

SERIAL COMMUNICATION - IPTP

Protocol: MODBUS RTU;

Baudrate: 2.400 to 57.600 bps;

Data bits: 8;

Stop bits: 1;

MODBUS ADDRESS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
1	-50 to 50	-	-	TAP Initial position;	W / R	-1000
2	-50 to 50	-	-	TAP Final Position;	W / R	-1000
3	-50 to 50	-	-	Resistive Step;	W / R	1:10
4	0 to 1	-	-	Register – Transmission module initialization.	W / R	-
			0	Initiates the TAP counting from 0 Ohms;	W / R	-
			1	Initiates the TAP counting from the initial resistance;	W / R	-
11	0 to 5	-	-	Register – TAP Changer command type	-	-
			0	Local Operation;	W / R	-
			1	Remote Operation;	W / R	-
			2	Local and Remote operation;	W / R	-
			3	Remote Automatic Operation;	W / R	-
			4	Remote and Local Automatic Operation;	W / R	-
12	0 to 1	-	-	Register – TAP Changer successive command type.	-	-
			0	It blocks TAP Changer;	W / R	-
			1	It returns to the previous TAP position and blocks the TAP Changer;	W / R	-

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
13	1 to 240	-	-	TAP Changer operation timer	-	-
14	-	-	-	Register –Relay activation type.	W / R	-
		-	0	Constant type;	W / R	-
		-	1	Pulse type;	W / R	-
15	1 to 60	-	-	Relay Activation time (Seconds);	-	-
16	0 to 15	-	-	Register – Relay activation logic	W / R	-
		0	0	Raise TAP relay initial condition Normal;	W / R	-
			1	Raise TAP relay initial condition Inverse;	W / R	-
		1	0	Raise TAP relay lower condition Normal;	W / R	-
			1	Raise TAP relay lower condition Inverse;	W / R	-
		2	0	TAP Blockage relay initial condition Normal;	W / R	-
			1	TAP Blockage relay initial condition Inverse;	W / R	-
		3	0	TAP Fail relay initial condition Normal;	W / R	-
1	TAP Fail relay initial condition Inverse;		W / R	-		
17	-	-	-	Register –TAP Changer blocking mode under failure conditions.	-	-
		-	0	Locking function disabled;	W / R	-
		-	1	Lock function enabled;	W / R	-
18	0 to 15	-	-	Register – Commands.	-	-
		0	1	Reset Minimum Position Reached;	W	-
		1	1	Maximum Position Reset Reached;	W	-
		2	1	Reset Synchronism;	W	-
		3	1	Equipment Reset;	W	-

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
19	1 to 2	-	-	Register – TAP Changer commands;	-	-
		-	1	Command RAISE TAP;	W	-
		-	2	Command LOWER TAP;	W	-
20	0 to 4	-	-	Register – Analog output type.	-	-
		-	0	When at 0, Analog Output from 0 to 1 mA;	W / R	-
		-	1	When at 0, Analog Output from 0 to 5 mA;	W / R	-
		-	2	When at 0, Analog Output from 0 to 10 mA;	W / R	-
		-	3	When at 0, Analog Output from 0 to 20 mA;	W / R	-
-	4	When at 0, 4 to 20 mA Analog Output;	W / R	-		
30	-50 to 50	-	-	TAP position;		
31	-50 to 50	-	-	Minimum TAP Position Reached;	R	-1000
32	-50 to 50	-	-	Maximum TAP Position Reached;	R	-1000
33	-50 to 50	-	-	Previous Position;	R	-1000
35	-	-	-	Register - Fail	-	-
		0	1	Transmission Mode Failure;	R	-
		1	1	Commutation failure on the ascent;	R	-
		2	1	Switching Failure on Descent;	R	-
		3	1	Synchronization Failure;	R	-
		4	1	Communication Failure in Parallelismism;	R	-
		5	1	Minimum TAP switching failure;	R	-
6	1	Maximum TAP Switching Failure;	R	-		
36	0 to 15	-	-	Register – Parallelismism failure status – LSB	-	-
		0	1	Parallelismism failed Address 1;	R	-
		15	1	Parallelismism Failure at Address 16;	R	-

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
37	0 to 15	-	-	Register - Parallelismismism failure status - MSB	-	-
		-	1	Parallelismismism Failure Address 17;	R	-
		-	1	Parallelismismism Failure Address 31;	R	-
38	0 to 15	-	-	Register - Parallelismismism failure status - LSB;	-	-
		-	1	Parallelismismism Failure Address 17;	R	-
		-	1	Parallelismismism Failure Address 31;	R	-
39	0 to 15	-	-	Register - Parallelismismism failure status - MSB	-	-
		-	1	Parallelismismism Failure Address 17;	R	-
		-	1	Parallelismismism Failure Address 31;	R	-
40	0 to 15	-	-	Register - Parallelismismism failure status - LSB;	-	-
		-	1	Parallelismismism Failure Address 17;	R	-
		-	1	Parallelismismism Failure Address 31;	R	-
41	0 to 15	-	-	Register - Parallelismismism failure status - MSB	-	-
		-	1	Parallelismismism Failure Address 17;	R	-
		-	1	Parallelismismism Failure Address 31;	R	-
42	0 to 15	-	-	Register - Parallelismismism failure status - MSB	-	-
		-	1	Parallelismismism Failure Address 17;	R	-
		-	1	Parallelismismism Failure Address 31;	R	-

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
43	0 to 7	-	-	Register – Serial Communication Speed.	-	-
		-	0	Detecta Automaticamente to Velocidade de SERIAL COMMUNICATION;	R	-
		-	1	Fixed speed at 1,200 bps;	R	-
		-	2	Fixed speed at 2,400 bps;	R	-
		-	3	Fixed speed at 4,800 bps;	R	-
		-	4	Fixed speed at 9,600 bps;	R	-
		-	5	Fixed speed at 19,200 bps;	R	-
		-	6	Fixed speed at 38,400 bps;	R	-
44	0 to 2	-	-	Register – Communication Parity.	-	-
		-	0	Without Parity;	R	-
		-	1	Even Parity;	R	-
		-	2	Odd Parity;	R	-
45	1 to 254	-	-	Serial network address.	R	1:1
46	0 to 1	-	-	Register – Communication protocol.	-	-
		-	0	MODBUS L1;	R	-
		-	1	Modbus RTU;	R	-
47	-	-	-	Password Reminder.	R	-
50	1 to 31	-	-	Parallelismism Network Address	W / R	-
51	0 to 3	-	-	Register – Paralellism Type	-	-
		-	0	Follower mode;	W / R	-
		-	1	Master mode;	W / R	-
		-	2	Individual mode;	W / R	-
		-	3	Parallelismism mode OFF;	W / R	-
52	0 to 31	-	-	Quantidade de equipamentos na Rede de Paralelismo	W / R	-

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
			-	Registrador – Status do Equipamento na rede de Paralelismo.		-
53	0 to 1	0	0	Equipment 1 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 1 enabled in the Parallelism Network;	W / R	-
54	0 to 1	0	0	Equipment 2 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 2 enabled in the Parallelism Network;	W / R	-
55	0 to 1	0	0	Equipment 3 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 3 enabled in the Parallelism Network;	W / R	-
56	0 to 1	0	0	Equipment 4 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 4 enabled in the Parallelism Network;	W / R	-
57	0 to 1	0	0	Equipment 5 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 5 enabled in the Parallelism Network;	W / R	-
58	0 to 1	0	0	Equipment 6 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 6 enabled in the Parallelism Network;	W / R	-
59	0 to 1	0	0	Equipment 7 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 7 enabled in the Parallelism Network;	W / R	-
60	0 to 1	0	0	Equipment 8 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 8 enabled in the Parallelism Network;	W / R	-
61	0 to 1	0	0	Equipment 9 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 9 enabled in the Parallelism Network;	W / R	-
62	0 to 1	0	0	Equipment 10 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 10 enabled in the Parallelism Network;	W / R	-
63	0 to 1	0	0	Equipment 11 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 11 enabled in the Parallelism Network;	W / R	-
64	0 to 1	0	0	Equipment 12 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 12 enabled in the Parallelism Network;	W / R	-
65	0 to 1	0	0	Equipment 13 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 13 enabled in the Parallelism Network;	W / R	-

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
66	0 to 1	0	0	Equipment 14 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 14 enabled in the Parallelism Network;	W / R	-
67	0 to 1	0	0	Equipment 15 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 15 enabled in the Parallelism Network;	W / R	-
68	0 to 1	0	0	Equipment 16 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 16 enabled in the Parallelism Network;	W / R	-
69	0 to 1	0	0	Equipment 17 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 17 enabled in the Parallelism Network;	W / R	-
70	0 to 1	0	0	Equipment 18 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 18 enabled in the Parallelism Network;	W / R	-
71	0 to 1	0	0	Equipment 19 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 19 Enabled in the Parallelism Network;	W / R	-
72	0 to 1	0	0	Equipment 20 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 20 enabled in the Parallelism Network;	W / R	-
73	0 to 1	0	0	Equipment 21 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 21 enabled in the Parallelism Network;	W / R	-
74	0 to 1	0	0	Equipment 22 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 22 enabled in the Parallelism Network;	W / R	-
75	0 to 1	0	0	Equipment 23 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 23 enabled in the Parallelism Network;	W / R	-
76	0 to 1	0	0	Equipment 24 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 24 enabled in the Parallelism Network;	W / R	-
77	0 to 1	0	0	Equipment 25 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 25 enabled in the Parallelism Network;	W / R	-
78	0 to 1	0	0	Equipment 26 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 26 enabled in the Parallelism Network;	W / R	-

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
79	0 to 1	0	0	Equipment 27 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 27 enabled in the Parallelism Network;	W / R	-
80	0 to 1	0	0	Equipment 28 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 28 Enabled in the Parallelism Network;	W / R	-
81	0 to 1	0	0	Equipment 29 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 29 enabled in the Parallelism Network;	W / R	-
82	0 to 1	0	0	Equipment 30 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 30 enabled in the Parallelism Network;	W / R	-
83	0 to 1	0	0	Equipment 31 Disabled in the Parallelism Network;	W / R	-
			1	Equipment 31 enabled in the Parallelism Network;	W / R	-
84	1 to 31	-	-	Calibration day;	R	-
85	1 to 12	-	-	Calibration year;	R	-
86	0 to 65535	-	-	Equipment Serial Number – LSB;	R	-
87	0 to 255	-	-	Equipment Serial number – MSB;	R	-
105	-	-	-	Register – Address 1 Fail;	-	-
		0	1	Transmission module failure;	R	-
		1	1	Commutation failure on the ascent;	R	-
		2	1	Switching Failure on the Descent;	R	-
		3	1	Synchronization Failure;	R	-
		4	1	Communication Failure in Parallelism;	R	-
		5	1	Minimum TAP switching failure;	R	-
6	1	Maximum TAP Switching Failure;	R	-		
106	0 to 2	-	-	Register - Status and Command on the parallelism equipment 2	See end. 101	
107	50 to 150	-	-	Current TAP position at Address 2;	R	-100
108	50 to 150	-	-	Minimum TAP position at address 2;	R	-100
109	50 to 150	-	-	Maximum TAP position at address 2;	R	-100
110	-	-	-	Register - Failure at address 2;	See end. 105	

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
111	0 to 2	-		Register - Status and Command on the parallelism equipment 2		-
112	50 to 150	-		Current TAP position at address 3;	R	-100
113	50 to 150	-		Minimum TAP position at address 3;	R	-100
114	50 to 150	-		Maximum TAP position at address 3;	R	-100
115		-		Register - Failure at address 3.		See end. 105
116	0 to 2	-		Register - Status and Command on the parallelism equipment 3		See end. 101
117	0 to 150	-		Current TAP position at address 4;	R	-100
118	0 to 150	-		Minimum TAP position at address 4;	R	-100
119	0 to 150	-		Maximum TAP position at address 4;	R	-100
120		-		Register - Failure at address 4;		See end. 105
121	0 to 2	-		Register - Status and Command on the parallelism equipment 4		See end. 101
122	0 to 150	-		Current TAP position at address 5;	R	-100
123	0 to 150	-		Minimum TAP position at address 5;	R	-100
124	0 to 150	-		Maximum TAP position at address 5;	R	-100
125		-		Register - Failure at address 5;		See end. 105
126	0 to 2	-		Register - Status and Command on the parallelism equipment 5		See end. 101
127	0 to 150	-		Current TAP position at address 6;	R	-100
128	0 to 150	-		Minimum TAP position at address 6;	R	-100
129	0 to 150	-		Maximum TAP position at address 6;	R	-100
130		-		Register - Failure at address 6;		See end. 105
131	0 to 2	-		Register - Status and Command on the parallelism equipment 6		See end. 101
132	0 to 150	-		Current TAP position at address 7;	R	-100
133	0 to 150	-		Minimum TAP position at address 7;	R	-100
134	0 to 150	-		Maximum TAP position at address 7;	R	-100
135		-		Register - Failure at address 7;		See end. 105
136	0 to 2	-		Register - Status and Command on the parallelism equipment 7		See end. 101
137	0 to 150	-		Current TAP position at address 8;	R	-100

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
138	0 to 2	-		Minimum TAP position at address 8;	R	-100
139	50 to 150	-		Maximum TAP position at address 8;	R	-100
140		-		Register - Failure at address 8;	See end. 105	
141	0 to 2	-		Register - Status and Command on the parallelism equipment 8	See end. 101	
142	0 to 150	-		Current TAP position at address 9;	R	-100
143	0 to 150	-		Minimum TAP position at address 9;	R	-100
144	0 to 150	-		Maximum TAP position at address 9;	R	-100
145		-		Register - Failure at address 9;	See end. 105	
146	0 to 2	-		Register - Status and Command on the parallelism equipment 9	See end. 101	
147	0 to 150	-		Current TAP position at address 10;	R	-100
148	0 to 150	-		Minimum TAP position at address 10;	R	-100
149	0 to 150	-		Maximum TAP position at address 10;	R	-100
150		-		Register - Failure at address 10;	See end. 105	
151	0 to 2	-		Register - Status and Command on the parallelism equipment 10	See end. 101	
152	0 to 150	-		Current TAP position at address 11;	R	-100
153	0 to 150	-		Minimum TAP position at address 11;	R	-100
154	0 to 150	-		Maximum TAP position at address 11;	R	-100
155		-		Register - Failure at address 11;	See end. 105	
156	0 to 2	-		Register - Status and Command on the parallelism equipment 11	See end. 101	
157	0 to 150	-		Current TAP position at address 12;	R	-100
158	0 to 150	-		Minimum TAP position at address 12;	R	-100
159	0 to 150	-		Maximum TAP position at address 12;	R	-100
160		-		Register - Failure at address 12;	See end. 105	
161	0 to 2	-		Register - Status and Command on the parallelism equipment 12	See end. 101	
162	0 to 150	-		Current TAP position at address 13;	R	-100
163	0 to 150	-		Minimum TAP position at address 13;	R	-100
164	0 to 150	-		Maximum TAP position at address 13;	R	-100

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
165		-		Register - Failure at address 13;	See end. 105	
166	0 to 2	-		Register - Status and Command on the parallelism equipment 13	See end. 101	
167	0 to 150	-		Current TAP position at address 14;	R	-100
168	0 to 150	-		Minimum TAP position at address 14;	R	-100
169	0 to 150	-		Maximum TAP position at address 14;	R	-100
170		-		Register - Failure at address 14;	See end. 105	
171	0 to 2	-		Register - Status and Command on the parallelism equipment 14	See end. 101	
172	0 to 150	-		Current TAP position at address 15;	R	-100
173	0 to 150	-		Minimum TAP position at address 15;	R	-100
174	0 to 150	-		Maximum TAP position at address 15;	R	-100
175		-		Register - Failure at address 15;	See end. 105	
176	0 to 2	-		Register - Status and Command on the parallelism equipment 15	See end. 101	
177	0 to 150	-		Current TAP position at address 16;	R	-100
178	0 to 150	-		Minimum TAP position at address 16;	R	-100
179	0 to 150	-		Maximum TAP position at address 16;	R	-100
180		-		Register - Failure at address 16;	See end. 105	
181	0 to 2	-		Register - Status and Command on the parallelism equipment 16	See end. 101	
182	0 to 150	-		Current TAP position at address 17;	R	-100
183	0 to 150	-		Minimum TAP position at address 17;	R	-100
184	0 to 150	-		Maximum TAP position at address 17;	R	-100
185		-		Register - Failure at address 17;	See end. 105	
186	0 to 2	-		Register - Status and Command on the parallelism equipment 17	See end. 101	
187	0 to 150	-		Current TAP position at address 18;	R	-100
188	0 to 150	-		Minimum TAP position at address 18;	R	-100
189	0 to 150	-		Maximum TAP position at address 18;	R	-100

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
190		-		Register - Failure at address 18;	See end. 101	
191	0 to 2	-		Register - Status and Command on the parallelism equipment 18	See end. 105	
192	0 to 150	-		Current TAP position at address 19;	R	-100
193	0 to 150	-		Minimum TAP position at address 19;	R	-100
194	0 to 150	-		Maximum TAP position at address 19;	R	-100
195		-		Register - Failure at address 19;	See end. 105	
196	0 to 2	-		Register - Status and Command on the parallelism equipment 19	See end. 101	
197	0 to 150	-		Current TAP position at address 20;	R	-100
198	0 to 150	-		Minimum TAP position at address 20;	R	-100
199	0 to 150	-		Maximum TAP position at address 20;	R	-100
200		-		Register - Failure at address 20;	See end. 105	
201	0 to 2	-		Register - Status and Command on the parallelism equipment 20	See end. 101	
202	0 to 150	-		Current TAP position at address 21;	R	-100
203	0 to 150	-		Minimum TAP position at address 21;	R	-100
204	0 to 150	-		Maximum TAP position at address 21;	R	-100
205		-		Register - Failure at address 21;	See end. 105	
206	0 to 2	-		Register - Status and Command on the parallelism equipment 21	See end. 101	
207	0 to 150	-		Current TAP position at address 22;	R	-100
208	0 to 150	-		Minimum TAP position at address 22;	R	-100
209	0 to 150	-		Maximum TAP position at address 22;	R	-100
210		-		Register - Failure at address 22;	See end. 105	
211	0 to 2	-		Register - Status and Command on the parallelism equipment 22	See end. 101	
212	0 to 150	-		Current TAP position at address 23;	R	-100
213	0 to 150	-		Minimum TAP position at address 23;	R	-100
214	0 to 150	-		Maximum TAP position at address 23;	R	-100

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
215		-		Register - Failure at address 23;		See end. 105
216	0 to 2	-		Register - Status and Command on the parallelism equipment 23		See end. 101
217	0 to 150	-		Current TAP position at address 24;	R	-100
218	0 to 150	-		Minimum TAP position at address 24;	R	-100
219	0 to 150	-		Maximum TAP position at address 24;	R	-100
220		-		Register - Failure at address 24;		See end. 105
221	0 to 2	-		Register - Status and Command on the parallelism equipment 24		See end. 101
222	0 to 150	-		Current TAP position at address 25;	R	-100
223	0 to 150	-		Minimum TAP position at address 25;	R	-100
224	0 to 150	-		Maximum TAP position at address 25;	R	-100
225		-		Register - Failure at address 25;		See end. 105
226	0 to 2	-		Register - Status and Command on the parallelism equipment 25		See end. 101
227	0 to 150	-		Current TAP position at address 26;	R	-100
228	0 to 150	-		Minimum TAP position at address 26;	R	-100
229	0 to 150	-		Maximum TAP position at address 26;	R	-100
230		-		Register - Failure at address 26;		See end. 105
231	0 to 2	-		Register - Status and Command on the parallelism equipment 26		See end. 101
232	0 to 150	-		Current TAP position at address 27;	R	-100
233	0 to 150	-		Minimum TAP position at address 27;	R	-100
234	0 to 150	-		Maximum TAP position at address 27;	R	-100
235		-		Register - Failure at address 27;		See end. 105
236	0 to 2	-		Register - Status and Command on the parallelism equipment 27		See end. 101
237	0 to 150	-		Current TAP position at address 28;	R	-100
238	0 to 150	-		Minimum TAP position at address 28;	R	-100
239	0 to 150	-		Maximum TAP position at address 28;	R	-100
240		-		Register - Failure at address 28;		See end. 105
241	0 to 2	-		Register - Status and Command on the parallelism equipment 28		See end. 101

ADDRESS MODBUS	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITE READ	SCALE
242	0 to 150	-		Current TAP position at address 29;	R	-100
243	0 to 150	-		Minimum TAP position at address 29;	R	-100
244	0 to 150	-		Maximum TAP position at address 29;	R	-100
245		-		Register - Failure at address 29;	See end. 105	
246	0 to 2	-		Register - Status and Command on the parallelism equipment 29	See end. 101	
247	0 to 150	-		Current TAP position at address 30;	R	-100
248	0 to 150	-		Minimum TAP position at address 30;	R	-100
249	0 to 150	-		Maximum TAP position at address 30;	R	-100
250		-		Register - Failure at address 30;	See end. 105	
251	0 to 2	-		Register - Status and Command on the parallelism equipment 30	See end. 101	
252	0 to 150	-		Current TAP position at address 31;	R	-100
253	0 to 150	-		Minimum TAP position at address 31;	R	-100
254	0 to 150	-		Maximum TAP position at address 31;	R	-100
255		-		Register - Failure at address 31;	See end. 105	