Honeywell

UV Flame Monitor System

Superior Flameout Protection for Industrial Gas Turbines

Amplifier, EG1033AB/AC/AD

Amplifier, EG1033AA

Flame Sensor, LG1093AA

Flame Sensor, LG1093AC

Industrial power generation gas turbine installations demand the superior protection provided by the Honeywell UV Flame Monitoring System. The Honeywell flame monitor system detects the ultraviolet radiation emitted by a hydrocarbon flame and produces an output signal to indicate a flame or no-flame condition. This system has delivered flawless performance on General Electric (and GE licensee) gas turbines for more than 35 years. The Honeywell system is currently used on gas turbines used for land-based and off-shore power generation, pumping stations, shipboard power generation and various other industrial applications. A variety of sensor types, amplifier types and sensor cable lengths are available.

Features

- High sensitivity with fast response time (0.1 sec typical).
- Amplifiers support multiple voltage requirements: 28 Vdc, 20-35 Vdc, and 115 Vac.
- Operating distances up to 1000 feet, sensor to amplifier.
- Available with Factory Mutual approval for explosive atmospheres.
- Available with European Directive, Electromagnetic Compatibility 89/336/EEC and CENELEC approval, meeting European Directive 76/117/EEC.
- Qualified component on General Electric turbines.

Proven Design

- Geiger Mueller-type sensor phototube. Detects ultra-violet band at 1800-2600 angstroms. "Solar blind" and tolerant to black body radiation.
- Two-year shelf-life, 10,000 hours MTBF with over one billion operating hours.

LG1093 FLAME SENSOR CHARACTERISTICS

	LG1093AA	LG1093AB	LG1093AC
Mounting Interface	3/4 inch internal NPT	1.73 inch O.D. by 0.14 inch wide flange	
Control Panel Connection	Teflon shielded cable with one inch external conduit thread.	Two pin connector	Two conductor armored cable.
Operating Temperature	-40°F to 350°F		
Special Certifications	EMC Certification (CE Mark) Directive 89/336/EEC Factory Mutual Explosion Proof Class I, Divisions 1 and 2, Groups B, C, and D. CENELEC approval, models AA34/35/36 Directive 76/117/EEC	None	EMC Certification (CE Mark) Directive 89/336/EEC)
Cable Lengths	AA24/AA34: 16ft (4.9m) AA25/AA35: 42ft (12.8m) AA26/AA36: 61ft. (18.6m)		AC01/AC02: 9ft. (2.7m) AC05: 24ft. (7.3m)

EG1033 AMPLIFIER CHARACTERISTICS

	EG1033AA	EG1033AB	EG1033AC/AD
Physical Dimensions	6.62 x 4.25 x 2.32 inches	6.62 x 4.25x4.44 inches	
Mounting Holes	Four .20 in diameter holes, 6.00 x 2.00 inches apart		
Power Input	28 + 0.14 Vdc, 0.5 amps max	115 Vac +/- 10%, 60 Hz, 10 watts max.	20 to 35 Vdc, 10 watts max
Amplifier Output	Transistor open collector	Relay Contacts	
Flame Detect Time	Typical 0.1 sec; max 1.0 sec		
Flame Loss Detect Time	0.2 sec max		
EMC Certification (CE Mark) Directive 89/336/EEC	Yes	No	Yes

Note: Each amplifier will power two sensors, single or dual applications, and provide a separate output signal for each sensor. The EG1033AD model allows separation of the chassis ground shield connection from the input power low, distinguishing it from the EG1033AC.