Modbus Register
Polymetron 9586 Oxygen Scavengers

v1.01

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
O2 SCAVENGER	40001	Unsigned Integer	1	R		0 /2000	O2 SCAVENGER measure tag selection (67 = 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
O2 SCAVENGER in ppm	40007	Float	2	R		0 /10000	O2 SCAVENGER in ppm
O2 SCAVENGER in mg/l	40009	Float	2	R		0 /10000	O2 SCAVENGER 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
TEMP UNITS	40013	Selection List	1	R/W	U25 /26		Select unit of temp (C=25
FILTER	40014	Unsigned Integer	1	R/W		0 /60	O2 SCAVENGER 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
MEAS UNITS	40016	Selection List	1	R/W	38 /2 /4 /39 /0 /5		O2 Scavenger measurement unit selection(mg/l=0
OUTPUT MODE	40017	Selection List	1	R/W	0 /1 /2		Output mode selection tag(Active=0
CAL LEAVE	40018	Selection List	1	R/W	0 /1 /2		Cal leave flag(Quit=0
CAL EDIT VALUE	40019	Unsigned Integer	1	R		0 /65535	Cal edit value tag selection (71 = edit mg/l
O2 SCAVENGER CAL EDIT VALUE IN USER UNITS	40020	Float	2	R/W		0 /10000	CAL EDIT VALUE IN USER UNITS
SOFTWARE VERS	40022	Float	2	R		0 /1000000	Software version
MODULE SERIAL NO	40024	String	6	R			MODULE SERIAL NO
BOOTLOADER VER	40030	Float	2	R		0 /9.99	BOOTLOADER VER
SENS INTERVAL	40032	Selection List	1	R/W	0 /1 /2 /3 /4 /5 /6 /7 /8		Log interval selection(5s=0
CAL FACTOR	40033	Float	2	R		0 /1500	O2 SCAVENGER cal factor in uA/ppm
SENSOR SIGNAL	40035	Float	2	R		-5000 /5000	Sensor signal in mV
MEMBRANE DAYS	40037	Integer	1	R		0 /32000	Membrane life in days
DRIVER VERS	40038	Unsigned Integer	1	R		0 /1000	Device driver version
SERIAL NUMBER	40039	String	8	R/W			Sensor SERIAL NUMBER
OP ID ON CAL	40047	Selection List	1	R/W	0 /1		Operator ID required for cal (no=0
CAL REMINDER	40048	Selection List	1	R/W	0 /1 /2 /3 /4 /5 /6 /7 /8 /9		Cal reminder selection (OFF=0
CAL DATE	40049	Date	2	R			Calibration date
CAL TIME	40051	Time	2	R			Calibration time
CAL STATUS	40053	Selection List	1	R	0 /1		Calibration status(Fail=0
CAL TYPE	40054	Selection List	1	R	0 /7 /15 /16 /5		Calibration type(Defult=0
O2 SCAVENGER mV during calibration	40055	Float	2	R		-1000000 /1000000	Measured mV at calibration
O2 SCAVENGER Temperature Cal	40057	Float	2	R		-20 /200	Measured temperature at calibration

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O2 SCAVENGER CAL UNIT	40059	Selection List	1	R	38 /2 /4 /39 /0 /5		O2 SCAVENGER unit at calibration(1 - PPB
OP ID	40060	String	2	R/W			Calibration operator ID/initials
CAL DAYS	40062	Unsigned Integer	1	R		0 /10000	Days since last calibration
MSGS	40063	Selection List	1	R	0 /1 /2 /3 /4 /5 /6 /7 /8 /9 /10 /11 /12 /13 /14		Cal message
CAL WARN MSG	40064	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	40065	Float	2	R			Tag for event log involving float
LOG TEXT	40067	String	8	R			Tag for event log involving text
LOG INT	40075	Integer	1	R		-32768 /32767	Tag for event log involving integers
LOG PARAM	40076	String	8	R			Tag for event log involving passed parameter
DATE 1	40084	Date	2	R			Cal history date 1
DATE 2	40086	Date	2	R			Cal history date 2
DATE 3	40088	Date	2	R			Cal history date 3
DATE 4	40090	Date	2	R			Cal history date 4
DATE 5	40092	Date	2	R			Cal history date 5
DATE 6	40094	Date	2	R			Cal history date 6
TIME 1	40096	Time	2	R			Cal history time 1
TIME 2	40098	Time	2	R			Cal history time 2
TIME 3	40100	Time	2	R			Cal history time 3
TIME 4	40102	Time	2	R			Cal history time 4
TIME 5	40104	Time	2	R			Cal history time 5
TIME 6	40106	Time	2	R			Cal history time 6
PAGE NO:	40108	Unsigned Integer	1	R		0 /65535	Cal history page number
HIDDEN LINE	40109	Unsigned Integer	1	R		0 /65535	Cal history page hidden item
HIGH LIGHT LINE	40110	Unsigned Integer	1	R		0 /65535	Cal history page highlighted item
SensorType O2 SCAVENGER	40111	Unsigned Integer	1	R		0 /5	Test register for sensor type (2 = O2 Scavenger)
New Sensor O2 SCAVENGER	40112	Selection List	1	R/W	1 /0		New sensor flag(No=0
Raw Temperature Value	40113	Float	2	R		-999.9 /999.9	Raw temp value in user units
TEMP CAL OFFSET	40115	Float	2	R		-999.9 /999.9	Temp offset value at calibration
TEMP. CAL USER	40117	Float	2	R/W		-999.9 /999.9	Temp user value at calibration
DD CONTENT	40119	Unsigned Integer	1	R		0 /1000	device driver content version
NAME	40120	String	8	R/W			Sensor name
O2 SCAVENGER calADCcounts during calibration	40128	Float	2	R		-16777216 /16777216	O2 scav adc counts during factory calibration
Current Meas	40130	Float	2	R		-1000000 /1000000	Current measurement with offset in nA
Resistor Range	40132	Unsigned Integer	1	R		0 /4	Resistor range of the gain switching(2 = Range2
O2 SCAVENGER in ppb	40133	Float	2	R		0 /10000000	O2 SCAVENGER in ppb

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
O2 SCAVENGER in ug/l	40135	Float	2	R		0 /10000000	O2 SCAVENGER in ug/l
Zero cal offset	40137	Float	2	R		-1000000 /1000000	Concentration offset for Zero Calibratrion in nA
O2 SCAVENGER in ppb	40139	Float	2	R/W		0 /10000000	edit tag for unit ppb
O2 SCAVENGER in mg/l	40141	Float	2	R/W		0 /10000	edit tag for unit mgl
O2 SCAVENGER in ug/l	40143	Float	2	R/W		0 /10000000	edit tag for unit ugl
CalHistoryConcMeas O2 SCAVENGER	40145	Unsigned Integer	1	R		0 /0	CalHistoryConcMeas O2 SCAVENGER
CalHistoryConcppm O2 SCAVENGER	40146	Float	2	R		0 /10000	CalHistoryConcppm O2 SCAVENGER
CalHistoryConcppb O2 SCAVENGER	40148	Float	2	R		0 /10000000	CalHistoryConcppb O2 SCAVENGER
CalHistoryConcmgl O2 SCAVENGER	40150	Float	2	R		0 /10000	CalHistoryConcmgl O2 SCAVENGER
CalHistoryConcugl O2 SCAVENGER	40152	Float	2	R		0 /10000000	CalHistoryConcugl O2 SCAVENGER
Current / Membrane Signal (nA)	40154	Float	2	R		-1000000 /1000000	Raw Membrane Current in nA
Temp Cal mV O2 SCAVENGER	40156	Float	2	R		-5000 /5000	Temp Cal mV Equivalent value O2 SCAVENGER
CalHistTemp O2 SCAVENGER	40158	Unsigned Integer	1	R		0 /0	CalHistTemp O2 SCAVENGER
CalHistdegC O2 SCAVENGER	40159	Float	2	R		0 /50	CalHistdegC O2 SCAVENGER
CalHistdegF O2 SCAVENGER	40161	Float	2	R		32 /122	CalHistdegF O2 SCAVENGER
CalHistoryTempOffset O2 SCAVENGER	40163	Unsigned Integer	1	R		0 /0	CalHistoryTempOffset O2 SCAVENGER
Last Temp Cal Offset in DegC	40164	Float	2	R		-50 /50	Last Temp Cal Offset value in degC
Last Temp Cal offset in degF	40166	Float	2	R		-50 /50	Last Temp cal offset value in degF
CalConcMeasDispppm HYDRAZINE	40168	Float	2	R		0 /10000	
CalConcMeasDispppb HYDRAZINE	40170	Float	2	R		0 /10000000	
CalConcMeasDispmgl HYDRAZINE	40172	Float	2	R		0 /10000	
CalConcMeasDispugl HYDRAZINE	40174	Float	2	R		0 /10000000	
CalConcMeasTag HYDRAZINE	40176	Unsigned Integer	1	R		0 /10000000	
TempCalOffset HYDRAZINE	40177	Float	2	R		-50 /50	
AutoRangeForHART HYDRAZINE	40179	Float	2	R		0 /5	
Last Gas Calibration Units FOR O2 SCAVENGER	40181	Float	2	R		0 /10	Units in which last Gas calibration was performed(PPB = 1
Last Gas Calibration Status	40183	Float	2	R		0 /10	Shows the last completed gas calibration status (1 = Cal OK
Last Gas Calibration type	40185	Float	2	R		0 /10	Shows the last type of gas calibration (1 = Sample calibration
Last Temperature Calibration Units	40187	Float	2	R		0 /10	Units in which last temperature calibration was performed (1 = degC

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O2 Scavenger New Sensor For Calibration	40189	Float	2	R		0 /10	Indicates if the user has selected YES or NO for new sensor calibration (1 = YES
Present User Selected Temp Unit	40191	Float	2	R		0 /10	Unit selected by the user presently for Temperature (1=degC
Temp Cal offset during calibration	40193	Float	2	R		-200 /200	Displays the temp cal offset during the last calibration in the units selected by the user at that time
User entered Gas concentration during calibration	40195	Float	2	R		-40000 /40000	Cal Edit value in the units selected at the time of calibration
Temp Cal Offset Value	40197	Float	2	R		-200 /200	Temp offset value after last calibration in units selected by user during calibration
Temp Units During Cal	40199	Float	2	R		0 /10	Units selected by the user during calibration (1 = degC
O2 Scav Conc Value during last calibration	40201	Float	2	R		-40000 /40000	O2 Scav Gas conc value during last successful calibration in units selected during calibration
Gas Conc Units During Calibration	40203	Float	2	R		0 /10	User selected units during the last successful gas calibration (1=PPM

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