PARTICULATE CONCENTRATION SENSOR

PM1, PM2.5 and PM10



- Simultaneous determination of PM1, PM2.5 and PM10
- Monitoring of fine dust in
  - production areas (workshops, factories, etc.)
  - indoor air quality monitoring in offices
  - outdoor air monitoring
  - Integration into the meteorological station
- Wide operating ambient conditions: -20...60 °C, 0...99% RH
- Output RS485 Modbus-RTU

The fine dust sensor is an optical sensor for the continuous measurement and monitoring of the concentration of three particle sizes: PM1, PM2.5 and PM10 simultaneously. The determination of particulate concentration is based on the light scatter measurement method.

Technical specifications

PN	PRPMA3100	
Output	RS485	
Protocol	Modbus RTU	
Measurement	PM1, PM2,5, PM10	
Sampling frequency	From 5 min to 24 h	
Particular matter	Measuring method	Light scattering measurement
	Measurement range	0...1000 µg/m³
	Particle size detection range	0,3 ...10 µm
	Detection efficiency with 0.3 µm diameter particles	>50%
	Detection limit	<1 µg/m³
	Linearity error	<5%
	Repeatability error	<3%
	Temperature influence	0°...30 °C: 0%/°C; -20...0 °C: <+1%/ °C; 30...70 °C: <0,8%/°C
General information	Enclosure	Polycarbonate and polyamide
	Power supply	5...35 V DC
	Weight	0.4 kg
	Dimensions	81 x 45 x 148 mm
	Protection grade	IP65
	Operative limits	-20…60°C; 0...99% RH%
	Compatibility	Alpha-Log

Accessories

	CCFFA3300	Cable L= 5 m
	CCFFA3400	Cable L= 10 m
	CCFFA3500	Cable L= 25 m

LSI LASTEM Srl
Via Ex SP. 161 Dosso, 9
20049 Settala (MI)
Italy

Tel. +39 02 954141
Email info@lsi-lastem.com
www.lsi-lastem.com

MW9000-ENG-28-04/03/2026