

# RESOL Modbus/TCP Configuration

**Filename:** RESOL\_DeltaTherm\_HC\_MAX\_ModbusConfig\_1.0.1.cbor  
**ID:** RESOL\_DeltaTherm\_HC\_MAX  
**Version:** 1.0.1  
**Build at:** 2021-04-16 04:26

## **Coils (Type 0)**

No values defined!

## Discrete Inputs (Type 1)

Address	Description	Factor	Unit
0	Error: Sensor line broken	1	
1	Error: Sensor line short-circuited	1	
2	Error: Flow rate monitoring	1	
3	Error: Overpressure	1	
4	Error: Low pressure	1	
5	Error: Data memory	1	
6	Error: Real-time clock	1	
7	Error: Twin pump	1	
8	Error: HC cooling below flow minimum temperature	1	
9	Error: Thermal disinfection cancelled	1	
10	Warning: $\Delta T$ too high	1	
11	Warning: Night circulation	1	
12	Warning: Flow/Return interchanged	1	
13	Warning: SD card	1	

## Input Registers (Type 3)

Address	Description	Factor	Unit
0	Temperature sensor 1	0.1	°C
1	Temperature sensor 2	0.1	°C
2	Temperature sensor 3	0.1	°C
3	Temperature sensor 4	0.1	°C
4	Temperature sensor 5	0.1	°C
5	Temperature sensor 6	0.1	°C
6	Temperature sensor 7	0.1	°C
7	Temperature sensor 8	0.1	°C
8	Temperature sensor 9	0.1	°C
9	Temperature sensor 10	0.1	°C
10	Temperature sensor 11	0.1	°C
11	Temperature sensor 12	0.1	°C
12	Temperature sensor 13	0.1	°C
13	Temperature sensor 14	0.1	°C
14	Temperature sensor 15	0.1	°C
15	Irradiation sensor 16	1	W/m <sup>2</sup>
16	Temperature sensor 17	0.1	°C
17	Temperature sensor 18	0.1	°C
18	Temperature sensor 19	0.1	°C
19	Temperature sensor 20	0.1	°C
20	Flow rate sensor 13 (bits 16..31)	1	l/h
21	Flow rate sensor 13 (bits 0..15)	1	l/h
22	Flow rate sensor 14 (bits 16..31)	1	l/h
23	Flow rate sensor 14 (bits 0..15)	1	l/h
24	Flow rate sensor 15 (bits 16..31)	1	l/h
25	Flow rate sensor 15 (bits 0..15)	1	l/h
26	Flow rate sensor 17 (bits 16..31)	1	l/h
27	Flow rate sensor 17 (bits 0..15)	1	l/h
28	Flow rate sensor 18 (bits 16..31)	1	l/h
29	Flow rate sensor 18 (bits 0..15)	1	l/h
30	Flow rate sensor 19 (bits 16..31)	1	l/h
31	Flow rate sensor 19 (bits 0..15)	1	l/h
32	Flow rate sensor 20 (bits 16..31)	1	l/h
33	Flow rate sensor 20 (bits 0..15)	1	l/h
34	Flow rate sensor 21 (bits 16..31)	1	l/h
35	Flow rate sensor 21 (bits 0..15)	1	l/h
36	Pressure sensor 17	0.01	bar
37	Pressure sensor 18	0.01	bar
38	Pressure sensor 19	0.01	bar

**Input Registers (Type 3) cont.**

Address	Description	Factor	Unit
39	Pressure sensor 20	0.01	bar
40	Pump speed relay 1	1	%
41	Pump speed relay 2	1	%
42	Pump speed relay 3	1	%
43	Pump speed relay 4	1	%
44	Pump speed relay 5	1	%
45	Pump speed relay 6	1	%
46	Pump speed relay 7	1	%
47	Pump speed relay 8	1	%
48	Pump speed relay 9	1	%
49	Pump speed relay 10	1	%
50	Pump speed relay 11	1	%
51	Pump speed relay 12	1	%
52	Pump speed relay 13	1	%
53	Pump speed relay 14	1	%
54	Output A	1	%
55	Output B	1	%
56	Output C	1	%
57	Output D	1	%
58	System date (bits 16..31)	1	
59	System date (bits 0..15)	1	
60	Error mask (bits 16..31)	1	
61	Error mask (bits 0..15)	1	
62	Warning mask (bits 16..31)	1	
63	Warning mask (bits 0..15)	1	
64	Humidity sensor 17	1	%RH
65	Humidity sensor 18	1	%RH
66	Flow set temperature	0.1	°C
67	Operating state	1	
68	Flow set temperature	0.1	°C
69	Operating state	1	
70	Flow set temperature	0.1	°C
71	Operating state	1	
72	Flow set temperature	0.1	°C
73	Operating state	1	
74	Flow set temperature	0.1	°C
75	Operating state	1	
76	Flow set temperature	0.1	°C
77	Operating state	1	

**Input Registers (Type 3) cont.**

<b>Address</b>	<b>Description</b>	<b>Factor</b>	<b>Unit</b>
78	Flow set temperature	0.1	°C
79	Operating state	1	
80	Heat quantity (bits 48..63)	1	Wh
81	Heat quantity (bits 32..47)	1	Wh
82	Heat quantity (bits 16..31)	1	Wh
83	Heat quantity (bits 0..15)	1	Wh
84	Heat quantity today (bits 16..31)	1	Wh
85	Heat quantity today (bits 0..15)	1	Wh
86	Heat quantity week (bits 16..31)	1	Wh
87	Heat quantity week (bits 0..15)	1	Wh
88	Heat quantity month (bits 16..31)	1	Wh
89	Heat quantity month (bits 0..15)	1	Wh
90	Volume in total (bits 16..31)	1	l
91	Volume in total (bits 0..15)	1	l
92	Volume today (bits 16..31)	1	l
93	Volume today (bits 0..15)	1	l
94	Volume week (bits 16..31)	1	l
95	Volume week (bits 0..15)	1	l
96	Volume month (bits 16..31)	1	l
97	Volume month (bits 0..15)	1	l
98	Power (bits 16..31)	1	W
99	Power (bits 0..15)	1	W
100	Heat quantity (bits 48..63)	1	Wh
101	Heat quantity (bits 32..47)	1	Wh
102	Heat quantity (bits 16..31)	1	Wh
103	Heat quantity (bits 0..15)	1	Wh
104	Heat quantity today (bits 16..31)	1	Wh
105	Heat quantity today (bits 0..15)	1	Wh
106	Heat quantity week (bits 16..31)	1	Wh
107	Heat quantity week (bits 0..15)	1	Wh
108	Heat quantity month (bits 16..31)	1	Wh
109	Heat quantity month (bits 0..15)	1	Wh
110	Volume in total (bits 16..31)	1	l
111	Volume in total (bits 0..15)	1	l
112	Volume today (bits 16..31)	1	l
113	Volume today (bits 0..15)	1	l
114	Volume week (bits 16..31)	1	l
115	Volume week (bits 0..15)	1	l
116	Volume month (bits 16..31)	1	l

**Input Registers (Type 3) cont.**

<b>Address</b>	<b>Description</b>	<b>Factor</b>	<b>Unit</b>
117	Volume month (bits 0..15)	1	l
118	Power (bits 16..31)	1	W
119	Power (bits 0..15)	1	W
120	Heat quantity (bits 48..63)	1	Wh
121	Heat quantity (bits 32..47)	1	Wh
122	Heat quantity (bits 16..31)	1	Wh
123	Heat quantity (bits 0..15)	1	Wh
124	Heat quantity today (bits 16..31)	1	Wh
125	Heat quantity today (bits 0..15)	1	Wh
126	Heat quantity week (bits 16..31)	1	Wh
127	Heat quantity week (bits 0..15)	1	Wh
128	Heat quantity month (bits 16..31)	1	Wh
129	Heat quantity month (bits 0..15)	1	Wh
130	Volume in total (bits 16..31)	1	l
131	Volume in total (bits 0..15)	1	l
132	Volume today (bits 16..31)	1	l
133	Volume today (bits 0..15)	1	l
134	Volume week (bits 16..31)	1	l
135	Volume week (bits 0..15)	1	l
136	Volume month (bits 16..31)	1	l
137	Volume month (bits 0..15)	1	l
138	Power (bits 16..31)	1	W
139	Power (bits 0..15)	1	W
140	Heat quantity (bits 48..63)	1	Wh
141	Heat quantity (bits 32..47)	1	Wh
142	Heat quantity (bits 16..31)	1	Wh
143	Heat quantity (bits 0..15)	1	Wh
144	Heat quantity today (bits 16..31)	1	Wh
145	Heat quantity today (bits 0..15)	1	Wh
146	Heat quantity week (bits 16..31)	1	Wh
147	Heat quantity week (bits 0..15)	1	Wh
148	Heat quantity month (bits 16..31)	1	Wh
149	Heat quantity month (bits 0..15)	1	Wh
150	Volume in total (bits 16..31)	1	l
151	Volume in total (bits 0..15)	1	l
152	Volume today (bits 16..31)	1	l
153	Volume today (bits 0..15)	1	l
154	Volume week (bits 16..31)	1	l
155	Volume week (bits 0..15)	1	l

**Input Registers (Type 3) cont.**

<b>Address</b>	<b>Description</b>	<b>Factor</b>	<b>Unit</b>
156	Volume month (bits 16..31)	1	l
157	Volume month (bits 0..15)	1	l
158	Power (bits 16..31)	1	W
159	Power (bits 0..15)	1	W
160	Heat quantity (bits 48..63)	1	Wh
161	Heat quantity (bits 32..47)	1	Wh
162	Heat quantity (bits 16..31)	1	Wh
163	Heat quantity (bits 0..15)	1	Wh
164	Heat quantity today (bits 16..31)	1	Wh
165	Heat quantity today (bits 0..15)	1	Wh
166	Heat quantity week (bits 16..31)	1	Wh
167	Heat quantity week (bits 0..15)	1	Wh
168	Heat quantity month (bits 16..31)	1	Wh
169	Heat quantity month (bits 0..15)	1	Wh
170	Volume in total (bits 16..31)	1	l
171	Volume in total (bits 0..15)	1	l
172	Volume today (bits 16..31)	1	l
173	Volume today (bits 0..15)	1	l
174	Volume week (bits 16..31)	1	l
175	Volume week (bits 0..15)	1	l
176	Volume month (bits 16..31)	1	l
177	Volume month (bits 0..15)	1	l
178	Power (bits 16..31)	1	W
179	Power (bits 0..15)	1	W
180	Heat quantity (bits 48..63)	1	Wh
181	Heat quantity (bits 32..47)	1	Wh
182	Heat quantity (bits 16..31)	1	Wh
183	Heat quantity (bits 0..15)	1	Wh
184	Heat quantity today (bits 16..31)	1	Wh
185	Heat quantity today (bits 0..15)	1	Wh
186	Heat quantity week (bits 16..31)	1	Wh
187	Heat quantity week (bits 0..15)	1	Wh
188	Heat quantity month (bits 16..31)	1	Wh
189	Heat quantity month (bits 0..15)	1	Wh
190	Volume in total (bits 16..31)	1	l
191	Volume in total (bits 0..15)	1	l
192	Volume today (bits 16..31)	1	l
193	Volume today (bits 0..15)	1	l
194	Volume week (bits 16..31)	1	l



**Input Registers (Type 3) cont.**

Address	Description	Factor	Unit
195	Volume week (bits 0..15)	1	l
196	Volume month (bits 16..31)	1	l
197	Volume month (bits 0..15)	1	l
198	Power (bits 16..31)	1	W
199	Power (bits 0..15)	1	W
200	Heat quantity (bits 48..63)	1	Wh
201	Heat quantity (bits 32..47)	1	Wh
202	Heat quantity (bits 16..31)	1	Wh
203	Heat quantity (bits 0..15)	1	Wh
204	Heat quantity today (bits 16..31)	1	Wh
205	Heat quantity today (bits 0..15)	1	Wh
206	Heat quantity week (bits 16..31)	1	Wh
207	Heat quantity week (bits 0..15)	1	Wh
208	Heat quantity month (bits 16..31)	1	Wh
209	Heat quantity month (bits 0..15)	1	Wh
210	Volume in total (bits 16..31)	1	l
211	Volume in total (bits 0..15)	1	l
212	Volume today (bits 16..31)	1	l
213	Volume today (bits 0..15)	1	l
214	Volume week (bits 16..31)	1	l
215	Volume week (bits 0..15)	1	l
216	Volume month (bits 16..31)	1	l
217	Volume month (bits 0..15)	1	l
218	Power (bits 16..31)	1	W
219	Power (bits 0..15)	1	W
220	Temperature sensor 1	0.1	°C
221	Temperature sensor 2	0.1	°C
222	Temperature sensor 3	0.1	°C
223	Temperature sensor 4	0.1	°C
224	Temperature sensor 5	0.1	°C
225	Temperature sensor 6	0.1	°C
226	Pump speed relay 1	1	%
227	Pump speed relay 2	1	%
228	Pump speed relay 3	1	%
229	Pump speed relay 4	1	%
230	Pump speed relay 5	1	%
231	Temperature sensor 1	0.1	°C
232	Temperature sensor 2	0.1	°C
233	Temperature sensor 3	0.1	°C

**Input Registers (Type 3) cont.**

Address	Description	Factor	Unit
234	Temperature sensor 4	0.1	°C
235	Temperature sensor 5	0.1	°C
236	Temperature sensor 6	0.1	°C
237	Pump speed relay 1	1	%
238	Pump speed relay 2	1	%
239	Pump speed relay 3	1	%
240	Pump speed relay 4	1	%
241	Pump speed relay 5	1	%
242	Temperature sensor 1	0.1	°C
243	Temperature sensor 2	0.1	°C
244	Temperature sensor 3	0.1	°C
245	Temperature sensor 4	0.1	°C
246	Temperature sensor 5	0.1	°C
247	Temperature sensor 6	0.1	°C
248	Pump speed relay 1	1	%
249	Pump speed relay 2	1	%
250	Pump speed relay 3	1	%
251	Pump speed relay 4	1	%
252	Pump speed relay 5	1	%
253	Temperature sensor 1	0.1	°C
254	Temperature sensor 2	0.1	°C
255	Temperature sensor 3	0.1	°C
256	Temperature sensor 4	0.1	°C
257	Temperature sensor 5	0.1	°C
258	Temperature sensor 6	0.1	°C
259	Pump speed relay 1	1	%
260	Pump speed relay 2	1	%
261	Pump speed relay 3	1	%
262	Pump speed relay 4	1	%
263	Pump speed relay 5	1	%
264	Temperature sensor 1	0.1	°C
265	Temperature sensor 2	0.1	°C
266	Temperature sensor 3	0.1	°C
267	Temperature sensor 4	0.1	°C
268	Temperature sensor 5	0.1	°C
269	Temperature sensor 6	0.1	°C
270	Pump speed relay 1	1	%
271	Pump speed relay 2	1	%
272	Pump speed relay 3	1	%

**Input Registers (Type 3) cont.**

Address		Description	Factor	Unit
273		Pump speed relay 4	1	%
274		Pump speed relay 5	1	%

## **Holding Registers (Type 4)**

No values defined!