Gas detection

NDIR Infrared Methane (CH4) Sensor Module, UART and Analog Output

Model DW-GP

Non-dispersive infrared (NDIR) methane sensor module, Ø20 mm, with selectable 0–5% vol, 0–10% vol or 0–100% LEL range, UART and 0.4–2.0 V analog output and built-in temperature compensation, for industrial safety, HVAC and agricultural monitoring.



Measuring range
0–5% vol, 0–10% vol or 0–100% LEL

Output
UART + 0.4–2.0 V

Measuring principle
NDIR

Features

- NDIR measurement: independent of oxygen, good selectivity
- UART and analog voltage outputs
- Built-in temperature compensation, linear output
- Resistant to poisoning and to water vapour interference
- Can directly replace catalytic gas sensors
- Long service life of more than 5 years

Applications

HVAC and refrigeration, Indoor air monitoring, Industrial process control and safety, Agriculture and animal husbandry, Sites with flammable or explosive gases

Specifications

Performance

Measuring medium	Methane (CH4)
Measuring principle	Non-dispersive infrared (NDIR)
Measuring range	0–5.00% vol / 0–10.00% vol / 0–100% LEL (selectable)
Resolution	0.01% vol; 1% LEL
Response time	T90 < 30 s
Warm-up time	3 min

Temperature compensation	Built-in temperature sensor
Output	
Output signal	UART (3.0 V level) / analog voltage 0.4–2.0 V DC
Analog output scaling	0.4–2.0 V = zero to full range; 0 V on self-test fault
Baud rate	9600 (8 data bits, 1 stop bit, no parity)
Electrical	
Supply voltage	3.6–5.0 V DC
Average current	< 85 mA
Pin definition	1 GND, 2 Vin, 3 UART RXD, 4 Vout (0.4–2 V), 5 UART TXD
Mechanical	
Dimensions	Ø20 × 22.6 mm
Weight	35 g
Ingress protection	IP54
Environmental	
Operating temperature	−20 to +60 °C
Operating humidity	0–95% RH, non-condensing
Service life	> 5 years

Ordering and support

Pricing, samples, lead time and custom versions: xyx@gzdwin.com, +86 181 0280 8901.

Guangzhou Dwin Technology Co., Ltd., 4th Floor, Building 2, No. 4, Xingye Street, Xiaowu, Nansha District, Guangzhou, China. Specifications are typical values and may change without notice; confirm critical values with DWIN before design-in. Revision 2026-11.