Modbus Register
9180 sc

V1.11

HACH®

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Main Measurement Parameter in mg/l	40001	Float	2	R			Concentration Measurement Tag in mg/l
pH Measurement Param.	40003	Float	2	R			pH Measurement Tag
Temperature measurement	40005	Float	2	R			Temperature measurement
Current Measurement Parameter in A	40007	Float	2	R			Current measurement in A
Main Measurement Parameter in ppm	40009	Float	2	R			Concentration Measurement Tag in ppm
Main Measurement Parameter in ppb	40011	Float	2	R			Concentration Measurement Tag in ppb
Main Measurement Parameter in g/l	40013	Float	2	R			Concentration Measurement Tag in g/l
Current Measurement Parameter in nA	40015	Float	2	R			Current measurement in nA
Raw pH measurement	40017	Float	2	R			Raw pH measurement
mV Raw measurement	40019	Float	2	R			Raw ORP measurement
Raw Temperature measurement	40021	Float	2	R			Raw Temperature measurement
AutoRange Concentration in ppX	40023	Integer	1	R			Auto Ranging Tag in ppX
AutoRange Concentration in Xg/l	40024	Integer	1	R			Auto Ranging Tag in xg/l
AutoRange Current	40025	Integer	1	R			Auto Ranging redirection of nA-A units
Concentration Tag-based	40026	Integer	1	R			Redirection tag for concentration ppm-mg/l units
Temperature Tag-based	40027	Integer	1	R/W			Redirection tag for temperature unit (C-F)
Sensor Name[0]	40028	Integer	1	R/W			Sensor Name[0]
Sensor Name[1]	40029	Integer	1	R/W			Sensor Name[1]
Sensor Name[2]	40030	Integer	1	R/W			Sensor Name[2]
Sensor Name[3]	40031	Integer	1	R/W			Sensor Name[3]
Sensor Name[4]	40032	Integer	1	R/W			Sensor Name[4]
Sensor Name[5]	40033	Integer	1	R/W			Sensor Name[5]
Function code	40034	Integer	1	R			Function code
Next Step	40035	Integer	1	R			Next Step
Password	40036	Pass	1	R/W			Password
Serial Number[0]	40037	Integer	1	R/W			Serial Number[0]
Serial Number[1]	40038	Integer	1	R/W			Serial Number[1]
Serial Number[2]	40039	Integer	1	R/W			Serial Number[2]
Application toogle	40040	Integer	1	R/W			9184..9187 applications
Active Concentration unit	40041	Integer	1	R/W			Active concentration unit (ppm or mg/l)
Concentration unit toogle	40042	Bit	1	R/W			Concentration unit toogle (ppm-mg/l)
Temperature unit toogle	40043	Bit	1	R/W			Temperature unit toogle (C-F)
Concentration offset unit	40044	Integer	1	R			Concentration offset unit (na-A)
Compensation pH toogle	40045	Integer	1	R/W			Compensation pH toogle (manual-auto)
pH display format toogle	40046	Bit	1	R/W			pH display format XX.X or XX.XX
---	40047	Integer	1	R/W			Internal use
---	40048	Integer	1	R/W			Internal use

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Averaging	40049	Integer	1	R/W			Averaging
Automatic/Manual temperature toogle	40050	Bit	1	R/W			Automatic/Manual temperature toogle
Manual Temperature unit	40051	Integer	1	R/W			Manual Temperature unit
Manual Temperature	40052	Float	2	R/W			Manual Temperature
Max pH	40054	Float	2	R/W			Max ph in TFC application only
Manual pH	40056	Float	2	R/W			Manual pH
50/60 Hz toogle	40058	Bit	1	R/W			50/60 Hz toogle
Output Mode	40059	Integer	1	R			Internal use
---	40060	Integer	1	R			Internal use
---	40061	Integer	1	R			Internal use
---	40062	Integer	1	R			Internal use
---	40063	Integer	1	R			Internal use
---	40064	Integer	1	R			Internal use
---	40065	Integer	1	R			Internal use
---	40066	Integer	1	R			Internal use
---	40067	Float	2	R			Internal use
---	40069	Float	2	R			Internal use
---	40071	Float	2	R			Internal use
Temperature Offset	40073	Float	2	R/W			Temperature Offset
Temperature Offset unit	40075	Integer	1	R			Internal use
pH Buffer 1 Measurement	40076	Float	2	R			Internal use
pH Buffer 2 Measurement	40078	Float	2	R			Internal use
Cal Conc Measurement	40080	Float	2	R			Internal use
Cal TFC Measurement	40082	Float	2	R			Internal use
Output Mode	40084	Integer	1	R			Internal use
Software version	40085	Float	2	R			Software version
Serial Number String[0]	40087	Integer	1	R/W			Internal use
Serial Number String[2]	40088	Integer	1	R/W			Internal use
Serial Number String[4]	40089	Integer	1	R/W			Internal use
Serial Number String[6]	40090	Integer	1	R/W			Internal use
Serial Number String[8]	40091	Integer	1	R/W			Internal use
Serial Number String[10]	40092	Integer	1	R/W			Internal use
pH Offset	40093	Float	2	R			pH Calibration Offset
pH Slope	40095	Float	2	R			pH Calibration slope
Concentration Offset	40097	Float	2	R			Concentration Offset
Concentration Slope	40099	Float	2	R			Concentration Slope
Calibration Return Status	40101	Integer	1	R			Calibration Return Status
Time between two calibrations	40102	Integer	1	R/W			Time between two calibrations
Concentration zero toogle	40103	Integer	1	R/W			Concentration zero toogle (electrical-chemical)
Time from start up	40104	Integer	1	R			Time the system is running
DriverVersion_float	40105	Float	2	R			Driver version
---	40107	Float	2	R			Internal use
Measurement Logging Interval	40109	Integer	1	R/W			Sensor Data logging interval

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Temperature Logging Interval	40110	Integer	1	R/W			Temperature logging interval

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