HIKMICRO Modbus Protocol Specifications
V1.0.4

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Contents

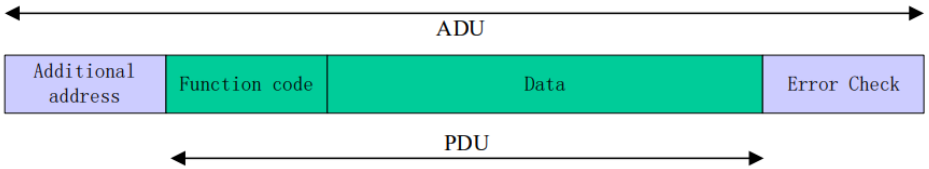
1. DESCRIPTION OF THE MODBUS PROTOCOL SPECIFICATION DOCUMENT 4
2. GENERAL DESCRIPTION OF PROTOCOL 4
3. DESCRIPTION OF PROTOCOL DATA TYPES 5
3.1 DESCRIPTION OF COIL REGISTER AND DISCRETE REGISTER DATA TYPES 5
3.2 DESCRIPTION OF HOLDING REGISTER AND INPUT REGISTER DATA TYPES 5
4. DESCRIPTION OF SUPPORTED MODBUS INTERFACING FUNCTIONS 6
4.1 CONFIGURATION OF PARAMETERS RELATED TO TEMPERATURE MEASUREMENT 6
4.1.1 Configuration of basic parameters for temperature measurement 6
4.1.2 Configuration of parameters for Temperature Measurement Rules 7
4.2 OBTAIN INFORMATION RELATED TO TEMPERATURE MEASUREMENT 11
4.2.1 Obtain temperature information-historical protocol 11
4.2.2 Obtain the State of Temperature Measurement Alarm 11
4.2.3 Get Temperature Information- Mode One 12
4.2.4 Get Temperature Information-Mode Two 13
4.3 GET THERMAL PRESENCE DETECTOR INFORMATION 13
4.4 SYSTEM PARAMETER CONFIGURATION 14
4.5 GET FIRE & SMOKE ALARM INFORMATION 14
4.6 OBTAIN PERIMETER PROTECTION KEY PARAMETERS 15
4.6.1 Obtain Perimeter Protection Rule Parameters 16
4.6.2 Obtain Perimeter Protection Scene Parameters 16
4.7 OBTAIN PERIMETER PROTECTION (VCA) ALARM INFORMATION 16
4.7.1 Obtain the State of Perimeter Protection Alarm 16

4.7.2 Get Perimeter Protection Alarm Information *16*
4.8 OBTAIN ALARM INPUT STATUS 17
4.9 OBTAIN PTZ PARAMETERS 17
5. USAGE EXAMPLE 18
5.1 ACCESS DEVICE DATA 18
5.2 SET DEVICE PARAMETER 20
6. ERROR MESSAGE 21
6.1 STANDARD ERROR MESSAGE 21
6.2 PRIVATE ERROR MESSAGE 21
7. APPENDIX 22
7.1 APPENDIX ONE: MICROIMAGE MODBUS PROTOCOL SUMMARY DESCRIPTION 22
7.1.1 Coil Register Function Protocol *22*
7.1.2 Discrete Register Function Protocol *28*
7.1.3 Holding Register Function Protocol *36*
7.1.4 Input Register Function Protocol *68*
7.2 APPENDIX TWO: RS485 LINKAGE USAGE GUIDE 92
7.2.1 Physical Links *92*
7.2.2 Device Parameter Configuration *92*
7.3 APPENDIX THREE: DESCRIPTION OF MODBUSTCP PROTOCOL FORMAT 93
7.4 APPENDIX FOUR: MODBUS STANDARD PROTOCOL REFERENCE 95
8. REVISION NOTES 95

1. Description of the Modbus protocol specification document

The Modbus protocol defines a simple PDU (Protocol Data Unit) independent of the underlying communication layer. The Modbus protocol mapping on a specific bus or network can introduce some additional fields on the ADU (Application Data Unit). I.e., the PDU part of the Modbus protocol is the same for different types of buses or networks, the main difference being the address field and the error-checking part.

The format of each Modbus command is consistent with the Modbus standard format, please refer to Appendix IV: Modbus Standard Protocol Reference.



Description of the main contents in this document:

1）For Modbus protocol PDU part, develop and formulate the specification, explain the use of different register rules.

2）This document protocol does not distinguish between specific TCP protocol or 485 protocol, only on the different links in the PDU part of the protocol description.

2. General description of protocol

1. All reads and writes of data and the definition of registers are in accordance with the Modbus standard protocol. The function of each register is as follows:
   a) Coil register：Switch, read/write, for setting or getting enable information (e.g. temperature rule enable, alarm rule enable)
   b) Discrete register：Switch, read-only, for obtaining alarm signals (e.g., temperature measurement rule alarms or no alarms)
   c) Holding register：Digital, read/write, for setting or obtaining configuration parameters (e.g. configuration of system functions, configuration of thresholds for temperature measurement alarms)
   d) Input register：Digital, read-only, for obtaining device measurement data (e.g., measured temperature value, specific information on alarms)
2. The protocol defines different data types for different data, details of which are given in 3.1 Description of protocol data types.
   a) Coil register and discrete input use the default standard protocol data types, so they are not specified.

b) Holding registers and input registers must be described for each register's data type.

3. For alarm signals, there are two ways of obtaining them.：
   a) Use command code 0x02 (read discrete register) to get only the information whether its corresponding function is alarmed or not.
   b) Use the command code 0x04 (read input register) to get the alarm situation by following the function information related to this alarm (corresponding function support is required).
4. When there is configuration or acquisition of more than one function, the protocol is formulated according to the following rule：
   a) For read-only data (discrete registers, input registers), priority should be given to acquiring all rule data at once；
   b) For read-write data (coil registers, holding registers), priority should be given to obtaining or configuring all parameters of a rule at once。
5. If none of the requested register addresses are supported, the device will return an error code 0x01；
   If an already supported register address exists in the requested register, the device responds with the corresponding register address, using the following processing logic：
   1）When configuring parameters, the device will only process register addresses that are already supported, and unsupported register addresses will be ignored
   2）When acquiring data, the device returns the value in all requested registers, but unsupported register addresses are returned directly as 0x0000.

3. Description of protocol data types

3.1 Description of Coil Register and Discrete Register Data Types

Both coil register and discrete register data types are consistent with the standard protocol and are categorized into the following two situations：

1）When the data type is expressed by bit, 1 indicates TRUE/ON and 0 indicates FALSE/OFF.

2）When the data type is expressed in bytes (used in command code 0x05), it occupies 2 bytes, 0x0000 for TRUE/ON and 0xFF00 for FALSE/OFF.

3.2 Description of Holding Register and Input Register Data Types

Data type	Bytes	Meaning
BOOL	2	0x0000 means 0, 0xFF00 means 1

INT	2	Signed integer data in the range of -32768 to 32767
UINT	2	Unsigned integer data in the range 0 to 65535.
DINT	4	Signed integer data in the range -2147483648~2147483647
REAL_2_1	2	The result of the calculation is retained to 1 decimal place, formula: y = x/10.0
REAL_2_2	2	The result of the calculation is retained to 2 decimal places, formula: y = x/100.0
REAL_2_3	2	The result of the calculation is retained to 3 decimal places, formula: y = x/1000.0
REAL_4_2	4	The result of the calculation is retained to 2 decimal places, formula: y = x/100.0
REAL_4_3	4	The result of the calculation is retained to 3 decimal places, formula: y = x/1000.0
ENUM	2	Enumeration types, defined by specific functions
CUSTOM	——	Customized data types, with data formats specified by specific functions

Note: 1) x represents the value in the register, y represents the actual value after calculation

2) When the number of bytes is 2, each data occupies 1 register; when the number of bytes is 4, each data occupies 2 registers

4. Description of supported Modbus interfacing functions

4.1 Configuration of parameters related to temperature measurement

4.1.1 Configuration of basic parameters for temperature measurement

Coil Register Control Section（ *The complete register address list is detailed in 7.1.1 Coil Register Function Protocol* ）			
Function	Data type	Register Value Description	Register Address
Enable Temperature Measurement	——		0x0000
Enable Calibration Factor	——		0x0001
Holding Register Control Section（ *The complete register address list is detailed in 7.1.3 Holding Register Function Protocol* ）			
Function	Data type	Register Value Description	Register Address

Temperature Measurement Range Configuration	ENUM	0：An invalid parameter when setting and unable to obtain 1： First Gear（the first temperature measurement gear optional in web interface） 2：Second Gear（the second temperature measurement gear optional in web interface） 255：Automatic Gear（requires device function to support）	0x0050
Temperature Measurement Unit Configuration	ENUM	0：An invalid parameter when setting and unable to obtain 1：degrees Celsius 2：degrees Fahrenheit 3：Kelvin	0x0051
Temperature Measurement Picture Rule Overlay Configuration	ENUM	0：An invalid parameter when setting and unable to obtain 1：Overlay all Temperature Measurement Rules 2：Overlay Temperature Measurement Alarm Rules	0x0052
External Optical Transmittance Configuration	REAL_2_2	Range：0.01~1.00	0x0053
External Optical Temperature Configuration	REAL_2_1	——	0x0054
Calibration Factor Configuration	REAL_2_2	Range：0.00~30.00	0x0055
Temperature Measurement Mode	ENUM	0：An invalid parameter when setting and is not supported when getting parameters. 1：Normal Temperature Measurement 2：Expert Temperature Measurement	0x0056

4.1.2 Configuration of parameters for Temperature Measurement Rules

Coil Register Control Section （ *The complete register address list is detailed in 7.1.1 Coil Register Function Protocol* ）			
Function	Data type	Register Value Description	Register Address
Enable the Nth Temperature Measurement rule	——		0x0010*N（N≤21）
Enable the Nth Temperature Measurement rule Alarm	——		0x0010*N+1（N≤21）
Holding Register Control Section （ *The complete register address list is detailed in 7.1.3 Holding Register Function Protocol* ）			
Function	Data type	Register Value Description	Register Address
Distance of the Nth Temperature Measurement rule	UINT	Unit: cm	0x0060+0x0010*(N-1) （N≤21）
Emissivity of the Nth Temperature Measurement rule	REAL_2_2	Range: 0.01~1.00	0x0060+0x0010*(N-1)+1（N≤21）
Enable Reflection Temperature of the Nth Temperature Measurement rule	BOOL	——	0x0060+0x0010*(N-1)+2（N≤21）
Reflection Temperature of the Nth Temperature Measurement rule	REAL_2_1	Setting range is determined by the capabilities of device.	0x0060+0x0010*(N-1)+3（N≤21）
Alarm rules of the Nth Temperature Measurement rule	ENUM	0：An invalid parameter when setting and unable to obtain 1：Max. Temperature more than 2：Max. Temperature less than 3：Min.Temperature more than 4：Min.Temperature less than 5：Average Temperature more than 6：Average Temperature less than 7：Temperature Difference more than 8：Temperature Difference less than	0x0060+0x0010*(N-1)+4（N≤21）
Pre-alarm Threshold of the Nth	REAL_2_1	——	0x0060+0x0010*(N-1)+5（N≤21）

Temperature Measurement rule			
Pre-alarm Filter Time of the Nth Temperature Measurement rule	UINT	——	0x0060+0x0010*(N-1)+6（N≤21）
Alarm Threshold of the Nth Temperature Measurement rule	REAL_2_1	——	0x0060+0x0010*(N-1)+7（N≤21）
Alarm Filter Time of the Nth Temperature Measurement rule	UINT	——	0x0060+0x0010*(N-1)+8（N≤21）
Tolerance Temperature Configuration of the Nth Temperature Measurement rule	REAL_2_1	——	0x0060+0x0010*(N-1)+9（N≤21）
Alarm/Pre-alarm Output of the Nth Temperature Measurement rule.	CUSTOM	Use by bit, high byte represents pre-alarm and low byte represents alarm. bit0：Enable Alarm Output DO1 bit1：Enable Alarm Output DO2 bit4：Enable Pre-alarm Output DO1 bit5：Enable Pre-alarm Output DO2	0x0060+0x0010*(N-1)+10（N≤21）
Temperature Sudden Change alarm mode of the Nth Temperature Measurement rule	ENUM	0：An invalid parameter when setting and unable to obtain 1：turn off 2：Temperature surge	0x0060+0x0010*(N-1)+11（N≤21）
Temperature Sudden Change alarm record period of the Nth temperature rule	UINT	——	0x0060+0x0010*(N-1)+12（N≤21）
Temperature Sudden Change alarm threshold of the Nth temperature rule	REAL_2_1	——	0x0060+0x0010*(N-1)+13（N≤21）

【Note】

1. Normal temperature measurement mode only supports Distance, Emissivity, Pre-alarm threshold, Pre-alarm Filter Time, Alarm threshold, Alarm Filter Time,

Alarm/Pre-alarm Output, Temperature Sudden Change Alarm, Temperature Sudden Change Alarm record period and Temperature Sudden Change Alarm threshold configuration, and reuses the register address when the value of N equals to 1.

2. The same set of register is used in the configuration parameter for the first temperature measurement rule in normal and expert temperature measurement modes. It requires to choose an appropriate mode before configuration as the normal mode is unable to obtain or configure the rule parameters in expert mode.

3. Since Modbus doesn't transmit pictures, rule temperature measurement rule parameter configuration is not applicable to point, line and box ordinates in expert temperature measurement

4.2 Obtain information related to temperature measurement

【Note】

1. Temperature information in normal measurement mode all reuse the temperature information in the first temperature measurement rule.
2. If temperature measurement rule fails to be enabled or obtained, the obtained data should be displayed with -273.2℃ and the corresponding register value is 0xF554.

4.2.1 Obtain temperature information-historical protocol

Holding Register Control Section（ *The complete register address list is detailed in 7.1.3 Holding Register Function Protocol* ）			
Function	Data Type	Register Value Description	Register Address
Max. Temperature of the Nth Temperature Measurement rule	REAL_2_1	Unit: degree Celsius	0x0000+3*(N-1) （N≤21）
Min. Temperature of the Nth Temperature Measurement rule	REAL_2_1	Unit: degree Celsius	0x0000+3*(N-1)+1（N≤21）
Average Temperature of the Nth Temperature Measurement rule	REAL_2_1	Unit: degree Celsius	0x0000+3*(N-1)+2（N≤21）

4.2.2 Obtain the State of Temperature Measurement Alarm

Discrete Register Control Section（ *The complete register addredd list is detailed in 7.1.2 Discrete Register Function Protocol* ）			
Function	Data Type	Register Value Description	Register Address
Temperature Measurement Alarm State of the Nth Temperature Measurement rule	——	——	0x0000+(N-1) （N≤21）
Temperature Measurement Pre-alarm State of the Nth Temperature	——	——	0x0020+(N-1) （N≤21）

Measurement rule			
Temperature Rise Alarm State of the Nth Temperature Measurement rule	——	——	0x0040+(N-1)（N≤21）
Temperature Range Measurement Alarm Status of the Nth Temperature Measurement rule	——	It doesn't distinguish whether alarm occurs inside or outside the range and which range has the alarm. As long as the temperature measurement rule alarms in the occurrence range, its status will be set to 1.	0x0060+(N-1) （N≤21）

【Note】

1. The function only identifies alarm and no-alarm status of different temperature measurement rules of devices, please refer to the temperature information mode one or mode two for more details.

4.2.3 Get Temperature Information- Mode One

Input Register Control Section*(The complete register address is detailed in 7.1.4 Input Register Function Protocol)*			
Function	Data Type	Register Value Description	Register Address
Max. Temperature of the Nth Temperature Measurement rule	REAL_2_1	Unit: degree Celsius	0x0000+5*(N-1) （N≤21）
Min. Temperature of the Nth Temperature Measurement rule	REAL_2_1	Unit: degree Celsius	0x0000+5*(N-1)+1（N≤21）
Average Temperature of the Nth Temperature Measurement rule	REAL_2_1	Unit: degree Celsius	0x0000+5*(N-1)+2（N≤21）
Reserve	——	——	0x0000+5*(N-1)+3（N≤21）
Alarm State of the Nth Temperature Measurement rule	ENUM	0： No Alarm 1： Temperature Measurement Alarm 2： Temperature Measurement Pre-alarm 3： Temperature Rise Alarm	0x0000+5*(N-1)+4（N≤21）

		4：Alarm inside Temperature Measurement Range 5：Alarm outside Temperature Measurement Range	

4.2.4 Get Temperature Information-Mode Two

Input Register Control Section *(The complete register address is detailed in 7.1.4 Input Register Function Protocol)*			
Function	Data Type	Register Value Description	Register Address
Max. Temperature of the Nth Temperature Measurement rule	REAL_2_1	Unit: degree Celsius	0x0070+5*(N-1) （N≤21）
Max. Temperature horizontal axis of the Nth Temperature Measurement rule	UINT	Normalized coordinate, ranges from 0 to 1000	0x0070+5*(N-1)+1（N≤21）
Max. Temperature vertical axis of the Nth Temperature Measurement rule	UINT	Normalized coordinate, ranges from 0 to 1000	0x0070+5*(N-1)+2（N≤21）
Alarm State of the Nth Temperature Measurement rule	ENUM	0：No Alarm 1：Temperature Measurement Alarm 2：Temperature Measurement Pre-alarm 3：Temperature Rise Alarm 4：Alarm inside Temperature Measurement Range 5：Alarm outside Temperature Measurement Range	0x0070+5*(N-1)+3（N≤21）

4.3 Get Thermal Presence Detector Information

Holding Register Control Section *（ The complete register address list is detailed in 7.1.3 Holding Register Function Protocol ）*			
Function	Data Type	Register Value Description	Register Address

Present and Not Present Status for Rule N	ENUM	0：Not Present 1：Present	0x003F+2*(N-1) （N≤8）
Number of People in Rule N	INT	Number ranges from 0 to 64	0x003F+2*(N-1)+1（N≤8）

4.4 System Parameter Configuration

Holding Register Control Section（ *The complete register address list is detailed in 7.1.3 Holding Register Function Protocol* ）			
Function	Data Type	Register Value Description	Register Address
RS485 links CRC response and transmission mode	ENUM	0：An invalid parameter when setting and unable to obtain 1：Big-Endian mode 2：Little-Endian mode	0x0300
Alarm Output Information	CUSTOM	Used bitwise, 1 = triggered, 0 = not triggered bit0: Alarm output DO1 triggered bit1: Alarm output DO2 triggered Example values: 0x00 = All alarm outputs not triggered 0x01 = Alarm output DO1 triggered 0x02 = Alarm output DO2 triggered 0x03 = Alarm outputs DO1 and DO2 both triggered	0x301
Restart Device	UINT	Send 1 to restart the device, and other values are invalid.	0x302

4.5 Get Fire & Smoke Alarm Information

Input Register Control Section*(The complete register address is detailed in 7.1.4 Input Register Function Protocol)*

Function	Data Type	Register Value Description	Register Address
PTZ-P	REAL_2_2	Pan angle (Range: -180.00-180.00, retained to 2 decimal places)	0x0210
PTZ-T	REAL_2_2	Tilt angle (Range: -90.00-90.00, retained to 2 decimal places)	0x0211
PTZ-Z-Vis	REAL_2_1	Zoom of optical lens (Range: 0-6553.5, retained to 1 decimal place)	0x0212
PTZ-Z-Thm	REAL_2_1	Zoom of thermal lens (Range: 0-6553.5, retained to 1 decimal place)	0x0213
Reserve	——	——	0x0214-0x021F
Fire & Smoke Alarm Type	ENUM	0: No Alarm 1: Fire Alarm 2: Smoke alarm 3: Fire and Smoke Alarm 4: Smoking Alarm	0x0220
Target Number	INT	0-10	0x0221
The horizontal axis in the top left corner---The coordinate of Nth target	INT	Normalized coordinates (Range: 0-1000, 0 is invalid coordinate)	0x0221+(n-1)×4+1
The vertical axis in the top left corner---The coordinate of Nth target	INT	Normalized coordinates (Range: 0-1000, 0 is invalid coordinate)	0x0221+(n-1)×4+2
The horizontal axis in the lower right corner---The coordinate of Nth target	INT	Normalized coordinates (Range: 0-1000, 0 is invalid coordinate)	0x0221+(n-1)×4+3
The vertical axis in the lower right corner---The coordinate of Nth target	INT	Normalized coordinates (Range: 0-1000, 0 is invalid coordinate)	0x0221+(n-1)×4+4
Reserve	——	——	0x024A-0x024F

4.6 Obtain Perimeter Protection Key Parameters

4.6.1 Obtain Perimeter Protection Rule Parameters

Coil Register Control Section（*The complete register address is detailed in 7.1.1 Coil Register Function Protocol*）			
Function	Data Type	Register Value Description	Register Address
Enable the Nth Perimeter Protection Rule	——	——	0x0160+(N-1)（N≤8）

4.6.2 Obtain Perimeter Protection Scene Parameters

Holding Register Control Section（ *The complete register address is detailed in 7.1.3 Holding Register Function Protocol*）			
Function	Data Type	Register Value Description	Register Address
Perimeter Protection Scene No.	UINT	Obtain perimeter protection scene No.	0x0370

4.7 Obtain Perimeter Protection (VCA) Alarm Information

4.7.1 Obtain the State of Perimeter Protection Alarm

Discrete Register Control Section（ *The complete register addredd list is detailed in 7.1.2 Discrete Register Function Protocol*）			
Function	Data Type	Register Value Description	Register Address
Perimeter Protection Alarm State of the Nth Perimeter Protection Rule	——	——	0x0370

【Note】

1. The function only identifies alarm and no-alarm status of different perimeter protection rules of devices, please refer to the perimeter protection alarm information for more details.

4.7.2 Get Perimeter Protection Alarm Information

Input Register Control Section(*The complete register address is detailed in 7.1.4 Input Register Function Protocol)*			
Function	Data Type	Register Value Description	Register Address
The Alarm Type of the Nth Perimeter Protection rule	ENUM	0: Alarm is not triggered 1: Rule is not configured 2: Line Crossing 3. Intrusion 4: Region Entrance 5: Region Exiting 6: Fence	0x0250+(N-1) (N≤8)
The Alarm Target Type of the Nth Perimeter Protection Rule	ENUM	0：Alarm is not triggered 1：Person 2：Vehicle 255：Other	0x0258+(N-1) （N≤8）

4.8 Obtain Alarm Input Status

Input Register Control Section(*The complete register address is detailed in 7.1.4 Input Register Function Protocol)*			
Function	Data Type	Register Value Description	Register Address
Obtain Alarm Input Information	CUSTOM	Used bitwise, 1 = triggered, 0 = not triggered bit0: Alarm input DO1 trigger bit1: Alarm input DO2 trigger Example: 0x01 = Alarm input DO1 triggered, 0x02 = Alarm input DO2 triggered, 0x03 = Alarm inputs DO1 and DO2 both triggered	0x0320

4.9 Obtain PTZ Parameters

Holding Register Control Section*(The complete register address is detailed in 7.1.3 Holding Register Function Protocol)*			
Function	Data Type	Register Value Description	Register Address
Preset No.	UINT	Obtain preset No.	0x0350

5. Usage Example

In this section, example only demonstrates PDU in Modbus message with the RTU protocol format, and format should be converted by yourself for Modbus-ASCII protocol. The address domain and error check on the RS485 link and TCP link will not be describe here, please supplement related contents on demand.

For RS485 link connection instructions, please refer to Appendix 2: RS485 Link Usage Guide.

For TCP link protocol format instruction, please refer to Appendix 3: ModbusTCP protocol format Specification.

5.1 Access Device Data

Example description①: Client asks device for the Max. Temperature, Max.Temperature coordinates (horizontal and vertical axes) and alarm state of the 3rd rule. Use "read multiple input register commands 0x04" to access data.

PDU content sent from Client to Device: 04 00 7A 00 04

	Command Code	Start Address	Register Number
	04	00 7A	00 04
Register Value Description		Max.Temperature Register Address of the third Temperature Measurement rule: 0x0070+5×(3-1)=122 (0x007A)	

PDU content returned from Device to Client：04 08 01 6F 01 90 02 58 00 02

	Command	Number of	The 1st Register Value	The 2nd Register Value	The 3rd Register Value	The 4th Register Value

	Code	bytes				
	04	08	01 6F	01 90	02 58	00 02
Register Value Description			Max.Temperature 36.7℃ (0x016F=367)	Max.Temperature Horizontal coordinate: 400 (0x0190=400)	Max.Temperature Vertical coordinate: 600 (0x0258=600)	Temperature Measurement Pre-alarm(2 represents Temperature Measurement Pre-alarm)

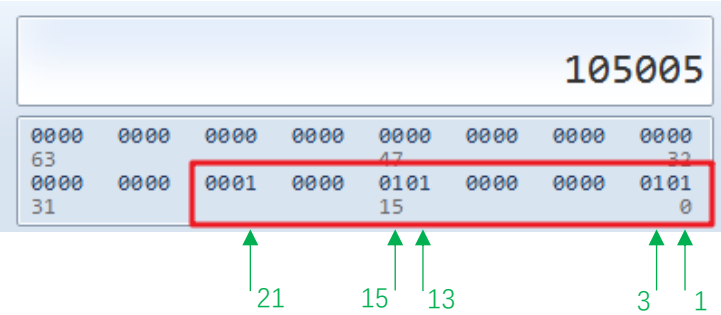
Example description②: Client asks Device for the temperature measurement alarm state of the 21th rule. Use "read multiple discrete register commands 0x02" to access data.

PDU content sent from Client to Device：02 00 00 00 15

	Command Code	Start Address	Number of Registers
	02	00 00	00 15
Register Value Description			Address number is 21 and hexadecimal is represented as 0x0015

PDU content returned from Device to Client：02 03 05 50 10

	Command Code	Number of Bytes	Register Value
	02	03	05 50 10

Register Value Description		The number of bytes is 3 bytes: 21÷8=2.625, the number of bytes exceeds 2, so the number of b tes is 3	The obtained value is upside down and should be check with calculator  Calculated in bits, 1 indicates that the rule handles the temperature measurement alarm status

5.2 Set Device Parameter

Example description①: Client sets Device " max temperature less than, pre-alarm threshold is 30℃" as alarm rule for temperature measurement in the 3rd rule. Use "write multiple holding register commands 0x10" to distribute parameters.

PDU content sent from Client to Device: 10 00 84 00 02 04 00 02 01 2C

	Command Code	Start Address	Number of Registers	Number of Bytes	The 1st Register Value	The 2nd Register Value
	10	00 84	00 02	04	00 02	01 2C
Register Value Description		Start address of the 3rd temperature measurement alarm rule is 0x0084			The enumeration values of "max temperature less than" in the alarm rule are 2.	Pre-alarm value 30.0*10=300 (0x012C)

PDU content returned from Device to Client: 10 00 84 00 02

	Command Code	Start Address	Number of Register

	10	00 84	00 02
Register Value Description	After multiple registers are written successfully, the starting address and number of registers written will be returned according to the standard protocol.		

6. Error Message

6.1 Standard Error Message

The standard error messages are subject to the MODBUS standard protocol, but some are slightly different. For details, please refer to Appendix A: MODBUS Standard Protocol Reference.

PDU content format returned from Modbus Error Message is [Function code+0x80] [Error code]. For example, when using 0x04 function code to send the content of acquiring temperature information with wrong register start address, device will return [0x84 0x02].

Error Code	Error Message
0x01	ILLEGAL FUNCTION
0x02	ILLEGAL DATA ADDRESS
0x03	ILLEGAL DATA VALUE
0x04	SERVER DEVICE FAILURE

6.2 Private Error Message

Private error messages are additional messages defined by Hikvision, stating the results of functions, and independent to the standard error codes. Error codes start from 0x10, and it should be defined carefully and return to explain function status through the register considering its few numbers.

Error Code	Error Message
0x10	None

7. Appendix

7.1 Appendix one: Microimage Modbus Protocol Summary Description

7.1.1 Coil Register Function Protocol

Index *(click function for details and address range for address list)*

Function	Register Address Range
Enabling configuration related to Temperature Measurement Basic Parameter	0x0000~0x0001
Enabling configuration related to Temperature Measurement Rule	0x0010~0x015F
Enabling configuration related to Perimeter Protection	0x160~0x167

Register Address Corresponding Function List

Enabling configuration related to Temperature Measurement Basic Parameter				
Function	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
Enable Temperature Measurement	Read/Write	0x0000	00000	000001

Enable Calibration Factor	Read/Write	0x0001	00001	000002
Reserve	——	0x0002 ~0x000F	——	——
Enabling configuration related to Temperature Measurement Rule				
Function	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
Enable Temperature Measurement Rule_1	Read/Write	0x0010	00016	000017
Enable Temperature Measurement Alarm of Temperature Measurement Rule_1	Read/Write	0x0011	00017	000018
Reserve	——	0x0012 ~0x001F	——	——
Enable Temperature Measurement Rule_2	Read/Write	0x0020	00032	000033
Enable Temperature Measurement Alarm of Temperature Measurement Rule_2	Read/Write	0x0021	00033	000034
Reserve	——	0x0022 ~0x002F	——	——
Enable Temperature Measurement Rule_3	Read/Write	0x0030	00048	000049
Enable Temperature Measurement Alarm of Temperature Measurement Rule_3	Read/Write	0x0031	00049	000050
Reserve	——	0x0032 ~0x003F	——	——
Enable Temperature Measurement Rule_4	Read/Write	0x0040	00064	000065
Enable Temperature Measurement Alarm of Temperature Measurement Rule_4	Read/Write	0x0041	00065	000066

Reserve	——	0x0042 ~0x004F	——	——
Enable Temperature Measurement Rule_5	Read/Write	0x0050	00080	000081
Enable Temperature Measurement Alarm of Temperature Measurement Rule_5	Read/Write	0x0051	00081	000082
Reserve	——	0x0052 ~0x005F	——	——
Enable Temperature Measurement Rule_6	Read/Write	0x0060	00096	000097
Enable Temperature Measurement Alarm of Temperature Measurement Rule_6	Read/Write	0x0061	00097	000098
Reserve	——	0x0062 ~0x006F	——	——
Enable Temperature Measurement Rule_7	Read/Write	0x0070	00112	000113
Enable Temperature Measurement Alarm of Temperature Measurement Rule_7	Read/Write	0x0071	00113	000114
Reserve	——	0x0072 ~0x007F	——	——
Enable Temperature Measurement Rule_8	Read/Write	0x0080	00128	000129
Enable Temperature Measurement Alarm of Temperature Measurement Rule_8	Read/Write	0x0081	00129	000130
Reserve	——	0x0082 ~0x008F	——	——
Enable Temperature Measurement Rule_9	Read/Write	0x0090	00144	000145

Enable Temperature Measurement Alarm of Temperature Measurement Rule_9	Read/Write	0x0091	00145	000146
Reserve	——	0x0092 ~0x009F	——	——
Enable Temperature Measurement Rule_10	Read/Write	0x00A0	00160	000161
Enable Temperature Measurement Alarm of Temperature Measurement Rule_10	Read/Write	0x00A1	00161	000162
Reserve	——	0x00A2 ~0x00AF	——	——
Enable Temperature Measurement Rule_11	Read/Write	0x00B0	00176	000177
Enable Temperature Measurement Alarm of Temperature Measurement Rule_11	Read/Write	0x00B1	00177	000178
Reserve	——	0x00B2 ~0x00BF	——	——
Enable Temperature Measurement Rule_12	Read/Write	0x00C0	00192	000193
Enable Temperature Measurement Alarm of Temperature Measurement Rule_12	Read/Write	0x00C1	00193	000194
Reserve	——	0x00C2 ~0x00CF	——	——
Enable Temperature Measurement Rule_13	Read/Write	0x00D0	00208	000209
Enable Temperature Measurement Alarm of Temperature Measurement Rule_13	Read/Write	0x00D1	00209	000210
Reserve	——	0x00D2 ~0x00DF	——	——

Enable Temperature Measurement Rule_14	Read/Write	0x00E0	00224	000225
Enable Temperature Measurement Alarm of Temperature Measurement Rule_14	Read/Write	0x00E1	00225	000226
Reserve	——	0x00E2 ~0x00EF	——	——
Enable Temperature Measurement Rule_15	Read/Write	0x00F0	00240	000241
Enable Temperature Measurement Alarm of Temperature Measurement Rule_15	Read/Write	0x00F1	00241	000242
Reserve	——	0x00F2 ~0x00FF	——	——
Enable Temperature Measurement Rule_16	Read/Write	0x0100	00256	000257
Enable Temperature Measurement Alarm of Temperature Measurement Rule_16	Read/Write	0x0101	00257	000258
Reserve	——	0x0102 ~0x010F	——	——
Enable Temperature Measurement Rule_17	Read/Write	0x0110	00272	000273
Enable Temperature Measurement Alarm of Temperature Measurement Rule_17	Read/Write	0x0111	00273	000274
Reserve	——	0x0112 ~0x011F	——	——
Enable Temperature Measurement Rule_18	Read/Write	0x0120	00288	000289
Enable Temperature Measurement Alarm of Temperature Measurement Rule_18	Read/Write	0x0121	00289	000290
Reserve	——	0x0122	——	——

		~0x012F		
Enable Temperature Measurement Rule_19	Read/Write	0x0130	00304	000305
Enable Temperature Measurement Alarm of Temperature Measurement Rule_19	Read/Write	0x0131	00305	000306
Reserve	——	0x0132 ~0x013F	——	——
Enable Temperature Measurement Rule_20	Read/Write	0x0140	00320	000321
Enable Temperature Measurement Alarm of Temperature Measurement Rule_20	Read/Write	0x0141	00321	000322
Reserve	——	0x0142 ~0x014F	——	——
Enable Temperature Measurement Rule_21	Read/Write	0x0150	00336	000337
Enable Temperature Measurement Alarm of Temperature Measurement Rule_21	Read/Write	0x0151	00337	000338
Reserve	——	0x0152 ~0x015F	——	——
Enabling Configuration Related to Perimeter Protection				
Function	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
Enable Perimeter Protection Rule_1	Read/Write	0x0160	00352	000353
Enable Perimeter Protection Rule_2	Read/Write	0x0161	00353	000354
Enable Perimeter Protection Rule_3	Read/Write	0x0162	00354	000355
Enable Perimeter Protection Rule_4	Read/Write	0x0163	00355	000356

Enable Perimeter Protection Rule_5	Read/Write	0x0164	00356	000357
Enable Perimeter Protection Rule_6	Read/Write	0x0165	00357	000358
Enable Perimeter Protection Rule_7	Read/Write	0x0166	00358	000359
Enable Perimeter Protection Rule_8	Read/Write	0x0167	00359	000360
Reserved	——	0x168 ~0x16F	——	——

7.1.2 Discrete Register Function Protocol

Index (click function for details and address range for address list)

Function	Register Start and End Address
Get Temperature Measurement Alarm Status	0x0000-0x007F
Get Perimeter Protection Alarm Information	0x0080-0x008F

Register Address Corresponding Function List

Get Temperature Measurement Alarm Status				
Function	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
Temperature Measurement Alarm Status of Temperature Measurement Rule_1	Read Only	0x0000	00000	100001
Temperature Measurement Alarm Status of Temperature Measurement Rule_2	Read Only	0x0001	00001	100002
Temperature Measurement Alarm Status of Temperature Measurement Rule_3	Read Only	0x0002	00002	100003

Temperature Measurement Alarm Status of Temperature Measurement Rule_4	Read Only	0x0003	00003	100004
Temperature Measurement Alarm Status of Temperature Measurement Rule_5	Read Only	0x0004	00004	100005
Temperature Measurement Alarm Status of Temperature Measurement Rule_6	Read Only	0x0005	00005	100006
Temperature Measurement Alarm Status of Temperature Measurement Rule_7	Read Only	0x0006	00006	100007
Temperature Measurement Alarm Status of Temperature Measurement Rule_8	Read Only	0x0007	00007	100008
Temperature Measurement Alarm Status of Temperature Measurement Rule_9	Read Only	0x0008	00008	100009
Temperature Measurement Alarm Status of Temperature Measurement Rule_10	Read Only	0x0009	00009	100010
Temperature Measurement Alarm Status of Temperature Measurement Rule_11	Read Only	0x000A	00010	100011
Temperature Measurement Alarm Status of Temperature Measurement Rule_12	Read Only	0x000B	00011	100012
Temperature Measurement Alarm Status of Temperature Measurement Rule_13	Read Only	0x000C	00012	100013
Temperature Measurement Alarm Status of Temperature Measurement Rule_14	Read Only	0x000D	00013	100014
Temperature Measurement Alarm Status of Temperature Measurement Rule_15	Read Only	0x000E	00014	100015
Temperature Measurement Alarm Status of Temperature Measurement Rule_16	Read Only	0x000F	00015	100016

Temperature Measurement Alarm Status of Temperature Measurement Rule_17	Read Only	0x0010	00016	100017
Temperature Measurement Alarm Status of Temperature Measurement Rule_18	Read Only	0x0011	00017	100018
Temperature Measurement Alarm Status of Temperature Measurement Rule_19	Read Only	0x0012	00018	100019
Temperature Measurement Alarm Status of Temperature Measurement Rule_20	Read Only	0x0013	00019	100020
Temperature Measurement Alarm Status of Temperature Measurement Rule_21	Read Only	0x0014	00020	100021
Reserve	——	0x0015 ~0x001F	——	——
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_1	Read Only	0x0020	00032	100033
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_2	Read Only	0x0021	00033	100034
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_3	Read Only	0x0022	00034	100035
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_4	Read Only	0x0023	00035	100036
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_5	Read Only	0x0024	00036	100037
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_6	Read Only	0x0025	00037	100038
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_7	Read Only	0x0026	00038	100039

Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_8	Read Only	0x0027	00039	100040
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_9	Read Only	0x0028	00040	100041
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_10	Read Only	0x0029	00041	100042
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_11	Read Only	0x002A	00042	100043
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_12	Read Only	0x002B	00043	100044
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_13	Read Only	0x002C	00044	100045
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_14	Read Only	0x002D	00045	100046
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_15	Read Only	0x002E	00046	100047
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_16	Read Only	0x002F	00047	100048
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_17	Read Only	0x0030	00048	100049
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_18	Read Only	0x0031	00049	100050
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_19	Read Only	0x0032	00050	100051
Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_20	Read Only	0x0033	00051	100052

Temperature Measurement Pre-alarm Status of Temperature Measurement Rule_21	Read Only	0x0034	00052	100053
Reserve	Read Only	0x0035 ~0x003F	——	——
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_1	Read Only	0x0040	00064	100065
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_2	Read Only	0x0041	00065	100066
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_3	Read Only	0x0042	00066	100067
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_4	Read Only	0x0043	00067	100068
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_5	Read Only	0x0044	00068	100069
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_6	Read Only	0x0045	00069	100070
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_7	Read Only	0x0046	00070	100071
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_8	Read Only	0x0047	00071	100072
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_9	Read Only	0x0048	00072	100073
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_10	Read Only	0x0049	00073	100074
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_11	Read Only	0x004A	00074	100075

Temperature Sudden Change Alarm Status of Temperature Measurement Rule_12	Read Only	0x004B	00075	100076
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_13	Read Only	0x004C	00076	100077
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_14	Read Only	0x004D	00077	100078
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_15	Read Only	0x004E	00078	100079
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_16	Read Only	0x004F	00079	100080
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_17	Read Only	0x0050	00080	100081
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_18	Read Only	0x0051	00081	100082
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_19	Read Only	0x0052	00082	100083
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_20	Read Only	0x0053	00083	100084
Temperature Sudden Change Alarm Status of Temperature Measurement Rule_21	Read Only	0x0054	00084	100085
Reserve	Read Only	0x0055~ 0x005F	——	——
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_1	Read Only	0x0060	00096	100097
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_2	Read Only	0x0061	00097	100098

Temperature Measurement Range Alarm Status of Temperature Measurement Rule_3	Read Only	0x0062	00098	100099
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_4	Read Only	0x0063	00099	100100
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_5	Read Only	0x0064	00100	100101
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_6	Read Only	0x0065	00101	100102
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_7	Read Only	0x0066	00102	100103
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_8	Read Only	0x0067	00103	100104
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_9	Read Only	0x0068	00104	100105
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_10	Read Only	0x0069	00105	100106
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_11	Read Only	0x006A	00106	100107
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_12	Read Only	0x006B	00107	100108
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_13	Read Only	0x006C	00108	100109
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_14	Read Only	0x006D	00109	100110
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_15	Read Only	0x006E	00110	100111

Temperature Measurement Range Alarm Status of Temperature Measurement Rule_16	Read Only	0x006F	00111	100112
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_17	Read Only	0x0070	00112	100113
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_18	Read Only	0x0071	00113	100114
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_19	Read Only	0x0072	00114	100115
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_20	Read Only	0x0073	00115	100116
Temperature Measurement Range Alarm Status of Temperature Measurement Rule_21	Read Only	0x0074	00116	100117
Reserve	Read Only	0x0075 ~0x007F	——	——
Get Perimeter Protection Alarm Status				
Function	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
Perimeter Protection Alarm Status of Perimeter Protection Rule_1	Read Only	0x0080	00128	100129
Perimeter Protection Alarm Status of Perimeter Protection Rule_2	Read Only	0x0081	00129	100130
Perimeter Protection Alarm Status of Perimeter Protection Rule_3	Read Only	0x0082	00130	100131
Perimeter Protection Alarm Status of Perimeter Protection Rule_4	Read Only	0x0083	00131	100132

Perimeter Protection Alarm Status of Perimeter Protection Rule_5	Read Only	0x0084	00132	100133
Perimeter Protection Alarm Status of Perimeter Protection Rule_6	Read Only	0x0085	00133	100134
Perimeter Protection Alarm Status of Perimeter Protection Rule_7	Read Only	0x0086	00134	100135
Perimeter Protection Alarm Status of Perimeter Protection Rule_8	Read Only	0x0087	00135	100136
Reserve	Read Only	0x0088-0x008F	——	——

7.1.3 Holding Register Function Protocol

Index (click function for details and address range for address list)

Function	Register Start and End Address
Get Temperature Measurement Rule Temperature Information(compatible with historical protocols)	0x0000~0x003E
Thermal Presence Information	0x003F~0x004E
Temperature Measurement Basic Configuration Parameter	0x0050~0x005F
Temperature Measurement Rule Configuration Parameter	0x0060~0x01AF
System Configuration Parameter	0x0300~0x030F
PTZ Parameters	0x350
Perimeter Protection Scene Parameter	0x370

Register Address Corresponding Function List

Get Temperature Measurement Rule Temperature Information(compatible with historical protocols)					
Function	Data Type	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address （PLC）
Temperature Measurement Rule _1 Max Temperature (or Normal Temperature Measurement Max Temperature)	REAL_2_1	Read Only	0x0000	00000	400001
Temperature Measurement Rule _1 Min Temperature （or Normal Temperature Measurement Min Temperature）	REAL_2_1	Read Only	0x0001	00001	400002
Temperature Measurement Rule _ 1 Average Temperature （or Normal Temperature Measurement Average Temperature）	REAL_2_1	Read Only	0x0002	00002	400003
Temperature Measurement Rule _ 2 Max Temperature	REAL_2_1	Read Only	0x0003	00003	400004
Temperature Measurement Rule _ 2 Min Temperature	REAL_2_1	Read Only	0x0004	00004	400005
Temperature Measurement Rule _ 2 Average Temperature	REAL_2_1	Read Only	0x0005	00005	400006
Temperature Measurement Rule _ 3 Max Temperature	REAL_2_1	Read Only	0x0006	00006	400007
Temperature Measurement Rule _ 3 Min Temperature	REAL_2_1	Read Only	0x0007	00007	400008
Temperature Measurement Rule _ 3 Average Temperature	REAL_2_1	Read Only	0x0008	00008	400009
Temperature Measurement Rule _ 4 Max Temperature	REAL_2_1	Read Only	0x0009	00009	400010
Temperature Measurement Rule _ 4 Min Temperature	REAL_2_1	Read Only	0x000A	00010	400011
Temperature Measurement Rule _ 4 Average Temperature	REAL_2_1	Read Only	0x000B	00011	400012
Temperature Measurement Rule _ 5 Max Temperature	REAL_2_1	Read Only	0x000C	00012	400013

Temperature Measurement Rule _ 5 Min Temperature	REAL_2_1	Read Only	0x000D	00013	400014
Temperature Measurement Rule _ 5 Average Temperature	REAL_2_1	Read Only	0x000E	00014	400015
Temperature Measurement Rule _ 6 Max Temperature	REAL_2_1	Read Only	0x000F	00015	400016
Temperature Measurement Rule _ 6 Min Temperature	REAL_2_1	Read Only	0x0010	00016	400017
Temperature Measurement Rule _ 6 Average Temperature	REAL_2_1	Read Only	0x0011	00017	400018
Temperature Measurement Rule _ 7 Max Temperature	REAL_2_1	Read Only	0x0012	00018	400019
Temperature Measurement Rule _ 7 Min Temperature	REAL_2_1	Read Only	0x0013	00019	400020
Temperature Measurement Rule _ 7 Average Temperature	REAL_2_1	Read Only	0x0014	00020	400021
Temperature Measurement Rule _ 8 Max Temperature	REAL_2_1	Read Only	0x0015	00021	400022
Temperature Measurement Rule _ 8 Min Temperature	REAL_2_1	Read Only	0x0016	00022	400023
Temperature Measurement Rule _ 8 Average Temperature	REAL_2_1	Read Only	0x0017	00023	400024
Temperature Measurement Rule _ 9 Max Temperature	REAL_2_1	Read Only	0x0018	00024	400025
Temperature Measurement Rule _ 9 Min Temperature	REAL_2_1	Read Only	0x0019	00025	400026
Temperature Measurement Rule _ 9 Average Temperature	REAL_2_1	Read Only	0x001A	00026	400027
Temperature Measurement Rule _ 10 Max Temperature	REAL_2_1	Read Only	0x001B	00027	400028
Temperature Measurement Rule _ 10 Min Temperature	REAL_2_1	Read Only	0x001C	00028	400029
Temperature Measurement Rule _ 10 Average Temperature	REAL_2_1	Read Only	0x001D	00029	400030
Temperature Measurement Rule _ 11 Max Temperature	REAL_2_1	Read Only	0x001E	00030	400031
Temperature Measurement Rule _ 11 Min Temperature	REAL_2_1	Read Only	0x001F	00031	400032

Temperature Measurement Rule _ 11 Average Temperature	REAL_2_1	Read Only	0x0020	00032	400033
Temperature Measurement Rule _ 12 Max Temperature	REAL_2_1	Read Only	0x0021	00033	400034
Temperature Measurement Rule _ 12 Min Temperature	REAL_2_1	Read Only	0x0022	00034	400035
Temperature Measurement Rule _ 12 Average Temperature	REAL_2_1	Read Only	0x0023	00035	400036
Temperature Measurement Rule _ 13 Max Temperature	REAL_2_1	Read Only	0x0024	00036	400037
Temperature Measurement Rule _ 13 Min Temperature	REAL_2_1	Read Only	0x0025	00037	400038
Temperature Measurement Rule _ 13 Average Temperature	REAL_2_1	Read Only	0x0026	00038	400039
Temperature Measurement Rule _ 14 Max Temperature	REAL_2_1	Read Only	0x0027	00039	400040
Temperature Measurement Rule _ 14 Min Temperature	REAL_2_1	Read Only	0x0028	00040	400041
Temperature Measurement Rule _ 14 Average Temperature	REAL_2_1	Read Only	0x0029	00041	400042
Temperature Measurement Rule _ 15 Max Temperature	REAL_2_1	Read Only	0x002A	00042	400043
Temperature Measurement Rule _ 15 Min Temperature	REAL_2_1	Read Only	0x002B	00043	400044
Temperature Measurement Rule _ 15 Average Temperature	REAL_2_1	Read Only	0x002C	00044	400045
Temperature Measurement Rule _ 16 Max Temperature	REAL_2_1	Read Only	0x002D	00045	400046
Temperature Measurement Rule _ 16 Min Temperature	REAL_2_1	Read Only	0x002E	00046	400047
Temperature Measurement Rule _ 16 Average Temperature	REAL_2_1	Read Only	0x002F	00047	400048

Temperature Measurement Rule _ 17 Max Temperature	REAL_2_1	Read Only	0x0030	00048	400049
Temperature Measurement Rule _ 17 Min Temperature	REAL_2_1	Read Only	0x0031	00049	400050
Temperature Measurement Rule _ 17 Average Temperature	REAL_2_1	Read Only	0x0032	00050	400051
Temperature Measurement Rule _ 18 Max Temperature	REAL_2_1	Read Only	0x0033	00051	400052
Temperature Measurement Rule _ 18 Min Temperature	REAL_2_1	Read Only	0x0034	00052	400053
Temperature Measurement Rule _ 18 Average Temperature	REAL_2_1	Read Only	0x0035	00053	400054
Temperature Measurement Rule _ 19 Max Temperature	REAL_2_1	Read Only	0x0036	00054	400055
Temperature Measurement Rule _ 19 Min Temperature	REAL_2_1	Read Only	0x0037	00055	400056
Temperature Measurement Rule _ 19 Average Temperature	REAL_2_1	Read Only	0x0038	00056	400057
Temperature Measurement Rule _ 20 Max Temperature	REAL_2_1	Read Only	0x0039	00057	400058
Temperature Measurement Rule _ 20 Min Temperature	REAL_2_1	Read Only	0x003A	00058	400059
Temperature Measurement Rule _ 20 Average Temperature	REAL_2_1	Read Only	0x003B	00059	400060
Temperature Measurement Rule _ 21 Max Temperature	REAL_2_1	Read Only	0x003C	00060	400061
Temperature Measurement Rule _ 21 Min Temperature	REAL_2_1	Read Only	0x003D	00061	400062
Temperature Measurement Rule _ 21 Average Temperature	REAL_2_1	Read Only	0x003E	00062	400063
Thermal Presence Information（compatible with historical protocols）					

Function	Data Type	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address （PLC）
Present and Not Present Status for Rule _ 1	ENUM	Read Only	0x003F	00063	400064
Number of People in Rule _ 1	INT	Read Only	0x0040	00064	400065
Present and Not Present Status for Rule2	ENUM	Read Only	0x0041	00065	400066
Number of People in Rule _ 2	INT	Read Only	0x0042	00066	400067
Present and Not Present Status for Rule _ 3	ENUM	Read Only	0x0043	00067	400068
Number of People in Rule _ 3	INT	Read Only	0x0044	00068	400069
Present and Not Present Status for Rule _ 4	ENUM	Read Only	0x0045	00069	400070
Number of People in Rule _ 4	INT	Read Only	0x0046	00070	400071
Present and Not Present Status for Rule _ 5	ENUM	Read Only	0x0047	00071	400072
Number of People in Rule _ 5	INT	Read Only	0x0048	00072	400073
Present and Not Present Status for Rule _ 6	ENUM	Read Only	0x0049	00073	400074
Number of People in Rule _ 6	INT	Read Only	0x004A	00074	400075
Present and Not Present Status for Rule _ 7	ENUM	Read Only	0x004B	00075	400076
Number of People in Rule _ 7	INT	Read Only	0x004C	00076	400077
Present and Not Present Status for Rule _ 8	ENUM	Read Only	0x004D	00077	400078
Number of People in Rule _ 8	INT	Read Only	0x004E	00078	400079
——	——	——	0x004F	00079	400080

Temperature Measurement Basic Configuration Parameter					
Function	Data Type	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
Temperature Measurement Range Configuration	ENUM	Read/Write	0x0050	00080	400081
Temperature Measurement Unit Configuration	ENUM	Read/Write	0x0051	00081	400082
Picture Temperature Measurement Rule Overlay Configuration	ENUM	Read/Write	0x0052	00082	400083
External Optical Transmittance Configuration	REAL_2_2	Read/Write	0x0053	00083	400084
External Optical Temperature Configuration	REAL_2_2	Read/Write	0x0054	00084	400085
Calibration Factor Configuration	REAL_2_2	Read/Write	0x0055	00085	400086
Temperature Measurement Mode	ENUM	Read/Write	0x0056	00086	400087
——	——	——	0x0057 ~0x005F	00087 ~00095	400088 ~400096
Temperature Measurement Rule _ Configuration Parameter					
Function	Data Type	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
Distance Configuration for Temperature Measurement Rule _ 1 （or Distance Configuration for Normal Temperature Measurement）	UINT	Read/Write	0x0060	00096	400097

Emissivity Configuration for Temperature Measurement Rule_1 （or Emissivity Configuration for Normal Temperature Measurement）	REAL_2_2	Read/Write	0x0061	00097	400098
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_1	BOOL	Read/Write	0x0062	00098	400099
Reflected temperature Configuration for Temperature Measurement Rule_1	REAL_2_1	Read/Write	0x0063	00099	400100
Alarm Rule for Temperature Measurement Rule_1	ENUM	Read/Write	0x0064	00100	400101
Pre-alarm Threshold Configuration for Temperature Measurement Rule_1 （ or Normal Temperature Measurement Pre-alarm Threshold Configuration ）	REAL_2_1	Read/Write	0x0065	00101	400102
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_1 （or Normal Temperature Measurement Pre-alarm Filter Time Configuration ）	UINT	Read/Write	0x0066	00102	400103
Alarm Threshold Configuration for Temperature Measurement Rule_1 （ or Normal Temperature Measurement Alarm Threshold Configuration ）	REAL_2_1	Read/Write	0x0067	00103	400104
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_1 （or Normal Temperature Measurement Alarm Filter Time Configuration ）	UINT	Read/Write	0x0068	00104	400105
Temperature Tolerance Configuration for Temperature Measurement Rule_1	REAL_2_1	Read/Write	0x0069	00105	400106

Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_1 （or Normal Temperature Measurement Alarm/Pre-alarm Output Configuration ）	ENUM	Read/Write	0x006A	00106	400107
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_1 （ or Normal Temperature Measurement Temperature Sudden Change Alarm Mode Configuration）	ENUM	Read/Write	0x006B	00107	400108
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_1 （ or Normal Temperature Measurement Temperature Sudden Change Alarm Record Period）	UINT	Read/Write	0x006C	00108	400109
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_1 （or Normal Temperature Measurement Temperature Sudden Change Alarm Value）	REAL_2_1	Read/Write	0x006D	00109	400110
Reserve	——	——	0x006E	00110	400111
Reserve	——	——	0x006F	00111	400112
Distance Configuration for Temperature Measurement Rule_2	UINT	Read/Write	0x0070	00112	400113
Emissivity Configuration for Temperature Measurement Rule_2	REAL_2_2	Read/Write	0x0071	00113	400114
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_2	BOOL	Read/Write	0x0072	00114	400115

Reflected temperature Configuration for Temperature Measurement Rule_2	REAL_2_1	Read/Write	0x0073	00115	400116
Alarm Rule_for Temperature Measurement Rule_2	ENUM	Read/Write	0x0074	00116	400117
Pre-alarm Threshold Configuration for Temperature Measurement Rule_2	REAL_2_1	Read/Write	0x0075	00117	400118
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_2	UINT	Read/Write	0x0076	00118	400119
Alarm Threshold Configuration for Temperature Measurement Rule_2	REAL_2_1	Read/Write	0x0077	00119	400120
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_2	UINT	Read/Write	0x0078	00120	400121
Temperature Tolerance Configuration for Temperature Measurement Rule_2	REAL_2_1	Read/Write	0x0079	00121	400122
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_2	ENUM	Read/Write	0x007A	00122	400123
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_2	ENUM	Read/Write	0x007B	00123	400124
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_2	UINT	Read/Write	0x007C	00124	400125
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_2	REAL_2_1	Read/Write	0x007D	00125	400126
Reserve	——	——	0x007E	00126	400127
Reserve	——	——	0x007F	00127	400128
Distance Configuration for Temperature Measurement Rule_3	UINT	Read/Write	0x0080	00128	400129

Emissivity Configuration for Temperature Measurement Rule_3	REAL_2_2	Read/Write	0x0081	00129	400130
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_3	BOOL	Read/Write	0x0082	00130	400131
Reflected temperature Configuration for Temperature Measurement Rule_3	REAL_2_1	Read/Write	0x0083	00131	400132
Alarm Rule_for Temperature Measurement Rule_3	ENUM	Read/Write	0x0084	00132	400133
Pre-alarm Threshold Configuration for Temperature Measurement Rule_3	REAL_2_1	Read/Write	0x0085	00133	400134
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_3	UINT	Read/Write	0x0086	00134	400135
Alarm Threshold Configuration for Temperature Measurement Rule_3	REAL_2_1	Read/Write	0x0087	00135	400136
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_3	UINT	Read/Write	0x0088	00136	400137
Temperature Tolerance Configuration for Temperature Measurement Rule_3	REAL_2_1	Read/Write	0x0089	00137	400138
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_3	ENUM	Read/Write	0x008A	00138	400139
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_3	ENUM	Read/Write	0x008B	00139	400140
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_3	UINT	Read/Write	0x008C	00140	400141
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_3	REAL_2_1	Read/Write	0x008D	00141	400142

Reserve	——	——	0x008E	00142	400143
Reserve	——	——	0x008F	00143	400144
Distance Configuration for Temperature Measurement Rule_4	UINT	Read/Write	0x0090	00144	400145
Emissivity Configuration for Temperature Measurement Rule_4	REAL_2_2	Read/Write	0x0091	00145	400146
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_4	BOOL	Read/Write	0x0092	00146	400147
Reflected temperature Configuration for Temperature Measurement Rule_4	REAL_2_1	Read/Write	0x0093	00147	400148
Alarm Rule_for Temperature Measurement Rule_4	ENUM	Read/Write	0x0094	00148	400149
Pre-alarm Threshold Configuration for Temperature Measurement Rule_4	REAL_2_1	Read/Write	0x0095	00149	400150
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_4	UINT	Read/Write	0x0096	00150	400151
Alarm Threshold Configuration for Temperature Measurement Rule_4	REAL_2_1	Read/Write	0x0097	00151	400152
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_4	UINT	Read/Write	0x0098	00152	400153
Temperature Tolerance Configuration for Temperature Measurement Rule_4	REAL_2_1	Read/Write	0x0099	00153	400154
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_4	ENUM	Read/Write	0x009A	00154	400155
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_4	ENUM	Read/Write	0x009B	00155	400156

Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_4	UINT	Read/Write	0x009C	00156	400157
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_4	REAL_2_1	Read/Write	0x009D	00157	400158
Reserve	——	——	0x009E	00158	400159
Reserve	——	——	0x009F	00159	400160
Distance Configuration for Temperature Measurement Rule_5	UINT	Read/Write	0x00A0	00160	400161
Emissivity Configuration for Temperature Measurement Rule_5	REAL_2_2	Read/Write	0x00A1	00161	400162
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_5	BOOL	Read/Write	0x00A2	00162	400163
Reflected temperature Configuration for Temperature Measurement Rule_5	REAL_2_1	Read/Write	0x00A3	00163	400164
Alarm Rule_for Temperature Measurement Rule_5	ENUM	Read/Write	0x00A4	00164	400165
Pre-alarm Threshold Configuration for Temperature Measurement Rule_5	REAL_2_1	Read/Write	0x00A5	00165	400166
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_5	UINT	Read/Write	0x00A6	00166	400167
Alarm Threshold Configuration for Temperature Measurement Rule_5	REAL_2_1	Read/Write	0x00A7	00167	400168
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_5	UINT	Read/Write	0x00A8	00168	400169
Temperature Tolerance Configuration for Temperature Measurement Rule_5	REAL_2_1	Read/Write	0x00A9	00169	400170

Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_5	ENUM	Read/Write	0x00AA	00170	400171
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_5	ENUM	Read/Write	0x00AB	00171	400172
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_5	UINT	Read/Write	0x00AC	00172	400173
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_5	REAL_2_1	Read/Write	0x00AD	00173	400174
Reserve	——	——	0x00AE	00174	400175
Reserve	——	——	0x00AF	00175	400176
Distance Configuration for Temperature Measurement Rule_6	UINT	Read/Write	0x00B0	00176	400177
Emissivity Configuration for Temperature Measurement Rule_6	REAL_2_2	Read/Write	0x00B1	00177	400178
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_6	BOOL	Read/Write	0x00B2	00178	400179
Reflected temperature Configuration for Temperature Measurement Rule_6	REAL_2_1	Read/Write	0x00B3	00179	400180
Alarm Rule for Temperature Measurement Rule_6	ENUM	Read/Write	0x00B4	00180	400181
Pre-alarm Threshold Configuration for Temperature Measurement Rule_6	REAL_2_1	Read/Write	0x00B5	00181	400182
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_6	UINT	Read/Write	0x00B6	00182	400183
Alarm Threshold Configuration for Temperature Measurement Rule_6	REAL_2_1	Read/Write	0x00B7	00183	400184

Alarm Filter Time Configuration for Normal Temperature Measurement Rule_6	UINT	Read/Write	0x00B8	00184	400185
Temperature Tolerance Configuration for Temperature Measurement Rule_6	REAL_2_1	Read/Write	0x00B9	00185	400186
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_6	ENUM	Read/Write	0x00BA	00186	400187
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_6	ENUM	Read/Write	0x00BB	00187	400188
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_6	UINT	Read/Write	0x00BC	00188	400189
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_6	REAL_2_1	Read/Write	0x00BD	00189	400190
Reserve	——	——	0x00BE	00190	400191
Reserve	——	——	0x00BF	00191	400192
Distance Configuration for Temperature Measurement Rule_7	UINT	Read/Write	0x00C0	00192	400193
Emissivity Configuration for Temperature Measurement Rule_7	REAL_2_2	Read/Write	0x00C1	00193	400194
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_7	BOOL	Read/Write	0x00C2	00194	400195
Reflected temperature Configuration for Temperature Measurement Rule_7	REAL_2_1	Read/Write	0x00C3	00195	400196
Alarm Rule for Temperature Measurement Rule_7	ENUM	Read/Write	0x00C4	00196	400197
Pre-alarm Threshold Configuration for Temperature Measurement Rule_7	REAL_2_1	Read/Write	0x00C5	00197	400198

Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_7	UINT	Read/Write	0x00C6	00198	400199
Alarm Threshold Configuration for Temperature Measurement Rule_7	REAL_2_1	Read/Write	0x00C7	00199	400200
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_7	UINT	Read/Write	0x00C8	00200	400201
Temperature Tolerance Configuration for Temperature Measurement Rule_7	REAL_2_1	Read/Write	0x00C9	00201	400202
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_7	ENUM	Read/Write	0x00CA	00202	400203
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_7	ENUM	Read/Write	0x00CB	00203	400204
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_7	UINT	Read/Write	0x00CC	00204	400205
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_7	REAL_2_1	Read/Write	0x00CD	00205	400206
Reserve	——	——	0x00CE	00206	400207
Reserve	——	——	0x00CF	00207	400208
Distance Configuration for Temperature Measurement Rule_8	UINT	Read/Write	0x00D0	00208	400209
Emissivity Configuration for Temperature Measurement Rule_8	REAL_2_2	Read/Write	0x00D1	00209	400210
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_8	BOOL	Read/Write	0x00D2	00210	400211

Reflected temperature Configuration for Temperature Measurement Rule_8	REAL_2_1	Read/Write	0x00D3	00211	400212
Alarm Rule for Temperature Measurement Rule_8	ENUM	Read/Write	0x00D4	00212	400213
Pre-alarm Threshold Configuration for Temperature Measurement Rule_8	REAL_2_1	Read/Write	0x00D5	00213	400214
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_8	UINT	Read/Write	0x00D6	00214	400215
Alarm Threshold Configuration for Temperature Measurement Rule_8	REAL_2_1	Read/Write	0x00D7	00215	400216
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_8	UINT	Read/Write	0x00D8	00216	400217
Temperature Tolerance Configuration for Temperature Measurement Rule_8	REAL_2_1	Read/Write	0x00D9	00217	400218
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_8	ENUM	Read/Write	0x00DA	00218	400219
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_8	ENUM	Read/Write	0x00DB	00219	400220
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_8	UINT	Read/Write	0x00DC	00220	400221
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_8	REAL_2_1	Read/Write	0x00DD	00221	400222
Reserve	——	——	0x00DE	00222	400223
Reserve	——	——	0x00DF	00223	400224
Distance Configuration for Temperature Measurement Rule_9	UINT	Read/Write	0x00E0	00224	400225

Emissivity Configuration for Temperature Measurement Rule_9	REAL_2_2	Read/Write	0x00E1	00225	400226
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_9	BOOL	Read/Write	0x00E2	00226	400227
Reflected temperature Configuration for Temperature Measurement Rule_9	REAL_2_1	Read/Write	0x00E3	00227	400228
Alarm Rule for Temperature Measurement Rule_9	ENUM	Read/Write	0x00E4	00228	400229
Pre-alarm Threshold Configuration for Temperature Measurement Rule_9	REAL_2_1	Read/Write	0x00E5	00229	400230
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_9	UINT	Read/Write	0x00E6	00230	400231
Alarm Threshold Configuration for Temperature Measurement Rule_9	REAL_2_1	Read/Write	0x00E7	00231	400232
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_9	UINT	Read/Write	0x00E8	00232	400233
Temperature Tolerance Configuration for Temperature Measurement Rule_9	REAL_2_1	Read/Write	0x00E9	00233	400234
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_9	ENUM	Read/Write	0x00EA	00234	400235
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_9	ENUM	Read/Write	0x00EB	00235	400236
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_9	UINT	Read/Write	0x00EC	00236	400237
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_9	REAL_2_1	Read/Write	0x00ED	00237	400238

Reserve	——	——	0x00EE	00238	400239
Reserve	——	——	0x00EF	00239	400240
Distance Configuration for Temperature Measurement Rule_10	UINT	Read/Write	0x00F0	00240	400241
Emissivity Configuration for Temperature Measurement Rule_10	REAL_2_2	Read/Write	0x00F1	00241	400242
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_10	BOOL	Read/Write	0x00F2	00242	400243
Reflected temperature Configuration for Temperature Measurement Rule_10	REAL_2_1	Read/Write	0x00F3	00243	400244
Alarm Rule for Temperature Measurement Rule_10	ENUM	Read/Write	0x00F4	00244	400245
Pre-alarm Threshold Configuration for Temperature Measurement Rule_10	REAL_2_1	Read/Write	0x00F5	00245	400246
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_10	UINT	Read/Write	0x00F6	00246	400247
Alarm Threshold Configuration for Temperature Measurement Rule_10	REAL_2_1	Read/Write	0x00F7	00247	400248
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_10	UINT	Read/Write	0x00F8	00248	400249
Temperature Tolerance Configuration for Temperature Measurement Rule_10	REAL_2_1	Read/Write	0x00F9	00249	400250
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_10	ENUM	Read/Write	0x00FA	00250	400251
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_10	ENUM	Read/Write	0x00FB	00251	400252

Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_10	UINT	Read/Write	0x00FC	00252	400253
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_10	REAL_2_1	Read/Write	0x00FD	00253	400254
Reserve	——	——	0x00FE	00254	400255
Reserve	——	——	0x00FF	00255	400256
Distance Configuration for Temperature Measurement Rule_11	UINT	Read/Write	0x0100	00256	400257
Emissivity Configuration for Temperature Measurement Rule_11	REAL_2_2	Read/Write	0x0101	00257	400258
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_11	BOOL	Read/Write	0x0102	00258	400259
Reflected temperature Configuration for Temperature Measurement Rule_11	REAL_2_1	Read/Write	0x0103	00259	400260
Alarm Rule for Temperature Measurement Rule_11	ENUM	Read/Write	0x0104	00260	400261
Pre-alarm Threshold Configuration for Temperature Measurement Rule_11	REAL_2_1	Read/Write	0x0105	00261	400262
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_11	UINT	Read/Write	0x0106	00262	400263
Alarm Threshold Configuration for Temperature Measurement Rule_11	REAL_2_1	Read/Write	0x0107	00263	400264
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_11	UINT	Read/Write	0x0108	00264	400265
Temperature Tolerance Configuration for Temperature Measurement Rule_11	REAL_2_1	Read/Write	0x0109	00265	400266

Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_11	ENUM	Read/Write	0x010A	00266	400267
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_11	ENUM	Read/Write	0x010B	00267	400268
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_11	UINT	Read/Write	0x010C	00268	400269
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_11	REAL_2_1	Read/Write	0x010D	00269	400270
Reserve	——	——	0x010E	00270	400271
Reserve	——	——	0x010F	00271	400272
Distance Configuration for Temperature Measurement Rule_12	UINT	Read/Write	0x0110	00272	400273
Emissivity Configuration for Temperature Measurement Rule_12	REAL_2_2	Read/Write	0x0111	00273	400274
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_12	BOOL	Read/Write	0x0112	00274	400275
Reflected temperature Configuration for Temperature Measurement Rule_12	REAL_2_1	Read/Write	0x0113	00275	400276
Alarm Rule for Temperature Measurement Rule_12	ENUM	Read/Write	0x0114	00276	400277
Pre-alarm Threshold Configuration for Temperature Measurement Rule_12	REAL_2_1	Read/Write	0x0115	00277	400278
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_12	UINT	Read/Write	0x0116	00278	400279
Alarm Threshold Configuration for Temperature Measurement Rule_12	REAL_2_1	Read/Write	0x0117	00279	400280

Alarm Filter Time Configuration for Normal Temperature Measurement Rule_12	UINT	Read/Write	0x0118	00280	400281
Temperature Tolerance Configuration for Temperature Measurement Rule_12	REAL_2_1	Read/Write	0x0119	00281	400282
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_12	ENUM	Read/Write	0x011A	00282	400283
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_12	ENUM	Read/Write	0x011B	00283	400284
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_12	UINT	Read/Write	0x011C	00284	400285
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_12	REAL_2_1	Read/Write	0x011D	00285	400286
Reserve	——	——	0x011E	00286	400287
Reserve	——	——	0x011F	00287	400288
Distance Configuration for Temperature Measurement Rule_13	UINT	Read/Write	0x0120	00288	400289
Emissivity Configuration for Temperature Measurement Rule_13	REAL_2_2	Read/Write	0x0121	00289	400290
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_13	BOOL	Read/Write	0x0122	00290	400291
Reflected temperature Configuration for Temperature Measurement Rule_13	REAL_2_1	Read/Write	0x0123	00291	400292
Alarm Rule_for Temperature Measurement Rule_13	ENUM	Read/Write	0x0124	00292	400293
Pre-alarm Threshold Configuration for Temperature Measurement Rule_13	REAL_2_1	Read/Write	0x0125	00293	400294

Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_13	UINT	Read/Write	0x0126	00294	400295
Alarm Threshold Configuration for Temperature Measurement Rule_13	REAL_2_1	Read/Write	0x0127	00295	400296
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_13	UINT	Read/Write	0x0128	00296	400297
Temperature Tolerance Configuration for Temperature Measurement Rule_13	REAL_2_1	Read/Write	0x0129	00297	400298
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_13	ENUM	Read/Write	0x012A	00298	400299
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_13	ENUM	Read/Write	0x012B	00299	400300
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_13	UINT	Read/Write	0x012C	00300	400301
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_13	REAL_2_1	Read/Write	0x012D	00301	400302
Reserve	——	——	0x012E	00302	400303
Reserve	——	——	0x012F	00303	400304
Distance Configuration for Temperature Measurement Rule_14	UINT	Read/Write	0x0130	00304	400305
Emissivity Configuration for Temperature Measurement Rule_14	REAL_2_2	Read/Write	0x0131	00305	400306
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_14	BOOL	Read/Write	0x0132	00306	400307

Reflected temperature Configuration for Temperature Measurement Rule_14	REAL_2_1	Read/Write	0x0133	00307	400308
Alarm Rule_for Temperature Measurement Rule_14	ENUM	Read/Write	0x0134	00308	400309
Pre-alarm Threshold Configuration for Temperature Measurement Rule_14	REAL_2_1	Read/Write	0x0135	00309	400310
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_14	UINT	Read/Write	0x0136	00310	400311
Alarm Threshold Configuration for Temperature Measurement Rule_14	REAL_2_1	Read/Write	0x0137	00311	400312
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_14	UINT	Read/Write	0x0138	00312	400313
Temperature Tolerance Configuration for Temperature Measurement Rule_14	REAL_2_1	Read/Write	0x0139	00313	400314
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_14	ENUM	Read/Write	0x013A	00314	400315
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_14	ENUM	Read/Write	0x013B	00315	400316
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_14	UINT	Read/Write	0x013C	00316	400317
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_14	REAL_2_1	Read/Write	0x013D	00317	400318
Reserve	——	——	0x013E	00318	400319
Reserve	——	——	0x013F	00319	400320
Distance Configuration for Temperature Measurement Rule_15	UINT	Read/Write	0x0140	00320	400321

Emissivity Configuration for Temperature Measurement Rule_15	REAL_2_2	Read/Write	0x0141	00321	400322
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_15	BOOL	Read/Write	0x0142	00322	400323
Reflected temperature Configuration for Temperature Measurement Rule_15	REAL_2_1	Read/Write	0x0143	00323	400324
Alarm Rule_for Temperature Measurement Rule_15	ENUM	Read/Write	0x0144	00324	400325
Pre-alarm Threshold Configuration for Temperature Measurement Rule_15	REAL_2_1	Read/Write	0x0145	00325	400326
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_15	UINT	Read/Write	0x0146	00326	400327
Alarm Threshold Configuration for Temperature Measurement Rule_15	REAL_2_1	Read/Write	0x0147	00327	400328
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_15	UINT	Read/Write	0x0148	00328	400329
Temperature Tolerance Configuration for Temperature Measurement Rule_15	REAL_2_1	Read/Write	0x0149	00329	400330
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_15	ENUM	Read/Write	0x014A	00330	400331
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_15	ENUM	Read/Write	0x014B	00331	400332
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_15	UINT	Read/Write	0x014C	00332	400333
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_15	REAL_2_1	Read/Write	0x014D	00333	400334

Reserve	——	——	0x014E	00334	400335
Reserve	——	——	0x014F	00335	400336
Distance Configuration for Temperature Measurement Rule_16	UINT	Read/Write	0x0150	00336	400337
Emissivity Configuration for Temperature Measurement Rule_16	REAL_2_2	Read/Write	0x0151	00337	400338
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_16	BOOL	Read/Write	0x0152	00338	400339
Reflected temperature Configuration for Temperature Measurement Rule_16	REAL_2_1	Read/Write	0x0153	00339	400340
Alarm Rule_for Temperature Measurement Rule_16	ENUM	Read/Write	0x0154	00340	400341
Pre-alarm Threshold Configuration for Temperature Measurement Rule_16	REAL_2_1	Read/Write	0x0155	00341	400342
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_16	UINT	Read/Write	0x0156	00342	400343
Alarm Threshold Configuration for Temperature Measurement Rule_16	REAL_2_1	Read/Write	0x0157	00343	400344
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_16	UINT	Read/Write	0x0158	00344	400345
Temperature Tolerance Configuration for Temperature Measurement Rule_16	REAL_2_1	Read/Write	0x0159	00345	400346
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_16	ENUM	Read/Write	0x015A	00346	400347
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_16	ENUM	Read/Write	0x015B	00347	400348

Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_16	UINT	Read/Write	0x015C	00348	400349
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_16	REAL_2_1	Read/Write	0x015D	00349	400350
Reserve	——	——	0x015E	00350	400351
Reserve	——	——	0x015F	00351	400352
Distance Configuration for Temperature Measurement Rule_17	UINT	Read/Write	0x0160	00352	400353
Emissivity Configuration for Temperature Measurement Rule_17	REAL_2_2	Read/Write	0x0161	00353	400354
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_17	BOOL	Read/Write	0x0162	00354	400355
Reflected temperature Configuration for Temperature Measurement Rule_17	REAL_2_1	Read/Write	0x0163	00355	400356
Alarm Rule_for Temperature Measurement Rule_17	ENUM	Read/Write	0x0164	00356	400357
Pre-alarm Threshold Configuration for Temperature Measurement Rule_17	REAL_2_1	Read/Write	0x0165	00357	400358
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_17	UINT	Read/Write	0x0166	00358	400359
Alarm Threshold Configuration for Temperature Measurement Rule_17	REAL_2_1	Read/Write	0x0167	00359	400360
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_17	UINT	Read/Write	0x0168	00360	400361
Temperature Tolerance Configuration for Temperature Measurement Rule_17	REAL_2_1	Read/Write	0x0169	00361	400362

Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_17	ENUM	Read/Write	0x016A	00362	400363
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_17	ENUM	Read/Write	0x016B	00363	400364
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_17	UINT	Read/Write	0x016C	00364	400365
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_17	REAL_2_1	Read/Write	0x016D	00365	400366
Reserve	——	——	0x016E	00366	400367
Reserve	——	——	0x016F	00367	400368
Distance Configuration for Temperature Measurement Rule_18	UINT	Read/Write	0x0170	00368	400369
Emissivity Configuration for Temperature Measurement Rule_18	REAL_2_2	Read/Write	0x0171	00369	400370
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_18	BOOL	Read/Write	0x0172	00370	400371
Reflected temperature Configuration for Temperature Measurement Rule_18	REAL_2_1	Read/Write	0x0173	00371	400372
Alarm Rule for Temperature Measurement Rule_18	ENUM	Read/Write	0x0174	00372	400373
Pre-alarm Threshold Configuration for Temperature Measurement Rule_18	REAL_2_1	Read/Write	0x0175	00373	400374
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_18	UINT	Read/Write	0x0176	00374	400375
Alarm Threshold Configuration for Temperature Measurement Rule_18	REAL_2_1	Read/Write	0x0177	00375	400376

Alarm Filter Time Configuration for Normal Temperature Measurement Rule_18	UINT	Read/Write	0x0178	00376	400377
Temperature Tolerance Configuration for Temperature Measurement Rule_18	REAL_2_1	Read/Write	0x0179	00377	400378
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_18	ENUM	Read/Write	0x017A	00378	400379
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_18	ENUM	Read/Write	0x017B	00379	400380
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_18	UINT	Read/Write	0x017C	00380	400381
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_18	REAL_2_1	Read/Write	0x017D	00381	400382
Reserve	——	——	0x017E	00382	400383
Reserve	——	——	0x017F	00383	400384
Distance Configuration for Temperature Measurement Rule_19	UINT	Read/Write	0x0180	00384	400385
Emissivity Configuration for Temperature Measurement Rule_19	REAL_2_2	Read/Write	0x0181	00385	400386
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_19	BOOL	Read/Write	0x0182	00386	400387
Reflected temperature Configuration for Temperature Measurement Rule_19	REAL_2_1	Read/Write	0x0183	00387	400388
Alarm Rule_for Temperature Measurement Rule_19	ENUM	Read/Write	0x0184	00388	400389
Pre-alarm Threshold Configuration for Temperature Measurement Rule_19	REAL_2_1	Read/Write	0x0185	00389	400390

Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_19	UINT	Read/Write	0x0186	00390	400391
Alarm Threshold Configuration for Temperature Measurement Rule_19	REAL_2_1	Read/Write	0x0187	00391	400392
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_19	UINT	Read/Write	0x0188	00392	400393
Temperature Tolerance Configuration for Temperature Measurement Rule_19	REAL_2_1	Read/Write	0x0189	00393	400394
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_19	ENUM	Read/Write	0x018A	00394	400395
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_19	ENUM	Read/Write	0x018B	00395	400396
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_19	UINT	Read/Write	0x018C	00396	400397
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_19	REAL_2_1	Read/Write	0x018D	00397	400398
Reserve	——	——	0x018E	00398	400399
Reserve	——	——	0x018F	00399	400400
Distance Configuration for Temperature Measurement Rule_20	UINT	Read/Write	0x0190	00400	400401
Emissivity Configuration for Temperature Measurement Rule_20	REAL_2_2	Read/Write	0x0191	00401	400402
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_20	BOOL	Read/Write	0x0192	00402	400403

Reflected temperature Configuration for Temperature Measurement Rule_20	REAL_2_1	Read/Write	0x0193	00403	400404
Alarm Rule_for Temperature Measurement Rule_20	ENUM	Read/Write	0x0194	00404	400405
Pre-alarm Threshold Configuration for Temperature Measurement Rule_20	REAL_2_1	Read/Write	0x0195	00405	400406
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_20	UINT	Read/Write	0x0196	00406	400407
Alarm Threshold Configuration for Temperature Measurement Rule_20	REAL_2_1	Read/Write	0x0197	00407	400408
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_20	UINT	Read/Write	0x0198	00408	400409
Temperature Tolerance Configuration for Temperature Measurement Rule_20	REAL_2_1	Read/Write	0x0199	00409	400410
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_20	ENUM	Read/Write	0x019A	00410	400411
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_20	ENUM	Read/Write	0x019B	00411	400412
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_20	UINT	Read/Write	0x019C	00412	400413
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_20	REAL_2_1	Read/Write	0x019D	00413	400414
Reserve	——	——	0x019E	00414	400415
Reserve	——	——	0x019F	00415	400416
Distance Configuration for Temperature Measurement Rule_21	UINT	Read/Write	0x01A0	00416	400417

Emissivity Configuration for Temperature Measurement Rule_21	REAL_2_2	Read/Write	0x01A1	00417	400418
Enabling Configuration of Reflected temperature for Temperature Measurement Rule_21	BOOL	Read/Write	0x01A2	00418	400419
Reflected temperature Configuration for Temperature Measurement Rule_21	REAL_2_1	Read/Write	0x01A3	00419	400420
Alarm Rule_for Temperature Measurement Rule_21	ENUM	Read/Write	0x01A4	00420	400421
Pre-alarm Threshold Configuration for Temperature Measurement Rule_21	REAL_2_1	Read/Write	0x01A5	00421	400422
Pre-alarm Filter Time Configuration for Normal Temperature Measurement Rule_21	UINT	Read/Write	0x01A6	00422	400423
Alarm Threshold Configuration for Temperature Measurement Rule_21	REAL_2_1	Read/Write	0x01A7	00423	400424
Alarm Filter Time Configuration for Normal Temperature Measurement Rule_21	UINT	Read/Write	0x01A8	00424	400425
Temperature Tolerance Configuration for Temperature Measurement Rule_21	REAL_2_1	Read/Write	0x01A9	00425	400426
Alarm/Pre-alarm Output Configuration for Temperature Measurement Rule_21	ENUM	Read/Write	0x01AA	00426	400427
Temperature Sudden Change Alarm Mode Configuration for Temperature Measurement Rule_21	ENUM	Read/Write	0x01AB	00427	400428
Temperature Sudden Change Alarm Record Period for Temperature Measurement Rule_21	UINT	Read/Write	0x01AC	00428	400429
Temperature Sudden Change Alarm Value for Temperature Measurement Rule_21	REAL_2_1	Read/Write	0x01AD	00429	400430

Reserve	——	——	0x01AE	00430	400431
Reserve	——	——	0x01AF	00431	400432
System Configuration Parameter					
Function	Data Type	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
RS485 links CRC response and transmission mode	ENUM	Read/Write	0x0300	00768	400769
Alarm Output Information	CUSTOM	Read/Write	0x0301	00769	400770
Restart Device	UINT	Write	0x0302	00770	400771
PTZ Parameter					
Function	Data Type	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
Preset No.	UINT	Read	0x0350	00848	400849
Perimeter Protection Scene Parameter					
Function	Data Type	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
Perimeter Protection Scene No.	UINT	Read	0x0370	00880	400881

7.1.4 Input Register Function Protocol

Index

Function	Register Start and End Address
Get Temperature Measurement Temperature Information（Mode One）	0x0000~0x006F
Get Temperature Measurement Temperature Information（Mode Two）	0x0070~0x00DF
Get Fire & Smoke Alarm Information	0x0210-0x024F
Get Perimeter Protection Alarm Information	0x0250-0x025F
Get Alarm Input Information	0x320

Register Address Corresponding Function List

Get Temperature Measurement Rule Temperature Information（Mode One）					
Function	Data Type	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
Temperature Measurement Rule__1 Max Temperature (or Normal Temperature Measurement Max Temperature)	REAL_2_1	Read Only	0x0000	00000	300001
Temperature Measurement Rule__1 Min Temperature（or Normal Temperature Measurement Min Temperature）	REAL_2_1	Read Only	0x0001	00001	300002
Temperature Measurement Rule__1 Average Temperature（or Normal Temperature Measurement Average Temperature）	REAL_2_1	Read Only	0x0002	00002	300003
Reserve	——	Read Only	0x0003	00003	300004

Alarm Status of Temperature Measurement Rule__1（or Normal Temperature Measurement Alarm Status）	REAL_2_1	Read Only	0x0004	00004	300005
Temperature Measurement Rule__2 Max Temperature	REAL_2_1	Read Only	0x0005	00005	300006
Temperature Measurement Rule__2 Min Temperature	REAL_2_1	Read Only	0x0006	00006	300007
Temperature Measurement Rule__2 Average Temperature	REAL_2_1	Read Only	0x0007	00007	300008
Reserve	——	Read Only	0x0008	00008	300009
Alarm Status of Temperature Measurement Rule__2	REAL_2_1	Read Only	0x0009	00009	300010
Temperature Measurement Rule__3 Max Temperature	REAL_2_1	Read Only	0x000A	00010	300011
Temperature Measurement Rule__3 Min Temperature	REAL_2_1	Read Only	0x000B	00011	300012
Temperature Measurement Rule__3 Average Temperature	REAL_2_1	Read Only	0x000C	00012	300013
Reserve	——	Read Only	0x000D	00013	300014
Alarm Status of Temperature Measurement Rule__3	REAL_2_1	Read Only	0x000E	00014	300015
Temperature Measurement Rule__4 Max Temperature	REAL_2_1	Read Only	0x000F	00015	300016
Temperature Measurement Rule__4 Min Temperature	REAL_2_1	Read Only	0x0010	00016	300017

Temperature Measurement Rule__4 Average Temperature	REAL_2_1	Read Only	0x0011	00017	300018
Reserve	——	Read Only	0x0012	00018	300019
Alarm Status of Temperature Measurement Rule__4	REAL_2_1	Read Only	0x0013	00019	300020
Temperature Measurement Rule__5 Max Temperature	REAL_2_1	Read Only	0x0014	00020	300021
Temperature Measurement Rule__5 Min Temperature	REAL_2_1	Read Only	0x0015	00021	300022
Temperature Measurement Rule__5 Average Temperature	REAL_2_1	Read Only	0x0016	00022	300023
Reserve	——	Read Only	0x0017	00023	300024
Alarm Status of Temperature Measurement Rule__5	REAL_2_1	Read Only	0x0018	00024	300025
Temperature Measurement Rule__5 Max Temperature	REAL_2_1	Read Only	0x0019	00025	300026
Temperature Measurement Rule__6 Min Temperature	REAL_2_1	Read Only	0x001A	00026	300027
Temperature Measurement Rule__6 Average Temperature	REAL_2_1	Read Only	0x001B	00027	300028
Reserve	——	Read Only	0x001C	00028	300029
Alarm Status of Temperature Measurement Rule__6	REAL_2_1	Read Only	0x001D	00029	300030

Temperature Measurement Rule__7 Max Temperature	REAL_2_1	Read Only	0x001E	00030	300031
Temperature Measurement Rule__7 Min Temperature	REAL_2_1	Read Only	0x001F	00031	300032
Temperature Measurement Rule__7 Average Temperature	REAL_2_1	Read Only	0x0020	00032	300033
Reserve	——	Read Only	0x0021	00033	300034
Alarm Status of Temperature Measurement Rule__7	REAL_2_1	Read Only	0x0022	00034	300035
Temperature Measurement Rule__7 Max Temperature	REAL_2_1	Read Only	0x0023	00035	300036
Temperature Measurement Rule__7 Min Temperature	REAL_2_1	Read Only	0x0024	00036	300037
Temperature Measurement Rule__7 Average Temperature	REAL_2_1	Read Only	0x0025	00037	300038
Reserve	——	Read Only	0x0026	00038	300039
Alarm Status of Temperature Measurement Rule__8	REAL_2_1	Read Only	0x0027	00039	300040
Temperature Measurement Rule__9 Max Temperature	REAL_2_1	Read Only	0x0028	00040	300041
Temperature Measurement Rule__9 Min Temperature	REAL_2_1	Read Only	0x0029	00041	300042
Temperature Measurement Rule__9 Average Temperature	REAL_2_1	Read Only	0x002A	00042	300043

Reserve	——	Read Only	0x002B	00043	300044
Alarm Status of Temperature Measurement Rule__9	REAL_2_1	Read Only	0x002C	00044	300045
Temperature Measurement Rule__10 Max Temperature	REAL_2_1	Read Only	0x002D	00045	300046
Temperature Measurement Rule__10 Min Temperature	REAL_2_1	Read Only	0x002E	00046	300047
Temperature Measurement Rule__10 Average Temperature	REAL_2_1	Read Only	0x002F	00047	300048
Reserve	——	Read Only	0x0030	00048	300049
Alarm Status of Temperature Measurement Rule__10	REAL_2_1	Read Only	0x0031	00049	300050
Temperature Measurement Rule__11 Max Temperature	REAL_2_1	Read Only	0x0032	00050	300051
Temperature Measurement Rule__11 Min Temperature	REAL_2_1	Read Only	0x0033	00051	300052
Temperature Measurement Rule__11 Average Temperature	REAL_2_1	Read Only	0x0034	00052	300053
Reserve	——	Read Only	0x0035	00053	300054
Alarm Status of Temperature Measurement Rule__11	REAL_2_1	Read Only	0x0036	00054	300055
Temperature Measurement Rule__12 Max Temperature	REAL_2_1	Read Only	0x0037	00055	300056

Temperature Measurement Rule__12 Min Temperature	REAL_2_1	Read Only	0x0038	00056	300057
Temperature Measurement Rule__12 Average Temperature	REAL_2_1	Read Only	0x0039	00057	300058
Reserve	——	Read Only	0x003A	00058	300059
Alarm Status of Temperature Measurement Rule__12	REAL_2_1	Read Only	0x003B	00059	300060
Temperature Measurement Rule__13 Max Temperature	REAL_2_1	Read Only	0x003C	00060	300061
Temperature Measurement Rule__13 Min Temperature	REAL_2_1	Read Only	0x003D	00061	300062
Temperature Measurement Rule__13 Average Temperature	REAL_2_1	Read Only	0x003E	00062	300063
Reserve	——	Read Only	0x003F	00063	300064
Alarm Status of Temperature Measurement Rule__13	REAL_2_1	Read Only	0x0040	00064	300065
Temperature Measurement Rule__14 Max Temperature	REAL_2_1	Read Only	0x0041	00065	300066
Temperature Measurement Rule__14 Min Temperature	REAL_2_1	Read Only	0x0042	00066	300067
Temperature Measurement Rule__14 Average Temperature	REAL_2_1	Read Only	0x0043	00067	300068
Reserve	——	Read Only	0x0044	00068	300069

Alarm Status of Temperature Measurement Rule__14	REAL_2_1	Read Only	0x0045	00069	300070
Temperature Measurement Rule__15 Max Temperature	REAL_2_1	Read Only	0x0046	00070	300071
Temperature Measurement Rule__15 Min Temperature	REAL_2_1	Read Only	0x0047	00071	300072
Temperature Measurement Rule__15 Average Temperature	REAL_2_1	Read Only	0x0048	00072	300073
Reserve	——	Read Only	0x0049	00073	300074
Alarm Status of Temperature Measurement Rule__15	REAL_2_1	Read Only	0x004A	00074	300075
Temperature Measurement Rule__16 Max Temperature	REAL_2_1	Read Only	0x004B	00075	300076
Temperature Measurement Rule__16 Min Temperature	REAL_2_1	Read Only	0x004C	00076	300077
Temperature Measurement Rule__16 Average Temperature	REAL_2_1	Read Only	0x004D	00077	300078
Reserve	——	Read Only	0x004E	00078	300079
Alarm Status of Temperature Measurement Rule__16	REAL_2_1	Read Only	0x004F	00079	300080
Temperature Measurement Rule__17 Max Temperature	REAL_2_1	Read Only	0x0050	00080	300081
Temperature Measurement Rule__ 17 Min Temperature	REAL_2_1	Read Only	0x0051	00081	300082

Temperature Measurement Rule__17 Average Temperature	REAL_2_1	Read Only	0x0052	00082	300083
Reserve	——	Read Only	0x0053	00083	300084
Alarm Status of Temperature Measurement Rule__17	REAL_2_1	Read Only	0x0054	00084	300085
Temperature Measurement Rule__18 Max Temperature	REAL_2_1	Read Only	0x0055	00085	300086
Temperature Measurement Rule__18 Min Temperature	REAL_2_1	Read Only	0x0056	00086	300087
Temperature Measurement Rule__18 Average Temperature	REAL_2_1	Read Only	0x0057	00087	300088
Reserve	——	Read Only	0x0058	00088	300089
Alarm Status of Temperature Measurement Rule__18	REAL_2_1	Read Only	0x0059	00089	300090
Temperature Measurement Rule__19 Max Temperature	REAL_2_1	Read Only	0x005A	00090	300091
Temperature Measurement Rule__19 Min Temperature	REAL_2_1	Read Only	0x005B	00091	300092
Temperature Measurement Rule__19 Average Temperature	REAL_2_1	Read Only	0x005C	00092	300093
Reserve	——	Read Only	0x005D	00093	300094
Alarm Status of Temperature Measurement Rule__19	REAL_2_1	Read Only	0x005E	00094	300095

Temperature Measurement Rule__20 Max Temperature	REAL_2_1	Read Only	0x005F	00095	300096
Temperature Measurement Rule__20 Min Temperature	REAL_2_1	Read Only	0x0060	00096	300097
Temperature Measurement Rule__20 Average Temperature	REAL_2_1	Read Only	0x0061	00097	300098
Reserve	——	Read Only	0x0062	00098	300099
Alarm Status of Temperature Measurement Rule_20	REAL_2_1	Read Only	0x0063	00099	300100
Temperature Measurement Rule__21 Max Temperature	REAL_2_1	Read Only	0x0064	00100	300101
Temperature Measurement Rule__21 Min Temperature	REAL_2_1	Read Only	0x0065	00101	300102
Temperature Measurement Rule__21 Average Temperature	REAL_2_1	Read Only	0x0066	00102	300103
Reserve	——	Read Only	0x0067	00103	300104
Alarm Status of Temperature Measurement Rule__21	REAL_2_1	Read Only	0x0068	00104	300105
——	——	——	0x0069 ~0x006F	——	——
Get Temperature Measurement Rule Temperature Information（Mode Two）					
Function	Data Type	Property	Register Address	Register Address	Modbus Address（PLC）

			(Hexadecimal)	(Decimal)	
Temperature Measurement Rule__1 Max Temperature (or Normal Temperature Measurement Max Temperature)	REAL_2_1	Read Only	0x0070	00112	300113
Temperature Measurement Rule__1 Max Temperature Horizontal coordinate（or Normal Temperature Measurement Max Temperature Horizontal coordinate）	REAL_2_1	Read Only	0x0071	00113	300114
Temperature Measurement Rule__1 Max Temperature Vertical coordinate（or Normal Temperature Measurement Max Temperature Vertical coordinate）	REAL_2_1	Read Only	0x0072	00114	300115
Alarm Status of Temperature Measurement Rule__1 （or Normal Temperature Measurement Alarm Status）	REAL_2_1	Read Only	0x0073	00115	300116
Reserve	——	Read Only	0x0074	00116	300117
Temperature Measurement Rule__2 Max Temperature	REAL_2_1	Read Only	0x0075	00117	300118
Temperature Measurement Rule__2 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x0076	00118	300119
Temperature Measurement Rule__2 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x0077	00119	300120
Alarm Status of Temperature Measurement Rule__2	REAL_2_1	Read Only	0x0078	00120	300121
Reserve	——	Read Only	0x0079	00121	300122
Temperature Measurement Rule__3 Max Temperature	REAL_2_1	Read Only	0x007A	00122	300123

Temperature Measurement Rule__3 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x007B	00123	300124
Temperature Measurement Rule__3 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x007C	00124	300125
Alarm Status of Temperature Measurement Rule__3	REAL_2_1	Read Only	0x007D	00125	300126
Reserve	——	Read Only	0x007E	00126	300127
Temperature Measurement Rule__4 Max Temperature	REAL_2_1	Read Only	0x007F	00127	300128
Temperature Measurement Rule__4 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x0080	00128	300129
Temperature Measurement Rule__4 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x0081	00129	300130
Alarm Status of Temperature Measurement Rule__4	REAL_2_1	Read Only	0x0082	00130	300131
Reserve	——	Read Only	0x0083	00131	300132
Temperature Measurement Rule__5 Max Temperature	REAL_2_1	Read Only	0x0084	00132	300133
Temperature Measurement Rule__5 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x0085	00133	300134
Temperature Measurement Rule__5 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x0086	00134	300135
Alarm Status of Temperature Measurement Rule__5	REAL_2_1	Read Only	0x0087	00135	300136

Reserve	——	Read Only	0x0088	00136	300137
Temperature Measurement Rule__6 Max Temperature	REAL_2_1	Read Only	0x0089	00137	300138
Temperature Measurement Rule__6 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x008A	00138	300139
Temperature Measurement Rule__6 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x008B	00139	300140
Alarm Status of Temperature Measurement Rule__6	REAL_2_1	Read Only	0x008C	00140	300141
Reserve	——	Read Only	0x008D	00141	300142
Temperature Measurement Rule__7 Max Temperature	REAL_2_1	Read Only	0x008E	00142	300143
Temperature Measurement Rule__7 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x008F	00143	300144
Temperature Measurement Rule__7 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x0090	00144	300145
Alarm Status of Temperature Measurement Rule__7	REAL_2_1	Read Only	0x0091	00145	300146
Reserve	——	Read Only	0x0092	00146	300147
Temperature Measurement Rule__8 Max Temperature	REAL_2_1	Read Only	0x0093	00147	300148
Temperature Measurement Rule__8 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x0094	00148	300149

Temperature Measurement Rule__8 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x0095	00149	300150
Alarm Status of Temperature Measurement Rule__8	REAL_2_1	Read Only	0x0096	00150	300151
Reserve	——	Read Only	0x0097	00151	300152
Temperature Measurement Rule__9 Max Temperature	REAL_2_1	Read Only	0x0098	00152	300153
Temperature Measurement Rule__9 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x0099	00153	300154
Temperature Measurement Rule__9 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x009A	00154	300155
Alarm Status of Temperature Measurement Rule__9	REAL_2_1	Read Only	0x009B	00155	300156
Reserve	——	Read Only	0x009C	00156	300157
Temperature Measurement Rule__10 Max Temperature	REAL_2_1	Read Only	0x009D	00157	300158
Temperature Measurement Rule__10 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x009E	00158	300159
Temperature Measurement Rule__10 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x009F	00159	300160
Alarm Status of Temperature Measurement Rule__10	REAL_2_1	Read Only	0x00A0	00160	300161
Reserve	——	Read Only	0x00A1	00161	300162

Temperature Measurement Rule__11 Max Temperature	REAL_2_1	Read Only	0x00A2	00162	300163
Temperature Measurement Rule__11 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x00A3	00163	300164
Temperature Measurement Rule__11 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x00A4	00164	300165
Alarm Status of Temperature Measurement Rule__11	REAL_2_1	Read Only	0x00A5	00165	300166
Reserve	——	Read Only	0x00A6	00166	300167
Temperature Measurement Rule__12 Max Temperature	REAL_2_1	Read Only	0x00A7	00167	300168
Temperature Measurement Rule__12 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x00A8	00168	300169
Temperature Measurement Rule__ 12 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x00A9	00169	300170
Alarm Status of Temperature Measurement Rule__12	REAL_2_1	Read Only	0x00AA	00170	300171
Reserve	——	Read Only	0x00AB	00171	300172
Temperature Measurement Rule__13 Max Temperature	REAL_2_1	Read Only	0x00AC	00172	300173
Temperature Measurement Rule__13 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x00AD	00173	300174
Temperature Measurement Rule__13 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x00AE	00174	300175

Alarm Status of Temperature Measurement Rule__13	REAL_2_1	Read Only	0x00AF	00175	300176
Reserve	——	Read Only	0x00B0	00176	300177
Temperature Measurement Rule__14 Max Temperature	REAL_2_1	Read Only	0x00B1	00177	300178
Temperature Measurement Rule__14 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x00B2	00178	300179
Temperature Measurement Rule__14 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x00B3	00179	300180
Alarm Status of Temperature Measurement Rule__14	REAL_2_1	Read Only	0x00B4	00180	300181
Reserve	——	Read Only	0x00B5	00181	300182
Temperature Measurement Rule__15 Max Temperature	REAL_2_1	Read Only	0x00B6	00182	300183
Temperature Measurement Rule__15 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x00B7	00183	300184
Temperature Measurement Rule__15 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x00B8	00184	300185
Alarm Status of Temperature Measurement Rule__15	REAL_2_1	Read Only	0x00B9	00185	300186
Reserve	——	Read Only	0x00BA	00186	300187
Temperature Measurement Rule__16 Max Temperature	REAL_2_1	Read Only	0x00BB	00187	300188

Temperature Measurement Rule__16 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x00BC	00188	300189
Temperature Measurement Rule__16 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x00BD	00189	300190
Alarm Status of Temperature Measurement Rule__16	REAL_2_1	Read Only	0x00BE	00190	300191
Reserve	——	Read Only	0x00BF	00191	300192
Temperature Measurement Rule__17 Max Temperature	REAL_2_1	Read Only	0x00C0	00192	300193
Temperature Measurement Rule__17 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x00C1	00193	300194
Temperature Measurement Rule__17 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x00C2	00194	300195
Alarm Status of Temperature Measurement Rule__17	REAL_2_1	Read Only	0x00C3	00195	300196
Reserve	——	Read Only	0x00C4	00196	300197
Temperature Measurement Rule__18 Max Temperature	REAL_2_1	Read Only	0x00C5	00197	300198
Temperature Measurement Rule__18 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x00C6	00198	300199
Temperature Measurement Rule__18 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x00C7	00199	300200
Alarm Status of Temperature Measurement Rule__18	REAL_2_1	Read Only	0x00C8	00200	300201

Reserve	——	Read Only	0x00C9	00201	300202
Temperature Measurement Rule__19 Max Temperature	REAL_2_1	Read Only	0x00CA	00202	300203
Temperature Measurement Rule__19 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x00CB	00203	300204
Temperature Measurement Rule__19 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x00CC	00204	300205
Alarm Status of Temperature Measurement Rule__19	REAL_2_1	Read Only	0x00CD	00205	300206
Reserve	——	Read Only	0x00CE	00206	300207
Temperature Measurement Rule__20 Max Temperature	REAL_2_1	Read Only	0x00CF	00207	300208
Temperature Measurement Rule__20 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x00D0	00208	300209
Temperature Measurement Rule__20 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x00D1	00209	300210
Alarm Status of Temperature Measurement Rule__20	REAL_2_1	Read Only	0x00D2	00210	300211
Reserve	——	Read Only	0x00D3	00211	300212
Temperature Measurement Rule__21 Max Temperature	REAL_2_1	Read Only	0x00D4	00212	300213
Temperature Measurement Rule__21 Max Temperature Horizontal coordinate	REAL_2_1	Read Only	0x00D5	00213	300214

Temperature Measurement Rule__21 Max Temperature Vertical coordinate	REAL_2_1	Read Only	0x00D6	00214	300215
Alarm Status of Temperature Measurement Rule__21	REAL_2_1	Read Only	0x00D7	00215	300216
Reserve	——	——	0x00D8	——	——
No use	——	——	0x00D9 ~0x00DF	——	——
Get Fire & Smoke Alarm Information					
Function	Data Type	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
PTZ-P	REAL_2_2	Read Only	0x0210	00528	300529
PTZ-T	REAL_2_2	Read Only	0x0211	00529	300530
PTZ-Z-Vis	REAL_2_1	Read Only	0x0212	00530	30053
PTZ-Z-Thm	REAL_2_2	Read Only	0x0213	00531	300532
——	——	——	0x0214 ~0x021F	00532 ~00543	300533 ~300544
Fire & Smoke Alarm Type	ENUM	Read Only	0x0220	00544	300545
Target Number	INT	Read Only	0x0221	00545	300546

The horizontal axis in the top left corner---The coordinate of target 1	INT	Read Only	0x0222	00546	300547
The vertical axis in the top left corner---The coordinate of target 1	INT	Read Only	0x0223	00547	300548
The horizontal axis in the lower right corner---The coordinate of target 1	INT	Read Only	0x0224	00548	300549
The vertical axis in the lower right corner---The coordinate of target 1	INT	Read Only	0x0225	00549	300550
The horizontal axis in the top left corner---The coordinate of target2	INT	Read Only	0x0226	00550	300551
The vertical axis in the top left corner---The coordinate of target 2	INT	Read Only	0x0227	00551	300552
The horizontal axis in the lower right corner---The coordinate of target 2	INT	Read Only	0x0228	00552	300553
The vertical axis in the lower right corner---The coordinate of target 2	INT	Read Only	0x0229	00553	300554
The horizontal axis in the top left corner---The coordinate of target 3	INT	Read Only	0x022A	00554	300555
The vertical axis in the top left corner---The coordinate of target 3	INT	Read Only	0x022B	00555	300556
The horizontal axis in the lower right corner---The coordinate of target 3	INT	Read Only	0x022C	00556	300557
The vertical axis in the lower right corner---The coordinate of target 3	INT	Read Only	0x022D	00557	300558
The horizontal axis in the top left corner---The coordinate of target 4	INT	Read Only	0x022E	00558	300559

The vertical axis in the top left corner---The coordinate of target 4	INT	Read Only	0x022F	00559	300560
The horizontal axis in the lower right corner---The coordinate of target 4	INT	Read Only	0x0230	00560	300561
The vertical axis in the lower right corner---The coordinate of target 4	INT	Read Only	0x0231	00561	300562
The horizontal axis in the top left corner---The coordinate of target5	INT	Read Only	0x0232	00562	300563
The vertical axis in the top left corner---The coordinate of target 5	INT	Read Only	0x0233	00563	300564
The horizontal axis in the lower right corner---The coordinate of target5	INT	Read Only	0x0234	00564	300565
The vertical axis in the lower right corner---The coordinate of target5	INT	Read Only	0x0235	00565	300566
The horizontal axis in the top left corner---The coordinate of target 6	INT	Read Only	0x0236	00566	300567
The vertical axis in the top left corner---The coordinate of target 6	INT	Read Only	0x0237	00567	300568
The horizontal axis in the lower right corner---The coordinate of target 6	INT	Read Only	0x0238	00568	300569
The vertical axis in the lower right corner---The coordinate of target 6	INT	Read Only	0x0239	00569	300570
The horizontal axis in the top left corner---The coordinate of target 7	INT	Read Only	0x023A	00570	300571
The vertical axis in the top left corner---The coordinate of target 7	INT	Read Only	0x023B	00571	300572

The horizontal axis in the lower right corner---The coordinate of target 7	INT	Read Only	0x023C	00572	300573
The vertical axis in the lower right corner---The coordinate of target 7	INT	Read Only	0x023D	00573	300574
The horizontal axis in the top left corner---The coordinate of target 8	INT	Read Only	0x023E	00574	300575
The vertical axis in the top left corner---The coordinate of target 8	INT	Read Only	0x023F	00575	300576
The horizontal axis in the lower right corner---The coordinate of target 8	INT	Read Only	0x0240	00576	300577
The vertical axis in the lower right corner---The coordinate of target 8	INT	Read Only	0x0241	00577	300578
The horizontal axis in the top left corner---The coordinate of target 9	INT	Read Only	0x0242	00578	300579
The vertical axis in the top left corner---The coordinate of target 9	INT	Read Only	0x0243	00579	300580
The horizontal axis in the lower right corner---The coordinate of target 9	INT	Read Only	0x0244	00580	300581
The vertical axis in the lower right corner---The coordinate of target 9	INT	Read Only	0x0245	00581	300582
The horizontal axis in the top left corner---The coordinate of target 10	INT	Read Only	0x0246	00582	300583
The vertical axis in the top left corner---The coordinate of target 10	INT	Read Only	0x0247	00583	300584
The horizontal axis in the lower right corner---The coordinate of target 10	INT	Read Only	0x0248	00584	300585

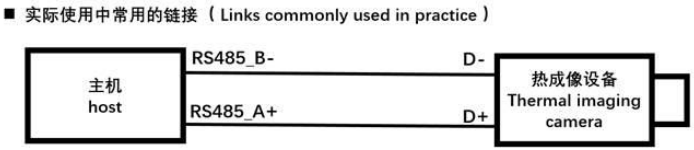
The vertical axis in the lower right corner---The coordinate of target 10	INT	Read Only	0x0249	00585	300586
——	——	——	0x024A ~0x024F	00586 ~00591	300587 ~300592
Get Perimeter Protection Alarm Information					
Function	Data Type	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
Alarm Type of 1 Perimeter Protection rule	ENUM	Read Only	0x0250	00592	300593
Alarm Type of 2 Perimeter Protection rule	ENUM	Read Only	0x0251	00593	300594
Alarm Type of 3 Perimeter Protection rule	ENUM	Read Only	0x0252	00594	300595
Alarm Type of 4 Perimeter Protection rule	ENUM	Read Only	0x0253	00595	300596
Alarm Type of 5 Perimeter Protection rule	ENUM	Read Only	0x0254	00596	300597
Alarm Type of 6 Perimeter Protection rule	ENUM	Read Only	0x0255	00597	300598
Alarm Type of 7 Perimeter Protection rule	ENUM	Read Only	0x0256	00598	300599
Alarm Type of 8 Perimeter Protection rule	ENUM	Read Only	0x0257	00599	300600

Alarm Target Type of 1st Perimeter Protection rule	ENUM	Read Only	0x0258	00600	300601
Alarm Target Type of 2nd Perimeter Protection rule	ENUM	Read Only	0x0259	00601	300602
Alarm Target Type of 3rd Perimeter Protection rule	ENUM	Read Only	0x025A	00602	300603
Alarm Target Type of 4th Perimeter Protection rule	ENUM	Read Only	0x025B	00603	300604
Alarm Target Type of 5th Perimeter Protection rule	ENUM	Read Only	0x025C	00604	300605
Alarm Target Type of 6th Perimeter Protection rule	ENUM	Read Only	0x025D	00605	300606
Alarm Target Type of 7th Perimeter Protection rule	ENUM	Read Only	0x025E	00606	300607
Alarm Target Type of 8th Perimeter Protection rule	ENUM	Read Only	0x025F	00607	300608
Get Alarm Input Information					
Function	Data Type	Property	Register Address (Hexadecimal)	Register Address (Decimal)	Modbus Address（PLC）
Alarm Input Information		Read Only	0x0320	00800	300801

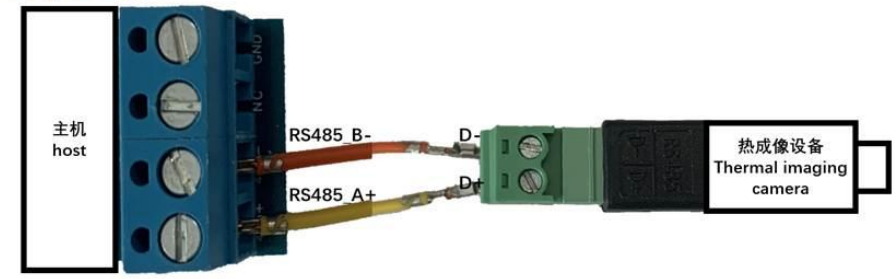
7.2 Appendix Two: RS485 Linkage Usage Guide

7.2.1 Physical Links

■ 实际使用中常用的链接（Links commonly used in practice）



□ 举例（example）



■ 调试中常用的链接（Links commonly used in debugging）



□ 举例（example）



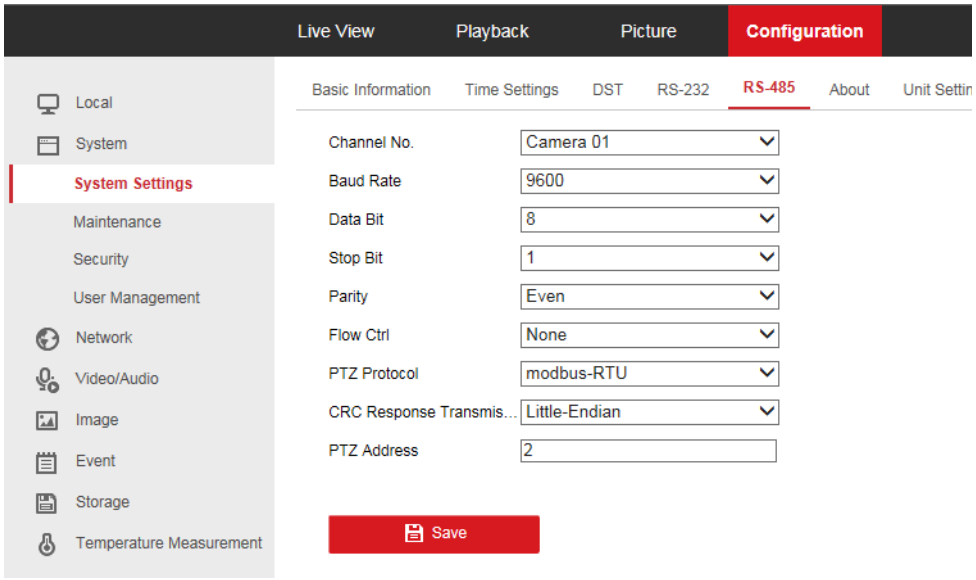
7.2.2 Device Parameter Configuration

1. Ensure the baud rate, data bit, stop bit, test, current control and decoder type of master (PLC for example) is consistent with the device.
2. Device configuration location is as follows:

Chinese Interface

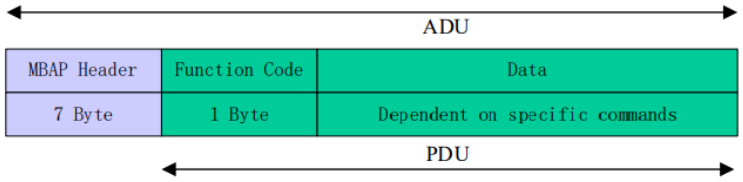


English Interface



7.3 Appendix Three: Description of ModbusTCP Protocol Format

The address field defined in MODBUS TCP contains the MBAP (MODBUS Application Protocol) header. Since there is a checksum in TCP itself, no additional error checking part is necessary in MODBUS-TCP



The header format of MBAP is shown as following:

Transaction Identifier	Protocol Identifier	Length	Unit Identifier
2 Byte	2 Byte (0x0000)	2 Byte	1 Byte

Field	Description
Transaction Identifier	It can be regarded as the serial number of the message. Generally, 1 is increased on every query to make the response uniquely assigned to the query. The server (the controller) copies the value from the client's request in the response.
Protocol Identifier	0x0000 represents ModbusTCP protocol.
Length	Representing the length of the next data in bytes.
Unit Identifier	It can be regarded as the device address, which is no longer important and can be ignored in most cases. The slave address has been replaced by the IP address in a sense. The device will directly return the parameters requested by the client in this field.

7.4 Appendix Four: Modbus Standard Protocol Reference

MODBUS standard protocol can be reached at the MODBUS organization website in link below
https://modbus.org/docs/Modbus_Application_Protocol_V1_1b3.pdf
For more MODBUS protocols, refer to the official MODBUS website: https://modbus.org/

8. Revision Notes

Date	Revision Notes	Version
August 7 , 2023	Added illustration document on Microimage Modbus Protocol Specification	1.0.0
March 29, 2024	Added chapter 4.5, 4.6 fire and smoke alarm status	1.0.1
September 4, 2024	Added 4.6 perimeter protection alarm status	1.0.2
June 13, 2025	Added smoking alarm status, modify register address of perimeter protection	1.0.3
August 6, 2025	Added perimeter protection parameter configuration, perimeter protection alarm status, alarm input status, PTZ parameters (get preset No.). Added alarm output and device restart configuration in system parameters.	1.0.4