NextPM

Datasheet

Next Generation Particulate Matter OEM Sensor - PM_{10} | $PM_{2.5}$ | PM_{1}

Manufactured by

TERA sensor

Distributed by

ION

Last update : 2020/02/06

Version : 1.0

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Technical Specifications

Designation	Values	Units
GENERAL		
Technology	Optical	-
Targeted pollutants	Particulate Matter	-
Outputs	PM_1 $PM_{2.5}$ PM_{10} Temperature [1] Relative Humidity [1]	µg/m³ &pcs/L °C %
Airflow	2,5	L/mn
Size	Annex 1	mm / Inches
Lifetime	>10 000	hour
PERFORMANCE		
Particle Size detection range	0,3 - 10	µm diameter
Detection efficiency with 0.3 µm diameter particles	> 50	%
Concentration detection range / PM_{10} - $PM_{2,5}$ - PM_1	0 - 1000	µg/m³ (Arizona dust A1 equivalent)
Detection Limit	<1	µg/m³ (Arizona dust A1 equivalent)
Linearity error	<5	%
Repeatability error [2]	<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

[1] - See NextPM User Guide for more information about these data
[2] - Calculated with the fifteen minutes moving average output

Technical Specifications

Designation	Values	Units
ELECTRIC SPECIFICATIONS		
Power supply	5.0	VDC
Power consumption in operation	< 80 300	mA mA (Maximum)
Power consumption in Sleep Mode	< 20	mA
COMMUNICATION		
UART / Modbus (RS485) [3]	Download NextPM User Guide for more informations	
OTHER		
Operating conditions	-20 à +70 253 to 343	°C K
	0 - 95 uncondensed	%
	500 à 1500	hPa
Storage conditions	-20 à +70	°C
	0 - 95 uncondensed	%
	500 à 1500	hPa
Certifications	CE	
	RoHS compliant	
Dimensions and weight	L 62mm x l 52mm x H 23mm | 45g L 2,4 / W 2,07 / H 0,9 inches | 1.59Oz	

[3] - This communication's protocol needs a converter has described in the "NEXTPM RS485" document.

Mechanical Specifications