Introduction

The MEDC heat detector has been designed for use in hazardous environments. These units are suitable for fire alarm and/or suppression systems in offshore and onshore applications including paint spray booths, flammable material stores, turbine rooms, extract ductwork and other hazardous areas throughout the oil & gas, petrochemical and process industries.

Comprising a Fenwal rate-compensated detector with all-stainless steel external construction, mounted to either a type SM87 marine grade alloy enclosure (Exd version) or JB10 corrosion-free GRP enclosure (Exia, Exem/UL versions). The contact in the detector CLOSES at alarm temperature.

To select appropriate temperature setting see specification on reverse.

Features

- Zone 0, Zone 1 and Zone 2 use.
- ATEX certified.
  - Exd IIc T6.
  - EExem II T4/T6.
  - Ex ia IIC T4/T6.
- IECEx certified.
  - Ex ia IIC T4/T6 Ga.
- UL listed for USA and Canada:
  - Class I, Div 2, Groups A-D.
- CUTR certified.
- Chinese (CQST) certified
- Brazilian (Inmetro) certified.
- SIL 2 certified.
- IP66 & IP67.
- Certified temperature: -20°C to +125°C (Exd)*.
  - -20°C to +55°C (Exem/UL).
  - -55°C to +55°C (Exia).
- Stainless steel probe.
- Detector temperature settings: 60°C to 385°C, (140°F to 725°F).
- Marine grade alloy or GRP enclosure.
- Optional Stainless Steel guard.

*Model dependent.
Certification and Specification

ATEX Ex d IIC:
Cert. no. BaseidiO3ATEX0320.
Certified to: EN60079-0, EN60079-1, EN61241-0, EN61241-1.
Ex II 2G, Ex d IIC T6, Ex ia IIC T6Ga (-20°C to +55°C).

ATEX Ex ia:
Cert. no. BaseidiO3ATEX0248.
Certified to: EN60079-0, EN60079-11. Ex ia II G, Ex ia IIC T6 Ga (-55°C to + 55°C). (T4 with diodes/resistors).

IECEx Ex ia:
Cert. no. BAS 13.0010.
Certified to: IEC60079-0, IEC60079-11. Ex ia II G, Ex ia IIC T6 Ga (-55°C to + 55°C). (T4 with diodes/resistors).

UL:
Listing no. E252920 – versions up to 450°F.
Listing no. E254077 – versions from 600°F to 725°F.
UL for USA and Canada, listed to Class 1, Div 2, Groups A – D.

Certification Code
- ATEX
- IECEx
- ATEX/IECEx dual listed
- UL
- Exd
- Ex ia
- Chinese (CQST)
- ATEX
- UL
- Ex ia
- Ex ia IIC

Type Code
- Ex IIB
- Ex IIC
- CD
- E
- Ex ia
- UL
- U
- ATEX
- UL
- ATEX/UL

Specification:
- Detector: Stainless steel.
- Exia/Exem/UL, 1.1kg.
- Exd, 2kg.
- Weight: Exd, 2kg.
- Exia/Exem/UL, 1.1kg.
- Operation: The detector contact is normally open and CLOSES at alarm temperature.
- Contact Rating: Ex d, Ex ia, UL: 125 V ac, 5A, 125 V d c, 0.5A, 48 V d c, 1A, 24 V d c, 2A. Ex ia: 30V – 300mA.
- Entries:
  - 2 x M20 ISO (ATEX/Exd/Exia versions).
  - 2 x 1/2” NPT via adaptors (UL version).
- Terminals:
  - 6 x 4mm² (IK6).
- Resistor:
  - Series & EOL, resistor (maximum total 2) minimum value (each) 470Ω.
- Diodes:
  - Up to 2 off available in Exd ib, Ex ia versions - contact sales office.
- Labels:
  - Optional stainless steel tag and duty labels.

Finish:
- Detector: Sand blasted.
- Enclosures: Exia/Exem/UL - Natural black or painted to customer’s specification.
- Exd painted to customers specification.

Listed Temperature Settings:
To select appropriate temperature settings, choose detector at 100°F (38°C) above maximum ambient temperature.

<table>
<thead>
<tr>
<th>Temperature Setting (°F)</th>
<th>Tolerance (°F)</th>
<th>Colour Code of Text on Probe</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td>+7/-8</td>
<td>Black</td>
</tr>
<tr>
<td>160</td>
<td>+7/-8</td>
<td>Black</td>
</tr>
<tr>
<td>190</td>
<td>+7/-8</td>
<td>White</td>
</tr>
<tr>
<td>210</td>
<td>+7/-8</td>
<td>White</td>
</tr>
<tr>
<td>225</td>
<td>+7/-8</td>
<td>White</td>
</tr>
<tr>
<td>275</td>
<td>±10</td>
<td>±6 Blue</td>
</tr>
<tr>
<td>325</td>
<td>±10</td>
<td>±6 Red</td>
</tr>
<tr>
<td>360</td>
<td>±10</td>
<td>±6 Red</td>
</tr>
<tr>
<td>450</td>
<td>±15</td>
<td>±8 Green</td>
</tr>
<tr>
<td>500</td>
<td>±15</td>
<td>±8 Orange</td>
</tr>
<tr>
<td>600</td>
<td>±20</td>
<td>±11 Orange</td>
</tr>
<tr>
<td>725</td>
<td>±25</td>
<td>±14 Orange</td>
</tr>
</tbody>
</table>

Ordering Requirements

The following code is designed to help in selection of the correct unit. Build up the reference number by inserting the code for each component into the appropriate box.

<table>
<thead>
<tr>
<th>Model</th>
<th>Certification</th>
<th>Type</th>
<th>Temp Settings</th>
<th>Options</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>HD1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Certification Code**
- ATEX
- IECEx
- ATEX/IECEx dual listed
- UL
- Exd
- Ex ia
- Chinese (CQST)
- ATEX
- UL
- Ex ia
- Ex ia IIC

**Type Code**
- Ex IIB
- Ex IIC
- CD
- E
- Ex ia
- UL
- U
- ATEX
- UL
- ATEX/UL

**Temp Settings**
- 140°F Code
- 160°F Code
- 190°F Code
- 225°F Code
- 275°F Code
- 325°F Code
- 360°F Code
- 450°F Code
- 500°F Code
- 600°F Code
- 725°F Code

**Options**
- Duty Label D*
- Tag Label G
- Guard E*
- Resistor EOL M
- Resistor series S*
- Diode(s) P
- Blanking Plug N
- None N

**Finish**
- Natural Black N
- (Exia/Exd/UL only) Blue B
- Grey G
- Red R
- Yellow Y
- Special S*

* Please specify.
† Only available in ATEX Exd IIB or Ex ia versions (specify value).

All specifications, dimensions, weights and tolerances are nominal (typical) and MEDC reserve the right to vary all data without prior notice. No liability is accepted for any consequence of use.