

SAFEYE QUASAR 950/960

H₂S and Ammonia Open Path Gas Detectors



The latest SafEye Quasar open path UV detection technology includes the 950 and the 960 series. The Quasar 950 models detect toxic Hydrogen Sulfide gas and the Quasar 960 models detect toxic Ammonia gas, both with path lengths of up to 200ft (60m). The Quasar 950 and 960 models can be tailored to protect your personnel and high-risk installation. Reliability is key and is assured with SIL2.

All Quasar 950/960 detectors incorporate heated windows to minimize any effects from condensation, icing, snow and are totally immune to interference from sunlight or any other sources of radiation such as flare stacks, arc welding or lightning. A range of outputs are available including 0-20mA, HART, Modbus RS485 to suit all control systems.

APPLICATIONS

- Offshore platforms & FPSOs
- Petrochemical plants
- Chemical processing plants
- Gas filling and distribution terminals
- Gas transport and pipelines
- Perimeter monitoring

KEY FEATURES

- Long Range Gas Detection up to 200ft (60m)
- Detection of toxic gases
 - 950 Series detects H₂S
 - 960 Series detects NH₃
- High Sensitivity and fast response
- Heated optics to improve performance in ice, condensation and snow conditions
- Continuous operation in extreme and harsh environmental conditions
- Solar blind and immune to industrial environments
- Withstands extreme vibration conditions
- Multiple output options for maximum flexibility and compatibility; 0-20mA, HART Protocol for maintenance and asset management, RS-485, Modbus Compatible
- Simple, one person installation, alignment, and calibration
- Programmable configuration via the handheld unit
- Fast connection to I.S. approved handheld diagnostic/calibration unit
- 3mA “maintenance call”
- 3 Year Warranty
- ATEX & IECEx Ex II 2 GD Ex d e ib [ib Gb] IIB+H₂ T4 Gb, Ex tb IIIC T135°C Db IP66
- Safety Integrity Level SIL2 (TUV)
- Inmetro (UL)
- TR CU/EAC

SAFEYE QUASAR 950/960

DETECTED GASES

Model	951	961	952	962	953	963
Detection Range	17-52ft	17-66ft	46-132ft	46-132ft	115-200t	115-263ft
	5-16m	5-16m	14-40m	14-40m	35-60m	35-60m
Detected Gas:	H ₂ S	Ammonia	H ₂ S	Ammonia	H ₂ S	Ammonia

SPECIFICATIONS Specifications subject to change without notice

Response Time	T90≤5 sec	RS-485	RS-485 Modbus compatible communication link that can be used in computer controlled installations
Immunity to False Alarm	Not influenced by solar radiation, hydrocarbon flames and other external IR radiation sources	HART	Optional HART communications on the 0-20mA analog current (FSK) - used for maintenance and asset management
Spectral Response	200-300nm	Visual Status Indicator	3 color LED: Green – Power on, Yellow – Fault, Red – Alarm
Sensitivity Range	0-500p.p.m. (standard) 0-200p.p.m. (by setting)	Hazardous Area Approval	ATEX and IECEx Ex II 2 GD, (pending) Ex de IIB + H2 T4 Gb Ex tb IIc T135°C Db
Displacement/ Misalignment Tolerance	±1°	Reliability	SIL2 per IEC61508 (TUV)
Drift	Long term ±5% of full scale	PART NUMBER	90-0950 & 90-0960
Operating Voltage	-67°F (-55°C) to 149°F (65°C)	Materials	The source and detector housings are stainless steel 316L with electro polish finish. The circuit boards are conformal coated and protected from mechanical vibrations.
Humidity	Up to 95% non-condensing (withstands up to 100% RH for short periods)	Mounting	Stainless Steel 316L with electro polish finish.
Operating Voltage	24 VDC nominal (18-32 VDC)	Dimensions	Detector/Source 10.5 x 5.1 x 5.1 inch (267 x 130 x 130mm) Tilt Mount 4.7 x 4.7 x 5.5 inch (120 x 120 x 158mm)
Power Consumption	Detector: 250mA (300mA peak) Source: 250mA (300mA Peak)	Weight	Detector/Source 11lb (5kg) / Tilt Mount 4.2lb (2kg)
Warm up Time	30 sec for transmitter and receiver	Inmetro	Ex tb eb ib [ib Gb] IIB + H2 t4 Gb
Electrical Connection (specify)	2 x 3/4" – 14NPT conduits or 2 x M25 x 1.5mm ISO	Environmental	Meets MIL-STD-810C for Humidity, Salt and Fog, Vibration, Mechanical Shock, High and Low Temperature.
Electrical Input Protection	According to MIL-STD -1275B	Water and Dust	IP66 and IP68 per EN60529, NEMA 250 6P
Outputs	Sink (source option) configuration - maximum load of 500 ohm at 18-32 VDC Gas reading 4-20mA Obscuration/beam block 2mA Normal, zero reading 4mA Zero calibration mode 1mA Maintenance call 3mA Fault 0mA Misalignment 2.5mA		



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