Modbus Register
sc4500 Profinet

V 1.00

HACH®

Be Right™

sc4500 Profinet V 1.00

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
MODULE STATUS	40001	Unsigned Integer	1	R			0/1/2/3
EVENT	40002	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11/12/13/14/15
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	40014	String	9	R			
	40023	Unsigned Integer	1	R			
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			
SIMULTION 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
Slot 1	40060	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11
Slot 2	40061	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11
Slot 3	40062	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11
Slot 4	40063	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11
Slot 5	40064	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11
Slot 6	40065	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11
Swapped	40066	Unsigned Integer	1	R			0/1
TagsFrom_1	40067	Unsigned Integer	1	R			
TagsTo_1	40068	Unsigned Integer	1	R			
TagsFrom_2	40069	Unsigned Integer	1	R			
TagsTo_2	40070	Unsigned Integer	1	R			
TagsFrom_3	40071	Unsigned Integer	1	R			

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
TagsTo_3	40072	Unsigned Integer	1	R			
TagsFrom_4	40073	Unsigned Integer	1	R			
TagsTo_4	40074	Unsigned Integer	1	R			
TagsFrom_5	40075	Unsigned Integer	1	R			
TagsTo_5	40076	Unsigned Integer	1	R			
TagsFrom_6	40077	Unsigned Integer	1	R			
TagsTo_6	40078	Unsigned Integer	1	R			
	40079	Unsigned Integer	1	R			
	40080	Unsigned Integer	1	R			
	40081	Unsigned Integer	1	R			
MeasNumber	40082	Unsigned Integer	1	R			
Meas_1	40083	Float	2	R			
Meas_2	40085	Float	2	R			
Meas_3	40087	Float	2	R			
Meas_4	40089	Float	2	R			
Meas_5	40091	Float	2	R			
Meas_6	40093	Float	2	R			
Meas_7	40095	Float	2	R			
Meas_8	40097	Float	2	R			
Meas_9	40099	Float	2	R			
Meas_10	40101	Float	2	R			
Meas_11	40103	Float	2	R			
Meas_12	40105	Float	2	R			
Meas_13	40107	Float	2	R			
Meas_14	40109	Float	2	R			
Meas_15	40111	Float	2	R			
Meas_16	40113	Float	2	R			
Meas_17	40115	Float	2	R			
Meas_18	40117	Float	2	R			
Meas_19	40119	Float	2	R			
Meas_20	40121	Float	2	R			
Meas_21	40123	Float	2	R			
Meas_22	40125	Float	2	R			
Meas_23	40127	Float	2	R			
Meas_24	40129	Float	2	R			
Meas_25	40131	Float	2	R			
Meas_26	40133	Float	2	R			
Meas_27	40135	Float	2	R			
Meas_28	40137	Float	2	R			
Meas_29	40139	Float	2	R			
Meas_30	40141	Float	2	R			

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Meas_31	40143	Float	2	R			
Meas_32	40145	Float	2	R			
Param_16	40147	Unsigned Integer	1	R/W			
Unit_17	40147	Unsigned Integer	1	R/W			
Param_17	40147	Unsigned Integer	1	R/W			
Unit_18	40147	Unsigned Integer	1	R/W			
Param_18	40147	Unsigned Integer	1	R/W			
Unit_19	40147	Unsigned Integer	1	R/W			
Param_19	40147	Unsigned Integer	1	R/W			
Unit_20	40147	Unsigned Integer	1	R/W			
Param_20	40147	Unsigned Integer	1	R/W			
Unit_21	40147	Unsigned Integer	1	R/W			
Param_21	40147	Unsigned Integer	1	R/W			
Unit_22	40147	Unsigned Integer	1	R/W			
Param_22	40147	Unsigned Integer	1	R/W			
Unit_23	40147	Unsigned Integer	1	R/W			
Param_23	40147	Unsigned Integer	1	R/W			
Unit_24	40147	Unsigned Integer	1	R/W			
Param_24	40147	Unsigned Integer	1	R/W			
Unit_25	40147	Unsigned Integer	1	R/W			
Param_25	40147	Unsigned Integer	1	R/W			
Unit_26	40147	Unsigned Integer	1	R/W			
Param_26	40147	Unsigned Integer	1	R/W			
Unit_27	40147	Unsigned Integer	1	R/W			
Param_27	40147	Unsigned Integer	1	R/W			
Unit_28	40147	Unsigned Integer	1	R/W			
Param_28	40147	Unsigned Integer	1	R/W			
Unit_29	40147	Unsigned Integer	1	R/W			
Param_29	40147	Unsigned Integer	1	R/W			
Unit_30	40147	Unsigned Integer	1	R/W			

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Param_30	40147	Unsigned Integer	1	R/W			
Unit_31	40147	Unsigned Integer	1	R/W			
Param_31	40147	Unsigned Integer	1	R/W			
Unit_32	40147	Unsigned Integer	1	R/W			
Param_32	40147	Unsigned Integer	1	R/W			
Unit_1	40147	Unsigned Integer	1	R/W			
Param_1	40147	Unsigned Integer	1	R/W			
Unit_2	40147	Unsigned Integer	1	R/W			
Param_2	40147	Unsigned Integer	1	R/W			
Unit_3	40147	Unsigned Integer	1	R/W			
Param_3	40147	Unsigned Integer	1	R/W			
Unit_4	40147	Unsigned Integer	1	R/W			
Param_4	40147	Unsigned Integer	1	R/W			
Unit_5	40147	Unsigned Integer	1	R/W			
Param_5	40147	Unsigned Integer	1	R/W			
Unit_6	40147	Unsigned Integer	1	R/W			
Param_6	40147	Unsigned Integer	1	R/W			
Unit_7	40147	Unsigned Integer	1	R/W			
Param_7	40147	Unsigned Integer	1	R/W			
Unit_8	40147	Unsigned Integer	1	R/W			
Param_8	40147	Unsigned Integer	1	R/W			
Unit_9	40147	Unsigned Integer	1	R/W			
Param_9	40147	Unsigned Integer	1	R/W			
Unit_10	40147	Unsigned Integer	1	R/W			
Param_10	40147	Unsigned Integer	1	R/W			
Unit_11	40147	Unsigned Integer	1	R/W			
Param_11	40147	Unsigned Integer	1	R/W			
Unit_12	40147	Unsigned Integer	1	R/W			
Param_12	40147	Unsigned Integer	1	R/W			

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Unit_13	40147	Unsigned Integer	1	R/W			
Param_13	40147	Unsigned Integer	1	R/W			
Unit_14	40147	Unsigned Integer	1	R/W			
Param_14	40147	Unsigned Integer	1	R/W			
Unit_15	40147	Unsigned Integer	1	R/W			
Param_15	40147	Unsigned Integer	1	R/W			
Unit_16	40147	Unsigned Integer	1	R/W			
Slot 7	40148	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11
TagsFrom_7	40149	Unsigned Integer	1	R			
TagsTo_7	40150	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