

Register Address Table Reconstruction

Register		Register Hex (H)	Register Hex (L)	Number of bits	Register properties	Register	Register value range
Southbound interface register							
Contact 0x01	DI	10001	0x0000	1	DI1 switch input	read only	0_bit/1_bit
		10002	0x0001	1	DI2 switch input	read only	
		10003	0x0002	1	DI3 switch input	read only	
		10004	0x0003	1	DI4 switch input	read only	
			reserve				
Input register 0x03	AI	30001	0x0000	1	AI1 input value	read only	0~65535, unit (V/mA)
		30003	0x0001	1	AI2 input value	read only	
		30005	0x0002	1	AI3 input value	read only	
		30007	0x0003	1	AI4 input value	read only	
			reserve				
<p>Rule: The holding register will be divided into 16 types according to the highest 4-bit value 0000-1111 0XXX: AO register 1XXX: Interface configuration register 2XXX: LORA register 3XXX: Cellular network register 4XXX: Ethernet register 5XXX: LORA configuration register</p>							
Interface configuration register							
	DI settings		0x1100	1	DI proactive reporting mode	read/write	0xFFFF is on/0x0000 is off
			0x1101	1	DI reporting interval	read/write	0-65535
		reserve					
	AI settings		0x1200	1	AI proactive reporting	read/write	0xFFFF is on/0x0000 is off
			0x1201	1	AI proactive reporting cycle	read/write	0-65535
			0x1202-0x1206	5	AI1 upper and lower limits and	read/write	Register 1: Lower limit, 0-65535 Register 2: Upper limit, 0-65535 Register 3: Within the threshold 0x0001/Outside the threshold 0x0002/Close register 0x0000 Register 4: Lower limit of the threshold, 0-65535 Register 5: Upper limit of the threshold, 0-65535
			0x1207-0x120B	5	AI2 upper and lower limits and	read/write	
			0x120C-0x1210	5	AI3 upper and lower limits and	read/write	
			0x1211-0x1215	5	AI4 upper and lower limits and threshold reporting	read/write	
			0x1260	1	AI1 low pass parameters	read/write	0-100, the larger the data, the more stable the collection value is.
			0x1261	1	AI2 low pass parameters	read/write	
		0x1262	1	AI3 low pass parameters	read/write		
		0x1263	1	AI4 low pass parameters	read/write		
		reserve					
	RS485		0x1401-0x1403	3	USART parameters	read/write	The first three bytes: baud rate byte 4: stop bit 0x00/0x01/ 1/2 byte 5: data bit 0x00/0x01/0x02/0x03 8/7/6/5 byte 6: check bit 0x00 /0x01/0x02 NONE/ODD/EVEN
			0x1404-0x140D	10	Serial heartbeat 1	read/write	Register 1: Indicates time, unit S, 0-65535 Register 2: Heartbeat packet length Register 3-10: Heartbeat packet content
			0x140E-0x1417	10	Serial heartbeat 2	read/write	
			0x1418-0x1421	10	Serial heartbeat 3	read/write	
			0x1422-0x142B	10	Serial heartbeat 4	read/write	
		reserve					
Device attribute register							
Holding register 0x04	System commands		0x2000	1	Device MODBUS address	read/write	1-247, default 0X55
			0x2001-0x2008	8	DEVID	read only	16-digit ID
			0x2013	1	Firmware version	read only	0x0112 indicates version V1.1.2
			0x2014	1	System commands	just write	0x0001 Restart/0x0002 Reset/0x0003 Upgrade-UART
			0x2015	1	Proactively report data trends	Read and write	0x0000:LoRa 0x0001:RS485
			0x2016~2017	1	self recovery time	Read and write	0~4 294 967 296s
			0x2080-0x2087	8	CPUID not visible to user	read only	16-bit string, STM32's own ID is generated by Base64 encoding
	0x2088-0x208F	8	DEVID not visible to user	Read and write	DEVID		
	reserve						
LORA register							
Holding register 0x04	Network parameters		0x5000	1	Application ID	read/write	Plan a range of application scenarios
			0x5001	1	Spreading factor	read/write	0x0000~0x0005 corresponds to SF7~12
			0x5002	1	channel	read/write	0x0000~0x0031 corresponds to channel 0~31
			0x5003	1	signal strength	read/write	The signal strength of the most recently received piece of
		0x5004	1	signal-to-noise ratio	read/write	The signal-to-noise ratio of the most recently received piece of data	
		0x5005~0x500E	10	forwarding table	read/write	Each register saves a modbus address, and the device will forward data from devices with these addresses under the same application ID.	
	reserve						

