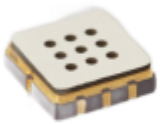
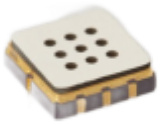
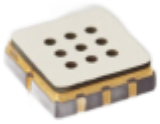
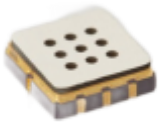
Click on the column header to rearrange!

Type of measurement	Model	Power voltage	Measurement, range, accuracy	Communication	Note
G CO_2 VOC	Sciosense **CCS811** 	**3.3V** (1.8 .. 3.6V)	equivalent CO_2 (eCO_2): 400 ppm .. 32768 ppm equivalent Total Volatile Organic Compound (eTVOC): 0 ppb .. 29206 ppb.	I²C default address: **0x5A / 0x5B**	Standard (100kbit/s) and fast (400kbit/s) I²C interface Power Consumption maximum: 46 mW
G T H CO_2 Air-quality Temperature Humidity	Sensirion **SCD40-D-R2** 	**3.3V / 5V** (2.4 .. 5.5V)	CO_2 output range: 0 .. 40'000 ppm CO_2 measurement accuracy: ± 40 ppm Humidity measurement range: 0 %RH .. 100 %RH Humidity measurement accuracy: ±6 %RH Temperature measurement range: 10°C .. 60°C Temperature measurement accuracy: ±1.5 °C	I²C default address: **0x62**	SCL clock frequency: 100 kHz
G Smoke gas Combustible gas	Winsen **MQ-2** 	**5V**	Flammable gas concentracion: 300 .. 10'000ppm Heater Resistance; RH: 29Ω ±3Ω□room tem.□ Heater consumption; PH: ≤950mW Sensitivity;S: Ro(in air) / Rs (2000 ppm C_3H_8) ≥ 5 Output Voltage;Vs: 2.5V□4.0V□in 2000 ppm C_3H_8□ Concentration Slope;α: ≤0.6 (R3000 ppm / R1000 ppm C_3H_8)	analog signal	Lifespan: 10 years Preheat time: Over 24 hour
G Alcohol gas Small sensitivy: Benzine gas	Winsen **MQ-3** 	**5V**	Detecting concentration scope□0.05 mg / 10 mg/L Alcohol Sensing Resistance: 1 MΩ - 8 MΩ (0.4 mg/L alcohol)	analog signal	Preheat time: Over 24 hour

Type of measurement	Model	Power voltage	Measurement, range, accuracy	Communication	Note
G CH_4 gas Natural gas LNG Small sensitivy: Alcohol Smoke	Winsen **MQ-4** 	**5V**	Detecting concentration scope200-10'000ppm CH_4, natural gas Sensing Resistance: 10KΩ- 60KΩ (1000ppm CH_4)	analog signal	Preheat time: Over 24 hour
G LPG Iso-butane Propane Small sensitivy: Alcohol Smoke	Winsen **MQ-5** 	**5V**	Detecting concentration scope200-10'000ppm LPG,LNG, Natural gas, Iso-butane, Propane, Town gas Sensing Resistance: 10KΩ- 60KΩ (5000 ppm methane)	analog signal	Preheat time: Over 24 hour
G Town gas Natural gas LPG LNG Iso-butane Propane Small sensitivy: Alcohol Smoke	Winsen **MQ-6** 	**5V**	Detecting concentration scope200-10'000ppm LPG ,iso-butane, propane, LNG Sensing Resistance: 10KΩ- 60KΩ (10'00ppm LPG)	analog signal	Preheat time: Over 24 hour
G CO	Winsen **MQ-7** 	**5V**	Detecting concentration scopeover 300 ppm CO (Carbon Monoxide) Sensing Resistance: 2KΩ- 20KΩ (100 ppm CO)	analog signal	Preheat time: Over 48 hour
G H_2 Small sensitivy: Alcohol LPG cooking fumes	Winsen **MQ-8** 	**5V**	Detecting concentration scope100-10000ppm Hydrogen (H_2) Sensing Resistance: 10KΩ- 60KΩ (1000 ppm H_2)	analog signal	Preheat time: Over 24 hour

Type of measurement	Model	Power voltage	Measurement, range, accuracy	Communication	Note
G CO CH_4 gas LPG	Winsen **MQ-9** 	**5V**	Detecting range 20 ppm .. 2000 ppm carbon monoxide 500 ppm .. 10'000 ppm CH_4 500 ppm .. 10'000 ppm LPG Sensing Resistance: 2KΩ- 20KΩ (100 ppm CH_4)	analog signal	Preheat time: Over 48 hour
G NO_x NH_3 alcohol Benzene smoke CO_2	Winsen **MQ-135** 	**5V**	Detecting range 10 ppm .. 300 ppm NH_3 10 ppm .. 1000 ppm Benzene 10 ppm .. 300 ppm Alcohol Sensing Resistance: 30KΩ- 200KΩ (100 ppm NH_3)	analog signal	Preheat time: Over 24 hour
G Oxigen	AlphaSense **O2-A2** 	**5V**	Range of oxygen sensor: 0..30 % Load resistance: 47-100 Ω	analog signal	-
G Methane Natural gas	GL Sciences **TGS-2611** 	**5V**	Sensor resistance in 5000ppm of methaneat 20°C and 65% R.H. Sensor resistance: 0.68 .. 6.8 kΩ in 5000 ppm methane	analog signal	Conditioning period before test: 7 days
G T H CO2 humidity temperature	Sensirion **SCD-30** 	**3.3V / 5V**	Humidity range: 0 .. 100 %RH Temperature range: -40°C .. 70°C CO^2 range: 0 .. 40’000 ppm (I^2C, UART), 0 .. 5’000 ppm (PWM)	UART (Modbus Point to Point; TTL Logic), PWM and I^2C	Response time: 20s Sensor lifetime: 15 years
G NO^2	MEMS **GM-102b** 	**5V**	Detection Range: 0.1~10ppm (NO^2) Heater Resistance: 80Ω±20Ωroom temperature	analog signal	-

Type of measurement	Model	Power voltage	Measurement, range, accuracy	Communication	Note
G alcohol gas	MEMS **GM-302b** 	**5V**	Detection Range: 1..500ppm (Ethanol vapor) 80Ω±20Ω□room temperature	analog signal	-
G Alcohol (C2H5OH) Hydrogen(H2) Formaldehyde(CH2O)	MEMS **GM-502b** 	**5V**	Detection: Alcohol (C2H5OH), 10..500ppm Detection: Hydrogen(H2), 1..1000ppm Detection: Formaldehyde(CH2O), 10..100ppm	analog signal	-
G Carbon monoxide (CO) Hydrogen (H2)	MEMS **GM-702b** 	**5V**	Detection: Carbon monoxide sensor (CO) : 10..5000ppm Hydrogen sensor (H2): 10..500ppm	analog signal	-
G Carbon monoxide (CO) Methane (CH4) Ethanol (C2H5OH) Propane (C3H8) Butane (C4H10) Hydrogen (H2) Hydrogen sulfide (H2S) Ammonia (NH3)	Fermion **MICS-5524 V1.0** 	**5V**	The module is intended for educational and hobby purposes! Measuring range: 1 .. 1000 ppm (carbon monoxide CO) 10 .. 500ppm (Ethanol C2H5OH) 1 .. 1000ppm (Hydrogen H2) 1 .. 500 ppm (NH3 ammonia) > 1000 ppm (methane CH4)	analog signal	-