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200 Amp Digital Micro-Ohm Meter
Micro-Centurion II

Command Set

V1.24

MC2 Communication Port

1 Hardware Protocol

9 pole D-Sub

Pin 2 TXD Data $\mu\Omega$ Junior Computer

Pin 3 RXD Data Computer to $\mu\Omega$ Junior

Pin 7 GND

+/- 12 V Signals

Protocol: 19200 Baud, 8 Bit, 1 Stopbit, no parity

2 Software- Protocol

Required firmware version u200 1.00 and later.

2.1 Printer Output Port

2.2 Syntax of Commands

„cc [Data1[;Data]..]Term”

cc = 2 ASCII Character for the Command

‘;’ (semicolon or white space) Separator for multiple Data fields

Numeric Format of Numbers: float (C - Language), “.” as decimal point

Format of Strings: all ASCII Characters from 0x20 to 0x7f]

Terminator: „CR“ (= 0x0D) or “LF” (=0x0A)

Answers without data

"*0 ok";	Commando ok
"*1 unkn";	unknown Command
"*3 Emerg"	Emergency Button pressed
"*4 Range"	Parameter out of Range
"*7 Protocol"	Protocol violation (Framing Error, Overrun, Parity, Input Buffer Full)
"*8 Stop"	Stop Button pressed
"*9 Ovld"	Rx too high, Measuring Cable not connected

General Format of Answer Message

xx,Message1[,Message2;[Message3]..]“,CR

xx Type of answer (the command itself)

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2.3 MC2 Commands

<i>gv</i>	Get Version	Get Version of uOhmJunior, Release of the Firmware, Date of Firmware e.g. <i>gv</i> "uOhm-200 by Raytech u200 1.04 22.10.03"
<i>gv l</i>	Get Firmware Release	Release of the Firmware e.g. <i>gv l</i> „u200 1.04“
<i>gv f</i>	Get FBL Version	Release of the Firmware of the FBL e.g. <i>gv f</i> „FBL 2.03 30.1.03“
<i>gs</i>	Get Serial Number	Asks the internal serial number The Serialnumber is unique for each MC2 e.g. <i>gs</i> „GS 203-401“
<i>mr</i>	Measure Resistor	Measure Resistor Result at the end
<i>mr,1</i>	- with Results / single Measurement	with intermediate results
<i>mr,2</i>	- with Results / continuous Measurement	Format of Answer MR,rrrr.rrr,iii.iii,tt.t,x.xx rrr.rrr Resistance of Test object iii.iii Value of actual Current tt.t Temperature of Probe x.xx Value of Quality
<i>si,n</i>	Set I Range	Set the Measuring Mode 1 = 200A, 2 = 100A, 3 = 50A, 4 = 20A, 5 = 10A Result: “*0 ok”, “*4 Range”
<i>gi</i>	Get Range	Ask the actual Measuring Mode Result: „GI n“ n = 1..7 see above (si,n)

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gm,n Get Memory location n
 Reads the stored Values from Archive
 0 -> last measured value (t = 0)
 1 -> previous Value (t = -1)

 Answer:
 GM n, ddmmyy,hhmm,range
 n: Number of measurement
 ddmmyy: date of start of measurement
 hhmm: time of start of measurement
 range: Current Range e.g "100A"
 GM -n,time,r,temp
 -n: Number of Sample
 time: time in s since start of measurement
 r: Resistance of testobject
 temp: Temp of testobject (valid only with ext tempprobe)

gma Get Memory All
 GM 3, 311203,2359,100A // Start of Measurement
 GM -1, +23, 21.46e-3,23.4 // 1 Sample
 GM 4, 010104,0000,100A // Start of next Measurement
 GM -1, 10,0.123,25.1 // 1. Sample after 10'
 GM -2, 20,0.124,26.1 // 2. Sample after 20'
 *0 ok // End of list

cm Clear Memory

?1 Get Size of Archive
 Answer is as follows: „?1,a,b,c,d“
 a = size of Chip A (IC8) in kBytes
 b = size of Chip B (IC7) in kBytes
 c = Number of Entries in the Archive
 d = Total Number of Entries used in the Archive
 Example
 „?1,4,32,2296,8“
 Chip A 4kB (M24C32)
 Chip B 32kByte (M24C256)
 2296 Entries in the Archive
 8 Entries are used

XD Stores a String in the Archive

SO xyz Set Options SO F.. Full ArchiveSize (max entries)
 SO 0.. Standard ArchiveSize (100 entries)
 SO .0. Display with Rangewarning
 SO .1. Display without Rangewarning (powerup default)
 SO ..C Display Temp in degree Celsius
 SO ..F Display Temp in degree Fahrenheit

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Firmware after Version 2.24

<i>lc</i>	Length Correction	The Resitance is corrected to a specific length
	n,l	
	n = 0	Off
	n = 1	Ohm/m
	n = 2	Ohm/100m
	n = 3	Ohm/km
	n = 4	Ohm/ft
	n = 5	Ohm/100ft
	n = 6	Ohm/1000ft
	l	Length of Testsample in mm