DATA LOGGER
MODELS DL-1080/1081
MODBUS COMMUNICATION MANUAL

INTRODUCTION

The Data Logger Models DL-1080/1081, hereafter referred to in this document as *Data Logger,* have many communication interfaces. Among all of them, we can highlight some that can be used as Modbus slaves:

- RS485, acting as a slave in Modbus RTU protocol.
- USB device, acting as a slave in Modbus RTU protocol.
- Ethernet, acting as a server in Modbus TCP protocol.

All device configurations, as well as the input channels reading, are made through Modbus protocol.

In this manual, all needed information to read the *Data Logger's* input channels data without using the **Configurator** application can be found. In order to assure the correct configuration and data download, always use the indicated software applications. After configuring the equipment, data obtained from its inputs and outputs can be reached by any other software application that has Modbus RTU or Modbus TCP communication abilities.

MODBUS COMMANDS

The following listed Modbus commands (or functions) are implemented. In order to get more information about each one and about Modbus protocol in general, check the website:

http://www.modbus.org

READ HOLDING REGISTERS – 03H

This command can be used to read one or more holding registers, as listed in a table in the next chapter.

WRITE SINGLE COIL – 05H

This command can be used to write in digital output or relay. First coil refers to digital output 1. Ninth and tenth coils refer to relays 1 and 2.

Important Note: It is not possible to write in a digital channel that was configured as an input. It is also not possible to write in a digital output or relay that was configured to be controlled by alarms (internal *Data Logger* alarms).

WRITE SINGLE REGISTER – 06H

This command can be used to write in one holding register, as listed in a table in the next chapter.

WRITE MULTIPLE REGISTERS – 16H

This command can be used to write in a block of holding registers, as listed in a table in the next chapter.

HOLDING REGISTERS TABLE

The specified *addresses* are related to the low-level physical addresses, where zero (0) means the PLC address 40001. *Minimum* and *Maximum* columns have the valid range for each parameter. *R/W* column indicates whether the parameter is writable (R/W) or read-only (R).

Address	Description	Minimum	Maximum	R/W
0	Serial number (word high)	0	65535	R
1	Serial number (word low)	0	65535	R
2	Firmware version	0	999	R
3	Analog channel 1 value (signed 16-bit integer)	-32768	32767	R
4	Analog channel 2 value (signed 16-bit integer)	-32768	32767	R
5	Analog channel 3 value (signed 16-bit integer)	-32768	32767	R
6	Analog channel 4 value (signed 16-bit integer)	-32768	32767	R
7	Analog channel 5 value (signed 16-bit integer)	-32768	32767	R
8	Analog channel 6 value (signed 16-bit integer)	-32768	32767	R
9	Analog channel 7 value (signed 16-bit integer)	-32768	32767	R
10	Analog channel 8 value (signed 16-bit integer)	-32768	32767	R
13	Bit array with the state of each digital I/O (bit 0: digital channel 1, bit 2: digital channel 2, etc.)	0	255	R
14	Digital input 1 state	0	1	R
15	Digital input 2 state	0	1	R
16	Digital input 3 state	0	1	R
17	Digital input 4 state	0	1	R
18	Digital input 5 state	0	1	R
19	Digital input 6 state	0	1	R
20	Digital input 7 state	0	1	R
21	Digital input 8 state	0	1	R
22	Digital output 1 state (0 = deactivate, 1 = activate)	0	1	R/W
23	Digital output 2 state (0 = deactivate, 1 = activate)	0	1	R/W
24	Digital output 3 state (0 = deactivate, 1 = activate)	0	1	R/W
25	Digital output 4 state (0 = deactivate, 1 = activate)	0	1	R/W
26	Digital output 5 state (0 = deactivate, 1 = activate)	0	1	R/W
27	Digital output 6 state (0 = deactivate, 1 = activate)	0	1	R/W
28	Digital output 7 state (0 = deactivate, 1 = activate)	0	1	R/W
29	Digital output 8 state (0 = deactivate, 1 = activate)	0	1	R/W
30	Relay 1 state (0 = deactivate, 1 = activate)	0	1	R/W
31	Relay 2 state (0 = deactivate, 1 = activate)	0	1	R/W
32	Remote channel 1 value (signed 16-bit integer)	-32768	32767	R
33	Remote channel 2 value (signed 16-bit integer)	-32768	32767	R
34	Remote channel 3 value (signed 16-bit integer)	-32768	32767	R
35	Remote channel 4 value (signed 16-bit integer)	-32768	32767	R
36	Remote channel 5 value (signed 16-bit integer)	-32768	32767	R
37	Remote channel 6 value (signed 16-bit integer)	-32768	32767	R
38	Remote channel 7 value (signed 16-bit integer)	-32768	32767	R
39	Remote channel 8 value (signed 16-bit integer)	-32768	32767	R
40	Remote channel 9 value (signed 16-bit integer)	-32768	32767	R
41	Remote channel 10 value (signed 16-bit integer)	-32768	32767	R
42	Remote channel 11 value (signed 16-bit integer)	-32768	32767	R
43	Remote channel 12 value (signed 16-bit integer)	-32768	32767	R
44	Remote channel 13 value (signed 16-bit integer)	-32768	32767	R
45	Remote channel 14 value (signed 16-bit integer)	-32768	32767	R
46	Remote channel 15 value (signed 16-bit integer)	-32768	32767	R
47	Remote channel 16 value (signed 16-bit integer)	-32768	32767	R
48	Remote channel 17 value (signed 16-bit integer)	-32768	32767	R

Address	Description	Minimum	Maximum	R/W
49	Remote channel 18 value (signed 16-bit integer)	-32768	32767	R
50	Remote channel 19 value (signed 16-bit integer)	-32768	32767	R
51	Remote channel 20 value (signed 16-bit integer)	-32768	32767	R
52	Remote channel 21 value (signed 16-bit integer)	-32768	32767	R
53	Remote channel 22 value (signed 16-bit integer)	-32768	32767	R
54	Remote channel 23 value (signed 16-bit integer)	-32768	32767	R
55	Remote channel 24 value (signed 16-bit integer)	-32768	32767	R
56	Remote channel 25 value (signed 16-bit integer)	-32768	32767	R
57	Remote channel 26 value (signed 16-bit integer)	-32768	32767	R
58	Remote channel 27 value (signed 16-bit integer)	-32768	32767	R
59	Remote channel 28 value (signed 16-bit integer)	-32768	32767	R
60	Remote channel 29 value (signed 16-bit integer)	-32768	32767	R
61	Remote channel 30 value (signed 16-bit integer)	-32768	32767	R
62	Remote channel 31 value (signed 16-bit integer)	-32768	32767	R
63	Remote channel 32 value (signed 16-bit integer)	-32768	32767	R
64	Remote channel 33 value (signed 16-bit integer)	-32768	32767	R
65	Remote channel 34 value (signed 16-bit integer)	-32768	32767	R
66	Remote channel 35 value (signed 16-bit integer)	-32768	32767	R
67	Remote channel 36 value (signed 16-bit integer)	-32768	32767	R
68	Remote channel 37 value (signed 16-bit integer)	-32768	32767	R
69	Remote channel 38 value (signed 16-bit integer)	-32768	32767	R
70	Remote channel 39 value (signed 16-bit integer)	-32768	32767	R
71	Remote channel 40 value (signed 16-bit integer)	-32768	32767	R
72	Remote channel 41 value (signed 16-bit integer)	-32768	32767	R
73	Remote channel 42 value (signed 16-bit integer)	-32768	32767	R
74	Remote channel 43 value (signed 16-bit integer)	-32768	32767	R
75	Remote channel 44 value (signed 16-bit integer)	-32768	32767	R
76	Remote channel 45 value (signed 16-bit integer)	-32768	32767	R
77	Remote channel 46 value (signed 16-bit integer)	-32768	32767	R
78	Remote channel 47 value (signed 16-bit integer)	-32768	32767	R
79	Remote channel 48 value (signed 16-bit integer)	-32768	32767	R
80	Remote channel 49 value (signed 16-bit integer)	-32768	32767	R
81	Remote channel 50 value (signed 16-bit integer)	-32768	32767	R
82	Remote channel 51 value (signed 16-bit integer)	-32768	32767	R
83	Remote channel 52 value (signed 16-bit integer)	-32768	32767	R
84	Remote channel 53 value (signed 16-bit integer)	-32768	32767	R
85	Remote channel 54 value (signed 16-bit integer)	-32768	32767	R
86	Remote channel 55 value (signed 16-bit integer)	-32768	32767	R
87	Remote channel 56 value (signed 16-bit integer)	-32768	32767	R
88	Remote channel 57 value (signed 16-bit integer)	-32768	32767	R
89	Remote channel 58 value (signed 16-bit integer)	-32768	32767	R
90	Remote channel 59 value (signed 16-bit integer)	-32768	32767	R
91	Remote channel 60 value (signed 16-bit integer)	-32768	32767	R
92	Remote channel 61 value (signed 16-bit integer)	-32768	32767	R
93	Remote channel 62 value (signed 16-bit integer)	-32768	32767	R
94	Remote channel 63 value (signed 16-bit integer)	-32768	32767	R
95	Remote channel 64 value (signed 16-bit integer)	-32768	32767	R
96	Virtual channel 1 value (signed 16-bit integer)	-32768	32767	R
97	Virtual channel 2 value (signed 16-bit integer)	-32768	32767	R
98	Virtual channel 3 value (signed 16-bit integer)	-32768	32767	R
99	Virtual channel 4 value (signed 16-bit integer)	-32768	32767	R
100	Virtual channel 5 value (signed 16-bit integer)	-32768	32767	R
101	Virtual channel 6 value (signed 16-bit integer)	-32768	32767	R

Address	Description	Minimum	Maximum	R/W
102	Virtual channel 7 value (signed 16-bit integer)	-32768	32767	R
103	Virtual channel 8 value (signed 16-bit integer)	-32768	32767	R
104	Virtual channel 9 value (signed 16-bit integer)	-32768	32767	R
105	Virtual channel 10 value (signed 16-bit integer)	-32768	32767	R
106	Virtual channel 11 value (signed 16-bit integer)	-32768	32767	R
107	Virtual channel 12 value (signed 16-bit integer)	-32768	32767	R
108	Virtual channel 13 value (signed 16-bit integer)	-32768	32767	R
109	Virtual channel 14 value (signed 16-bit integer)	-32768	32767	R
110	Virtual channel 15 value (signed 16-bit integer)	-32768	32767	R
111	Virtual channel 16 value (signed 16-bit integer)	-32768	32767	R
112	Virtual channel 17 value (signed 16-bit integer)	-32768	32767	R
113	Virtual channel 18 value (signed 16-bit integer)	-32768	32767	R
114	Virtual channel 19 value (signed 16-bit integer)	-32768	32767	R
115	Virtual channel 20 value (signed 16-bit integer)	-32768	32767	R
116	Virtual channel 21 value (signed 16-bit integer)	-32768	32767	R
117	Virtual channel 22 value (signed 16-bit integer)	-32768	32767	R
118	Virtual channel 23 value (signed 16-bit integer)	-32768	32767	R
119	Virtual channel 24 value (signed 16-bit integer)	-32768	32767	R
120	Virtual channel 25 value (signed 16-bit integer)	-32768	32767	R
121	Virtual channel 26 value (signed 16-bit integer)	-32768	32767	R
122	Virtual channel 27 value (signed 16-bit integer)	-32768	32767	R
123	Virtual channel 28 value (signed 16-bit integer)	-32768	32767	R
124	Virtual channel 29 value (signed 16-bit integer)	-32768	32767	R
125	Virtual channel 30 value (signed 16-bit integer)	-32768	32767	R
126	Virtual channel 31 value (signed 16-bit integer)	-32768	32767	R
127	Virtual channel 32 value (signed 16-bit integer)	-32768	32767	R
128	Virtual channel 33 value (signed 16-bit integer)	-32768	32767	R
129	Virtual channel 34 value (signed 16-bit integer)	-32768	32767	R
130	Virtual channel 35 value (signed 16-bit integer)	-32768	32767	R
131	Virtual channel 36 value (signed 16-bit integer)	-32768	32767	R
132	Virtual channel 37 value (signed 16-bit integer)	-32768	32767	R
133	Virtual channel 38 value (signed 16-bit integer)	-32768	32767	R
134	Virtual channel 39 value (signed 16-bit integer)	-32768	32767	R
135	Virtual channel 40 value (signed 16-bit integer)	-32768	32767	R
136	Virtual channel 41 value (signed 16-bit integer)	-32768	32767	R
137	Virtual channel 42 value (signed 16-bit integer)	-32768	32767	R
138	Virtual channel 43 value (signed 16-bit integer)	-32768	32767	R
139	Virtual channel 44 value (signed 16-bit integer)	-32768	32767	R
140	Virtual channel 45 value (signed 16-bit integer)	-32768	32767	R
141	Virtual channel 46 value (signed 16-bit integer)	-32768	32767	R
142	Virtual channel 47 value (signed 16-bit integer)	-32768	32767	R
143	Virtual channel 48 value (signed 16-bit integer)	-32768	32767	R
144	Virtual channel 49 value (signed 16-bit integer)	-32768	32767	R
145	Virtual channel 50 value (signed 16-bit integer)	-32768	32767	R
146	Virtual channel 51 value (signed 16-bit integer)	-32768	32767	R
147	Virtual channel 52 value (signed 16-bit integer)	-32768	32767	R
148	Virtual channel 53 value (signed 16-bit integer)	-32768	32767	R
149	Virtual channel 54 value (signed 16-bit integer)	-32768	32767	R
150	Virtual channel 55 value (signed 16-bit integer)	-32768	32767	R
151	Virtual channel 56 value (signed 16-bit integer)	-32768	32767	R
152	Virtual channel 57 value (signed 16-bit integer)	-32768	32767	R
153	Virtual channel 58 value (signed 16-bit integer)	-32768	32767	R
154	Virtual channel 59 value (signed 16-bit integer)	-32768	32767	R

Address	Description	Minimum	Maximum	R/W
155	Virtual channel 60 value (signed 16-bit integer)	-32768	32767	R
156	Virtual channel 61 value (signed 16-bit integer)	-32768	32767	R
157	Virtual channel 62 value (signed 16-bit integer)	-32768	32767	R
158	Virtual channel 63 value (signed 16-bit integer)	-32768	32767	R
159	Virtual channel 64 value (signed 16-bit integer)	-32768	32767	R
160	Virtual channel 65 value (signed 16-bit integer)	-32768	32767	R
161	Virtual channel 66 value (signed 16-bit integer)	-32768	32767	R
162	Virtual channel 67 value (signed 16-bit integer)	-32768	32767	R
163	Virtual channel 68 value (signed 16-bit integer)	-32768	32767	R
164	Virtual channel 69 value (signed 16-bit integer)	-32768	32767	R
165	Virtual channel 70 value (signed 16-bit integer)	-32768	32767	R
166	Virtual channel 71 value (signed 16-bit integer)	-32768	32767	R
167	Virtual channel 72 value (signed 16-bit integer)	-32768	32767	R
168	Virtual channel 73 value (signed 16-bit integer)	-32768	32767	R
169	Virtual channel 74 value (signed 16-bit integer)	-32768	32767	R
170	Virtual channel 75 value (signed 16-bit integer)	-32768	32767	R
171	Virtual channel 76 value (signed 16-bit integer)	-32768	32767	R
172	Virtual channel 77 value (signed 16-bit integer)	-32768	32767	R
173	Virtual channel 78 value (signed 16-bit integer)	-32768	32767	R
174	Virtual channel 79 value (signed 16-bit integer)	-32768	32767	R
175	Virtual channel 80 value (signed 16-bit integer)	-32768	32767	R
176	Virtual channel 81 value (signed 16-bit integer)	-32768	32767	R
177	Virtual channel 82 value (signed 16-bit integer)	-32768	32767	R
178	Virtual channel 83 value (signed 16-bit integer)	-32768	32767	R
179	Virtual channel 84 value (signed 16-bit integer)	-32768	32767	R
180	Virtual channel 85 value (signed 16-bit integer)	-32768	32767	R
181	Virtual channel 86 value (signed 16-bit integer)	-32768	32767	R
182	Virtual channel 87 value (signed 16-bit integer)	-32768	32767	R
183	Virtual channel 88 value (signed 16-bit integer)	-32768	32767	R
184	Virtual channel 89 value (signed 16-bit integer)	-32768	32767	R
185	Virtual channel 90 value (signed 16-bit integer)	-32768	32767	R
186	Virtual channel 91 value (signed 16-bit integer)	-32768	32767	R
187	Virtual channel 92 value (signed 16-bit integer)	-32768	32767	R
188	Virtual channel 93 value (signed 16-bit integer)	-32768	32767	R
189	Virtual channel 94 value (signed 16-bit integer)	-32768	32767	R
190	Virtual channel 95 value (signed 16-bit integer)	-32768	32767	R
191	Virtual channel 96 value (signed 16-bit integer)	-32768	32767	R
192	Virtual channel 97 value (signed 16-bit integer)	-32768	32767	R
193	Virtual channel 98 value (signed 16-bit integer)	-32768	32767	R
194	Virtual channel 99 value (signed 16-bit integer)	-32768	32767	R
195	Virtual channel 100 value (signed 16-bit integer)	-32768	32767	R
196	Virtual channel 101 value (signed 16-bit integer)	-32768	32767	R
197	Virtual channel 102 value (signed 16-bit integer)	-32768	32767	R
198	Virtual channel 103 value (signed 16-bit integer)	-32768	32767	R
199	Virtual channel 104 value (signed 16-bit integer)	-32768	32767	R
200	Virtual channel 105 value (signed 16-bit integer)	-32768	32767	R
201	Virtual channel 106 value (signed 16-bit integer)	-32768	32767	R
202	Virtual channel 107 value (signed 16-bit integer)	-32768	32767	R
203	Virtual channel 108 value (signed 16-bit integer)	-32768	32767	R
204	Virtual channel 109 value (signed 16-bit integer)	-32768	32767	R
205	Virtual channel 110 value (signed 16-bit integer)	-32768	32767	R
206	Virtual channel 111 value (signed 16-bit integer)	-32768	32767	R
207	Virtual channel 112 value (signed 16-bit integer)	-32768	32767	R

Address	Description	Minimum	Maximum	R/W
208	Virtual channel 113 value (signed 16-bit integer)	-32768	32767	R
209	Virtual channel 114 value (signed 16-bit integer)	-32768	32767	R
210	Virtual channel 115 value (signed 16-bit integer)	-32768	32767	R
211	Virtual channel 116 value (signed 16-bit integer)	-32768	32767	R
212	Virtual channel 117 value (signed 16-bit integer)	-32768	32767	R
213	Virtual channel 118 value (signed 16-bit integer)	-32768	32767	R
214	Virtual channel 119 value (signed 16-bit integer)	-32768	32767	R
215	Virtual channel 120 value (signed 16-bit integer)	-32768	32767	R
216	Virtual channel 121 value (signed 16-bit integer)	-32768	32767	R
217	Virtual channel 122 value (signed 16-bit integer)	-32768	32767	R
218	Virtual channel 123 value (signed 16-bit integer)	-32768	32767	R
219	Virtual channel 124 value (signed 16-bit integer)	-32768	32767	R
220	Virtual channel 125 value (signed 16-bit integer)	-32768	32767	R
221	Virtual channel 126 value (signed 16-bit integer)	-32768	32767	R
222	Virtual channel 127 value (signed 16-bit integer)	-32768	32767	R
223	Virtual channel 128 value (signed 16-bit integer)	-32768	32767	R
224	Analog channel 1 value (floating point – word high)	-3.4e+38	+3.4e+38	R
225	Analog channel 1 value (floating point – word low)			
226	Analog channel 2 value (floating point – word high)	-3.4e+38	+3.4e+38	R
227	Analog channel 2 value (floating point – word low)			
228	Analog channel 3 value (floating point – word high)	-3.4e+38	+3.4e+38	R
229	Analog channel 3 value (floating point – word low)			
230	Analog channel 4 value (floating point – word high)	-3.4e+38	+3.4e+38	R
231	Analog channel 4 value (floating point – word low)			
232	Analog channel 5 value (floating point – word high)	-3.4e+38	+3.4e+38	R
233	Analog channel 5 value (floating point – word low)			
234	Analog channel 6 value (floating point – word high)	-3.4e+38	+3.4e+38	R
235	Analog channel 6 value (floating point – word low)			
236	Analog channel 7 value (floating point – word high)	-3.4e+38	+3.4e+38	R
237	Analog channel 7 value (floating point – word low)			
238	Analog channel 8 value (floating point – word high)	-3.4e+38	+3.4e+38	R
239	Analog channel 8 value (floating point – word low)			
240	Digital input 1 state value (floating point – word high)	-3.4e+38	+3.4e+38	R
241	Digital input 1 state value (floating point – word low)			
242	Digital input 2 state value (floating point – word high)	-3.4e+38	+3.4e+38	R
243	Digital input 2 state value (floating point – word low)			
244	Digital input 3 state value (floating point – word high)	-3.4e+38	+3.4e+38	R
245	Digital input 3 state value (floating point – word low)			
246	Digital input 4 state value (floating point – word high)	-3.4e+38	+3.4e+38	R
247	Digital input 4 state value (floating point – word low)			
248	Digital input 5 state value (floating point – word high)	-3.4e+38	+3.4e+38	R
249	Digital input 5 state value (floating point – word low)			
250	Digital input 6 state value (floating point – word high)	-3.4e+38	+3.4e+38	R
251	Digital input 6 state value (floating point – word low)			
252	Digital input 7 state value (floating point – word high)	-3.4e+38	+3.4e+38	R
253	Digital input 7 state value (floating point – word low)			
254	Digital input 8 state value (floating point – word high)	-3.4e+38	+3.4e+38	R
255	Digital input 8 state value (floating point – word low)			
256	Remote channel 1 value (floating point – word high)	-3.4e+38	+3.4e+38	R
257	Remote channel 1 value (floating point – word low)			
258	Remote channel 2 value (floating point – word high)	-3.4e+38	+3.4e+38	R
259	Remote channel 2 value (floating point – word low)			
260	Remote channel 3 value (floating point – word high)	-3.4e+38	+3.4e+38	R

Address	Description	Minimum	Maximum	R/W
261	Remote channel 3 value (floating point – word low)			
262	Remote channel 4 value (floating point – word high)	-3.4e+38	+3.4e+38	R
263	Remote channel 4 value (floating point – word low)			
264	Remote channel 5 value (floating point – word high)	-3.4e+38	+3.4e+38	R
265	Remote channel 5 value (floating point – word low)			
266	Remote channel 6 value (floating point – word high)	-3.4e+38	+3.4e+38	R
267	Remote channel 6 value (floating point – word low)			
268	Remote channel 7 value (floating point – word high)	-3.4e+38	+3.4e+38	R
269	Remote channel 7 value (floating point – word low)			
270	Remote channel 8 value (floating point – word high)	-3.4e+38	+3.4e+38	R
271	Remote channel 8 value (floating point – word low)			
272	Remote channel 9 value (floating point – word high)	-3.4e+38	+3.4e+38	R
273	Remote channel 9 value (floating point – word low)			
274	Remote channel 10 value (floating point – word high)	-3.4e+38	+3.4e+38	R
275	Remote channel 10 value (floating point – word low)			
276	Remote channel 11 value (floating point – word high)	-3.4e+38	+3.4e+38	R
277	Remote channel 11 value (floating point – word low)			
278	Remote channel 12 value (floating point – word high)	-3.4e+38	+3.4e+38	R
279	Remote channel 12 value (floating point – word low)			
280	Remote channel 13 value (floating point – word high)	-3.4e+38	+3.4e+38	R
281	Remote channel 13 value (floating point – word low)			
282	Remote channel 14 value (floating point – word high)	-3.4e+38	+3.4e+38	R
283	Remote channel 14 value (floating point – word low)			
284	Remote channel 15 value (floating point – word high)	-3.4e+38	+3.4e+38	R
285	Remote channel 15 value (floating point – word low)			
286	Remote channel 16 value (floating point – word high)	-3.4e+38	+3.4e+38	R
287	Remote channel 16 value (floating point – word low)			
288	Remote channel 17 value (floating point – word high)	-3.4e+38	+3.4e+38	R
289	Remote channel 17 value (floating point – word low)			
290	Remote channel 18 value (floating point – word high)	-3.4e+38	+3.4e+38	R
291	Remote channel 18 value (floating point – word low)			
292	Remote channel 19 value (floating point – word high)	-3.4e+38	+3.4e+38	R
293	Remote channel 19 value (floating point – word low)			
294	Remote channel 20 value (floating point – word high)	-3.4e+38	+3.4e+38	R
295	Remote channel 20 value (floating point – word low)			
296	Remote channel 21 value (floating point – word high)	-3.4e+38	+3.4e+38	R
297	Remote channel 21 value (floating point – word low)			
298	Remote channel 22 value (floating point – word high)	-3.4e+38	+3.4e+38	R
299	Remote channel 22 value (floating point – word low)			
300	Remote channel 23 value (floating point – word high)	-3.4e+38	+3.4e+38	R
301	Remote channel 23 value (floating point – word low)			
302	Remote channel 24 value (floating point – word high)	-3.4e+38	+3.4e+38	R
303	Remote channel 24 value (floating point – word low)			
304	Remote channel 25 value (floating point – word high)	-3.4e+38	+3.4e+38	R
305	Remote channel 25 value (floating point – word low)			
306	Remote channel 26 value (floating point – word high)	-3.4e+38	+3.4e+38	R
307	Remote channel 26 value (floating point – word low)			
308	Remote channel 27 value (floating point – word high)	-3.4e+38	+3.4e+38	R
309	Remote channel 27 value (floating point – word low)			
310	Remote channel 28 value (floating point – word high)	-3.4e+38	+3.4e+38	R
311	Remote channel 28 value (floating point – word low)			
312	Remote channel 29 value (floating point – word high)	-3.4e+38	+3.4e+38	R
313	Remote channel 29 value (floating point – word low)			

Address	Description	Minimum	Maximum	R/W
314	Remote channel 30 value (floating point – word high)	-3.4e+38	+3.4e+38	R
315	Remote channel 30 value (floating point – word low)			
316	Remote channel 31 value (floating point – word high)	-3.4e+38	+3.4e+38	R
317	Remote channel 31 value (floating point – word low)			
318	Remote channel 32 value (floating point – word high)	-3.4e+38	+3.4e+38	R
319	Remote channel 32 value (floating point – word low)			
320	Remote channel 33 value (floating point – word high)	-3.4e+38	+3.4e+38	R
321	Remote channel 33 value (floating point – word low)			
322	Remote channel 34 value (floating point – word high)	-3.4e+38	+3.4e+38	R
323	Remote channel 34 value (floating point – word low)			
324	Remote channel 35 value (floating point – word high)	-3.4e+38	+3.4e+38	R
325	Remote channel 35 value (floating point – word low)			
326	Remote channel 36 value (floating point – word high)	-3.4e+38	+3.4e+38	R
327	Remote channel 36 value (floating point – word low)			
328	Remote channel 37 value (floating point – word high)	-3.4e+38	+3.4e+38	R
329	Remote channel 37 value (floating point – word low)			
330	Remote channel 38 value (floating point – word high)	-3.4e+38	+3.4e+38	R
331	Remote channel 38 value (floating point – word low)			
332	Remote channel 39 value (floating point – word high)	-3.4e+38	+3.4e+38	R
333	Remote channel 39 value (floating point – word low)			
334	Remote channel 40 value (floating point – word high)	-3.4e+38	+3.4e+38	R
335	Remote channel 40 value (floating point – word low)			
336	Remote channel 41 value (floating point – word high)	-3.4e+38	+3.4e+38	R
337	Remote channel 41 value (floating point – word low)			
338	Remote channel 42 value (floating point – word high)	-3.4e+38	+3.4e+38	R
339	Remote channel 42 value (floating point – word low)			
340	Remote channel 43 value (floating point – word high)	-3.4e+38	+3.4e+38	R
341	Remote channel 43 value (floating point – word low)			
342	Remote channel 44 value (floating point – word high)	-3.4e+38	+3.4e+38	R
343	Remote channel 44 value (floating point – word low)			
344	Remote channel 45 value (floating point – word high)	-3.4e+38	+3.4e+38	R
345	Remote channel 45 value (floating point – word low)			
346	Remote channel 46 value (floating point – word high)	-3.4e+38	+3.4e+38	R
347	Remote channel 46 value (floating point – word low)			
348	Remote channel 47 value (floating point – word high)	-3.4e+38	+3.4e+38	R
349	Remote channel 47 value (floating point – word low)			
350	Remote channel 48 value (floating point – word high)	-3.4e+38	+3.4e+38	R
351	Remote channel 48 value (floating point – word low)			
352	Remote channel 49 value (floating point – word high)	-3.4e+38	+3.4e+38	R
353	Remote channel 49 value (floating point – word low)			
354	Remote channel 50 value (floating point – word high)	-3.4e+38	+3.4e+38	R
355	Remote channel 50 value (floating point – word low)			
356	Remote channel 51 value (floating point – word high)	-3.4e+38	+3.4e+38	R
357	Remote channel 51 value (floating point – word low)			
358	Remote channel 52 value (floating point – word high)	-3.4e+38	+3.4e+38	R
359	Remote channel 52 value (floating point – word low)			
360	Remote channel 53 value (floating point – word high)	-3.4e+38	+3.4e+38	R
361	Remote channel 53 value (floating point – word low)			
362	Remote channel 54 value (floating point – word high)	-3.4e+38	+3.4e+38	R
363	Remote channel 54 value (floating point – word low)			
364	Remote channel 55 value (floating point – word high)	-3.4e+38	+3.4e+38	R
365	Remote channel 55 value (floating point – word low)			
366	Remote channel 56 value (floating point – word high)	-3.4e+38	+3.4e+38	R

Address	Description	Minimum	Maximum	R/W
367	Remote channel 56 value (floating point – word low)			
368	Remote channel 57 value (floating point – word high)	-3.4e+38	+3.4e+38	R
369	Remote channel 57 value (floating point – word low)			
370	Remote channel 58 value (floating point – word high)	-3.4e+38	+3.4e+38	R
371	Remote channel 58 value (floating point – word low)			
372	Remote channel 59 value (floating point – word high)	-3.4e+38	+3.4e+38	R
373	Remote channel 59 value (floating point – word low)			
374	Remote channel 60 value (floating point – word high)	-3.4e+38	+3.4e+38	R
375	Remote channel 60 value (floating point – word low)			
376	Remote channel 61 value (floating point – word high)	-3.4e+38	+3.4e+38	R
377	Remote channel 61 value (floating point – word low)			
378	Remote channel 62 value (floating point – word high)	-3.4e+38	+3.4e+38	R
379	Remote channel 62 value (floating point – word low)			
380	Remote channel 63 value (floating point – word high)	-3.4e+38	+3.4e+38	R
381	Remote channel 63 value (floating point – word low)			
382	Remote channel 64 value (floating point – word high)	-3.4e+38	+3.4e+38	R
383	Remote channel 64 value (floating point – word low)			
384	Virtual channel 1 value (floating point – word high)	-3.4e+38	+3.4e+38	R
385	Virtual channel 1 value (floating point – word low)			
386	Virtual channel 2 value (floating point – word high)	-3.4e+38	+3.4e+38	R
387	Virtual channel 2 value (floating point – word low)			
388	Virtual channel 3 value (floating point – word high)	-3.4e+38	+3.4e+38	R
389	Virtual channel 3 value (floating point – word low)			
390	Virtual channel 4 value (floating point – word high)	-3.4e+38	+3.4e+38	R
391	Virtual channel 4 value (floating point – word low)			
392	Virtual channel 5 value (floating point – word high)	-3.4e+38	+3.4e+38	R
393	Virtual channel 5 value (floating point – word low)			
394	Virtual channel 6 value (floating point – word high)	-3.4e+38	+3.4e+38	R
395	Virtual channel 6 value (floating point – word low)			
396	Virtual channel 7 value (floating point – word high)	-3.4e+38	+3.4e+38	R
397	Virtual channel 7 value (floating point – word low)			
398	Virtual channel 8 value (floating point – word high)	-3.4e+38	+3.4e+38	R
399	Virtual channel 8 value (floating point – word low)			
400	Virtual channel 9 value (floating point – word high)	-3.4e+38	+3.4e+38	R
401	Virtual channel 9 value (floating point – word low)			
402	Virtual channel 10 value (floating point – word high)	-3.4e+38	+3.4e+38	R
403	Virtual channel 10 value (floating point – word low)			
404	Virtual channel 11 value (floating point – word high)	-3.4e+38	+3.4e+38	R
405	Virtual channel 11 value (floating point – word low)			
406	Virtual channel 12 value (floating point – word high)	-3.4e+38	+3.4e+38	R
407	Virtual channel 12 value (floating point – word low)			
408	Virtual channel 13 value (floating point – word high)	-3.4e+38	+3.4e+38	R
409	Virtual channel 13 value (floating point – word low)			
410	Virtual channel 14 value (floating point – word high)	-3.4e+38	+3.4e+38	R
411	Virtual channel 14 value (floating point – word low)			
412	Virtual channel 15 value (floating point – word high)	-3.4e+38	+3.4e+38	R
413	Virtual channel 15 value (floating point – word low)			
414	Virtual channel 16 value (floating point – word high)	-3.4e+38	+3.4e+38	R
415	Virtual channel 16 value (floating point – word low)			
416	Virtual channel 17 value (floating point – word high)	-3.4e+38	+3.4e+38	R
417	Virtual channel 17 value (floating point – word low)			
418	Virtual channel 18 value (floating point – word high)	-3.4e+38	+3.4e+38	R
419	Virtual channel 18 value (floating point – word low)			

Address	Description	Minimum	Maximum	R/W
420	Virtual channel 19 value (floating point – word high)	-3.4e+38	+3.4e+38	R
421	Virtual channel 19 value (floating point – word low)			
422	Virtual channel 20 value (floating point – word high)	-3.4e+38	+3.4e+38	R
423	Virtual channel 20 value (floating point – word low)			
424	Virtual channel 21 value (floating point – word high)	-3.4e+38	+3.4e+38	R
425	Virtual channel 21 value (floating point – word low)			
426	Virtual channel 22 value (floating point – word high)	-3.4e+38	+3.4e+38	R
427	Virtual channel 22 value (floating point – word low)			
428	Virtual channel 23 value (floating point – word high)	-3.4e+38	+3.4e+38	R
429	Virtual channel 23 value (floating point – word low)			
430	Virtual channel 24 value (floating point – word high)	-3.4e+38	+3.4e+38	R
431	Virtual channel 24 value (floating point – word low)			
432	Virtual channel 25 value (floating point – word high)	-3.4e+38	+3.4e+38	R
433	Virtual channel 25 value (floating point – word low)			
434	Virtual channel 26 value (floating point – word high)	-3.4e+38	+3.4e+38	R
435	Virtual channel 26 value (floating point – word low)			
436	Virtual channel 27 value (floating point – word high)	-3.4e+38	+3.4e+38	R
437	Virtual channel 27 value (floating point – word low)			
438	Virtual channel 28 value (floating point – word high)	-3.4e+38	+3.4e+38	R
439	Virtual channel 28 value (floating point – word low)			
440	Virtual channel 29 value (floating point – word high)	-3.4e+38	+3.4e+38	R
441	Virtual channel 29 value (floating point – word low)			
442	Virtual channel 30 value (floating point – word high)	-3.4e+38	+3.4e+38	R
443	Virtual channel 30 value (floating point – word low)			
444	Virtual channel 31 value (floating point – word high)	-3.4e+38	+3.4e+38	R
445	Virtual channel 31 value (floating point – word low)			
446	Virtual channel 32 value (floating point – word high)	-3.4e+38	+3.4e+38	R
447	Virtual channel 32 value (floating point – word low)			
448	Virtual channel 33 value (floating point – word high)	-3.4e+38	+3.4e+38	R
449	Virtual channel 33 value (floating point – word low)			
450	Virtual channel 34 value (floating point – word high)	-3.4e+38	+3.4e+38	R
451	Virtual channel 34 value (floating point – word low)			
452	Virtual channel 35 value (floating point – word high)	-3.4e+38	+3.4e+38	R
453	Virtual channel 35 value (floating point – word low)			
454	Virtual channel 36 value (floating point – word high)	-3.4e+38	+3.4e+38	R
455	Virtual channel 36 value (floating point – word low)			
456	Virtual channel 37 value (floating point – word high)	-3.4e+38	+3.4e+38	R
457	Virtual channel 37 value (floating point – word low)			
458	Virtual channel 38 value (floating point – word high)	-3.4e+38	+3.4e+38	R
459	Virtual channel 38 value (floating point – word low)			
460	Virtual channel 39 value (floating point – word high)	-3.4e+38	+3.4e+38	R
461	Virtual channel 39 value (floating point – word low)			
462	Virtual channel 40 value (floating point – word high)	-3.4e+38	+3.4e+38	R
463	Virtual channel 40 value (floating point – word low)			
464	Virtual channel 41 value (floating point – word high)	-3.4e+38	+3.4e+38	R
465	Virtual channel 41 value (floating point – word low)			
466	Virtual channel 42 value (floating point – word high)	-3.4e+38	+3.4e+38	R
467	Virtual channel 42 value (floating point – word low)			
468	Virtual channel 43 value (floating point – word high)	-3.4e+38	+3.4e+38	R
469	Virtual channel 43 value (floating point – word low)			
470	Virtual channel 44 value (floating point – word high)	-3.4e+38	+3.4e+38	R
471	Virtual channel 44 value (floating point – word low)			
472	Virtual channel 45 value (floating point – word high)	-3.4e+38	+3.4e+38	R

Address	Description	Minimum	Maximum	R/W
473	Virtual channel 45 value (floating point – word low)			
474	Virtual channel 46 value (floating point – word high)	-3.4e+38	+3.4e+38	R
475	Virtual channel 46 value (floating point – word low)			
476	Virtual channel 47 value (floating point – word high)	-3.4e+38	+3.4e+38	R
477	Virtual channel 47 value (floating point – word low)			
478	Virtual channel 48 value (floating point – word high)	-3.4e+38	+3.4e+38	R
479	Virtual channel 48 value (floating point – word low)			
480	Virtual channel 49 value (floating point – word high)	-3.4e+38	+3.4e+38	R
481	Virtual channel 49 value (floating point – word low)			
482	Virtual channel 50 value (floating point – word high)	-3.4e+38	+3.4e+38	R
483	Virtual channel 50 value (floating point – word low)			
484	Virtual channel 51 value (floating point – word high)	-3.4e+38	+3.4e+38	R
485	Virtual channel 51 value (floating point – word low)			
486	Virtual channel 52 value (floating point – word high)	-3.4e+38	+3.4e+38	R
487	Virtual channel 52 value (floating point – word low)			
488	Virtual channel 53 value (floating point – word high)	-3.4e+38	+3.4e+38	R
489	Virtual channel 53 value (floating point – word low)			
490	Virtual channel 54 value (floating point – word high)	-3.4e+38	+3.4e+38	R
491	Virtual channel 54 value (floating point – word low)			
492	Virtual channel 55 value (floating point – word high)	-3.4e+38	+3.4e+38	R
493	Virtual channel 55 value (floating point – word low)			
494	Virtual channel 56 value (floating point – word high)	-3.4e+38	+3.4e+38	R
495	Virtual channel 56 value (floating point – word low)			
496	Virtual channel 57 value (floating point – word high)	-3.4e+38	+3.4e+38	R
497	Virtual channel 57 value (floating point – word low)			
498	Virtual channel 58 value (floating point – word high)	-3.4e+38	+3.4e+38	R
499	Virtual channel 58 value (floating point – word low)			
500	Virtual channel 59 value (floating point – word high)	-3.4e+38	+3.4e+38	R
501	Virtual channel 59 value (floating point – word low)			
502	Virtual channel 60 value (floating point – word high)	-3.4e+38	+3.4e+38	R
503	Virtual channel 60 value (floating point – word low)			
504	Virtual channel 61 value (floating point – word high)	-3.4e+38	+3.4e+38	R
505	Virtual channel 61 value (floating point – word low)			
506	Virtual channel 62 value (floating point – word high)	-3.4e+38	+3.4e+38	R
507	Virtual channel 62 value (floating point – word low)			
508	Virtual channel 63 value (floating point – word high)	-3.4e+38	+3.4e+38	R
508	Virtual channel 63 value (floating point – word low)			
510	Virtual channel 64 value (floating point – word high)	-3.4e+38	+3.4e+38	R
511	Virtual channel 64 value (floating point – word low)			
512	Virtual channel 65 value (floating point – word high)	-3.4e+38	+3.4e+38	R
513	Virtual channel 65 value (floating point – word low)			
514	Virtual channel 66 value (floating point – word high)	-3.4e+38	+3.4e+38	R
515	Virtual channel 66 value (floating point – word low)			
516	Virtual channel 67 value (floating point – word high)	-3.4e+38	+3.4e+38	R
517	Virtual channel 67 value (floating point – word low)			
518	Virtual channel 68 value (floating point – word high)	-3.4e+38	+3.4e+38	R
519	Virtual channel 68 value (floating point – word low)			
520	Virtual channel 69 value (floating point – word high)	-3.4e+38	+3.4e+38	R
521	Virtual channel 69 value (floating point – word low)			
522	Virtual channel 70 value (floating point – word high)	-3.4e+38	+3.4e+38	R
523	Virtual channel 70 value (floating point – word low)			
524	Virtual channel 71 value (floating point – word high)	-3.4e+38	+3.4e+38	R
525	Virtual channel 71 value (floating point – word low)			

Address	Description	Minimum	Maximum	R/W
526	Virtual channel 72 value (floating point – word high)	-3.4e+38	+3.4e+38	R
527	Virtual channel 72 value (floating point – word low)			
528	Virtual channel 73 value (floating point – word high)	-3.4e+38	+3.4e+38	R
529	Virtual channel 73 value (floating point – word low)			
530	Virtual channel 74 value (floating point – word high)	-3.4e+38	+3.4e+38	R
531	Virtual channel 74 value (floating point – word low)			
532	Virtual channel 75 value (floating point – word high)	-3.4e+38	+3.4e+38	R
533	Virtual channel 75 value (floating point – word low)			
534	Virtual channel 76 value (floating point – word high)	-3.4e+38	+3.4e+38	R
535	Virtual channel 76 value (floating point – word low)			
536	Virtual channel 77 value (floating point – word high)	-3.4e+38	+3.4e+38	R
537	Virtual channel 77 value (floating point – word low)			
538	Virtual channel 78 value (floating point – word high)	-3.4e+38	+3.4e+38	R
539	Virtual channel 78 value (floating point – word low)			
540	Virtual channel 79 value (floating point – word high)	-3.4e+38	+3.4e+38	R
541	Virtual channel 79 value (floating point – word low)			
542	Virtual channel 80 value (floating point – word high)	-3.4e+38	+3.4e+38	R
543	Virtual channel 80 value (floating point – word low)			
544	Virtual channel 81 value (floating point – word high)	-3.4e+38	+3.4e+38	R
545	Virtual channel 81 value (floating point – word low)			
546	Virtual channel 82 value (floating point – word high)	-3.4e+38	+3.4e+38	R
547	Virtual channel 82 value (floating point – word low)			
548	Virtual channel 83 value (floating point – word high)	-3.4e+38	+3.4e+38	R
549	Virtual channel 83 value (floating point – word low)			
550	Virtual channel 84 value (floating point – word high)	-3.4e+38	+3.4e+38	R
551	Virtual channel 84 value (floating point – word low)			
552	Virtual channel 85 value (floating point – word high)	-3.4e+38	+3.4e+38	R
553	Virtual channel 85 value (floating point – word low)			
554	Virtual channel 86 value (floating point – word high)	-3.4e+38	+3.4e+38	R
555	Virtual channel 86 value (floating point – word low)			
556	Virtual channel 87 value (floating point – word high)	-3.4e+38	+3.4e+38	R
557	Virtual channel 87 value (floating point – word low)			
558	Virtual channel 88 value (floating point – word high)	-3.4e+38	+3.4e+38	R
559	Virtual channel 88 value (floating point – word low)			
560	Virtual channel 89 value (floating point – word high)	-3.4e+38	+3.4e+38	R
561	Virtual channel 89 value (floating point – word low)			
562	Virtual channel 90 value (floating point – word high)	-3.4e+38	+3.4e+38	R
563	Virtual channel 90 value (floating point – word low)			
564	Virtual channel 91 value (floating point – word high)	-3.4e+38	+3.4e+38	R
565	Virtual channel 91 value (floating point – word low)			
566	Virtual channel 92 value (floating point – word high)	-3.4e+38	+3.4e+38	R
567	Virtual channel 92 value (floating point – word low)			
568	Virtual channel 93 value (floating point – word high)	-3.4e+38	+3.4e+38	R
569	Virtual channel 93 value (floating point – word low)			
570	Virtual channel 94 value (floating point – word high)	-3.4e+38	+3.4e+38	R
571	Virtual channel 94 value (floating point – word low)			
572	Virtual channel 95 value (floating point – word high)	-3.4e+38	+3.4e+38	R
573	Virtual channel 95 value (floating point – word low)			
574	Virtual channel 96 value (floating point – word high)	-3.4e+38	+3.4e+38	R
575	Virtual channel 96 value (floating point – word low)			
576	Virtual channel 97 value (floating point – word high)	-3.4e+38	+3.4e+38	R
577	Virtual channel 97 value (floating point – word low)			
578	Virtual channel 98 value (floating point – word high)	-3.4e+38	+3.4e+38	R

Address	Description	Minimum	Maximum	R/W
579	Virtual channel 98 value (floating point – word low)			
580	Virtual channel 99 value (floating point – word high)	-3.4e+38	+3.4e+38	R
581	Virtual channel 99 value (floating point – word low)			
582	Virtual channel 100 value (floating point – word high)	-3.4e+38	+3.4e+38	R
583	Virtual channel 100 value (floating point – word low)			
584	Virtual channel 101 value (floating point – word high)	-3.4e+38	+3.4e+38	R
585	Virtual channel 101 value (floating point – word low)			
586	Virtual channel 102 value (floating point – word high)	-3.4e+38	+3.4e+38	R
587	Virtual channel 102 value (floating point – word low)			
588	Virtual channel 103 value (floating point – word high)	-3.4e+38	+3.4e+38	R
589	Virtual channel 103 value (floating point – word low)			
590	Virtual channel 104 value (floating point – word high)	-3.4e+38	+3.4e+38	R
591	Virtual channel 104 value (floating point – word low)			
592	Virtual channel 105 value (floating point – word high)	-3.4e+38	+3.4e+38	R
593	Virtual channel 105 value (floating point – word low)			
594	Virtual channel 106 value (floating point – word high)	-3.4e+38	+3.4e+38	R
595	Virtual channel 106 value (floating point – word low)			
596	Virtual channel 107 value (floating point – word high)	-3.4e+38	+3.4e+38	R
597	Virtual channel 107 value (floating point – word low)			
598	Virtual channel 108 value (floating point – word high)	-3.4e+38	+3.4e+38	R
599	Virtual channel 108 value (floating point – word low)			
600	Virtual channel 109 value (floating point – word high)	-3.4e+38	+3.4e+38	R
601	Virtual channel 109 value (floating point – word low)			
602	Virtual channel 110 value (floating point – word high)	-3.4e+38	+3.4e+38	R
603	Virtual channel 110 value (floating point – word low)			
604	Virtual channel 111 value (floating point – word high)	-3.4e+38	+3.4e+38	R
605	Virtual channel 111 value (floating point – word low)			
606	Virtual channel 112 value (floating point – word high)	-3.4e+38	+3.4e+38	R
607	Virtual channel 112 value (floating point – word low)			
608	Virtual channel 113 value (floating point – word high)	-3.4e+38	+3.4e+38	R
609	Virtual channel 113 value (floating point – word low)			
610	Virtual channel 114 value (floating point – word high)	-3.4e+38	+3.4e+38	R
611	Virtual channel 114 value (floating point – word low)			
612	Virtual channel 115 value (floating point – word high)	-3.4e+38	+3.4e+38	R
613	Virtual channel 115 value (floating point – word low)			
614	Virtual channel 116 value (floating point – word high)	-3.4e+38	+3.4e+38	R
615	Virtual channel 116 value (floating point – word low)			
616	Virtual channel 117 value (floating point – word high)	-3.4e+38	+3.4e+38	R
617	Virtual channel 117 value (floating point – word low)			
618	Virtual channel 118 value (floating point – word high)	-3.4e+38	+3.4e+38	R
619	Virtual channel 118 value (floating point – word low)			
620	Virtual channel 119 value (floating point – word high)	-3.4e+38	+3.4e+38	R
621	Virtual channel 119 value (floating point – word low)			
622	Virtual channel 120 value (floating point – word high)	-3.4e+38	+3.4e+38	R
623	Virtual channel 120 value (floating point – word low)			
624	Virtual channel 121 value (floating point – word high)	-3.4e+38	+3.4e+38	R
625	Virtual channel 121 value (floating point – word low)			
626	Virtual channel 122 value (floating point – word high)	-3.4e+38	+3.4e+38	R
627	Virtual channel 122 value (floating point – word low)			
628	Virtual channel 123 value (floating point – word high)	-3.4e+38	+3.4e+38	R
629	Virtual channel 123 value (floating point – word low)			
630	Virtual channel 124 value (floating point – word high)	-3.4e+38	+3.4e+38	R
631	Virtual channel 124 value (floating point – word low)			

Address	Description	Minimum	Maximum	R/W
632	Virtual channel 125 value (floating point – word high)	-3.4e+38	+3.4e+38	R
633	Virtual channel 125 value (floating point – word low)			
634	Virtual channel 126 value (floating point – word high)	-3.4e+38	+3.4e+38	R
635	Virtual channel 126 value (floating point – word low)			
636	Virtual channel 127 value (floating point – word high)	-3.4e+38	+3.4e+38	R
637	Virtual channel 127 value (floating point – word low)			
638	Virtual channel 128 value (floating point – word high)	-3.4e+38	+3.4e+38	R
639	Virtual channel 128 value (floating point – word low)			
735	Bit array with alarms status (word high - alarms 31 to 16)	0	65535	R
736	Bit array with alarms status (word high - alarms 15 to 0)	0	65535	R
774	Constant value for testing purposes (floating point – word high)	123456.125	123456.125	R
775	Constant value for testing purposes (floating point – word low)			
776	Digital input 1 counting value (unsigned 32-bit integer – word high)	0	4294967295	R/W
777	Digital input 1 counting value (unsigned 32-bit integer – word low)			
778	Digital input 2 counting value (unsigned 32-bit integer – word high)	0	4294967295	R/W
779	Digital input 2 counting value (unsigned 32-bit integer – word low)			
780	Digital input 3 counting value (unsigned 32-bit integer – word high)	0	4294967295	R/W
781	Digital input 3 counting value (unsigned 32-bit integer – word low)			
782	Digital input 4 counting value (unsigned 32-bit integer – word high)	0	4294967295	R/W
783	Digital input 4 counting value (unsigned 32-bit integer – word low)			
784	Digital input 5 counting value (unsigned 32-bit integer – word high)	0	4294967295	R/W
785	Digital input 5 counting value (unsigned 32-bit integer – word low)			
786	Digital input 6 counting value (unsigned 32-bit integer – word high)	0	4294967295	R/W
787	Digital input 6 counting value (unsigned 32-bit integer – word low)			
788	Digital input 7 counting value (unsigned 32-bit integer – word high)	0	4294967295	R/W
789	Digital input 7 counting value (unsigned 32-bit integer – word low)			
790	Digital input 8 counting value (unsigned 32-bit integer – word high)	0	4294967295	R/W
791	Digital input 8 counting value (unsigned 32-bit integer – word low)			
990	Command for starting and stopping the logging process	0	2	R/W
5242	Alarm 01 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5243	Alarm 01 Setpoint (floating point – word low)			
5250	Alarm 02 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5251	Alarm 02 Setpoint (floating point – word low)			
5258	Alarm 03 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5259	Alarm 03 Setpoint (floating point – word low)			
5266	Alarm 04 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5267	Alarm 04 Setpoint (floating point – word low)			
5274	Alarm 05 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5275	Alarm 05 Setpoint (floating point – word low)			
5282	Alarm 06 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5283	Alarm 06 Setpoint (floating point – word low)			
5290	Alarm 07 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5291	Alarm 07 Setpoint (floating point – word low)			
5298	Alarm 08 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5299	Alarm 08 Setpoint (floating point – word low)			
5306	Alarm 09 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5307	Alarm 09 Setpoint (floating point – word low)			
5314	Alarm 10 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5315	Alarm 10 Setpoint (floating point – word low)			
5322	Alarm 11 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5323	Alarm 11 Setpoint (floating point – word low)			
5330	Alarm 12 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5331	Alarm 12 Setpoint (floating point – word low)			

Address	Description	Minimum	Maximum	R/W
5338	Alarm 13 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5339	Alarm 13 Setpoint (floating point – word low)			
5346	Alarm 14 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5347	Alarm 14 Setpoint (floating point – word low)			
5354	Alarm 15 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5355	Alarm 15 Setpoint (floating point – word low)			
5362	Alarm 16 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5363	Alarm 16 Setpoint (floating point – word low)			
5370	Alarm 17 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5371	Alarm 17 Setpoint (floating point – word low)			
5378	Alarm 18 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5379	Alarm 18 Setpoint (floating point – word low)			
5386	Alarm 19 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5387	Alarm 19 Setpoint (floating point – word low)			
5394	Alarm 20 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5395	Alarm 20 Setpoint (floating point – word low)			
5402	Alarm 21 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5403	Alarm 21 Setpoint (floating point – word low)			
5410	Alarm 22 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5411	Alarm 22 Setpoint (floating point – word low)			
5418	Alarm 23 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5419	Alarm 23 Setpoint (floating point – word low)			
5426	Alarm 24 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5427	Alarm 24 Setpoint (floating point – word low)			
5434	Alarm 25 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5435	Alarm 25 Setpoint (floating point – word low)			
5442	Alarm 26 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5443	Alarm 26 Setpoint (floating point – word low)			
5450	Alarm 27 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5451	Alarm 27 Setpoint (floating point – word low)			
5458	Alarm 28 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5459	Alarm 28 Setpoint (floating point – word low)			
5466	Alarm 29 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5467	Alarm 29 Setpoint (floating point – word low)			
5474	Alarm 30 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5475	Alarm 30 Setpoint (floating point – word low)			
5482	Alarm 31 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5483	Alarm 31 Setpoint (floating point – word low)			
5490	Alarm 32 Setpoint (floating point – word high)	-3.4e+38	+3.4e+38	R/W
5491	Alarm 32 Setpoint (floating point – word low)			
6132	Alarm 1 setpoint (signed 16-bit integer)	-32768	32767	R/W
6133	Alarm 2 setpoint (signed 16-bit integer)	-32768	32767	R/W
6134	Alarm 3 setpoint (signed 16-bit integer)	-32768	32767	R/W
6135	Alarm 4 setpoint (signed 16-bit integer)	-32768	32767	R/W
6136	Alarm 5 setpoint (signed 16-bit integer)	-32768	32767	R/W
6137	Alarm 6 setpoint (signed 16-bit integer)	-32768	32767	R/W
6138	Alarm 7 setpoint (signed 16-bit integer)	-32768	32767	R/W
6139	Alarm 8 setpoint (signed 16-bit integer)	-32768	32767	R/W
6140	Alarm 9 setpoint (signed 16-bit integer)	-32768	32767	R/W
6141	Alarm 10 setpoint (signed 16-bit integer)	-32768	32767	R/W
6142	Alarm 11 setpoint (signed 16-bit integer)	-32768	32767	R/W
6143	Alarm 12 setpoint (signed 16-bit integer)	-32768	32767	R/W
6144	Alarm 13 setpoint (signed 16-bit integer)	-32768	32767	R/W

Address	Description	Minimum	Maximum	R/W
6145	Alarm 14 setpoint (signed 16-bit integer)	-32768	32767	R/W
6146	Alarm 15 setpoint (signed 16-bit integer)	-32768	32767	R/W
6147	Alarm 16 setpoint (signed 16-bit integer)	-32768	32767	R/W
6148	Alarm 17 setpoint (signed 16-bit integer)	-32768	32767	R/W
6149	Alarm 18 setpoint (signed 16-bit integer)	-32768	32767	R/W
6150	Alarm 19 setpoint (signed 16-bit integer)	-32768	32767	R/W
6151	Alarm 20 setpoint (signed 16-bit integer)	-32768	32767	R/W
6152	Alarm 21 setpoint (signed 16-bit integer)	-32768	32767	R/W
6153	Alarm 22 setpoint (signed 16-bit integer)	-32768	32767	R/W
6154	Alarm 23 setpoint (signed 16-bit integer)	-32768	32767	R/W
6155	Alarm 24 setpoint (signed 16-bit integer)	-32768	32767	R/W
6156	Alarm 25 setpoint (signed 16-bit integer)	-32768	32767	R/W
6157	Alarm 26 setpoint (signed 16-bit integer)	-32768	32767	R/W
6158	Alarm 27 setpoint (signed 16-bit integer)	-32768	32767	R/W
6159	Alarm 28 setpoint (signed 16-bit integer)	-32768	32767	R/W
6160	Alarm 29 setpoint (signed 16-bit integer)	-32768	32767	R/W
6161	Alarm 30 setpoint (signed 16-bit integer)	-32768	32767	R/W
6162	Alarm 31 setpoint (signed 16-bit integer)	-32768	32767	R/W
6163	Alarm 32 setpoint (signed 16-bit integer)	-32768	32767	R/W

DETAILS ABOUT SOME REGISTERS

REGISTERS 0 AND 1 – SERIAL NUMBER

Device serial number. Register 0 has the number that corresponds to the first four digits of the serial number, while register 1 has the number that corresponds to the last four digits.

REGISTER 2 – FIRMWARE VERSION

Indicates the device firmware version, as it is shown in the examples:

If the version is "1.00", value "100" will be read. If the version is "2.04", value "204" will be read.

REGISTERS 241 TO 255 – DIGITAL INPUT STATE FLOATING POINT VALUE

Indicates the state of the digital input through the floating point value associated with the input channel by the user when configuring.

REGISTERS 735 AND 736 –ALARMS STATE

Bit array where each bit informs the state of the corresponding alarm (0 = alarm off, 1 = alarm on).

REGISTERS 774 AND 775 – CONSTANT FLOATING POINT VALUE

Informs the constant value "123456.125", purposed to test the floating point format when reading registers.

REGISTERS 776 TO 791 – DIGITAL INPUT COUNTING VALUE

Has the counting values of the digital inputs (32-bit unsigned integer format). *Available only in firmware version 1.10 or higher.*

REGISTER 990 – LOGGINGS START AND STOP COMMAND

When configured the start and/or the stop of the loggings by a Modbus command, it allows to start or to stop the loggings disregarding the configured start and stop modes:

- When writing "1", starts the loggings (if it was not already logging).
- When writing "2", stops the loggings (if it was not already stopped).

REGISTERS 5242 TO 5491 – ALARM SETPOINTS AS FLOATING POINT

Contains the configured value of the alarm setpoint in "floating point" format. *Available only in firmware version 1.01 or higher.*

REGISTERS 6132 TO 6163 – ALARM SETPOINTS AS INTEGERS

Contains the configured value of the alarm setpoint in "int16" format. The setpoint value is multiplied by 10, so a setpoint of "145.8" will be read as "1458". *Available only in firmware version 1.30 or higher.*

FLOATING POINT FORMAT USED

Data Logger uses floating point values in *single precision* (32 bit) format as described in standard **IEEE-754** (IEEE Standard for Floating-Point Arithmetic).