



Technical Data Sheet PV-MGA8 Gas Sensor



ProfEC Ventus GmbH Phone:
+49 (0)4421 209089 0

Website: <https://shop.profec-ventus.com>

Email: shop@profec-ventus.com

PV-MGA8 Multi-in-one Gas Sensor adopts high-precision chip for data acquisition, advanced technology of manufacturing technique and surface mount, which to ensure accurate and reliable measurement data. It has outstanding characteristics in measurement accuracy, linearity, repeatability, interoperability, consistency and other aspects. It is suitable for environmental equipment matching, integration, and most of the general environmental tests. The sensor communicates via RS485 Modbus protocol interface, with complete monitoring parameters and accurate data. The parameters can be customised according to the requirements, up to 8 parameters, including air temperature, air humidity, CO2 concentration, CO concentration, PM1.0/2.5/10.0, atmospheric pressure, formaldehyde, oxygen, ozone, volatile organic compounds, etc.

Features

- High Sensitivity
- Fast response
- Effective resistance to water vapor
- Excellent stability
- Long service life



Technical Specifications

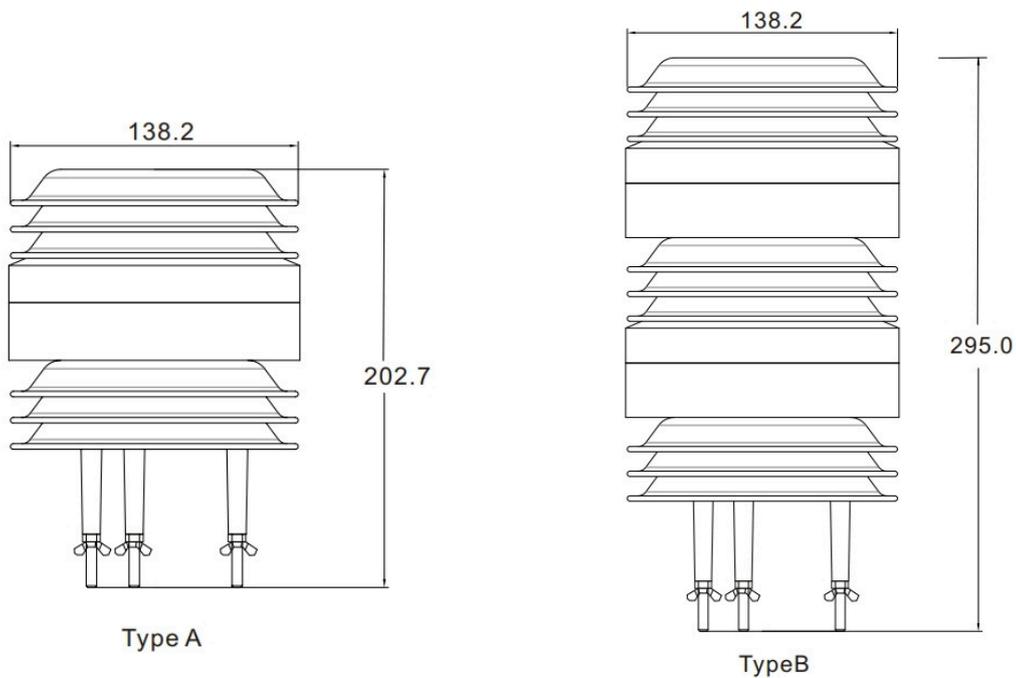
Item	Technical Specification		
	Range	Resolution	Accuracy
Temperature	-30°C~70°C	0.1°C	±0.3°C
Humidity	0~100%RH	0.1%RH	±3%RH
Illuminance	0~200K Lux	10Lux	±5%
Dew point temperature	-100°C~40°C	0.1°C	±0.3°C
Air pressure	300~1100hPa	0.1hPa	±1hPa
CO2	0~5000ppm	1ppm	±50ppm+3%FS
PM1.0/2.5/10	0~1000µg/m3	1µg/m3	±10%FS
TSP	0~30mg/m3	1µg/m3	±15%FS
Noise	30-120dB	0.1dB	±1.5dB

Standard Gas Sensor			
CO	0~1000ppm	1ppm	±5%FS
SO ₂	0~20ppm	0.01ppm	±3%FS
O ₃	0~20ppm	0.01ppm	±3%FS
NO ₂	0~20ppm	0.01ppm	±3%FS
H ₂ S	0~100ppm	0.01ppm	±3%FS
NH ₃	0~100ppm	0.01ppm	±3%FS
TVOC	0~10ppm	0.001ppm	±3%FS
CH ₂ O	0~10ppm	0.01ppm	±3%FS
CH ₄	0~100%LEL	0.1%LEL	±5%FS
O ₂	0~30%VOL	0.1%VOL	±3%FS
NO	0~250ppm	0.01ppm	±3%FS
Odour	0~50ppm	0.01ppm	±3%FS
High-Precision Gas Sensor			
CO	0~50ppm	0.001ppm	±3%FS
SO ₂	0~10ppm	0.001ppm	±2%FS
O ₃	0~10ppm	0.001ppm	±2%FS
NO ₂	0~10ppm	0.001ppm	±2%FS
H ₂ S	0~10ppm	0.001ppm	±2%FS
NH ₃	0~10ppm	0.001ppm	±2%FS

Supply	12-24VDC
Output	RS485
Warm Up Time	3min
Response Time	<1s
Stability	<±1%FS
Repeatability	<±2%FS
Operating Temperature	-20°C-+60°C@15-80%RH
Storage	-40-70°C@20%-90%RH
Shell Material	ABS

Dimensions

Unit:mm



Type	Configurable parameters(Optional)	Addable gas types(Optional)		
		Standard Gas Sensor	High-Precision Gas Sensor	Standard +High-Precision
A	T/H/P+CO2+PM1.0+PM2.5+PM10	1-4(Optional)	1-2(Optional)	/
B	Noise+Illuminance	5-8(Optional)	3-4(Optional)	1-4(Standard)+1-2(High-Precision)