

## IH 8153ES - IR EMBER DETECTOR WITH EX. PROOF ENCLOSURE

fladet IH8153ES Infra Red Ember Detector with flameproof enclosure is used to detect smoldering moving embers. The detector makes use of Infra Red sensitive photoelectric sensor for detection of ember (as in smoldering coal). It has a spectral filter of 3 - 14µm, which is insensitive to visible light.

The IR Ember Detector can reliably and quickly detect weak Infra Red radiations emitted from ember due to smoldering fragment of wood or coal. IR Ember Detector is an efficient alternative to any flame detector which has the limitation of low sensitivity to ember.

It can be connected to any standard conventional Fire Alarm Control Panel or to any addressable Fire Alarm Control Panel. It can also be connected to Annunciator/PLC/DCS through the potential free 'NO/NC' contacts provided. In-built RED LED is also provided for visual indication in case of fire/ember detection. Normal working of the detector can be ensured by flickering of GREEN LED indication. The detector also has an Air Purging provision to clean the detector eye by using instrument air.

### ADVANTAGES

- ◆ Rugged Explosion-Proof enclosure for Hazardous Environment
- ◆ FM / ATEX / PESO Approved Enclosure
- ◆ High Sensitivity even in Mist & Fog
- ◆ 4 Range of Sensitivity Selection Provision
- ◆ Easy to Install and operate
- ◆ High speed Response
- ◆ Free from False Alarms
- ◆ Visual Indication for Alarm/Normal condition
- ◆ Low Maintenance Cost
- ◆ Air Purging Provision

### APPLICATIONS

- ◆ Highly Recommended to use in coal conveyors to detect Smoldering coal or Ember.
- ◆ Material conveyors where fire initially starts with the ember.
- ◆ Environment that are unsuitable for other type of detectors to detect moving ember or ember with flame.

### DETECTOR SENSITIVITY

IH8153ES detect 100 sq. cm. glowing ember at distance of 1 to 3 metre in 90° Cone angle and Straight Line at normal Sensitivity. The Sensitivity is also adjustable as per requirements.

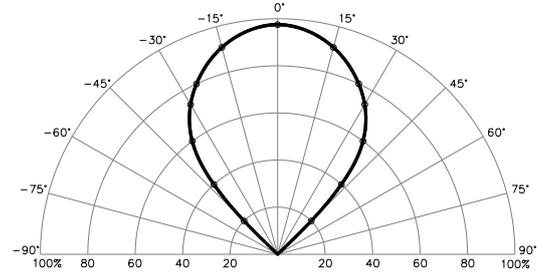
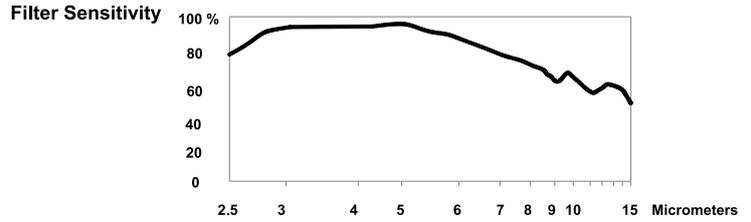


### INSTALLATION CONSIDERATION

fladet IH8153ES shall be installed such that the view path of the detector is unobstructed. Existence of IR radiation sources like direct sunlight, hot bodies may affect the performance of the detector. For conveyor application (like coal conveyor) the detector should be mounted on the Conveyor Hood or Gantry structure looking down at the material being transported.

## TECHNICAL SPECIFICATION - PART NO : IH8153ES

01.	BRAND NAME	<b>fladet</b> Series...
02.	MANUFACTURER	<b>AGNI CONTROLS, CHENNAI</b>
03.	QUIESCENT CURRENT	< 40 mA
04.	ALARM CURRENT	< 120 mA
05.	RELAY CONTACT RATING	5A AT 30VDC, 1A AT 250 VAC
06.	CABLE ENTRY	M20 X 1.5 - 2 Nos
07.	PROTECTION CLASS	IP-66
08.	SENSING ELEMENT	INFRA RED
09.	INDICATION	NORMAL - FLICKERING GREEN LED FIRE - RED LED
10.	OPERATING TEMPERATURE	-40 Deg.C to +60 Deg.C
11.	SUPPLY	24 VDC ± 20% (RESETTABLE)
12.	OUTPUT	1. ONE SET OF 'NO-COM-NC' CONTACT FOR FIRE + ONE SET OF DUPLICATE 'NO-COM-NC' CONTACT. 2. ONE SET OF 'NO-COM-NC' CONTACT FOR FAULT + ONE SET OF DUPLICATE 'NO-COM-NC' CONTACT. 3. ZONE DETECTOR LINE TO CONNECT DIRECTLY STANDARD CONVENTIONAL FIRE ALARM PANEL.
13.	MATERIAL	CAST ALUMINIUM LM6
14.	FASTENERS	SS 304
15.	AIR PURGING PROVISION	8mm PNEUMATIC HOSE INLET SUITABLE TO CONNECT TO ONE TOUCH FITTING.
16.	APPLICATION	COAL / WOOD MATERIAL CONVEYOR & AREAS WHERE SMOLDERING FIRE IS POSSIBLE
17.	SENSITIVITY SELECTION	4 RANGE OF SELECTION, (a) VERY HIGH SENSITIVITY- 1 (b) HIGH SENSITIVITY - 2 (c) NORMAL SENSITIVITY (DEFAULT SETTING) - 3 (d) LOW SENSITIVITY - 4
18.	EQUIPMENT RATING	EXPLOSION PROOF FOR CLASS I, DIVISION 1, GROUPS A, B, C AND D; AND DUST - IGNITION PROOF FOR CLASS II/III, DIVISION 1, GROUPS E, F & G; HAZARDOUS (CLASSIFIED) LOCATIONS, INDOOR/OUTDOOR (NEMA TYPE 4X)  1026 Ex II 2G Ex d IIC Gb 1026 Ex II 2D Ex tb IIIC Db
19.	CERTIFICATION FOR ENCLOSURE	 FM APPROVAL FOR ENCLOSURE XD-IDAC, REPORT NO. 3047332   ATEX APPROVAL FOR ENCLOSURE CERT. NO. FTZU 04 ATEX 0332U.  PESO APPROVAL FOR ENCLOSURE, CCEs IDENTIFICATION NUMBER : A/P/HQ/MH/104/5970 (P 505939/1)
20.	APPROVAL/CONFIRMATION/CERTIFICATION	1. CONFIRMING REQUIREMENT OF NFPA 72E 2. CONFIRMING REQUIREMENT OF FM STANDARDS. CLASS NO. 3260



## ANGULAR SENSITIVITY

## MAINTENANCE & INSPECTION

To assure maximum detector sensitivity, keep the surface of the detector (Detector eye) free from contaminations at all time. Periodically test the sensitivity of the detector using Test Torch (Part No. IH8243) / Controlled Ember.

fladet IH8153ES offers an additional provision for connecting to pneumatic air purging system to clean the surface of the detector.

## ACCESSORIES

1. Swivel Mounting Base - IH-MB-08 XY - 1 No.
2. Cable Glands - 2 Nos.
3. User Manual

## APPROVAL/CONFIRMATION/CERTIFICATION

1. IP Protection Certified by ETDC.
2. Confirming to Requirement of NFPA 72E.
3. Confirming to Requirement of IS-2189.

**PACKING SIZE : 305 (L) X 215 (B) X 205 (H)  
(ALL IN MM)**

**PACKING WEIGHT : 4 KG. MAX.**