

Gas Detection Series

PARES-100 Gas Infrared Detection System

PARES-100 air pollutant gas infrared monitoring system is mainly used to detect the leakage and emission of dangerous gases, non-contact long-distance rapid detection of dangerous gases, and timely alarm to ensure production and personal safety. The product can be installed in a fixed position or vehicle platform, used for environmental monitoring, fire rescue, large-scale event security, industrial park monitoring and other places, and can also be used for subway safety monitoring (highly toxic and dangerous gas detection) and coal mine monitoring (methane detection), high-voltage power transmission and transformation monitoring (sulfur hexafluoride detection), chemical plant leakage (flammable and explosive dangerous gas detection), etc.



The system can identify 10 gases, including hydrogen sulfide, ammonia, propane, sulfur dioxide, methanol, ethylene, methane, sulfur hexafluoride, dichloromethane, ether, etc.; There are three working modes: fixed-point, sector, and area scanning; It has the functions of real-time output of collected data, real-time calibration of radiation through the built-in blackbody, and output of gas concentration CL value.

PRODUCT MODEL	PARES-100
MAIN TECHNICAL PARAMETERS	
Maximum Monitoring Distance	≥ 1km (room temperature)
Operating Bands	7μm~14.28μm
Spectral Resolution	≤ 4cm ⁻¹
Spectral Scan Rate	≥ 8 spectra/s (@4cm ⁻¹).
Field Of View	1.5°×1.5°
Scan Range	Pitch: -10°~+40°
	Horizontal: -120°~+120°
Noise Equivalent Spectral Radiation	NESR ≤ 5×10 ⁻⁹ W/cm ² cm ⁻¹ Sr (@ wavelength 10μm, Spectral resolution 4cm ⁻¹ , Spectrum scanning rate 8Hz)
Start-Up Time	≤ 8 m i n
Weight	Infrared monitor host: ≤40kg
	Gimbal: ≤25kg
	Power converter: ≤5kg
	Computer: ≤16kg
Detectable Gases	Hydrogen Sulfide, Ammonia, Propane, Sulfur Dioxide, Methanol, Ethylene, Methane, Sulfur Hexafluoride, Dichloromethane, Ether, etc.

Gas Detection Series

GAS-01 Online Dual-Optical Gas Detection Leak Monitoring System



Ex Model



Non-Ex Model

GAS-01 online dual-optical path gas leak detection and leakage monitoring system adopts a cooled infrared and visible light monitoring dual-module integrated design scheme, which has the characteristics of long-distance, non-contact and visualization, and can monitor nearly 48 kinds of VOCs gases. Leaks are monitored and located to eliminate potential safety hazards and avoid accidents. It is of great significance to the safe production, storage and transportation of oil and natural gas.



DETECTABLE GAS TYPES	
Alkanes	Methane, ethane, propane, butane, pentane, hexane, heptane, octane, methyl bromide, ethyl bromide, methyl chloride, ethylene oxide, propylene oxide, epichlorohydrin
Benzene	Benzene, toluene, ethylbenzene, paraxylene, 1,2-xylene, trimethylbenzene
Olene	Ethylene, propylene, 1-butene, 1-3-butadiene, 1,3-cyclopentadiene, 2-methyl-2-butene, styrene
Alcohols	Ethanol, isopropanol, butanol, ethyl mercaptan
Amines	Monomethylamine, dimethylamine, trimethylamine, triethylamine, aniline
Ethers	Dimethyl ether, dimethyl sulfide, diethyl ether, methyl tert-butyl ether
Other	1-Heptyne, acetic acid, propionaldehyde, 2-butanone, 4-methyl-2-pentanone, tetrahydrofuran, pyridine, 2-methylpyridine

GAS-01 Online Dual-Optical Gas Detection Leak Monitoring System

PRODUCT MODEL	GAS-01 NON-EX TYPE	GAS-01 EX TYPE
Performance Indicators (Infrared Imaging Module)		
Operating Bands	3.2~3.4μm	
Detectors / Chillers	320×256@30μm MCT/Integrated Stirling Chiller	
Focal Length	30mm~75mm (continuous zoom)	
Field Of View	18.2°×14.6°~7.3°×5.9°(Error≤5%)	
Scope Of Focus	6m~∞	
Performance Metrics (Visible Optical Modules)		
Maximum Resolution	2560×1440	
Focal Length	6.5mm~240mm	
Other	optical wide dynamic range; Optical fog translucency	
Gimbal Performance Parameters		
Search Scope	Horizontal: 0°~360°, Tilt: -60°~+20°	Horizontal: 0°~360°, Pitch: -90°~+90°
Presets	200 pcs	64/128/255/300
Preset Bit Accuracy	±0.1°	
Power Supply		
Power Supply	AC220V	
Peak Power Consumption	≤ 1 0 0 W	
Steady-State Power Consumption	≤ 5 0 W	
Interface		
External Interfaces	RJ45 (network cable, optical fiber optional)	

Physical Properties		
Product Dimensions	$\leq 435 \times 290 \times 550$ (mm)	$\leq 446 \times 609 \times 505$ (mm)
Distribution Box Size	$\leq 558 \times 470 \times 473$ (mm)	$\leq 400 \times 500 \times 200$ (mm)
Weight	The system (including PTZ and distribution box) ≤ 36 kg	The system (including gimbal and distribution box) ≤ 96 kg
	Distribution box ≤ 15 kg	The distribution box ≤ 48 kg
Explosion-Proof Signs	/	Ex db IIC T6 Gb/Ex tb IIIC T80°C Db
Ingress Protection	IP66	IP66/IP68