Modbus Register
Polymetron 9523 Calculated pH - Cationic Conductivity Analyzer

V 2.02

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
COND	40001	Float	2	R			
TEMP C	40003	Float	2	R	C		
RESIST	40005	Float	2	R	RES MEAS UNITS		
TDS	40007	Float	2	R	TDS UNITS		
SALINITY	40009	Float	2	R	SALN MEASUNITS		
MEASURE	40011	Unsigned Integer	1	R			
PTUSERVAL	40012	Unsigned Integer	1	R			
SELECT SPAN	40013	Unsigned Integer	1	R			
HTRY RESIST	40014	Float	2	R	HTRY RES UNITS		
HTRY ACTUAL RES	40016	Float	2	R	HTRY RES UNITS		
HTRY COND	40018	Float	2	R	HTY COND UNITS		
HTRY ACTUAL CO	40020	Float	2	R	HTY COND UNITS		
HTRY TDS	40022	Float	2	R	HTRY TDS UNITS		
HTRY ACTUAL TDS	40024	Float	2	R	HTRY TDS UNITS		
HTRY SAL	40026	Float	2	R	HTRY SAL UNITS		
HTRY ACTUAL SAL	40028	Float	2	R	HTRY SAL UNITS		
HTRY ACTUAL TEMP	40030	Float	2	R	C		
RESUME READING	40032	Unsigned Integer	1	R/W			0/1/2/3/4/5/6/7/8/9/10
TEMP	40033	Unsigned Integer	1	R	TEMP UNITS		
TEMP F	40034	Float	2	R	F		
CELL K MIN	40036	Float	2	R			
CELL K MAX	40038	Float	2	R			
TEMP OFFSET	40040	Float	2	R			
TEMP SLOPE	40042	Float	2	R			
CONDUCTIVITY UNITS	40044	Unsigned Integer	1	R/W			U50/51/59/58/34
COND UNITS I	40045	Unsigned Integer	1	R/W			U50/51/59/58/34
RES MEAS UNITS	40046	Unsigned Integer	1	R/W			U155/156/169/171/170/172
RES UNITS I	40047	Unsigned Integer	1	R/W			U155/156/169/171/170/172
TDS UNITS	40048	Unsigned Integer	1	R/W			U2/38
TDS UNIT	40049	Unsigned Integer	1	R/W			U2/38
SALN MEASUNITS	40050	Unsigned Integer	1	R/W			U31

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
MEAS UNITS	40051	Unsigned Integer	1	R			
HTY COND UNITS	40052	Unsigned Integer	1	R			U50/51/59/58/34
HTRY RES UNITS	40053	Unsigned Integer	1	R			U155/156/169/171/170/172
HTRY TDS UNITS	40054	Unsigned Integer	1	R			U2/38
HTRY SAL UNITS	40055	Unsigned Integer	1	R			U31
TEMP UNITS	40056	Unsigned Integer	1	R/W			U25/26
HTRY T UNITS	40057	Unsigned Integer	1	R			U25/26
SET PARAMETER	40058	Unsigned Integer	1	R/W			0/1/2/3
DISPLAY FORMAT	40059	Unsigned Integer	1	R/W			0/1/2/3/4
TAG FORMAT	40060	Unsigned Integer	2	R			
HTRY TAG	40062	Unsigned Integer	2	R			
FILTER	40064	Unsigned Integer	1	R/W	s		
CONFIG TDS	40065	Unsigned Integer	1	R/W			0/1
SELECT FACTOR	40066	Float	2	R/W	ppm /uS		
SELECT CELL K	40068	Unsigned Integer	1	R/W			5/6/7
CELL CONSTANT	40069	Float	2	R/W			
CELL CONST	40071	Float	2	R			
CELL VAL	40073	Float	2	R			
T COMP TYPE	40075	Unsigned Integer	1	R/W			0/1/2/3/4/5/6/7/8/9
TCOMP-TDS	40076	Unsigned Integer	1	R/W			0/1/2/3
T COMP SLOPE	40077	Float	2	R/W	% /C		
TCOMP REF TEMP	40079	Float	2	R/W	C		
TEMP ELEMENT	40081	Unsigned Integer	1	R/W			0/1/4
SET MANUAL	40082	Unsigned Integer	1	R	TEMP UNITS		
USER TEMP	40083	Float	2	R/W	C		
USER TEMP F	40085	Float	2	R/W	F		
OUTPUT MODE	40087	Unsigned Integer	1	R/W			0/1/2
EDIT VALUE	40088	Unsigned Integer	1	R			
1PT COND	40089	Float	2	R/W			
1PT RES	40091	Float	2	R/W	RES MEAS UNITS		

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1PT TDS	40093	Float	2	R/W	TDS UNITS		
1PT SALINITY	40095	Float	2	R/W	SALN MEASUNITS		
NAME	40097	String	8	R/W			
SOFT VERSION	40105	Float	2	R			
SERIAL NUMBER	40107	String	8	R/W			
BOOTLOADER VERS	40115	Float	2	R			
FUNCTION CODE	40117	Unsigned Integer	1	R/W			
NEXT STATE	40118	Unsigned Integer	1	R			
SENS INTERVAL	40119	Unsigned Integer	1	R/W			0/1/2/3/4/5/6/7/8
CAL LEAVE	40120	Unsigned Integer	1	R/W			0/1/2
SPAN K 0.05	40121	Unsigned Integer	1	R/W			0/1/2
SPAN K 0,5	40122	Unsigned Integer	1	R/W			1/2/3
SPAN K 1	40123	Unsigned Integer	1	R/W			5/6/7
SPAN K 5	40124	Unsigned Integer	1	R/W			2/3/4
SPAN K 10	40125	Unsigned Integer	1	R/W			7/8/9
CAL CELL K	40126	Float	2	R			
X	40128	Float	2	R/W	TEMP UNITS		
P2	40130	Unsigned Integer	1	R/W	TEMP UNITS		0/1
P3	40131	Unsigned Integer	1	R/W	TEMP UNITS		0/1/2
P5	40132	Unsigned Integer	1	R/W	TEMP UNITS		0/1/2/3/4
P4	40133	Unsigned Integer	1	R/W	TEMP UNITS		0/1/2/3
P6	40134	Unsigned Integer	1	R/W	TEMP UNITS		0/1/2/3/4/5
P7	40135	Unsigned Integer	1	R/W	TEMP UNITS		0/1/2/3/4/5/6
P8	40136	Unsigned Integer	1	R/W	TEMP UNITS		0/1/2/3/4/5/6/7
P9	40137	Unsigned Integer	1	R/W	TEMP UNITS		0/1/2/3/4/5/6/7/8
P10	40138	Unsigned Integer	1	R/W	TEMP UNITS		0/1/2/3/4/5/6/7/8/9
Y	40139	Float	2	R/W			
SAVE TABLE	40141	Unsigned Integer	1	R/W	TEMP UNITS		0/1/2
TABLE ACTION	40142	Unsigned Integer	1	R/W			0/1/2
R1CNTS	40143	Float	2	R			
R2CNTS	40145	Float	2	R			
R3CNTS	40147	Float	2	R			
R4 CNTS	40149	Float	2	R			
DRIVER VERS	40151	Unsigned Integer	1	R			

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
CAL REMINDER	40152	Unsigned Integer	1	R/W			0/1/2/3/4/5/6/7/8/9
OP ID	40153	Unsigned Integer	1	R/W			0/1
MIN MEAS VALUE	40154	Float	2	R			
MINIMUM	40156	Float	2	R			
MAXIMUM	40158	Float	2	R			
MAX MEAS VALUE	40160	Float	2	R			
CAL DATE	40162	Time2	2	R			
TIME	40164	Time2	2	R			
CAL STATUS	40166	Unsigned Integer	1	R			0/1
CAL TYPE	40167	Unsigned Integer	1	R			19/7/5/6/15/3/17/18
OP ID	40168	String	2	R/W			
MESSAGES	40170	Unsigned Integer	1	R			0/1/2/3/4/5/6/7/8/9/10/11/12/13/14
CAL DAYS	40171	Unsigned Integer	1	R	Day		
SENSOR DAYS	40172	Unsigned Integer	1	R	Day		
CARD SERIAL NO	40173	String	6	R			
SIGNALS	40179	Float	2	R			
LOG FLOAT	40181	Float	2	R			
LOG TEXT	40183	String	8	R			
LOG INT	40191	Integer	1	R			
LOG PARAM	40192	String	8	R			
DATE 1	40200	Time2	2	R			
DATE 2	40202	Time2	2	R			
DATE 3	40204	Time2	2	R			
DATE 4	40206	Time2	2	R			
DATE 5	40208	Time2	2	R			
DATE 6	40210	Time2	2	R			
TIME 1	40212	Time2	2	R			
TIME 2	40214	Time2	2	R			
TIME 3	40216	Time2	2	R			
TIME 4	40218	Time2	2	R			
TIME 5	40220	Time2	2	R			
TIME 6	40222	Time2	2	R			
PAGE NO:	40224	Unsigned Integer	1	R			
HIDDEN LINE	40225	Unsigned Integer	1	R			
HIGHLIGHT LINE	40226	Unsigned Integer	1	R			
SENSE	40227	Float	2	R	mV		
DRIVE	40229	Float	2	R	mV		
OFFSET	40231	Float	2	R	mV		
VALUE	40233	Float	2	R			
FACTORY CAL	40235	Unsigned Integer	1	R/W			0/1/2/3/4/5/6
FACTORY CAL RV	40236	Float	2	R/W			

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
SELECT RANGE	40238	Unsigned Integer	1	R/W			
GAIN VALUE	40239	Unsigned Integer	1	R			
FACTORY CAL GAIN	40240	Float	2	R/W			
T-FACTOR	40242	Float	2	R/W	<Ohm>		
CAL ZERO	40244	Float	2	R			
SET FACTOR	40246	Float	2	R/W			
SPAN	40248	Unsigned Integer	1	R/W			0/1/2/3/4/5/6/7/8/9
FACTORY CAL MODE	40249	Unsigned Integer	1	R/W			
TempElemLeakage CCO	40250	Float	2	R/W			
RawCondSignal CCO	40252	Float	2	R	µS		
CondValue Int CCO	40254	Unsigned Integer	2	R	µS /cm		
ResistValue Int CCO	40256	Unsigned Integer	2	R	<Ohm>		
TDSValue Int CCO	40258	Unsigned Integer	2	R	ppm		
SalinityValue Int CCO	40260	Unsigned Integer	1	R	ppt		
TempDegCMeas Int CCO	40261	Integer	1	R	C		
TempDegFMeas Int CCO	40262	Integer	1	R	F		
NewSensor CCO	40263	Unsigned Integer	1	R/W			1/0
TempR1Value CCO	40264	Float	2	R/W	<Ohm>		
TempR2Value	40266	Float	2	R/W	<Ohm>		
TEMP CAL RAW	40268	Float	2	R	TEMP UNITS		
TEMP CAL OFFSET	40270	Float	2	R/W	TEMP UNITS		
TEMP CAL USER	40272	Float	2	R/W	TEMP UNITS		
CableLengthUnits CCO	40274	Unsigned Integer	1	R/W			U79/81
CABLE LENGTH	40275	Float	2	R/W			
DD CONTENT	40277	Unsigned Integer	1	R			
SENSOR MEASURE	40278	Float	2	R	mV		
POL. VALUE	40280	Float	2	R			
CABLE RESISTANCE	40282	Float	2	R/W	<Ohm> /m		
CABLE CAPACITANCE	40284	Float	2	R/W	pF /m		
CABLE CAPACITY	40286	Float	2	R	nF		
T-COMP-TYPE	40289	Unsigned Integer	1	R/W			0/1/2/3/4
T-COMP-UPW	40290	Unsigned Integer	1	R/W			0/1/2/3
T-COMP-USER	40291	Unsigned Integer	1	R/W			0/1/2
	40292	Float	2	R/W	k<Ohm>		
	40294	Float	2	R/W	%		

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
T-COMP-TYPE	40296	Unsigned Integer	1	R/W			0/1/2
	40297	Float	2	R	k<Ohm>		
	40299	Float	2	R	%		
	40301	Float	2	R	%		
	40303	Float	2	R	%		
	40305	Float	2	R	%		
	40307	Float	2	R	%		
	40309	Float	2	R	%		
	40311	Float	2	R	%		
CAL FACTOR	40313	Float	2	R			
CAL SLOPE	40315	Float	2	R			
Calibration Factor	40317	Float	2	R			
Calibration Slope	40319	Float	2	R			
HTRY TEMP OFFSET	40321	Float	2	R	TEMP UNITS		
	40358	Float	2	R/W	%		
9526 SET PARAMETER	40360	Unsigned Integer	1	R/W			0/3
9526TCompTypeParent CCO	40361	Unsigned Integer	1	R/W			0/1/2/3
	40362	Unsigned Integer	1	R/W			0
9526TempElementType CCO	40363	Unsigned Integer	1	R/W			0/1
	40364	Float	2	R			
New Sensor Yes/No	40374	Float	2	R			
Cal Type for last calibration	40376	Float	2	R			

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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