

RS485 General Communication Protocol V4.0

2023-08-19

Upon power-up, the device will send its current address value three times.

The default baud rate is 9600, with no parity and 1 stop bit.

The broadcast address is 0xFE. When there is only one device on the bus, the broadcast address can be used to query and set the default address to 0x01.

1. Address description:

Address	Parameter	Description
0000	Product Type	Read Only (R): 2: Smoke Detector 3: PIR Motion Detector 4: Door Magnetic Sensor 5: Water Leak Detector
0001	Alarm Status	Read Only (R): 0: Normal 1: Alarm 2: Tamper (if available) 3: Alarm + Tamper (if available)
0002	Device Address	Read (R) / Write (W) Default address: 1, configurable
0003	Baud Rate	Read (R) / Write (W): 1: 2400 2: 4800 3: 9600 (default) 4: 19200
0004	Temperature Alarm Threshold	Read (R) / Write (W) Default alarm temperature: 55°C (decimal) Setting range: 20~65°C
0005	Detector Mode	Read (R) / Write (W) Mode 1: Alarm when either smoke or temperature threshold is met (default) Mode 2: Alarm only when both smoke and temperature conditions are met



2. Query Instructions

Query Product Function Code:

0x03 Data Format

Query Distribution	Address	Function Code	Start Address High	Start Address Low	Query Data Length High	Query Data Length Low	Checksum High	Checksum Low
Dehice eecky	Address	Function Code	Data Length (N)	Parameter (N bytes)			Checksum High	Checksum Low

Example:

Query Product: 01 03 0000 00 01 84 0A

Product Reply: 01 03 02 00 01 79 84

3. Configure Device

Configure Device Function Code: 06

Set Address:

Address	Function Code	Address High	Address Low	Data High	Data Low	Checksum High	Checksum Low
01	06	00	01	00	1~253	CRCH	CRCL

Set Baud Rate:

Address	Function Code	Address High	Address Low	Data High	Data Low	Checksum High	Checksum Low
01	06	00	03	00	1:2400; 2:4800 3:9600 (Default) 4:19200	CRCH	CRCL