Modbus Register
sc4500 Ethernet IP

V 1.08

HACH®

Be Right™

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
STATUS	40001	Unsigned Integer	1	R			0/1/2/3/4
EVENT	40002	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11/12/13
Port 2 status	40003	Unsigned Integer	1	R			0/1
	40004	Unsigned Integer	1	R/W			
	40005	Unsigned Integer	1	R			
SENSOR NAME	40006	String	8	R/W			
MAC_ADDRESS_1	40014	String	9	R			
ADDRESING MODE	40023	Unsigned Integer	1	R/W			0/1
IP ADDRESS	40024	String	8	R			
SUBNET MASK	40032	String	8	R			
GATEWAY ADDRESS	40040	String	8	R			
SIMULATION	40048	Unsigned Integer	1	R/W			0/1
MAXIMUM	40049	Float	2	R/W			
MINIMUM	40051	Float	2	R/W			
SIMULATION ERROR	40053	Unsigned Integer	1	R/W			
SIMULATION STATUS	40054	Unsigned Integer	1	R/W			
PERIOD	40055	Unsigned Integer	1	R/W	min		
	40056	Unsigned Integer	1	R/W			
SOFTWARE VERS	40057	Float	2	R			
DATALOG INTRVL	40059	Unsigned Integer	1	R/W			0/2/5/10/15/30
Connection 1	40060	Unsigned Integer	1	R			0/1/2/3/4
INPUT SIZE (Bytes)	40061	Unsigned Integer	1	R			
OUTPUT SIZE (Bytes)	40062	Unsigned Integer	1	R			
	40063	Unsigned Integer	1	R			0/1/2/3/4
	40064	Unsigned Integer	1	R			0/1/2/3/4
	40065	Unsigned Integer	1	R			0/1/2/3/4
Swapped	40066	Unsigned Integer	1	R			0/1
	40067	Unsigned Integer	1	R			
	40068	Unsigned Integer	1	R			
	40069	Unsigned Integer	1	R			
	40070	Unsigned Integer	1	R			
	40071	Unsigned Integer	1	R			

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
	40072	Unsigned Integer	1	R			
	40073	Unsigned Integer	1	R			
	40074	Unsigned Integer	1	R			
	40075	Unsigned Integer	1	R			
	40076	Unsigned Integer	1	R			
	40077	Unsigned Integer	1	R			
	40078	Unsigned Integer	1	R			
IP_ADDRESS_1	40079	String	8	R/W			
SUBNET MASK_1	40087	String	8	R/W			
GATEWAY ADDRESS_1	40095	String	8	R/W			
	40103	Unsigned Integer	1	R/W			
Meas_1	40104	Float	2	R			
Meas_2	40106	Float	2	R			
Meas_3	40108	Float	2	R			
Meas_4	40110	Float	2	R			
Meas_5	40112	Float	2	R			
Meas_6	40114	Float	2	R			
Meas_7	40116	Float	2	R			
Meas_8	40118	Float	2	R			
Meas_9	40120	Float	2	R			
Meas_10	40122	Float	2	R			
Meas_11	40124	Float	2	R			
Meas_12	40126	Float	2	R			
Meas_13	40128	Float	2	R			
Meas_14	40130	Float	2	R			
Meas_15	40132	Float	2	R			
Meas_16	40134	Float	2	R			
Meas_17	40136	Float	2	R			
Meas_18	40138	Float	2	R			
Meas_19	40140	Float	2	R			
Meas_20	40142	Float	2	R			
Meas_21	40144	Float	2	R			
Meas_22	40146	Float	2	R			
Meas_23	40148	Float	2	R			
Meas_24	40150	Float	2	R			
Meas_25	40152	Float	2	R			
Meas_26	40154	Float	2	R			
Meas_27	40156	Float	2	R			
Meas_28	40158	Float	2	R			
Meas_29	40160	Float	2	R			
Meas_30	40162	Float	2	R			
Meas_31	40164	Float	2	R			
Meas_32	40166	Float	2	R			

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Unit_14	40168	Unsigned Integer	1	R/W			
Unit_15	40168	Unsigned Integer	1	R/W			
Unit_16	40168	Unsigned Integer	1	R/W			
Unit_17	40168	Unsigned Integer	1	R/W			
Unit_18	40168	Unsigned Integer	1	R/W			
Unit_19	40168	Unsigned Integer	1	R/W			
Unit_20	40168	Unsigned Integer	1	R/W			
Unit_21	40168	Unsigned Integer	1	R/W			
Unit_22	40168	Unsigned Integer	1	R/W			
Unit_23	40168	Unsigned Integer	1	R/W			
Unit_24	40168	Unsigned Integer	1	R/W			
Unit_25	40168	Unsigned Integer	1	R/W			
Unit_26	40168	Unsigned Integer	1	R/W			
Unit_27	40168	Unsigned Integer	1	R/W			
Unit_28	40168	Unsigned Integer	1	R/W			
Unit_29	40168	Unsigned Integer	1	R/W			
Unit_30	40168	Unsigned Integer	1	R/W			
Unit_31	40168	Unsigned Integer	1	R/W			
Unit_32	40168	Unsigned Integer	1	R/W			
Para_1	40168	Unsigned Integer	1	R/W			
Para_2	40168	Unsigned Integer	1	R/W			
Para_3	40168	Unsigned Integer	1	R/W			
Para_4	40168	Unsigned Integer	1	R/W			
Para_5	40168	Unsigned Integer	1	R/W			
Para_6	40168	Unsigned Integer	1	R/W			
Para_7	40168	Unsigned Integer	1	R/W			
Para_8	40168	Unsigned Integer	1	R/W			
Para_9	40168	Unsigned Integer	1	R/W			
Para_10	40168	Unsigned Integer	1	R/W			

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Para_11	40168	Unsigned Integer	1	R/W			
Para_12	40168	Unsigned Integer	1	R/W			
Para_13	40168	Unsigned Integer	1	R/W			
Para_14	40168	Unsigned Integer	1	R/W			
Para_15	40168	Unsigned Integer	1	R/W			
Para_16	40168	Unsigned Integer	1	R/W			
Para_17	40168	Unsigned Integer	1	R/W			
Para_18	40168	Unsigned Integer	1	R/W			
Para_19	40168	Unsigned Integer	1	R/W			
Para_20	40168	Unsigned Integer	1	R/W			
Para_21	40168	Unsigned Integer	1	R/W			
Para_22	40168	Unsigned Integer	1	R/W			
Para_23	40168	Unsigned Integer	1	R/W			
Para_24	40168	Unsigned Integer	1	R/W			
Para_25	40168	Unsigned Integer	1	R/W			
Para_26	40168	Unsigned Integer	1	R/W			
Para_27	40168	Unsigned Integer	1	R/W			
Para_28	40168	Unsigned Integer	1	R/W			
Para_29	40168	Unsigned Integer	1	R/W			
Para_30	40168	Unsigned Integer	1	R/W			
Para_31	40168	Unsigned Integer	1	R/W			
Para_32	40168	Unsigned Integer	1	R/W			
Unit_1	40168	Unsigned Integer	1	R/W			
Unit_2	40168	Unsigned Integer	1	R/W			
Unit_3	40168	Unsigned Integer	1	R/W			
Unit_4	40168	Unsigned Integer	1	R/W			
Unit_5	40168	Unsigned Integer	1	R/W			
Unit_6	40168	Unsigned Integer	1	R/W			
Unit_7	40168	Unsigned Integer	1	R/W			

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Unit_8	40168	Unsigned Integer	1	R/W			
Unit_9	40168	Unsigned Integer	1	R/W			
Unit_10	40168	Unsigned Integer	1	R/W			
Unit_11	40168	Unsigned Integer	1	R/W			
Unit_12	40168	Unsigned Integer	1	R/W			
Unit_13	40168	Unsigned Integer	1	R/W			

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