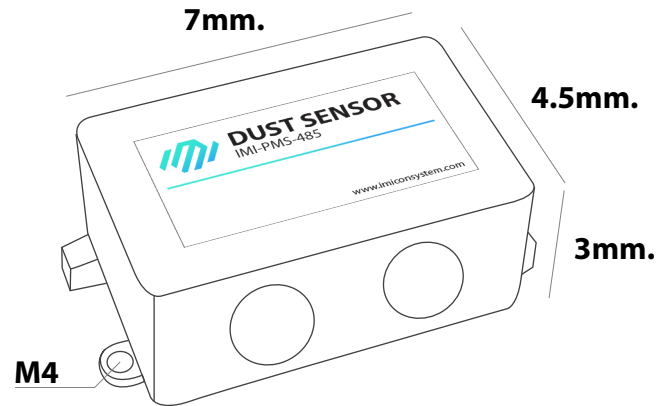




Technical parameter

DC power supply : 9-28VDC
 Communication interface : RS-485
 Protocol : Modbus-RTU
 Measuring Range : 0.3~1.0; 1.0~2.5; 2.5~10 μm
 Maximum Range (PM2.5 standard) : $\geq 1000 \mu\text{g}/\text{m}^3$
 Effective Range (PM2.5 standard) : 0~500 $\mu\text{g}/\text{m}^3$
 Resolution : 1 $\mu\text{g}/\text{m}^3$
 Response speed : 1S
 Warm-up time : $\leq 1\text{min}$
 Cable Length : Standard: 2M
 Weight: 150g

Dimensions



Communication protocol

Parameter	Description
Code	8-bit binary
Data bit	8 bit
Parity bit	None
Stop bit	1 bit
Error check	CRC
Baud rate	2400 bit/s, 4800 bit/s, 9600* bit/s , 14400 bit/s, 19200 bit/s

Interface Description



* **Default ID = 1** ,
 * **Default Baudrate = 9600 bit/s**

Register Address

Register Type	Address	Content	Data Type	Operation
Input Register	0x0000 (Dec: 0)	PM1.0	INT16	Read-Only
	0x0001 (Dec: 1)	PM2.5	INT16	Read-Only
	0x0002 (Dec: 2)	PM10.0	INT16	Read-Only
Holding Register	0x0100 (Dec: 256)	Modbus ID	UINT16	Read/Write
	0x0101 (Dec: 257)	Baud rate: 2400, 4800, 9600, 14400, 19200	UINT16	Read/Write

Communication example : Read PM value

Inquiry Frame	Address Code	Function Code	Start Address	Data Length	CRC
	0x01	0x04	0x00 0x00	0x00 0x03	0xB0 0x0B

Answer Frame	Address Code	Function Code	effective byte	PM 1.0 Value	PM 2.5 Value	PM 10 Value	CRC
	0x01	0x04	0x06	0x00 0x7C	0x00 0xC7	0x00 0xD6	0x01 0x3A

How to calculate PM Value
 PM 2.5 : 00C7 Hex = 199 Dec = 199 $\mu\text{g}/\text{m}^3$

PM 1.0 : 007C Hex = 124 Dec = 124 $\mu\text{g}/\text{m}^3$
 PM 10 : 00D6 Hex = 214 Dec = 214 $\mu\text{g}/\text{m}^3$