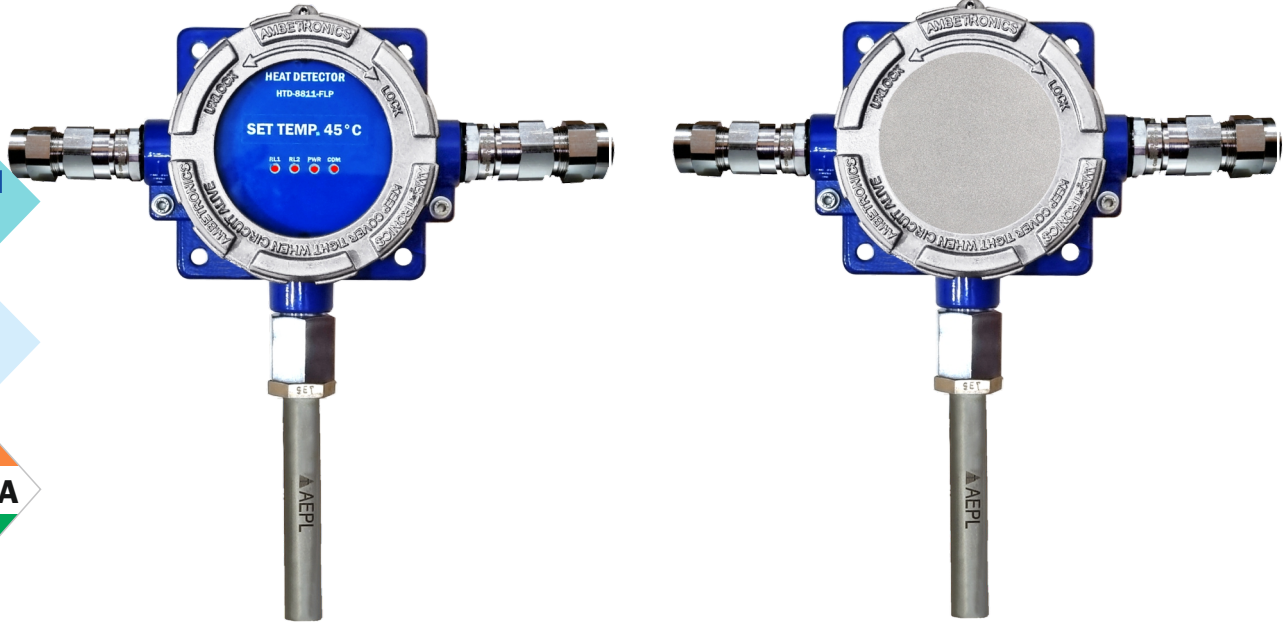




UL & FM approved  
Probe Type  
Heat Detector



MAKE IN INDIA



### Introduction :

Ambetronics Heat Detectors are highly reliable & Accurate thermal detection devices. They are used to sense overheat or fire in form of Temperature rise for a particular application.

The Heat Detector is a Device which is capable of detecting Rise in Ambient Temp. and providing an actuating signal i.e. an alarm to alert the system and to actuate a precautionary measure.

Heat Detector are further categorised in 2 configuration

1. HTD-8800-FLP
2. HTD-8811-FLP

#### 1. HTD-8800-FLP

This configuration is a conventional type of Heat detector, which detects heat build-up or rise in an ambient Temp. and Provides a Potential-Free NO contact Output. When Ambient Temp. is below set point, the contacts are OPEN, When the Ambient Temp. is above set point, the contacts are SHORT.

The contacts are Potential-Free NO (NORMALY OPEN) and possess Rating of 5A 230VAC, 2A 28VDC

or harmless transient thermal gradient.

### Features

- Provides a fast & reliable response by sensing heat build-up i.e. Overheat in Ambient Temp.
- Factory Preset to required Temp.
- Wide ranges of Temp. 40 °C to 210 °C
- Auto-reset Operation. Reset itself after Temp. cool down.
- Low power consumption (<3W)
- Isolated RS-485 communication port with MODBUS RTU protocol.
- 2 Relay Contacts for Primary Alarm, Secondary Alarm
- 4 to 20 mA Current Output.
- User Friendly, Plug and Play operation, easy testing.

#### 2. HTD-8811-FLP

This configuration is Micro-Controller based Smart/ Addressable type of type of Heat detector, which detects heat build-up or rise in an ambient Temp. and Provides a variety of outputs such as Relay Output, 4-20mA Current output and can be communicated via RS-485 MODBUS Protocol. It also provides visual LED indication.

Fixed Temperature Heat Detectors are factory preset to a particular temperature (according to the customer's requirement) When connected to system, if temperature rises above the temperature set point, the Heat Detector will be activated.

It must be noted that, the heat detectors may take time lag for momentarily or fast rate-of-rise of temperature. On the other hand it might get activated due to false alarm sources like friendly fire, hot air or harmless transient thermal gradient.

### Applications

- Heat Treatment Plants
- Burner / Furnace / Boilers Areas
- Oil & Gas Industries
- Ambient Monitoring
- Gas Pipeline Project Refineries
- Gas Refilling station
- Offshore Drilling & Processing Platform
- Commercial Kitchen
- Chemical & Petrochemical Plants
- Gas manifold area
- Paint Spray Booths
- Automotive Industrial
- Power & Industrial Plants

# TECHNICAL SPECIFICATIONS

## GENERAL

Detection Technique	: Fixed Temp. Rate Compensated Thermal Heat Detector
Rated Alarm Temperature	: 40 °C to 210 °C as per customer requirement
Set Point	: Factory Preset as per customer requirement
Auto-Reset	: Reset itself after Temp. Cool down.
LEDs	: 4, L.E.D.'s. 2 for Alarm, 1 for Power/ Health, 1 for Communication

## PERFORMANCE

Response Time	: Less than 60 seconds
Testing	: To be performed after 6 months

## ELECTRICAL

Supply Voltage Power	: 18 to 36 VDC, Typically 24 VDC
Power Consumption	: Less than 3W
Wiring	: (1.5mm <sup>2</sup> ) Flexible or Armoured Shielded Cable for Supply & O/P 2 pairs of Black-White Wires for Class A & Class B Looping (HTD-8800-FLP)

## OUTPUT SIGNAL

Potential Free NO contact (HTD-8800-FLP)	: NO (Normally Open) Contact only 5A @ 230VAC 2A @ 28VDC
Relay Contact (HTD-8811-FLP)	: Two SPDT Relays (Two for Alarm Alert RI1, RI2) 5A @ 250VAC 5A @ 30VDC
4-20mA Current Output (HTD-8811-FLP)	: 4mA : Normal State 20 mA : Alarm State Maximum load capacity 680 ohms.
Communication (HTD-8811-FLP)	: RS-485 MODBUS Protocol

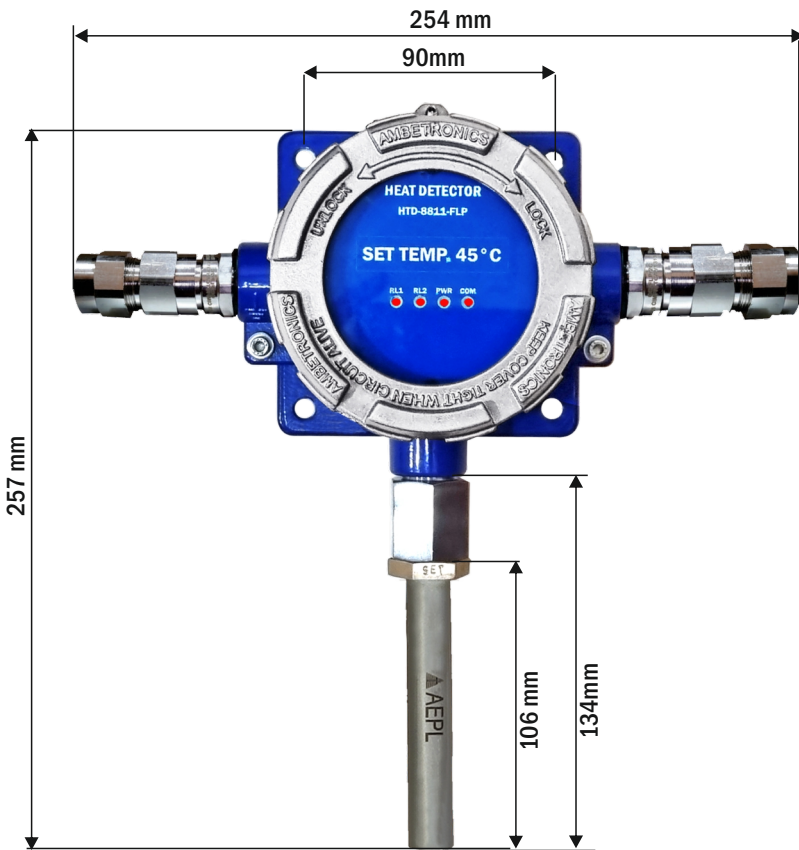
## MECHANICAL

Sensing Shell Material	: Stainless Steel
Enclosure	: Aluminium LM6, Stainless Steel SS316
Size	: 254mm(W) X 257mm(H) X 97mm(D)
Weight	: Approx. 125g (Sensing Element) Approx. 2kg (Body)
Mounting	: Wall / Stand & Pipe Mounting

## ORDERING INFORMATION

Table 3

HTD → HTD
↓
A → A) MODEL NUMBER 1) 8800 2) 8811
↓
B → B) ENCLOSURE 1) JB-FLP-IIC (Flameproof) 2) JB-FLP-90 (Flameproof)
↓
C → C) ENCLOSURE MATERIAL 1) LM6 2) SS316
↓
D → D) Temp. Setpoint 1) 40 °C to 210 °C
↓
E → E) OUTPUT 1) Relay 2) 4-20mA 3) RS-485 4) All of the above 5) None



Manufactured by :



CIMFR



ISIRI



PESO



CE



UL



Ex



IECEx



MSME



NSIC



GeM



Government e Marketplace



MAKE IN INDIA

**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  
+91-22-61673021/22



+91-93207 37646  
+91-91674 18106



sales8@ambetronics.com  
sales11@ambetronics.com

Follow us on



Version -HTD-XXXX-FLP-R4-27-07-2023