

Weld Oscillator Oscillation Control Slide

System Description

Operating Instructions

Installation Instructions



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subject to alteration

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A motor operated for AVC and oscillator operation with a loading capacity of up to 60 kg



System Description

The system has been developed for use as an oscillator for mechanised welding. By use of an external "start" signal the adjustable delay begins, after which the oscillating motion begins. The oscillation speed is controlled by an external guide voltage (0-10 volt), an external potentiometer or by an internal 10 gear potentiometer.

After switching off the "start" signal the appliance automatically travels to the middle position.

The IEG oscillating equipment consists of:

- Control A3 Oscillator
- Slide D-104/HD

or

- Slide D-204/HD with tacho controlled motor and incremental encoder

Dimensions:	180 x 120 x 50mm (H x W x D)
Amplitude:	55 mm
Speed:	310 mm/min
Weight:	2,0 kg incl. torch
Load capacity:	10 kg axial load 20 kg radial load

The IEG Control A3 Oscillator consists of:

A-200 4-Q motor control

IEG multi I/O

The "Europa" card which has been assembled with a processor **controls the oscillation amplitude, the start delay, the** dwell time right and left as well as the oscillation speed.

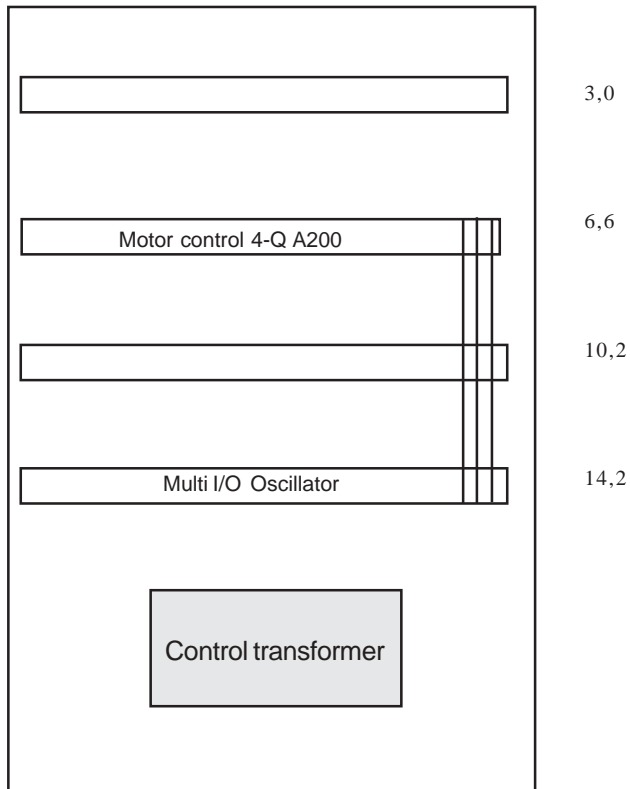
The dwell times for the right and left position can be set separately. 8 parameter sets (amplitude, start delay, dwell times right and left, oscillation speed) can be stored. The settings are made by means of a step switch or an external guide voltage 1-8 volt DC. A key switch prevents altering the stored settings by mistake.

If required a control signal for an external axis can be transmitted so that this can be stopped during the end dwell times.

Operating Instructions

Potentiometer Delay	enables an adjustable delay time of the oscillation movement after the "start" signal. The time 0-5 secs can be set.
Speed 10 gear potentiometer	adjustable oscillation speed mm/min
Settings 1-8 and key switch	Settings can only be made when the key switch is released
Setting of positions	by pressing the key "right" travel to the required position. Release key. After approx. 2 seconds the oscillator returns to the middle position. The distance travelled is automatically stored. The same procedure is used for the left position.
Storage of setting	<p>The storage settings 1-8 can be chosen using the record switch. The key switch has to be released.</p> <p>The oscillator starts to travel to the set position when the toggle switch "Test" is activated. The delay, dwell times and the oscillation speed can now be set. The switch "Test" is now set at 0 and the key switch locked. Your settings are now stored in the relevant record and remain stored even during power failure.</p>
LED mains	lights up when the internal auxiliary voltage 15 volt is available
LED active	lights up as long as the system is activated, blinks when a position has not been found. By pressing a positioning key this message is cancelled. The oscillator travels automatically to the middle.
Options	If required a control signal for an external axis can be transmitted so that this can be stopped during the end dwell times. Altering the amplitude during oscillation.

Distribution of cards



Rear terminal strip

- 1 GND
- 2 speed internal
- 3 speed external 0-5 Volt DC
- 4 Setting internal
- 5 Setting external
- 6 Key right internal
- 7 Key right external optional
- 8 Key left internal
- 9 Key left external optional

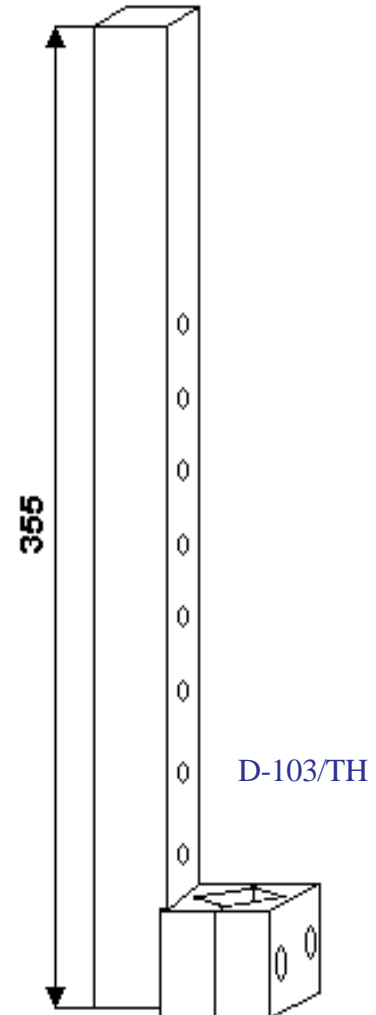
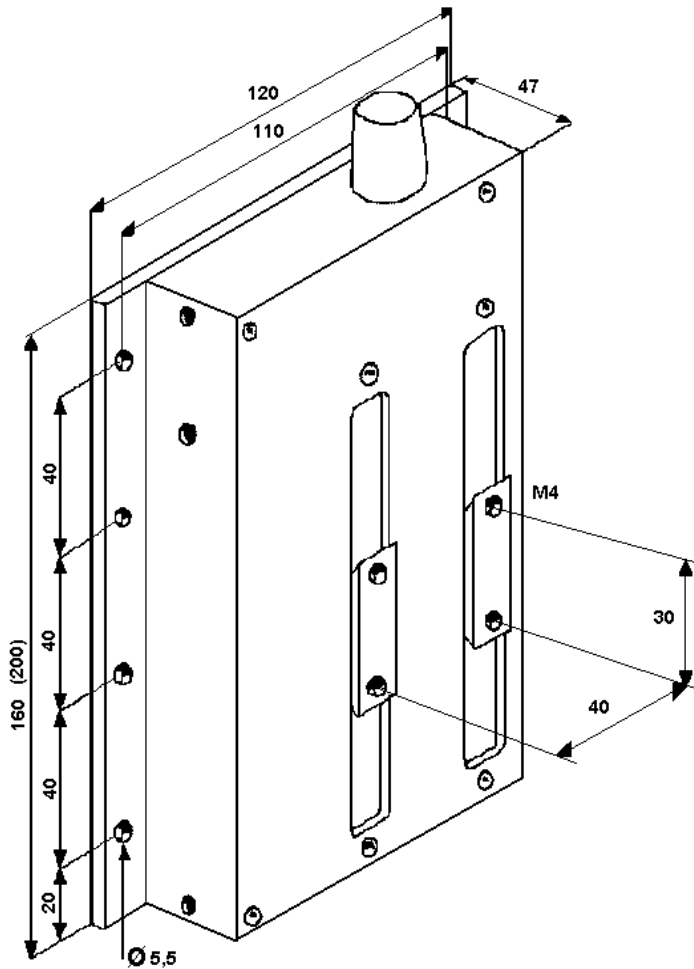
Supply: 230 V AC from mains cable and shock-proof plug
Signal Start: potential-free contact, used closed
Guide voltage speed: 0-5 Volt DC
Guide voltage setting selection: 1-8 Volt DC

Warning: when using an external guide voltage of 0-10 V for speed E O on the I/O card has to be altered

Slide D-104/HD

with a load capacity of 15 kg and a traverse path of 55 mm

D-104/HD



- 3 green GND
- 4 yellow U-leit

X2 (Colours altered 01.2001)
Plug / socket oscillator 14 pole IC4000

32 pole spring contact strip

wire colour

oscillator plug
12 pole

- 1 + 5 Volt Tacho
- 2 Track A
- 3 Track B
- 4 GND
- 5 U- Mot
- 6 U- Mot
- 7 TCP top
- 12 Key right
- 13 TCP middle
- 14 Key left

- 0060 4 Q 26 a
- I/O Oscillator 6c
- 4 - Q-Motor control 20c
- 4 - Q-Motor control 20a
- I/O Oscillator 24 a
- I/O Oscillator 26 a
- I/O Oscillator 24 c

- grey
- brown
- nc
- white
- pink
- blue
- yellow
- nc
- grün
- nc

- C
- G
- H
- D
- A
- B
- E
- K
- F
- J

VG32-oscillator

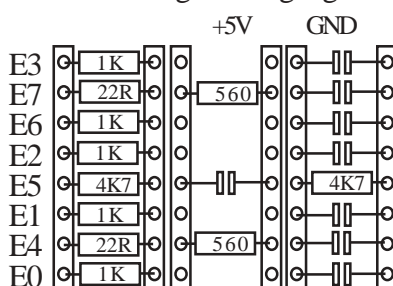
<i>Data In</i>	RxD	2c 2a	TxD	<i>Data Out</i>
<i>Start (Keine Funktion*)</i>	OC 1	4c 4a	+ OC 1 +15V	
<i>Spur C</i>	OC 2	6c 6a	+ OC 2 +15V	
<i>10V = Pause</i>	A 7	8c 8a	A 6	<i>0V = Pause</i>
	A 5	10c 10a	A 4	<i>Status LED</i>
<i>U-Leit Motor 4Q</i>	A 1	12c 12a	A 0	<i>U-Leit Motor</i>
	A 2	14c 14a	A 3	<i>Motor Ein</i>
<i>Motorstart</i>	RI 2	16c 16a	RI 2	<i>GND</i>
<i>Drehrichtung Rechts</i>	RI 1	18c 18a	RI 1	<i>GND</i>
<i>Freigabe (Hand Rechts*)</i>	E 4	20c 20a	E 0	<i>(*) Verzögerung</i>
<i>Satz 1...8</i>	E 5	22c 22a	E 1	<i>(*) Verweilz. links</i>
<i>Hand Li., Re. (Hand Links*)</i>	E 6	24c 24a	E 2	<i>(*) Verweilz. rechts</i>
<i>Geschwindigkeit (+/- 10%*)</i>	E 3	26c 26a	E 7	<i>TCP Li ___-- Re</i>
<i>Netzteil</i>	-15V	28c 28a	-15V	<i>Netzteil</i>
<i>Netzteil</i>	+15V	30c 30a	+15V	<i>Netzteil</i>
<i>Netzteil</i>	GND	32c 32a	GND	<i>Netzteil</i>

* = Nur in der IC4000 Version

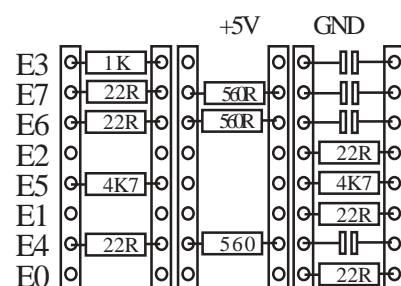
Code am Codierschalter

1	<input type="checkbox"/>	Frei
2	<input type="checkbox"/>	Fernsteller vorhanden
3	<input type="checkbox"/>	Karte im IC4000
4	<input type="checkbox"/>	Testmodus & Standard-Daten

Beschaltung der Eingänge



IC4000 Version



VG32-A0060/3 4Q motor control

<i>Sollwert +/- 10 Volt</i>	2c 2a	<i>Sollwert 2</i>
<i>Störmeldung Mot 1</i>	4c 4a	<i>Störmeldung Mot 2</i>
<i>Linkslauf Mot 1</i>	6c 6a	<i>Rechtslauf Mot 2</i>
<i>Rechtslauf Mot 1</i>	8c 8a	<i>Rechtslauf Mot 2</i>
<i>NC</i>	10c 10a	<i>NC</i>
<i>NC</i>	12c 12a	<i>NC</i>
<i>Spur A Mot 1</i>	14c 14a	<i>Spur A Mot 2</i>
<i>Enable Mot 1</i>	16c 16a	<i>Enable Mot 2</i>
<i>Motor 1 Out</i>	18c 18a	<i>Motor 1 Out</i>
<i>Motor 2 Out</i>	20c 20a	<i>Motor 2 Out</i>
<i>NC</i>	22c 22a	<i>18-24 Volt AC Versorgung</i>
<i>NC</i>	24c 24a	<i>18-24 Volt AC Versorgung</i>
<i>+ 5 Volt Tachoversorgung</i>	26c 26a	<i>+5 Volt Tachoversorgung</i>
<i>-15 Volt</i>	28c 28a	<i>- 15 Volt</i>
<i>+ 15 Volt</i>	30c 30a	<i>+ 15 Volt</i>
<i>GND</i>	32c 32a	<i>GND</i>

Technical data

Slide D-104/HD

Dimensions:	Slide:	180 x 120 x 50 mm (H x W x D)
	Slide with torch holder:	410 x 120 x 122 mm (H x W x D)
	max. height:	410 mm with mounted torch holder at the max. extended position
	Slide with mounting plate:	180 x 120 x 70 mm (H x W x D)
Mounting :	Mounting holes on the base plate every 40 mm a = 110 mm, RM = 40 mm, bore dia. = 5,5 mm	
Travel length:	max. 50 mm	
Required speed:	max. 304 mm/min other speeds possible if required	
Weight:	2,0 kg incl. torch holder	
Load capacity:	10 kg axial load 20 kg radial load	
Torch Holder:	355 mm long with clamping device for torch diameters of 25-42 mm. The torch holder and clamping device can be mounted variably every 30 mm.	
Motor:	max. 24 V DC	
Encoder:	Supply 5V DC, tracks A, B. Outputs in push-pull connection max. capacity 300 mA Resolution 0,0042 mm/incremental.	
Tacho:	Tacho voltage max. 5V DC	
Limits:	limited "right" and "left" by a built in microswitch	
Reference points:	"right" and "left" reference point with microswitch "middle" reference point with microswitch	