

Name	Description	Bytes count	Holding registers	Input registers	Coils	Discrete Inputs	Protection	Comments
<b>Device configuration - HOLDING REGISTERS</b>								
ID Address	Default MODBUS address	1	0x00				R/W	default: 0x0A*
COM_setup	RS485 port setup	1	0x01				R/W	See table A
Language	Chlorinator menu language	1	0x02				R/W	See table B
Cleaning cycle	Cleaning selection (Hours)	1	0x03				R/W	Time in minutes/10. Example: 4 hours -> 240min -> 24
Time hours	Hours clock time	1	0x04				R/W	Hours 24h format
Time minutes	Minutes clock time	1	0x05				R/W	Minutes
<b>Devie control parameters - HOLDING REGISTERS</b>								
Control mode	Manual/Auto/Semi-Auto	1	0x10				R/W	0 -> Manual mode; 1 -> Auto mode
Master probe	Free chlorine probe or ORP probe	1	0x11				R/W	0: Free Chlorine probe selected. 1: ORP probe selected
Production set point	Chlorine production set point	1	0x12				R/W	0 to 100%
pH setpoint	pH set point	2	0x13				R/W	MSByte: pH High - LSByte: pH Low
ORP Setpoint	ORP set point	2	0x14				R/W	MSByte: orpHigh - LSByte: orpLow
PPM Setpoint	Free chlorine probe set point	2	0x15				R/W	MSByte: ppmHigh - LSByte: ppmLow
<b>Aux relay - HOLDING REGISTERS</b>								
Relay status	Auxiliary relay status	1	0x20				R/W	EVOTOUCH has 1 relay and it has 4 states. See Table C
R1 C1 Start time hour	Start hour C1	1	0x21				R/W	24h format; Set 24h to clear cycle
R1 C1 Start time minute	Start minute C1	1	0x22				R/W	minutes
R1 C1 Stop time hour	Stop hour C1	1	0x23				R/W	24h format; Set 24h to clear cycle
R1 C1 Stop time minute	Stop minute C1	1	0x24				R/W	minutes
R1 C2 Start time hour	Start hour C2	1	0x25				R/W	24h format; Set 24h to clear cycle
R1 C2 Start time minute	Start minute C2	1	0x26				R/W	minutes
R1 C2 Stop time hour	Stop hour C2	1	0x26				R/W	24h format; Set 24h to clear cycle
R1 C2 Stop time minute	Stop minute C2	1	0x27				R/W	minutes
R1 C3 Start time hour	Start hour C3	1	0x28				R/W	24h format; Set 24h to clear cycle
R1 C3 Start time minute	Start minute C3	1	0x29				R/W	minutes
R1 C3 Stop time hour	Stop hour C3	1	0x2A				R/W	24h format; Set 24h to clear cycle
R1 C3 Stop time minute	Stop minute C3	1	0x2B				R/W	minutes
R1 C4 Start time hour	Start hour C4	1	0x2D				R/W	24h format; Set 24h to clear cycle
R1 C4 Start time minute	Start minute C4	1	0x2E				R/W	minutes
R1 C4 Stop time hour	Stop hour C4	1	0x2F				R/W	24h format; Set 24h to clear cycle
R1 C4 Stop time minute	Stop minute C4	1	0x30				R/W	minutes
<b>Device Info - INPUT REGISTERS</b>								
Device model	Chlorinator mode code	1		0x00			R	0: EVOTOUCH
SW version	SW version code	1		0x01			R	130: Version 1.3.0
Customer	OEM customer code	1		0x02			R	0: BSV
Operation hours_low	hh:mm	2		0x03			R	Operation hours uses 4 bytes: Three for hours counting, one for
Operation hours_high	hh-high - hh-highest byte	2		0x04			R	minutes
<b>Device read only parameters - INPUT REGISTERS</b>								
Cell intensity_p	measured in %	1		0x10			R	measured in %
Current pH value	pH probe reading	2		0x11			R	MSByte: pH High - LSByte: pH Low
Current OPR value	ORP probe reading	2		0x12			R	MSByte: orpHigh - LSByte: orpLow
Current ppm value	FCL probe reading	2		0x13			R	MSByte: ppmHigh - LSByte: ppmLow
Salt concentration	Salt probe reading in g/l x10	2		0x14			R	MSByte: Salt high byte, LSByte: salt low byte
Water temperature	Temperature probe reading 1°C res.	2		0x15			R	MSByte: sign, 0-positive, 1-negative - LSByte: water temp
Cell intensity_a	measured in Amperes	2		0x16			R	MSByte: I High - LSByte: I Low
Cell_voltage	in volts x 10	2		0x17			R	MSByte: V High - LSByte: V Low. Example: 27V -> 270 -> LSByte: 0x14, MSByte: 0x1
<b>User writable bits (COILS)</b>								
Cover position	Cover position	1-b		0x00			R/W	0: cover OFF - 1: cover ON
Flow switch	Enable/disable flow switch	1-b		0x01			R/W	0: flow switch = NO - 1: flow switch YES
pH alarm	Enable/disable pH alarm	1-b		0x02			R/W	0: pH alarm enabled - 1: pH alarm disabled
pH mode	acid or alkali mode	1-b		0x03			R/W	0: pH ACID dosing - 1: pH ALK dosing
pH control	Enable/disable pH dosing	1-b		0x04			R/W	0: pH control ON - 1: pH control OFF
Night Mode	Enable/Disable night mode	1-b		0x05			R/W	0: Acoustic Alarms Disabled - 1: Acoustic Alarms Enabled
<b>User non-writable bits - DISCRETE INPUTS</b>								
<b>STATUS FLAGS</b>								
Cell polarity		1-b			0x00		R	0: forward - 1: reverse
Filter pump status		1-b			0x01		R	0: stop - 1: running
Waiting time for probe to be stable		1-b			0x02		R	0: Probes are stabilizing; 1: Probes are stable

0	19200, 8E1
1	19200, 8N1
2	19200, 8N2
3	9600, 8E1
4	9600, 8N1
5	9600, 8N2

0	English
1	French
2	Spanish
3	Italian
4	German
5	Czech
6	Dutch

EVOTOUCH	
Relay status	R1 value
Manual OFF	0
Manual ON	1
Auto OFF	2
Auto ON	3

Electrode cleaning in process	1-b		0x03	R	1 = true
<b>ALARMS</b>					
ORP probe saturated	1-b		0x10	R	1 = true
Overtemperature inside the chlorinator	1-b		0x11	R	1 = true
Open circuit	1-b		0x12	R	1 = true
No water flow	1-b		0x13	R	1 = true
Short circuit	1-b		0x14	R	1 = true
pH Alarm	1-b		0x15	R	1 = true
PPM Probe disconnected	1-b		0x16	R	1 = true
<b>WARNINGS</b>					
Lack of salt	1-b		0x20	R	1 = true
Too much salt	1-b		0x21	R	1 = true
Bad Cell	1-b		0x22	R	1 = true
ORP probe disconnectetd	1-b		0x23	R	1 = true

EVOUTOUCH modbus protocol version 5

\*All addresses are hexadecimal notation. For example: ID Address 0x0A=0d10