



Heat Treatment Units

WELDOTHERM®-VAS with DIGIT 1000

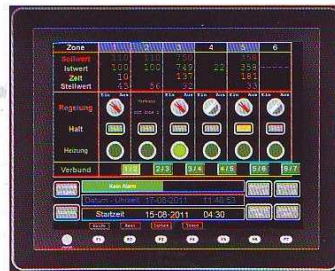
WELDOTHERM® VAS unit with multiple zone temperature control system Digit 1000 offer you state-of-the-art technology. With this technology, the usual individual programmers are replaced with controller modules, which are operated via a touch panel. Up to 36 control zones can be programmed. The zones can be controlled individually, in groups or in a network and in a time- and temperature-independent manner. The Digit 1000 can be monitored and controlled at the PC.

The user can be informed per e-mail about all relevant data and can intervene in the process via GSM modem by means of a mobile phone.

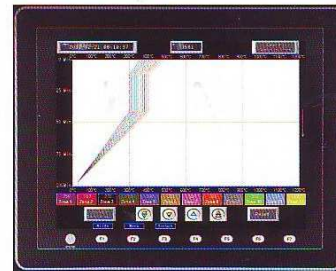
The heating current monitoring detects defective heating elements and with the extended contactor monitoring contributes to the highest process reliability. All measured values are recorded digitally and saved on a CF-card. They can be transmitted via USB connection.



Calculator for suitable heaters



Operation



Temperature/Time diagram



Glühdaten Weldotherm Digit 1000							
Zone	1	2	3	4	5	6	
Vorlauf	0	0	0	0	0	0	
Rampe	700	310	320	330	340	350	
Temp	700	310	320	330	340	350	
Zeit	00	30	30	30	30	30	
Rampe	700	300	300	300	300	300	
Temp	0	810	620	630	640	650	
Zeit	0	30	30	30	30	30	
Rampe	0	300	300	300	300	300	
Temp	0	310	320	330	340	350	
Zeit	0	30	30	30	30	30	
Rampe	0	310	320	330	340	350	
Temp	0	29	25	25	25	25	

Prozessdaten Weldotherm Digit 1000							
Zone	0	0	0	0	0	0	
Soll	455	464	475	483	494	504	
Ist	455	464	475	483	494	504	
Zeit	29	29	29	29	29	29	
Stellwert	43	44	45	46	47	48	
Heizstrom							
Status							

Display of actual data of Digit 1000 in Excel

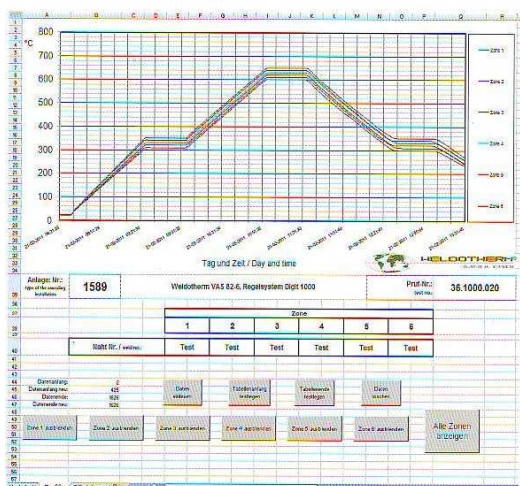


Chart display in Excel

Technical specifications

- Program controller: Basic design: 6 independent control zones, model K, NiCrNi, relay output
12 independent control zones, type K, NiCrNi, relay output
- Programmable characteristics:
 - Start temperature: -100 to 1200 °C
 - Heating-up gradient: 0 to 9998 K/h (9999 = step)
 - Cooling-down gradient: 0 to 9998 K/h (9999 = step)
 - Holding time: 0 to 9998 minutes (9999 = infinite)
 - Holding temperature: -50 to 1200 °C
 - Program length: 7 program phases and a lead time
 - Storable programs: 20 program memories, several thousand via recipe function serial, via all control zones
- Program linking: Touch screen, USB keyboard or USB mouse at any time, even during running program
- Program input: exchangeable Lithium battery, data preservation for approx. 5 years
- Program correction: all relevant parameters can be adjusted in the controller set-up
- Program back-up: Two-point controller, PID controller with self-optimisation, P-controller
- Control parameters: Thermocouple type K, J, R, S, E, T, B, N, PLII, WRe5-26, U, L
- Control behaviour: Resistance thermometer model Pt100, JPt100 floating relay output, 240 V AC, 2 A
- Controller input: ± 0.7 % of the input range, ± 1 digit
- Controller output: Control system consists of the components touch screen, function modules for 35 mm rail acc. to DIN 46277
- Overall error: 100 – 240 V AC + 10 %/– 15 %, 50/60 Hz 70 VA
- Configuration: 0 – 55 °C, atmospheric humidity 5 – 95 % without condensation
- Power supply: 10.4" x 12.1"
- Environmental conditions: 26.4 cm x 30.7 cm
- Dimensions touch screen: 303.8 x 231.0 x 69.0
- Visible diagonal: 326.4 x 259.6 x 69.0
- Dimensions: 289.0 x 216.2
- Front panel cut-out: 313.0 x 246.2
- Type of protection: Front touch screen IP65; built-in parts IP20

Order No.

Item

- 100600: VAS 45-6 with DIGIT 1000 and temperature recorder BH60-6
- 100700: VAS 82-6 with DIGIT 1000 and temperature recorder BH60-6
- 100701: VAS 82-12 with DIGIT 1000 and temperature recorder BH60-12
- 100800: VAS 130-6 with DIGIT 1000 and temperature recorder BH60-6
- 100801: VAS 130-12 with DIGIT 1000 and temperature recorder BH60-12
- 100900: Modem, aerial, heating current monitoring, 6-channel
- 100901: Modem, aerial, heating current monitoring, 12-channel



WELDOTHERM® Measuring Device MK 1300

WELDOTHERM® MK 1300 is a handy, quick and precise temperature measuring device. This can also be used as a precision voltage transmitter for the measuring range of NiCr-Ni 0–1200 °C. The device is equipped with a comparison measuring point! The accuracy is $\pm 0,15\%$ of the measuring

range! In combination with a surface sensor the MK 1300 can be used for measuring surface temperatures.



MK 1300

Technical Data

Display temperature:	7 segments, red
Display operating mode	
Calibrating/measuring:	1 x LED, blue
Display battery status:	1 x LED, red
Dimensions (W x H x D):	180 x 80 x 180 mm
Weight:	3,1 kg

Order No. Item

400400	WELDOTHERM® MK 1300, NiCr-Ni
400401	Spare charging cable
400402	Hard-top case
400403	Multi-Quick-Plug for presetting of 6 measuring points during temperature recorder calibration
400404	Surface Temperature Sensor NiCr-Ni, 300 mm long, handhold, 1 m connection cable, thermocouple plug

WELDOTHERM® Measuring Device BP 20

WELDOTHERM® BP 20 is an infrared temperature measuring device, cell phone sized. It is equipped with a dual target laser for focusing the measuring point. The emission factor can be adjusted.

The LCD display is well readable because of its size and its backlight. The infrared measuring range is $-35^{\circ}\text{C} \dots +800^{\circ}\text{C}$.



BP 20

Technical Data

Measuring range infrared:	$-35^{\circ}\text{C} \dots +800^{\circ}\text{C}$
Accuracy IR-sensor:	$-35^{\circ}\text{C} \dots +20^{\circ}\text{C} = \pm 2,5^{\circ}\text{C}$ $+21^{\circ}\text{C} \dots +300^{\circ}\text{C} =$ $\pm 1\%$ of indicated value $+301^{\circ}\text{C} \dots +800^{\circ}\text{C} =$ $\pm 1,5\%$ of indicated value
Working temperature:	$0 \dots 50^{\circ}\text{C}$
Dimension:	82 x 42 x 160 mm
Weight:	180 g
Scope of supply:	Device with batteries, hand strap, protection case, operation manual

Order No. Item

400500	BP 20
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