

Flame (Radiant Energy) Detector-UV & Dual IR Quantum Safe Series

FLD-2211-FLP



AMBETRONICS[®]
AN ISO 9001:2015 CERTIFIED COMPANY

PESO Approved
Enclosure



MAKE IN INDIA



ORDER CODE : FLD-2211-FLP-0-0-Quantum Safe

Features

- Detector detects Multi-Spectral Sensitivity of fire by using UV & IR sensors.
- Clear Line of Sight visual range (upto specific distance).
- Dual Spectrum Design- For long distance detection & Excellent false alarm immunity.
- Sensitivity Selection - To ensure no zone cross over detection.
- High sensitivity combined with fast response time to ensure rapid & accurate flame detection.
- The high dynamic range allows detection of small & large flames, nearby or over large distance.
- Multiple output options for maximum flexibility and compatibility.
 - (3) Relays for FLAME DETECTION, AUXILIARY and FAULT
 - 4 - 20mA (Stepped)
 - Optional HART protocol for configuration setting
 - Optional RS-485, MODBUS RTU compatible
- User programmable via Bluetooth, Optional RS-485 or HART
- Air shield for clean optics (optional)
- Connectivity via IoT (optional)
- Test Lamp compatibility for safe Test

Approvals & Compliance

Approval & Compliance for Flameproof :

IIC Approval :

Certified to Ex d IIC T6 Gb, @ 60°C IP68

Standard Compliance :

- IS/IEC 60079-0 : 2017
- IS/IEC 60079-1 : 2014
- IS/IEC 60529 : 2001

Applications

- Chemical and Petrochemical plants
- Refineries
- Onshore & Offshore Oil & Gas Installation & Pipelines
- Hazardous Storage tank farms
- Automotive industry (Paint Booth, Paint Kitchen, Production Line)
- Printing Industry
- Textile Industries
- Engine Test Cells/Room
- Fuel and gas processing and storage facilities
- Power generation
- Explosives and munitions
- Fertilizer plants
- Vehicle battery charging stations
- Aerospace industry (Aircraft Hangers)
- Waste management facilities
- Pharmaceutical industry
- Hazardous materials storage areas
- Food processing
- Warehouses
- Indoor Diesel Storage & Process
- Manufacturers & Automation Industries
- Power Plants/ Nuclear Power Sites

MUST FOR HUMAN & INDUSTRIAL SAFETY

TECHNICAL SPECIFICATIONS

GENERAL

Parameter Setting	: Field configuration settings done by Bluetooth or MODBUS RTU Protocol or HART
Spectral Response	: UV Band - (185nm to 260 nm) Two IR Bands - (3000 nm to 5000 nm)
Detection Range (At highest sensitivity Setting for 1ft ² pan fire)	: • n-Heptane : 88ft (27m) • Kerosene : 82ft (25m) • Diesel Fuel : 82ft (25m) • Methanol : 66ft (20m) • Gasoline : 82ft (25m)

PERFORMANCE

Response Time	: Typically Less than 5 seconds (Depending on Flame Size & Sensitivity)
Field of View	: 90° Horizontal, 90° Vertical
Adjustable Time Delay	: Upto 30 seconds
Adjustable Sensitivity	: Low, Medium and High
BIT	: Automatic self check test
Performance Test	: Performance can be tested by using Test Lamp (FTU-3311)(Safe Test)

ELECTRICAL

Supply Voltage	: 18 to 36 VDC, typically 24VDC
Power Consumption	: Less than 3W

OUTPUT SIGNAL

4-20mA Current Output	: 250 to 600 ohms load driving capacity : Fault : 1mA Normal : 4mA : Fire detect : 20mA
L.E.D. Indication	: Blinking POWER LED (Green), FIRE DETECT LED (RED) & COMMUNICATION LED (Blue)
Relay	: Three SPDT relays 5A@ 30VDC & 250 VAC for Fail safe, Fire detection & Auxiliary output.
Communication (optional)	: RS-485 communication port with MODBUS RTU protocol.
HART Protocol (optional) (Proprietary optional)	: Use for configuration changes by using AEPL Communicator
Connectivity (optional)	: Mobile connectivity and SMS alert via LoRa & IoT support

ENVIRONMENTAL

Operating Temperature	: -40°C to +85°C
Storage Temperature	: -50°C to +90°C
Humidity	: Less than 95% Non-Condensing

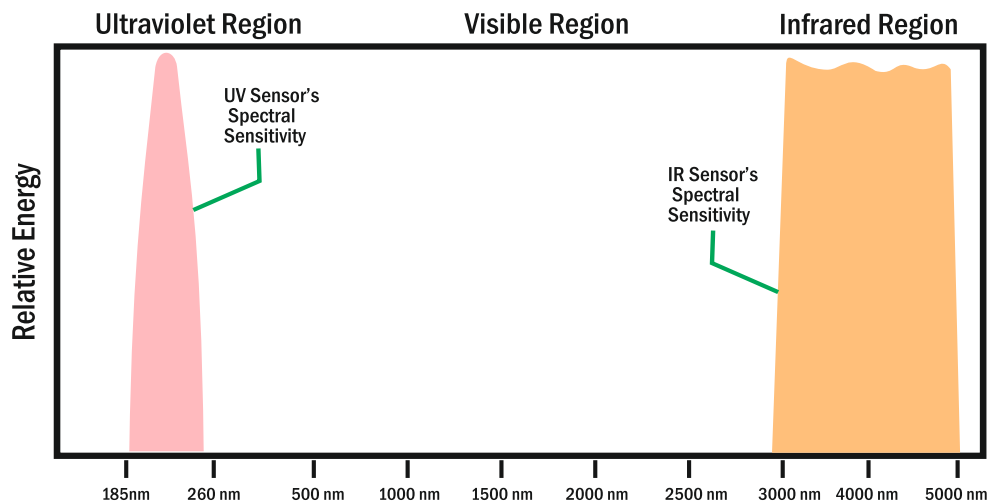
ACCESSORIES (OPTIONAL)

- RS-485 to USB OR RS-232 converter
- Hooter cum Flasher
- Protection Cover
- Heat Detector
- Air shield
- Magnetic Wand
- Test Lamp

FLAMEPROOF HOUSING

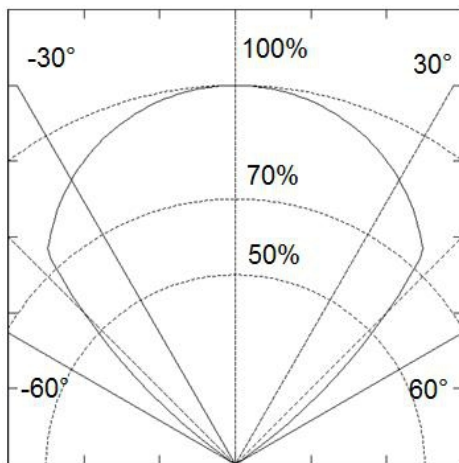
Degree of Protection Class	: IP66 & IP68
Enclosure Material	: Cast Aluminium LM6 alloy or Stainless Steel
Approval	: CIMFR approved for IIA, IIB group, IIC
Cable Gland	: Double Compression Cable Gland
Cable Entry	: M20 x 1.5 (P) ½" or NPT or ¾" NPT
Wiring	: 16-26AWG (1.5mm ² - 0.14 mm ²)
Hooter Cum Flasher	: HCF/FLP/2C
Stopping Plug	: Ex Proof
Dimension	: 155mm (H) x 266mm (W) with Hooter cum Flasher & cable gland x 120 mm (D) 155mm (H) x 223 mm (W) with stopper plug & cable gland x 120 mm (D)
Mounting	: Wall or Pipe Mounting
Weight	: Approx 2.53 Kg. (LM6), Approx 7 Kg. (SS316)

UV & IR SPECTRUM

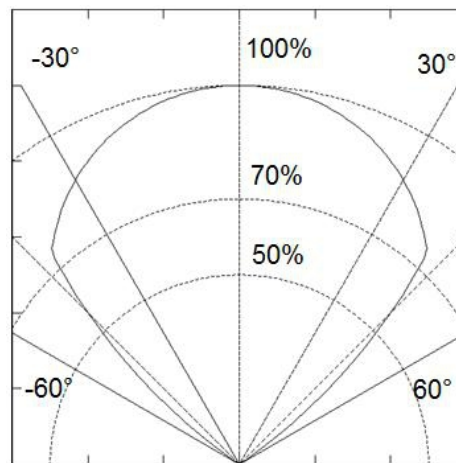


UV & IR Spectrum

90° HORIZONTAL

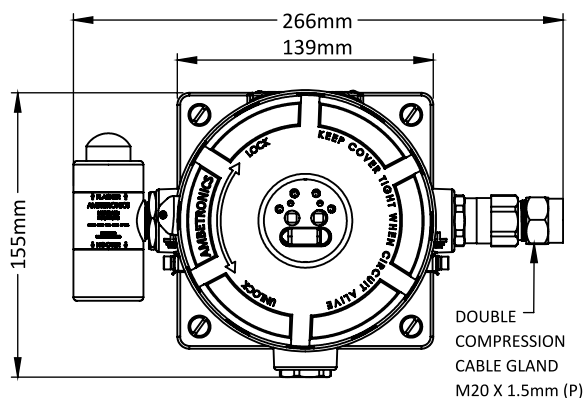


90° VERTICAL

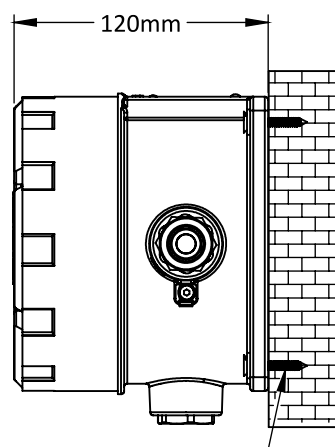


DIMENSION DETAILS

FRONT VIEW

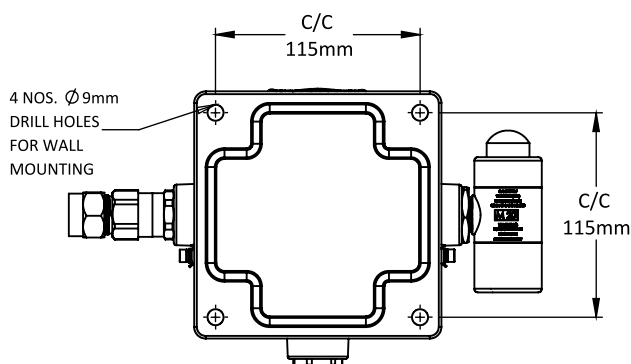


SIDE VIEW

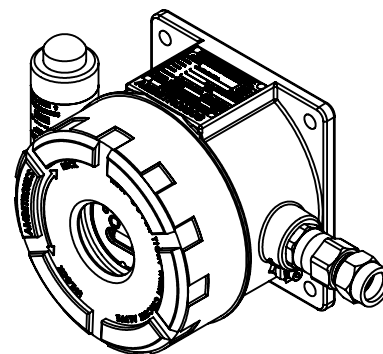


- MOUNTING DETAILS :
- 1) METAL WASHER ID-6mm OD-12mm 4 NOS.
 - 2) 5X30 CHIPBOARD SCREW 4 NOS.

BACK VIEW

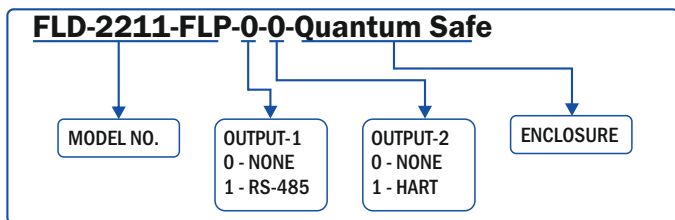


ISOMETRIC VIEW



NOTE : 1. ALL DIMENSIONS ARE IN "mm", UNLESS OTHERWISE SPECIFIED.
2. TOLERANCE ON DIMENSION ±5 mm, UNLESS OTHERWISE SPECIFIED.

ORDERING INFORMATION



*Before placing order please refer the above ordering information of contact below address for assistance.

Manufactured by :



AMBETRONICS ENGINEERS PVT. LTD.

17-B, 16, 14A, Tarun Industrial Estate, New Nagardas Road, Mogra Pada, Andheri (E.) Mumbai - 400 069, India.

+91-22-69623389 +91-93207 37646 sales8@ambetronics.com
+91-22-61673021/22 +91-91674 18106 sales11@ambetronics.com



Follow us on