Feeder Motor Drive Exporters in the market.



## Wire Feeder Motor Drive for MIG Welding Machines.

- DC Motor Drive for MIG Welding Machines.
- Compact Design.
- 24VDC, 36VDC Motors.
- Single potentiometer control.
- Gas check, Two Track / Four Track / Spot Timer / Solid state main contractor and solenoid valve drive.

## Battery Tabs Welding Machine

"S. S. Controls" is specialized in the manufacturing and exporting of high end Battery Tabs Welding Machine in the national as well as international markets. The Microspot Welding Machine for Capacitors made available by us is manufactured using highly advanced technology. Our Battery Spot Welding Machine is used in a number of applications like manufacturing of battery packs, lead welding of capacitor elements and welding of small parts like bulbs, thermocouple wires, wire harnesses etc. In addition to this, the company is counted as one of the reputed Battery Tabs Welding Machine Exporters in India.



### Specifications: .....

- Controller : Microprocessor Based Welding Controller, Our Model- 3W-OL / 15 For Precise Welding, Fully Synchronous, with Half Cycle Control.
- Welding Head : Pneumatically Operated Welding Head along with series Welding Assembly and adjustable platform to hold different sizes of battery cells. 100% Liner motion. No Electrode skid movement during welding. Thickness 0.03mm-0.6mm.

### Applications: .....

- Manufacturing of Battery Packs.
- Lead Welding of Capacitor Elements.
- Welding of Small parts like Bulbs, Thermocouple Wires, Wire Harnesses etc.

## Resistance Spot Welding Controller

The company offers the best quality Resistance Spot Welding Controller in the international market. These spot welding controllers are available with secondary current feedback for constant current output. The easy to mount toroidal current sensing coil attached with them enable these controllers for accurate current feedbacks. Besides, they also have error detection system for transformer over heat, thyristor over heat, pressure, water flow etc. In addition to this, we are one of the prime Digital Resistance Spot Welding Controller Exporters in the market.

### Features .....

- Secondary Current Feedback for Constant Weld Current Output.
- Eliminates Variation in weld output because of transformer losses.
- Current feedback with the help of easy to mount toroidal current sensing coil.
- Selection of constant current / constant voltage by user.
- User selectable spot / seam mode.
- Error detection for transformer over heat / thyristor over heat / pressure, water flow etc.



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