

## IH163/6 - 4 IR SPARK DETECTOR MODULE

**Introducing High Speed, reliable fladet series... 4 IR High Speed Spark detector to increase efficiency of fire diversion system**

### INTRODUCTION

IH163/6 Spark Detector module is Designed to use in Duct of various sizes for Textile Industries or other similar Industries, where the possibility of Fire Spread through duct from one area to other. It has 4 nos of IR Spark sensors to achieve high speed detection.

The 4 IR Spark Detector individual module has wide angular sensitivity and can reliably and quickly detect spark in motion.

IR Spark Detector is active in the range of 400 nm to 1100 nm.

Each individual module is fully wired and is properly fixed with suitable filter to avoid damage due to movement of seed, stone and other hard particles in the duct. IH163/1-4 NI\* is available in various size diameter of duct with 3 set of 4IR spark detector module fully wired.

### ADVANTAGES

- ✦ Rigid Model is to be used in challenging environment.
- ✦ Fast Responses to Spark / Flame in moving
- ✦ Inspection hole is provided to check performance periodically in IH163/1-4 NI\*.
- ✦ Easy to install and operate
- ✦ High Speed Response
- ✦ Free from False Alarm
- ✦ Low Maintenance Cost

### APPLICATIONS

- ➔ In Textile Spinning Mills Blow Room Machineries can be protected by detecting Fire in the duct using Spark Detector.
- ➔ Carding and Filter Machineries can be protected by fixing Spark Detector in the duct.
- ➔ Paper and Wood Industries dust duct finds IR Spark Detector application.



**IH163/6**  
**4 IR SPARK DETECTOR MODULE**



**PNEUMATIC DUCTS**  
**APPLICATION**

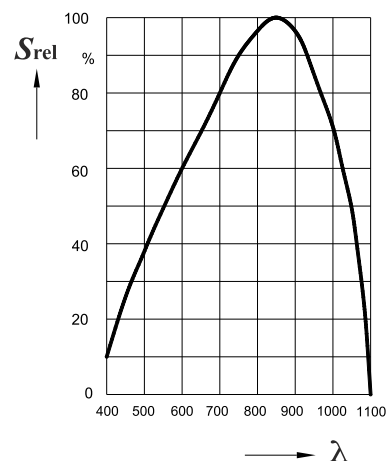


## TECHNICAL SPECIFICATION - PART NO : IH 163/6

01.	BRAND NAME	fladet Series...
02.	MANUFACTURER	<b>AGNI CONTROLS, CHENNAI</b>
03.	QUIESCENT CURRENT	< 40 mA
04.	ALARM CURRENT	< 100 mA
05.	RELAY CONTACT RATING	1A AT 24VDC, 0.5A AT 120 VAC
06.	FINISH	POWDER COATING L GRAY
07.	PRINCIPLE OF DETECTION	IR DETECTION TECHNOLOGY
08.	RANGE	400nm to 1100nm
09.	INDICATION	NORMAL - FLICKERING GREEN LED FIRE - RED LED
10.	OPERATING TEMPERATURE	-20 Deg.C to +60 Deg.C
11.	RESPONSE TIME	MOMENTARY
12.	OUTPUT	1. POTENTIAL FREE 'NO' CONTACT FOR FIRE  2. POTENTIAL FREE 'NC' CONTACT FOR FAULT ('NC' CONTACT REMAINS 'NO' WHEN DETECTOR IS WORKING)  3. ZONE DETECTOR LINE TO CONNECT DIRECTLY STANDARD CONVENTIONAL FIRE ALARM PANEL
13.	OPERATION	4 WIRE SYSTEM - 2 WIRE FOR RESETTABLE 24VDC $\pm$ 20% INPUT SUPPLY & 2 WIRE TO CONNECT OUTPUT SIGNAL
14.	IP PROTECTION	IP 65

## Relative Spectral Sensitivity

$$S_{rel} = f(\lambda)$$



## MAINTENANCE & INSPECTION

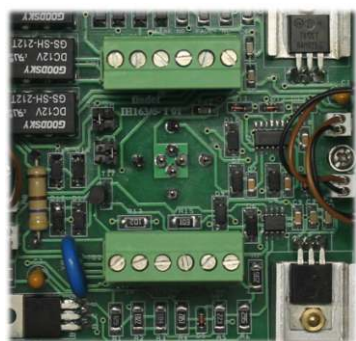
To assure maximum sensitivity, keep the surface of the sensor clean from dirt or other contaminants at all times.

Periodically test the sensitivity of the detector using small agarpathi spark through specially provided inspection hole.

## INSTALLATION CONSIDERATION

IH163/6, must be installed such that no external light reaches the sensor. External Light source can cause False Fire Alarm.

**SPECIALLY DESIGNED  
CIRCUIT BOARD FOR HIGH  
RELIABILITY**



**IH163/6  
4 IR SPARK DETECTOR  
MODULE**



**SPARK DETECTOR  
ASSEMBLY - IH163/1-4 NI\***

## TECHNICAL COMPARISON FOR fladet series... IH163/6 - 4 IR SPARK DETECTOR MODULE WITH OTHER REPUTED MAKE

S.NO	DESCRIPTION	fladet series... IH163/6 - 4 IR SPARK DETECTOR MODULE	OTHER REPUTED MAKE
01	INDICATION	NORMAL OPERATION - FLICKERING GREEN LED  FIRE STATUS - RED LED	NORMAL INDICATION - NOT AVAILABLE  FIRE STATUS - RED LED
02	NO. OF SENSORS	FOUR IR SENSORS	ONE IR SENSOR
03	VISION	PARTIAL DUST ACCUMULATION WILL NOT AFFECT DETECTION	PARTIAL DUST ACCUMULATION WILL AFFECT THE DETECTION
04	ELECTRONIC CIRCUIT	2 LAYER PCB WITH SMD COMPONENTS AND PROTECTION COATING	SINGLE LAYER PCB WITH LEADED COMPONENTS
05	RESPONSE TIME	HIGH SPEED SWITCHING COMPONENTS ENSURE NANO SECONDS OPERATION	MOMENTARY
06	OPERATION	4 WIRE SYSTEM, 2 WIRE FOR INPUT SUPPLY RESETTABLE 24VDC $\pm$ 20% & 2 WIRE TO CONNECT OUTPUT SIGNAL	4 WIRE SYSTEM, 2 WIRE FOR INPUT SUPPLY AND 2 WIRE FOR OUTPUT SIGNAL.
07	OUTPUT	1. POTENTIAL FREE 'NO' CONTACT FOR FIRE.  2. POTENTIAL FREE 'NC' CONTACT FOR FAULT ('NC' CONTACT REMAINS 'NO' WHEN DETECTOR IS WORKING)  3. ZONE DETECTOR LINE TO CONNECT DIRECTLY STANDARD CONVENTIONAL FIRE ALARM PANEL	AVAILABLE  AVAILABLE  NOT AVAILABLE

ISO 9001: 2015  
CERTIFIED BY  
BUREAU VERITAS

DOC.NO: I-MK-3.6-028, REV-01  
REVISED AS ON APRIL 2019

### M/s. AGNI CONTROLS,

No :1, 6th street, Dr.Subbarayan Nagar, Kodambakkam,  
Chennai - 600024, India  
PH : +91-44-24812420, +91 7448914999  
E-mail : marketing@agnicontrols.com  
Website : www.balafire.com

### Important :

This document is not intended to be used for installation purposes. Specifications are subject to change without prior notice.