

Technical Specification Sheet

Flame Scanner - ITS 184X0254M123

Valid from 2016.09.03



CE  II 1G EEx ia IIC T3/T2 Ga

T2 only with Water Cooling System Part No.: ITS 184X0251M621

In consultation with   

Overview

Silicon carbide SiC photodetectors/photodiodes have a spectral response of approximately 210 – 380nm and are not sensitive to UV radiation outside of this region. This makes them ideal detectors in certain applications for monitoring the UV spectrum without the need for solar rejection filters.


SiC photodetectors are extremely durable and have been proven to withstand prolonged UV exposure. They have been used as optical flame detectors in gas turbines for more than two decades.

ITS Industrial Turbine Services has developed a new flame scanner to utilize this tried and tested technology perfectly.

The Flame Scanner ITS 184X0254M123 responds to the ultraviolet emission produced by the flame in the gas turbine while effectively ignoring all the infrared and visible radiation emitted by the heated parts of the turbine itself.

Note: For a safe operation in an atmosphere, which may be sometimes hazardous, special requirements for the electronic systems are needed. To fulfill this requirements, use the ITS 184X0251M721 Safety Barrier and a certified power supply.

ITS 184X0254M123 Flame Scanner Characteristics

Parameters	Details
Manufacturer	ITS Industrial Turbine Services, Austria
Country of Origin	Austria, Europe
Country of Manufacture	Austria, Europe
Certification	EN ISO 9001:2008, SCC*:2011, OHSAS 18001:2007 CE, RoHS, ATEX, CE  II 1G EEx ia IIC T3/T2 Ga T2 only with Water Cooling System Part No.: ITS 184X0251M621
Housing	1.4571 Stainless Steel
Mounting	3/4" internal NPT
Wrench Width	44mm (1.73in)
Connector Electrical	MIL-DTL 38999 Series III 038999/27Y-15-05PN 1041 B Thread
Sensor	Silicon Carbide Photodiode
Window	Fused Silica
Average Spectral Sensitivity	210 - 380nm
Sensitivity	> 4mA @ 1×10^{10} photons/in ² /sec. @ 308nm
Output	4 - 20mA DC current loop @ 24VDC
Response Time	< 20ms
Power Requirements	12 - 30VDC Reverse polarity protection
Temperature Range	-30°C (-22°F) to 150°C(302°F) up to 235°C (455°F) with water cooling
Temperature at Mount	Max. 427°C (800°F)
Relative Humidity	100%
Int. Protection Marking	IP68
Process Pressure	Up to 28bar (400psi)