Shanghai Yixin Selection Guide

14 models · downloadable datasheets also available per model on anchorsensor.com

G4(P)-CH4 — G4(P)-CH4 Methane NDIR Infrared Gas Sensor (Upgraded)

The G4(P)-CH4 is the upgraded methane model of the G4 platform, based on the same dual-wavelength NDIR optical design with no oxygen dependency and no catalytic poisoning. Compared with the standard G4 series it offers higher resolution (0.5%LEL on the 0-100%L…

Target Gas	Methane (CH4)
Range	0 – 100% LEL (other ranges on request)
Resolution	0-100%LEL: 0.5%LEL; 0-5%VOL: 0.01%VOL; 5-100%VOL: 0.1%VOL
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Response Time (T90)	< 25 s (free diffusion)
Operating Temp.	-40 ℃ to +70 ℃ (widest)
Digital Output	UART floating-point output
Analog Output	0.4 ~ 2 V
Explosion Protection	Intrinsically safe

Calibrated with methane standard gas; range and accuracy details — see the G4 selection guide or inquire.

G4(P)-CO2 — G4(P)-CO2 Carbon Dioxide NDIR Infrared Gas Sensor (Upgraded)

The G4(P)-CO2 is the upgraded CO2 model of the G4 platform, based on a dual-wavelength NDIR optical design and covering 0-5000 ppm, 0-5%VOL and 0-100%VOL ranges. Compared with the standard G4 series it offers higher resolution (0.01%VOL on 0-5%VOL, 10 ppm on 5…

Target Gas	Carbon Dioxide (CO2)
Range	0-5000 ppm / 0-5%VOL / 0-100%VOL
Accuracy	0-100%VOL: ±0.1%VOL (≤1%VOL), ±(0.05+5% of reading)VOL (>1%VOL); 5000 ppm: ±10% of reading
Resolution	0-5%VOL: 0.01%VOL; 5-100%VOL: 0.1%VOL; 0-5000 ppm: 10 ppm
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Response Time (T90)	< 25 s (free diffusion)
Operating Temp.	-40 ℃ to +70 ℃ (widest)
Digital Output	UART floating-point output
Analog Output	0.4 ~ 2 V
Explosion Protection	Intrinsically safe

Calibrated with CO2 standard gas; details — see the G4 selection guide or inquire.

G4111 — G4111 Methane NDIR Infrared Gas Sensor

The Shanghai Yixin G4111 is an intelligent miniature NDIR (Non-Dispersive Infrared) gas sensor using a dual-wavelength optical path. It measures gas concentration by infrared absorption, with no oxygen dependency and no catalytic-sensor poisoning. Built-in lin…

Target Gas	Methane
Range	0 – 100% LEL
Accuracy	±2% LEL (≤50% FS); ±4% LEL (>50% FS)
Resolution	1% LEL
Operating Temp.	-40 ℃ to +70 ℃
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Input Voltage	3.0 ~ 5.5 VDC
Average Operating Current	< 70 mA @ 3 VDC
Peak Operating Current	< 140 mA @ 3 VDC
Warm-Up Time	3 min (recommend ≥60 min before calibration)
Analog Output	0.4 ~ 2.0 VDC
Digital Output	TTL UART, default 9600 bps
Response Time (T90)	< 20 s (free diffusion)
Operating Humidity	0% ~ 98% RH (non-condensing)
Explosion Protection	Ex ia I Ma / Ex ia IIC T4 Ga
Ingress Protection	IP65 (optional waterproof breathable membrane)
Warranty	18 months

Calibrated with Methane standard gas; special gases require recalibration with the actual target gas — see the G4 selection guide appendix for details.

G4112 — G4112 Methane NDIR Infrared Gas Sensor

The Shanghai Yixin G4112 is an intelligent miniature NDIR (Non-Dispersive Infrared) gas sensor using a dual-wavelength optical path. It measures gas concentration by infrared absorption, with no oxygen dependency and no catalytic-sensor poisoning. Built-in lin…

Target Gas	Methane
Range	0 – 5% VOL
Accuracy	±0.06% VOL (≤1% VOL); ±6% of reading (>1% VOL)
Resolution	0.01% VOL
Operating Temp.	-40 ℃ to +70 ℃
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Input Voltage	3.0 ~ 5.5 VDC
Average Operating Current	< 70 mA @ 3 VDC
Peak Operating Current	< 140 mA @ 3 VDC
Warm-Up Time	3 min (recommend ≥60 min before calibration)
Analog Output	0.4 ~ 2.0 VDC
Digital Output	TTL UART, default 9600 bps
Response Time (T90)	< 20 s (free diffusion)
Operating Humidity	0% ~ 98% RH (non-condensing)
Explosion Protection	Ex ia I Ma / Ex ia IIC T4 Ga
Ingress Protection	IP65 (optional waterproof breathable membrane)
Warranty	18 months

Calibrated with Methane standard gas; special gases require recalibration with the actual target gas — see the G4 selection guide appendix for details.

G4113 — G4113 Methane NDIR Infrared Gas Sensor

The Shanghai Yixin G4113 is an intelligent miniature NDIR (Non-Dispersive Infrared) gas sensor using a dual-wavelength optical path. It measures gas concentration by infrared absorption, with no oxygen dependency and no catalytic-sensor poisoning. Built-in lin…

Target Gas	Methane
Range	0 – 100% VOL
Accuracy	±0.06% VOL (≤1% VOL); ±6% of reading (>1% VOL)
Resolution	0.01% VOL (≤10% VOL); 0.1% VOL (>10% VOL)
Operating Temp.	-40 ℃ to +70 ℃
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Input Voltage	3.0 ~ 5.5 VDC
Average Operating Current	< 70 mA @ 3 VDC
Peak Operating Current	< 140 mA @ 3 VDC
Warm-Up Time	3 min (recommend ≥60 min before calibration)
Analog Output	0.4 ~ 2.0 VDC
Digital Output	TTL UART, default 9600 bps
Response Time (T90)	< 20 s (free diffusion)
Operating Humidity	0% ~ 98% RH (non-condensing)
Explosion Protection	Ex ia I Ma / Ex ia IIC T4 Ga
Ingress Protection	IP65 (optional waterproof breathable membrane)
Warranty	18 months

Calibrated with Methane standard gas; special gases require recalibration with the actual target gas — see the G4 selection guide appendix for details.

G4115 — G4115 Isobutane NDIR Infrared Gas Sensor

The Shanghai Yixin G4115 is an intelligent miniature NDIR (Non-Dispersive Infrared) gas sensor using a dual-wavelength optical path. It measures gas concentration by infrared absorption, with no oxygen dependency and no catalytic-sensor poisoning. Built-in lin…

Target Gas	Isobutane
Range	0 – 100% LEL
Accuracy	±2% LEL (≤50% FS); ±4% LEL (>50% FS)
Resolution	1% LEL
Operating Temp.	-40 ℃ to +70 ℃
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Input Voltage	3.0 ~ 5.5 VDC
Average Operating Current	< 70 mA @ 3 VDC
Peak Operating Current	< 140 mA @ 3 VDC
Warm-Up Time	3 min (recommend ≥60 min before calibration)
Analog Output	0.4 ~ 2.0 VDC
Digital Output	TTL UART, default 9600 bps
Response Time (T90)	< 20 s (free diffusion)
Operating Humidity	0% ~ 98% RH (non-condensing)
Explosion Protection	Ex ia I Ma / Ex ia IIC T4 Ga
Ingress Protection	IP65 (optional waterproof breathable membrane)
Warranty	18 months

Calibrated with Isobutane standard gas; special gases require recalibration with the actual target gas — see the G4 selection guide appendix for details.

G4321 — G4321 Acetylene NDIR Infrared Gas Sensor

The Shanghai Yixin G4321 is an intelligent miniature NDIR (Non-Dispersive Infrared) gas sensor using a dual-wavelength optical path. It measures gas concentration by infrared absorption, with no oxygen dependency and no catalytic-sensor poisoning. Built-in lin…

Target Gas	Acetylene
Range	0 – 100% LEL
Accuracy	±2% LEL (≤50% FS); ±4% LEL (>50% FS)
Resolution	1% LEL
Operating Temp.	-40 ℃ to +70 ℃
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Input Voltage	3.0 ~ 5.5 VDC
Average Operating Current	< 70 mA @ 3 VDC
Peak Operating Current	< 140 mA @ 3 VDC
Warm-Up Time	3 min (recommend ≥60 min before calibration)
Analog Output	0.4 ~ 2.0 VDC
Digital Output	TTL UART, default 9600 bps
Response Time (T90)	< 20 s (free diffusion)
Operating Humidity	0% ~ 98% RH (non-condensing)
Explosion Protection	Ex ia I Ma / Ex ia IIC T4 Ga
Ingress Protection	IP65 (optional waterproof breathable membrane)
Warranty	18 months

Calibrated with Acetylene standard gas; special gases require recalibration with the actual target gas — see the G4 selection guide appendix for details.

G4441 — G4441 Carbon Dioxide NDIR Infrared Gas Sensor

The Shanghai Yixin G4441 is an intelligent miniature NDIR (Non-Dispersive Infrared) gas sensor using a dual-wavelength optical path. It measures gas concentration by infrared absorption, with no oxygen dependency and no catalytic-sensor poisoning. Built-in lin…

Target Gas	Carbon Dioxide
Range	0 – 5000 ppm
Accuracy	±150 ppm
Resolution	1 ppm
Operating Temp.	0 ℃ to +50 ℃ (wide temp -40 ℃ to +70 ℃ optional)
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Input Voltage	3.0 ~ 5.5 VDC
Average Operating Current	< 70 mA @ 3 VDC
Peak Operating Current	< 140 mA @ 3 VDC
Warm-Up Time	3 min (recommend ≥60 min before calibration)
Analog Output	0.4 ~ 2.0 VDC
Digital Output	TTL UART, default 9600 bps
Response Time (T90)	< 20 s (free diffusion)
Operating Humidity	0% ~ 98% RH (non-condensing)
Explosion Protection	Ex ia I Ma / Ex ia IIC T4 Ga
Ingress Protection	IP65 (optional waterproof breathable membrane)
Warranty	18 months

Calibrated with Carbon Dioxide standard gas; special gases require recalibration with the actual target gas — see the G4 selection guide appendix for details.

G4442 — G4442 Carbon Dioxide NDIR Infrared Gas Sensor

The Shanghai Yixin G4442 is an intelligent miniature NDIR (Non-Dispersive Infrared) gas sensor using a dual-wavelength optical path. It measures gas concentration by infrared absorption, with no oxygen dependency and no catalytic-sensor poisoning. Built-in lin…

Target Gas	Carbon Dioxide
Range	0 – 1% VOL
Accuracy	±0.1% VOL (≤1% VOL); ±(0.05 + 5% of reading)% VOL (>1% VOL)
Resolution	0.01% VOL
Operating Temp.	0 ℃ to +50 ℃ (wide temp -40 ℃ to +70 ℃ optional)
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Input Voltage	3.0 ~ 5.5 VDC
Average Operating Current	< 70 mA @ 3 VDC
Peak Operating Current	< 140 mA @ 3 VDC
Warm-Up Time	3 min (recommend ≥60 min before calibration)
Analog Output	0.4 ~ 2.0 VDC
Digital Output	TTL UART, default 9600 bps
Response Time (T90)	< 20 s (free diffusion)
Operating Humidity	0% ~ 98% RH (non-condensing)
Explosion Protection	Ex ia I Ma / Ex ia IIC T4 Ga
Ingress Protection	IP65 (optional waterproof breathable membrane)
Warranty	18 months

Calibrated with Carbon Dioxide standard gas; special gases require recalibration with the actual target gas — see the G4 selection guide appendix for details.

G4443 — G4443 Carbon Dioxide NDIR Infrared Gas Sensor

The Shanghai Yixin G4443 is an intelligent miniature NDIR (Non-Dispersive Infrared) gas sensor using a dual-wavelength optical path. It measures gas concentration by infrared absorption, with no oxygen dependency and no catalytic-sensor poisoning. Built-in lin…

Target Gas	Carbon Dioxide
Range	0 – 2% VOL
Accuracy	±0.1% VOL (≤1% VOL); ±(0.05 + 5% of reading)% VOL (>1% VOL)
Resolution	0.01% VOL
Operating Temp.	0 ℃ to +50 ℃ (wide temp -40 ℃ to +70 ℃ optional)
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Input Voltage	3.0 ~ 5.5 VDC
Average Operating Current	< 70 mA @ 3 VDC
Peak Operating Current	< 140 mA @ 3 VDC
Warm-Up Time	3 min (recommend ≥60 min before calibration)
Analog Output	0.4 ~ 2.0 VDC
Digital Output	TTL UART, default 9600 bps
Response Time (T90)	< 20 s (free diffusion)
Operating Humidity	0% ~ 98% RH (non-condensing)
Explosion Protection	Ex ia I Ma / Ex ia IIC T4 Ga
Ingress Protection	IP65 (optional waterproof breathable membrane)
Warranty	18 months

Calibrated with Carbon Dioxide standard gas; special gases require recalibration with the actual target gas — see the G4 selection guide appendix for details.

G4444 — G4444 Carbon Dioxide NDIR Infrared Gas Sensor

The Shanghai Yixin G4444 is an intelligent miniature NDIR (Non-Dispersive Infrared) gas sensor using a dual-wavelength optical path. It measures gas concentration by infrared absorption, with no oxygen dependency and no catalytic-sensor poisoning. Built-in lin…

Target Gas	Carbon Dioxide
Range	0 – 5% VOL
Accuracy	±0.1% VOL (≤1% VOL); ±(0.05 + 5% of reading)% VOL (>1% VOL)
Resolution	0.01% VOL
Operating Temp.	0 ℃ to +50 ℃ (wide temp -40 ℃ to +70 ℃ optional)
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Input Voltage	3.0 ~ 5.5 VDC
Average Operating Current	< 70 mA @ 3 VDC
Peak Operating Current	< 140 mA @ 3 VDC
Warm-Up Time	3 min (recommend ≥60 min before calibration)
Analog Output	0.4 ~ 2.0 VDC
Digital Output	TTL UART, default 9600 bps
Response Time (T90)	< 20 s (free diffusion)
Operating Humidity	0% ~ 98% RH (non-condensing)
Explosion Protection	Ex ia I Ma / Ex ia IIC T4 Ga
Ingress Protection	IP65 (optional waterproof breathable membrane)
Warranty	18 months

Calibrated with Carbon Dioxide standard gas; special gases require recalibration with the actual target gas — see the G4 selection guide appendix for details.

G4445 — G4445 Carbon Dioxide NDIR Infrared Gas Sensor

The Shanghai Yixin G4445 is an intelligent miniature NDIR (Non-Dispersive Infrared) gas sensor using a dual-wavelength optical path. It measures gas concentration by infrared absorption, with no oxygen dependency and no catalytic-sensor poisoning. Built-in lin…

Target Gas	Carbon Dioxide
Range	0 – 10% VOL
Accuracy	±0.1% VOL (≤1% VOL); ±(0.05 + 5% of reading)% VOL (>1% VOL)
Resolution	0.01% VOL (≤10% VOL); 0.1% VOL (>10% VOL)
Operating Temp.	0 ℃ to +50 ℃ (wide temp -40 ℃ to +70 ℃ optional)
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Input Voltage	3.0 ~ 5.5 VDC
Average Operating Current	< 70 mA @ 3 VDC
Peak Operating Current	< 140 mA @ 3 VDC
Warm-Up Time	3 min (recommend ≥60 min before calibration)
Analog Output	0.4 ~ 2.0 VDC
Digital Output	TTL UART, default 9600 bps
Response Time (T90)	< 20 s (free diffusion)
Operating Humidity	0% ~ 98% RH (non-condensing)
Explosion Protection	Ex ia I Ma / Ex ia IIC T4 Ga
Ingress Protection	IP65 (optional waterproof breathable membrane)
Warranty	18 months

Calibrated with Carbon Dioxide standard gas; special gases require recalibration with the actual target gas — see the G4 selection guide appendix for details.

G4446 — G4446 Carbon Dioxide NDIR Infrared Gas Sensor

The Shanghai Yixin G4446 is an intelligent miniature NDIR (Non-Dispersive Infrared) gas sensor using a dual-wavelength optical path. It measures gas concentration by infrared absorption, with no oxygen dependency and no catalytic-sensor poisoning. Built-in lin…

Target Gas	Carbon Dioxide
Range	0 – 20% VOL
Accuracy	±0.1% VOL (≤1% VOL); ±(0.05 + 5% of reading)% VOL (>1% VOL)
Resolution	0.01% VOL (≤10% VOL); 0.1% VOL (>10% VOL)
Operating Temp.	0 ℃ to +50 ℃ (wide temp -40 ℃ to +70 ℃ optional)
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Input Voltage	3.0 ~ 5.5 VDC
Average Operating Current	< 70 mA @ 3 VDC
Peak Operating Current	< 140 mA @ 3 VDC
Warm-Up Time	3 min (recommend ≥60 min before calibration)
Analog Output	0.4 ~ 2.0 VDC
Digital Output	TTL UART, default 9600 bps
Response Time (T90)	< 20 s (free diffusion)
Operating Humidity	0% ~ 98% RH (non-condensing)
Explosion Protection	Ex ia I Ma / Ex ia IIC T4 Ga
Ingress Protection	IP65 (optional waterproof breathable membrane)
Warranty	18 months

Calibrated with Carbon Dioxide standard gas; special gases require recalibration with the actual target gas — see the G4 selection guide appendix for details.

G4447 — G4447 Carbon Dioxide NDIR Infrared Gas Sensor

The Shanghai Yixin G4447 is an intelligent miniature NDIR (Non-Dispersive Infrared) gas sensor using a dual-wavelength optical path. It measures gas concentration by infrared absorption, with no oxygen dependency and no catalytic-sensor poisoning. Built-in lin…

Target Gas	Carbon Dioxide
Range	0 – 100% VOL
Accuracy	±0.1% VOL (≤1% VOL); ±(0.05 + 5% of reading)% VOL (>1% VOL)
Resolution	0.01% VOL (≤10% VOL); 0.1% VOL (>10% VOL)
Operating Temp.	0 ℃ to +50 ℃ (wide temp -40 ℃ to +70 ℃ optional)
Operating Principle	Non-Dispersive Infrared (NDIR, dual-wavelength optical path)
Input Voltage	3.0 ~ 5.5 VDC
Average Operating Current	< 70 mA @ 3 VDC
Peak Operating Current	< 140 mA @ 3 VDC
Warm-Up Time	3 min (recommend ≥60 min before calibration)
Analog Output	0.4 ~ 2.0 VDC
Digital Output	TTL UART, default 9600 bps
Response Time (T90)	< 20 s (free diffusion)
Operating Humidity	0% ~ 98% RH (non-condensing)
Explosion Protection	Ex ia I Ma / Ex ia IIC T4 Ga
Ingress Protection	IP65 (optional waterproof breathable membrane)
Warranty	18 months

Calibrated with Carbon Dioxide standard gas; special gases require recalibration with the actual target gas — see the G4 selection guide appendix for details.