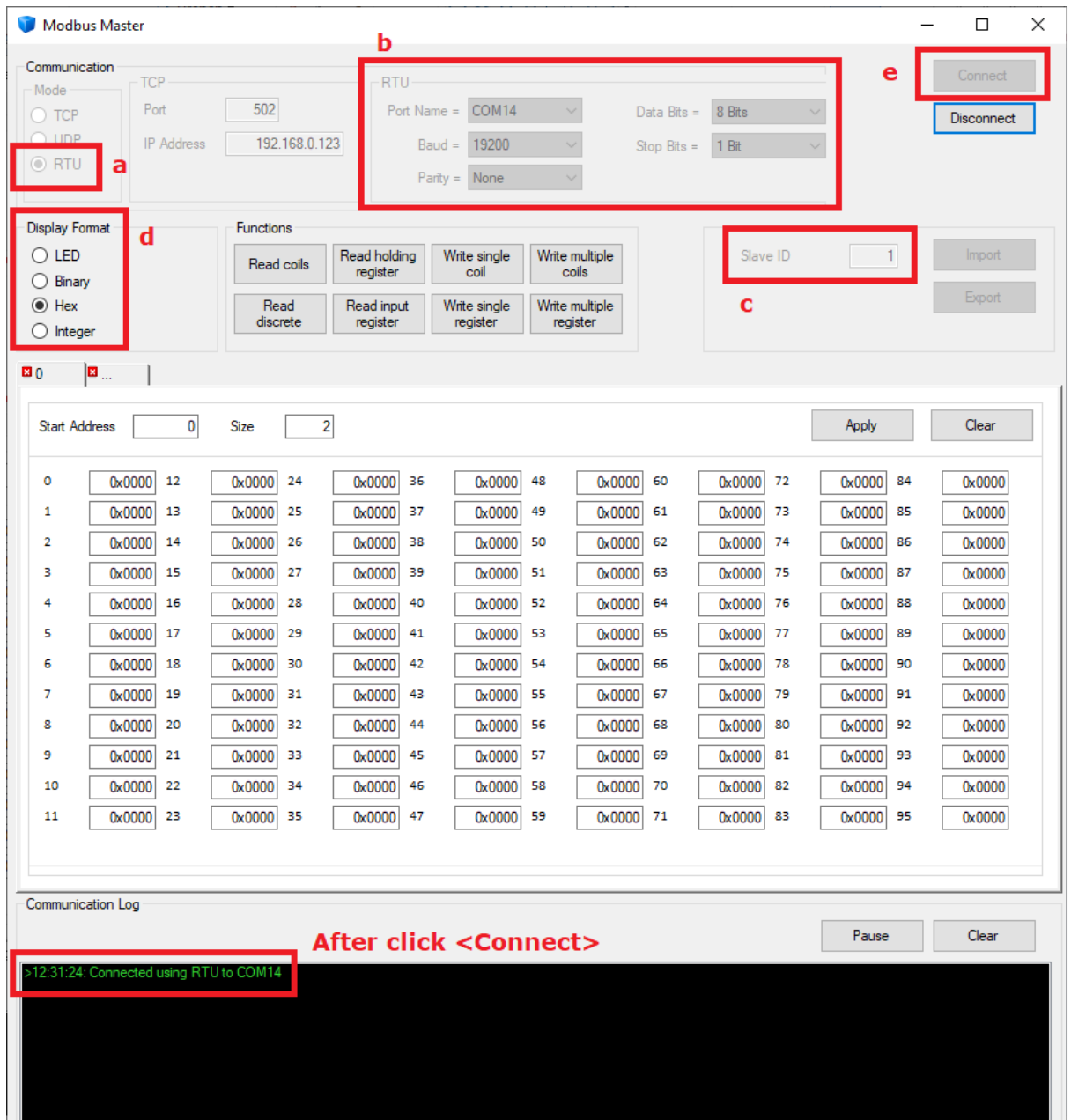


1. Connect the HCD-IC to a AC3001 or AC3001-XD adapter cable
2. Open the modbus manual of the HCD-IC probe
https://service.rotronic.com/manual/index.html?modbus2_2.html
3. Install and open the modbus Master (ModbusMaster.msi)
 - Choose RTU
 - Port settings Baud 19200 8N1
 - Slave ID1
 - Choose the Display Format (e. g. HEX)
 - Click Connect



- Address: 0000 -> 0001
Type Start Address 0 and Size 2
- Click Apply
- Click Read Input Register

The screenshot shows the Modbus Master software interface. The top section is for Communication settings, with Mode set to RTU, Port 502, IP Address 192.168.0.123, Port Name COM14, Baud 19200, Stop Bits 1 Bit, and Parity None. The Display Format is set to Hex. The Functions section shows Read input register selected. The Slave ID is 1. The bottom section shows the Start Address 0 and Size 2, with the Apply button highlighted. The data display shows a table of 12 rows and 12 columns, with the first row highlighted in green and the first column labeled 'SN in hex code'. The Communication Log at the bottom shows a successful connection and read operation.

Communication Settings:

- Mode: ☒ TCP, ☐ UDP, ☒ RTU
- Port: 502
- IP Address: 192.168.0.123
- Port Name: COM14
- Baud: 19200
- Stop Bits: 1 Bit
- Parity: None

Display Format:

- ☐ LED
- ☐ Binary
- ☒ Hex
- ☐ Integer

Functions:

-
-
-
-
-
-
-
-

Slave ID: 1

Start Address: 0 **Size:** 2 **Apply** **Clear**

SN in hex code

0	0x01bb	12	0x0000	24	0x0000	36	0x0000	48	0x0000	60	0x0000	72	0x0000	84	0x0000
1	0x25b5	13	0x0000	25	0x0000	37	0x0000	49	0x0000	61	0x0000	73	0x0000	85	0x0000
2	0x0000	14	0x0000	26	0x0000	38	0x0000	50	0x0000	62	0x0000	74	0x0000	86	0x0000
3	0x0000	15	0x0000	27	0x0000	39	0x0000	51	0x0000	63	0x0000	75	0x0000	87	0x0000
4	0x0000	16	0x0000	28	0x0000	40	0x0000	52	0x0000	64	0x0000	76	0x0000	88	0x0000
5	0x0000	17	0x0000	29	0x0000	41	0x0000	53	0x0000	65	0x0000	77	0x0000	89	0x0000
6	0x0000	18	0x0000	30	0x0000	42	0x0000	54	0x0000	66	0x0000	78	0x0000	90	0x0000
7	0x0000	19	0x0000	31	0x0000	43	0x0000	55	0x0000	67	0x0000	79	0x0000	91	0x0000
8	0x0000	20	0x0000	32	0x0000	44	0x0000	56	0x0000	68	0x0000	80	0x0000	92	0x0000
9	0x0000	21	0x0000	33	0x0000	45	0x0000	57	0x0000	69	0x0000	81	0x0000	93	0x0000
10	0x0000	22	0x0000	34	0x0000	46	0x0000	58	0x0000	70	0x0000	82	0x0000	94	0x0000
11	0x0000	23	0x0000	35	0x0000	47	0x0000	59	0x0000	71	0x0000	83	0x0000	95	0x0000

Communication Log:

- >12:31:24: Connected using RTU to COM14
- >12:36:11: TX: 01 04 00 00 00 02 71 eb
- >12:36:11: RX: 01 04 04 01 bb 25 b5 51 7a
- >12:36:11: Read succeeded: Function code 4.

TX: sent string
RX: answer from the probe with SN
Read succeeded message

How to get the SN out of the hex code?

- Compare the green marked address
Address 0000: 0x01bb
Address 0001: 0x25b5
- Open the MS Windows calculator and set it for programmer and
- Type the 4 Bytes in the following sequence
 - Address 0000 MSB: 0x01
 - Address 0000 LSB: 0xbb
 - Address 0001 MSB: 0x25
 - Address 0001 LSB: 0xb5
- and you can see the serial number of the probe

