

## MOBILE SENSOR DOCUMENTATION

### Technical Parameters Version 1.0

PARAMETER	INDEX	UNIT
<b>Particulate Matter</b>		
Particulate measurement range	0.3 to 1.0; 1.0 to 2.5; 2.5 to 10	Micron ( $\mu\text{m}$ )
Particle counting efficiency	50%@0.3 $\mu\text{m}$ , 98%@ 0.5 $\mu\text{m}$	
Particle concentration effective range (PM2.5 standard value)	0 to 500	$\mu\text{g}/\text{m}^3$
Particle mass concentration resolution	1	$\mu\text{g}/\text{m}^3$
Consistency of Particle concentration (PM2.5 standard value)	$\pm 10\%$ @ 100-500 $\mu\text{g}/\text{m}^3$ $\pm 10\mu\text{g}$ @ 0- 100 $\mu\text{g}/\text{m}^3$	
Air flow	0.1	L/s
<b>Humidity</b>		
Operating Range	0 to 100	%RH
Accuracy	3	%RH
<b>Temperature</b>		
Operating Range	-40 to 85	Celsius ( $^{\circ}\text{C}$ )
Accuracy	$\pm 0.5^{\circ}\text{C}$ @ 25 $^{\circ}\text{C}$ $\pm 1^{\circ}\text{C}$ else	
<b>General</b>		
Operating temperature range	-10 to +60	Celsius ( $^{\circ}\text{C}$ )
Operating humidity range	0 to 99	%RH
DC supply storage	9 to 24	Volts (V)
Power Consumption	$\approx 3$	Watt (W)
Power supply	DC 12V / 1A	Volts (V) / Ampères (A)
Storage temperature range	-10 to +60	Celsius ( $^{\circ}\text{C}$ )
External dimension	140 x 140 x 46,5	mm
Sampling time & data send	10 (default)	seconds
Weight	approx. 500	g
Type of communication : GPS /GSM Transmission : GPRS (2G)	1900 hz, 1800hz, 900hz, 850hz	Hertz (Hz)
WIFI	802.11 b/g/n	

## Technical Parameters Version 2.0

PARAMETER	INDEX	UNIT
<b>NO<sub>2</sub></b>		
Measurement range	0.05 to 10	ppm
Resolution ratio	0.005	ppm
<b>NH<sub>3</sub></b>		
Measurement range	1 to 500	ppm
Resolution ratio	1	ppm
<b>CO</b>		
Measurement range	1 to 1000	ppm
Resolution ratio	1	ppm
<b>SO<sub>2</sub> (optional)</b>		
Measurement range	0 to 20	ppm
Resolution ratio	0.1	ppm
<b>O<sub>3</sub> (optional)</b>		
Measurement range	0 to 20	ppm
Resolution ratio	0.02	ppm
<b>Sound Matter</b>		
Measurement range	30 to 120	dB
Resolution ratio	≈ 0.1	dB