

SP-MGTP

Portable Multi Gas Detector



DESCRIPTION

SP-MGTP is a sampling-type multi-gas detector capable of monitoring up to 6 gases with 37 possible gas combinations, including Volatile Organic Compounds (VOC). It continuously detects oxygen (O₂), toxic, flammable gases, and VOCs, providing real-time alerts through LED indicators, sound alarms, and vibration signals. Designed to prevent industrial accidents caused by hazardous gas exposure, this device offers reliable protection in demanding environments.

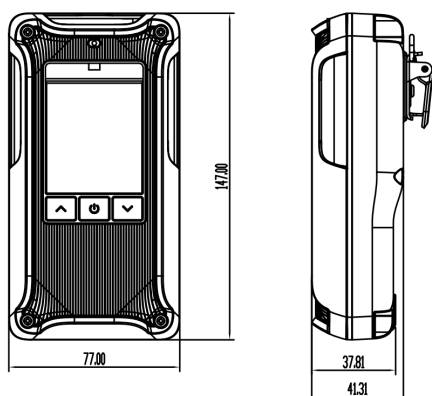
KEY FEATURE

- Sampling-type with embedded pump & probe
- Max 6 gases with 37 different gas combinations
- Event log (Recent 30 event / bump / calibration)
- Easy to maintain (2 filters in probe & in detector)
- Inner teflon coating of gas tube line

SPECIFICATION

Model	SP-MGTP
Display	LCD display with backlight for clear visibility in various lighting conditions Indicator LEDs for status and alarm notifications
Keys	3 operational and programming keys for intuitive navigation and setup
Sensors	Electrochemical: For toxic gases and oxygen (O ₂) detection PID: For precise VOC detection Catalytic: For combustible gas detection NDIR: For monitoring combustible gases
Alarms	Visual: LCD alarm display with backlight and indicator LEDs for clear alerts Audible: 90 dB buzzer at 10 cm for immediate sound warnings Vibration: Vibration alert for hazardous gas detection
Dimensions	77 (W) x 146 (H) x 43 (D) mm 3.03 (W) x 5.75 (H) x 1.69 (D) inch
Weight	490g (17.29oz)
Mounting Method	Integrated belt clip for easy attachment and hands-free use
Operating Temperature	-20°C to +50°C (-4°F to +122°F)
Operating Humidity	10% to 90% RH (Non-condensing)
IP Rating	IP67 (Fully dustproof and water-resistant for enhanced durability in harsh environments)
Environment Pressure Range	80 kPa to 120 kPa (Suitable for use in environments with this pressure range)
Sampling	Built-in pump for efficient and accurate gas sampling
Battery Type	Rechargeable Li-ion power supply unit (4,000mAh)
Operating Time	SP-MGTP-P0 Series : 30 hours SP-MGTP-N0/N1/N2 Series : About 5 days or more
Enclosure Material	TPU-coated polycarbonate (PC) for enhanced durability in tough conditions
Options	IR-Link(For seamless data management and easy configuration)
Flow Rate	250 to 300cc/min for consistent and accurate gas sampling
Maximum Length of Sampling Hose	23m (75ft)
Warranty	2 years from the date of purchase

DIMENSION (Unit:mm)



ACCESSORIES



IR Link Communication
Connects to the computer in order to program configuration and download data log



SP-MGTP Single Docking Station

SENSOR CONFIGURATION

Model Name	Slot 1 (Fixed)	Slot 2 (Fixed)	Slot 3 (Optional Gas 1)	Slot 4 (Optional Gas 2)
SP-MGTP-P-4	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (Catalytic)	-
SP-MGTP-P-5-PID	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (Catalytic)	PID (VOC Detection)
SP-MGTP-P-5-SO ₂	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (Catalytic)	SO ₂ (Sulfur Dioxide)
SP-MGTP-P-5-Cl ₂	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (Catalytic)	Cl ₂ (Chlorine)
SP-MGTP-P-5-NH ₃	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (Catalytic)	NH ₃ (Ammonia)
SP-MGTP-P-5-H ₂	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (Catalytic)	H ₂ (Hydrogen)
SP-MGTP-P-5-NO ₂	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (Catalytic)	NO ₂ (Nitrogen Dioxide)
SP-MGTP-P-5-HCN	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (Catalytic)	HCN (Hydrogen Cyanide)
SP-MGTP-P-5-HCl	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (Catalytic)	HCl (Hydrochloric Acid)
SP-MGTP-P-5-NO	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (Catalytic)	NO (Nitric Oxide)
SP-MGTP-P-5-H ₂ O ₂	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (Catalytic)	H ₂ O ₂ (Hydrogen Peroxide)
SP-MGTP-N-4	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (IR)	-
SP-MGTP-N-5-PID	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (IR)	PID (VOC Detection)
SP-MGTP-N-5-SO ₂	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (IR)	SO ₂ (Sulfur Dioxide)
SP-MGTP-N-5-Cl ₂	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (IR)	Cl ₂ (Chlorine)
SP-MGTP-N-5-NH ₃	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (IR)	NH ₃ (Ammonia)
SP-MGTP-N-5-H ₂	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (IR)	H ₂ (Hydrogen)
SP-MGTP-N-5-NO ₂	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (IR)	NO ₂ (Nitrogen Dioxide)
SP-MGTP-N-5-HCN	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (IR)	HCN (Hydrogen Cyanide)
SP-MGTP-N-5-HCl	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (IR)	HCl (Hydrochloric Acid)
SP-MGTP-N-5-NO	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (IR)	NO (Nitric Oxide)
SP-MGTP-N-5-H ₂ O ₂	O ₂ (Oxygen)	CO + H ₂ S	CH ₄ (IR)	H ₂ O ₂ (Hydrogen Peroxide)
SP-MGTP-N-5-CO ₂	O ₂ (Oxygen)	CO + H ₂ S	CO ₂ (IR) + CH ₄ (IR)	-
SP-MGTP-N-6-PID	O ₂ (Oxygen)	CO + H ₂ S	CO ₂ (IR) + CH ₄ (IR)	PID (VOC Detection)
SP-MGTP-N-6-SO ₂	O ₂ (Oxygen)	CO + H ₂ S	CO ₂ (IR) + CH ₄ (IR)	SO ₂ (Sulfur Dioxide)
SP-MGTP-N-6-Cl ₂	O ₂ (Oxygen)	CO + H ₂ S	CO ₂ (IR) + CH ₄ (IR)	Cl ₂ (Chlorine)
SP-MGTP-N-6-NH ₃	O ₂ (Oxygen)	CO + H ₂ S	CO ₂ (IR) + CH ₄ (IR)	NH ₃ (Ammonia)
SP-MGTP-N-6-H ₂	O ₂ (Oxygen)	CO + H ₂ S	CO ₂ (IR) + CH ₄ (IR)	H ₂ (Hydrogen)
SP-MGTP-N-6-NO ₂	O ₂ (Oxygen)	CO + H ₂ S	CO ₂ (IR) + CH ₄ (IR)	NO ₂ (Nitrogen Dioxide)
SP-MGTP-N-6-HCN	O ₂ (Oxygen)	CO + H ₂ S	CO ₂ (IR) + CH ₄ (IR)	HCN (Hydrogen Cyanide)
SP-MGTP-N-6-HCl	O ₂ (Oxygen)	CO + H ₂ S	CO ₂ (IR) + CH ₄ (IR)	HCl (Hydrochloric Acid)
SP-MGTP-N-6-NO	O ₂ (Oxygen)	CO + H ₂ S	CO ₂ (IR) + CH ₄ (IR)	NO (Nitric Oxide)
SP-MGTP-N-6-H ₂ O ₂	O ₂ (Oxygen)	CO + H ₂ S	CO ₂ (IR) + CH ₄ (IR)	H ₂ O ₂ (Hydrogen Peroxide)

APPLICABLE SENSOR SPECIFICATIONS

Gas	Measuring Range	Measuring Range	Resolution	Low Alarm	High Alarm
O ₂	Electrochemical	0 ~ 30 %vol	0.1 %vol	19 %vol	23 %vol
CO	Electrochemical	0 ~ 500 ppm	1 ppm	30 ppm	60 ppm
CO	Electrochemical	0 ~ 1,000 ppm	1 ppm	30 ppm	60 ppm
H ₂ S	Electrochemical	0 ~ 100 ppm	0.1 ppm	10 ppm	15 ppm
H ₂ S	Electrochemical	0 ~ 200 ppm	0.1 ppm	10 ppm	15 ppm
CH ₄	Catalytic / NDIR	0 ~ 100 %LEL	1 %LEL	10 %LEL	30 %LEL
CO ₂	NDIR	0 ~ 5 %vol	0.01 %vol	0.5 %vol	1.0 %vol
NH ₃	Electrochemical	0 ~ 100 ppm	1 ppm	25 ppm	35 ppm
SO ₂	Electrochemical	0 ~ 20 ppm	0.1 ppm	2 ppm	5 ppm
H ₂	Electrochemical	0 ~ 1000 ppm	1 ppm	100 ppm	500 ppm
NO ₂	Electrochemical	0 ~ 20 ppm	0.1 ppm	3 ppm	5 ppm
Cl ₂	Electrochemical	0 ~ 20 ppm	0.1 ppm	0.5ppm	1ppm
HCN	Electrochemical	0 ~ 50 ppm	0.1 ppm	10 ppm	20 ppm
HCl	Electrochemical	0 ~ 20 ppm	0.5 ppm	2 ppm	5 ppm
VOC	PID	0 ~ 4000 ppm	1 ppm	50 ppm	200 ppm
NO	Electrochemical	0 ~ 500 ppm	0.5 ppm		
H ₂ O ₂	Electrochemical	0 ~ 100 ppm	0.1 ppm		

CERTIFICATION

IECEX	SP-MGTP-P0 Series	Ex da ia IIC T4 Ga / Ex da ia IIB T4 Ga
	SP-MGTP-N0 Series	Ex ia IIC T4 Ga / Ex ia IIB T4 Ga
	SP-MGTP-N1 Series	Ex db ia IIC T4 Gb / Ex db ia IIB T4 Gb
	SP-MGTP-N2 Series	Ex db ia IIC T4 Gb / Ex db ia IIB T4 Gb
	SP-MGTP-00 Series	Ex ia IIC T4 Ga / Ex ia IIB T4 Ga
ATEX	SP-MGTP-P0 Series	II 1 G Ex da ia IIC T4 Ga / II 1 G Ex da ia IIB T4 Ga
	SP-MGTP-N0 Series	II 1 G Ex ia IIC T4 Ga / II 1 G Ex ia IIB T4 Ga
	SP-MGTP-N1 Series	II 2 G Ex db ia IIC T4 Gb / II 2 G Ex db ia IIB T4 Gb
	SP-MGTP-N2 Series	II 2 G Ex db ia IIC T4 Gb / II 2 G Ex db ia IIB T4 Gb
	SP-MGTP-00 Series	II 1 G Ex ia IIC T4 Ga / II 1 G Ex ia IIB T4 Ga
CSA/UL	SP-MGTP-P0 Series	Ex da ia IIC T4 Ga Class I, Division 1, Groups A, B, C, and/or D, T4 Class I, Zone 0, AEx da ia IIC T4 Ga
		Ex da ia IIB T4 Ga Class I, Division 1, Groups C, and/or D, T4 Class I, Zone 0, AEx da ia IIB T4 Ga
	SP-MGTP-N0 Series	Ex ia IIC T4 Ga Class I, Division 1, Groups A, B, C, and/or D, T4 Class I, Zone 0, AEx ia IIC T4 Ga
		Ex ia IIB T4 Ga Class I, Division 1, Groups C, and/or D, T4 Class I, Zone 0, AEx ia IIB T4 Ga
	SP-MGTP-N1 Series	Ex db ia IIC T4 Gb Class I, Division 1, Groups A, B, C, and/or D, T4 Class I, Zone 1, AEx db ia IIC T4 Gb
		Ex db ia IIB T4 Gb Class I, Division 1, Groups C, and/or D, T4 Class I, Zone 1, AEx db ia IIB T4 Gb
	SP-MGTP-N2 Series	Ex db ia IIC T4 Gb Class I, Division 1, Groups A, B, C, and/or D, T4 Class I, Zone 1, AEx db ia IIC T4 Gb
		Ex db ia IIB T4 Gb Class I, Division 1, Groups C, and/or D, T4 Class I, Zone 1, AEx db ia IIB T4 Gb
	SP-MGTP-00 Series	Ex ia IIC T4 Ga Class I, Division 1, Groups A, B, C, and/or D, T4 Class I, Zone 0, AEx ia IIC T4 Ga
		Ex ia IIB T4 Ga Class I, Division 1, Groups C, and/or D, T4 Class I, Zone 0, AEx ia IIB T4 Ga
CNEx & CPA	SP-MGTP-P0 Series	Ex da ia IIC T4 Ga / Ex da ia IIB T4 Ga
	SP-MGTP-N0 Series	Ex ia IIC T4 Ga / Ex ia IIB T4 Ga
	SP-MGTP-N1 Series	Ex db ia IIC T4 Gb / Ex db ia IIB T4 Gb
	SP-MGTP-N2 Series	Ex db ia IIC T4 Gb / Ex db ia IIB T4 Gb
	SP-MGTP-00 Series	Ex ia IIC T4 Ga / Ex ia IIB T4 Ga
INMETRO	SP-MGTP-P0 Series	Ex da ia IIC T4 Ga / Ex da ia IIB T4 Ga
	SP-MGTP-N0 Series	Ex ia IIC T4 Ga / Ex ia IIB T4 Ga
	SP-MGTP-00 Series	Ex ia IIC T4 Ga / Ex ia IIB T4 Ga
	SP-MGTP-N1 Series	Ex db ia IIC T4 Gb / Ex db ia IIB T4 Gb
	SP-MGTP-N2 Series	Ex db ia IIC T4 Gb / Ex db ia IIB T4 Gb
etc.	EMC, RoHS2, REACH, WEEE, FCC, RCM(ACMA&RSM)	