Modbus Register
CL17 sc ULR

V 1.04

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CL17 sc ULR V 1.04

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
FREE CHLORINE	40001	Float	2	R	mg /l	F Cl2	
TOTAL CHLORINE	40001	Float	2	R	mg /l	T Cl2	
FLOW RATE	40003	Float	2	R	mL /min	FLOW	
GRAB SAMPLE VALUE	40005	Float	2	R/W			
FREE CHLORINE	40007	Unsigned Integer	1	R	mg /l	F Cl2	
TOTAL CHLORINE	40007	Unsigned Integer	1	R	mg /l	T Cl2	
FLOW RATE	40008	Unsigned Integer	1	R	mL /min	FLOW	
GRAB SAMPLE VALUE	40009	Unsigned Integer	2	R			
CHLORINE	40011	Unsigned Integer	1	R			
FUNCTION CODE	40012	Unsigned Integer	1	R/W			
NEXT STATE	40013	Unsigned Integer	1	R			
SELECT MEASURE	40014	Unsigned Integer	1	R/W			0/1
OUTPUT MODE	40015	Unsigned Integer	1	R/W	s		1/2
SENSOR NAME	40016	String	8	R/W			
SERIAL NUMBER	40024	String	6	R			
CODE VERSION	40030	Float	2	R			
BOOT VERS	40032	Float	2	R			
DRIVER VERS	40034	Unsigned Integer	1	R			
BUBBLE REJECT	40035	Unsigned Integer	1	R/W			0/1
SERVICE CYCLES	40036	Integer	2	R			
SYS CHANGE	40038	Integer	1	R			
UI YN VALUE	40039	Unsigned Integer	1	R/W			0/1
UI TIMER	40040	Unsigned Integer	1	R	s		
UI ERROR SCREEN	40041	Unsigned Integer	1	R/W			
CAL ZERO READ	40042	Float	2	R			
CAL STANDARD VALUE	40044	Float	2	R/W			
CAL STANDARD READ VALUE	40046	Float	2	R			
CAL HISTORY ZERO DATE	40048	Time2	2	R			
CAL HISTORY STD DATE	40050	Time2	2	R			
CAL HISTORY RESET DATE	40052	Time2	2	R			
CALC_CAL_VALUE	40054	Float	2	R			
CHLORINE	40056	Float	2	R	MEAS UNITS	CL	
ABSORBANCE	40058	Float	2	R			
GAIN	40060	Float	2	R			
OFFSET	40062	Float	2	R			
OLD GAIN	40064	Float	2	R			

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DARK CNT SD	40066	Float	2	R			
REF CNT SD	40068	Float	2	R			
SAMPLE CNT SD	40070	Float	2	R			
LOW ALARM	40072	Float	2	R/W	mg /l		
HIGH ALARM	40074	Float	2	R/W	mg /l		
SIGNAL AVERAGE TAG	40076	Unsigned Integer	1	R/W			0/1/2/3
MEAS DURATION	40077	Unsigned Integer	1	R			
DARK_AVG	40078	Float	2	R			
SIGNAL AVERAGE	40080	Float	2	R	K		
AVERAGE	40082	Float	2	R	K		
LED DRIVE	40084	Float	2	R	%	LED	
DEVICE FILE DOWNLOAD	40086	Unsigned Integer	1	R			
PWR_ON_TYPE	40087	Unsigned Integer	1	R			
FLOW RATE AVG	40088	Unsigned Integer	1	R	mL /min		
CONFIGURE	40089	Float	2	R			
CONFIGURE	40091	Unsigned Integer	1	R			
TriggerVal	40092	Float	2	R			
LimitVal	40094	Float	2	R			
DutyCycle	40096	Float	2	R			
LimitDutyCycle	40098	Float	2	R			
OLD OFFSET	40100	Float	2	R			
OutputModeInt	40102	Unsigned Integer	1	R			
OldLEDdrive	40103	Float	2	R			
WClear	40105	Unsigned Integer	1	R			
SERVICE VER ZERO VALUE	40106	Float	2	R			
SERVICE VER ZERO READ	40108	Float	2	R/W			
SERVICE VER ZERO PASS FAIL	40110	Unsigned Integer	1	R/W			0/1
SERVICE VER MID VALUE	40111	Float	2	R/W			
SERVICE VER MID STD VALUE	40113	Float	2	R	MEAS UNITS STD		
SERVICE VER MID READ	40115	Float	2	R/W	MEAS UNITS Read		
SERVICE VER MID PASS FAIL	40117	Unsigned Integer	1	R/W			0/1
SERVICE VER HIGH VALUE FIRST	40118	Float	2	R/W			
SERVICE VER HIH VALUE SECOND	40120	Float	2	R/W			
SERVICE VER HIGH STD VALUE	40122	Float	2	R	MEAS UNITS STD		
SERVICE VER HIGH READ	40124	Float	2	R/W	MEAS UNITS Read		

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SERVICE VER HIGH PASS FAIL	40126	Unsigned Integer	1	R/W			0/1
SERVICE SNAME	40127	String	6	R/W			
DATA SET	40133	Integer	1	R			
STEP0	40134	Unsigned Integer	2	R			
STEP1	40136	Unsigned Integer	2	R			
STEP2	40138	Unsigned Integer	2	R			
STEP3	40140	Unsigned Integer	2	R			
STEP4	40142	Unsigned Integer	2	R			
STEP5	40144	Unsigned Integer	2	R			
STEP6	40146	Unsigned Integer	2	R			
STEP7	40148	Unsigned Integer	2	R			
STEP8	40150	Unsigned Integer	2	R			
STEP9	40152	Unsigned Integer	2	R			
STEP10	40154	Unsigned Integer	2	R			
STEP39	40156	Unsigned Integer	2	R			
STEP40	40158	Unsigned Integer	2	R			
STEP41	40160	Unsigned Integer	2	R			
STEP42	40162	Unsigned Integer	2	R			
STEP43	40164	Unsigned Integer	2	R			
STEP44	40166	Unsigned Integer	2	R			
STEP45	40168	Unsigned Integer	2	R			
STEP46	40170	Unsigned Integer	2	R			
STEP47	40172	Unsigned Integer	2	R			
STEP48	40174	Unsigned Integer	2	R			
STEP49	40176	Unsigned Integer	2	R			
STEP50	40178	Unsigned Integer	2	R			
STEP51	40180	Unsigned Integer	2	R			
STEP52	40182	Unsigned Integer	2	R			
STEP53	40184	Unsigned Integer	2	R			
STEP54	40186	Unsigned Integer	2	R			

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
STEP55	40188	Unsigned Integer	2	R			
STEP56	40190	Unsigned Integer	2	R			
STEP57	40192	Unsigned Integer	2	R			
STEP58	40194	Unsigned Integer	2	R			
STEP59	40196	Unsigned Integer	2	R			
STEP60	40198	Unsigned Integer	2	R			
STEP61	40200	Unsigned Integer	2	R			
STEP62	40202	Unsigned Integer	2	R			
STEP63	40204	Unsigned Integer	2	R			
STEP64	40206	Unsigned Integer	2	R			
STEP65	40208	Unsigned Integer	2	R			
STEP66	40210	Unsigned Integer	2	R			
STEP67	40212	Unsigned Integer	2	R			
STEP68	40214	Unsigned Integer	2	R			
STEP69	40216	Unsigned Integer	2	R			
STEP70	40218	Unsigned Integer	2	R			
STEP71	40220	Unsigned Integer	2	R			
STEP72	40222	Unsigned Integer	2	R			
STEP73	40224	Unsigned Integer	2	R			
STEP74	40226	Unsigned Integer	2	R			
STEP75	40228	Unsigned Integer	2	R			
STEP76	40230	Unsigned Integer	2	R			
STEP77	40232	Unsigned Integer	2	R			
STEP78	40234	Unsigned Integer	2	R			
STEP79	40236	Unsigned Integer	2	R			
STEP80	40238	Unsigned Integer	2	R			
STEP81	40240	Unsigned Integer	2	R			
STEP82	40242	Unsigned Integer	2	R			
STEP83	40244	Unsigned Integer	2	R			

Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
STEP84	40246	Unsigned Integer	2	R			
STEP85	40248	Unsigned Integer	2	R			
STEP94	40250	Unsigned Integer	2	R			
STEP95	40252	Unsigned Integer	2	R			
STEP96	40254	Unsigned Integer	2	R			
STEP97	40256	Unsigned Integer	2	R			
STEP98	40258	Unsigned Integer	2	R			
STEP99	40260	Unsigned Integer	2	R			
STEP100	40262	Unsigned Integer	2	R			
STEP101	40264	Unsigned Integer	2	R			
STEP102	40266	Unsigned Integer	2	R			
STEP103	40268	Unsigned Integer	2	R			
STEP104	40270	Unsigned Integer	2	R			
STEP105	40272	Unsigned Integer	2	R			
STEP106	40274	Unsigned Integer	2	R			
STEP107	40276	Unsigned Integer	2	R			
STEP108	40278	Unsigned Integer	2	R			
STEP109	40280	Unsigned Integer	2	R			
STEP110	40282	Unsigned Integer	2	R			
STEP111	40284	Unsigned Integer	2	R			
STEP112	40286	Unsigned Integer	2	R			
STEP113	40288	Unsigned Integer	2	R			
STEP114	40290	Unsigned Integer	2	R			
STEP115	40292	Unsigned Integer	2	R			
STEP116	40294	Unsigned Integer	2	R			
STEP117	40296	Unsigned Integer	2	R			
STEP118	40298	Unsigned Integer	2	R			
STEP119	40300	Unsigned Integer	2	R			
STEP120	40302	Unsigned Integer	2	R			

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
STEP121	40304	Unsigned Integer	2	R			
STEP122	40306	Unsigned Integer	2	R			
STEP123	40308	Unsigned Integer	2	R			
STEP124	40310	Unsigned Integer	2	R			
STEP125	40312	Unsigned Integer	2	R			
STEP126	40314	Unsigned Integer	2	R			
STEP127	40316	Unsigned Integer	2	R			
STEP128	40318	Unsigned Integer	2	R			
STEP129	40320	Unsigned Integer	2	R			
STEP130	40322	Unsigned Integer	2	R			
STEP131	40324	Unsigned Integer	2	R			
STEP132	40326	Unsigned Integer	2	R			
STEP133	40328	Unsigned Integer	2	R			
STEP134	40330	Unsigned Integer	2	R			
UNUSEDA	40332	Unsigned Integer	1	R/W			
UNUSEDC	40333	Unsigned Integer	2	R/W			
UNUSEDB	40335	Unsigned Integer	2	R/W			
	40337	Unsigned Integer	1	R			
	40338	Unsigned Integer	1	R/W	s		1/0/2
	40339	Unsigned Integer	2	R			
	40341	Unsigned Integer	2	R			
FREE CL2 PPB	40343	Float	2	R	ppb	F Cl2	
TOTAL CL2 PPB	40343	Float	2	R	ppb	T Cl2	
TOTAL CL2 PPM	40343	Float	2	R	ppm	T Cl2	
CL2 EXPOSURE	40345	Float	2	R	ppm-hr		
LAST CL2 EXPOSURE	40347	Float	2	R	ppm-hr		
NEW MEMBRANE DATE	40349	Time2	2	R			
OLD MEMBRANE DATE	40351	Time2	2	R			
ULR SELECT	40353	Unsigned Integer	1	R/W			0/1
CHLORINE TAG	40354	Unsigned Integer	1	R			
CL2 EXPOSURE2	40355	Float	2	R	ppm-hr		
OLD MEMBRANE2	40357	Time2	2	R			

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Name	Register	Data Type	Length	Access Mode	Discrete Range	Min / Max	Description
SET EXPIRATION	40359	Unsigned Integer	1	R/W	ppm-hr		
CL2 EXPOSURE3	40360	Float	2	R	ppm-hr		
OLD MEMBRANE3	40362	Time2	2	R			
MEAS UNITS	40364	Unsigned Integer	1	R/W			U38/2
HIGH ALARM PPB	40365	Float	2	R/W	ppb		
HIGH ALARM PPM	40365	Float	2	R/W	ppm		
LOW ALARM PPB	40367	Float	2	R/W	ppb		
LOW ALARM PPM	40367	Float	2	R/W	ppm		
MEAS UNITS STD	40369	Unsigned Integer	1	R			U114/38/2/39/0
MEAS UNITS Read	40370	Unsigned Integer	1	R			U114/38/2/39/0
TYPE	40371	Unsigned Integer	1	R			0/1/2

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