SET

SUT100

Flame Scanners



UV Spectrum Flame Sensor
Detection Of Gas & Oil Flame
High Temperature & Low Cost

Features

- SS304 housing with integral cable
- Quartz glass & ¾" G female for head connection
- Fast response time less than 200 ms
- Low space occupation
- Dry Conn. relay & open collector as options for output signal
- Easy mounting with DIN rail

Applications

- Power stations
- Chemical industry
- Refineries
- Cement plants
- Waste incinerators
- Steam generators
- Heating plants

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Functional Description

A flame scanner detects the existence of a flame inside the combustion chamber, and aims at preventing fuel injection into the combustion chamber in the absence of flame formation.
If the flame goes out, the system protection will operate in one second and issue the fuel valve closing command. This action prevents from fuel accumulation in the combustion chamber and possible explosion.

Flame Sensor Unit Ordering Table

Part Number	Device Description
SUT100-S18CX7	SUT100 flame scanner with UV sensor type 1
SUT100-S41CX7	SUT100 flame scanner with UV sensor type 2
SUT100-A8D124	SUT100 amplifier for UV sensor type 1
SUT100-A7D124	SUT100 amplifier for UV sensor type 2

The flame scanner with the UV lamp, has a simple sensor unit which can be mounted in the high temperature applications or the low space positions. It works with the high DC voltage, generated by amplifier unit of flame scanner. The amplifier unit is mounted in a control panel as an usual and drives the sensor unit on the combustion chambers in the distance.
There are two options for output signal of amplifier: first one is a "Dry N.O. & N.C. Relay" and the second one is the "Open Collector" with 3.3 kΩ pull-up resistor. If any other output signal is in mind, it can be mentioned as a special order. Other specifications are as below Table.

Operational Condition			
Housing material	SS 304	Mounting connection	3/4" female G
Protection class	IP67	Ambient temperature range	-40 ~ +100 °C (sensor type 1) -40 ~ +150 °C (sensor type 2) -20 ~ +70 °C (amplifier)
Input power	20 ~ 25 VDC	Current consumption	Max 50mA
Data connection type to monitor unit	Pulse output	Operating voltage	325 ± 25 VDC (sensor type 1) 500 ± 50 VDC (sensor type 2)
Response time	< 200 ms	Lead length	5 m / 10 m