

## Device Profile Document

For  
IEC60870-5-101 Protocol

For Use With Cooper Power Systems  
CL-6 Regulator Control

**CL-6 Series IEC60870-5-101 Protocol Device Profile Data Dictionary**

November, 2011 Initial Release

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<b>Document Revision</b>	<b>Date</b>	<b>Description</b>
1.00	November, 2011	Initial Release

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**Change Record**

Document	Changes

**Single Point (MSP)**

Hex	Index		Description	Group Mask	Func Code	Abs Index (Internal)
00	000		Bandwidth LOW	0x00000000		001
01	001		Bandwidth HIGH	0x00000000		002
02	002		Voltage Limiter LOW	0x00000000		003
03	003		Voltage Limiter HIGH	0x00000000		004
04	004		Voltage Reduction ACTIVE	0x00000000		005
05	005		Auto Operation Blocking Status BLOCKED	0x00000000	069	006
06	006	B	Source Voltage Calculation ON	0x00000000	039	015
07	007	B	System Power Direction INDETERMINATE	0x00000000		007
08	008	B	System Power DIRECTION	0x00000000		008
09	009		Control Power DIRECTION (reflects state of Reverse Power LED)	0x00000000		009
0A	010		Analog Voltage Reduction #1 ACTIVE	0x00000000		012
0B	011		Analog Voltage Reduction #2 ACTIVE	0x00000000		013
0C	012		HMI Switch Auto/Manual AUTO	0x00000000		011
0D	013		HMI Switch Supervisory ON	0x00000000		014
0E	014		RESERVED	0x00000000		010
0F	015		RESERVED	0x00000000		016
10	016		RESERVED	0x00000000		017
11	017		HMI Switch Supervisory ON	0x00000000		018
12	018		HMI Switch Power INTERNAL	0x00000000		019
13	019		HMI Switch Power EXTERNAL	0x00000000		020
14	020		HMI Switch Auto/Manual MANUAL	0x00000000		021
15	021		HMI Switch Auto/Manual OFF	0x00000000		022
16	022		HMI Switch Drag Hand Reset ON	0x00000000		023
17	023		HMI LED Neutral Position ON	0x00000000		024
18	024		HMI Blocking Relay ACTIVE	0x00000000		025
19	025		RESERVED	0x00000000		026
1A	026		Aux-I/O Discrete Input 1	0x00000000		027
1B	027		Aux-I/O Discrete Input 2	0x00000000		028
1C	028		Aux-I/O Discrete Input 3	0x00000000		029
1D	029		Aux-I/O Discrete Input 4	0x00000000		030
1E	030		P-I/O HMI LED User-Defined ON	0x00000000		031
1F	031		PAux-I/O Discrete Output 1	0x00000000		032
20	032		PAux-I/O Discrete Output 2	0x00000000		033
21	033		PAux-I/O Discrete Output 3	0x00000000		034
22	034		PAux-I/O Discrete Output 4	0x00000000		035
23	035		P-I/O User Equation Tap Raise	0x00000000		036

Hex	Index	Description	Group Mask	Func Code	Abs Index (Internal)
<b>Single Point (MSP)</b>					
24	036	P-I/O User Equation Tap Lower	0x00000000		037
25	037	RESERVED	0x00000000		038
26	038	P-I/O User Form 01	0x00000000		039
27	039	P-I/O User Form 02	0x00000000		040
28	040	P-I/O User Form 03	0x00000000		041
29	041	P-I/O User Form 04	0x00000000		042
2A	042	P-I/O User Form 05	0x00000000		043
2B	043	P-I/O User Form 06	0x00000000		044
2C	044	P-I/O User Form 07	0x00000000		045
2D	045	P-I/O User Form 08	0x00000000		046
2E	046	P-I/O User Form 09	0x00000000		047
2F	047	P-I/O User Form 10	0x00000000		048
30	048	P-I/O User Form 11	0x00000000		049
31	049	P-I/O User Form 12	0x00000000		050
32	050	P-I/O User Form 13	0x00000000		051
33	051	P-I/O User Form 14	0x00000000		052
34	052	P-I/O User Form 15	0x00000000		053
35	053	P-I/O User Form 16	0x00000000		054
36	054	P-I/O User Form 17	0x00000000		055
37	055	P-I/O User Form 18	0x00000000		056
38	056	P-I/O User Form 19	0x00000000		057
39	057	P-I/O User Form 20	0x00000000		058
3A	058	Tap To Neutral ENABLED	0x00000000	170	059
3B	059	PMT Mode A ENABLED	0x00000000	300	060
3C	060	PMT Mode B ENABLED	0x00000000	320	061
3D	061	Event Recorder ENABLED	0x00000000		062
3E	062	Histograms ENABLED	0x00000000		063
3F	063	Data Alarms ENABLED	0x00000000		064
40	064	Status Alarms ENABLED	0x00000000		065
41	065	Data Profiler ENABLED	0x00000000		066
42	066	P-I/O Event Recorder ENABLED	0x00000000		067
43	067	P-I/O Histogram ENABLED	0x00000000		068
44	068	P-I/O Data Alarms ENABLED	0x00000000		069
45	069	P-I/O Status Alarms ENABLED	0x00000000		070
46	070	P-I/O Data Profiler ENABLED	0x00000000		071
47	071	P-I/O User Intermediate Equation 01	0x00000000		072
48	072	P-I/O User Intermediate Equation 02	0x00000000		073
49	073	P-I/O User Intermediate Equation 03	0x00000000		074
4A	074	P-I/O User Intermediate Equation 04	0x00000000		075

Hex	Index		Description	Group Mask	Func Code	Abs Index (Internal)
<b>Single Point (MSP)</b>						
4B	075		HMI LED Alarm ON	0x00000000		076
4C	076		HMI LED Warning ON	0x00000000		077
4D	077		HMI LED Diagnostic Error ON	0x00000000		078
4E	078		HMI LED Voltage Limiter High ON	0x00000000		079
4F	079		HMI LED Out-Of-Band High ON	0x00000000		080
50	080		HMI LED Out-Of-Band Low ON	0x00000000		081
51	081		HMI LED Voltage Limiter Low ON	0x00000000		082
52	082		HMI LED Auto Tap Blocked ON	0x00000000		083
53	083		HMI LED Reverse Power ON	0x00000000		084
54	084		HMI LED Voltage Reduction ON	0x00000000		085
55	085	A	ARL AltConfig STATE	0x00000000		086
56	086	A	Interval Ops ENABLED	0x00000000		087
57	087	C	Daylight Saving Time ENABLE	0x00000000	151	088
58	088	C	Daylight Saving Time ACTIVE	0x00000000	152	089

A Firmware Version 1.03.xx and later.

B Firmware Version 1.04.xx and later.

C Firmware Version 1.05.xx and later.

**Double Point (MDP)**

Hex	Index		Description	Group Mask	Func Code	Abs Index (Internal)
00	000		Bandwidth LOW	0x00000000		001
01	001		Bandwidth HIGH	0x00000000		002
02	002		Voltage Limiter LOW	0x00000000		003
03	003		Voltage Limiter HIGH	0x00000000		004
04	004		Voltage Reduction ACTIVE	0x00000000		005
05	005		Auto Operation Blocking Status BLOCKED	0x00000000	069	006
06	006	B	Source Voltage Calculation ON	0x00000000	039	015
07	007	B	System Power Direction INDETERMINATE	0x00000000		007
08	008	B	System Power DIRECTION	0x00000000		008
09	009		Control Power DIRECTION (reflects state of Reverse Power LED)	0x00000000		009
0A	010		Analog Voltage Reduction #1 ACTIVE	0x00000000		012
0B	011		Analog Voltage Reduction #2 ACTIVE	0x00000000		013
0C	012		HMI Switch Auto/Manual AUTO	0x00000000		011
0D	013		HMI Switch Supervisory ON	0x00000000		014
0E	014		RESERVED	0x00000000		010
0F	015		RESERVED	0x00000000		016
10	016		RESERVED	0x00000000		017
11	017		HMI Switch Supervisory ON	0x00000000		018
12	018		HMI Switch Power INTERNAL	0x00000000		019
13	019		HMI Switch Power EXTERNAL	0x00000000		020
14	020		HMI Switch Auto/Manual MANUAL	0x00000000		021
15	021		HMI Switch Auto/Manual OFF	0x00000000		022
16	022		HMI Switch Drag Hand Reset ON	0x00000000		023
17	023		HMI LED Neutral Position ON	0x00000000		024
18	024		HMI Blocking Relay ACTIVE	0x00000000		025
19	025		RESERVED	0x00000000		026
1A	026		Aux-I/O Discrete Input 1	0x00000000		027
1B	027		Aux-I/O Discrete Input 2	0x00000000		028
1C	028		Aux-I/O Discrete Input 3	0x00000000		029
1D	029		Aux-I/O Discrete Input 4	0x00000000		030
1E	030		P-I/O HMI LED User-Defined ON	0x00000000		031
1F	031		PAux-I/O Discrete Output 1	0x00000000		032
20	032		PAux-I/O Discrete Output 2	0x00000000		033
21	033		PAux-I/O Discrete Output 3	0x00000000		034
22	034		PAux-I/O Discrete Output 4	0x00000000		035
23	035		P-I/O User Equation Tap Raise	0x00000000		036

Hex	Index	Description	Group Mask	Func Code	Abs Index (Internal)
<b>Double Point (MDP)</b>					
24	036	P-I/O User Equation Tap Lower	0x00000000		037
25	037	RESERVED	0x00000000		038
26	038	P-I/O User Form 01	0x00000000		039
27	039	P-I/O User Form 02	0x00000000		040
28	040	P-I/O User Form 03	0x00000000		041
29	041	P-I/O User Form 04	0x00000000		042
2A	042	P-I/O User Form 05	0x00000000		043
2B	043	P-I/O User Form 06	0x00000000		044
2C	044	P-I/O User Form 07	0x00000000		045
2D	045	P-I/O User Form 08	0x00000000		046
2E	046	P-I/O User Form 09	0x00000000		047
2F	047	P-I/O User Form 10	0x00000000		048
30	048	P-I/O User Form 11	0x00000000		049
31	049	P-I/O User Form 12	0x00000000		050
32	050	P-I/O User Form 13	0x00000000		051
33	051	P-I/O User Form 14	0x00000000		052
34	052	P-I/O User Form 15	0x00000000		053
35	053	P-I/O User Form 16	0x00000000		054
36	054	P-I/O User Form 17	0x00000000		055
37	055	P-I/O User Form 18	0x00000000		056
38	056	P-I/O User Form 19	0x00000000		057
39	057	P-I/O User Form 20	0x00000000		058
3A	058	Tap To Neutral ENABLED	0x00000000	170	059
3B	059	PMT Mode A ENABLED	0x00000000	300	060
3C	060	PMT Mode B ENABLED	0x00000000	320	061
3D	061	Event Recorder ENABLED	0x00000000		062
3E	062	Histograms ENABLED	0x00000000		063
3F	063	Data Alarms ENABLED	0x00000000		064
40	064	Status Alarms ENABLED	0x00000000		065
41	065	Data Profiler ENABLED	0x00000000		066
42	066	P-I/O Event Recorder ENABLED	0x00000000		067
43	067	P-I/O Histogram ENABLED	0x00000000		068
44	068	P-I/O Data Alarms ENABLED	0x00000000		069
45	069	P-I/O Status Alarms ENABLED	0x00000000		070
46	070	P-I/O Data Profiler ENABLED	0x00000000		071
47	071	P-I/O User Intermediate Equation 01	0x00000000		072
48	072	P-I/O User Intermediate Equation 02	0x00000000		073
49	073	P-I/O User Intermediate Equation 03	0x00000000		074
4A	074	P-I/O User Intermediate Equation 04	0x00000000		075
4B	075	HMI LED Alarm ON	0x00000000		076



Hex	Index		Description	Group Mask	Func Code	Abs Index (Internal)
<b>Double Point (MDP)</b>						
4C	076		HMI LED Warning ON	0x00000000		077
4D	077		HMI LED Diagnostic Error ON	0x00000000		078
4E	078		HMI LED Voltage Limiter High ON	0x00000000		079
4F	079		HMI LED Out-Of-Band High ON	0x00000000		080
50	080		HMI LED Out-Of-Band Low ON	0x00000000		081
51	081		HMI LED Voltage Limiter Low ON	0x00000000		082
52	082		HMI LED Auto Tap Blocked ON	0x00000000		083
53	083		HMI LED Reverse Power ON	0x00000000		084
54	084		HMI LED Voltage Reduction ON	0x00000000		085
55	085	A	ARL AltConfig STATE	0x00000000		086
56	086	A	Interval Ops ENABLED	0x00000000		087
57	087	C	Daylight Saving Time ENABLE	0x00000000	151	088
58	088	C	Daylight Saving Time ACTIVE	0x00000000	152	089

A Firmware Version 1.03.xx and later.

B Firmware Version 1.04.xx and later.

C Firmware Version 1.05.xx and later.

**Integrated Totals (MIT)**

Hex	Index	Description	Group Mask	Func Code	Abs Index (Internal)
00	000	OPERATIONS COUNTER	0x00000000	000	003
01	001	OPERATIONS 24HR COUNTER	0x00000000	101	004
02	002	OPERATIONS 30DY COUNTER	0x00000000	102	005
03	003	OPERATIONS MONTH COUNTER	0x00000000	103	006
04	004	OPERATIONS LAST MONTH COUNTER	0x00000000	104	007
05	005	OPERATIONS YEAR COUNTER	0x00000000	105	008
06	006	OPERATIONS LAST YEAR COUNTER	0x00000000	106	009
07	007	Reserved	0x00000000		001
08	008	Reserved	0x00000000		002
09	009	TPI NEUTRAL RESYNCH COUNTER	0x00000000		011
0A	010	TAPS PAST 16R COUNTER	0x00000000		012
0B	011	TAPS PAST 16L COUNTER	0x00000000		013
0C	012	COM1 RX MESSAGE COUNTER	0x00000000	261	016
0D	013	COM2 RX MESSAGE COUNTER	0x00000000	264	017
0E	014	COM1 TX MESSAGE COUNTER	0x00000000	260	018
0F	015	COM2 TX MESSAGE COUNTER	0x00000000	263	019
10	016	COM1 MESSAGE ERROR STATUS	0x00000000	262	020
11	017	COM2 MESSAGE ERROR STATUS	0x00000000	265	021
12	018	COM1 FRAMING ERRORS COUNTER	0x00000000		022
13	019	COM2 FRAMING ERRORS COUNTER	0x00000000		023
14	020	ALARMS IUU COUNTER	0x00000000		024
15	021	ALARMS IUC COUNTER	0x00000000		025
16	022	ALARMS ISU COUNTER	0x00000000		026
17	023	ALARMS ISC COUNTER	0x00000000		027
18	024	ALARMS AUU COUNTER	0x00000000		028
19	025	ALARMS AUC COUNTER	0x00000000		029
1A	026	ALARMS ASU COUNTER	0x00000000		030
1B	027	ALARMS ASC COUNTER	0x00000000		031
1C	028	ALARMS ACTIVE COUNTER	0x00000000		032
1D	029	ALARMS SUPPRESSED COUNTER	0x00000000		033
1E	030	ALARMS CHANGED COUNTER	0x00000000		034
1F	031	ALARMS REGISTERED COUNTER	0x00000000		035
20	032	Reserved	0x00000000		014
21	033	A EVENT RECORDER SYS MASKED REC COUNT	0x00000000		039
22	034	A EVENT RECORDER SYS UNMASKED REC COUNT	0x00000000		040
23	035	A EVENT RECORDER ERR MASKED REC COUNT	0x00000000		041
24	036	A EVENT RECORDER ERR UNMASKED REC COUNT	0x00000000		042
25	037	A DATA PROFILER MASKED REC COUNT	0x00000000		043

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Hex	Index	Description		Group Mask	Func Code	Abs Index (Internal)
<b>Integrated Totals (MIT)</b>						
26	038	A	DATA PROFILER UNMASKED REC COUNT	0x00000000		044
27	039	C	Measured/Incremental TPI MisMatch COUNT	0x00000000		045

A Firmware Version 1.03.xx and later.  
C Firmware Version 1.05.xx and later.

**Single Command (CSC)**

Hex	Index	Description	Abs Index (Internal)
00	000	RAISE TAP	001
01	001	LOWER TAP	002
02	002	AUTO BLOCK ENABLED	003
03	003	SOURCE SIDE VOLTAGE CALCULATION	004
04	004	RESERVED	005
05	005	RESERVED	006
06	006	INTERVAL OPERATIONS COUNTERS ENABLE	007
07	007	OPERATIONS COUNTER MONTH RESET	008
08	008	OPERATIONS COUNTER YEAR RESET	009
09	009	OPERATIONS COUNTER 24HR RESET	010
0A	010	OPERATIONS COUNTER 30DY RESET	011
0B	011	OPERATIONS COUNTER LAST MONTH RESET	012
0C	012	OPERATIONS COUNTER LAST YEAR RESET	013
0D	013	RESERVED	014
0E	014	TAPS PAST 16L COUNTER RESET	015
0F	015	RESERVED	016
10	016	TAPS PAST 16R COUNTER RESET	017
11	017	RESERVED	018
12	018	RESERVED	019
13	019	RESERVED	020
14	020	RESERVED	021
15	021	RESERVED	022
16	022	RX COM1 COUNTER RESET	023
17	023	RX COM2 COUNTER RESET	024
18	024	TX COM1 COUNTER RESET	025
19	025	TX COM2 COUNTER RESET	026
1A	026	RESET MESSAGE ERRORS COM1 STATUS	027
1B	027	RESET MESSAGE ERRORS COM2 STATUS	028
1C	028	FRAMING ERRORS COM1 COUNTER RESET	029
1D	029	FRAMING ERRORS COM2 COUNTER RESET	030
1E	030	RESERVED	031
1F	031	RESERVED	032
20	032	RESET KWHR FWD	033
21	033	RESET KWHR REV	034
22	034	RESET KVARHR FWD	035
23	035	RESET KVARHR REV	036
24	036	RESET ENERGY ALL	037
25	037	RESET ALL DEMAND VALUES	038
26	038	EVENT RECORDER ENABLE	039
27	039	EVENT RECORDER SYS MASK ALL	040
28	040	EVENT RECORDER SYS UNMASK ALL	041

Hex	Index	Description	Abs Index (Internal)
<b>Single Command (CSC)</b>			
29	041	DATA PROFILER ENABLE	042
2A	042	DATA PROFILER MASK ALL	043
2B	043	DATA PROFILER UNMASK ALL	044
2C	044	RESERVED	045
2D	045	DATA PROFILER SNAPSHOT	046
2E	046	HISTOGRAMS ENABLE	047
2F	047	HISTOGRAMS MASTER CLEAR	048
30	048	HISTOGRAMS ACTIVE CLEAR	049
31	049	RESERVED	050
32	050	RESERVED	051
33	051	RESERVED	052
34	052	ERROR RECORDER MASK ALL	053
35	053	ERROR RECORDER UNMASK ALL	054
36	054	USER INPUT 01	055
37	055	USER INPUT 02	056
38	056	USER INPUT 03	057
39	057	USER INPUT 04	058
3A	058	USER INPUT 05	059
3B	059	USER INPUT 06	060
3C	060	USER INPUT 07	061
3D	061	USER INPUT 08	062
3E	062	USER INPUT 09	063
3F	063	USER INPUT 10	064
40	064	USER INPUT 11	065
41	065	USER INPUT 12	066
42	066	USER INPUT 13	067
43	067	USER INPUT 14	068
44	068	USER INPUT 15	069
45	069	USER INPUT 16	070
46	070	USER INPUT 17	071
47	071	USER INPUT 18	072
48	072	USER INPUT 19	073
49	073	USER INPUT 20	074
4A	074	USER INPUT 21	075
4B	075	USER INPUT 22	076
4C	076	USER INPUT 23	077
4D	077	USER INPUT 24	078
4E	078	USER INPUT 25	079
4F	079	USER INPUT 26	080
50	080	USER INPUT 27	081
51	081	USER INPUT 28	082

Hex	Index		Description	Abs Index (Internal)
<b>Single Command (CSC)</b>				
52	082		USER INPUT 29	083
53	083		USER INPUT 30	084
54	084		USER INPUT 31	085
55	085		USER INPUT 32	086
56	086		Tap To Neutral Feature ENABLE	087
57	087		PMT Mode A ENABLE	088
58	088		PMT Mode B ENABLE	089
59	089		Reserved	000
5A	090		Reserved	000
5B	091		PMT MODE A TEST	090
5C	092		PMT MODE B TEST	091
5D	093		ALARMS SUPPRESS ALL	092
5E	094		ALARMS UNSUPPRESS ALL	093
5F	095		ALARMS ALL OPERATION MODES OFF	094
60	096		ALARMS QUERY USER	095
61	097		ALARMS QUERY ALL REGISTERED	096
62	098		ALARMS QUERY ACTIVE HIGH PRIORITY	097
63	099		ALARMS QUERY ACTIVE LOW AND HIGH PRIORITY	098
64	100		ALARMS QUERY ACTIVE	099
65	101		ALARMS QUERY SUPPRESSED	100
66	102		DATA ALARMS ENABLE	101
67	103		STATUS ALARMS ENABLE	102
68	104		CL DELETE ACTIVE FORM	103
69	105	A	ARL AltConfig TERMINATE	104
6A	106	A	TPI NEUTRAL MISMATCH RESET	105
6B	107	A	TPI MISMATCH COUNTERS RESET	106
6C	108	A	TIME ON TAP RESET	107
6D	109	A	EVENT RECORDER SYS READ FIRST	108
6E	110	A	EVENT RECORDER SYS READ NEXT	109
6F	111	A	DATA PROFILER READ FIRST	110
70	112	A	DATA PROFILER READ NEXT	111
71	113	A	EVENT RECORDER ERR READ FIRST	112
72	114	A	EVENT RECORDER ERR READ NEXT	113
73	115	C	Measured/Incremental TPI MisMatch RESET	114
74	116	C	Daylight Saving Time ENABLE	115

A Firmware Version 1.03.xx and later.  
C Firmware Version 1.05.xx and later.

**Measured Double Command (MDP) Read**

Hex	Index	Description	Abs Index (Internal)
#NAME?	000	RAISE TAP	001
01	001	LOWER TAP	002
02	002	AUTO BLOCK ENABLED	003
03	003	SOURCE SIDE VOLTAGE CALCULATION	004
04	004	RESERVED	005
05	005	RESERVED	006
06	006	INTERVAL OPERATIONS COUNTERS ENABLE	007
07	007	OPERATIONS COUNTER MONTH RESET	008
08	008	OPERATIONS COUNTER YEAR RESET	009
09	009	OPERATIONS COUNTER 24HR RESET	010
0A	010	OPERATIONS COUNTER 30DY RESET	011
0B	011	OPERATIONS COUNTER LAST MONTH RESET	012
0C	012	OPERATIONS COUNTER LAST YEAR RESET	013
0D	013	RESERVED	014
0E	014	TAPS PAST 16L COUNTER RESET	015
0F	015	RESERVED	016
10	016	TAPS PAST 16R COUNTER RESET	017
11	017	RESERVED	018
12	018	RESERVED	019
13	019	RESERVED	020
14	020	RESERVED	021
15	021	RESERVED	022
16	022	RX COM1 COUNTER RESET	023
17	023	RX COM2 COUNTER RESET	024
18	024	TX COM1 COUNTER RESET	025
19	025	TX COM2 COUNTER RESET	026
1A	026	RESET MESSAGE ERRORS COM1 STATUS	027
1B	027	RESET MESSAGE ERRORS COM2 STATUS	028
1C	028	FRAMING ERRORS COM1 COUNTER RESET	029
1D	029	FRAMING ERRORS COM2 COUNTER RESET	030
1E	030	RESERVED	031
1F	031	RESERVED	032
20	032	RESET KWHR FWD	033
21	033	RESET KWHR REV	034
22	034	RESET KVARHR FWD	035
23	035	RESET KVARHR REV	036
24	036	RESET ENERGY ALL	037

Hex	Index		Description	Abs Index (Internal)
<b>Measured Double Command (MDP) Read</b>				
25	037		RESET ALL DEMAND VALUES	038
26	038		EVENT RECORDER ENABLE	039
27	039		EVENT RECORDER SYS MASK ALL	040
28	040		EVENT RECORDER SYS UNMASK ALL	041
29	041		DATA PROFILER ENABLE	042
2A	042		DATA PROFILER MASK ALL	043
2B	043		DATA PROFILER UNMASK ALL	044
2C	044		RESERVED	045
2D	045		DATA PROFILER SNAPSHOT	046
2E	046		HISTOGRAMS ENABLE	047
2F	047		HISTOGRAMS MASTER CLEAR	048
30	048		HISTOGRAMS ACTIVE CLEAR	049
31	049		RESERVED	050
32	050		RESERVED	051
33	051		RESERVED	052
34	052		ERROR RECORDER MASK ALL	053
35	053		ERROR RECORDER UNMASK ALL	054
36	054		USER INPUT 01	055
37	055		USER INPUT 02	056
38	056		USER INPUT 03	057
39	057		USER INPUT 04	058
3A	058		USER INPUT 05	059
3B	059		USER INPUT 06	060
3C	060		USER INPUT 07	061
3D	061		USER INPUT 08	062
3E	062		USER INPUT 09	063
3F	063		USER INPUT 10	064
40	064		USER INPUT 11	065
41	065		USER INPUT 12	066
42	066		USER INPUT 13	067
43	067		USER INPUT 14	068
44	068		USER INPUT 15	069
45	069		USER INPUT 16	070
46	070		USER INPUT 17	071
47	071		USER INPUT 18	072
48	072		USER INPUT 19	073
49	073		USER INPUT 20	074
4A	074		USER INPUT 21	075



Hex	Index		Description	Abs Index (Internal)
<b>Measured Double Command (MDP) Read</b>				
4B	075		USER INPUT 22	076
4C	076		USER INPUT 23	077
4D	077		USER INPUT 24	078
4E	078		USER INPUT 25	079
4F	079		USER INPUT 26	080
50	080		USER INPUT 27	081
51	081		USER INPUT 28	082
52	082		USER INPUT 29	083
53	083		USER INPUT 30	084
54	084		USER INPUT 31	085
55	085		USER INPUT 32	086
56	086		Tap To Neutral Feature ENABLE	087
57	087		PMT Mode A ENABLE	088
58	088		PMT Mode B ENABLE	089
59	089		Reserved	000
5A	090		Reserved	000
5B	091		PMT MODE A TEST	090
5C	092		PMT MODE B TEST	091
5D	093		ALARMS SUPPRESS ALL	092
5E	094		ALARMS UNSUPPRESS ALL	093
5F	095		ALARMS ALL OPERATION MODES OFF	094
60	096		ALARMS QUERY USER	095
61	097		ALARMS QUERY ALL REGISTERED	096
62	098		ALARMS QUERY ACTIVE HIGH PRIORITY	097
63	099		ALARMS QUERY ACTIVE LOW AND HIGH PRIORITY	098
64	100		ALARMS QUERY ACTIVE	099
65	101		ALARMS QUERY SUPPRESSED	100
66	102		DATA ALARMS ENABLE	101
67	103		STATUS ALARMS ENABLE	102
68	104		CL DELETE ACTIVE FORM	103
69	105	A	ARL AltConfig TERMINATE	104
6A	106	A	TPI NEUTRAL MISMATCH RESET	105
6B	107	A	TPI MISMATCH COUNTERS RESET	106
6C	108	A	TIME ON TAP RESET	107
6D	109	A	EVENT RECORDER SYS READ FIRST	108

Hex	Index		Description	Abs Index (Internal)
<b>Measured Double Command (MDP) Read</b>				
6E	110	A	EVENT RECORDER SYS READ NEXT	109
6F	111	A	DATA PROFILER READ FIRST	110
70	112	A	DATA PROFILER READ NEXT	111
71	113	A	EVENT RECORDER ERR READ FIRST	112
72	114	A	EVENT RECORDER ERR READ NEXT	113
73	115	C	Measured/Incremental TPI MisMatch RESET	114
74	116	C	Daylight Saving Time ENABLE	115

A Firmware Version 1.03.xx and later.

C Firmware Version 1.05.xx and later.

**Measured Normalized (MMENA)**

Hex	Index	Description	Group Mask	Low Limit	High Limit	Threshold	Low Trans	High Trans	Func Code	Abs Index (Internal)
00	000	LOAD VOLTAGE SECONDARY	0x10000001L	0	6553.5	0.5	0	0	006	005
01	001	LOAD VOLTAGE PRIMARY	0x10000001L	0	655.35	0	0	0	010	006
02	002	COMPENSATED VOLTAGE SECONDARY	0x10000001L	0	6553.5	0	0	0	008	014
03	003	LOAD CURRENT PRIMARY	0x10000001L	0	6553.5	20	0	0	009	004
04	004	SOURCE VOLTAGE SECONDARY	0x10000001L	0	6553.5	0	0	0	007	007
05	005	SOURCE VOLTAGE PRIMARY	0x10000001L	0	655.35	0	0	0	011	008
06	006	TAP POSITION	0x10000001L	-32768	32767	0	0	0	012	040
07	007	PERCENT REG	0x10000001L	-3276.8	3276.7	0	0	0	112	013
08	008	POWER FACTOR	0x10000001L	-32.768	32.767	0	0	0	013	012
09	009	KVA LOAD	0x10000001L	0	6553.5	0	0	0	014	009
0A	010	KW LOAD	0x10000001L	0	6553.5	0	0	0	015	011
0B	011	KVAR LOAD	0x10000001L	0	6553.5	0	0	0	016	010
0C	012	FREQUENCY	0x10000001L	0	655.35	0	0	0	017	025
0D	013	HARM TOTAL VOLTAGE HARMONICS	0x10000001L	0	6553.5	0	0	0	018	043
0E	014	HARM TOTAL CURRENT HARMONICS	0x10000001L	0	6553.5	0	0	0	019	044
0F	015	kWh FORWARD	0x10000001L	0	655.35	0	0	0	125	063
10	016	KWH REVERSE	0x10000001L	0	655.35	0	0	0	125	065
11	017	KQH FORWARD	0x10000001L	0	655.35	0	0	0	126	064
12	018	KQH REVERSE	0x10000001L	0	655.35	0	0	0	126	066
13	019	FORWARD DEMAND LOAD VOLTAGE SECONDARY	0x10000001L	0	6553.5	0	0	0	020	030
14	020	FORWARD DEMAND SOURCE VOLTAGE SECONDARY	0x10000001L	0	6553.5	0	0	0	029	045
15	021	FORWARD DEMAND COMPENSATED VOLTAGE SECONDARY	0x10000001L	0	6553.5	0	0	0	021	031
16	022	FORWARD DEMAND LOAD CURRENT PRIMARY	0x10000001L	0	6553.5	0	0	0	022	026
17	023	FORWARD DEMAND KVA LOAD	0x10000001L	0	6553.5	0	0	0	024	027
18	024	FORWARD DEMAND KW LOAD	0x10000001L	0	6553.5	0	0	0	025	029
19	025	FORWARD DEMAND KVAR LOAD	0x10000001L	0	6553.5	0	0	0	026	028
1A	026	REVERSE DEMAND LOAD VOLTAGE SECONDARY	0x10000001L	0	6553.5	0	0	0	030	036
1B	027	REVERSE DEMAND SOURCE VOLTAGE SECONDARY	0x10000001L	0	6553.5	0	0	0	037	046
1C	028	REVERSE DEMAND COMPENSATED VOLTAGE SECONDARY	0x10000001L	0	6553.5	0	0	0	031	037
1D	029	REVERSE DEMAND LOAD CURRENT PRIMARY	0x10000001L	0	6553.5	0	0	0	032	032
1E	030	REVERSE DEMAND KVA LOAD	0x10000001L	0	6553.5	0	0	0	034	033
1F	031	REVERSE DEMAND KW LOAD	0x10000001L	0	6553.5	0	0	0	035	035
20	032	REVERSE DEMAND KVAR LOAD	0x10000001L	0	6553.5	0	0	0	036	034

Hex	Index	Description	Group Mask	Low Limit	High Limit	Thresh- old	Low Trans	High Trans	Func Code	Abs Index (Internal)
<b>Measured Normalized (MMENA)</b>										
21	033	VOLTAGE REDUCTION IN EF-FECT	0x10000001L	0	6553.5	0	0	0	071	039
22	034	HARMONIC VOLTAGE 2ND	0x10000001L	0	6553.5	0	0	0	018	047
23	035	HARMONIC VOLTAGE 3RD	0x10000001L	0	6553.5	0	0	0	018	015
24	036	HARMONIC VOLTAGE 4TH	0x10000001L	0	6553.5	0	0	0	018	048
25	037	HARMONIC VOLTAGE 5TH	0x10000001L	0	6553.5	0	0	0	018	016
26	038	HARMONIC VOLTAGE 6TH	0x10000001L	0	6553.5	0	0	0	018	049
27	039	HARMONIC VOLTAGE 7TH	0x10000001L	0	6553.5	0	0	0	018	017
28	040	HARMONIC VOLTAGE 8TH	0x10000001L	0	6553.5	0	0	0	018	050
29	041	HARMONIC VOLTAGE 9TH	0x10000001L	0	6553.5	0	0	0	018	018
2A	042	HARMONIC VOLTAGE 10TH	0x10000001L	0	6553.5	0	0	0	018	051
2B	043	HARMONIC VOLTAGE 11TH	0x10000001L	0	6553.5	0	0	0	018	019
2C	044	HARMONIC VOLTAGE 12TH	0x10000001L	0	6553.5	0	0	0	018	052
2D	045	HARMONIC VOLTAGE 13TH	0x10000001L	0	6553.5	0	0	0	018	041
2E	046	HARMONIC VOLTAGE 14TH	0x10000001L	0	6553.5	0	0	0	018	053
2F	047	HARMONIC VOLTAGE 15TH	0x10000001L	0	6553.5	0	0	0	018	054
30	048	HARMONIC CURRENT 2ND	0x10000001L	0	6553.5	0	0	0	019	055
31	049	HARMONIC CURRENT 3RD	0x10000001L	0	6553.5	0	0	0	019	020
32	050	HARMONIC CURRENT 4TH	0x10000001L	0	6553.5	0	0	0	019	056
33	051	HARMONIC CURRENT 5TH	0x10000001L	0	6553.5	0	0	0	019	021
34	052	HARMONIC CURRENT 6TH	0x10000001L	0	6553.5	0	0	0	019	057
35	053	HARMONIC CURRENT 7TH	0x10000001L	0	6553.5	0	0	0	019	022
36	054	HARMONIC CURRENT 8TH	0x10000001L	0	6553.5	0	0	0	019	058
37	055	HARMONIC CURRENT 9TH	0x10000001L	0	6553.5	0	0	0	019	023
38	056	HARMONIC CURRENT 10TH	0x10000001L	0	6553.5	0	0	0	019	059
39	057	HARMONIC CURRENT 11TH	0x10000001L	0	6553.5	0	0	0	019	024
3A	058	HARMONIC CURRENT 12TH	0x10000001L	0	6553.5	0	0	0	019	060
3B	059	HARMONIC CURRENT 13TH	0x10000001L	0	6553.5	0	0	0	019	042
3C	060	HARMONIC CURRENT 14TH	0x10000001L	0	6553.5	0	0	0	019	061
3D	061	HARMONIC CURRENT 15TH	0x10000001L	0	6553.5	0	0	0	019	062
3E	062	CALCULATED MOTOR VOLT-AGE	0x10000001L	0	6553.5	0	0	0		038
3F	063	HISTOGRAM COUNT UNDER	0x10000001L	0	65535	0	0	0		067
40	064	HISTOGRAM COUNT BIN01	0x10000001L	0	65535	0	0	0		068
41	065	HISTOGRAM COUNT BIN02	0x10000001L	0	65535	0	0	0		069
42	066	HISTOGRAM COUNT BIN03	0x10000001L	0	65535	0	0	0		070
43	067	HISTOGRAM COUNT BIN04	0x10000001L	0	65535	0	0	0		071
44	068	HISTOGRAM COUNT BIN05	0x10000001L	0	65535	0	0	0		072
45	069	HISTOGRAM COUNT BIN06	0x10000001L	0	65535	0	0	0		073
46	070	HISTOGRAM COUNT BIN07	0x10000001L	0	65535	0	0	0		074
47	071	HISTOGRAM COUNT BIN08	0x10000001L	0	65535	0	0	0		075
48	072	HISTOGRAM COUNT BIN09	0x10000001L	0	65535	0	0	0		076
49	073	HISTOGRAM COUNT BIN10	0x10000001L	0	65535	0	0	0		077
4A	074	HISTOGRAM COUNT OVER	0x10000001L	0	65535	0	0	0		078
4B	075	HISTOGRAM MAX VALUE	0x10000001L	0	655.35	0	0	0		079
4C	076	HISTOGRAM MAX DAYS	0x10000001L	0	65535	0	0	0		080
4D	077	HISTOGRAM MAX M SEC- ONDARYS	0x10000001L	0	65535	0	0	0		081
4E	078	HISTOGRAM MIN VALUE	0x10000001L	0	655.35	0	0	0		082

Hex	Index	Description	Group Mask	Low Limit	High Limit	Threshold	Low Trans	High Trans	Func Code	Abs Index (Internal)
<b>Measured Normalized (MMENA)</b>										
4F	079	HISTOGRAM MIN DAYS	0x10000001L	0	65535	0	0	0		083
50	080	HISTOGRAM MIN M SECONDARYS	0x10000001L	0	65535	0	0	0		084
51	081	HISTOGRAM RESET DAYS	0x10000001L	0	65535	0	0	0		085
52	082	HISTOGRAM RESET M SECONDARYS	0x10000001L	0	65535	0	0	0		086
53	083	ALARMS COUNT	0x10000001L	0	65535	0	0	0		087
54	084	ALARMS ACTIVE ID	0x10000001L	0	65535	0	0	0		088
55	085	ALARMS ACTIVE PRIORITY	0x10000001L	0	65535	0	0	0		089
56	086	ALARMS ACTIVE ON DAYS	0x10000001L	0	65535	0	0	0		090
57	087	ALARMS ACTIVE ON M SECONDARYS	0x10000001L	0	65535	0	0	0		091
58	088	ALARMS ACTIVE OFF DAYS	0x10000001L	0	65535	0	0	0		092
59	089	ALARMS ACTIVE OFF M SECONDARYS	0x10000001L	0	65535	0	0	0		093
5A	090	RESERVED	0x10000001L	0	65535	0	0	0		003
5B	091	DCM_CONTACT_WEAR_M1	0x10000001L	0	65535	0	0	0		094
5C	092	DCM_CONTACT_WEAR_M2	0x10000001L	0	65535	0	0	0		095
5D	093	DCM_CONTACT_WEAR_M3	0x10000001L	0	65535	0	0	0		096
5E	094	DCM_CONTACT_WEAR_M4	0x10000001L	0	65535	0	0	0		097
5F	095	DCM_CONTACT_WEAR_SNA	0x10000001L	0	65535	0	0	0		098
60	096	DCM_CONTACT_WEAR_SNB	0x10000001L	0	65535	0	0	0		099
61	097	DCM_CONTACT_WEAR_S1A	0x10000001L	0	65535	0	0	0		100
62	098	DCM_CONTACT_WEAR_S1B	0x10000001L	0	65535	0	0	0		101
63	099	DCM_CONTACT_WEAR_S2A	0x10000001L	0	65535	0	0	0		102
64	100	DCM_CONTACT_WEAR_S2B	0x10000001L	0	65535	0	0	0		103
65	101	DCM_CONTACT_WEAR_S3A	0x10000001L	0	65535	0	0	0		104
66	102	DCM_CONTACT_WEAR_S3B	0x10000001L	0	65535	0	0	0		105
67	103	DCM_CONTACT_WEAR_S4A	0x10000001L	0	65535	0	0	0		106
68	104	DCM_CONTACT_WEAR_S4B	0x10000001L	0	65535	0	0	0		107
69	105	DCM_CONTACT_WEAR_S5A	0x10000001L	0	65535	0	0	0		108
6A	106	DCM_CONTACT_WEAR_S5B	0x10000001L	0	65535	0	0	0		109
6B	107	DCM_CONTACT_WEAR_S6A	0x10000001L	0	65535	0	0	0		110
6C	108	DCM_CONTACT_WEAR_S6B	0x10000001L	0	65535	0	0	0		111
6D	109	DCM_CONTACT_WEAR_S7A	0x10000001L	0	65535	0	0	0		112
6E	110	DCM_CONTACT_WEAR_S7B	0x10000001L	0	65535	0	0	0		113
6F	111	DCM_CONTACT_WEAR_S8A	0x10000001L	0	65535	0	0	0		114
70	112	DCM_CONTACT_WEAR_S8B	0x10000001L	0	65535	0	0	0		115
71	113	A 2179 VERSION	0x10000001L	0	65535	0	0	0	191	119
72	114	A DNP VERSION	0x10000001L	0	65535	0	0	0	192	120
73	115	A DEFAULTS IMAGE VERSION	0x10000001L	0	65535	0	0	0		121
74	116	A FLASH CARD FILE VERSION	0x10000001L	0	65535	0	0	0		122
75	117	A USER MEASURED V	0x10000001L	0	6553.5	0	0	0	047	001
76	118	A USER MEASURED IOUT	0x10000001L	0	6553.5	0	0	0	048	002
77	119	A OPS COUNT LAST CHNG	0x10000001L	0	65535	0	0	0		123
78	120	A CL-5 FORMAT FIRMWARE VERSION	0x10000001L	0	655.35	0	0	0		124

A Firmware Version 1.03.xx and later.

**Measured Floating (MMENC)**

Hex	Index	Description	Group Mask	Threshold	Low Trans	High Trans	Func Code	Abs Index (Internal)
00	000	LOAD VOLTAGE SECONDARY	0x10000001L	0.5	0	0	006	005
01	001	LOAD VOLTAGE PRIMARY	0x10000001L	0	0	0	010	006
02	002	COMPENSATED VOLTAGE SECONDARY	0x10000001L	0	0	0	008	014
03	003	LOAD CURRENT PRIMARY	0x10000001L	20	0	0	009	004
04	004	SOURCE VOLTAGE SECONDARY	0x10000001L	0	0	0	007	007
05	005	SOURCE VOLTAGE PRIMARY	0x10000001L	0	0	0	011	008
06	006	TAP POSITION	0x10000001L	0	0	0	012	040
07	007	PERCENT REG	0x10000001L	0	0	0	112	013
08	008	POWER FACTOR	0x10000001L	0	0	0	013	012
09	009	KVA LOAD	0x10000001L	0	0	0	014	009
0A	010	KW LOAD	0x10000001L	0	0	0	015	011
0B	011	KVAR LOAD	0x10000001L	0	0	0	016	010
0C	012	FREQUENCY	0x10000001L	0	0	0	017	025
0D	013	HARM TOTAL VOLTAGE HARMONICS	0x10000001L	0	0	0	018	043
0E	014	HARM TOTAL CURRENT HARMONICS	0x10000001L	0	0	0	019	044
0F	015	kWh FORWARD	0x10000001L	0	0	0	125	063
10	016	KWH REVERSE	0x10000001L	0	0	0	125	065
11	017	KQH FORWARD	0x10000001L	0	0	0	126	064
12	018	KQH REVERSE	0x10000001L	0	0	0	126	066
13	019	FORWARD DEMAND LOAD VOLTAGE SECONDARY	0x10000001L	0	0	0	020	030
14	020	FORWARD DEMAND SOURCE VOLTAGE SECONDARY	0x10000001L	0	0	0	029	045
15	021	FORWARD DEMAND COMPENSATED VOLTAGE SECONDARY	0x10000001L	0	0	0	021	031
16	022	FORWARD DEMAND LOAD CURRENT PRIMARY	0x10000001L	0	0	0	022	026
17	023	FORWARD DEMAND KVA LOAD	0x10000001L	0	0	0	024	027
18	024	FORWARD DEMAND KW LOAD	0x10000001L	0	0	0	025	029
19	025	FORWARD DEMAND KVAR LOAD	0x10000001L	0	0	0	026	028
1A	026	REVERSE DEMAND LOAD VOLTAGE SECONDARY	0x10000001L	0	0	0	030	036
1B	027	REVERSE DEMAND SOURCE VOLTAGE SECONDARY	0x10000001L	0	0	0	037	046
1C	028	REVERSE DEMAND COMPENSATED VOLTAGE SECONDARY	0x10000001L	0	0	0	031	037
1D	029	REVERSE DEMAND LOAD CURRENT PRIMARY	0x10000001L	0	0	0	032	032

Hex	Index	Description	Group Mask	Threshold	Low Trans	High Trans	Func Code	Abs Index (Internal)
<b>Measured Floating (MMENC)</b>								
1E	030	REVERSE DEMAND KVA LOAD	0x10000001L	0	0	0	034	033
1F	031	REVERSE DEMAND KW LOAD	0x10000001L	0	0	0	035	035
20	032	REVERSE DEMAND KVAR LOAD	0x10000001L	0	0	0	036	034
21	033	VOLTAGE REDUCTION IN EFFECT	0x10000001L	0	0	0	071	039
22	034	HARMONIC VOLTAGE 2ND	0x10000001L	0	0	0	018	047
23	035	HARMONIC VOLTAGE 3RD	0x10000001L	0	0	0	018	015
24	036	HARMONIC VOLTAGE 4TH	0x10000001L	0	0	0	018	048
25	037	HARMONIC VOLTAGE 5TH	0x10000001L	0	0	0	018	016
26	038	HARMONIC VOLTAGE 6TH	0x10000001L	0	0	0	018	049
27	039	HARMONIC VOLTAGE 7TH	0x10000001L	0	0	0	018	017
28	040	HARMONIC VOLTAGE 8TH	0x10000001L	0	0	0	018	050
29	041	HARMONIC VOLTAGE 9TH	0x10000001L	0	0	0	018	018
2A	042	HARMONIC VOLTAGE 10TH	0x10000001L	0	0	0	018	051
2B	043	HARMONIC VOLTAGE 11TH	0x10000001L	0	0	0	018	019
2C	044	HARMONIC VOLTAGE 12TH	0x10000001L	0	0	0	018	052
2D	045	HARMONIC VOLTAGE 13TH	0x10000001L	0	0	0	018	041
2E	046	HARMONIC VOLTAGE 14TH	0x10000001L	0	0	0	018	053
2F	047	HARMONIC VOLTAGE 15TH	0x10000001L	0	0	0	018	054
30	048	HARMONIC CURRENT 2ND	0x10000001L	0	0	0	019	055
31	049	HARMONIC CURRENT 3RD	0x10000001L	0	0	0	019	020
32	050	HARMONIC CURRENT 4TH	0x10000001L	0	0	0	019	056
33	051	HARMONIC CURRENT 5TH	0x10000001L	0	0	0	019	021
34	052	HARMONIC CURRENT 6TH	0x10000001L	0	0	0	019	057
35	053	HARMONIC CURRENT 7TH	0x10000001L	0	0	0	019	022
36	054	HARMONIC CURRENT 8TH	0x10000001L	0	0	0	019	058
37	055	HARMONIC CURRENT 9TH	0x10000001L	0	0	0	019	023
38	056	HARMONIC CURRENT 10TH	0x10000001L	0	0	0	019	059
39	057	HARMONIC CURRENT 11TH	0x10000001L	0	0	0	019	024
3A	058	HARMONIC CURRENT 12TH	0x10000001L	0	0	0	019	060
3B	059	HARMONIC CURRENT 13TH	0x10000001L	0	0	0	019	042
3C	060	HARMONIC CURRENT 14TH	0x10000001L	0	0	0	019	061
3D	061	HARMONIC CURRENT 15TH	0x10000001L	0	0	0	019	062
3E	062	CALCULATED MOTOR VOLTAGE	0x10000001L	0	0	0		038
3F	063	HISTOGRAM COUNT UNDER	0x10000001L	0	0	0		067
40	064	HISTOGRAM COUNT BIN01	0x10000001L	0	0	0		068
41	065	HISTOGRAM COUNT BIN02	0x10000001L	0	0	0		069
42	066	HISTOGRAM COUNT BIN03	0x10000001L	0	0	0		070
43	067	HISTOGRAM COUNT BIN04	0x10000001L	0	0	0		071
44	068	HISTOGRAM COUNT BIN05	0x10000001L	0	0	0		072
45	069	HISTOGRAM COUNT BIN06	0x10000001L	0	0	0		073

<b>Measured Floating (MMENC)</b>								
46	070	HISTOGRAM COUNT BIN07	0x10000001L	0	0	0		074
47	071	HISTOGRAM COUNT BIN08	0x10000001L	0	0	0		075
48	072	HISTOGRAM COUNT BIN09	0x10000001L	0	0	0		076
49	073	HISTOGRAM COUNT BIN10	0x10000001L	0	0	0		077
4A	074	HISTOGRAM COUNT OVER	0x10000001L	0	0	0		078
4B	075	HISTOGRAM MAX VALUE	0x10000001L	0	0	0		079
4C	076	HISTOGRAM MAX DAYS	0x10000001L	0	0	0		080
4D	077	HISTOGRAM MAX M SEC- ONDARYS	0x10000001L	0	0	0		081
4E	078	HISTOGRAM MIN VALUE	0x10000001L	0	0	0		082
4F	079	HISTOGRAM MIN DAYS	0x10000001L	0	0	0		083
50	080	HISTOGRAM MIN M SECOND- ARYS	0x10000001L	0	0	0		084
51	081	HISTOGRAM RESET DAYS	0x10000001L	0	0	0		085
52	082	HISTOGRAM RESET M SEC- ONDARYS	0x10000001L	0	0	0		086
53	083	ALARMS COUNT	0x10000001L	0	0	0		087
54	084	ALARMS ACTIVE ID	0x10000001L	0	0	0		088
55	085	ALARMS ACTIVE PRIORITY	0x10000001L	0	0	0		089
56	086	ALARMS ACTIVE ON DAYS	0x10000001L	0	0	0		090
57	087	ALARMS ACTIVE ON M SEC- ONDARYS	0x10000001L	0	0	0		091
58	088	ALARMS ACTIVE OFF DAYS	0x10000001L	0	0	0		092
59	089	ALARMS ACTIVE OFF M SEC- ONDARYS	0x10000001L	0	0	0		093
5A	090	RESERVED	0x10000001L	0	0	0		003
5B	091	DCM_CONTACT_WEAR_M1	0x10000001L	0	0	0		094
5C	092	DCM_CONTACT_WEAR_M2	0x10000001L	0	0	0		095
5D	093	DCM_CONTACT_WEAR_M3	0x10000001L	0	0	0		096
5E	094	DCM_CONTACT_WEAR_M4	0x10000001L	0	0	0		097
5F	095	DCM_CONTACT_WEAR_SNA	0x10000001L	0	0	0		098
60	096	DCM_CONTACT_WEAR_SNB	0x10000001L	0	0	0		099
61	097	DCM_CONTACT_WEAR_S1A	0x10000001L	0	0	0		100
62	098	DCM_CONTACT_WEAR_S1B	0x10000001L	0	0	0		101
63	099	DCM_CONTACT_WEAR_S2A	0x10000001L	0	0	0		102
64	100	DCM_CONTACT_WEAR_S2B	0x10000001L	0	0	0		103
65	101	DCM_CONTACT_WEAR_S3A	0x10000001L	0	0	0		104
66	102	DCM_CONTACT_WEAR_S3B	0x10000001L	0	0	0		105
67	103	DCM_CONTACT_WEAR_S4A	0x10000001L	0	0	0		106
68	104	DCM_CONTACT_WEAR_S4B	0x10000001L	0	0	0		107
69	105	DCM_CONTACT_WEAR_S5A	0x10000001L	0	0	0		108
6A	106	DCM_CONTACT_WEAR_S5B	0x10000001L	0	0	0		109
6B	107	DCM_CONTACT_WEAR_S6A	0x10000001L	0	0	0		110



Hex	Index	Description	Group Mask	Threshold	Low Trans	High Trans	Func Code	Abs Index (Internal)
<b>Measured Floating (MMENC)</b>								
6C	108	DCM_CONTACT_WEAR_S6B	0x10000001L	0	0	0		111
6D	109	DCM_CONTACT_WEAR_S7A	0x10000001L	0	0	0		112
6E	110	DCM_CONTACT_WEAR_S7B	0x10000001L	0	0	0		113
6F	111	DCM_CONTACT_WEAR_S8A	0x10000001L	0	0	0		114
70	112	DCM_CONTACT_WEAR_S8B	0x10000001L	0	0	0		115
71	113	2179 VERSION	0x10000001L	0	0	0	191	119
72	114	DNP VERSION	0x10000001L	0	0	0	192	120
73	115	DEFAULTS IMAGE VERSION	0x10000001L	0	0	0		121
74	116	FLASH CARD FILE VERSION	0x10000001L	0	0	0		122
75	117	USER MEASURED V	0x10000001L	0	0	0	047	001
76	118	USER MEASURED IOUT	0x10000001L	0	0	0	048	002
77	119	OPS COUNT LAST CHNG	0x10000001L	0	0	0		123
78	120	CL-5 FORMAT FIRMWARE VERSION	0x10000001L	0	0	0		124

A Firmware Version 1.03.xx and later.

**Measured Scaled (MMENB)**

Hex	Index	Description	Group Mask	Scale Factor	Threshold	Low Trans	High Trans	Func Code	Abs Index (Internal)
00	000	LOAD VOLTAGE SECONDARY	0x10000001L	10	0.5	0	0	006	005
01	001	LOAD VOLTAGE PRIMARY	0x10000001L	100	0	0	0	010	006
02	002	COMPENSATED VOLTAGE SECONDARY	0x10000001L	10	0	0	0	008	014
03	003	LOAD CURRENT PRIMARY	0x10000001L	10	20	0	0	009	004
04	004	SOURCE VOLTAGE SECONDARY	0x10000001L	10	0	0	0	007	007
05	005	SOURCE VOLTAGE PRIMARY	0x10000001L	100	0	0	0	011	008
06	006	TAP POSITION	0x10000001L	1	0	0	0	012	040
07	007	PERCENT REG	0x10000001L	10	0	0	0	112	013
08	008	POWER FACTOR	0x10000001L	1000	0	0	0	013	012
09	009	KVA LOAD	0x10000001L	10	0	0	0	014	009
0A	010	KW LOAD	0x10000001L	10	0	0	0	015	011
0B	011	KVAR LOAD	0x10000001L	10	0	0	0	016	010
0C	012	FREQUENCY	0x10000001L	100	0	0	0	017	025
0D	013	HARM TOTAL VOLTAGE HARMONICS	0x10000001L	10	0	0	0	018	043
0E	014	HARM TOTAL CURRENT HARMONICS	0x10000001L	10	0	0	0	019	044
0F	015	kWh FORWARD	0x10000001L	100	0	0	0	125	063
10	016	KWH REVERSE	0x10000001L	100	0	0	0	125	065
11	017	KQH FORWARD	0x10000001L	100	0	0	0	126	064
12	018	KQH REVERSE	0x10000001L	100	0	0	0	126	066
13	019	FORWARD DEMAND LOAD VOLTAGE SECONDARY	0x10000001L	10	0	0	0	020	030
14	020	FORWARD DEMAND SOURCE VOLTAGE SECONDARY	0x10000001L	10	0	0	0	029	045
15	021	FORWARD DEMAND COMPENSATED VOLTAGE SECONDARY	0x10000001L	10	0	0	0	021	031
16	022	FORWARD DEMAND LOAD CURRENT PRIMARY	0x10000001L	10	0	0	0	022	026
17	023	FORWARD DEMAND KVA LOAD	0x10000001L	10	0	0	0	024	027
18	024	FORWARD DEMAND KW LOAD	0x10000001L	10	0	0	0	025	029
19	025	FORWARD DEMAND KVAR LOAD	0x10000001L	10	0	0	0	026	028
1A	026	REVERSE DEMAND LOAD VOLTAGE SECONDARY	0x10000001L	10	0	0	0	030	036
1B	027	REVERSE DEMAND SOURCE VOLTAGE SECONDARY	0x10000001L	10	0	0	0	037	046
1C	028	REVERSE DEMAND COMPENSATED VOLTAGE SECONDARY	0x10000001L	10	0	0	0	031	037
1D	029	REVERSE DEMAND LOAD CURRENT PRIMARY	0x10000001L	10	0	0	0	032	032
1E	030	REVERSE DEMAND KVA LOAD	0x10000001L	10	0	0	0	034	033
1F	031	REVERSE DEMAND KW LOAD	0x10000001L	10	0	0	0	035	035

Hex	Index	Description	Group Mask	Scale Factor	Threshold	Low Trans	High Trans	Func Code	Abs Index (Internal)
<b>Measured Scaled (MMENB)</b>									
20	032	REVERSE DEMAND KVAR LOAD	0x10000001L	10	0	0	0	036	034
21	033	VOLTAGE REDUCTION IN EFFECT	0x10000001L	10	0	0	0	071	039
22	034	HARMONIC VOLTAGE 2ND	0x10000001L	10	0	0	0	018	047
23	035	HARMONIC VOLTAGE 3RD	0x10000001L	10	0	0	0	018	015
24	036	HARMONIC VOLTAGE 4TH	0x10000001L	10	0	0	0	018	048
25	037	HARMONIC VOLTAGE 5TH	0x10000001L	10	0	0	0	018	016
26	038	HARMONIC VOLTAGE 6TH	0x10000001L	10	0	0	0	018	049
27	039	HARMONIC VOLTAGE 7TH	0x10000001L	10	0	0	0	018	017
28	040	HARMONIC VOLTAGE 8TH	0x10000001L	10	0	0	0	018	050
29	041	HARMONIC VOLTAGE 9TH	0x10000001L	10	0	0	0	018	018
2A	042	HARMONIC VOLTAGE 10TH	0x10000001L	10	0	0	0	018	051
2B	043	HARMONIC VOLTAGE 11TH	0x10000001L	10	0	0	0	018	019
2C	044	HARMONIC VOLTAGE 12TH	0x10000001L	10	0	0	0	018	052
2D	045	HARMONIC VOLTAGE 13TH	0x10000001L	10	0	0	0	018	041
2E	046	HARMONIC VOLTAGE 14TH	0x10000001L	10	0	0	0	018	053
2F	047	HARMONIC VOLTAGE 15TH	0x10000001L	10	0	0	0	018	054
30	048	HARMONIC CURRENT 2ND	0x10000001L	10	0	0	0	019	055
31	049	HARMONIC CURRENT 3RD	0x10000001L	10	0	0	0	019	020
32	050	HARMONIC CURRENT 4TH	0x10000001L	10	0	0	0	019	056
33	051	HARMONIC CURRENT 5TH	0x10000001L	10	0	0	0	019	021
34	052	HARMONIC CURRENT 6TH	0x10000001L	10	0	0	0	019	057
35	053	HARMONIC CURRENT 7TH	0x10000001L	10	0	0	0	019	022
36	054	HARMONIC CURRENT 8TH	0x10000001L	10	0	0	0	019	058
37	055	HARMONIC CURRENT 9TH	0x10000001L	10	0	0	0	019	023
38	056	HARMONIC CURRENT 10TH	0x10000001L	10	0	0	0	019	059
39	057	HARMONIC CURRENT 11TH	0x10000001L	10	0	0	0	019	024
3A	058	HARMONIC CURRENT 12TH	0x10000001L	10	0	0	0	019	060
3B	059	HARMONIC CURRENT 13TH	0x10000001L	10	0	0	0	019	042
3C	060	HARMONIC CURRENT 14TH	0x10000001L	10	0	0	0	019	061
3D	061	HARMONIC CURRENT 15TH	0x10000001L	10	0	0	0	019	062
3E	062	CALCULATED MOTOR VOLTAGE	0x10000001L	10	0	0	0		038
3F	063	HISTOGRAM COUNT UNDER	0x10000001L	1	0	0	0		067
40	064	HISTOGRAM COUNT BIN01	0x10000001L	1	0	0	0		068
41	065	HISTOGRAM COUNT BIN02	0x10000001L	1	0	0	0		069
42	066	HISTOGRAM COUNT BIN03	0x10000001L	1	0	0	0		070
43	067	HISTOGRAM COUNT BIN04	0x10000001L	1	0	0	0		071
44	068	HISTOGRAM COUNT BIN05	0x10000001L	1	0	0	0		072
45	069	HISTOGRAM COUNT BIN06	0x10000001L	1	0	0	0		073
46	070	HISTOGRAM COUNT BIN07	0x10000001L	1	0	0	0		074
47	071	HISTOGRAM COUNT BIN08	0x10000001L	1	0	0	0		075

Hex	Index	Description	Group Mask	Scale Factor	Threshold	Low Trans	High Trans	Func Code	Abs Index (Internal)
<b>Measured Scaled (MMENB)</b>									
48	072	HISTOGRAM COUNT BIN09	0x10000001L	1	0	0	0		076
49	073	HISTOGRAM COUNT BIN10	0x10000001L	1	0	0	0		077
4A	074	HISTOGRAM COUNT OVER	0x10000001L	1	0	0	0		078
4B	075	HISTOGRAM MAX VALUE	0x10000001L	100	0	0	0		079
4C	076	HISTOGRAM MAX DAYS	0x10000001L	1	0	0	0		080
4D	077	HISTOGRAM MAX M SECONDARYS	0x10000001L	1	0	0	0		081
4E	078	HISTOGRAM MIN VALUE	0x10000001L	100	0	0	0		082
4F	079	HISTOGRAM MIN DAYS	0x10000001L	1	0	0	0		083
50	080	HISTOGRAM MIN M SECONDARYS	0x10000001L	1	0	0	0		084
51	081	HISTOGRAM RESET DAYS	0x10000001L	1	0	0	0		085
52	082	HISTOGRAM RESET M SECONDARYS	0x10000001L	1	0	0	0		086
53	083	ALARMS COUNT	0x10000001L	1	0	0	0		087
54	084	ALARMS ACTIVE ID	0x10000001L	1	0	0	0		088
55	085	ALARMS ACTIVE PRIORITY	0x10000001L	1	0	0	0		089
56	086	ALARMS ACTIVE ON DAYS	0x10000001L	1	0	0	0		090
57	087	ALARMS ACTIVE ON M SECONDARYS	0x10000001L	1	0	0	0		091
58	088	ALARMS ACTIVE OFF DAYS	0x10000001L	1	0	0	0		092
59	089	ALARMS ACTIVE OFF M SECONDARYS	0x10000001L	1	0	0	0		093
5A	090	RESERVED	0x10000001L	1	0	0	0		003
5B	091	DCM_CONTACT_WEAR_M1	0x10000001L	1	0	0	0		094
5C	092	DCM_CONTACT_WEAR_M2	0x10000001L	1	0	0	0		095
5D	093	DCM_CONTACT_WEAR_M3	0x10000001L	1	0	0	0		096
5E	094	DCM_CONTACT_WEAR_M4	0x10000001L	1	0	0	0		097
5F	095	DCM_CONTACT_WEAR_SNA	0x10000001L	1	0	0	0		098
60	096	DCM_CONTACT_WEAR_SNB	0x10000001L	1	0	0	0		099
61	097	DCM_CONTACT_WEAR_S1A	0x10000001L	1	0	0	0		100
62	098	DCM_CONTACT_WEAR_S1B	0x10000001L	1	0	0	0		101
63	099	DCM_CONTACT_WEAR_S2A	0x10000001L	1	0	0	0		102
64	100	DCM_CONTACT_WEAR_S2B	0x10000001L	1	0	0	0		103
65	101	DCM_CONTACT_WEAR_S3A	0x10000001L	1	0	0	0		104
66	102	DCM_CONTACT_WEAR_S3B	0x10000001L	1	0	0	0		105
67	103	DCM_CONTACT_WEAR_S4A	0x10000001L	1	0	0	0		106
68	104	DCM_CONTACT_WEAR_S4B	0x10000001L	1	0	0	0		107
69	105	DCM_CONTACT_WEAR_S5A	0x10000001L	1	0	0	0		108
6A	106	DCM_CONTACT_WEAR_S5B	0x10000001L	1	0	0	0		109
6B	107	DCM_CONTACT_WEAR_S6A	0x10000001L	1	0	0	0		110
6C	108	DCM_CONTACT_WEAR_S6B	0x10000001L	1	0	0	0		111

Hex	Index	Description	Group Mask	Scale Factor	Threshold	Low Trans	High Trans	Func Code	Abs Index (Internal)
<b>Measured Scaled (MMENB)</b>									
6D	109	DCM_CONTACT_WEAR_S7A	0x10000001L	1	0	0	0		112
6E	110	DCM_CONTACT_WEAR_S7B	0x10000001L	1	0	0	0		113
6F	111	DCM_CONTACT_WEAR_S8A	0x10000001L	1	0	0	0		114
70	112	DCM_CONTACT_WEAR_S8B	0x10000001L	1	0	0	0		115
71	113	2179 VERSION	0x10000001L	1	0	0	0	191	119
72	114	DNP VERSION	0x10000001L	1	0	0	0	192	120
73	115	DEFAULTS IMAGE VERSION	0x10000001L	1	0	0	0		121
74	116	FLASH CARD FILE VERSION	0x10000001L	1	0	0	0		122
75	117	USER MEASURED V	0x10000001L	10	0	0	0	047	001
76	118	USER MEASURED IOUT	0x10000001L	10	0	0	0	048	002
77	119	OPS COUNT LAST CHNG	0x10000001L	1	0	0	0		123
78	120	CL-5 FORMAT FIRMWARE VERSION	0x10000001L	100	0	0	0		124

A Firmware Version 1.03.xx and later.

**Setpoint Normalized (CSENA)**

Hex	Index	Description	Low Limit	High Limit	Func Code	Abs Index (Internal)
0000	000	FORWARD SET VOLTAGE	0	6553.5	001	021
0001	001	FORWARD BANDWIDTH	0	6553.5	002	017
0002	002	FORWARD TIME DELAY	0	65535	003	022
0003	003	FORWARD LDC RESISTANCE	0	6553.5	004	019
0004	004	FORWARD LDC REACTANCE	0	6553.5	005	018
0005	005	REVERSE SET VOLTAGE	0	6553.5	051	009
0006	006	REVERSE BANDWIDTH	0	6553.5	052	005
0007	007	REVERSE TIME DELAY	0	65535	053	010
0008	008	REVERSE LDC RESISTANCE	0	6553.5	054	007
0009	009	REVERSE LDC REACTANCE	0	6553.5	055	006
000A	010	REVERSE SENSE MODE	0	65535	056	008
000B	011	REVERSE THRESHOLD	0	65535	057	011
000C	012	VOLTAGE LIMITING MODE	0	65535	080	023
000D	013	VOLTAGE LIMITING HIGH	0	6553.5	081	024
000E	014	VOLTAGE LIMITING LOW	0	6553.5	082	025
000F	015	VOLTAGE REDUCTION MODE	0	65535	070	026
0010	016	LOCAL/DIGITAL-REMOTE VOLTAGE REDUCTION SETTING %	0	6553.5	072	027
0011	017	SOFT ADD AMP STATE	0	65535	079	042
0012	018	SOFT ADD AMP HIGH	0	65535	175	043
0013	019	SOFT ADD AMP LOW	0	65535	176	044
0014	020	REGULATOR ID NUMBER	0	65535	040	012
0015	021	REGULATOR TYPE	0	65535	140	040
0016	022	TAP CHANGER TYPE	0	65535	049	041
0017	023	REGULATOR CONFIGURATION	0	65535	041	016
0018	024	OPERATING MODE	0	65535	042	020
0019	025	SYSTEM LINE VOLTAGE	0	65535	043	004
001A	026	OVERALL PT RATIO	0	6553.5	044	003
001B	027	CT RATING	0	65535	045	002
001C	028	DEMAND TIME INTERVAL	0	6553.5	046	001
001D	029	ADDAMP LIMIT HIGH	0	65535	144	048
001E	030	ADDAMP LIMIT LOW	0	65535	145	049
001F	031	VIN CONFIG	0	65535	146	211
0020	032	ANALOG VOLTAGE REDUCTION SETTING 1 %	0	6553.5	073	028
0021	033	ANALOG VOLTAGE REDUCTION SETTING 2 %	0	6553.5	074	029
0022	034	ANALOG VOLTAGE REDUCTION SETTING 3 %	0	6553.5	075	030
0023	035	VOLTAGE REDUCTION ANALOG STEP COUNT	0	65535	076	036
0024	036	VOLTAGE REDUCTION PER STEP	0	6553.5	077	037

Hex	Index	Description	Low Limit	High Limit	Func Code	Abs Index (Internal)
<b>Setpoint Normalized (CSENA)</b>						
0025	037	SECURITY OVERRIDE	0	65535	092	039
0026	038	SECURITY CODE1	0	65535	096	013
0027	039	SECURITY CODE2	0	65535	097	014
0028	040	SECURITY CODE3	0	65535	098	015
0029	041	Reserved	0	6553.5	--	087
002A	042	Reserved	0	6553.5	--	086
002B	043	Reserved	0	6553.5	--	091
002C	044	Reserved	0	6553.5	--	090
002D	045	FORWARD DEMAND LOAD CURRENT PRIMARY MAX	0	6553.5	022	055
002E	046	FORWARD DEMAND LOAD CURRENT PRIMARY MIN	0	6553.5	022	054
002F	047	FORWARD DEMAND KVA LOAD MAX	0	6553.5	024	057
0030	048	FORWARD DEMAND KVA LOAD MIN	0	6553.5	024	056
0031	049	FORWARD DEMAND KVAR LOAD MAX	0	6553.5	026	059
0032	050	FORWARD DEMAND KVAR LOAD MIN	0	6553.5	026	058
0033	051	FORWARD DEMAND kW LOAD MAX	0	6553.5	025	061
0034	052	FORWARD DEMAND kW LOAD MIN	0	6553.5	025	060
0035	053	FORWARD DEMAND COMPENSATED VOLTAGE SECONDARY MAX	0	6553.5	021	065
0036	054	FORWARD DEMAND COMPENSATED VOLTAGE SECONDARY MIN	0	6553.5	021	064
0037	055	FORWARD DEMAND LOAD VOLTAGE SECONDARY MAX	0	6553.5	020	063
0038	056	FORWARD DEMAND LOAD VOLTAGE SECONDARY MIN	0	6553.5	020	062
0039	057	FORWARD DEMAND SOURCE VOLTAGE SECONDARY MAX	0	6553.5	029	083
003A	058	FORWARD DEMAND SOURCE VOLTAGE SECONDARY MIN	0	6553.5	029	082
003B	059	POWER FACTOR AT FORWARD DEMAND KVA LOAD MAX	0	655.35	023	050
003C	060	POWER FACTOR AT FORWARD DEMAND KVA LOAD MIN	0	655.35	023	051
003D	061	POWER FACTOR AT REVERSE DEMAND KVA LOAD MAX	0	655.35	033	052
003E	062	POWER FACTOR AT REVERSE DEMAND KVA LOAD MIN	0	655.35	033	053
003F	063	TAP POSITION MAX	-32768	32767	027	080
0040	064	TAP POSITION MIN	-32768	32767	028	081
0041	065	PERCENT REGULATION MAX	0	6553.5	127	078
0042	066	PERCENT REGULATION MIN	0	6553.5	128	079
0043	067	Reserved	0	6553.5	--	089
0044	068	Reserved	0	6553.5	--	088
0045	069	Reserved	0	6553.5	--	093

Hex	Index	Description	Low Limit	High Limit	Func Code	Abs Index (Internal)
<b>Setpoint Normalized (CSENA)</b>						
0046	070	Reserved	0	6553.5	--	092
0047	071	REVERSE DEMAND LOAD CURRENT PRIMARY MAX	0	6553.5	032	067
0048	072	REVERSE DEMAND LOAD CURRENT PRIMARY MIN	0	6553.5	032	066
0049	073	REVERSE DEMAND KVA LOAD MAX	0	6553.5	034	069
004A	074	REVERSE DEMAND KVA LOAD MIN	0	6553.5	034	068
004B	075	REVERSE DEMAND KVAR LOAD MAX	0	6553.5	036	071
004C	076	REVERSE DEMAND KVAR LOAD MIN	0	6553.5	036	070
004D	077	REVERSE DEMAND KW LOAD MAX	0	6553.5	035	073
004E	078	REVERSE DEMAND KW LOAD MIN	0	6553.5	035	072
004F	079	REVERSE DEMAND COMPENSATED VOLTAGE SECONDARY MAX	0	6553.5	031	077
0050	080	REVERSE DEMAND COMPENSATED VOLTAGE SECONDARY MIN	0	6553.5	031	076
0051	081	REVERSE DEMAND LOAD VOLTAGE SECONDARY MAX	0	6553.5	030	075
0052	082	REVERSE DEMAND LOAD VOLTAGE SECONDARY MIN	0	6553.5	030	074
0053	083	REVERSE DEMAND SOURCE VOLTAGE SECONDARY MAX	0	6553.5	037	085
0054	084	REVERSE DEMAND SOURCE VOLTAGE SECONDARY MIN	0	6553.5	037	084
0055	085	YEAR	0	65535		038
0056	086	ALARMS CHANGE DELAY SEC	0	65535		101
0057	087	ALARMS CONFIG ACTIVE ID	0	65535		095
0058	088	ALARMS DATA LIMIT	0	655.35		097
0059	089	ALARMS EVENT OP MODE	0	65535		098
005A	090	ALARMS OP MODE	0	65535		096
005B	091	ALARMS PRIORITY	0	65535		100
005C	092	ALARMS PROFILE OP MODE	0	65535		099
005D	093	ALARMS QUERY ACTIVITY STATE	0	65535		104
005E	094	ALARMS QUERY CHANGE STATE	0	65535		106
005F	095	ALARMS QUERY EXECUTE ID	0	65535		141
0060	096	ALARMS QUERY PRIORITY HIGH	0	65535		108
0061	097	ALARMS QUERY PRIORITY LOW	0	65535		107
0062	098	ALARMS QUERY SUPPRESSION STATE	0	65535		105
0063	099	ALARMS RPT CURRENT LINE	0	65535		094
0064	100	ALARMS SUPPRESS ID	0	65535		102
0065	101	ALARMS UNSUPPRESS ID	0	65535		103
0066	102	DATA PROFILER DURATION	0	65535		134
0067	103	DATA PROFILER SAMPLE PERIOD	0	65535		045
0068	104	DATA PROFILER START DATE	0	65535		136
0069	105	DATA PROFILER START TIME	0	65535		135



Hex	Index	Description	Low Limit	High Limit	Func Code	Abs Index (Internal)
<b>Setpoint Normalized (CSENA)</b>						
006A	106	DATA PROFILER STOP DATE	0	65535		137
006B	107	HISTOGRAM ACTIVE BIN01 LOW	0	655.35		139
006C	108	HISTOGRAM ACTIVE BIN10 HIGH	0	655.35		140
006D	109	HISTOGRAM ACTIVE ID	0	65535		138
006E	110	PMT MODE A TIME DELAY	0	65535	302	129
006F	111	PMT MODE B CURRENT LIMIT	0	65535	327	132
0070	112	PMT MODE B MASTER SLAVE	0	65535		133
0071	113	PMT MODE B MAX DEV	0	65535	325	131
0072	114	PMT MODE B TIME DELAY	0	65535	322	130
0073	115	BAUD RATE COM1	0	65535	061	032
0074	116	HANDSHAKE MODE COM1	0	65535	065	142
0075	117	SYNC TIME COM1	0	65535	062	144
0076	118	TX ENABLE OFF DELAY COM1	0	65535	067	146
0077	119	TX ENABLE ON DELAY COM1	0	65535	066	145
0078	120	PROTOCOL COM1	0	65535	060	047
0079	121	P2179 COM1 SLAVE ADDRESS	0	65535	064	110
007A	122	P2179 COM1 MAP ID	0	65535	266	112
007B	123	P2179 DEFAULT MAP PORT	0	65535		109
007C	124	DNP LOGICAL DEVICE 1 SLAVE ADDRESS COM1	0	65535	064	460
007D	125	DNP LOGICAL DEVICE 1 MAP ID COM1	0	65535	267	128
007E	126	DNP MASTER ADDRESS COM1	0	65535	063	162
007F	127	DNP LD2 SLAVE ADDRESS COM1	0	65535	064	161
0080	128	DNP LINK CONFIRM MODE COM1	0	65535		123
0081	129	DNP LINK CONFIRM TIMEOUT COM1	0	655.35		124
0082	130	DNP LINK MAX RETRIES COM1	0	65535		125
0083	131	DNP APPLICATION CONFIRM MODE COM1	0	65535		163
0084	132	DNP APPLICATION CONFIRM TIMEOUT COM1	0	655.35		164
0085	133	DNP RESPONSE FRAGMENT SIZE COM1	0	65535		165
0086	134	DNP LOGICAL DEVICE 1 UNSOLICITED PERMITTED COM1	0	65535		126
0087	135	DNP LOGICAL DEVICE 1 UNSOLICITED RETRY DELAY COM1	0	6553.5		127
0088	136	DNP COM1 UNSOLICITED OFFLINE TIME	0	65535		000
0089	137	DNP COM1 UNSOLICITED MAX RETRIES	0	65535		199
008A	138	DNP COM1 UNSOLICITED MIN EV C1	0	65535		193
008B	139	DNP COM1 UNSOLICITED MIN EV C2	0	65535		194
008C	140	DNP COM1 UNSOLICITED MIN EV C3	0	65535		195
008D	141	DNP COM1 UNSOLICITED DELAY C1	0	655.35		196

Hex	Index	Description	Low Limit	High Limit	Func Code	Abs Index (Internal)
<b>Setpoint Normalized (CSENA)</b>						
008E	142	DNP COM1 UNSOLICITED DELAY C2	0	655.35		197
008F	143	DNP COM1 UNSOLICITED DELAY C3	0	655.35		198
0090	144	DNP COM1 UNSOLICITED FIXED DLY	0	6553.5		214
0091	145	DNP COM1 UNSOLICITED RANDOM DLY	0	6553.5		215
0092	146	DNP COM1 UNSOLICITED END BK MSG	0	65535		203
0093	147	DNP COM1 UNSOLICITED END BK USR	0	65535		202
0094	148	DNP COM1 UNSOLICITED FLUSH	0	65535		201
0095	149	DNP COM1 UNSOLICITED TMOUT INC	0	65535		204
0096	150	DNP COM1 EVENT BUFFER SIZE OBJ1	0	65535		208
0097	151	DNP COM1 EVENT BUFFER SIZE OBJ20	0	65535		209
0098	152	DNP COM1 EVENT BUFFER SIZE OBJ30	0	65535		210
0099	153	DNP COM1 EVENT MODE OBJ20	0	65535		206
009A	154	DNP COM1 EVENT MODE OBJ30	0	65535		207
009B	155	DNP COM1 OBJ1 VARIATION	0	65535		166
009C	156	DNP COM1 OBJ2 VARIATION	0	65535		167
009D	157	DNP COM1 OBJ20 VARIATION	0	65535		168
009E	158	DNP COM1 OBJ22 VARIATION	0	65535		169
009F	159	DNP COM1 OBJ30 VARIATION	0	65535		170
00A0	160	DNP COM1 OBJ32 VARIATION	0	65535		171
00A1	161	DNP COM1 OBJ40 41 VARIATION	0	65535		172
00A2	162	DNP COM1 ARM SEL TIME	0	65535		192
00A3	163	DNP TRANSMIT DELAY COM1	0	655.35		122
00A4	164	DNP COM1 SELF ADDRESS	0	65535		205
00A5	165	BAUD RATE COM2	0	65535	161	031
00A6	166	HANDSHAKE MODE COM2	0	65535	165	033
00A7	167	SYNC TIME COM2	0	65535	162	143
00A8	168	TX ENABLE DELAY OFF COM2	0	65535	167	035
00A9	169	TX ENABLE DELAY ON COM2	0	65535	166	034
00AA	170	PROTOCOL COM2	0	65535	160	046
00AB	171	P2179 COM2 SLAVE ADDRESS	0	65535	164	111
00AC	172	P2179 COM2 MAP ID	0	65535	268	113
00AD	173	DNP LOGICAL DEVICE 1 SLAVE ADDRESS COM2	0	65535	164	147
00AE	174	DNP LOGICAL DEVICE 1 MAP ID COM2	0	65535	269	121
00AF	175	DNP MASTER ADDRESS COM2	0	65535	163	149
00B0	176	DNP LOGICAL DEVICE 2 SLAVE ADDRESS COM2	0	65535	164	148
00B1	177	DNP LINK CONFIRM MODE COM2	0	65535		116
00B2	178	DNP LINK CONFIRM TIMEOUT COM2	0	655.35		117
00B3	179	DNP LINK MAX RETRIES COM2	0	65535		118

Hex	Index	Description	Low Limit	High Limit	Func Code	Abs Index (Internal)
<b>Setpoint Normalized (CSENA)</b>						
00B4	180	DNP APPLICATION CONFIRM MODE COM2	0	65535		150
00B5	181	DNP APPLICATION CONFIRM TIMEOUT COM2	0	655.35		151
00B6	182	DNP RESPONSE FRAGMENT SIZE COM2	0	65535		152
00B7	183	DNP LOGICAL DEVICE 1 UNSOLICITED PERMITTED COM2	0	65535		119
00B8	184	DNP LOGICAL DEVICE 1 UNSOLICITED RETRY DELAY COM2	0	6553.5		120
00B9	185	AltConfig MODE	0	65535		000
00BA	186	DNP COM2 UNSOLICITED MAX RETRIES	0	65535		180
00BB	187	DNP COM2 UNSOLICITED MIN EVENT C1	0	65535		174
00BC	188	DNP COM2 UNSOLICITED MIN EVENT C2	0	65535		175
00BD	189	DNP COM2 UNSOLICITED MIN EVENT C3	0	65535		176
00BE	190	DNP COM2 UNSOLICITED DELAY C1	0	655.35		177
00BF	191	DNP COM2 UNSOLICITED DELAY C2	0	655.35		178
00C0	192	DNP COM2 UNSOLICITED DELAY C3	0	655.35		179
00C1	193	DNP COM2 UNSOLICITED FIXED DLY	0	6553.5		212
00C2	194	DNP COM2 UNSOLICITED RANDOM DLY	0	6553.5		213
00C3	195	DNP COM2 UNSOLICITED END BK MSG	0	65535		184
00C4	196	DNP COM2 UNSOLICITED END BK USR	0	65535		183
00C5	197	DNP COM2 UNSOLICITED FLUSH	0	65535		182
00C6	198	DNP COM2 UNSOLICITED TIMEOUT INC	0	65535		185
00C7	199	DNP COM2 EVENT BUF SIZE OBJ1	0	65535		189
00C8	200	DNP COM2 EVENT BUF SIZE OBJ20	0	65535		190
00C9	201	DNP COM2 EVENT BUF SIZE OBJ30	0	65535		191
00CA	202	DNP COM2 EVENT MODE OBJ20	0	65535		187
00CB	203	DNP COM2 EVENT MODE OBJ30	0	65535		188
00CC	204	DNP COM2 OBJ1 VARIATION	0	65535		153
00CD	205	DNP COM2 OBJ2 VARIATION	0	65535		154
00CE	206	DNP COM2 OBJ20 VARIATION	0	65535		155
00CF	207	DNP COM2 OBJ22 VARIATION	0	65535		156
00D0	208	DNP COM2 OBJ30 VARIATION	0	65535		157
00D1	209	DNP COM2 OBJ32 VARIATION	0	65535		158
00D2	210	DNP COM2 OBJ40 41 VARIATION	0	65535		159
00D3	211	DNP COM2 ARM SEL TIME	0	65535		173
00D4	212	DNP TRANSMIT DELAY COM2	0	655.35		115

Hex	Index		Description	Low Limit	High Limit	Func Code	Abs Index (Internal)
<b>Setpoint Normalized (CSENA)</b>							
00D5	213		DNP COM2 SELF ADDRESS	0	65535		186
00D6	214		DNP DEFAULT MAP PORT	0	65535		114
00D7	215	A	ARL AltConfig ACTIVATE	0	65535		216
00D8	216	A	ARL AltConfig TIMER	0	65535		217
00D9	217	A	PMT MODE B START TIME	0	65535	323	218
00DA	218	A	PMT MODE B STOP TIME	0	65535	324	129
00DB	219	A	2179 ACTIVE COM ID	0	65535		220
00DC	220	A	2179 ACTIVE BLOCK ID	0	65535		221
00DD	221	A	DNP ACTIVE COM ID	0	65535		222
00DE	222	A	DNP ACTIVE BLOCK ID	0	65535		223
00DF	223	A	CL FORM ACTIVE ID	0	65535		224
00E0	224	A	OPERATIONS COUNTER	0	65535	000	225
00E1	225	B	IGNORE CARRIER DETECT COM2	0	65535		226
00E2	226	B	IGNORE CARRIER DETECT COM1	0	65535		227
00E3	227	B	DNP LOGICAL DEVICE 1 NEED TIME IIN ENABLE COM2	0	65535		228
00E4	228	B	DNP LOGICAL DEVICE 1 NEED TIME IIN ENABLE COM1	0	65535		229
00E5	229	C	Tap Position Sense Mode	0	65535	147	230

\* Remote Adrs2 (Logical Device 2) Only.  
A Firmware Version 1.03.xx and later.  
B Firmware Version 1.04.xx and later.  
C Firmware Version 1.05.xx and later.

**Setpoint Scaled (CSENB)**

Hex	Index	Description	Scale Factor	Func Code	Abs Index (Internal)
0000	000	FORWARD SET VOLTAGE	10	001	021
0001	001	FORWARD BANDWIDTH	10	002	017
0002	002	FORWARD TIME DELAY	1	003	022
0003	003	FORWARD LDC RESISTANCE	10	004	019
0004	004	FORWARD LDC REACTANCE	10	005	018
0005	005	REVERSE SET VOLTAGE	10	051	009
0006	006	REVERSE BANDWIDTH	10	052	005
0007	007	REVERSE TIME DELAY	1	053	010
0008	008	REVERSE LDC RESISTANCE	10	054	007
0009	009	REVERSE LDC REACTANCE	10	055	006
000A	010	REVERSE SENSE MODE	1	056	008
000B	011	REVERSE THRESHOLD	1	057	011
000C	012	VOLTAGE LIMITING MODE	1	080	023
000D	013	VOLTAGE LIMITING HIGH	10	081	024
000E	014	VOLTAGE LIMITING LOW	10	082	025
000F	015	VOLTAGE REDUCTION MODE	1	070	026
0010	016	LOCAL/DIGITAL-REMOTE VOLTAGE REDUCTION SETTING %	10	072	027
0011	017	SOFT ADD AMP STATE	1	079	042
0012	018	SOFT ADD AMP HIGH	1	175	043
0013	019	SOFT ADD AMP LOW	1	176	044
0014	020	REGULATOR ID NUMBER	1	040	012
0015	021	REGULATOR TYPE	1	140	040
0016	022	TAP CHANGER TYPE	1	049	041
0017	023	REGULATOR CONFIGURATION	1	041	016
0018	024	OPERATING MODE	1	042	020
0019	025	SYSTEM LINE VOLTAGE	1	043	004
001A	026	OVERALL PT RATIO	10	044	003
001B	027	CT RATING	1	045	002
001C	028	DEMAND TIME INTERVAL	10	046	001
001D	029	ADDAMP LIMIT HIGH	1	144	048
001E	030	ADDAMP LIMIT LOW	1	145	049
001F	031	VIN CONFIG	1	146	211
0020	032	ANALOG VOLTAGE REDUCTION SETTING 1 %	10	073	028
0021	033	ANALOG VOLTAGE REDUCTION SETTING 2 %	10	074	029
0022	034	ANALOG VOLTAGE REDUCTION SETTING 3 %	10	075	030
0023	035	VOLTAGE REDUCTION ANALOG STEP COUNT	1	076	036
0024	036	VOLTAGE REDUCTION PER STEP	10	077	037
0025	037	SECURITY OVERRIDE	1	092	039
0026	038	SECURITY CODE1	1	096	013
0027	039	SECURITY CODE2	1	097	174

Hex	Index	Description	Scale Factor	Func Code	Abs Index (Internal)
<b>Setpoint Scaled (CSENB)</b>					
0028	040	SECURITY CODE3	1	098	015
0029	041	Reserved	10	--	087
002A	042	Reserved	10	--	086
002B	043	Reserved	10	--	091
002C	044	Reserved	10	--	090
002D	045	FORWARD DEMAND LOAD CURRENT PRIMARY MAX	10	022	055
002E	046	FORWARD DEMAND LOAD CURRENT PRIMARY MIN	10	022	054
002F	047	FORWARD DEMAND KVA LOAD MAX	10	024	057
0030	048	FORWARD DEMAND KVA LOAD MIN	10	024	056
0031	049	FORWARD DEMAND KVAR LOAD MAX	10	026	059
0032	050	FORWARD DEMAND KVAR LOAD MIN	10	026	058
0033	051	FORWARD DEMAND kW LOAD MAX	10	025	061
0034	052	FORWARD DEMAND kW LOAD MIN	10	025	060
0035	053	FORWARD DEMAND COMPENSATED VOLTAGE SECONDARY MAX	10	021	065
0036	054	FORWARD DEMAND COMPENSATED VOLTAGE SECONDARY MIN	10	021	064
0037	055	FORWARD DEMAND LOAD VOLTAGE SECONDARY MAX	10	020	063
0038	056	FORWARD DEMAND LOAD VOLTAGE SECONDARY MIN	10	020	062
0039	057	FORWARD DEMAND SOURCE VOLTAGE SECONDARY MAX	10	029	083
003A	058	FORWARD DEMAND SOURCE VOLTAGE SECONDARY MIN	10	029	082
003B	059	POWER FACTOR AT FORWARD DEMAND KVA LOAD MAX	100	023	050
003C	060	POWER FACTOR AT FORWARD DEMAND KVA LOAD MIN	100	023	051
003D	061	POWER FACTOR AT REVERSE DEMAND KVA LOAD MAX	100	033	052
003E	062	POWER FACTOR AT REVERSE DEMAND KVA LOAD MIN	100	033	053
003F	063	TAP POSITION MAX	32767	027	080
0040	064	TAP POSITION MIN	-32768	028	081
0041	065	PERCENT REGULATION MAX	10	127	078
0042	066	PERCENT REGULATION MIN	10	128	079
0043	067	Reserved	10	--	089
0044	068	Reserved	10	--	088
0045	069	Reserved	10	--	093
0046	070	Reserved	10	--	092
0047	071	REVERSE DEMAND LOAD CURRENT PRIMARY MAX	10	032	067
0048	072	REVERSE DEMAND LOAD CURRENT PRIMARY MIN	10	032	066
0049	073	REVERSE DEMAND KVA LOAD MAX	10	034	069

Hex	Index	Description	Scale Factor	Func Code	Abs Index (Internal)
<b>Setpoint Scaled (CSENB)</b>					
004A	074	REVERSE DEMAND KVA LOAD MIN	10	034	068
004B	075	REVERSE DEMAND KVAR LOAD MAX	10	036	071
004C	076	REVERSE DEMAND KVAR LOAD MIN	10	036	070
004D	077	REVERSE DEMAND KW LOAD MAX	10	035	073
004E	078	REVERSE DEMAND KW LOAD MIN	10	035	072
004F	079	REVERSE DEMAND COMPENSATED VOLTAGE SECONDARY MAX	10	031	077
0050	080	REVERSE DEMAND COMPENSATED VOLTAGE SECONDARY MIN	10	031	076
0051	081	REVERSE DEMAND LOAD VOLTAGE SECONDARY MAX	10	030	075
0052	082	REVERSE DEMAND LOAD VOLTAGE SECONDARY MIN	10	030	074
0053	083	REVERSE DEMAND SOURCE VOLTAGE SECONDARY MAX	10	037	085
0054	084	REVERSE DEMAND SOURCE VOLTAGE SECONDARY MIN	10	037	084
0055	085	YEAR	1		038
0056	086	ALARMS CHANGE DELAY SEC	1		101
0057	087	ALARMS CONFIG ACTIVE ID	1		095
0058	088	ALARMS DATA LIMIT	100		097
0059	089	ALARMS EVENT OP MODE	1		098
005A	090	ALARMS OP MODE	1		096
005B	091	ALARMS PRIORITY	1		100
005C	092	ALARMS PROFILE OP MODE	1		099
005D	093	ALARMS QUERY ACTIVITY STATE	1		104
005E	094	ALARMS QUERY CHANGE STATE	1		106
005F	095	ALARMS QUERY EXECUTE ID	1		141
0060	096	ALARMS QUERY PRIORITY HIGH	1		108
0061	097	ALARMS QUERY PRIORITY LOW	1		107
0062	098	ALARMS QUERY SUPPRESSION STATE	1		105
0063	099	ALARMS RPT CURRENT LINE	1		094
0064	100	ALARMS SUPPRESS ID	1		102
0065	101	ALARMS UNSUPPRESS ID	1		103
0066	102	DATA PROFILER DURATION	1		134
0067	103	DATA PROFILER SAMPLE PERIOD	1		045
0068	104	DATA PROFILER START DATE	1		136
0069	105	DATA PROFILER START TIME	1		135
006A	106	DATA PROFILER STOP DATE	1		137
006B	107	HISTOGRAM ACTIVE BIN01 LOW	100		139
006C	108	HISTOGRAM ACTIVE BIN10 HIGH	100		140
006D	109	HISTOGRAM ACTIVE ID	1		138
006E	110	PMT MODE A TIME DELAY	1	302	129
006F	111	PMT MODE B CURRENT LIMIT	1	327	132

Hex	Index	Description	Scale Factor	Func Code	Abs Index (Internal)
<b>Setpoint Scaled (CSENB)</b>					
0070	112	PMT MODE B MASTER SLAVE	1		133
0071	113	PMT MODE B MAX DEV	1	325	131
0072	114	PMT MODE B TIME DELAY	1	322	130
0073	115	BAUD RATE COM1	1	061	032
0074	116	HANDSHAKE MODE COM1	1	065	142
0075	117	SYNC TIME COM1	1	062	144
0076	118	TX ENABLE OFF DELAY COM1	1	067	146
0077	119	TX ENABLE ON DELAY COM1	1	066	145
0078	120	PROTOCOL COM1	1	060	047
0079	121	P2179 COM1 SLAVE ADDRESS	1	064	110
007A	122	P2179 COM1 MAP ID	1	266	112
007B	123	P2179 DEFAULT MAP PORT	1		109
007C	124	DNP LOGICAL DEVICE 1 SLAVE ADDRESS COM1	1	064	460
007D	125	DNP LOGICAL DEVICE 1 MAP ID COM1	1	267	128
007E	126	DNP MASTER ADDRESS COM1	1	063	162
007F	127	DNP LD2 SLAVE ADDRESS COM1	1	064	161
0080	128	DNP LINK CONFIRM MODE COM1	1		123
0081	129	DNP LINK CONFIRM TIMEOUT COM1	100		124
0082	130	DNP LINK MAX RETRIES COM1	1		125
0083	131	DNP APPLICATION CONFIRM MODE COM1	1		163
0084	132	DNP APPLICATION CONFIRM TIMEOUT COM1	100		164
0085	133	DNP RESPONSE FRAGMENT SIZE COM1	1		165
0086	134	DNP LOGICAL DEVICE 1 UNSOLICITED PERMITTED COM1	1		126
0087	135	DNP LOGICAL DEVICE 1 UNSOLICITED RETRY DELAY COM1	10		127
0088	136	DNP COM1 UNSOLICITED OFFLINE TIME	1		000
0089	137	DNP COM1 UNSOLICITED MAX RETRIES	1		199
008A	138	DNP COM1 UNSOLICITED MIN EV C1	1		193
008B	139	DNP COM1 UNSOLICITED MIN EV C2	1		194
008C	140	DNP COM1 UNSOLICITED MIN EV C3	1		195
008D	141	DNP COM1 UNSOLICITED DELAY C1	100		196
008E	142	DNP COM1 UNSOLICITED DELAY C2	100		197
008F	143	DNP COM1 UNSOLICITED DELAY C3	100		198
0090	144	DNP COM1 UNSOLICITED FIXED DLY	10		214
0091	145	DNP COM1 UNSOLICITED RANDOM DLY	10		215
0092	146	DNP COM1 UNSOLICITED END BK MSG	1		203
0093	147	DNP COM1 UNSOLICITED END BK USR	1		202
0094	148	DNP COM1 UNSOLICITED FLUSH	1		201
0095	149	DNP COM1 UNSOLICITED TMOUT INC	1		204
0096	150	DNP COM1 EVENT BUFFER SIZE Obj1	1		208
0097	151	DNP COM1 EVENT BUFFER SIZE Obj20	1		209



Hex	Index	Description	Scale Factor	Func Code	Abs Index (Internal)
<b>Setpoint Scaled (CSENB)</b>					
0098	152	DNP COM1 EVENT BUFFER SIZE Obj30	1		210
0099	153	DNP COM1 EVENT MODE OBJ20	1		206
009A	154	DNP COM1 EVENT MODE OBJ30	1		207
009B	155	DNP COM1 OBJ1 VARIATION	1		166
009C	156	DNP COM1 OBJ2 VARIATION	1		167
009D	157	DNP COM1 OBJ20 VARIATION	1		168
009E	158	DNP COM1 OBJ22 VARIATION	1		169
009F	159	DNP COM1 OBJ30 VARIATION	1		170
00A0	160	DNP COM1 OBJ32 VARIATION	1		171
00A1	161	DNP COM1 OBJ40 41 VARIATION	1		172
00A2	162	DNP COM1 ARM SEL TIME	1		192
00A3	163	DNP TRANSMIT DELAY COM1	100		122
00A4	164	DNP COM1 SELF ADDRESS	1		205
00A5	165	BAUD RATE COM2	1	161	031
00A6	166	HANDSHAKE MODE COM2	1	165	033
00A7	167	SYNC TIME COM2	1	162	143
00A8	168	TX ENABLE DELAY OFF COM2	1	167	035
00A9	169	TX ENABLE DELAY ON COM2	1	166	034
00AA	170	PROTOCOL COM2	1	160	046
00AB	171	P2179 COM2 SLAVE ADDRESS	1	164	111
00AC	172	P2179 COM2 MAP ID	1	268	113
00AD	173	DNP LOGICAL DEVICE 1 SLAVE ADDRESS COM2	1	164	147
00AE	174	DNP LOGICAL DEVICE 1 MAP ID COM2	1	269	121
00AF	175	DNP MASTER ADDRESS COM2	1	163	149
00B0	176	DNP LOGICAL DEVICE 2 SLAVE ADDRESS COM2	1	164	148
00B1	177	DNP LINK CONFIRM MODE COM2	1		116
00B2	178	DNP LINK CONFIRM TIMEOUT COM2	100		117
00B3	179	DNP LINK MAX RETRIES COM2	1		118
00B4	180	DNP APPLICATION CONFIRM MODE COM2	1		150
00B5	181	DNP APPLICATION CONFIRM TIMEOUT COM2	100		151
00B6	182	DNP RESPONSE FRAGMENT SIZE COM2	1		152
00B7	183	DNP LOGICAL DEVICE 1 UNSOLICITED PERMITTED COM2	1		119
00B8	184	DNP LOGICAL DEVICE 1 UNSOLICITED RETRY DELAY COM2	10		120
00B9	185	AltConfig MODE	1		000
00BA	186	DNP COM2 UNSOLICITED MAX RETRIES	1		180
00BB	187	DNP COM2 UNSOLICITED MIN EVENT C1	1		174
00BC	188	DNP COM2 UNSOLICITED MIN EVENT C2	1		175
00BD	189	DNP COM2 UNSOLICITED MIN EVENT C3	1		176
00BE	190	DNP COM2 UNSOLICITED DELAY C1	100		177
00BF	191	DNP COM2 UNSOLICITED DELAY C2	100		178

Hex	Index		Description	Scale Factor	Func Code	Abs Index (Internal)
<b>Setpoint Scaled (CSENB)</b>						
00C0	192		DNP COM2 UNSOLICITED DELAY C3	100		179
00C1	193		DNP COM2 UNSOLICITED FIXED DLY	10		212
00C2	194		DNP COM2 UNSOLICITED RANDOM DLY	10		213
00C3	195		DNP COM2 UNSOLICITED END BK MSG	1		184
00C4	196		DNP COM2 UNSOLICITED END BK USR	1		183
00C5	197		DNP COM2 UNSOLICITED FLUSH	1		182
00C6	198		DNP COM2 UNSOLICITED TIMEOUT INC	1		185
00C7	199		DNP COM2 EVENT BUF SIZE Obj1	1		189
00C8	200		DNP COM2 EVENT BUF SIZE Obj20	1		190
00C9	201		DNP COM2 EVENT BUF SIZE Obj30	1		191
00CA	202		DNP COM2 EVENT MODE OBJ20	1		187
00CB	203		DNP COM2 EVENT MODE OBJ30	1		188
00CC	204		DNP COM2 OBJ1 VARIATION	1		153
00CD	205		DNP COM2 OBJ2 VARIATION	1		154
00CE	206		DNP COM2 OBJ20 VARIATION	1		155
00CF	207		DNP COM2 OBJ22 VARIATION	1		156
00D0	208		DNP COM2 OBJ30 VARIATION	1		157
00D1	209		DNP COM2 OBJ32 VARIATION	1		158
00D2	210		DNP COM2 OBJ40 41 VARIATION	1		159
00D3	211		DNP COM2 ARM SEL TIME	1		173
00D4	212		DNP TRANSMIT DELAY COM2	100		115
00D5	213		DNP COM2 SELF ADDRESS	1		186
00D6	214		DNP DEFAULT MAP PORT	1		114
00D7	215	A	ARL AltConfig ACTIVATE	1		216
00D8	216	A	ARL AltConfig TIMER	1		217
00D9	217	A	PMT MODE B START TIME	1	323	218
00DA	218	A	PMT MODE B STOP TIME	1	324	129
00DB	219	A	2179 ACTIVE COM ID	1		220
00DC	220	A	2179 ACTIVE BLOCK ID	1		221
00DD	221	A	DNP ACTIVE COM ID	1		222
00DE	222	A	DNP ACTIVE BLOCK ID	1		223
00DF	223	A	CL FORM ACTIVE ID	1		224
00E0	224	A	OPERATIONS COUNTER	1	000	225
00E1	225	B	IGNORE CARRIER DETECT COM2	1		226
00E2	226	B	IGNORE CARRIER DETECT COM1	1		227
00E3	227	B	DNP LOGICAL DEVICE 1 NEED TIME IIN ENABLE COM2	1		228
00E4	228	B	DNP LOGICAL DEVICE 1 NEED TIME IIN ENABLE COM1	1		229
00E5	229	C	Tap Position Sense Mode	1	147	230

**Setpoint Floating (CSENC)**

Hex	Index	Description	Func Code	Abs Index (Internal)
0000	000	FORWARD SET VOLTAGE	001	021
0001	001	FORWARD BANDWIDTH	002	017
0002	002	FORWARD TIME DELAY	003	022
0003	003	FORWARD LDC RESISTANCE	004	019
0004	004	FORWARD LDC REACTANCE	005	018
0005	005	REVERSE SET VOLTAGE	051	009
0006	006	REVERSE BANDWIDTH	052	005
0007	007	REVERSE TIME DELAY	053	010
0008	008	REVERSE LDC RESISTANCE	054	007
0009	009	REVERSE LDC REACTANCE	055	006
000A	010	REVERSE SENSE MODE	056	008
000B	011	REVERSE THRESHOLD	057	011
000C	012	VOLTAGE LIMITING MODE	080	023
000D	013	VOLTAGE LIMITING HIGH	081	024
000E	014	VOLTAGE LIMITING LOW	082	025
000F	015	VOLTAGE REDUCTION MODE	070	026
0010	016	LOCAL/DIGITAL-REMOTE VOLTAGE REDUCTION SETTING %	072	027
0011	017	SOFT ADD AMP STATE	079	042
0012	018	SOFT ADD AMP HIGH	175	043
0013	019	SOFT ADD AMP LOW	176	044
0014	020	REGULATOR ID NUMBER	040	012
0015	021	REGULATOR TYPE	140	040
0016	022	TAP CHANGER TYPE	049	041
0017	023	REGULATOR CONFIGURATION	041	016
0018	024	OPERATING MODE	042	020
0019	025	SYSTEM LINE VOLTAGE	043	004
001A	026	OVERALL PT RATIO	044	003
001B	027	CT RATING	045	002
001C	028	DEMAND TIME INTERVAL	046	001
001D	029	ADDAMP LIMIT HIGH	144	048
001E	030	ADDAMP LIMIT LOW	145	049
001F	031	VIN CONFIG	146	211
0020	032	ANALOG VOLTAGE REDUCTION SETTING 1 %	073	028
0021	033	ANALOG VOLTAGE REDUCTION SETTING 2 %	074	029
0022	034	ANALOG VOLTAGE REDUCTION SETTING 3 %	075	030
0023	035	VOLTAGE REDUCTION ANALOG STEP COUNT	076	036
0024	036	VOLTAGE REDUCTION PER STEP	077	037
0025	037	SECURITY OVERRIDE	092	039
0026	038	SECURITY CODE1	096	013
0027	039	SECURITY CODE2	097	174

Hex	Index	Description	Func Code	Abs Index (Internal)
<b>Setpoint Floating (CSENC)</b>				
0028	040	SECURITY CODE3	098	015
0029	041	Reserved	--	087
002A	042	Reserved	--	086
002B	043	Reserved	--	091
002C	044	Reserved	--	090
002D	045	FORWARD DEMAND LOAD CURRENT PRIMARY MAX	022	055
002E	046	FORWARD DEMAND LOAD CURRENT PRIMARY MIN	022	054
002F	047	FORWARD DEMAND KVA LOAD MAX	024	057
0030	048	FORWARD DEMAND KVA LOAD MIN	024	056
0031	049	FORWARD DEMAND KVAR LOAD MAX	026	059
0032	050	FORWARD DEMAND KVAR LOAD MIN	026	058
0033	051	FORWARD DEMAND KW LOAD MAX	025	061
0034	052	FORWARD DEMAND KW LOAD MIN	025	060
0035	053	FORWARD DEMAND COMPENSATED VOLTAGE SECONDARY MAX	021	065
0036	054	FORWARD DEMAND COMPENSATED VOLTAGE SECONDARY MIN	021	064
0037	055	FORWARD DEMAND LOAD VOLTAGE SECONDARY MAX	020	063
0038	056	FORWARD DEMAND LOAD VOLTAGE SECONDARY MIN	020	062
0039	057	FORWARD DEMAND SOURCE VOLTAGE SECONDARY MAX	029	083
003A	058	FORWARD DEMAND SOURCE VOLTAGE SECONDARY MIN	029	082
003B	059	POWER FACTOR AT FORWARD DEMAND KVA LOAD MAX	023	050
003C	060	POWER FACTOR AT FORWARD DEMAND KVA LOAD MIN	023	051
003D	061	POWER FACTOR AT REVERSE DEMAND KVA LOAD MAX	033	052
003E	062	POWER FACTOR AT REVERSE DEMAND KVA LOAD MIN	033	053
003F	063	TAP POSITION MAX	027	080
0040	064	TAP POSITION MIN	028	081
0041	065	PERCENT REGULATION MAX	127	078
0042	066	PERCENT REGULATION MIN	128	079
0043	067	Reserved	--	089
0044	068	Reserved	--	088
0045	069	Reserved	--	093
0046	070	Reserved	--	092
0047	071	REVERSE DEMAND LOAD CURRENT PRIMARY MAX	032	067
0048	072	REVERSE DEMAND LOAD CURRENT PRIMARY MIN	032	066
0049	073	REVERSE DEMAND KVA LOAD MAX	034	069
004A	074	REVERSE DEMAND KVA LOAD MIN	034	068
004B	075	REVERSE DEMAND KVAR LOAD MAX	036	071
004C	076	REVERSE DEMAND KVAR LOAD MIN	036	070
004D	077	REVERSE DEMAND KW LOAD MAX	035	073
004E	078	REVERSE DEMAND KW LOAD MIN	035	072

Hex	Index	Description	Func Code	Abs Index (Internal)
<b>Setpoint Floating (CSENC)</b>				
004F	079	REVERSE DEMAND COMPENSATED VOLTAGE SECONDARY MAX	031	077
0050	080	REVERSE DEMAND COMPENSATED VOLTAGE SECONDARY MIN	031	076
0051	081	REVERSE DEMAND LOAD VOLTAGE SECONDARY MAX	030	075
0052	082	REVERSE DEMAND LOAD VOLTAGE SECONDARY MIN	030	074
0053	083	REVERSE DEMAND SOURCE VOLTAGE SECONDARY MAX	037	085
0054	084	REVERSE DEMAND SOURCE VOLTAGE SECONDARY MIN	037	084
0055	085	YEAR		038
0056	086	ALARMS CHANGE DELAY SEC		101
0057	087	ALARMS CONFIG ACTIVE ID		095
0058	088	ALARMS DATA LIMIT		097
0059	089	ALARMS EVENT OP MODE		098
005A	090	ALARMS OP MODE		096
005B	091	ALARMS PRIORITY		100
005C	092	ALARMS PROFILE OP MODE		099
005D	093	ALARMS QUERY ACTIVITY STATE		104
005E	094	ALARMS QUERY CHANGE STATE		106
005F	095	ALARMS QUERY EXECUTE ID		141
0060	096	ALARMS QUERY PRIORITY HIGH		108
0061	097	ALARMS QUERY PRIORITY LOW		107
0062	098	ALARMS QUERY SUPPRESSION STATE		105
0063	099	ALARMS RPT CURRENT LINE		094
0064	100	ALARMS SUPPRESS ID		102
0065	101	ALARMS UNSUPPRESS ID		103
0066	102	DATA PROFILER DURATION		134
0067	103	DATA PROFILER SAMPLE PERIOD		045
0068	104	DATA PROFILER START DATE		136
0069	105	DATA PROFILER START TIME		135
006A	106	DATA PROFILER STOP DATE		137
006B	107	HISTOGRAM ACTIVE BIN01 LOW		139
006C	108	HISTOGRAM ACTIVE BIN10 HIGH		140
006D	109	HISTOGRAM ACTIVE ID		138
006E	110	PMT MODE A TIME DELAY	302	129
006F	111	PMT MODE B CURRENT LIMIT	327	132
0070	112	PMT MODE B MASTER SLAVE		133
0071	113	PMT MODE B MAX DEV	325	131
0072	114	PMT MODE B TIME DELAY	322	130
0073	115	BAUD RATE COM1	061	032
0074	116	HANDSHAKE MODE COM1	065	142
0075	117	SYNC TIME COM1	062	144

Hex	Index	Description	Func Code	Abs Index (Internal)
<b>Setpoint Floating (CSENC)</b>				
0076	118	TX ENABLE OFF DELAY COM1	067	146
0077	119	TX ENABLE ON DELAY COM1	066	145
0078	120	PROTOCOL COM1	060	047
0079	121	P2179 COM1 SLAVE ADDRESS	064	110
007A	122	P2179 COM1 MAP ID	266	112
007B	123	P2179 DEFAULT MAP PORT		109
007C	124	DNP LOGICAL DEVICE 1 SLAVE ADDRESS COM1	064	460
007D	125	DNP LOGICAL DEVICE 1 MAP ID COM1	267	128
007E	126	DNP MASTER ADDRESS COM1	063	162
007F	127	DNP LD2 SLAVE ADDRESS COM1	064	161
0080	128	DNP LINK CONFIRM MODE COM1		123
0081	129	DNP LINK CONFIRM TIMEOUT COM1		124
0082	130	DNP LINK MAX RETRIES COM1		125
0083	131	DNP APPLICATION CONFIRM MODE COM1		163
0084	132	DNP APPLICATION CONFIRM TIMEOUT COM1		164
0085	133	DNP RESPONSE FRAGMENT SIZE COM1		165
0086	134	DNP LOGICAL DEVICE 1 UNSOLICITED PERMITTED COM1		126
0087	135	DNP LOGICAL DEVICE 1 UNSOLICITED RETRY DELAY COM1		127
0088	136	DNP COM1 UNSOLICITED OFFLINE TIME		000
0089	137	DNP COM1 UNSOLICITED MAX RETRIES		199
008A	138	DNP COM1 UNSOLICITED MIN EV C1		193
008B	139	DNP COM1 UNSOLICITED MIN EV C2		194
008C	140	DNP COM1 UNSOLICITED MIN EV C3		195
008D	141	DNP COM1 UNSOLICITED DELAY C1		196
008E	142	DNP COM1 UNSOLICITED DELAY C2		197
008F	143	DNP COM1 UNSOLICITED DELAY C3		198
0090	144	DNP COM1 UNSOLICITED FIXED DLY		214
0091	145	DNP COM1 UNSOLICITED RANDOM DLY		215
0092	146	DNP COM1 UNSOLICITED END BK MSG		203
0093	147	DNP COM1 UNSOLICITED END BK USR		202
0094	148	DNP COM1 UNSOLICITED FLUSH		201
0095	149	DNP COM1 UNSOLICITED TMOUT INC		204
0096	150	DNP COM1 EVENT BUFFER SIZE Obj1		208
0097	151	DNP COM1 EVENT BUFFER SIZE Obj20		209
0098	152	DNP COM1 EVENT BUFFER SIZE Obj30		210
0099	153	DNP COM1 EVENT MODE OBJ20		206
009A	154	DNP COM1 EVENT MODE OBJ30		207
009B	155	DNP COM1 OBJ1 VARIATION		166
009C	156	DNP COM1 OBJ2 VARIATION		167
009D	157	DNP COM1 OBJ20 VARIATION		168
009E	158	DNP COM1 OBJ22 VARIATION		169

Hex	Index	Description	Func Code	Abs Index (Internal)
<b>Setpoint Floating (CSENC)</b>				
009F	159	DNP COM1 OBJ30 VARIATION		170
00A0	160	DNP COM1 OBJ32 VARIATION		171
00A1	161	DNP COM1 OBJ40 41 VARIATION		172
00A2	162	DNP COM1 ARM SEL TIME		192
00A3	163	DNP TRANSMIT DELAY COM1		122
00A4	164	DNP COM1 SELF ADDRESS		205
00A5	165	BAUD RATE COM2	161	031
00A6	166	HANDSHAKE MODE COM2	165	033
00A7	167	SYNC TIME COM2	162	143
00A8	168	TX ENABLE DELAY OFF COM2	167	035
00A9	169	TX ENABLE DELAY ON COM2	166	034
00AA	170	PROTOCOL COM2	160	046
00AB	171	P2179 COM2 SLAVE ADDRESS	164	111
00AC	172	P2179 COM2 MAP ID	268	113
00AD	173	DNP LOGICAL DEVICE 1 SLAVE ADDRESS COM2	164	147
00AE	174	DNP LOGICAL DEVICE 1 MAP ID COM2	269	121
00AF	175	DNP MASTER ADDRESS COM2	163	149
00B0	176	DNP LOGICAL DEVICE 2 SLAVE ADDRESS COM2	164	148
00B1	177	DNP LINK CONFIRM MODE COM2		116
00B2	178	DNP LINK CONFIRM TIMEOUT COM2		117
00B3	179	DNP LINK MAX RETRIES COM2		118
00B4	180	DNP APPLICATION CONFIRM MODE COM2		150
00B5	181	DNP APPLICATION CONFIRM TIMEOUT COM2		151
00B6	182	DNP RESPONSE FRAGMENT SIZE COM2		152
00B7	183	DNP LOGICAL DEVICE 1 UNSOLICITED PERMITTED COM2		119
00B8	184	DNP LOGICAL DEVICE 1 UNSOLICITED RETRY DELAY COM2		120
00B9	185	AltConfig MODE		000
00BA	186	DNP COM2 UNSOLICITED MAX RETRIES		180
00BB	187	DNP COM2 UNSOLICITED MIN EVENT C1		174
00BC	188	DNP COM2 UNSOLICITED MIN EVENT C2		175
00BD	189	DNP COM2 UNSOLICITED MIN EVENT C3		176
00BE	190	DNP COM2 UNSOLICITED DELAY C1		177
00BF	191	DNP COM2 UNSOLICITED DELAY C2		178
00C0	192	DNP COM2 UNSOLICITED DELAY C3		179
00C1	193	DNP COM2 UNSOLICITED FIXED DLY		212
00C2	194	DNP COM2 UNSOLICITED RANDOM DLY		213
00C3	195	DNP COM2 UNSOLICITED END BK MSG		184
00C4	196	DNP COM2 UNSOLICITED END BK USR		183
00C5	197	DNP COM2 UNSOLICITED FLUSH		182
00C6	198	DNP COM2 UNSOLICITED TIMEOUT INC		185
00C7	199	DNP COM2 EVENT BUF SIZE Obj1		189

Hex	Index		Description	Func Code	Abs Index (Internal)
<b>Setpoint Floating (CSENC)</b>					
00C8	200		DNP COM2 EVENT BUF SIZE Obj20		190
00C9	201		DNP COM2 EVENT BUF SIZE Obj30		191
00CA	202		DNP COM2 EVENT MODE OBJ20		187
00CB	203		DNP COM2 EVENT MODE OBJ30		188
00CC	204		DNP COM2 OBJ1 VARIATION		153
00CD	205		DNP COM2 OBJ2 VARIATION		154
00CE	206		DNP COM2 OBJ20 VARIATION		155
00CF	207		DNP COM2 OBJ22 VARIATION		156
00D0	208		DNP COM2 OBJ30 VARIATION		157
00D1	209		DNP COM2 OBJ32 VARIATION		158
00D2	210		DNP COM2 OBJ40 41 VARIATION		159
00D3	211		DNP COM2 ARM SEL TIME		173
00D4	212		DNP TRANSMIT DELAY COM2		115
00D5	213		DNP COM2 SELF ADDRESS		186
00D6	214		DNP DEFAULT MAP PORT		114
00D7	215	A	ARL AltConfig ACTIVATE		216
00D8	216	A	ARL AltConfig TIMER		217
00D9	217	A	PMT MODE B START TIME	323	218
00DA	218	A	PMT MODE B STOP TIME	324	129
00DB	219	A	2179 ACTIVE COM ID		220
00DC	220	A	2179 ACTIVE BLOCK ID		221
00DD	221	A	DNP ACTIVE COM ID		222
00DE	222	A	DNP ACTIVE BLOCK ID		223
00DF	223	A	CL FORM ACTIVE ID		224
00E0	224	A	OPERATIONS COUNTER	000	225
00E1	225	B	IGNORE CARRIER DETECT COM2		226
00E2	226	B	IGNORE CARRIER DETECT COM1		227
00E3	227	B	DNP LOGICAL DEVICE 1 NEED TIME IIN ENABLE COM2		228
00E4	228	B	DNP LOGICAL DEVICE 1 NEED TIME IIN ENABLE COM1		229
00E5	229	C	Tap Position Sense Mode	147	230
---	---		-----End Remote Adrs1 (Logical Device 1)		
---	---		-----Continue Remote Adrs2 (Logical Device 2)		
00E6	230	*	Reserved		
00E7	231	*	Reserved		
00E8	232	*	Reserved		
00E9	233	*	Reserved		
00EA	234	*	Reserved		
00EB	235	*	Reserved		
00EC	236	*	Reserved		
00ED	237	*	Reserved		
00EE	238	*	Reserved		



Hex	Index		Description	Func Code	Abs Index (Internal)
<b>Setpoint Floating (CSENC)</b>					
00EF	239	*	Reserved		
00F0	240	*	Reserved		
00F1	241	*	Reserved		
00F2	242	*	Reserved		
00F3	243	*	Reserved		
00F4	244	*	Reserved		
00F5	245	*	Reserved		
00F6	246	*	Reserved		
00F7	247	*	Reserved		
00F8	248	*	Reserved		
00F9	249	*	Reserved		
00FA	250	*	Reserved		
00FB	251	*	Reserved		
00FC	252	*	Reserved		
00FD	253	*	Reserved		
00FE	254	*	Reserved		
00FF	255	*	Reserved		
0100	256	*	EVENT CE USER RESET REQUEST ENABLE		
0101	257	*	EVENT SET TIME ENABLE		
0102	258	*	EVENT FACT CALIBRATION REQUIRED ENABLE		
0103	259	*	EVENT DID NOT ACQUIRE DATA ENABLE		
0104	260	*	EVENT TAP RAISE ENABLE		
0105	261	*	EVENT TAP LOWER ENABLE		
0106	262	*	EVENT TAP AT NEUTRAL ENABLE		
0107	263	*	EVENT NEUTRAL SYNC ENABLE		
0108	264	*	EVENT MAX TAP POS SYNC ENABLE		
0109	265	*	EVENT MIN TAP POS SYNC ENABLE		
010A	266	*	EVENT VOLT LIMIT ACTIVATED ENABLE		
010B	267	*	EVENT VOLT LIMIT HIGH HIT ENABLE		
010C	268	*	EVENT VOLT LIMIT LOW HIT ENABLE		
010D	269	*	EVENT VOLT REDUC ACTIVATED ENABLE		
010E	270	*	EVENT SOFT ADD AMP HIGH HIT ENABLE		
010F	271	*	EVENT SOFT ADD AMP LOW HIT ENABLE		
0110	272	*	EVENT PMT MODEA COMPLETE ENABLE		
0111	273	*	EVENT PMT MODEB COMPLETE ENABLE		
0112	274	*	EVENT INPUT VOLTAGE MISSING ENABLE		
0113	275	*	EVENT INPUT VOLTAGE RESTORED ENABLE		
0114	276	*	EVENT OUTPUT VOLTAGE MISSING ENABLE		
0115	277	*	EVENT OUTPUT VOLTAGE RESTORED ENABLE		
0116	278	*	Reserved		
0117	279	*	Reserved		

Hex	Index		Description	Func Code	Abs Index (Internal)
<b>Setpoint Floating (CSENC)</b>					
0118	280	*	Reserved		
0119	281	*	Reserved		
011A	282	*	Reserved		
011B	283	*	Reserved		
011C	284	*	Reserved		
011D	285	*	Reserved		
011E	286	*	Reserved		
011F	287	*	Reserved		
0120	288	*	Reserved		
0121	289	*	Reserved		
0122	290	*	Reserved		
0123	291	*	Reserved		
0124	292	*	Reserved		
0125	293	*	Reserved		
0126	294	*	Reserved		
0127	295	*	Reserved		
0128	296	*	Reserved		
0129	297	*	Reserved		
012A	298	*	Reserved		
012B	299	*	Reserved		
012C	300	*	Reserved		
012D	301	*	Reserved		
012E	302	*	Reserved		
012F	303	*	Reserved		
0130	304	*	Reserved		
0131	305	*	Reserved		
0132	306	*	Reserved		
0133	307	*	Reserved		
0134	308	*	Reserved		
0135	309	*	Reserved		
0136	310	*	CONFIGURATION BYTE, USER INPUT 01		
0137	311	*	CONFIGURATION BYTE, USER INPUT 02		
0138	312	*	CONFIGURATION BYTE, USER INPUT 03		
0139	313	*	CONFIGURATION BYTE, USER INPUT 04		
013A	314	*	CONFIGURATION BYTE, USER INPUT 05		
013B	315	*	CONFIGURATION BYTE, USER INPUT 06		
013C	316	*	CONFIGURATION BYTE, USER INPUT 07		
013D	317	*	CONFIGURATION BYTE, USER INPUT 08		
013E	318	*	CONFIGURATION BYTE, USER INPUT 09		
013F	319	*	CONFIGURATION BYTE, USER INPUT 10		
0140	320	*	CONFIGURATION BYTE, USER INPUT 11		

Hex	Index		Description	Func Code	Abs Index (Internal)
<b>Setpoint Floating (CSENC)</b>					
0141	321	*	CONFIGURATION BYTE, USER INPUT 12		
0142	322	*	CONFIGURATION BYTE, USER INPUT 13		
0143	323	*	CONFIGURATION BYTE, USER INPUT 14		
0144	324	*	CONFIGURATION BYTE, USER INPUT 15		
0145	325	*	CONFIGURATION BYTE, USER INPUT 16		
0146	326	*	CONFIGURATION BYTE, USER INPUT 17		
0147	327	*	CONFIGURATION BYTE, USER INPUT 18		
0148	328	*	CONFIGURATION BYTE, USER INPUT 19		
0149	329	*	CONFIGURATION BYTE, USER INPUT 20		
014A	330	*	CONFIGURATION BYTE, USER INPUT 21		
014B	331	*	CONFIGURATION BYTE, USER INPUT 22		
014C	332	*	CONFIGURATION BYTE, USER INPUT 23		
014D	333	*	CONFIGURATION BYTE, USER INPUT 24		
014E	334	*	CONFIGURATION BYTE, USER INPUT 25		
014F	335	*	CONFIGURATION BYTE, USER INPUT 26		
0150	336	*	CONFIGURATION BYTE, USER INPUT 27		
0151	337	*	CONFIGURATION BYTE, USER INPUT 28		
0152	338	*	CONFIGURATION BYTE, USER INPUT 29		
0153	339	*	CONFIGURATION BYTE, USER INPUT 30		
0154	340	*	CONFIGURATION BYTE, USER INPUT 31		
0155	341	*	CONFIGURATION BYTE, USER INPUT 32		

\* Remote Adrs2 (Logical Device 2) Only.  
A Firmware Version 1.03.xx and later.  
B Firmware Version 1.04.xx and later.  
C Firmware Version 1.05.xx and later.

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