

All parameters												
1-Monitor												
18500	DRIVE SIZE	R	Read Only	per switch S3 (page 36)						PX-XXX		
18701	DRIVE NOMINAL CURRENT	R	Read Only								Arms	
18732	CURRENT LIMIT	R	Read Only	Actual quadrature-axle current limit							Arms	
18742	OUTPUT FREQUENCY	R	Read Only								Hz	
19607	OVERLOAD FACTOR	R	Read Only								%	
20040	ACTUALSPEED	R	Read Only								Rpm	
20041	MOTOR CURRENT	R	Read Only								Arms	
20043	DC LINK VOLTAGE	R	Read Only								V	
20044	DRIVE TEMPERATURE	R	Read Only								degree c	
10-Drive parameter												
18110	DRIVE FAST LINK			0, Off; 1, Master (xt-Out); 2 Slave (xt-in)								
18130	COAST -THROUGH ENABLE			0,Off, 1, Enable								
20000	DRIVE MAXIMUM CURRENT			Enter Number in amps							Arms	
20021	DRIVE ADDRESS	R	Read Only							max 127		
20023	DRIVE CONFIGURATION			1, Current; 2, Speed; 4 Position; 8 Els; 16 Encoder Phasing; 32 Test Generator								
20024	DRIVE BAUDRATE			1200, 2400, 4800, 9600, 19200, 38400								
20025	DRIVE SERIAL CONFIG			32785, N81; 36919, O81; 32823, E81; 32793, N82; 36927, O82; 32831, E82								
20026	DRIVE SER DELAY TIME			Enter Number in ms								
20050	MAIN VOLTAGE			0, 220 vac; 1, 400 vac; 2, 460 vac								
20051	ENVIRONMENT TEMP			0, 40C; 1, 50C								
20052	SWITCHING FREQUENCY			1, Default, 2, 2 4, 4 8.8							Khz	
20054	OVERLOAD RECOVERY TIME			Overload recover time						max 100	Sec	
20022	DRIVE FIRMWARE	R	Read Only									
29004	DRIVE ACTUAL CONFIGURATION	R	Read Only									
20-Motor Parameters												
20002	MOTOR NUMBER OF POLES			Enter number 2, 4, 6, 8								
20003	MOTOR MAXIMUM SPEED			Enter number max 9999 rpm							Rpm	
30-Encoder parameters												
20010	ENCODER TYPE			1=Sincos 5-tracks; 2=Dig.+Hall; 3=Hall; 4= SinCos 2tracks; 5=Sin+Hall; 6=External; 7=Resolver								
20011	ENCODER PULSES			enter number of ppr for feedback encoder, i.e. 1024, 2048, etc.								
20012	ENCODER SUPPLY			Adjust for output voltage for encoder supply								
40-Ramp												
21102	RAMP ACC CW			Set up to par 2111							ms/krpm	
21103	RAMP ACC CCW			Set up to par 2111							ms/krpm	
21104	RAMP DEC CW			Set up to par 2111							ms/krpm	
21105	RAMP DEC CCW			Set up to par 2111							ms/krpm	
21110	EXP RAMP			Ramp exponensal				Default		100		
21210	RAMP ENABLED			0, Disable 1, Enable								
21111	MAX RAMP	R	Read Only								ms	
21212	RAMP OUTPUT	R	Read Only									
50-Speed												
21200	SPEED REF1			per configuration							rpm	
21201	SPEED REF2			per configuration							rpm	
21204	SPEED MAX POS			Set per motor							rpm	
21205	SPEED MAX NEG			Set per motor							rpm	
21206	SPEED THR			Speed threshold				Default		10	rpm	
21207	SPEED THR OFFSET			Speed threshold offset				Default		10	rpm	
21213	SPEED THR DELAY			Speed threshold delay				Default		10	seconds	
60-Current												
22000	T CURR REF1			Current reference 1				Default		0	Arms	
22001	T CURR REF2			Current reference 2				Default		0	Arms	
22004	T CURR LIM +			Positive current limit				Per 20000			Arms	
22005	T CURR LIM -			Negative current limit				Per 20000			Arms	
22007	T CURR THR			Current threshold				Default		0	Arms	
22009	MAX SPEED CUR LIM			Speed limit				Per Motor			rpm	
22010	CURR THR DELAY			Current threshold delay				Default		10	seconds	

70-Speed/position gains														
23000	GAIN SPEED		Speed gain						Default	100				
23001	GAIN POS		Position gain						Default	50				
23002	GAIN INT		Position intergral gain						Default	50				
80-Digital inputs														
20101	DIGITAL INPUT 1 (pin 13)	0	Off	8	Ramp In=0	15	Speed loop	23	Speed Sel bit 2	1004	POS-Preset 3	1011	POS-Memo pos	
20102	DIGITAL INPUT 2 (pin 14)	2	Drive reset	9	Inverse	16	Position loop	24	Ramp Sel bit 0	1005	POS-Preset 4	1012	POS-Abs 0 sensor CW	
20103	DIGITAL INPUT 3 (pin 15)	3	External fault	10	End Run Reverse	17	Line shaft loop	25	Ramp Sel bit 1	1006	POS-Preset 5	1013	POS-Abs 0 sensor CCW	
20104	DIGITAL INPUT 4 (pin 36)	4	Start/Stop	11	End Run Forward	18	Disable An inp 0	26	Virtual DI OK	1007	POS-0 search	2001	ELS-Ratio Sel bit 0	
20105	DIGITAL INPUT 5 (pin 37)	5	Fast stop	12	Reference=0	19	Disable An inp 1	1001	POS-Preset 0	1015	POS-0 sensor	2002	ELS-Ratio Sel bit 1	
20106	DIGITAL INPUT 6 (pin 38)	6	Jog +	13	Memo virtual 0	21	Speed Sel bit 0	1002	POS-Preset 1	1009	POS-Start pos	2003	ELS-Inc Ratio	
20107	DIGITAL INPUT 7 (pin 39)	7	Jog -	14	Current loop	22	Speed Sel bit 1	1003	POS-Preset 2	1010	POS-Memo 0	2004	ELS-Dec Ratio	
20162	DIG IN NEG		Bitmap to negate a digital input							00H		2005	ELS-Ramp Ratio Dis	
20100	DIGITAL INPUT 0 (pin 12)	R	Read Only							1	Enable	2006	ELS-Bend Rec CW	
20163	DIG IN STATUS	R	Read Only								FFH Max	2007	ELS-Bend Rec CCW	
81-Digital expansion inputs														
20150	EXPANSION DIGITAL INPUT 0		Per Parameter 80											
20151	EXPANSION DIGITAL INPUT 1		Per Parameter 80											
20152	EXPANSION DIGITAL INPUT 2		Per Parameter 80											
20153	EXPANSION DIGITAL INPUT 3		Per Parameter 80											
20154	EXPANSION DIGITAL INPUT 4		Per Parameter 80											
20155	EXPANSION DIGITAL INPUT 5		Per Parameter 80											
20156	EXPANSION DIGITAL INPUT 6		Per Parameter 80											
20157	EXPANSION DIGITAL INPUT 7		Per Parameter 80											
20164	EXPANSION DIGITAL INPUT STATUS	R	Read Only											
82-Virtual digital inputs														
20170	VIRTUAL DIGITAL INPUT 0		Per Parameter 80											
20171	VIRTUAL DIGITAL INPUT 1		Per Parameter 80											
20172	VIRTUAL DIGITAL INPUT 2		Per Parameter 80											
20173	VIRTUAL DIGITAL INPUT 3		Per Parameter 80											
20174	VIRTUAL DIGITAL INPUT 4		Per Parameter 80											
20175	VIRTUAL DIGITAL INPUT 5		Per Parameter 80											
20176	VIRTUAL DIGITAL INPUT 6		Per Parameter 80											
20177	VIRTUAL DIGITAL INPUT 7		Per Parameter 80											
20178	VIRTUAL DIGITAL INPUT 8		Per Parameter 80											
20179	VIRTUAL DIGITAL INPUT 9		Per Parameter 80											
20180	VIRTUAL DIGITAL INPUT 10		Per Parameter 80											
20181	VIRTUAL DIGITAL INPUT 11		Per Parameter 80											
20182	VIRTUAL DIGITAL INPUT 12		Per Parameter 80											
20183	VIRTUAL DIGITAL INPUT 13		Per Parameter 80											
20184	VIRTUAL DIGITAL INPUT 14		Per Parameter 80											
20185	VIRTUAL DIGITAL INPUT 15		Per Parameter 80											
20186	VIRTUAL DIGITAL STATU												117	DI encoder count fault
20187	VIRTUAL DIGITAL AT START										FFFFH Max		118	AD encoder count fault
20188	VIRTUAL DIGITAL AT DISABLE										FFFFH Max		119	Encoder sim fault
20189	VIRTUAL DIGITAL RESET AT FAIL										FFFFH Max		120	Undervoltage fault
90-Digital outputs														
20200	DIGITAL OUTPUT 0 (pin 41)	0	Off	8	AD index (XE connec	15	Speed Thr delayed	102	Overcurrent	109	DSP progr err fault	123	Module Overtemp	
20201	DIGITAL OUTPUT 1 (pin 42)	1	Drive enabled	9	DI index (XFR connec	16	Curr Thr delayed	103	DC link OV	110	prg 16 kHz fault	127	Sequence fault	
20202	DIGITAL OUTPUT 2	3	Speed reached	10	Position error	17	Alarm warning	104	Heatsink	111	Invalid flash parms fault	128	Fast link fault	
20203	DIGITAL OUTPUT 3	4	Speed 0 thr	11	Fast link RX	18	Alarm coming	105	Overload	112	Bad flash fault	129	Position fault	
20204	DIGITAL OUTPUT 4	5	Current limit	12	UV active	19	80% Overload thr	106	feedback loss	113	Brake overtemp fault	131	External fault	
20205	DIGITAL OUTPUT 5	6	Current threshold	13	UV active	100	Drive fault	107	Motor overtemp	114	Power supply fault	1001	POS-0 pos	
20206	DIGITAL OUTPUT 6 (Pin 80,82)	7	Speed threshold	14	Speed not 0 thr	101	Bridge Short Circu	108	Aux power UV	116	Lock drive fault	1002	POS-Pos reached	
20254	DIG OUT NEG		Bitmap to negate a digital output								FFFFFFFFH max		1003	POS-Pos threshold
20207	DIGITAL OUTPUT 7 (pin 83,84)	R	Read Only								2	Drive OK		
20255	DIG OUT STATUS	R	Read Only									FFH Max		

91-Digital expansion outputs									
20250	EXPANSION DIGITAL OUTPUT 0		Per Parameter 90						
20251	EXPANSION DIGITAL OUTPUT 1		Per Parameter 90						
20252	EXPANSION DIGITAL OUTPUT 2		Per Parameter 90						
20253	EXPANSION DIGITAL OUTPUT 3		Per Parameter 90						
20256	EXPANSION DIGITAL OUTPUT STATUS	R	Read Only					FH Max	
92-Virtual digital outputs									
20270	VIRTUAL DIGITAL OUTPUT 0		Per Parameter 90						
20271	VIRTUAL DIGITAL OUTPUT 1		Per Parameter 90						
20272	VIRTUAL DIGITAL OUTPUT 2		Per Parameter 90						
20273	VIRTUAL DIGITAL OUTPUT 3		Per Parameter 90						
20274	VIRTUAL DIGITAL OUTPUT 4		Per Parameter 90						
20275	VIRTUAL DIGITAL OUTPUT 5		Per Parameter 90						
20276	VIRTUAL DIGITAL OUTPUT 6		Per Parameter 90						
20277	VIRTUAL DIGITAL OUTPUT 7		Per Parameter 90						
20278	VIRTUAL DIGITAL OUTPUT 8		Per Parameter 90						
20279	VIRTUAL DIGITAL OUTPUT 9		Per Parameter 90						
20280	VIRTUAL DIGITAL OUTPUT 10		Per Parameter 90						
20281	VIRTUAL DIGITAL OUTPUT 11		Per Parameter 90						
20282	VIRTUAL DIGITAL OUTPUT 12		Per Parameter 90						
20283	VIRTUAL DIGITAL OUTPUT 13		Per Parameter 90						
20284	VIRTUAL DIGITAL OUTPUT 14		Per Parameter 90						
20285	VIRTUAL DIGITAL OUTPUT 15		Per Parameter 90						
20289	VIRTUAL DIGITAL OUTPUT RESET AT FAIL	R	Read Only					FFFFH Max	
20290	VIRTUAL DIGITAL OUTPUT AT FAIL	R	Read Only					FFFFH Max	
20286	VIRTUAL DIGITAL OUTPUT STATUS	R	Read Only					FFFFH Max	
100-Analog inputs									
20300	ANALOG INPUT 0 (pin 1,2)	0	Off	7 Speed limit	14 Pos speed ref 0	21 Els Ratio (0)			
20301	ANALOG INPUT 1 (pin 3,4)	1	T Curr ref1	8 Jog set reference	15 Speed Threshold	22 Els Ratio (1)			
		2	T Curr ref2	9 T curr lim +	16 Curr Threshold	23 Els Ratio (2)			
		3	Speed ref1	10 T curr lim -	17 Multi speed 1	24 Els Ratio (3)			
		4	Speed ref2	11 T curr limit	18 Multi speed 2				
		5	Speed max pos	12 Max speed curr lim	19 Multi speed 4				
		6	Speed max neg	13 Pos speed	20 Els Rb Spd Ref				
101-Analog inputs 0									
20320	AN INPUT OFFSET 0		Enter value in % for offset, include sign			Default		0 V	
20330	AN INPUT ZPOS 0		Enter value in % for deadband +			Default		0 V	
20340	AN INPUT ZNEG 0		Enter value in % for deadband -			Default		0 V	
20350	AN INPUT SCALE 0		Enter multiplier to scale to full scale			Default		1	
20310	AN INPUT READ 0	R	Read Only					V	
20360	AN INPUT VALUE 0	R	Read Only					V	
102-Analog inputs 1									
20321	AN INPUT OFFSET 1		Enter value in % for offset, include sign			Default		0 V	
20331	AN INPUT ZPOS 1		Enter value in % for deadband +			Default		0 V	
20341	AN INPUT ZNEG 1		Enter value in % for deadband -			Default		0 V	
20351	AN INPUT SCALE 1		Enter multiplier to scale to full scale			Default		1	
20311	AN INPUT READ 1	R	Read Only					V	
20361	AN INPUT VALUE 1	R	Read Only					V	
110-Analog outputs									
20400	ANALOG OUTPUT 0 (21,22)	0	Off	5 Drive temperature	9 Position Error				
20401	ANALOG OUTPUT 1 (23,22)	1	Actual speed	6 Ramp output	10 Filtered actual speed				
20402	ANALOG OUTPUT 2	2	Motor current	7 +10V	11 Filtered actual current				
20403	ANALOG OUTPUT 3	4	Dc link voltage	8 -10V					
111-Analog outputs 0									
20420	AN OUTPUT SCALE 0		Enter multiplier to scale to full scale			Default		1	
20430	AN OUTP OFFSET 0		Enter value in % for offset, include sign			Default		0 V	
20410	AN OUTPUT WRITE 0	R	Read Only					V	
20440	AN OUTPUT VALUE 0	R	Read Only					V	

30155	POSITION PRESET 55		Use WinPX to set all Position Parameters			Default	0	u.u.		
30156	POSITION PRESET 56		Use WinPX to set all Position Parameters			Default	0	u.u.		
30157	POSITION PRESET 57		Use WinPX to set all Position Parameters			Default	0	u.u.		
30158	POSITION PRESET 58		Use WinPX to set all Position Parameters			Default	0	u.u.		
30159	POSITION PRESET 59		Use WinPX to set all Position Parameters			Default	0	u.u.		
30160	POSITION PRESET 60		Use WinPX to set all Position Parameters			Default	0	u.u.		
30161	POSITION PRESET 61		Use WinPX to set all Position Parameters			Default	0	u.u.		
30162	POSITION PRESET 62		Use WinPX to set all Position Parameters			Default	0	u.u.		
30163	POSITION PRESET 63		Use WinPX to set all Position Parameters			Default	0	u.u.		
172-Zero found config										
30020	POS ACC CW 0		Use WinPX to set all Position Parameters			Default	336	ms/krpm		
30021	POS ACC CCW 0		Use WinPX to set all Position Parameters			Default	336	ms/krpm		
30022	POS DEC CW 0		Use WinPX to set all Position Parameters			Default	336	ms/krpm		
30023	POS DEC CCW 0		Use WinPX to set all Position Parameters			Default	336	ms/krpm		
30024	POS SPEED MAX 0		Use WinPX to set all Position Parameters			Default	1500	rpm		
30025	POS SPEED REFERENCE 0		Use WinPX to set all Position Parameters			Default	10	%		
30027	POS SPEED FINE 0		Use WinPX to set all Position Parameters			Default	50	rpm		
30029	POS ZREV	R	Read Only			Default	0			
30030	POS ZPOS		Use WinPX to set all Position Parameters			Default	0			
30031	POS ZERO FOUND	R	Read Only			Default	0			
30035	POS ZREV OFFSET		Use WinPX to set all Position Parameters			Default	0			
173-Zero return config										
30026	POS SPEED RET 0		Use WinPX to set all Position Parameters			Default	1000	rpm		
30032	POS ACC RET 0		Use WinPX to set all Position Parameters			Default	336	ms/krpm		
30033	POS DEC RET 0		Use WinPX to set all Position Parameters			Default	336	ms/krpm		
30034	POS DSPEED RET 0		Use WinPX to set all Position Parameters			Default	50	rpm		
180-Electrical Line Shaft										
19113	ELS POSTION ERROR	R	Read Only, Actual Lineshaft error, degrees							
32000	ELS PULS REV MAST		Pulses per rev of master Els source			Default	2048			
32008	ELS DELTA TIME		Minimum time between ratio changes in sec			Default	1	seconds		
32009	ELS MASTER SEL		Selection of 0=encoder, 1=fastlink for Els master source			Default	encoder			
32014	ELS DELTA RATIO		ramp rate for ratio change in units per 8 ms			Default	1			
32020	ELS SLIP		selection of ratio or slip (inverse ratio) 0=slip, 1=ratio			Default	slip			
181-Elect L Shaft Ratio										
32001	Els Ratio (0)					Default	1			
32002	Els Ratio (1)					Default	1			
32003	Els Ratio (2)					Default	1			
32004	Els Ratio (3)					Default	1			
32006	ELS RATIO INDEX					Default	0			
32007	ELS RATIO SERIAL		0, Digital input 1, Parameter			Default	Dig input			
32005	ELS ACTUAL RATIO					Default	1			
182-Elect L Shaft R bend										
32100	ELS RECOVERY SPEED BEND MAX SPEED					Default	1000	rpm		
32101	ELS RECOVERY TIME					Default	500	Seconds		
32102	ELS RECOVERY ACCELERATION DELTA					Default	1	rpm		
32103	ELS RECOVERY DECELERATION DELTA					Default	1	rpm		
32104	ELS RECOVERY SPEED REFERANCE					Default	10	%		

201-Braking Unit												
18105	SYS_BRAKE_OVERLOAD_ENABLE			0, disable 1, enable	Overload control				default	enable		
18109	SYS_R_BRAKE			Brake resistor value				default		0 ohms		
18107	SYS_P_BRAKE_NOM			Nominal power of brake resistor				default		0 Kw		
18106	SYS_BRAKE_OVERLOAD_TIME			Brake overload time at (peak power)				default		0 seconds		
18412	BRAKE_OVERLOAD_FACTOR			Brake resistor overload factor				default		0 %		
202-Digital Output Reset												
20005	SYS_DO_RESET_AT_FAIL			Bitmap for Digital output set at fault, in Hex, see manual				default		0H		
20006	SYS_DO_SET_AT_FAIL			Bitmap for Digital output reset at fault, in Hex, see manual				default		0H		
203-Reserved												
18111	SYS_DI_ENC_MODE			DI Encoder mode 0,fourfold 1, A up B dir 2, A up B down				default		fourfold		
18112	SYS_DI_ENC_FILT			DI Filter constant				default		3		
18113	SYS_AD_ENC_FILTER			AD Filter constant				default		4		
18115	SYS_SPL_FILT			Speed loop output cp filter time constant				default		4096		
18116	SYS_AN_FILT			AN filter time constant				default		4096		
210-Service												
18108	DRIVE_MAX_POS_ERROR			Maximum position error								
20055	TESTING_VERSION	R	Read Only									
20056	MEMORY_ID	R	Read Only									
23003	GAIN_ACC			Acceleration gain				default		0		
32090	RATIO_RANGE			Sets max range of ratio setting, set low as possible				default		8		
32200	DRIVE_MAX_POS_ERROR_AO			Scales Analog output max value for position error				default		10000		
18131	SYS_CSTH_P_FAK			Coast through proportional gain				default		500		
18132	SYS_CSTH_I_FAK			coast through integral gain				default		500		
211-Serv. phasing												
20057	ENCODER_OFFSET			Set during Encoder(resolver) phasing test set up				default		0		
20058	ENCODER_ABS_TRACK_OFFSET			Used only for absolute encoder with separate index				default		0		
212-Serv test generator												
20060	Test Generator reference			Current reference				default		curr ref		
20061	Test Generator period			Test Generator period				default		16 ms		
20062	Test Generator high Reference current			Test Generator high Reference current				default		1 Arms		
20063	Test Generator low reference current			Test Generator low reference current				default		2 Arms		
213-Serv. encoder												
18126	SYS_DTRES			Resolver Sampling shift time, set in 33ns intervals				default		580		
20013	ENCODER_MAX_ERROR			0 = disabled, 16384 = one revolution				default		0		
20014	ENCODER_MAX_SPD_CCW			0=disabled, 1684=one revolution per 8 ms				default		0		
20015	ENCODER_MAX_SPD_CW			0=disabled, 1684=one revolution per 8 ms				default		0		
20016	ENCODER_LAST_ERROR_CAUSE			leave as set, no index cause				default		6		
20017	ENCODER_INC_ENABLE			0=disabled, 1=enabled for encoder to control current regulator				default		1		
20018	ENCODER_N_CYCLE			number of no task cycles to enable errors				default		0		
20028	ENCODER_NO_INDEX_RANGE			number of pulses to wait until no index error				default		0		
20029	ENCODER_INDEX_RANGE			number of pulses to accept as index near index				default		2		
214-Serv. counter												
20045	TOTAL_POWER_ON_TIME	R	Read Only	Life hours at last power on						hour		
20046	ACTUAL_TIME	R	Read Only	Hours from last power on						hour		
20047	POWER_FAILURE_COUNTER	R	Read Only	POWER FAILURE COUNTER								
20048	SAVE_PARAMETER_COUNTER	R	Read Only	SAVE PARAMETER COUNTER								
20049	SOFTWARE_RESET_COUNTER	R	Read Only	SOFTWARE RESET COUNTER								
215-Serv. AD encoder												
19002	AD_POSITION	R	Read Only	Actual AD incremental position, xe port						mech deg		
19003	AD_REVOLUTIONS	R	Read Only	Actual AD incremental revolutions, xe port								
19004	AD_PULSES	R	Read Only	AD incremental pulses/revolution, xe port								
19096	AD_INDEX	R	Read Only	Actual AD index position, xe port						mech deg		
216-Serv. AN encoder												
19017	AN_POSITION	R	Read Only	Actual AN absolute position, xe port						mech deg		
19018	AN_REVOLUTIONS	R	Read Only	Actual AN absolute revolutions, xe port								

217-Serv. DI encoder										
19011	DI_POSITION	R	Read Only	Actual DI incremental position, xfr port						mech deg
19012	DI_REVOLUTIONS	R	Read Only	Actual DI incremental revolutions, xfr port						
19013	DI_PULSES	R	Read Only	DI incremental pulses/revolution, xfr port						
19095	DI_INDEX	R	Read Only	Actual DI index position, xfr port						mech deg
218-Serv. HA encoder										
19022	HA_POSITION	R	Read Only	Actual hall absolute position, xe port						elec deg
19026	HA_REVOLUTIONS	R	Read Only	Actual hall absolute revolutions, xe port						
219-Serv. FL encoder										
29103	FL REVOLUTIONS RX	R	Read Only	Actual FL incremental revolutions, fast link rx						
29104	FL POSITION RX	R	Read Only	Actual FL incremental position, fast link rx						
29105	FL STATUS	R	Read Only	Actual FL status						
29106	FL REVOLUTIONS TX	R	Read Only	Actual FL incremental revolutions, fast link tx						
29107	FL POSITION TX	R	Read Only	Actual FL incremental position, fast link tx						
Serv. Debug										
	set at Factory									
29200	debugl32_1							default	0	
29201	debugl32_2							default	0	
29202	debugl32_3							default	0	
29203	debugl16_1							default	0	
29204	debugl16_2							default	0	
29205	debugl16_3							default	0	
19035	CT_RHO	R	Read Only					default		ele deg
19036	CT_SIN_RHO	R	Read Only					default		
19037	CT_COS_RHO	R	Read Only					default		
20097	SITm	R	Read Only	actual slow task time				default		us
20098	SITmMx	R	Read Only	Maxium slow task time				default		us
29200	debugl32_1	R	Read Only					default	0000000H	
29201	debugl32_2	R	Read Only					default	0000000H	
29202	debugl32_3	R	Read Only					default	0000000H	
29203	debugl16_1	R	Read Only					default	0000H	
29204	debugl16_2	R	Read Only					default	0000H	
29205	debugl16_3	R	Read Only					default	0000H	
230-EB (expansion board)										
40000	EB enable			Type of expansion board 0,off 1,on				default	off	
40100	EB address			address of expansion board				default	0	
40110	EB CC enable			Enable CC 0, off 1, on				default	on	
40111	EB HS enable			Enable HS channel 0, off 1, on				default	on	
40105	EB major fw version	R	Read Only	major frmware version of EB card						
40106	EB minor fw version	R	Read Only	minor firmware version of EB board						
40107	EB compatibility index	R	Read Only	Hardware and software compatibility index of EB card						
40108	EB num byte m->s	R	Read Only	Number of bytes received in the HS channel						
40109	EB num byte s->m	R	Read Only	Number of bytes Transmitted in the HS channel						
40113	EB status	R	Read Only	Actual status of EB card						
40114	EB fail cause	R	Read Only	Failure cause of EB card						
231-EB 1st M->S parameter										
40200	EB ipa			parameter index to write into AXV with HS ch				default	0	
40210	EB format			Format of parameter to write into AXV				default	16	bit integral
40220	EB expansion			Power of 10 used to multi to par values to write				default	0	
232-EB 2nd M->S parameter										
40201	EB ipa			parameter index to write into AXV with HS ch				default	0	
40211	EB format			Format of parameter to write into AXV				default	16	bit integral
40221	EB expansion			Power of 10 used to multi to par values to write				default	0	
233-EB 3rd M->S parameter										
40202	EB ipa			parameter index to write into AXV with HS ch				default	0	
40212	EB format			Format of parameter to write into AXV				default	16	bit integral
40222	EB expansion			Power of 10 used to multi to par values to write				default	0	

