

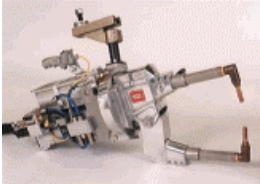


typical applications

Unipak replacement



manual stations



multiwelders



seam welders



WS500 welding control

data sheet



Reliability from simplicity

The WS500 is a compact, robust unit providing basic control for resistance welding. The membrane front panel has a water-resistant finish and incorporates four push buttons and an LCD for simple programming and monitoring. Connections are via a plug-in connector block and four studs are provided for mounting. Alternatively, the WS500 can be supplied in a wide range of housings incorporating circuit breaker and thyristor units.

features	benefits
single/repeat/half-cycle/roll-spot/seam modes	versatile
dual heat weld + pulsation	can be used for coated materials
integral programmer	always available
50/60 Hz operation	international
up to 8 user-defined programs	store settings for different material and thicknesses
retract control	suitable for most types of gun operation
counter with optional lock-out	can be used for electrode maintenance
24 V dc supply	simple installation
cross-interlock	safety and load-sharing

options

ELR/1 earth-leakage relay • 2-hand start unit
 8-position remote program select unit #90-80-06-02
 3PA/2 3-phase adapter
 dual gun adapter (does not include retract function)

configurations

W6, Monopak, Unipak housings

WS500 welding control

data sheet

welding parameters x 8			configuration (continued)	
mode	single/repeat		retract	none, simple, high-lift +/-
heat1	0..99%		frequency	50/60 Hz
heat2	0..99%		interlock	on/off
presqueeze	0..99 cycles		heat range	high/low
squeeze	0..99 cycles		cross-interlock	external/ring
weld1	0..99 cycles			
cool1	0..99 cycles		environmental	
weld2	0..99 cycles		temperature	
cool2	0..99 cycles		- operating	32° to 122F
pulses	1..9		- storage	-13° to 158°F
hold	0..99 cycles		humidity	
balance	0..60% (seam mode only)		- operating	up to 80% (relative)
off	0..99 cycles		- storage	10% to 90%
counter (configuration types 3,5,6,7 and 10 only)			dimensions	
actual count	0..9999		height	6.25"
end count	0..9999		width	5"
at end of count	stop/continue		depth	1.25" + .75" for connector
			weight	1.5 lbs
configuration		programs	power requirements	
type			voltage	24 V dc
- 00 spot/repeat	simple spot welding with no other functions	8	sync. frequency	50/60 Hz
- 01 spot/repeat with cross-interlock	spot welding with an output that can be used to prevent other machines from welding	4	current	< 500 mA (all outputs off)
- 02 spot/repeat with retract	spot welding with an input and output for controlling the gun position	4		
- 03 spot/repeat with counter	spot welding with an output that activates when the count is reached	4		
- 04 spot/repeat with cross-interlock and retract	a combination of types 01 and 02	2		
- 05 spot/repeat with counter and retract	a combination of types 02 and 03	2		
- 06 spot/repeat with counter and cross-interlock	a combination of types 01 and 03	2		
- 07 spot/repeat with counter, cross-interlock and retract	a combination of types 01, 02 and 03	1		
- 08 half cycle	spot welding using only one half-cycle weld duration	8		
- 09 half cycle with cross interlock	a combination of types 08 and 01	4		
- 10 half cycle with counter	a combination of types 08 and 03	4		
- 11 roll-spot	spot welding with an output to operate motor-driven welding wheels during the OFF time between sequences	8		
- 12 seam	uses seam wheels, a motor drive and continuous or modulated current to provide a seam weld	8		
			i/o ratings	
			inputs	< 10 mA @ 24 V dc
			outputs	< 500 mA @ 24 V dc
			SCR drive	5 kHz; 1:10 mark/space; first pulse 24 V; subsequent pulses > 15 V

Information in the document is subject to change without notice.

91-10-00-00-23 rev. 3 © 2003 BF ENTRON Ltd.

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