

# MPM12 series



## Laser PM sensor

The MPM12 series laser PM sensor is based on the principle of laser scattering. Can accurately detect the concentration of suspended particles in the air from 0.3  $\mu\text{m}$  to 10  $\mu\text{m}$ . Scientific air duct design and dust compensation algorithm, high consistency and stability, multiple output forms, easy to integrate into end products.

HVAC



Fresh air system



Industrial testing



Smart energy



Smart home



Smart building



## Features

- High consistency and stability
- Scientific dust-proof structure, low maintenance cost
- Efficient intelligent dust compensation algorithm, fast response speed and high detection accuracy
- Low power consumption, small size, easy to integrate into end products
- All-metal shell shields electromagnetic interference and resists interference

## Product parameters

Principle	Laser scattering
Detect particle diameter	0.3~10 $\mu$ m
Detection concentration range	$\leq$ 1000 $\mu$ g/m <sup>3</sup>
Particulate matter concentration resolution	1 $\mu$ g/m <sup>3</sup>
Detect consistency errors (@ voltage 5.0V 25°C 50%RH)	$\pm$ 10%(@100~500 $\mu$ g/m <sup>3</sup> ); $\pm$ 10 $\mu$ g/m <sup>3</sup> (@ 0~100 $\mu$ g/m <sup>3</sup> )
Output method	UART / IIC / PWM
Data interface level	L<0.8@3.3V H>2.7@3.3V
Working voltage	4.5~5.5V, Average voltage: 5V
Working current	$\leq$ 85mA
Stand-by current	$\leq$ 45 $\mu$ A
Working temperature	-10~60°C
Working humidity	0~99% (no condensation)
Size	47.8*39.8*11.8mm

Shenzhen MemsFrontier Electronics Co.,Ltd.

Web: [www.memsf.com](http://www.memsf.com)

E-mail: [info@memsf.com](mailto:info@memsf.com)

Add: 3rd Floor B2 Building, Zhaoshangju Technology Park,  
Guangming District, 518107, Shenzhen, China