

CPU-2000 Modbus Analog Registers

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;*****
;***  ANALOG REGISTERS DATA TABLE  ***
;***      adjust comm mode of cpu2000 under setup screens  ***
;***      port configurations (none,8,1)(even,8,1)(odd,8,1)  ***
;***      baudrates 300,600,1200,2400,4800,9600,19200,38400  ***
;***  ***
;***  READ  FUNCTION  3 SUPPORTS READ OF REG 30001-30256  ***
;***  READ  FUNCTION  4 SUPPORTS READ OF REG 30001-30256  ***
;***  WRITE FUNCTION  6 IS SUPPORTED FOR SPECIFIC REG'S 40xxx  ***
;***  WRITE FUNCTION 16 IS SUPPORTED FOR SPECIFIC REG'S 40xxx  ***
;***  ***
;***  256 MODBUS 16BIT REGISTERS ARE PROVIDED BY THIS STRUCTURE  ***
;***  BUFFER LENGTH PERMITS UPTO 32 REGISTERS IN A SINGLE READ  ***
;***  ***
;***  READ  FUNCTIONS 3&4 ALSO SUPPORT DIRECT MEMORY READS  ***
;***      example 0B000h - 0B0FFh = APPLICATION COMMENTS TEXT  ***
;***  ***
;*****
ANALOG_TBL:                                ;REGISTER
; ; ;      "123456789012345678901234567890"
DW  DSP_RPMH      ,DSP_RPML      ;#30001="ENGINE RPM      1RPM/BIT      "
DW  0FF00H      ,MAX_RPM5      ;#30002="MAX SEEN RPM 5RPM/BIT      "
DW  0FF00H      ,DSP_OVSPDRPM    ;#30003="ENGINE OVERSPEED SETTING 5/BIT"
DW  ACT_GTH      ,ACT_GTL      ;#30004="FAULT GEAR TEETH 0.25/BIT  "
DW  0FF00H      ,DSP_AD0      ;#30005="4-20 ANALOG INPUT 0.10ma/bit  "
DW  DEGSCALEH    ,DEGSCALEL    ;#30006="COUNTS TO DEGREES SCALER  "
DW  DSP_BTDC      ,DSP_BTDC      ;#30007="GLOGAL  TIMING DISPLAY VALUE  "
DW  0FF00H+000   ,DSP_MANRET     ;#30008="MANUAL  RETARD SETTING      "
DW  0FF00H+000   ,DSP_ONESTEP    ;#30009="ONESTEP RETARD SETTING      "
DW  0FF00H+000   ,DSP_MAPRET     ;#30010="ANALOG  RETARD FROM TABLE  "
DW  0FF00H+000   ,DSP_RPMRET     ;#30011="RPM      RETARD FROM TABLE  "
DW  0FF00H+000   ,DSP_SERRET     ;#30012="SERIAL  RETARD FROM REMOTE   "
DW  0FF00H+000   ,DSP_MAXOFFSET  ;#30013="MAX INDIVIDUAL OFFSET       "
DW  0FF00H+000   ,DSP_STDOFFSET  ;#30014="STANDARD INDIVIDUAL OFFSET  "
DW  DSP_REFANGH   ,DSP_REFANGL   ;#30015="REFERENCE ANGLE OF RESET PIN "
DW  0FF00H+000   ,DSP_NUMCYL     ;#30016="NUMBER OF CYLINDERS         "
DW  0FF00H+000   ,DSP_ENG_FILT    ;#30017="ENGINE AVERAGE DIAG        "
DW  0FF00H+000   ,DSP_BNKB_FILT   ;#30018="ENGINE AVERAGE DIAG BANK B "
DW  0FF00H+000   ,DSP_THRESH_2    ;#30019="LO SPARK DIAG  THRESHOLD    "
DW  0FF00H+000   ,DSP_THRESH_3    ;#30020="HI SPARK DIAG  THRESHOLD    "
DW  0FF00H+000   ,DSP_THRESH_4    ;#30021="NO SPARK DIAG  THRESHOLD    "
DW  0FF00H+000   ,DSP_THRESH_5    ;#30022="LO FROM ENGINE THRESHOLD    "
DW  0FF00H+000   ,DSP_THRESH_6    ;#30023="HI FROM ENGINE THRESHOLD    "
DW  0FF00H+000   ,DSP_THRESH_7    ;#30024="HI VARIATION THRESHOLD      "
DW  0FF00H+000   ,DSP_THRESH_8    ;#30025="E2  ENABLE THRESHOLD        "
DW  0FF00H+000   ,DSP_THRESH_9    ;#30026="E2  DISABLE HYSTERISIS      "
DW  0FF00H+000   ,DSP_THRESH_10   ;#30027="E3  ENABLE THRESHOLD        "
DW  0FF00H+000   ,DSP_THRESH_11   ;#30028="E3  DISABLE HYSTERISIS      "
DW  0FF00H+000   ,DSP_THRESH_12   ;#30029="LO SPARK BANKB THRESHOLD    "
DW  0FF00H+000   ,DSP_THRESH_13   ;#30030="HI SPARK BANKB THRESHOLD    "
DW  0FF00H+000   ,DSP_THRESH_14   ;#30031="LO FROM ENG B THRESHOLD     "
DW  0FF00H+000   ,DSP_THRESH_15   ;#30032="HI FROM ENG B THRESHOLD     "
; ; ;      "123456789012345678901234567890"
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CPU-2000 Modbus Analog Registers

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;*** THE BELOW REGISTERS REPRESENT THE INDIVIDUAL CYLINDER TIMING DATA ***
;*** THEY CAN BE CONVERTED TO DEGREES AS DESCRIBED HERE ***
;*****
;*** EXAMPLE:  neg result=retard offset : pos result=advance offset ***
;***  offset(cylA) = ( REG(30014) - REG(30033) ) * REG(30006) / 2560 ***
;*****
;*** REG(33-64) HOLD THE INDIVIDUAL OFFSET DATA VALUES ***
;*** A VALUE OF (0) REPRESENTS MAX ADVANCE (TYPICAL 3 DEG) ***
***
;*** REG(30013) HOLDS THE STANDARD INDIVIDUAL OFFSET COUNTS ***
;*** REG(30012) HOLDS THE MAX INDIVIDUAL OFFSET COUNTS ***
;*** REG(30005) HOLDS THE CONVERSION CONSTANT FOR DEGREES ***
;*****
DW 0FF00H+000 ,INDIVIDUAL+0 ;#30033="CYL TIMING OFFSET (A or A1) "
DW 0FF00H+000 ,INDIVIDUAL+1 ;#30034="CYL TIMING OFFSET (B or A2) "
DW 0FF00H+000 ,INDIVIDUAL+2 ;#30035="CYL TIMING OFFSET (C or B1) "
DW 0FF00H+000 ,INDIVIDUAL+3 ;#30036="CYL TIMING OFFSET (D or B2) "
DW 0FF00H+000 ,INDIVIDUAL+4 ;#30037="CYL TIMING OFFSET (E or C1) "
DW 0FF00H+000 ,INDIVIDUAL+5 ;#30038="CYL TIMING OFFSET (F or C2) "
DW 0FF00H+000 ,INDIVIDUAL+6 ;#30039="CYL TIMING OFFSET (G or D1) "
DW 0FF00H+000 ,INDIVIDUAL+7 ;#30040="CYL TIMING OFFSET (H or D2) "
DW 0FF00H+000 ,INDIVIDUAL+8 ;#30041="CYL TIMING OFFSET (J or E1) "
DW 0FF00H+000 ,INDIVIDUAL+9 ;#30042="CYL TIMING OFFSET (K or E2) "
DW 0FF00H+000 ,INDIVIDUAL+10 ;#30043="CYL TIMING OFFSET (L or F1) "
DW 0FF00H+000 ,INDIVIDUAL+11 ;#30044="CYL TIMING OFFSET (M or F2) "
DW 0FF00H+000 ,INDIVIDUAL+12 ;#30045="CYL TIMING OFFSET (R or G1) "
DW 0FF00H+000 ,INDIVIDUAL+13 ;#30046="CYL TIMING OFFSET (S or G2) "
DW 0FF00H+000 ,INDIVIDUAL+14 ;#30047="CYL TIMING OFFSET (T or H1) "
DW 0FF00H+000 ,INDIVIDUAL+15 ;#30048="CYL TIMING OFFSET (Y or H2) "
DW 0FF00H+000 ,INDIVIDUAL+16 ;#30049="CYL TIMING OFFSET ( J1) "
DW 0FF00H+000 ,INDIVIDUAL+17 ;#30050="CYL TIMING OFFSET ( J2) "
DW 0FF00H+000 ,INDIVIDUAL+18 ;#30051="CYL TIMING OFFSET ( K1) "
DW 0FF00H+000 ,INDIVIDUAL+19 ;#30052="CYL TIMING OFFSET ( K2) "
DW 0FF00H+000 ,INDIVIDUAL+20 ;#30053="CYL TIMING OFFSET ( L1) "
DW 0FF00H+000 ,INDIVIDUAL+21 ;#30054="CYL TIMING OFFSET ( L2) "
DW 0FF00H+000 ,INDIVIDUAL+22 ;#30055="CYL TIMING OFFSET ( M1) "
DW 0FF00H+000 ,INDIVIDUAL+23 ;#30056="CYL TIMING OFFSET ( M2) "
DW 0FF00H+000 ,INDIVIDUAL+24 ;#30057="CYL TIMING OFFSET ( R1) "
DW 0FF00H+000 ,INDIVIDUAL+25 ;#30058="CYL TIMING OFFSET ( R2) "
DW 0FF00H+000 ,INDIVIDUAL+26 ;#30059="CYL TIMING OFFSET ( S1) "
DW 0FF00H+000 ,INDIVIDUAL+27 ;#30060="CYL TIMING OFFSET ( S2) "
DW 0FF00H+000 ,INDIVIDUAL+28 ;#30061="CYL TIMING OFFSET ( T1) "
DW 0FF00H+000 ,INDIVIDUAL+29 ;#30062="CYL TIMING OFFSET ( T2) "
DW 0FF00H+000 ,INDIVIDUAL+30 ;#30063="CYL TIMING OFFSET ( U1) "
DW 0FF00H+000 ,INDIVIDUAL+31 ;#30064="CYL TIMING OFFSET ( U2) "

;*****
;*** NOTE THE FOLLOWING 32 REGISTERS ARE READ ONLY ***
;*** THESE ARE THE EEPROM DEFAULT TIMING OFFSETS ***
;*** A KEYCMD CAN BE EXECUTED COPY INDIVIDUAL TO DEFAULT ARRAY ***
;*** A KEYCMD CAN BE EXECUTED TO RESET THIS ARRAY TO 0 OFFSET ***
;*****
DW 0FF00H+000 ,EEUINDV+0 ;#30065="DEFAULT OFFSET (A or A1) "
DW 0FF00H+000 ,EEUINDV+1 ;#30066="DEFAULT OFFSET (B or A2) "
DW 0FF00H+000 ,EEUINDV+2 ;#30067="DEFAULT OFFSET (C or B1) "

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CPU-2000 Modbus Analog Registers

DW	0FF00H+000	,EEUINDV+3	;	#30068="DEFAULT	OFFSET	(D or B2)	"
DW	0FF00H+000	,EEUINDV+4	;	#30069="DEFAULT	OFFSET	(E or C1)	"
DW	0FF00H+000	,EEUINDV+5	;	#30070="DEFAULT	OFFSET	(F or C2)	"
DW	0FF00H+000	,EEUINDV+6	;	#30071="DEFAULT	OFFSET	(G or D1)	"
DW	0FF00H+000	,EEUINDV+7	;	#30072="DEFAULT	OFFSET	(H or D2)	"
DW	0FF00H+000	,EEUINDV+8	;	#30073="DEFAULT	OFFSET	(J or E1)	"
DW	0FF00H+000	,EEUINDV+9	;	#30074="DEFAULT	OFFSET	(K or E2)	"
DW	0FF00H+000	,EEUINDV+10	;	#30075="DEFAULT	OFFSET	(L or F1)	"
DW	0FF00H+000	,EEUINDV+11	;	#30076="DEFAULT	OFFSET	(M or F2)	"
DW	0FF00H+000	,EEUINDV+12	;	#30077="DEFAULT	OFFSET	(R or G1)	"
DW	0FF00H+000	,EEUINDV+13	;	#30078="DEFAULT	OFFSET	(S or G2)	"
DW	0FF00H+000	,EEUINDV+14	;	#30079="DEFAULT	OFFSET	(T or H1)	"
DW	0FF00H+000	,EEUINDV+15	;	#30080="DEFAULT	OFFSET	(H2)	"
DW	0FF00H+000	,EEUINDV+16	;	#30081="DEFAULT	OFFSET	(J1)	"
DW	0FF00H+000	,EEUINDV+17	;	#30082="DEFAULT	OFFSET	(J2)	"
DW	0FF00H+000	,EEUINDV+18	;	#30083="DEFAULT	OFFSET	(K1)	"
DW	0FF00H+000	,EEUINDV+19	;	#30084="DEFAULT	OFFSET	(K2)	"
DW	0FF00H+000	,EEUINDV+20	;	#30085="DEFAULT	OFFSET	(L1)	"
DW	0FF00H+000	,EEUINDV+21	;	#30086="DEFAULT	OFFSET	(L2)	"
DW	0FF00H+000	,EEUINDV+22	;	#30087="DEFAULT	OFFSET	(M1)	"
DW	0FF00H+000	,EEUINDV+23	;	#30088="DEFAULT	OFFSET	(M2)	"
DW	0FF00H+000	,EEUINDV+24	;	#30089="DEFAULT	OFFSET	(R1)	"
DW	0FF00H+000	,EEUINDV+25	;	#30090="DEFAULT	OFFSET	(R2)	"
DW	0FF00H+000	,EEUINDV+26	;	#30091="DEFAULT	OFFSET	(S1)	"
DW	0FF00H+000	,EEUINDV+27	;	#30092="DEFAULT	OFFSET	(S2)	"
DW	0FF00H+000	,EEUINDV+28	;	#30093="DEFAULT	OFFSET	(T1)	"
DW	0FF00H+000	,EEUINDV+29	;	#30094="DEFAULT	OFFSET	(T2)	"
DW	0FF00H+000	,EEUINDV+30	;	#30095="DEFAULT	OFFSET	(U1)	"
DW	0FF00H+000	,EEUINDV+31	;	#30096="DEFAULT	OFFSET	(U2)	"
;*****							
;*** NOTE THE FOLLOWING 32 REGISTERS ARE READ ONLY ***							
;*** THESE ARE THE CYLINDER AVERAGE DIAGNOSTIC VALUES ***							
;*****							
DW	0FF00H+000	,DSP_DIAG_FILT+0	;	#30097="CAVG	(A or A1)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+1	;	#30098="CAVG	(B or A2)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+2	;	#30099="CAVG	(C or B1)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+3	;	#30100="CAVG	(D or B2)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+4	;	#30101="CAVG	(E or C1)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+5	;	#30102="CAVG	(F or C2)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+6	;	#30103="CAVG	(G or D1)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+7	;	#30104="CAVG	(H or D2)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+8	;	#30105="CAVG	(J or E1)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+9	;	#30106="CAVG	(K or E2)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+10	;	#30107="CAVG	(L or F1)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+11	;	#30108="CAVG	(M or F2)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+12	;	#30109="CAVG	(R or G1)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+13	;	#30110="CAVG	(S or G2)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+14	;	#30111="CAVG	(T or H1)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+15	;	#30112="CAVG	(U or H2)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+16	;	#30113="CAVG	(J1)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+17	;	#30114="CAVG	(J2)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+18	;	#30115="CAVG	(K1)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+19	;	#30116="CAVG	(K2)	"	
DW	0FF00H+000	,DSP_DIAG_FILT+20	;	#30117="CAVG	(L1)	"	

CPU-2000 Modbus Analog Registers

DW	0FF00H+000,DSP_DIAG_FILT+21	;#30118="CAVG (L2)	"
DW	0FF00H+000,DSP_DIAG_FILT+22	;#30119="CAVG (M1)	"
DW	0FF00H+000,DSP_DIAG_FILT+23	;#30120="CAVG (M2)	"
DW	0FF00H+000,DSP_DIAG_FILT+24	;#30121="CAVG (R1)	"
DW	0FF00H+000,DSP_DIAG_FILT+25	;#30122="CAVG (R2)	"
DW	0FF00H+000,DSP_DIAG_FILT+26	;#30123="CAVG (S1)	"
DW	0FF00H+000,DSP_D			