Modbus Register
1200S-sc V2

V 2.05

HACH®

Be Right™

1200S-sc V2 V 2.05

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
pH measurement	40001	Float	2	R	pH	14	pH measurement
ORP measurement	40003	Float	2	R	mV	1500	ORP measurement
Temperature measurement	40005	Float	2	R	C	200	Temperature measurement
Raw pH measurement	40007	Float	2	R	pH	14	Raw pH measurement
mV Raw measurement	40009	Float	2	R	mV	1500	mV Raw measurement
Raw Temperature measurement	40011	Float	2	R	C	100	Raw Temperature measurement
Main Measurement Parameter	40013	Unsigned Integer	1	R/W			Main Measurement Parameter
Temperature Measurement Param.	40014	Unsigned Integer	1	R/W			Temperature Measurement Param.
SensorName	40015	String	6	R/W			Sensor Name
Function code	40021	Unsigned Integer	1	R/W		65535	Function code
Next Step	40022	Unsigned Integer	1	R		65535	Next Step
Password	40023	Unsigned Integer	1	R/W		65535	Password
Serial Number[0]	40024	Unsigned Integer	1	R/W		65535	Serial Number[0]
Serial Number[1]	40025	Unsigned Integer	1	R/W		65535	Serial Number[1]
Serial Number[2]	40026	Unsigned Integer	1	R		65535	Serial Number[2]
pH/ORP toogle	40027	Unsigned Integer	1	R/W			pH/ORP toogle
Temperature unit toogle	40028	Unsigned Integer	1	R/W			Temperature unit toogle
pH display format	40029	Unsigned Integer	1	R/W			pH display format XX.X or XX.XX
Buffer Type	40030	Unsigned Integer	1	R/W			Buffer Type
---	40031	Unsigned Integer	2	R/W		2000000000	Internal use
Averaging	40033	Unsigned Integer	1	R/W	s	60	Averaging
Automatic/Manual toogle	40034	Unsigned Integer	1	R/W			Automatic/Manual toogle
Manual Temperature unit	40035	Unsigned Integer	1	R/W			Manual Temperature unit
Manual Temperature	40036	Float	2	R/W	C	200	Manual Temperature
50/60 Hz toogle	40038	Unsigned Integer	1	R/W			50/60 Hz toogle
Output Mode	40039	Unsigned Integer	1	R/W			Internal use
---	40040	Unsigned Integer	1	R			Internal use
---	40041	Unsigned Integer	1	R			Internal use
---	40042	Unsigned Integer	1	R			Internal use
---	40043	Unsigned Integer	1	R			Internal use
---	40044	Unsigned Integer	1	R/W			Internal use

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
---	40045	Unsigned Integer	1	R/W			Internal use
---	40046	Unsigned Integer	1	R			Internal use
---	40047	Unsigned Integer	1	R			Internal use
---	40048	Unsigned Integer	1	R			Internal use
---	40049	Float	2	R/W	C	200	Internal use
---	40051	Float	2	R	pH	14	Internal use
---	40053	Float	2	R	C	5	Internal use
Temperature Offset	40055	Float	2	R/W	C	5	Internal use
Temperature Offset unit	40057	Unsigned Integer	1	R/W			Internal use
pH Buffer 1 Measurement	40058	Float	2	R/W	pH	14	Internal use
pH Buffer 2 Measurement	40060	Float	2	R/W	pH	14	Internal use
ORP Buffer 1 Measurement	40062	Float	2	R/W	mV	1500	Internal use
Output Mode	40064	Unsigned Integer	1	R/W			Internal use
Software version	40065	Float	2	R		10	Software version
SerialNumber	40067	String	6	R			Internal use
---	40073	Unsigned Integer	1	R/W			Internal use
---	40074	Unsigned Integer	1	R/W			Internal use
pH Offset	40075	Float	2	R/W	pH	3.0	pH Calibration Offset
pH Slope	40077	Float	2	R/W	%	120	pH Calibration slope
ORP Offset	40079	Float	2	R/W	mV	250	ORP Calibration Offset
ORP Slope	40081	Float	2	R	%	120	ORP Calibrtion slope
Calibration Return Status	40083	Unsigned Integer	1	R/W		10	Calibration Return Status
Time from last Calibration	40084	Unsigned Integer	1	R/W	Day		Delay the instrument has been calibrated last time
Time from start up	40085	Unsigned Integer	1	R	Day	9999	Time the system is running
Time to exchange Humidity bag	40086	Unsigned Integer	1	R	Day	1000	Time the humidity bag has been used
DriverVersion_float	40087	Float	2	R		10	Driver version
---	40089	Float	2	R	pH	14	Internal use
Measurement Logging Interval	40091	Unsigned Integer	1	R/W			Sensor Data logging interval
Temperature Logging Interval	40092	Unsigned Integer	1	R/W			Temperature Logging Interval
Electrode Impedance Meas. Interval	40093	Unsigned Integer	1	R/W			Impedance measurement interval
Glass Impedance Measurement	40094	Float	2	R	M<Ohm>	1000	Glass impedance measurement
Reference Impedance Measurement	40096	Float	2	R	k<Ohm>	9999.9	Reference impedance measurement

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