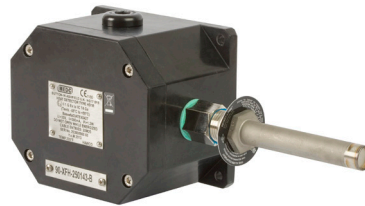


HD1 Range - Heat Detector

EExd, EExem & Intrinsically Safe (Exia)



EExd



EExem/Exia/UL

Overview

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 (EExd version) or JB10 corrosion-free GRP enclosure (Exia, EExem/UL versions). The contact in the detector CLOSSES at alarm temperature.

To select appropriate temperature setting see specification below

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, B, C D
- TR CU certified
- CQST certified
- CCOE 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

Certifications

ATEX EExd IIB	Cert. no. Baseefa03ATEX0447 Certified to: EN50014, EN50018, EN50281-1-1 Ex II 2 GD, EEx d IIB T6 (T3 @ 125°C)
ATEX Exd IIC	Cert. no. Baseefa08ATEX0320 Certified to: EN60079-0, EN60079-1, EN61241-0, EN61241-1 Ex II 2 GD, Ex d IIC T6, Ex tD A21 T85°C (-20°C to + 55°C)
ATEX EExem	Cert. no. Baseefa03ATEX0428 Certified to: EN50014, EN50019, EN50028 Ex II 2 G, EEx em II T6 (-20°C to + 55°C)
ATEX Exia	Cert. no. Baseefa03ATEX0427 Certified to: EN60079-0, EN60079-11 Ex II 1 G, Ex ia IIC T6 Ga (-55°C to + 55°C). (T4 with diodes/resistors)
IECEX Exia	Cert. no. IECEX 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, B, C, D
TR CU	1Ex d IIB T3/T6 1Ex d IIC T4 / T6 2Ex de IIC T4/T6 0Ex ia IIC T4/T6 Russian Fire Approved
CQST	Certified Ex ia
ABS	American Bureau of Shipping type approval for HD1BBD & HD1BI only
SIL	SIL2 certified. Cert no. Sira FSP 12007/02

Specifications

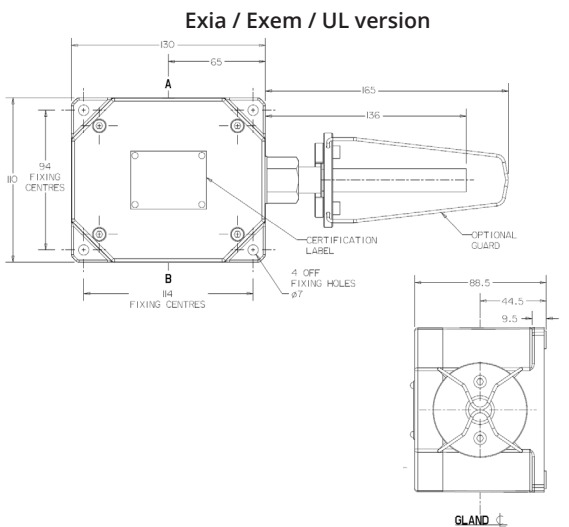
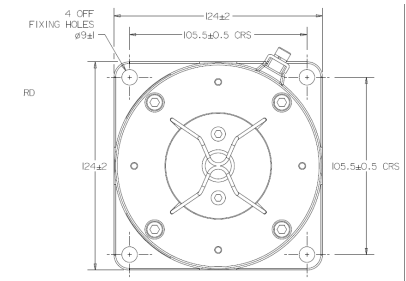
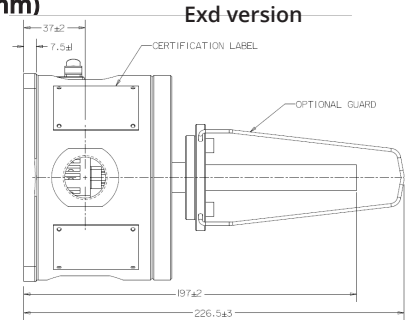
Material	Detector: Stainless steel Enclosures: Exd - LM25 marine grade alloy Exia/Exem/UL - GRP (anti-static) Cover screws: Stainless steel Optional guard: 316 stainless steel
Finish	Detector: Sand blasted. Enclosures: Exd painted to customers specification Exia/Ex em/UL - Natural black or painted to customer's specification
Certified temp	Exem, UL, Ex d IIC, CQST Ex d IIB: -20°C to 55°C (T6) -20°C to 90°C (T4) Exd IIB (Not CQST): -20°C to 55°C (T6) 20°C to 125°C (T3) 55°C to 55°C (T6) Exia: 55°C to 55°C (T6)
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	Exd IIB, Exem, UL: 125Vac - 5A, 125Vdc - 0.5A, 48Vdc -1A, 24Vdc - 2A Exd IIC: 24V - 0.1A Ex ia: 30V - 300mA
Entries	2 x M20 (Ex d/Ex em/Ex ia versions) 2 x 1/2" 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 Ex d IIB and Ex ia versions - contact sales office

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																																																																																						
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General arrangement drawing (all dimensions in mm)



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

Temperature setting (°F)	Temperature setting (°C)	Tolerance (°F)	Tolerance (°C)	Colour code of text on probe
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	323	±15	±8	Green
500	260	±15	±8	Orange
600	316	±20	±11	Orange
725	385	±25	±14	Orange