

# Application **STATOP 4860**

## Programmation ModBus

Cette notice a pour objectif de permettre au développeur de l'application de supervision d'identifier facilement les données qui peuvent être échangées entre un maître et son esclave sous protocole ModBus.

■ Dans ce tableau, chaque paramètre est caractérisé par :

- Nom
- Adresse accessible dans la zone mémoire
- Description du paramètre
- Les possibilités de lecture et/ou écriture
- Ses valeurs limites dans l'unité
- Sa valeur par défaut
- Ses valeurs limites en numérique
- Son unité

Parameter Notation	Register Address	Parameter description Set point 1	Data Type	Range		Default Value	Scale		Unit
				Low	High		Low	High	
SP1	0		R/W	SP1L	SP1H	100.0°C	-19999	45536	Minute
TIME	1	Dwell time	R/W	0	6553.5	0.0	0	65535	%
A1SP	2	Alarm 1 set point	R/W	-200.0°C	200.0°C	100.0°C	-19999	45536	-
A1DV	3	Alarm 1 deviation value	R/W	-200.0°C	200.0°C	10.0°C	-19999	45536	PV1
A2SP	4	Alarm 2 set point	R/W	0	500.0°C	100.0°C	-19999	45536	PV
A2DV	5	Alarm 2 deviation value	R/W	0	100.0	10.0°C	-19999	45536	Sec
RAMP	6	Ramp Rate	R/W	0	60	0.0	0	65535	Sec
OFST	7	Offset value for P control	R/W	-200.0°C	200.0°C	25.0	0	65535	% of PB
REFC	8	Reference constant for specific function	R/W	0	500.0°C	2	0	65535	PV
SHIF	9	PV1 shift (offset) value	R/W	0	1000	0.0	-19999	45536	PV
PB1	10	Proportional band 1 value	R/W	0	360.0	10.0°C	0	65535	Sec
TI1	11	Integral time 1 value	R/W	1	255	100	0	65535	Sec
TD1	12	Derivative time 1 value	R/W	0	500.0°C	25.0	0	65535	PV
CPB	13	Cooling proportional band value	R/W	0	1000	100	0	65535	*E1
	14								
SP2	15	Set point 2	R/W	0	360.0	37.8°C	-19999	45536	*E2
PB2	16	Proportional band 2 value	R/W	0.1	55.6°C	10.0°C	0	65535	%
TI2	17	Integral time 2 value	R/W	0.1	10.0°C	100	0	65535	%
TD2	18	Derivative time 2 value	R/W	0.1	10.0°C	25.0	0	65535	-
O1HY	19	Output 1 ON-OFF control hysteresis	R/W	0	100	0.1	0	65535	-
A1HY	20	Hysteresis control of alarm 1	R/W	0	100	0.1	0	65535	-
A2HY	21	Hysteresis control of alarm 2	R/W	0	1	0.1	0	65535	-
PL1	22	Output 1 power limit	R/W	0	8	100	0	655.35	-
PL2	23	Output 2 power limit	R/W	0	0	100	0	65535	-
FUNC	24	Function complexity level	R/W	1	255	1	0	65535	-
COMM	25	Communication interface type	R	0	9	1	0	65535	-
PROT	26	COMM protocol selection	R	0	1	0	0	65535	-
ADDR	27	Address assignment of digital COMM	R	0	2	-	0	65535	*E4
BAUD	28	Baud rate of digital COMM	R	0	1	5	0	65535	*E4
DATA	29	Data Bit count of digital COMM	R	0	7	1	0	65535	-
PARI	30	Parity bit of digital COMM	R	-19999	45536	0	0	35535	-
STOP	31	Stop bit count of digital COMM	R	-19999	45536	0	0	65535	-
AOFN	32	Analog output function	R/W	0	17	0	0	65535	*ES
AOLO	33	Analog output low scale value	R/W	*B13	*B13	0°C	-19999	45536	*ES
AOHI	34	Analog output high scale value	R/W	0	2	100.0°C	-19999	45536	Unit
IN1	35	IN1 sensor type selection	R/W	*B14	*B14	1	0	65535	PV
IN1U	36	IN1 unit selection	R/W	0	3	0	0	65535	Minute
DP1	37	IN1 decimal point selection	R/W	-19999	45536	(1)	0	65535	%
IN1L	38	IN1 low scale value	R/W	-19999	45536	1	-19999	45536	-
IN1H	39	IN 1 High scale value	R/W	Range	Range	0	-19999	45536	PV1

Parameter Notation	Register Address	Parameter description	Data *A Type	Range *B		Default *C Value	Scale *D		*E Unit
				Low	High		Low	High	
SP1L	40	SP1 low scale value	R/W	-19999	45536	0°C	-19999	45536	PV
SP1H	41	SP1 High scale value	R/W	-19999	45536	(32.0°F)	-19999	45536	PV
IN2	42	IN2 signal type selection	R/W	*B15 0	*B15 20	1000.0°C	0	65535	-
IN2U	43	IN2 unit selection	R/W	*B13 0	*B13 2	(1832.0°F)	0	65535	-
DP2	44	IN2 decimal point selection	R/W	*B14 0	*B14 3	1	0	65535	-
IN2L	45	IN2 low scale value	R/W	-19999	45536	2	-19999	45536	*E6
IN2H	46	IN2 high scale value	R/W	-19999	45536	1	-19999	45536	*E6
DISF	47	Display format selection for BTC-2500	R/W	*B21 0	*B21 1	0	0	65535	-
EIFN	48	Event input function	R/W	*B16 0	*B16 9	1000	0	65535	-
OUT1	49	Output 1 function	R/W	*B17 0	*B17 1	0	0	65535	-
01TY	50	Output 1 signal type	R/W	*B18 0	*B18 8	1	0	65535	-
CYC1	51	Output 1 cycle time	R/W	0.1	100.0	0	0	65535	Sec
01FT	52	Output 1 failure transfer mode	R/W	*B19 -1	*B19 100.0	0	-19999	45536	%
OUT2	53	Output 2 function	R/W	*B20 0	*B20 3	18.0	0	65535	-
02TY	54	Output 2 signal type	R/W	*B18 0	*B18 8	-1	0	65535	-
CYC2	55	Output 2 cycle time	R/W	0.1	100.0	2	0	65535	Sec
02FT	56	Output 2 failure transfer mode	R/W	*B19 -1	*B19 100.0	0	-19999	45538	%
A1FN	57	Alarm 1 function	R/W	*B22 0	*B22 15	18.0	0	65535	-
A1MD	58	Alarm 1 operation mode	R/W	*B23 0	*B23 3	-1	0	65535	-
A1FT	59	Alarm 1 failure transfer mode	R/W	*B24 0	*B24 1	2	0	65535	-
A2FN	60	Alarm 2 function	R/W	*B22 0	*B22 15	0	0	65535	-
A2MD	61	Alarm 2 operation mode	R/W	*B23 0	*B23 3	1	0	65535	-
A2FT	62	Alarm 2 failure transfer mode	R/W	*B24 0	*B24 1	2	0	65535	-
SELF	63	Self tune function selection	R/W	*B25 0	*B25 1	0	0	65535	-
SLEP	64	Sleep mode function selection	R/W	*B26 0	*B26 1	1	0	65535	-
PVMD	65	PV mode selection	R/W	*B27 0	*B27 3	0	0	65535	-
SP2F	66	Format of set point 2 value	R/W	*B28 0	*B28 1	0	0	65535	-
FILT	67	Filter damping time constant of PV	R/W	*B29 0	*B29 9	0	0	65535	-
SPMD	68	Set point mode selection	R/W	*B30 0	*B30 5	0	0	65535	-
SEL1	69	Select 1'st parameter	R/W	*B31 0	*B31 18	2	0	65535	-
SEL2	70	Select 2'nd parameter	R/W	*B31 0	*B31 18	0	0	65535	-
SEL3	71	Select 3'rd parameter	R/W	*B31 0	*B31 18	0	0	65535	-
SEL4	72	Select 4'th parameter	R/W	*B31 0	*B31 18	0	0	65535	-
SEL5	73	Select 5'th parameter	R/W	*B31 0	*B31 18	0	0	65535	-
	74								
	75								
DRIF	76	Warm-up drift calibration factor	R/W	-5.0°C		-	-19999	45536	°C
ADO	77	A to D zero calibration coefficient	R/W	-360		-	-19999	45536	-
ADG	78	A to D gain calibration coefficient	R/W	-199.9		-	-19999	45536	-
V1G	79	Voltage input 1 gain calibration coefficient	R/W	-199.9		-	-19999	45536	-

Parameter Notation	Register Address	Parameter description	Data *A Type	Range *B		C* default	Scale*D		*E Unit
				Low	High	Value	Low	High	
CJTL	80	Cold junction low temperature calibration coefficient	R/W	-5.00	40.00	-	-19999	45536	C°
CJG	81	Cold junction gain calibration coefficient	R/W	-199.9	199.9	-	-19999	45536	-
REF1	82	Reference voltage 1 calibration coefficient for RTD1	R/W	-199.9	199.9	-	-19999	45536	-
SR1	83	Serial resistance 1 calibration coefficient for RTD1	R/W	-199.9	199.9	-	-19999	45536	-
MA1G	84	MA input 1 gain calibration coefficient	R/W	-199.9	199.9	-	-19999	45536	-
REF2	85	Reference voltage 2 calibration coefficient for RTD2	R/W	-199.9	199.9	-	-19999	45536	-
SR2	86	Serial resistance 2 calibration coefficient for RTD 2	R/W	-199.9	199.9	-	-19999	45536	-
V2G	87	Voltage input 2 gain calibration coefficient	R/W	-199.9	199.9	-	-19999	45536	-
MA2G	88	MA input 2 gain calibration coefficient	R/W	199.9	199.9	-	-19999	45536	-
O2L	89	Output 2 low calibration coefficient	R/W	0	360.0	-	0	65535	-
O2H	90	Output 2 high calibration coefficient	R/W	0	900.0	-	0	65535	-
S1G1	91	Point 1 signal value of special sensor	R/W	-19999	45536	-	-19999	45536	*E8
IND1	92	Point 1 indication value of special sensor	R/W	-19999	45536	-	-19999	45536	PV
SIG2	93	Point 2 signal value of special sensor	R/W	-19999	45536	-	-19999	45536	*E8
IND2	94	Point 2 indication value of special sensor	R/W	-19999	45536	-	-19999	45536	PV
SIG3	95	Point 3 signal value of special sensor	R/W	-19999	45536	-	-19999	45536	*E8
IND3	96	Point 3 indication value of special sensor	R/W	-19999	45536	-	-19999	45536	PV
SIG4	97	Point 4 signal value of special sensor	R/W	-19999	45536	-	-19999	45536	*E8
IND4	98	Point 4 indication value of special sensor	R/W	-19999	45536	-	-19999	45536	PV
SIG5	99	Point 5 signal value of special sensor	R/W	-19999	45536	-	-19999	45536	*E8
IND5	100	Point 5 indication value of special sensor	R/W	-19999	45536	-	-19999	45536	PV
SIG6	101	Point 6 signal value of special sensor	R/W	-19999	45536	-	-19999	45536	*E8
IND6	102	Point 6 indication value of special sensor	R/W	-19999	45536	-	-19999	45536	PV
SIG7	103	Point 7 signal value of special sensor	R/W	-19999	45536	-	-19999	45536	*E8
IND7	104	Point 7 indication value of special sensor	R/W	-19999	45536	-	-19999	45536	PV
SIG8	105	Point 8 signal value of special sensor	R/W	-19999	45536	-	-19999	45536	*E8
IND8	106	Point 8 indication value of special sensor	R/W	-19999	45536	-	-19999	45536	PV
SIG9	107	Point 9 signal value of special sensor	R/W	-19999	45536	-	-19999	45536	*E8
IND9	108	Point 9 indication value of special sensor	R/W	-19999	45536	-	-19999	45536	PV
TYPE	109	Signal type of special sensor	R/W	0	3	-	0	65535	-
DATE	110	Manufacturing date of product	R	0	3719	-	0	65535	-
NO	111	Serial number of product	R	1	999	-	0	65535	-
HOUR	112	Working hour value	R	0	65535	-	0	65535	Hour
HRLO	113	Fractional hour value	R	0	0.9	-	0	65535	0.1Hour
ERR1	114	Historical error record 1	R/W	0	FFFF	0	0	65535	-
ERR2	115	Historical error record 2	R/W	0	FFFF	0	0	65535	-
DELI	116	ASCII Input delimiter	R/W	0000	007F	000A	0	65535	-
BPL1	117	OUT1 bumpless transfer value	R	0	100.0	-	0	65535	%
BPL2	118	OUT2 bumpless transfer value	R	0	100.0	-	0	65535	%
	119								

Parameter Notation	Register Address	Parameter description	Data *A Type	Range *B		C* default	Scale *D		*E
				Low	High	Value	Low	High	Unit
	120								
	121								
PVHI	122	Historical maximum value of PV	R/W	-19999	45536	-	-19999	45536	PV
PVLO	123	Historical maximum value of PV	R/W	-19999	45536	-	-19999	45536	PV
	124					-			
CJCL	125	Sense voltage of cold junction calibration low	R	31.680	40.320	-	0	65535	Mv
	126								
FILE	127	Default file selection	R/W	-B32 0	*B32 1	-	0	65535	-
PV	128	Current process value	R	-19999	45536	-	-19999	45536	PV
SV	129	Current set point value	R	-19999	45536	-	-19999	45536	PV
MV1	130	Current output 1 value	R	0	100.00	-	0	65535	%
MV2	131	Current output 2 value	R	0	100.00	-	0	65535	%
ALM	132	Contains conditional code of parameters' resolution and current alarm status	R	*B33 0	*B33 EF7F	-	0	65535	-
DV	133	Current deviation (PV-SV) value	R	-12600	12600	-	-19999	45536	PV
PV1	134	IN1 process value	R	-19999	45536	-	-19999	45536	*E5
PV2	135	IN2 process value	R	-19999	45536	-	-19999	45536	*E6
PB	136	Current proportional band value	R	0	500.0°C (900.0°F)	-	0	65535	PV
TI	137	Current integral time value	R	0	4000	-	0	65535	Sec
TD	138	Current derivative time value	R	0	1440	-	0	65535	Sec
EROR	139	Current error code	R	*B34 0	*B34 40	-	0	65535	-
PROG	140	Program identification code contains program number and version number	R	*B35 0	*B35 15.99	-	0	65535	-
MODE	141	Contains lockout status code and current system mode	R	*B36 0	*B36 3.5	-	0	65535	-
CMND	142	Command password	R/W	0	65535	-	0	65535	-
JOB	143	Job password	R/W	0	65535	-	0	65535	-
CJCT	144	Cold junction compensation temperature	R	-40.00°C	90.00°C	-	-19999	45536	°C
PVR	145	Current process rate value	R	-16383	16383	-	-19999	45536	PV/min
PVRH	146	Maximum process rate value	R	-16383	16383	-	-19999	45536	PV/min
PVRL	147	Minimum process rate value	R	-16383	16383	-	-19999	45536	PV/Min
SPC	148	Current target value of set point	R	-19999	45536	-	-19999	45536	PV
WDATA	149	Write data for communication during calibration procedure	R/W	-19999	45536	-	-19999	45536	-