Modbus Register
9582sc

v1.01

HACH®

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
DO	40001	Unsigned Integer	1	R		0 /2000	DO measure tag selection (73 = ppb
TEMPERATURE	40002	Unsigned Integer	1	R		0 /65535	Temperature tag selection (2 = degC
TEMP C	40003	Float	2	R		0 /50	Calculated temp in C
TEMP F	40005	Float	2	R		32 /122	Calculated temp in F
DO in ppm	40007	Float	2	R		0 /40	DO in ppm
DO in mg/l	40009	Float	2	R		0 /40	DO in mg/l
FUNCTION CODE	40011	Unsigned Integer	1	R/W		0 /65535	Menu function code
NEXT STATE	40012	Unsigned Integer	1	R		0 /65535	Menu next state
temperature units	40013	Selection List	1	R/W	U25 /26		TEMP UNITS
FILTER	40014	Unsigned Integer	1	R/W		0 /60	DO Measurement filter selection (0-60) seconds
READING.	40015	Selection List	1	R/W	0 /1 /2 /3 /4 /5 /6 /7 /8 /9 /10		Resume delay after cal (no=0
PRESSURE UNITS	40016	Selection List	1	R/W	136 /100 /62 /45		PRESSURE UNITS
PRESSURE TAG	40017	Unsigned Integer	1	R		0 /65535	Pressure tag selection(13 = mmHg
PRESSURE in mmHg	40018	Float	2	R/W		539 /792	PRESSURE in mmHg
PRESSURE in mbar	40020	Float	2	R/W		718.61 /1055.91	PRESSURE in mbar
PRESSURE in kPa	40022	Float	2	R/W		71.861 /105.591	PRESSURE in kPa
MEAS UNITS	40024	Selection List	1	R/W	38 /2 /4 /39 /0 /5 /136 /135 /46 /45		DO measurement unit selection(mg/l=0
OUTPUT MODE	40025	Selection List	1	R/W	0 /1 /2		Output mode selection tag(Active=0
CAL LEAVE	40026	Selection List	1	R/W	0 /1 /2		Cal leave flag(Quit=0
CAL EDIT VALUE	40027	Unsigned Integer	1	R		0 /65535	Cal edit value tag selection
CAL EDIT DO	40028	Float	2	R/W		0 /40	Cal edit value ppm units
SOFTWARE VERS	40030	Float	2	R		0 /1000000	Software version
BOOTLOADER VER	40032	Float	2	R		0 /9.99	BOOTLOADER VER
SENS INTERVAL	40034	Selection List	1	R/W	0 /1 /2 /3 /4 /5 /6 /7 /8		Log interval selection(5s=0
Cal Factor	40035	Float	2	R		-100 /100	Partial oxygen cal factor in uA/ppm
SENSOR SIGNAL	40037	Float	2	R		-5000 /5000	Sensor signal in mV
MEMBRANE DAYS	40039	Integer	1	R		0 /32000	Membrane life in days
DRIVER VERS	40040	Unsigned Integer	1	R		0 /1000	Device driver version
SERIAL NUMBER	40041	String	8	R/W			Sensor SERIAL NUMBER
OP ID ON CAL	40049	Selection List	1	R/W	0 /1		Operator ID required for cal (no=0
CAL REMINDER	40050	Selection List	1	R/W	0 /1 /2 /3 /4 /5 /6 /7 /8 /9		Cal reminder selection (OFF=0
Temp Offset in User units	40051	Float	2	R			Temperature offset in user units
CAL DATE	40053	Date	2	R			Calibration date

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CAL TIME	40055	Time	2	R			Calibration time
CAL STATUS	40057	Selection List	1	R	0 /1		Calibration status(Fail=0
CAL TYPE	40058	Selection List	1	R	0 /13 /7 /14 /15 /16 /5		Calibration type(Defult=0
DO CAL MV	40059	Float	2	R		-1000000 /1000000	Measured mV at calibration
DO CAL TEMP	40061	Float	2	R		-20 /200	Measured temperature at calibration
DO CAL UNIT	40063	Selection List	1	R	38 /2 /4 /39 /0 /5 /136 /135 /46 /45		DO unit at calibration(mg/l=0
OP ID	40064	String	2	R/W			Calibration operator ID/initials
CAL DAYS	40066	Unsigned Integer	1	R		0 /10000	Days since last calibration
MSGS	40067	Selection List	1	R	0 /1 /2 /3 /4 /5 /6 /7 /8 /9 /10 /11 /12 /13 /14		Cal message
CAL WARN MSG	40068	Selection List	1	R	0 /1 /2 /3 /4 /5 /6 /7 /8 /9 /10 /11 /12 /13 /14		Cal status messages for display
LOG FLOAT	40069	Float	2	R			Tag for event log involving float
LOG TEXT	40071	String	8	R			Tag for event log involving text
LOG INT	40079	Integer	1	R		-32768 /32767	Tag for event log involving integers
LOG PARAM	40080	String	8	R			Tag for event log involving passed parameter
DATE 1	40088	Date	2	R			Cal history date 1
DATE 2	40090	Date	2	R			Cal history date 2
DATE 3	40092	Date	2	R			Cal history date 3
DATE 4	40094	Date	2	R			Cal history date 4
DATE 5	40096	Date	2	R			Cal history date 5
DATE 6	40098	Date	2	R			Cal history date 6
TIME 1	40100	Time	2	R			Cal history time 1
TIME 2	40102	Time	2	R			Cal history time 2
TIME 3	40104	Time	2	R			Cal history time 3
TIME 4	40106	Time	2	R			Cal history time 4
TIME 5	40108	Time	2	R			Cal history time 5
TIME 6	40110	Time	2	R			Cal history time 6
PAGE NO:	40112	Unsigned Integer	1	R		0 /65535	Cal history page number
HIDDEN LINE	40113	Unsigned Integer	1	R		0 /65535	Cal history page hidden item
HIGH LIGHT LINE	40114	Unsigned Integer	1	R		0 /65535	Cal history page highlighted item
SensorType DO	40115	Unsigned Integer	1	R		0 /5	Test register for sensor type (1 = DO)
NewSensor DO	40116	Selection List	1	R/W	1 /0		New sensor flag(No=0
DO Raw Temp Cal Value	40117	Float	2	R		0 /122	Raw temp value measured during calibration in Temp Cal units
Temp Cal Offset in user units	40119	Float	2	R		-999.9 /999.9	Temperature calibration offset value units selected by user during calibration
TEMP. CAL USER	40121	Float	2	R/W		-999.9 /999.9	Temp user value at calibration
DD CONTENT	40123	Unsigned Integer	1	R		0 /1000	device driver content version

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
NAME	40124	String	8	R/W			Sensor name
DOcalADCcounts DO	40132	Float	2	R		-16777216 /16777216	adc counts during factory calibration
CURRENT	40134	Float	2	R		-1000000 /1000000	current in nA
Zero Cal Offset	40136	Float	2	R		-1000000 /1000000	Concentration offset for Zero Cal in nA
RESISTOR RANGE	40138	Unsigned Integer	1	R		0 /4	Displays resistor range (1 = Range1
DO in ppb	40139	Float	2	R		0 /40000	DO in ppb
DO in ug/l	40141	Float	2	R		0 /40000	DO in ?g/l
Pressure in hPa	40143	Float	2	R/W		718.61 /1055.91	Pressure in hPa
DO in mbar	40145	Float	2	R		0 /1355.6	DO in mBar
DO in hPa	40147	Float	2	R		0 /1355.6	DO in hPa
Do in inch Hg	40149	Float	2	R		0 /40.15	DO in inch Hg
DO in mm Hg	40151	Float	2	R		0 /1016.66	DO in mm Hg
DO Gas Calibration user entered value	40153	Float	2	R/W		0 /40000	DO Gas calibration user edited value in user units
CalEditDOmglValue DO	40155	Float	2	R/W		0 /40	edit tag for unit mgl
CalEditDOuglValue DO	40157	Float	2	R/W		0 /40000	edit tag for unit ugl
CalEditDOMBarValue DO	40159	Float	2	R/W		0 /1355.6	edit tag for unit MBar
CalEditDOHpaValue DO	40161	Float	2	R/W		0 /1355.6	edit tag for unit hPa
CalEditDOInchHgValue DO	40163	Float	2	R/W		0 /40.15	edit tag for unit inHg
CalEditDOMmHgValue DO	40165	Float	2	R/W		0 /1016.66	edit tag for unit mmHg
Current / Membrane Signal (nA)	40167	Float	2	R		-1000000 /1000000	Membrane Current in nA
CalHistConcppm DO	40169	Float	2	R		0 /40	CalHistConcppm DO
CalHistConcmbar DO	40171	Float	2	R		0 /1355.6	CalHistConcmbar DO
CalHistConcMeas DO	40173	Unsigned Integer	1	R		0 /0	CalHistConcMeas DO
CalHistConcppb DO	40174	Float	2	R		0 /40000	CalHistConcppb DO
CalHistConcugl DO	40176	Float	2	R		0 /40000	CalHistConcugl DO
CalHistConcmgl DO	40178	Float	2	R		0 /40	CalHistConcmgl DO
CalHistConchPa DO	40180	Float	2	R		0 /1355.6	CalHistConchPa DO
CalHistConcInHg DO	40182	Float	2	R		0 /40.15	CalHistConcInHg DO
CalHistConcmmHg DO	40184	Float	2	R		0 /1016.66	CalHistConcmmHg DO
MODULE SERIAL NO	40186	String	6	R			MODULE SERIAL NO
mV during last Temp Calibration	40192	Float	2	R		-5000 /5000	Cal History mV display
CalHistTemp DO	40194	Unsigned Integer	1	R		0 /50	CalHistTemp DO
CalHistdegC DO	40195	Float	2	R		0 /50	CalHistdegC DO
CalHistdegF DO	40197	Float	2	R		32 /122	CalHistdegF DO
CalHistoryTempOffset DO	40199	Unsigned Integer	1	R		0 /0	CalHistoryTempOffset DO
	40200	Float	2	R		-50 /50	CalHistoryTempOffsetDegC DO

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
Cal History Temp Offset Value	40202	Float	2	R		-50 /50	CalHistoryTempOffsetDegF DO
DO	40204	Float	2	R		0 /1	
DO	40206	Float	2	R		0 /1	
DO	40208	Float	2	R		0 /1	
DO	40210	Float	2	R		0 /1	
DO	40212	Float	2	R		0 /1	
DO	40214	Float	2	R		0 /1	
DO	40216	Float	2	R		0 /1	
DO	40218	Float	2	R		0 /1	
CalConcMeasTag DO	40220	Unsigned Integer	1	R		0 /0	
CalConcMeasDispugl DO	40221	Float	2	R		0 /40000	
CalConcMeasDispmgl DO	40223	Float	2	R		0 /40	
CalConcMeasDispppm DO	40225	Float	2	R		0 /40	
CalConcMeasDispppb DO	40227	Float	2	R		0 /40000	
CalConcMeasDispmBar DO	40229	Float	2	R		0 /1355.6	
CalConcMeasDisphPa DO	40231	Float	2	R		0 /1355.6	
CalConcMeasDispInHg DO	40233	Float	2	R		0 /40.15	
	40235	Float	2	R		0 /1016.66	
TempCalOffset DO	40237	Float	2	R		-50 /50	
AutoRangeSelect DO	40239	Float	2	R		0 /10	
Last Gas Calibration units for DO	40241	Float	2	R		0 /10	Units selected by the user during last calibration (1 - PPB
Temp Cal Units	40243	Float	2	R		0 /10	Units in which last temp cal was performed (1 = degC
DO New Sensor For Calibration	40245	Float	2	R		0 /10	Indicates if the user has selected YES or NO for new sensor calibration (1 = YES
Last User Entered Cal Value	40247	Float	2	R		-40000 /40000	User entered cal value during last Gas calibration in units selected during calibration
DO Cal Type during last calibration	40249	Float	2	R		0 /10	The cal type selected by the user during last calibration (1 = Zero Cal
Cal Status	40251	Float	2	R		0 /10	Last Cal Status (1 = OK
DO Conc Value during last calibration	40253	Float	2	R		-40000 /40000	DO Gas conc value during last successful calibration in units selected by user during calibration
Gas Conc Units During Calibration	40255	Float	2	R		0 /10	User selected units during the last successful gas calibration (1=PPM
Temp Cal Offset Value	40257	Float	2	R		-200 /200	Temp offset value after last calibration in units selected by user during calibration
Temp Units During Cal	40259	Float	2	R		0 /10	Units selected by the user during calibration (1 = degC
Present User Selected Temp Unit	40261	Float	2	R		0 /10	Unit selected by the user presently for Temperature (1=degC
Temp Cal offset during calibration	40263	Float	2	R		-200 /200	Displays the temp cal offset during the last calibration in the units selected at the time of calibration

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