



Elegance Technologies

No.186, Telecom Layout

Vijayanagara, pipe line road

Bengaluru, Karnataka 560023, India www.elegancetech.co.in/ sales@elegancetech.co.in

Mob:+919480493940



ETech Lock Series — ETL101

Protocol Description



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Features

- Records i-Button tag id with date and time stamp and communicates the information via RS485 Modbus (Master/Slave).
- Reader will acts as slave. The slave Id is configurable and by default the slave id is 0x01.
- The master should be able to query and get the response for every one second.

Protocol

Serial Port Settings

Baud rate	9600
Parity	None
Data bits	8
Stop bit	1
Slave id	1(configurable 1 to 255)

I Button Reader RS485 MOD BUS Protocol

The Reader communicates using RS-485Modbus (RTU) protocol.



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Function code 0x04(Read Input Registers) Latest Log Data

Register Address	Bytes	Parameter	Remark
30001	2	Latest ID Validation	00-Invalid,01-Valid
30002	2	Door sensor Status	00-Close,01-Open
30003	2	Last Access Date	XX
30004	2	Last Access Month	XX
30005	2	Last Access Year	XXXX
30006	2	Last Access Hour	XX
30007	2	Last Access Min	XX
30008	2	Last Access Sec	XX
30009	2	I-Button ID	XXXX
30010	2	I-Button ID	XXXX
30011	2	I-Button ID	XXXX
30012	2	I-Button ID	XXXX

Function code 0x06(Preset Single Registers)

Register Address	Bytes	Parameter	Remark
40001	2	Reader Slave Address (Default 0x01)	XX
40002	2	Time interval for door lock (Milliseconds)	XXXX
40003	2	Digital o/p to control door lock.	XX

- The Device ID can be programmable.
- To control door lock, Preset value is 0x00FF.



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Function code 0x10(Preset Multiple Registers)

Register Address	Bytes	Parameter	Remark
40004	2	Date	XX
40005	2	Month	XX
40006	2	Year	XX
40007	2	Hour	XX
40008	2	Min	XX
40009	2	Sec	XX

I-Button Tag ID

Register Address	Bytes	Parameter	Remark
40017 - 40020	8	I-Button Tag ID - 01	XXXXXXXX
40021 - 40024	8	I-Button Tag ID - 02	XXXXXXXX
40025 - 40028	8	I-Button Tag ID - 03	XXXXXXXX
40029 - 40032	8	I-Button Tag ID - 04	XXXXXXXX
40033 - 40036	8	I-Button Tag ID - 05	XXXXXXXX
40037 - 40040	8	I-Button Tag ID - 06	XXXXXXXX
40041 - 40044	8	I-Button Tag ID - 07	XXXXXXXX
40045 - 40048	8	I-Button Tag ID - 08	XXXXXXXX
40049 - 40052	8	I-Button Tag ID - 09	XXXXXXXX
40053 - 40056	8	I-Button Tag ID - 10	XXXXXXXX
40057 - 40060	8	I-Button Tag ID - 11	XXXXXXXX
40061 - 40064	8	I-Button Tag ID - 12	XXXXXXXX
40065 - 40068	8	I-Button Tag ID - 13	XXXXXXXX
40069 - 40072	8	I-Button Tag ID - 14	XXXXXXXX
40073 - 40076	8	I-Button Tag ID - 15	XXXXXXXX
40077 - 40080	8	I-Button Tag ID - 16	XXXXXXXX
40081 - 40084	8	I-Button Tag ID - 17	XXXXXXXX
40085 - 40088	8	I-Button Tag ID - 18	XXXXXXXX
40089 - 40092	8	I-Button Tag ID - 19	XXXXXXXX
40093 - 40096	8	I-Button Tag ID - 20	XXXXXXXX
40097 - 40100	8	I-Button Tag ID - 21	XXXXXXXX
40101 - 40104	8	I-Button Tag ID - 22	XXXXXXXX
40105 - 40108	8	I-Button Tag ID - 23	XXXXXXXX
40109 - 40112	8	I-Button Tag ID - 24	XXXXXXXX
40113 - 40116	8	I-Button Tag ID - 25	XXXXXXXX
40117 - 40120	8	I-Button Tag ID - 26	XXXXXXXX



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Register Address	Bytes	Parameter	Remark
40121 - 40124	8	I-Button Tag ID - 27	XXXXXXXXXX
40125 - 40128	8	I-Button Tag ID - 28	XXXXXXXXXX
40129 - 40132	8	I-Button Tag ID - 29	XXXXXXXXXX
40133 - 40136	8	I-Button Tag ID - 30	XXXXXXXXXX
40137 - 40140	8	I-Button Tag ID - 31	XXXXXXXXXX
40141 - 40144	8	I-Button Tag ID - 32	XXXXXXXXXX
40145 - 40148	8	I-Button Tag ID - 33	XXXXXXXXXX
40149 - 40152	8	I-Button Tag ID - 34	XXXXXXXXXX
40153 - 40156	8	I-Button Tag ID - 35	XXXXXXXXXX
40157 - 40160	8	I-Button Tag ID - 36	XXXXXXXXXX
40161 - 40164	8	I-Button Tag ID - 37	XXXXXXXXXX
40165 - 40168	8	I-Button Tag ID - 38	XXXXXXXXXX
40169 - 40172	8	I-Button Tag ID - 39	XXXXXXXXXX
40173 - 40176	8	I-Button Tag ID - 40	XXXXXXXXXX
40177 - 40180	8	I-Button Tag ID - 41	XXXXXXXXXX
40181 - 40184	8	I-Button Tag ID - 42	XXXXXXXXXX
40185 - 40188	8	I-Button Tag ID - 43	XXXXXXXXXX
40189 - 40192	8	I-Button Tag ID - 44	XXXXXXXXXX
40193 - 40196	8	I-Button Tag ID - 45	XXXXXXXXXX
40197 - 40200	8	I-Button Tag ID - 46	XXXXXXXXXX
40201 - 40204	8	I-Button Tag ID - 47	XXXXXXXXXX
40205 - 40208	8	I-Button Tag ID - 48	XXXXXXXXXX
40209 - 40212	8	I-Button Tag ID - 49	XXXXXXXXXX
40213 - 40216	8	I-Button Tag ID - 50	XXXXXXXXXX
40217 - 40220	8	I-Button Tag ID - 51	XXXXXXXXXX
40221 - 40224	8	I-Button Tag ID - 52	XXXXXXXXXX
40225 - 40228	8	I-Button Tag ID - 53	XXXXXXXXXX
40229 - 40232	8	I-Button Tag ID - 54	XXXXXXXXXX
40233 - 40236	8	I-Button Tag ID - 55	XXXXXXXXXX
40237 - 40240	8	I-Button Tag ID - 56	XXXXXXXXXX
40241 - 40244	8	I-Button Tag ID - 57	XXXXXXXXXX
40245 - 40248	8	I-Button Tag ID - 58	XXXXXXXXXX
40249 - 40252	8	I-Button Tag ID - 59	XXXXXXXXXX
40253 - 40256	8	I-Button Tag ID - 60	XXXXXXXXXX
40257 - 40260	8	I-Button Tag ID - 61	XXXXXXXXXX



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Register Address	Bytes	Parameter	Remark
40261 - 40264	8	I-Button Tag ID - 62	XXXXXXXXXX
40265 - 40268	8	I-Button Tag ID - 63	XXXXXXXXXX
40269 - 40272	8	I-Button Tag ID - 64	XXXXXXXXXX
40273 - 40276	8	I-Button Tag ID - 65	XXXXXXXXXX
40277 - 40280	8	I-Button Tag ID - 66	XXXXXXXXXX
40281 - 40284	8	I-Button Tag ID - 67	XXXXXXXXXX
40285 - 40288	8	I-Button Tag ID - 68	XXXXXXXXXX
40289 - 40292	8	I-Button Tag ID - 69	XXXXXXXXXX
40293 - 40296	8	I-Button Tag ID - 70	XXXXXXXXXX
40297 - 40300	8	I-Button Tag ID - 71	XXXXXXXXXX
40301 - 40304	8	I-Button Tag ID - 72	XXXXXXXXXX
40305 - 40308	8	I-Button Tag ID - 73	XXXXXXXXXX
40309 - 40312	8	I-Button Tag ID - 74	XXXXXXXXXX
40313 - 40316	8	I-Button Tag ID - 75	XXXXXXXXXX
40317 - 40320	8	I-Button Tag ID - 76	XXXXXXXXXX
40321 - 40324	8	I-Button Tag ID - 77	XXXXXXXXXX
40325 - 40328	8	I-Button Tag ID - 78	XXXXXXXXXX
40329 - 40332	8	I-Button Tag ID - 79	XXXXXXXXXX
40333 - 40336	8	I-Button Tag ID - 80	XXXXXXXXXX

Log Data (Read Input Registers)

Register Address	Bytes	Parameter	Remark
30013	2	ID Validation	00-Invalid,01-Valid
30014	2	Accessed Date	XX
30015	2	Accessed Month	XX
30016	2	Accessed Year	XX
30017	2	Accessed Hour	XX
30018	2	Accessed Min	XX
30019	2	Accessed Sec	XX
30020	2	I-Button ID	XX
30021	2	I-Button ID	XX
30022	2	I-Button ID	XX
30023	2	I-Button ID	XX
30024 - 30034	22	Log ID - 02	XXXXXXXXXXXXXX
30035 - 30045	22	Log ID - 03	XXXXXXXXXXXXXX



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Register Address	Bytes	Parameter	Remark
30046- 30056	22	Log ID - 04	XXXXXXXXXXXXX
30057 - 30067	22	Log ID - 05	XXXXXXXXXXXXX
30068 - 30078	22	Log ID - 06	XXXXXXXXXXXXX
30079 - 30089	22	Log ID - 07	XXXXXXXXXXXXX
30090 - 30100	22	Log ID - 08	XXXXXXXXXXXXX
30101 - 30111	22	Log ID - 09	XXXXXXXXXXXXX
30112 - 30122	22	Log ID - 10	XXXXXXXXXXXXX
30123 - 30133	22	Log ID - 11	XXXXXXXXXXXXX
30134 - 30144	22	Log ID - 12	XXXXXXXXXXXXX
30145 - 30155	22	Log ID - 13	XXXXXXXXXXXXX
30156 - 30166	22	Log ID - 14	XXXXXXXXXXXXX
30168 - 30177	22	Log ID - 15	XXXXXXXXXXXXX
30178 - 30188	22	Log ID - 16	XXXXXXXXXXXXX
30189 - 30199	22	Log ID - 17	XXXXXXXXXXXXX
30200 - 30210	22	Log ID - 18	XXXXXXXXXXXXX
30211 - 30221	22	Log ID - 19	XXXXXXXXXXXXX
30222 - 30232	22	Log ID - 20	XXXXXXXXXXXXX
30233 - 30243	22	Log ID - 21	XXXXXXXXXXXXX
30244 - 30254	22	Log ID - 22	XXXXXXXXXXXXX
30255 - 30265	22	Log ID - 23	XXXXXXXXXXXXX
30266 - 30276	22	Log ID - 24	XXXXXXXXXXXXX
30277 - 30287	22	Log ID - 25	XXXXXXXXXXXXX
30288 - 30298	22	Log ID - 26	XXXXXXXXXXXXX
30299 - 30309	22	Log ID - 27	XXXXXXXXXXXXX
30310 - 30320	22	Log ID - 28	XXXXXXXXXXXXX
30321 - 30331	22	Log ID - 29	XXXXXXXXXXXXX
30332 - 30342	22	Log ID - 30	XXXXXXXXXXXXX
30343 - 30353	22	Log ID - 31	XXXXXXXXXXXXX
30354 - 30364	22	Log ID - 33	XXXXXXXXXXXXX
30365 - 30375	22	Log ID - 34	XXXXXXXXXXXXX
30376 - 30386	22	Log ID - 35	XXXXXXXXXXXXX
30387 - 30397	22	Log ID - 36	XXXXXXXXXXXXX
30398 - 30408	22	Log ID - 37	XXXXXXXXXXXXX
30409 - 30419	22	Log ID - 38	XXXXXXXXXXXXX
30420 - 30430	22	Log ID - 39	XXXXXXXXXXXXX
30431 - 30441	22	Log ID - 40	XXXXXXXXXXXXX



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I-Button Tag ID With Validity

Register Address	Bytes	Parameter	Remark
40337	2	I-Button ID	XX
40338	2	I-Button ID	XX
40339	2	I-Button ID	XX
40340	2	I-Button ID	XX
40341	2	Validity(days)	XX
40342 - 40346	10	I-Button Tag ID - 02(V)	XXXXXXXXXX
40347 - 40351	10	I-Button Tag ID - 03(V)	XXXXXXXXXX
40352 - 40356	10	I-Button Tag ID - 04(V)	XXXXXXXXXX
40357 - 40361	10	I-Button Tag ID - 05(V)	XXXXXXXXXX
40362 - 40366	10	I-Button Tag ID - 06(V)	XXXXXXXXXX
40367 - 40371	10	I-Button Tag ID - 07(V)	XXXXXXXXXX
40372 - 40376	10	I-Button Tag ID - 08(V)	XXXXXXXXXX
40377 - 40381	10	I-Button Tag ID - 09(V)	XXXXXXXXXX
40382 - 40386	10	I-Button Tag ID - 10(V)	XXXXXXXXXX
40387 - 40391	10	I-Button Tag ID - 11(V)	XXXXXXXXXX
40392 - 40396	10	I-Button Tag ID - 12(V)	XXXXXXXXXX
40397 - 40401	10	I-Button Tag ID - 13(V)	XXXXXXXXXX
40402 - 40406	10	I-Button Tag ID - 14(V)	XXXXXXXXXX
40407 - 40411	10	I-Button Tag ID - 15(V)	XXXXXXXXXX
40412 - 40416	10	I-Button Tag ID - 16(V)	XXXXXXXXXX
40417 - 40421	10	I-Button Tag ID - 17(V)	XXXXXXXXXX
40422 - 40426	10	I-Button Tag ID - 18(V)	XXXXXXXXXX
40427 - 40431	10	I-Button Tag ID - 19(V)	XXXXXXXXXX
40432 - 40436	10	I-Button Tag ID - 20(V)	XXXXXXXXXX



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Configuration Tool

The token ID reader can be configured using the configuration tool provided with the module. Configuration tool can be used to store a new token i-button ID, replacing an existing token ID, to read the stamp record, to erase token id and stamp record memory block. Tool communication interface can be over RS232/RS485.

Reader Specifications

- Communication Interface: RS485/RS232
- Power supply: 12VDC to 24VDC
- Form Factor: Compact Type mounted on the Door along with the lock.