ElectroSoul Technologies - Remote IO Module

Date: 01/ November /2020 **Model: ES - RIO - 0400 - R**

Modebus RTU Register Addresses						
Parameters	**Address**		**R/W**	**Func - tion**	**Value**	**Description**
	Decimal	**Hex**				
CH1 Relay state (Current)	0	0	W	03 (R) & 06 (W)	00 00 = turn OFF Relay 00 01 = turn ON Relay	To Set current state of the relay for respective channel.
CH2 Relay state (Current)	1	1	W	03 (R) & 06 (W)		
CH3 Relay state (Current)	2	2	W	03 (R) & 06 (W)		
CH4 Relay state (Current)	3	3	W	03 (R) & 06 (W)		
ALL CH relay state (Current)	4	4	W	03 (R) & 06 (W)	00 00 = turn OFF Relay 11 11 = turn ON Relay	To Set the state of all Relay.
Power on CH1 state	5	5	RW	03 (R) & 06 (W)	00 00 = OFF when Power up --- 00 01 = On when Power up	To Set Power up state of the relay for respective channel.
Power on CH2 state	6	6	RW	03 (R) & 06 (W)		
Power on CH3 state	7	7	RW	03 (R) & 06 (W)		
Power on CH4 state	8	8	RW	03 (R) & 06 (W)		
power on CH1 ON timer	9	9	RW	03 (R) & 06 (W)	Time in Second between 0 to 65535 (Second)	To Set the Power On/Off Time for the respective channel. (in seconds)
power on CH1 OFF timer	10	A	RW	03 (R) & 06 (W)		
power on CH2 ON timer	11	B	RW	03 (R) & 06 (W)	Time in Second between 0 to 65535 (Second)	To Set the Power On/Off Time for the respective channel. (in seconds)
power on CH2 OFF timer	12	C	RW	03 (R) & 06 (W)		
power on CH3 ON timer	13	D	RW	03 (R) & 06 (W)	Time in Second between 0 to 65535 (Second)	To Set the Power On/Off Time for the respective channel. (in seconds)
power on CH3 OFF timer	14	E	RW	03 (R) & 06 (W)		
power on CH4 ON timer	15	F	RW	03 (R) & 06 (W)	Time in Second between 0 to 65535 (Second)	To Set the Power On/Off Time for the respective channel. (in seconds)
power on CH4 OFF timer	16	10	RW	03 (R) & 06 (W)		
OFF to ON CH1 timer	20	14	W	06 (W)	Time in Second between 0 to 65535 (Second)	Will first tunr Off the relay and turn On the relay after seted second for respective channel.
ON to OFF CH1 timer	21	15	W	06 (W)		Will first tunr On the relay and turn Off the relay after seted second for respective channel.
OFF to ON CH2 timer	22	16	W	06 (W)	Time in Second between 0 to 65535 (Second)	Will first tunr Off the relay and turn On the relay after seted second for respective channel.

ON to OFF CH2 timer	23	17	W	06 (W)	Time in Second between 0 to 65535 (Second)	Will first tunr On the relay and turn Off the relay after seted second for respective channel.
OFF to ON CH3 timer	24	18	W	06 (W)	Time in Second between 0 to 65535 (Second)	Will first tunr Off the relay and turn On the relay after seted second for respective channel.
ON to OFF CH3 timer	25	19	W	06 (W)		Will first tunr On the relay and turn Off the relay after seted second for respective channel.
OFF to ON CH4 timer	26	1A	W	06 (W)	Time in Second between 0 to 65535 (Second)	Will first tunr Off the relay and turn On the relay after seted second for respective channel.
ON to OFF CH4 timer	27	1B	W	06 (W)		Will first tunr On the relay and turn Off the relay after seted second for respective channel.
OFF to ON all CH timer	28	1C	W	06 (W)	Time in Second between 0 to 65535 (Second)	Will first tunr Off the relay and turn On the relay after seted second for all channel.
ON to OFF all CH timer	29	1D	W	06 (W)		Will first tunr On the relay and turn Off the relay after seted second for all channel.
CH1 ON timer	30	1E	W	06 (W)	Time in Second between 0 to 65535 (Second)	Will trun On the relay after seted second/s for respective channel.
CH1 OFF timer	31	1F	W	06 (W)		Will trun Off the relay after seted second/s for respective channel.
CH2 ON timer	32	20	W	06 (W)	Time in Second between 0 to 65535 (Second)	Will trun On the relay after seted second/s for respective channel.
CH2 OFF timer	33	21	W	06 (W)		Will trun Off the relay after seted second/s for respective channel.
CH3 ON timer	34	22	W	06 (W)	Time in Second between 0 to 65535 (Second)	Will trun On the relay after seted second/s for respective channel.
CH3 OFF timer	35	23	W	06 (W)		Will trun Off the relay after seted second/s for respective channel.
CH4 ON timer	36	24	W	06 (W)	Time in Second between 0 to 65535 (Second)	Will trun On the relay after seted second/s for respective channel.
CH4 OFF timer	37	25	W	06 (W)		Will trun Off the relay after seted second/s for respective channel.

All CH ON timer	38	26	W	06 (W)	Time in Second between 0 to 65535 (Second)	Will trun On the relay after seted second/s for all channel.
ALL CH OFF timer	39	27	W	06 (W)		Will trun Off the relay after seted second/s for all channel.
Factory Reset	40	28	W	06 (W)		To reset all the settings as per the factory default.
CH1 relay coil state	0	0	W	05 (W)	00 00 = Off FF 00 = On 55 00 = Toggle	To Set the state of the respective cahnnel.
CH2 relay coil state	1	1	W	05 (W)		
CH3 relay coil state	2	2	W	05 (W)		
CH4 relay coil state	3	3	W	05 (W)		
All CH relay coil state	4	4	W	05 (W)		To Set the state of all cahnnel.
Slave ID	17	11	RW	03 (R) & 06 (W)	1 to 255 (default 1)	Set/Get RS485 Slave address.
Baud Rate	18	12	RW	03 (R) & 06 (W)	0x00 = 1200 0x01 = 2400 0x02 = 4800 0x03 = 9600 0x04 = 14400 0x05 = 19200 0x06 = 38400 0x07 = 57600 0x08 = 115200 (0x03 = 9600 default)	Set/Get baud rate for RS485 Communication.
Parity	19	13	RW	03 (R) & 06 (W)	0x00 = none 0x01 = even 0x02 = odd (0x00 = none default)	Set/Get parity for RS485 Communication.

Note:

1. Address are given with -1 value. You have to use those address directly.
2. Default baud Rate for RS485 is 9600.
3. Default Parity for RS485 is None.