Name	Holding Register (HR)	Input Register (IR)	Decription	Access Level	Driver
ID_Address	0x00		1 to 240. Default address: 0x01	NO ACCESS	
COM_Setup	0x01		0: 9600, 8, E, 1 (default value) 1: 19200, 8, E, 1 2: 9600, 8, N, 2 3: 19200, 8, N, 2 4: 9600, 8, N, 1 5: 19200, 8, N, 1		
ID_Manufacturer_hi	0x02		0x2758		
ID_Manufacturer_lo	0x03		0x583E		
ID_Product_code_hi	0x04		1		
ID_Product_code_lo	0x05		7164: Guardian Pool 1 - Free Cl (**72700**) 7165: Guardian Pool 2 - Free Cl for Drinking Water (**72701**) 7166: Guardian Pool 3 - pH and Free Cl (**72702**) 7167: Guardian Pool 4 - pH and ORP (**72703**) 7168: Guardian Pool 5 - pH, ORP and Free Cl (**72704**) 7169: Guardian Pool 6 - pH, ORP, Free, Combined and Total Cl and Turbidity (**72705**)		
ID_Verify	0x06		TBD		
HW_Version	0x07		1		
SW_Version	0x08		Version * 100 (es: 100 = ver 1.00)		
MODEL_Serie_hi	0x09		High byte of serial number		
MODEL_Serie_lo	0x0A		Low byte of serial number		
MODEL_Production	0x0B		Batch number		
Watchdog_time	0x10		Time in seconds for the WD to be triggered. Default value: 0 (WD disabled)	USER ACCESS	
Watchdog_config	0x11		Action to perform when WD is triggered: 0 = HW reset 1 = RS485 communication reset 2 = all dosages are stopped and WD alarm is triggered (**alarm relay**) 3 = WD alarm is triggered (**alarm relay**)		
ph High Limit	0x12		1 to 1400 cents of pH units		
ph Low Limit	0x13		1 to 1400 cents of pH units		
ORP High Limit	0x14		-1000 to 1000 mV		
ORP Low Limit	0x15		-1000 to 1000 mV		
Free Chlorine High Limit	0x16		0 to 1000 cents of ppm		
Free Chlorine Low Limit	0x17		0 to 1000 cents of ppm		
Total Chlorine High Limit	0x18		0 to 1000 cents of ppm		
Total Chlorine Low Limit	0x19		0 to 1000 cents of ppm		
Combined Chlorine High Limit	0x1A		0 to 1000 cents of ppm		
Combined Chlorine Low Limit	0x1B		0 to 1000 cents of ppm		
Turbidity High Limit	0x1C		0 to 1000 decs of NTU units		
Turbidity Low Limit	0x1D		0 to 1000 decs of NTU units		
Temp High Limit	0x1E		-100 to +700 decs of °C		
Temp Low Limit	0x1F		-100 to +700 decs of °C		
Latched Alarms 1	0x20				
	.bit 0		No Water Flow (Reed)		
	.bit 1		Free Chlorine High		
	.bit 2		Free Chlorine Low		
	.bit 3		Total Chlorine High		
	.bit 4		Total Chlorine Low		
	.bit 5		Combined Chlorine High		
	.bit 6		Combined Chlorine Low		
	.bit 7		pH High		
	.bit 8		pH Low		
	.bit 9		ORP High		
	.bit 10		ORP Low		
	.bit 11		Turbidity High		
	.bit 12		Turbidity Low		
	.bit 13		Temperature High		
	.bit 14		Temperature Low		
	.bit 15		TBD		
Alarms 1 (*only read)		0x01			
		.bit 0	No Water Flow (Reed)		
		.bit 1	Free Chlorine High		
		.bit 2	Free Chlorine Low		
		.bit 3	Total Chlorine High		
		.bit 4	Total Chlorine Low		
		.bit 5	Combined Chlorine High		
		.bit 6	Combined Chlorine Low		
		.bit 7	pH High		
		.bit 8	pH Low		
		.bit 9	ORP High		
		.bit 10	ORP Low		
		.bit 11	Turbidity High		
		.bit 12	Turbidity Low		
		.bit 13	Temperature High		
		.bit 14	Temperature Low		
		.bit 15	TBD		

Control Word	0x21 .bit 0... 2 .bit 3 .bits 4... 15		Reserved Control Mode: 0/1 = stop/run system TBD	USER ACCESS
		0x00 .bit 0 .bits 1... 2 .bit 3 .bit 4 .bit 5 .bit 6 .bit 7 .bit 8 .bit 9 .bit 10 .bits 11... 15	Alarm flag Reserved Control Mode Status: 0/1 = system stopped/running Dosing_Mode_pH1: 0/1 = alkaline/acid selected Dosing_Mode_pH2: 0/1 = alkaline/acid selected Dosing_Mode_Cl1: 0/1 = high/low selected Dosing_Mode_Cl2: 0/1 = high/low selected Dosing Mode ORP: 0/1 = reduction/oxidation selected Dosing Mode Temperature: 0/1 = reduction/oxidation selected Dosing Mode Cl.Comb./Turbidity: 0/1 = reduction/oxidation selected TBD	
SetPoint pH 1	0x22		1 to 1400 cents of pH units	USER ACCESS
Hysteresis pH 1	0x23		1 to 1400 cents of pH units	
SetPoint pH 2	0x24		1 to 1400 cents of pH units	
Hysteresis pH 2	0x25		1 to 1400 cents of pH units	
SetPoint Free Cl 1	0x26		0 to 1000 cents of ppm	
Hysteresis Free Cl 1	0x27		0 to 1000 cents of ppm	
SetPoint Free Cl 2	0x28		0 to 1000 cents of ppm	
Hysteresis Free Cl 2	0x29		0 to 1000 cents of ppm	
SetPoint ORP	0x2A		-1000 to 1000 mV	
Hysteresis ORP	0x2B		-1000 to 1000 mV	
Setpoint_Temp	0x2C		-100 to +700 decs of °C. Default value: 25 °C	
Hysteresis_Temp	0x2D		-100 to +700 decs of °C. Default value: 1 °C	
Setpoint_CombinedCl	0x2E		0 to 1000 cents of ppm. Default value: 0,5 ppm	
Hysteresis_CombinedCl	0x2F		0 to 1000 cents of ppm. Default value: 0,2 ppm	
Setpoint_Turbidity	0x30		0 to 1000 decs of NTU units. Default value: 1 NTU units	
Hysteresis_Turbidity	0x31		0 to 1000 decs of NTU units. Default value: 0,5 NTU units	
Device Starts Counter	0x30		0 to 65535. + 1 each time device starts up	NO ACCESS
Alarms1.bit0 Counter	0x40		0 to 65535. + 1 each time alarm is triggered	
Alarms1.bit1 Counter	0x41		0 to 65535. + 1 each time alarm is triggered	
Alarms1.bit2 Counter	0x42		0 to 65535. + 1 each time alarm is triggered	
Alarms1.bit3 Counter	0x43		0 to 65535. + 1 each time alarm is triggered	
Alarms 1.bit4 Counter	0x44		0 to 65535. + 1 each time alarm is triggered	
Alarms 1.bit5 Counter	0x45		0 to 65535. + 1 each time alarm is triggered	
Alarms 1.bit6 Counter	0x46		0 to 65535. + 1 each time alarm is triggered	
Alarms 1.bit7 Counter	0x47		0 to 65535. + 1 each time alarm is triggered	
Alarms 1.bit8 Counter	0x48		0 to 65535. + 1 each time alarm is triggered	
Alarms 1.bit9 Counter	0x49		0 to 65535. + 1 each time alarm is triggered	
Alarms 1.bit10 Counter	0x4A		0 to 65535. + 1 each time alarm is triggered	
Alarms 1.bit11 Counter	0x4B		0 to 65535. + 1 each time alarm is triggered	
Alarms 1.bit12 Counter	0x4C		0 to 65535. + 1 each time alarm is triggered	
Alarms 1.bit13 Counter	0x4D		0 to 65535. + 1 each time alarm is triggered	
Alarms 1.bit14 Counter	0x4E		0 to 65535. + 1 each time alarm is triggered	
WD Triggers Counter	0x4F		0 to 65535. + 1 each time WD is triggered	
Digital I/O		0x02 .bit 0 .bit 1 .bit 2 .bit 3 .bit 4 .bit 5 .bit 6 .bits 7... 15	Relay 1 (pH 1) Relay 2 (pH 2) Relay 3 (free Cl 1) Relay 4 (free Cl 2) Relay 5 (ORP) Relay 6 (Temp) Relay 7 (Alarm/SetPoint CombCl/SetPoint Turbidity) TBD	
Relay7_Config		0x03	0: All alarms selected (default) 1: Combined Cl selected 2: Turbidity selected	

Temperature Measure		0x08	-100 to +700 decs of °C		
pH Measure		0x09	1 to 1400 cents of pH units		
ORP Measure		0x0A	-1000 to 1000 mV		
Free Cl Measure		0x0B	0 to 1000 cents of ppm		
Total Cl Measure		0x0C	0 to 1000 cents of ppm		
Combined Cl Measure		0x0D	0 to 1000 cents of ppm		
Turbidity Measure		0x0E	0 to 1000 decs of NTU units		
Output mA 1		0x29	0 to 2000 cents of mA (pH)		
Output mA 2		0x2A	0 to 2000 cents of mA (free Cl)		
Output mA 3		0x2B	0 to 2000 cents of mA (ORP)		
Output mA 4		0x2C	0 to 2000 cents of mA (Temperature)		
Duty Cycle PWM Relay 1		0x2D	0 to 100 %		
Duty Cycle PWM Relay 2		0x2E	0 to 100 %		
Duty Cycle PWM Relay 3		0x2F	0 to 100 %		
Duty Cycle PWM Relay 4		0x30	0 to 100 %		
Duty Cycle PWM Relay 5		0x31	0 to 100 %		
Duty Cycle PWM Relay 6		0x32	0 to 100 %		
Duty Cycle PWM Relay 7		0x33	0 to 100 %		

Comments