

EExd, EExem & Intrinsically Safe (Ex ia)



Features

- Zone 0, Zone 1 and Zone 2 use.
- ATEX certified.
 - EExd IIB T3/T6.
 - 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.*

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.

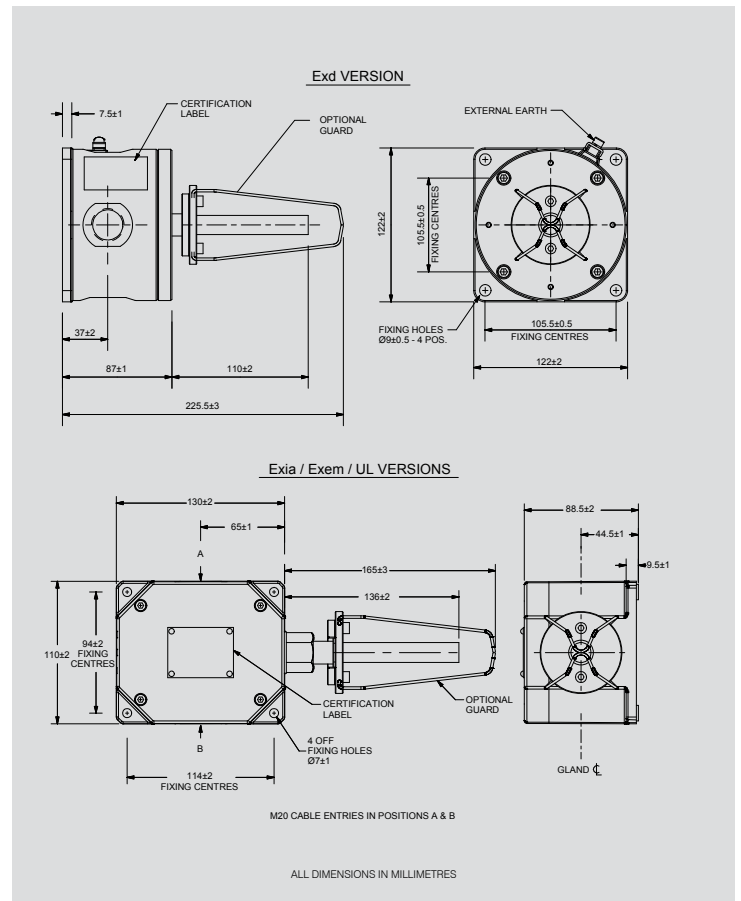
Comprising a Fenwal rate-compensated detector with all-stainless steel external construction, mounted to either a type SM87 marine grade alloy enclosure (Exd version) or JB10 corrosion-free GRP enclosure (Exia, Exem/UL versions). The contact in the detector CLOSSES at alarm temperature.

To select appropriate temperature setting see specification on reverse.



Certification and Specification

ATEX EEx d IIB:	Cert. no. Baseefa03ATEX0447. Certified to: EN50014, EN50018, EN50281-1-1. Ex II 2 GD, EEx d IIB T6 (T3 @ 125°C).
ATEX Ex d IIC:	Cert. no. Baseefa08ATEX0320. Certified to: EN60079-0, EN60079-1, EN61241-0, EN61241-1. Ex II 2 GD, Ex d IIC T6, Ex ID A21 T85°C (-20°C to + 55°C).
ATEX EEx em:	Cert. no. Baseefa03ATEX0428. Certified to: EN50014, EN50019, EN50028. Ex II 2G, EEx em II T6 (-20°C to + 55°C).
ATEX Ex ia:	Cert. no. Baseefa03ATEX0427. Certified to: EN60079-0, EN60079-11. Ex II 1G, 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 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.
CUTR:	1Ex d IIB T3/T6. 2Ex de IIC T4/T6. 0Ex ia IIC T4/T6. Russian Fire Approved.
CQST:	Certified Ex ia.
Inmetro:	Certified EEx d, EEx ia & EEx em.
ABS:	American Bureau of Shipping type approval for HD1BBD & HD1B1 only.
SIL:	SIL2 certified. Cert no. Sira FSP 12007/02.
Material:	Detector: stainless steel. Enclosures: Exd – LM25 marine grade alloy. Exia/Exem/UL – GRP (anti-static). Stainless steel cover screws. Optional Guard: 316 stainless steel.
Finish:	Detector: Sand blasted. Enclosures: Exia/Exem/UL – Natural black or painted to customer's specification. Exd painted to customers specification.
Certified Temp:	-20°C to 55°C (T6) Exem, UL, Exd IIC, CQST Exd IIB. -20°C to 55°C (T6) -20°C to 125°C (T3) Exd IIB (Not CQST). -55°C to 55°C (T6) Exia.
Weight:	Exd, 2kg. Exia/Exem/UL, 1.1kg.
Ingress Protection:	IP66 & IP67.
Operation:	The detector contact is normally open and CLOSES at alarm temperature.
Contact Rating:	Ex d, EEx em, UL: 125V a.c.-5A, 125V d.c.-0.5A, 48V d.c.-1A, 24V d.c.-2A. Ex ia: 30V - 300mA
Entries:	2 x M20 ISO (ATEX/Exd/Exe/Exi versions). 2 x ½" NPT via adaptors (UL version).
Terminals:	6 x 4mm ² (BK6).
Resistor:	Series & EOL resistor (maximum total 2) minimum value (each) 470Ω.
Diodes:	Up to 2 off available in Exd IIB and Exia versions - contact sales office.
Labels:	Optional stainless steel tag and duty labels.



Listed Temperature Settings:

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

Temperature Setting		Tolerance		Colour Code of Text on Probe
(°F)	(°C)	(°F)	(°C)	
140	60	+7/-8	±4	Black
160	71	+7/-8	±4	Black
190	88	+7/-8	±4	White
210	99	+7/-8	±4	White
225	107	+7/-8	±4	White
275	135	±10	±6	Blue
325	163	±10	±6	Red
360	182	±10	±6	Red
450	232	±15	±8	Green
500	260	±15	±8	Orange
600	316	±20	±11	Orange
725	385	±25	±14	Orange

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.

Model	Certification	Type	Temp Settings	Options	Finish																																																																																										
HD1																																																																																															
	<table border="1"> <thead> <tr> <th>Certification</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>ATEX</td><td>B</td></tr> <tr><td>IECEx</td><td>J</td></tr> <tr><td>ATEX/IECEx dual listed</td><td>AJ</td></tr> <tr><td>UL listed</td><td>UL</td></tr> <tr><td>ATEX/UL dual listed</td><td>AU</td></tr> <tr><td>CUTR</td><td>G*</td></tr> <tr><td>Chinese (CQST)</td><td>Q†</td></tr> <tr><td>Inmetro</td><td>M</td></tr> </tbody> </table> <p>* Russian Fire Approved as standard. † Only available Ex ia certified. Not for use in China on fire alarm systems.</p>	Certification	Code	ATEX	B	IECEx	J	ATEX/IECEx dual listed	AJ	UL listed	UL	ATEX/UL dual listed	AU	CUTR	G*	Chinese (CQST)	Q†	Inmetro	M	<table border="1"> <thead> <tr> <th>Type</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Exd IIB</td><td>BD</td></tr> <tr><td>Exd IIC</td><td>CD*</td></tr> <tr><td>Exe</td><td>E†</td></tr> <tr><td>Exia</td><td>I‡</td></tr> <tr><td>UL</td><td>U</td></tr> </tbody> </table> <p>* Exd IIC only available in ATEX. † ATEX/UL dual listed Exe version only. ‡ IECEx and ATEX/IECEx dual listed only available Exia.</p>	Type	Code	Exd IIB	BD	Exd IIC	CD*	Exe	E†	Exia	I‡	UL	U	<table border="1"> <thead> <tr> <th>Temp°F</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>140</td><td>140</td></tr> <tr><td>160</td><td>160</td></tr> <tr><td>190</td><td>190</td></tr> <tr><td>210</td><td>210</td></tr> <tr><td>225</td><td>225</td></tr> <tr><td>275</td><td>275</td></tr> <tr><td>325</td><td>325</td></tr> <tr><td>360</td><td>360</td></tr> <tr><td>450</td><td>450</td></tr> <tr><td>500</td><td>500</td></tr> <tr><td>600</td><td>600</td></tr> <tr><td>725</td><td>725</td></tr> </tbody> </table>	Temp°F	Code	140	140	160	160	190	190	210	210	225	225	275	275	325	325	360	360	450	450	500	500	600	600	725	725	<table border="1"> <thead> <tr> <th>Option</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Duty Label</td><td>D*</td></tr> <tr><td>Tag Label</td><td>T*</td></tr> <tr><td>Guard</td><td>G</td></tr> <tr><td>Resistor EOL</td><td>E*</td></tr> <tr><td>Resistor series</td><td>S*</td></tr> <tr><td>Diode(s)</td><td>I*†</td></tr> <tr><td>Blanking Plug</td><td>P</td></tr> <tr><td>None</td><td>N</td></tr> </tbody> </table> <p>* Please specify † Only available in ATEX Exd IIB or Exia versions (specify value).</p>	Option	Code	Duty Label	D*	Tag Label	T*	Guard	G	Resistor EOL	E*	Resistor series	S*	Diode(s)	I*†	Blanking Plug	P	None	N	<table border="1"> <thead> <tr> <th>Finish</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>Natural Black</td><td>N</td></tr> <tr><td>(Exe/Exia/UL only)</td><td></td></tr> <tr><td>Grey</td><td>G</td></tr> <tr><td>Red</td><td>R</td></tr> <tr><td>Blue</td><td>B</td></tr> <tr><td>Yellow</td><td>Y</td></tr> <tr><td>Special</td><td>S*</td></tr> </tbody> </table> <p>* Please specify.</p>	Finish	Code	Natural Black	N	(Exe/Exia/UL only)		Grey	G	Red	R	Blue	B	Yellow	Y	Special	S*
Certification	Code																																																																																														
ATEX	B																																																																																														
IECEx	J																																																																																														
ATEX/IECEx dual listed	AJ																																																																																														
UL listed	UL																																																																																														
ATEX/UL dual listed	AU																																																																																														
CUTR	G*																																																																																														
Chinese (CQST)	Q†																																																																																														
Inmetro	M																																																																																														
Type	Code																																																																																														
Exd IIB	BD																																																																																														
Exd IIC	CD*																																																																																														
Exe	E†																																																																																														
Exia	I‡																																																																																														
UL	U																																																																																														
Temp°F	Code																																																																																														
140	140																																																																																														
160	160																																																																																														
190	190																																																																																														
210	210																																																																																														
225	225																																																																																														
275	275																																																																																														
325	325																																																																																														
360	360																																																																																														
450	450																																																																																														
500	500																																																																																														
600	600																																																																																														
725	725																																																																																														
Option	Code																																																																																														
Duty Label	D*																																																																																														
Tag Label	T*																																																																																														
Guard	G																																																																																														
Resistor EOL	E*																																																																																														
Resistor series	S*																																																																																														
Diode(s)	I*†																																																																																														
Blanking Plug	P																																																																																														
None	N																																																																																														
Finish	Code																																																																																														
Natural Black	N																																																																																														
(Exe/Exia/UL only)																																																																																															
Grey	G																																																																																														
Red	R																																																																																														
Blue	B																																																																																														
Yellow	Y																																																																																														
Special	S*																																																																																														

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.

