

# fladet<sup>®</sup> SERIES...

<b>DATA SHEET</b>	<b>IR EMBER DETECTOR WITH AIR PURGING UNIT</b>	PART NO : IH153ES-P-AC/DC
DOC. NO:DP-5.8/MT-433	DATE: AUG 2024	REVISION :05
	SCALE : N.T.S	SHEET: 1 OF 3
		APPD. BY : DBS

**INTRODUCTION :-**

IR EMBER DETECTOR WITH IP 67 ENCLOSURE. THE DETECTOR CAN DETECT EMBER. WIDELY RECOMMENDED TO USE IN COAL CONVEYOR PROTECTION.THE DETECTOR CAN BE CONNECTED TO FIRE ALARM PANEL / ANNUNCIATION PANEL / PLC USING SUITABLE POTENTIAL FREE CONTACTS. THE DETECTOR IS PROVIDED WITH SENSITIVITY SELECTION SWITCH.

**NOTE:** 1.THIS DATASHEET CAN BE ALSO REFERRED AS DOC. NO : DP-5.8/CP-433

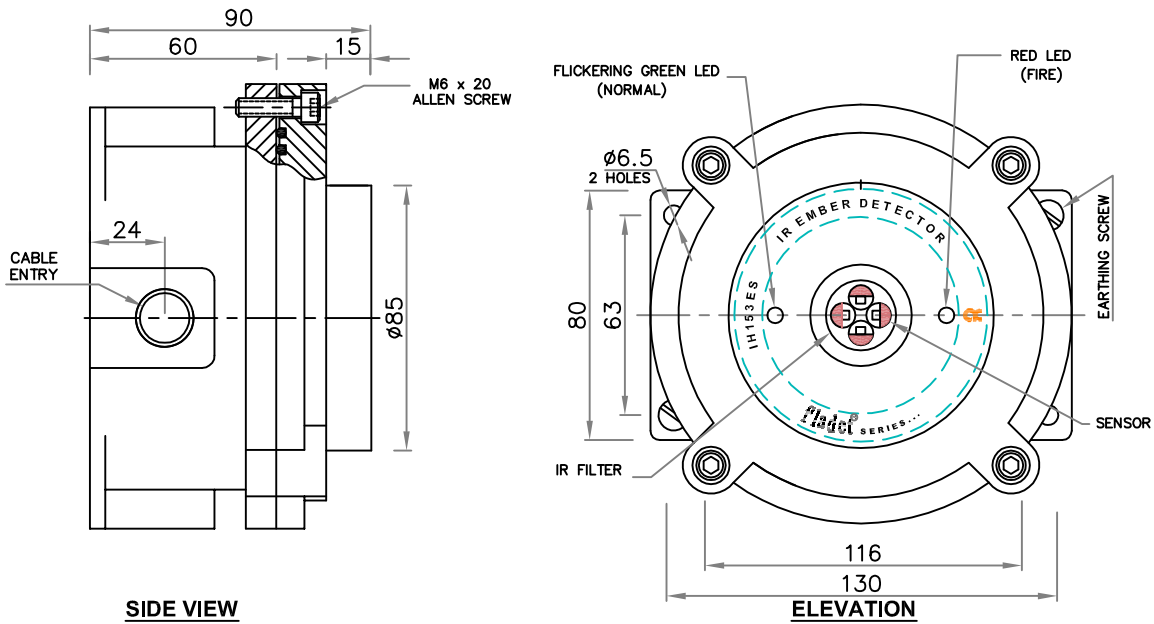
2. IH153ES-P-AC/DC - IR EMBER DETECTOR WITH AIR PURGING UNIT CONSIST OF:

- 1.IH153ES-IR EMBER DETECTOR
- 2.IHMB01-XY -SWIVEL MOUNTING BASE
- 3.IH323 AC-DC - AIR PURGING UNIT

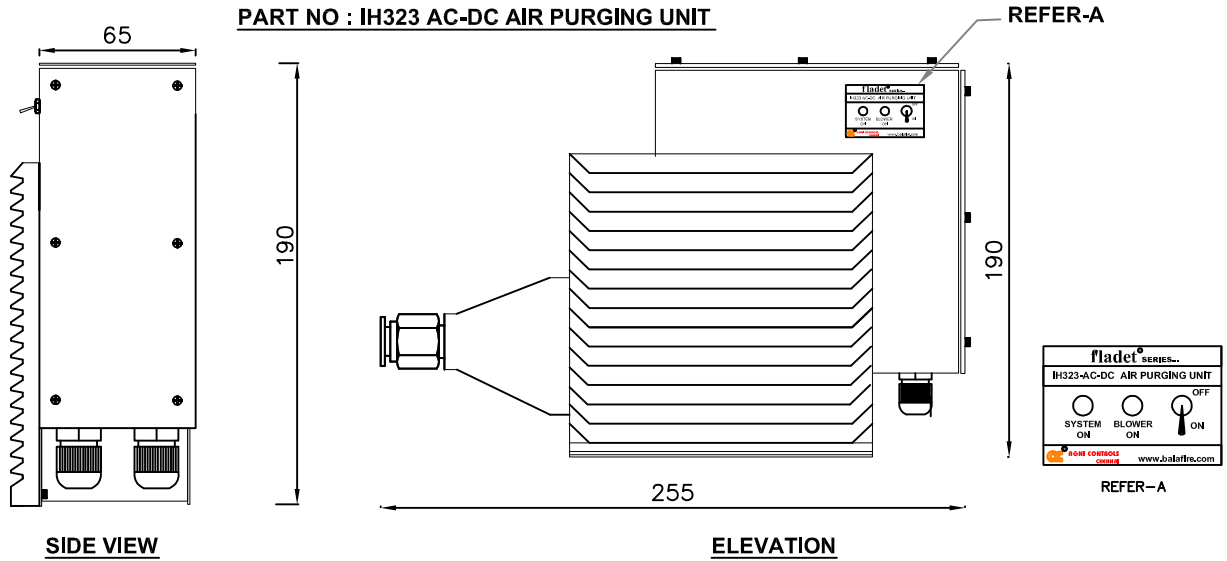
REV -04-TECHNICAL SPECIFICATION. IS UPDATED.

REV -05-CE CERTIFICATE NO. UPDATED.

**PART NO : IH153ES - IR EMBER DETECTOR**



**PART NO : IH323 AC-DC AIR PURGING UNIT**



**IMPORTANT:**

AGNI CONTROLS RESERVES THE RIGHT TO CHANGE OR MODIFY WITHOUT PREVIOUS NOTICE ANY DATA OR SPECIFICATION DUE TO CHANGES OR MODIFICATION IN ORDER TO IMPROVE THE PRODUCTS/SYSTEM PRESENTED.



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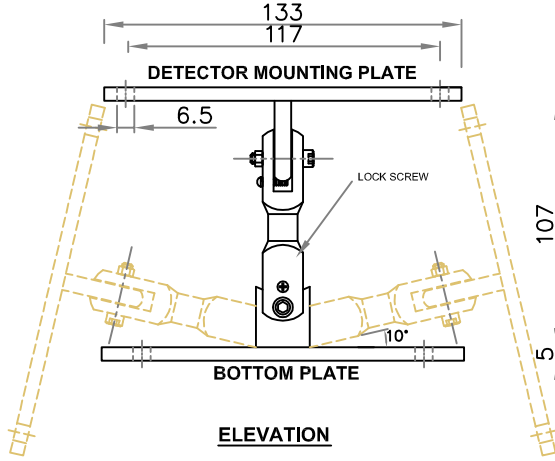
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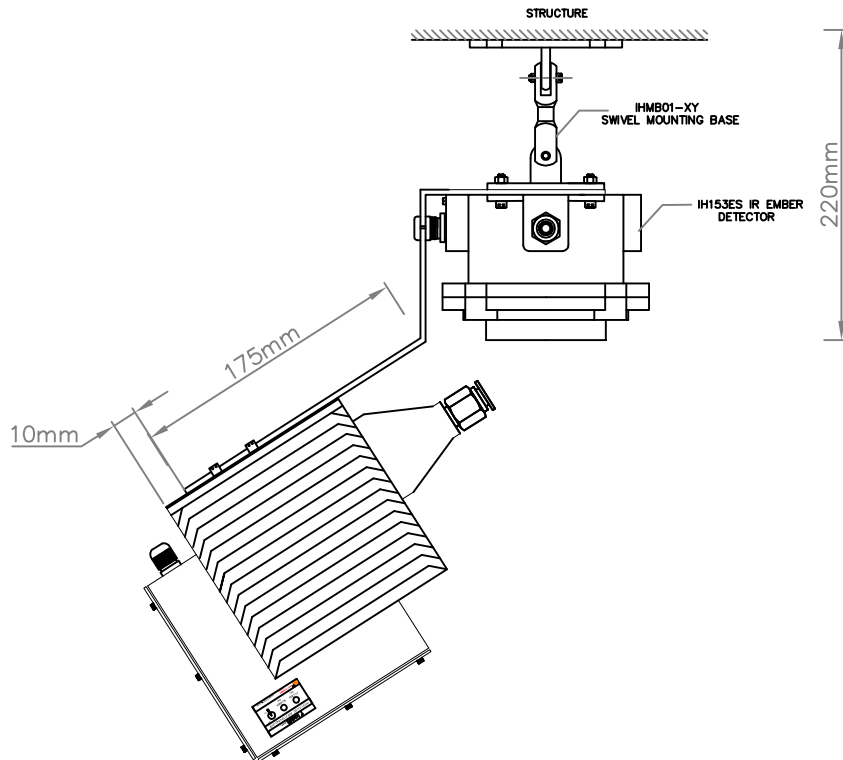
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**PART NO : IHMB01-XY - SWIVEL MOUNTING BASE**

X-AXIS-3 POSITION  
Y-AXIS-3 POSITION



**RECOMMENDED MOUNTING ARRANGEMENTS OF DETECTOR & AIR PURGING UNIT**



**COMMON ACCESSORIES:**

1. CODE NO. : IH323 AC-DC-P2-1-600-CONNECTING CABLE 600mm(LENGHT) - 01 NO.
2. CODE NO. : ES04 041 - DUMMY PLUG - 1 NO.
3. CODE NO. : ES04 040 - METAL GLAND M20\*1.5mm - 1 NO.
4. CODE NO. : EMS05 070 - M4 X 12 STAR SCREW WITHOUT WASHER - 4 NOS.
5. CODE NO. : EMS05 071 - M6 X 25 ALLEN SCREW - 4 NOS.

NOTE-1: DETECTOR AND AIR PURGING UNIT CAN BE FIXED SEPARATELY ALSO AS PER SITE REQUIREMENT.

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**NOTE-2: SPECIAL NOTE**

- ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE SPECIFIED.
- TOLERANCE ON DIMENSION  $\pm 3$  mm, UNLESS OTHERWISE SPECIFIED.
- \*CERTIFICATE NUMBERS MAY BE UPDATED AS PER LATEST REPORTS  
\*REPRESENTS CERTIFICATE ISSUE NUMBER.

**NOTE-3: CONNECTING CABLE REQUIREMENT**

**OPTION-A :** IF SYSTEM IS DESIGNED TO OPERATE AIR PURGING UNIT BY 230V AC  
IH153ES

- 2X1.5 SQ.MM CABLE FOR 24VDC INPUT SUPPLY
- 2X1.5 SQ.MM CABLE FOR FIRE SIGNAL OUTPUT (OR)  
4X1.5 SQ.MM CABLE FOR 24VDC INPUT SUPPLY & FIRE SIGNAL OUTPUT.

IH323-AC-DC

- 3X1.5 SQ.MM CABLE FOR 230V AC INPUT SUPPLY (LINE, NEUTRAL AND EARTH)
- 2X1.5 SQ.MM CABLE FOR 230V AC INPUT SUPPLY (LINE, NEUTRAL)  
1X1.5 SQ.MM CABLE FOR EARTHING.

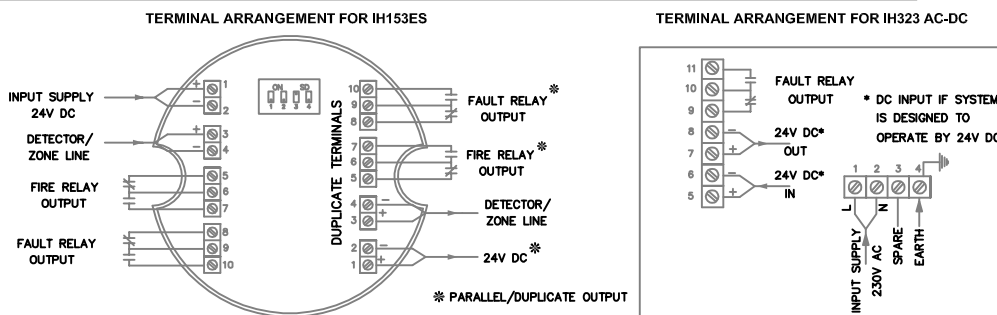
**OPTION-B :** IF SYSTEM IS DESIGNED TO OPERATE AIR PURGING UNIT BY 24V DC  
IH153ES

- 2X1.5 SQ.MM CABLE FOR 24VDC INPUT SUPPLY
- 2X1.5 SQ.MM CABLE FOR FIRE SIGNAL OUTPUT (OR)  
4X1.5 SQ.MM CABLE FOR 24V DC INPUT SUPPLY & FIRE SIGNAL OUTPUT.

IH323-AC-DC

- NO EXTRA CABLE IS NEEDED. USE CONNECTING CABLE PROVIDED WITH THE DETECTOR . CONNECT TERMINAL 1&2 OF DETECTOR AND TERMINAL 5&6 OF AIR PURGING UNIT. MAINTAIN THE POLARITY.
- PLEASE NOTE THAT FIRE CURRENT OF DETECTOR IS 120mA AND AIR PURGING UNIT CURRENT IS 350mA-550mA.POWER REQUIREMENT OF EACH SET WILL BE 24V DC AT 470mA-670mA (MAX).  
WE STRONGLY RECOMMEND TO USE SEPERATE DC POWER SOURCE FOR AIR PURGING UNIT.

## WIRING CONNECTION DRAWING OF EMBER DETECTOR & AIR PURGING UNIT



### TECHNICAL SPECIFICATION

IH153ES-P-AC/DC - IR EMBER DETECTOR WITH AIR PURGING UNIT CONSIST OF: 1.IH153ES-IR EMBER DETECTOR, 2. IHMB01-XY - SWIVEL MOUNTING BASE, 3. IH323 AC-DC - AIR PURGING UNIT

01.	MANUFACTURER	AGNI CONTROLS - CHENNAI			
02.	IR EMBER DETECTOR	PART NO : <u>IH153ES</u>	2.15	SENSITIVITY SELECTION	4 RANGE OF SELECTIONS VERY HIGH SENSITIVITY - 1 HIGH SENSITIVITY - 2 NORMAL SENSITIVITY - 3 (DEFAULT SETTING) LOW SENSITIVITY - 4
2.1	MATERIAL	CAST ALUMINIUM LM6	2.16	RELAY CONTACT RATING	1A AT 125V DC, 2A AT 30V DC
2.2	FINISH	ENCLOSURE- HAMMER TONE GRAY	2.17	APPROVAL / CONFORMATION / CERTIFICATION	1.  CERTIFICATE NO. ET/EMC/2022/1335S* 2. IP PROTECTION CERTIFIED BY ETDC 3. CONFORMING REQUIREMENT NFPA 72E. & FM3260 4. CONFORMING REQUIREMENT OF IS-2189.
2.3	CABLE ENTRY	3/4" ET/ M20X1.5 - 3NOS	3.	AIR PURGING UNIT	PART NO : <u>IH323 AC-DC</u> 1. VOLTAGE : 230V AC/ 24V DC 2. CURRENT : 10W - 15W 3. SWITCH CONTROL : ON & OFF 4. OPERATION : CONTINUOUS (ON) 5. INDICATION : SYSTEM ON LED-GREEN BLOWER ON LED-YELLOW
2.4	PROTECTION CLASS	IP 67 FOR DETECTOR	4.	MOUNTING ARRANGEMENT	PART NO : <u>IHMB01-XY</u> MATERIAL OF CONSTRUCTION:M.S PLATE WITH POWDER COATING FASTNERS - SS304 TILTING POSITION X - (-45°)-0-(+45°) Y - (-45°)-0-(+45°)
2.5	SENSING ELEMENT	INFRA RED			
2.6	SPECTRAL FILTER	3000 - 14000 nm			
2.7	EXTERNAL EARTHING	2 Nos.-M6			
2.8	FASTENERS	SS 304			
2.9	OPERATING TEMPERATURE	-20°C TO +60°C			
2.10	SUPPLY	SUPPLY 24V DC $\pm 20\%$ ,			
2.11	QUIESCENT CURRENT	< 40mA			
2.12	ALARM CURRENT	< 120mA			
2.13	DETECTOR SENSITIVITY	100 SQ.CM EMBER @ 1 TO 3 METER IN 90 DEG. CONE ANGLE & STRAIGHT LINE AT NORMAL SENSITIVITY..			
2.14	INDICATION	NORMAL - FLICKERING GREEN LED FIRE - RED LED			
2.15	OUTPUT	<u>IH153ES-APFP</u> 1. ONE SET OF NO-COM-NC CONTACT FOR FIRE PLUS ONE SET OF DUPLICATE NO-COM-NC CONTACT. 2. ONE SET OF NO-COM-NC CONTACT FOR FAULT PLUS ONE SET OF DUPLICATE NO-COM-NC CONTACT. 3. ZONE DETECTOR LINE TO CONNECT DIRECTLY STANDARD CONVENTIONAL FIRE ALARM PANEL.			

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