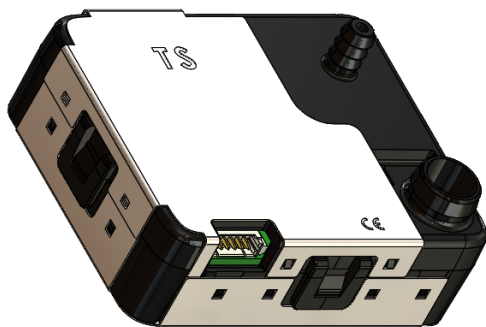


NextPM Advanced Datasheet

NEXT GENERATION PARTICULATE MATTER OEM SENSOR
PM 10, PM 2.5, PM 1

Version 1



Technical specifications

Designation	Values	Units
GENERAL		
Technology	Optical	-
Targeted pollutants	Particulate Matter	-
Outputs	PM1 PM2.5 PM10 TSP ¹ Temperature ² Relative Humidity ²	$\mu\text{g}/\text{m}^3$ & pcs / L $\mu\text{g}/\text{m}^3$ °C %
Airflow ³	1,2	L/mm
Size (l * w * h)	Annex 1	mm / Inches
Lifetime (MTTF)	> 10 000	hours
PERFORMANCE		
Particle Size detection range	0,3 - 10	μm diameter
Detection efficiency with 0.3 μm diameter particles	> 50	%
Concentration detection range / PM10 - PM2,5 - PM1 TSP	0 - 10 000 0 - 40 000	$\mu\text{g}/\text{m}^3$ (Arizona dust A1 equivalent)
Detection Limit	< 1	$\mu\text{g}/\text{m}^3$ (Arizona dust A1 equivalent)
Linearity error	< 5	%
Repeatability error ⁴	< 3	%
Refresh rate	1 / 10 / 60	sec.
Warm-up time	10	sec.
Temperature influence 0°C to 30°C -20°C to 0°C 30°C to 70°C	0 < + 1,0 < - 0,8	%/°C
ELECTRIC SPECIFICATIONS		
Power supply	5	VDC
Power consumption in operation	< 50 270	mA mA (Maximum)
Power consumption in Sleep Mode	< 20	mA

Designation	Values	Units
COMMUNICATION		
UART / Modbus (RS485) ⁵	Download NextPM User Guide for more informations	
OTHER		
Operating conditions	-20 à +70 253 to 343	°C K
	0 - 95 uncondensed	%
	500 to 1500	hPa
Storage conditions	-20 to +70	°C
	0 - 95 uncondensed	%
	500 to 1500	hPa
Certifications	CE	
	RoHS compliant	
Dimensions and weight	L 62 mm x l 52 mm x H 26.6 mm 45 g L 2,4 / W 2,07 / H 1,02 inches 1.59 Oz	

¹ Calculated based on other PM detection and validated on field measurements

² See NextPM User Guide for more information about these data

³ Airflow of 1.2L/min provided by the external pumping system

⁴ Calculated with the fifteen minutes moving average output

⁵ The sensor needs a converter for RS485 communication, more information in the UserGuide for NextPM Advanced

Mechanical specifications

