

GET STARTED

OHMIGO USB

Ohmigo®.USB is a precision digital controllable resistor making it possible digitally control and Cloud-connect any existing analog equipment, using a two-wire thermistor or any other RTD for temperature sensing. Input can be serial ASCII data, a custom-made proprietary serial protocol or an analog voltage signal 0-10V and output generated is a resistance ranging from 68.5 ohm up to 9 000 000 ohms with superior accuracy, overall better than 1%.

During the first seconds of operation a LED indicates polarity of Rout and GND – Reverse wiring if RED.
If TYPE is other than default NI1000LG, LED flashes two digits MORSE representing configured default TYPE and polarity.



Technical Data

Power supply 5 VDC via USB
Resistance output 68.5 ohm ... 9 000 000 ohm, Error < 1%
Analog IO 0 – 10.0 VDC
Enclosure L58 x W25 x H13 mm IP43
Weight 50g

Wiring Rout Resistans output +
GND Resistans output GND
CONFIG Select AIN mode if connected to GND
AIN Analog input 0 – 10 V, -50.0 'C ... +50.0 'C
Default output is TYPE=01 Ni1000LG

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Modes

MODE: USB SERIAL ASCII INTERFACE – 9600Bd

AT?<CR><LF> Print device info, serial number, and firmware version

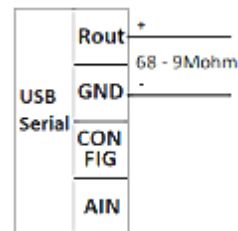
OHMIGO Precision RTD simulator Firmware: 1.10 Nov 22 2022 09:11:00 Serial.No:42-1302-2380-9146-1220

AT.....Command start "AT" and use "," to separate commands
 R=xxxx.xx.....Output resistance, range 67 ohm - 9.0 Mohm, use decimal "."
 T=ttt.t.....Output resistance for temperature ttt.t - Default TYPE=1
 T=ttt.t,TYPE=NN.....Set resistance for ttt.t with output TYPE=NN, new TYPE saved as default
 POLARITY.....Checks polarity of connection to Rout-GND - returns "OK" or "ERROR"
 ACK.....Ack data including polarity - returns "OK", "ERROR=SYNTAX" or "ERROR=POLARITY"
 SLEEP.....Enters sleep after output. WakeUp on SERIAL or RESET
 AIN.....Toggle default Ain scale 0-10V = -50..+50'C or -30..+70'C (from V1.10)
 ATR=1959.08,ACK,SLEEP<CR><LF>.....EXAMPLE: 1959.08 ohm, ACK and then enter SLEEP

SUPPORTED TYPES

1 = NI1000LG	11 = NTC1K	21 = PT1000DAN
2 = NI1000DIN	12 = VRC693	22 = KTY10-6
3 = PT1000	13 = PT100	23 = PT500
4 = TA-EGU	14 = NTC5220	24 = NTC12K
5 = STAEFA-T1	15 = BALCO500	25 = PTC1650
6 = T7043B	16 = NI500	26 = NTC50K
7 = NTC10K	17 = NTC3K	27 = PT1000
8 = NTC20K	18 = NTC22K	28 = NTC5K
9 = QAC31	19 = KTY11	29 = AF60
10 = NTC2200	20 = PTC5224	30 = CTC/NIBE
		31 = IVT 4,7K

CURRENT CONFIG TYPE 001 = Ni1000LG



MODE: ANALOG INPUT 0...10V – scaled -50..+50'C or -30..+70'C

Change default TYPE Send ATT=0,TYPE=xx<CR><LF>
 Change default AIN Send ATAIN<CR><LF> - changes scale

Ohmigo.USB stores and uses the latest TYPE and AIN selected.
 Jumper between CONFIG and GND selects AIN as input.

