

- DCRS-MG is an air environment monitoring transmitter used to detect temperature, humidity, PM2.5, PM10, atmospheric pressure, light, noise, odor, TVOC, CO2, formaldehyde, O3, CO, CH4, O2, SO2, NO2, H2, H2S, NH3 and other elements in the air environment, covering various indicators reflecting air quality.
- The transmitter adopts original imported sensors and control components, which have the characteristics of high resolution and good stability.
- The equipment adopts a wide voltage range of 10-30V DC power supply, 485 signal output, standard ModBus RTU communication protocol, ModBus address can be set, baud rate can be changed, and communication distance can reach up to 2000 meters.
- Widely used in building HVAC, building energy conservation, smart home, schools, hospitals, airports, stations and other places.
- Integrating multiple measurement elements into one, up to 14 measurement elements can be integrated simultaneously.
- Adopting a circular curved shell, paired with our provided base, it can be installed on the ceiling or wall.
- Using a dedicated 485 circuit, stable communication, powered by a wide voltage range of 10-30V.



**SPECIFICATION**

- ◆ DC power supply (preset) : DC 10-30V
- ◆ Maximum power consumption : 1.5W (24V DC power supply)  
(14 elements including CH4)
- ◆ Detection parameters : Temperature, humidity, PM2.5, PM10, atmospheric pressure, light, noise, TVOC, CO2, Formaldehyde, O3, CO, CH4, O2, SO2, NO2, H2, H2S, NH3
- ◆ Work environment : Temperature -10 °C -55 °C; Humidity 0-95% RH non condensation
- ◆ Signal output : RS485 output (standard ModBus RTU protocol)
- ◆ Product material : ABS
- ◆ Installation method : Wall mounted, ceiling mounted

Detection Parameters	Measuring Range	Resolution	Accuracy	Preheat Time
PM2.5	0~1000 μ g/m <sup>3</sup>	1 μ g/m <sup>3</sup>	Particle Counting Efficiency: 50%@0.3 μ m, 98%@>=0.5 μ m。 PM2.5 : ± 3%FS (@100 μ g/m <sup>3</sup> 、25°C、50%RH)	≤2min
PM10	0~1000 μ g/m <sup>3</sup>			
Temperature	-40°C~+120°C , preset -40°C ~+80°C	0.1°C	± 0.5°C(25°C)	
Humidity	0%RH-100%RH	0.1%RH	± 3%RH (60%RH,25°C)	
Atmospheric pressure	0~120kPa	0.1kPa	± 0.15kPa@25°C 101kPa	
Illuminance	0~20 万 Lux	1Lux	± 7%(25°C)	
TVOC	0~60000ppb	1ppb	Typical Accuracy: 8%FS(@C <sub>2</sub> H <sub>6</sub> O, 0.5ppm, 25°C, 50%RH)	
CO <sub>2</sub>	0~5000ppm	1ppm	± (50ppm+ 3%F · S)	2min、 10min(Maximum)

HCHO	0~5ppm	0.01ppm	±5%FS (@1ppm、25°C、50%RH)	≥5 minutes
O <sub>3</sub>	0~10ppm	0.01ppm	±6%FS (@5ppm、25°C、50%RH)	≥5 minutes
O <sub>2</sub>	0~30%VOL	0.1%VOL	±2%FS	≥5 minutes
H <sub>2</sub> S	0~100ppm	1ppm	±2ppm or ±10%	≥5 minutes
CH <sub>4</sub>	0~100%LEL	1%LEL	±5%FS	≥5 minutes
CO	0~1000ppm	1ppm	±5ppm or ±10%	≥5 minutes
NO <sub>2</sub>	0~20ppm	0.1ppm	±5%FS	≥5 minutes
SO <sub>2</sub>	0~20ppm	0.1ppm	±5%FS	≥5 minutes
H <sub>2</sub>	0~1000ppm	1ppm	±5%FS	≥5 minutes
NH <sub>3</sub>	0~100ppm	1ppm	±8%	≥5 minutes
Noise	30~130dB	0.1dB	±0.5dB (94dB@1kHz)	

## ORDER INFORMATION

DCRS-MG-Y-1-

Code1	1 type selectable	Code2	3 type selectable
A	PM2.5/ PM10	I	O <sub>2</sub> 30VOL (range: 30VOL)
B	Temp./ Humi. (Air)	J	H <sub>2</sub> S 100P (range: 100 ppm)
C	Atmospheric pressure (0~120kPa)	K	CH <sub>4</sub> 100LEL (range: 100 LEL)
D	Illuminance (0~200,000 Lux)	L	CO 1000P (range: 1000 ppm)
E	TVOC 0~60000ppb, resolution 1ppb	M	NO <sub>2</sub> 20P (range: 20ppm)
		N	SO <sub>2</sub> 20P (range: 20ppm)
F	CO <sub>2</sub> (range: 0-5000ppm)	O	H <sub>2</sub> 1000P (range: 1000ppm)
G	HCHO 5P (CH <sub>2</sub> O range: 0~5ppm)	P	NH <sub>3</sub> 100P (range: 100ppm)
H	O <sub>3</sub> 10P (range: 0~10ppm)	Q	Noise (range: 30~130dB)

Example of selection: If the selected measurement elements are PM2.5, PM10, temperature, humidity, formaldehyde, O<sub>2</sub>, CH<sub>4</sub>, CO. The corresponding selection is DCRS-MG-Y-1-ABGIKL

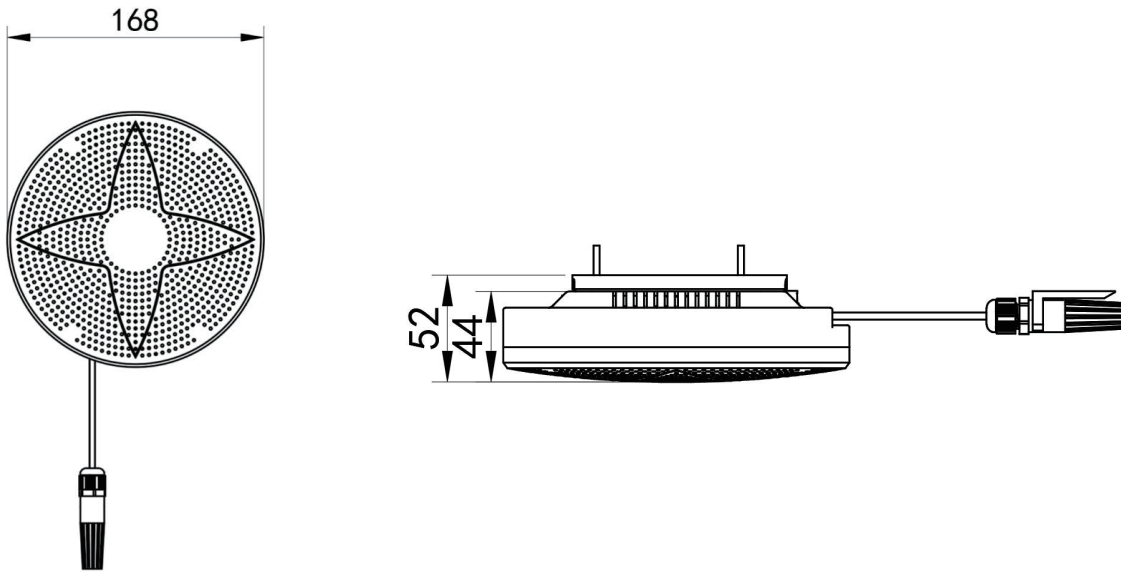
## WIRING CONNECTION

Wide voltage power supply input of 10-30V can be used

When wiring the 485 signal line, be careful not to reverse the connection of wires A and B, and ensure that the addresses of multiple devices on the bus do not conflict.



## DIMENSION



Unit: mm

## BASE SIZE & INSTALLATION

Firstly, drill holes on the wall and fix the installation base to the wall or roof. The installation gap and distance are shown in the following figure:

Fix the installation card holder and insert the device buckle into the installation base, as shown in the following figure:

