Modbus Register
sc200 pH/ORP Module

V 3.00

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sc200 pH/ORP Module V 3.00

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
SENSOR	40001	Unsigned Integer	1	R			
ORP	40002	Float	2	R	mV		
pH	40004	Float	2	R	pH		
TEMPERATURE	40006	Unsigned Integer	1	R			
TEMP C	40007	Float	2	R	C		
TEMP F	40009	Float	2	R	F		
TEMP C	40011	Float	2	R	C		
TEMP F	40013	Float	2	R	F		
ORP diff cal value	40015	Float	2	R/W	mV		
SERIAL NUMBER	40017	String	8	R/W			
FUNCTION CODE	40025	Unsigned Integer	1	R/W			
NEXT STATE	40026	Unsigned Integer	1	R			
TEMP UNITS	40027	Unsigned Integer	1	R/W			U25/26
HISTORY T UNITS	40028	Unsigned Integer	1	R			U25/26
DISPLAY FORMAT	40029	Unsigned Integer	1	R/W			0/1
FILTER	40030	Unsigned Integer	1	R/W	s		
TEMP ELEMENT	40031	Unsigned Integer	1	R/W			0/1/2/4/5
USER TEMP	40032	Unsigned Integer	1	R	C		
USER TEMP C	40033	Float	2	R/W	C		
USER TEMP F	40035	Float	2	R/W	F		
SELECT BUFFER	40037	Unsigned Integer	1	R/W			0/1/2
PURE H2O COMP	40038	Unsigned Integer	1	R/W			0/1/2/8
PURE H2O USER	40039	Float	2	R/W	pH /C		
OUTPUT MODE	40041	Unsigned Integer	1	R/W			0/1/2
MODULE SERIAL NO	40042	String	6	R			
LEAVE	40048	Unsigned Integer	1	R/W			0/1/2
EDIT VALUE	40049	Unsigned Integer	1	R			
EDIT pH VALUE	40050	Float	2	R/W	pH		
EDIT ORP VALUE	40052	Float	2	R/W	mV		
SLOPE	40054	Unsigned Integer	1	R			
SampleCalPtAUser pHORP	40059	Float	2	R	pH		
SampleCalPtBUser pHORP	40061	Float	2	R	pH		
BufferCalPtA pHORP	40063	Float	2	R	pH		
BufferCalPtB pHORP	40065	Float	2	R	pH		
BufferCalSB pHORP	40067	Float	2	R	pH		
SOFTWARE VERS	40069	Float	2	R			
BOOTLOADER VER	40071	Float	2	R			

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
OFFSET	40073	Unsigned Integer	1	R			
pH OFFSET	40074	Float	2	R	pH		
ORP OFFSET	40076	Float	2	R	mV		
LOG INTERVAL	40078	Unsigned Integer	1	R/W			0/1/2/3/4/5/6/7/8
SIGNAL	40079	Float	2	R	mV		
ACTIVE ELECT	40081	Float	2	R			
REF. ELECTRODE	40083	Float	2	R	M<Ohm>		
SENSOR DAYS	40085	Unsigned Integer	1	R	Day		
DRIVER VERS	40086	Unsigned Integer	1	R			
PT A USER	40087	Float	2	R	HISTORY T UNITS		
PT B USER	40089	Float	2	R	HISTORY T UNITS		
PT A ACTUAL	40091	Float	2	R	HISTORY T UNITS		
PT B ACTUAL	40093	Float	2	R	HISTORY T UNITS		
PT A mV	40095	Float	2	R	mV		
PT B mV	40097	Float	2	R	mV		
TEMP OFFSET	40099	Float	2	R	TEMP UNITS		
HTRY TEMP OFFSET	40101	Float	2	R	HISTORY T UNITS		
TEMP SLOPE	40103	Float	2	R	TEMP UNITS		
HTRY TEMP SLOPE	40105	Float	2	R			
IMPED STATUS	40107	Unsigned Integer	1	R/W			0/1
MEAS UNITS	40108	Unsigned Integer	1	R			U27/19
MINIMUM	40109	Float	2	R			
Meas ORP Diff	40111	Float	2	R	mV		
USER TEMP MIN	40113	Float	2	R			
OFFSET MIN	40115	Float	2	R			
MAXIMUM	40117	Float	2	R			
TEMP MAX	40119	Float	2	R			
USER TEMP MAX	40121	Float	2	R			
MEAS MAX	40123	Float	2	R			
OFFSET UNITS	40125	Unsigned Integer	1	R			U27/19
SLOPE UNITS	40126	Unsigned Integer	1	R			U28/19
PREDICT ENABLE	40127	Unsigned Integer	1	R/W			0/1
PRED LIFE	40128	Time2	2	R	Day		
CAL REMINDER	40130	Unsigned Integer	1	R/W			0/1/2/3/4/5/6/7/8/9
OP ID REQD	40131	Unsigned Integer	1	R/W			0/1

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
READING.	40132	Unsigned Integer	1	R/W			0/1/2/3/4/5/6/7/8/9/10
TIME	40135	Time2	2	R			
CAL STATUS	40137	Unsigned Integer	1	R			0/1
CAL TYPE	40138	Unsigned Integer	1	R			0/1/2/3/4/15/16
OP ID	40139	String	2	R/W			
FORMAT TAG	40141	Unsigned Integer	2	R			
DISP PH FORMAT	40143	Unsigned Integer	2	R			
PT A USER VAL	40145	Unsigned Integer	1	R			
PT A USER VAL pH	40146	Float	2	R/W	pH		
PT A ORP VALUE	40148	Float	2	R	mV		
PT A ACTUAL mV	40150	Float	2	R/W	mV		
TEMPERATURE A	40152	Float	2	R/W	C		
PT B USER VAL	40154	Unsigned Integer	1	R	mV		
PT B pH VALUE	40155	Float	2	R/W	pH		
PT B ORP VALUE	40157	Float	2	R	mV		
PT B ACTUAL mV	40159	Float	2	R/W	mV		
TEMPERATURE B	40161	Float	2	R/W	C		
CAL DAYS	40163	Unsigned Integer	1	R	Day		
SET ISO POINT	40164	Float	2	R/W	pH		
CAL MESSAGE	40166	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11/12/13/14
CAL WARN MSG1	40167	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11/12/13/14
CAL WARN MSG2	40168	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11/12/13/14
TEMP COMP IMPED	40169	Float	2	R			
T-COMP REF IMPED	40171	Float	2	R	M<Ohm>		
LOG FLOAT	40173	Float	2	R			
LOG TEXT	40175	String	8	R			
LOG INT	40183	Integer	1	R			
LOG PARAM	40184	String	8	R			
DATE 1	40192	Time2	2	R			
DATE 2	40194	Time2	2	R			
DATE 3	40196	Time2	2	R			
DATE 4	40198	Time2	2	R			
DATE 5	40200	Time2	2	R			
DATE 6	40202	Time2	2	R			
TIME 1	40204	Time2	2	R			
TIME 2	40206	Time2	2	R			
TIME 3	40208	Time2	2	R			
TIME 4	40210	Time2	2	R			
TIME 5	40212	Time2	2	R			

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
TIME 6	40214	Time2	2	R			
PAGE NO:	40216	Unsigned Integer	1	R			
HIDDEN LINE	40217	Unsigned Integer	1	R			
HIGHLIGHT LINE	40218	Unsigned Integer	1	R			
SensorType pHORP	40219	Unsigned Integer	1	R			
ImpedanceUnits	40220	Unsigned Integer	1	R			U37/36
CalFailLimitOffset	40221	Float	2	R	pH		
CalFailLimitSlope	40223	Float	2	R	mV /pH		
CalFailLimitORP	40225	Float	2	R	mV		
TempElemLeakage	40227	Float	2	R/W			
TestSwitch	40229	Unsigned Integer	1	R/W			
TestDutyCycle	40230	Unsigned Integer	1	R/W			
TestFrequency	40231	Unsigned Integer	1	R/W			
TestADC24Counts	40232	Float	2	R			
Test1c	40234	Float	2	R	mV		
Test2c	40236	Float	2	R			
Test3c	40238	Float	2	R			
Test4c	40240	Unsigned Integer	1	R			
CurrentMonSlopeCal	40241	Float	2	R/W			
CurrentMonOffsetCal	40243	Float	2	R/W			
NewSensor	40245	Unsigned Integer	1	R/W			1/0
ORP Int	40246	Integer	1	R	mV		
pH Int	40247	Integer	1	R	pH		
TEMP C Int	40248	Integer	1	R	C		
TEMP F Int	40249	Integer	1	R	F		
TEMP CAL RAW	40250	Float	2	R	TEMP UNITS		
TEMP CAL OFFSET	40252	Float	2	R	TEMP UNITS		
TEMP CAL USER	40254	Float	2	R/W	TEMP UNITS		
FactCalpHSlope	40256	Float	2	R/W			
FactCalpHOffset pHORP	40258	Float	2	R/W			
FactCalPtA	40260	Float	2	R/W			
PtBCounts	40262	Float	2	R/W			
CalpHRawValue pHORP	40264	Float	2	R			
FactCalPtACts pHORP	40266	Float	2	R/W			
FactCalPtBCts pHORP	40268	Float	2	R/W			
TempCalCounts pHORP	40270	Float	2	R			
TempR1Value pHORO	40272	Float	2	R/W			
TempR2Value pHORP	40274	Float	2	R/W			
ADC10Count	40276	Float	2	R			

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
DD CONTENT	40278	Unsigned Integer	1	R			
SENSOR NAME	40279	String	8	R/W			
SwitchSetting pHORP	40287	Unsigned Integer	1	R			

ALL Sensors and Analyzer: Classified ERROR Word - Register 49930

Table 2 Error register

Bit	Error	Description
0	Calibration error	Faulty calibration detected
1	Electronic settings error	Faulty electronic calibration/settings
2	Cleaning error	Error in cleaning cycle detected
3	Measuring module error	Error in measuring module detected
4	System initialization	Inconsistent settings detected, reset to factory settings
5	Hardware error	Faulty hardware detected
6	Internal communication error	Internal communication error detected
7	Humidity error	Excessive humidity detected
8	Excessive temperature	Excessive temperature detected
9		
10	Sample feed warning	Error in sample feed detected
11	Questionable calibration warning	Accuracy of previous calibration inadequate
12	Questionable measurement warning	Accuracy of previous measurement inadequate/out of range
13	Safety warning	Safety equipment error detected
14	Reagent warning	Reagent warning, e.g. fill level < min detected
15	Service request warning	Service request detected

ALL Sensors and Analyzer: Classified STATUS Word - Register 49931

Table 3 Status register

Bit	Status 1	Description
0	Calibration activated	Calibration in progress, measurement value not up to date
1	Cleaning activated	Cleaning in progress, measurement value not up to date
2	Service mode activated	Device in "Service" mode, measurement value not up to date
3	General error message	General error detected, refer to error text for details
4	Measurement value channel 0, poor quality	Measurement accuracy is not within specified limits
5	Measurement value channel 0, range short-fall	Measurement value falls short of the specified range
6	Measurement value channel 0, range exceeded	Measurement value exceeds the specified range
7	Measurement value channel 1, poor quality	Measurement accuracy is not within specified limits
8	Measurement value channel 1, range short-fall	Measurement value falls short of the specified range
9	Measurement value channel 1, range exceeded	Measurement value exceeds the specified range
10	Measurement value channel 2, poor quality	Measurement accuracy is not within specified limits
11	Measurement value channel 2, range short-fall	Measurement value falls short of the specified range
12	Measurement value channel 2, range exceeded	Measurement value exceeds the specified range
13	Measurement value channel 3, poor quality	Measurement accuracy is not within specified limits
14	Measurement value channel 3, range short-fall	Measurement value falls short of the specified range
15	Measurement value channel 3, range exceeded	Measurement value exceeds the specified range