OC508 mV-Calibrator
Simulator of Thermocouples

√ Simulation of DIN-Thermocouples J, K, N, R, S, T, B, E
√ Measurement of mV-Signals
√ mV Calibrated Output 0 … 65.535mV
√ Junction Compensation
√ USB Terminal
√ BCD parallel or Binary Input
√ BCD parallel Output

Model OC508 is a programmable mV Calibrator and Simulator of DIN Thermocouples. The type of the Thermocouple, the Temperature or the mV Signal can be set from the keys at the front, via USB or optionally from BCD parallel or Binary Data Port. The generated mV output signal ranges between 0mV and 65.535mV. The output can be set directly in mV or in Temperature °C through the selected internal linearizing DIN T/C table.
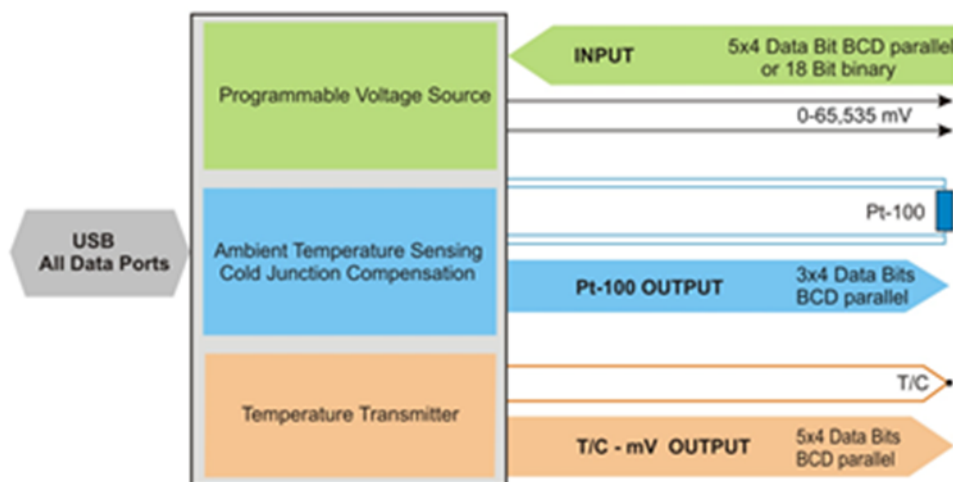
The basic unit is a precision, temperature compensated programmable voltage source with a resolution of 1µV and stability of 10ppm. It is free programmable from 0 to 65535µV.

The measurement of external mV Signals has the basic range of ±100mV. It is jumper selectable for other signals. The measuring chain can be calibrated from the keyboard in the Calibration Submenu.

Soft Manager OC508W for Windows is available for controlling OC508 from a PC via the USB Port. The Data can also be entered from BCD parallel or Binary Ports, permitting operation from programmable controllers. Generated signals are available at a BCD parallel port for further use.

For Junction compensation an external 4W Pt-100 can be used. The measured ambient temperature is displayed at the LCD front panel display and available at the BCD parallel port.
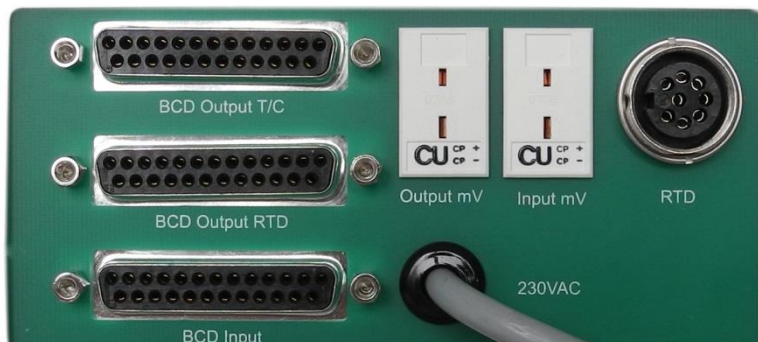
PRINCIPAL OF OPERATION

SPECIFICATIONS OC508

ENTRY

Selection	The mV or the Temperature can be set from:		
	Keyboard	Three keys at the front	
	USB	Bidirectional Data Port for PC. Soft Manager for Windows.	
	Option	BCD parallel 5x4 bit or	
		Binary 18 bit	(Firmware factory set when ordered)

Output	OUTPUT mV	0 - 65535 µV, Resolution 1 µV, Cu Terminal
	USB	Bidirectional Data Port
	Option	5x4 bit, mV-values according to the selected T/C Table

Signal Type	LINEAR	Range 0 … 65535 µV
	T/C	B, E, J, K, N, R, S, T, Linearizing in 1 Degree Steps

LCD Display	2x20 characters	mV-Signal	-99.999 to 99.999mV
		Temperature	DIN Table in °C
		Pt-100	External Temperature (Junction) in °C

MEASUREMENT

INPUT mV	Basic Range	±100mV, Cu Terminal. Other ranges 1V, 10V, 20mA
	Output	BCD OUTPUT T/C 5x4 Bit
	USB	Bidirectional Data Port

Pt-100	four terminal connections for external sensor (Junction compensation)	
	Output	BCD OUTPUT RTD 3x4 Bit
	USB	Bidirectional Data Port, Values in °C

Terminals	Data:	D-SUB 25 Pin for parallel Data Inputs and Outputs
	Pt-100:	8 Pin connector, 4W
	mV Signals:	Cu terminal

Supply	230VAC or 24VDC (Option), 6VA

Enclosure	Table PUR case 140x70x190mm (WxHxD), Weight 1,1 kg.

Terminals at the rear   (Parallel In- and Outputs are Option)

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