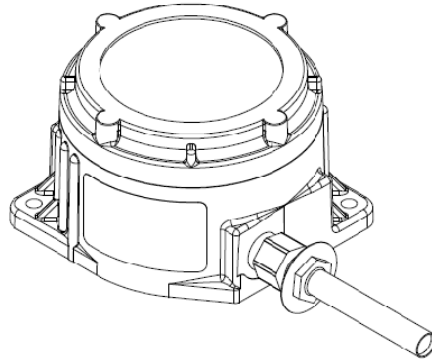


**INSTRUCTION MANUAL**  
**GNEExH1-E & GNEExH1-H Heat Detector**  
**Class I & II Div 2 ; UL521 ; CAN/ULC-S530**  
**NEC / CEC / ATEX / IECEx / UKEx Zone 1, 2, 21, 22**



**1) Product Table**

Unit Type Code	Input Voltage
GNEExH1-E	32Vac @ 50/60Hz 5.0A
GNEExH1-H	32Vdc / 1.0A Max
	24Vdc /2.0A Max

Table 1: Electrical Ratings

**2) Warnings**



**WARNINGS:**

- DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT
- POTENTIAL ELECTROSTATIC HAZARD – SEE INSTRUCTIO CLEAN ONLY WITH A DAMP CLOTH

**AVERTISSEMENT:**

- NE PAS OUVRIR UN PRESENCE D'ATMOSPHERE EXPLOSIVE
- DANGER POTENTIEL CHARGE ÉLECTROSTATIQUE - NETTOYER UNIQUEMENT AVEC UN CHIFFON HUMIDE

### 3) Marking & Rating Information

The GNEHX1-E & GNEHX1-H Heat Detectors comply with the following standards for hazardous locations:



All models are approved for Fire Alarm System use:

UL 521  
CAN/ULC-S530

#### 3.1 Class/Division Ratings for US & Canada

Standards	
UL 60079-0:2017 (Ed 6): Explosive Atmospheres - Part 0: Equipment - General requirements UL 60079-1:2015 (Ed7): Explosive Atmospheres - Part 1: Equipment protection by flameproof enclosures "d" UL 60079-7:2021 (Ed5): Explosive Atmospheres - Part 7: Equipment protection by increased safety "e" UL 60079-31:2012 (Ed 2): Explosive Atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"	
CSA C22.2 NO. 60079-0:2015 (Ed 3) Explosive Atmospheres – Part 0: Equipment – General requirements CSA C22.2 NO. 60079-1:2016 (Ed 3): Explosive Atmospheres – Part 1: Equipment protection by flameproof enclosures "d" CSA C22.2 NO. 60079-7:2018 (Ed 2): Explosive Atmospheres – Part 7: Equipment protection by increased safety "e" CSA C22.2 NO. 60079-31:2015 (Ed 2): Explosive Atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"	
Class Division Ratings for US (NEC) & Canada (CEC)	
Model No:	Rating
GNEHX1-E	Class I Div 2 GR. ABCD T6 Ta -50°C to +70°C Class II Div 2 GR. FG T6 Ta -50°C to +70°C Class III Div 2 Ta -50°C to +70°C
GNEHX1-H	Class I Div 2 GR. ABCD T4 Ta -50°C to +105°C Class I Div 2 GR. ABCD T5 Ta -50°C to +90°C Class I Div 2 GR. ABCD T6 Ta -50°C to +75°C Class II Div 2 GR. FG T4 Ta -50°C to +105°C Class II Div 2 GR. FG T6 Ta -50°C to +70°C Class III Div 2 Ta -50°C to +105°C
Class Zone Ratings for US (NEC)	
Model No:	Rating
GNEHX1-E	Class I Zone 1 AEx db IIC T6 Gb Ta -50°C to +70°C Zone 21 AEx tb IIIC T75°C Db Ta -50°C to +70°C
GNEHX1-H	Class I Zone 1 AEx db eb IIC T4 Gb Ta -50°C to +105°C Class I Zone 1 AEx db eb IIC T5 Gb Ta -50°C to +90°C Class I Zone 1 AEx db eb IIC T6 Gb Ta -50°C to +75°C Zone 21 AEx tb IIIC T110°C Db Ta -50°C to +125°C Zone 21 AEx tb IIIC T75°C Db Ta -50°C to +70°C
Class Zone Ratings for Canada (CEC)	

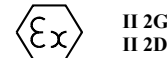
Model No:	Rating
GNEHX1-E	Ex db eb IIC T6 Gb Ta -50°C to +70°C Ex tb IIIC T75° Db Ta -50°C to +70°C
GNEHX1-H	Ex db eb IIC T4 Gb Ta -50°C to +105°C Ex db eb IIC T5 Gb Ta -50°C to +90°C Ex db eb IIC T6 Gb Ta -50°C to +75°C Ex tb IIIC T110° Db Ta -50°C to +105°C Ex tb IIIC T75° Db Ta -50°C to +70°C
Installation must be carried out in compliance with the National Electric Code / Canadian Electric Code	

#### 3.2 ATEX / IECEx & UKEx Ratings

Standards	
EN60079-0:2018/IEC60079-0:2017 (ed.7): Explosive Atmospheres - Equipment General Requirements. EN60079-1:2014/IEC60079-1:2014 (ed.7): Explosive Atmospheres - Equipment Protection by Flameproof Enclosures "d". EN IEC 60079-7:2015 + A1: 2018/IEC60079-7:2017 (ed.5.1): Explosive Atmospheres - Equipment protection by increased safety "e" EN60079-31:2014/IEC60079-31:2022 (ed.3): Explosive Atmospheres - Equipment Dust Ignition Protection by enclosure "t".	
Model No:	Rating
GNEHX1-E	Ex db eb IIC T6 Gb Ta -50°C to +70°C Ex tb IIIC T75°C Db Ta -50°C to +70°C
GNEHX1-H	Ex db eb IIC T4 Gb Ta -50°C to +105°C Ex db eb IIC T5 Gb Ta -50°C to +90°C Ex db eb IIC T6 Gb Ta -50°C to +75°C Ex tb IIIC T110° Db Ta -50°C to +105°C Ex tb IIIC T75° Db Ta -50°C to +70°C
See Product table for electrical ratings of each unit model	

Certificate No. DEMKO 15 ATEX 1448X  
IECEx ULD 15.0003X  
UL21UKEX2136X

Epsilon x  
Equipment Group  
and Category:



II 2G  
II 2D

CE Marking and  
Notified Body No.



2813

UKCA Marking and  
Notified Body No.



0518

#### 4) Zones, Gas Group, Category and Temperature Classification

The units can be installed in locations with the following conditions:

Area Classification Gas	
Zone 1	Explosive gas air mixture likely to occur in normal operation.
Zone 2	Explosive gas air mixture not likely to occur in normal operation, and if it does, it will only exist for a short time.
Gas Groupings	
Group IIA	Propane
Group IIB	Ethylene
Group IIC	Hydrogen and Acetylene
Temperature Classification for Gas Applications	
T1	450° C
T2	300° C
T3	200° C
T4	135° C
T5	100° C (GNExH1-H for ambients up to 90° C)
T6	85° C (GNExH1-H for ambients up to 75° C)
Area Classification Dust	
Zone 21	Explosive dust air mixture likely to occur in normal operation.
Zone 22	Explosive dust air mixture not likely to occur in normal operation, and if it does, it will only exist for a short time.
Dust Groupings	
Group IIIA	Combustible Dusts
Group IIIB	Non-Conductive Dusts
Group IIIC	Conductive Dusts
Equipment Category	
2G, 2D	
Equipment Protection Level	
Gb, Gc, Db, Dc	
Maximum Surface Temperature for Dust Applications	
T75° C (GNExH1-E and GNExH1-H for ambients up to 70° C) T110° C (GNExH1-H for ambients up to 105° C)	
Ambient Temperature Range	
-50° C to +70° C (-58° F to +158° F) GNExH1-E -50° C to +105° C (-58° F to +221° F) GNExH1-H	
IP Rating	
IP66/67 to EN/IEC60529 and IP6X to EN/IEC60079-0, EN/IEC60079-31 4 / 4X / 3R / 13 to UL50E / NEMA250	

#### 5) Special Conditions of Use

Special Condition for safe Use as stated on the Type Examination Certificate DEMKO 15 ATEX 1448X / IECEx ULD 15.0003X & UL21UKEX2136X

The metallic enclosure has a non-conductive coating and may generate an ignition-capable level of electrostatic charges under certain extreme conditions.

The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions that might cause a build-up of electrostatic charges on non-conducting surfaces.

Accessible metal parts are capable of retaining a stored capacitance of 10pF therefore the end user shall take the appropriate action to reduce the risks of ignition associated with discharging this capacitance.

#### 6) Location and Mounting

The location of the heat detector should enable ease of access for operation and testing. They should only be fixed to services that can carry the weight of the unit.

The GNEx junction boxes should be securely bolted to a flat surface using the 9.0mm diameter bolt holes in the base of the unit. See figure 2.

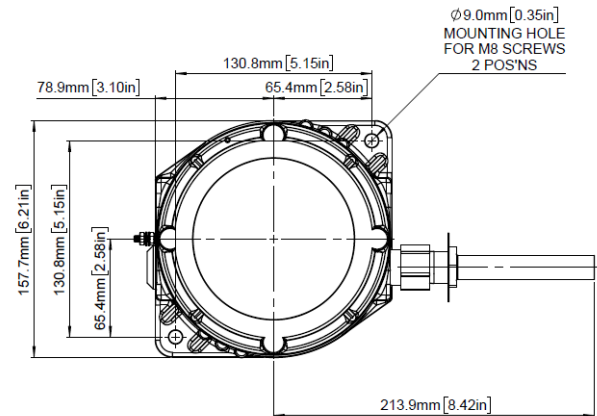


Fig. 2: Fixing Location for Junction Box.

The Heat detector element / shell should be mounted with the following consideration :-

The Heat Detector is fitted in an area (normally ceiling) so that:-

- The thermal air path to the shell is not obstructed.
- The heat detectors spacing complies with both system requirements and requirements of the local authority having jurisdiction.
- The element shell is not position sensitive, so can be mounted either vertically or horizontally depending on the application and installation requirements.

#### 7) Access to the Enclosure



Warning – High voltage may be present, risk of electric shock. DO NOT open when energised, disconnect power before opening.

To access the enclosures terminals, loosen the M4 grub screw on the heat detector cover. Open the enclosure by

turning the heat detector cover counterclockwise and remove the cover.

Ensure the O-ring seal is in place and undamaged.

When fitting the cover ensure the thread is engaged correctly. Fully tighten the cover all the way, ensure no gap is visible between the cover and base of the heat detector.

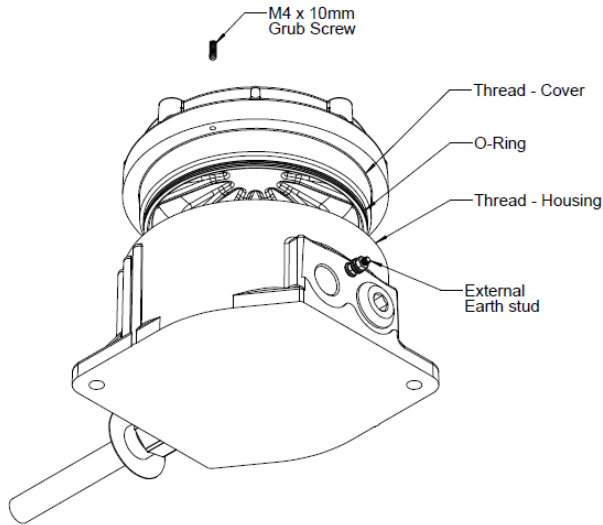


Fig. 3: Accessing the Enclosure.

## 8) Earthing

The unit has both internal and external earth terminals.

Internal earthing connections should be made to the Internal Earth terminal in the base of the housing using a ring crimp terminal to secure the earth conductor under the earth clamp. The earth conductor should be at least equal in size and rating to the incoming power conductors.

External earthing connections should be made to the M5 earth stud, using a ring crimp terminal to secure the earth conductor to the earth stud. The external earth conductor should be at least 4mm<sup>2</sup> in size.

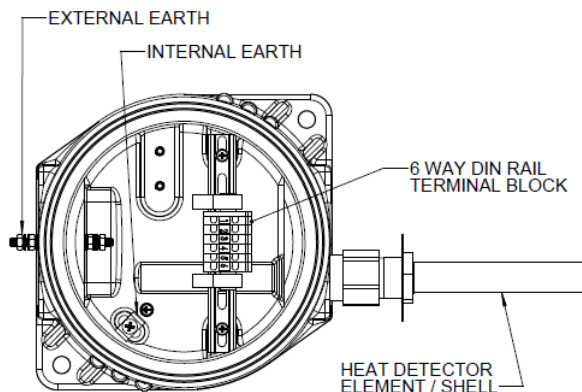


Figure 4: Earth Internal & External

## 9) Power Supply Selection

### Electrical Ratings

See table 1

#### Max Input Voltage/Current:

32Vac @ 50/60 Hz / 5.0A  
32Vdc / 1A  
24Vdc / 2A

## 10) Selection of Cable, Cable Glands, Blanking Elements & Adapters

### ATEX/IECEX & UKEx Installations:

The equipment must only be installed by suitably qualified personnel in accordance with the latest issues of the relevant standards:

EN60079-14 / IEC60079-14: Explosive atmospheres - Electrical installations design, selection and erection  
EN60079-10-1 / IEC60079-10-1: Explosive atmospheres - Classification of areas. Explosive gas atmospheres

The installation of the units must also be in accordance with any local codes that may apply and should only be carried out by a competent electrical engineer who has the necessary training.

For high ambient temperatures the cable entry temperature may exceed +70°C or the cable branching point temperature may exceed 80°C and therefore suitable heat resisting cables and cable glands must be used, with a rated service temperature of at least the values stated below:

#### For model GNExH1-E:

Max. ambient temperature °C	65	70
req. Cable / Cable Gland rating: °C	70	75

#### For model GNExH1-H:

Max. ambient temperature °C	65	70	75	80	85	90	95	100	105
req. Cable / Cable Gland rating: °C	70	75	80	85	90	95	100	105	110

The cable entries have an M20 x 1.5 – 6H entry thread. If the installation is made using cable glands, only suitably rated and ATEX / IECEX / UKEx certified cable glands must be used. They must be suitable for the type of cable being used and also meet the requirements of the current Ex 'eb' and Ex 'tb' increased safety and installation standards (tightening torque 10Nm).

If the installation is made using conduit, openings must have a sealing fitting connected as close as practical to the wall of the enclosure, but in no case more than the size of the conduit or 50mm, whichever is the lesser.

Any unused cable entries must be closed with suitably rated and certified blanking plugs that meet ATEX / IECEx / UKEx and the current Ex 'eb' and Ex 'tb' increased safety and installation standards (tightening torque 10Nm).

NEC / CEC Installations:

The equipment must only be installed by suitably qualified personnel in accordance with the latest issues of the relevant standards:

The installation of the units must also be in accordance with any local codes that may apply and should only be carried out by a competent electrical engineer who has the necessary training.

The equipment must not be installed with any obstruction to the flanged flameproof joint any closer than permitted as per the NEC/CEC.

For high ambient temperatures the cable entry temperature may exceed +60°C or the cable branching point temperature may exceed 60°C and therefore suitable heat resisting cables and cable glands must be used, with a rated service temperature of at least the values stated below:

For model GNExH1-E:

Max. ambient temperature °C	55	60	65	70
req. Cable / Cable Gland rating: °C	60	65	70	75

For model GNExH1-H:

Max. ambient temperature °C	65	70	75	80	85	90	95	100	105
req. Cable / Cable Gland rating: °C	70	75	80	85	90	95	100	105	110

For use in Class I Division II locations, in order to maintain the db type protection, flameproof conduit seals and/or cable glands must be used.

The cable gland entries have an M20 x 1.5 entry thread. Only suitably rated and certified cable glands which must be suitable for the type of cable being used and also meet the requirements of the current Ex 'eb' and Ex 'tb' increased safety and NEC/CEC installation standards (tightening torque 10Nm).

When only one cable entry is used the other entries must be closed with suitably rated and certified blanking plugs that meet the requirements of the current Ex 'eb' and Ex 'tb' increased safety and NEC/CEC installation standards (tightening torque 10Nm).

All Installations:

If a high IP (Ingress Protection) rating is required then a suitable sealing washer must be fitted under the cable glands or blanking plugs. A minimum ingress protection rating of IP6X must be maintained for installations in explosive dust atmospheres.

The GNExH1 Heat Detector range can be supplied with the following types of adapters:

- M20 to 1/2" NPT
- M20 to 3/4" NPT
- M20 to M25

It is important to note that stopping plugs cannot be fitted onto adapters, only directly onto the M20 entries.

Any other adapters used must be suitably rated and ATEX / IECEx / UKEx or NEC/CEC certified adapters.

**11) Cable Connections**

Electrical connections are to be made into the DIN-rail mounted inside the heat detector enclosure.

Electrical connections are to be made into the terminals, using solid wire 0.5-4mm<sup>2</sup> / AWG 20-12 or stranded wire, sizes 0.5-2.5mm<sup>2</sup> / AWG 24-14, and must be suitable for the terminal block type installed.

If fitting 2-off wires to one terminal way the sum of the 2-off wires must be a maximum cross-sectional area of 2.5mm<sup>2</sup>. Strip wires to 8mm. Wires may also be fitted using ferrules.

Terminal screws need to be tightened down with a tightening torque :-  
DIN Rail Terminals: 0.51 Nm / 4.5 Lb-in;

The DIN rail has a 6-way connection.  
For full wiring details see wiring diagrams D255-06-031

When connecting wires to the terminals great care should be taken to dress the wires so that when the cover is inserted into the chamber the wires do not exert excess pressure on the terminal blocks. This is particularly important when using cables with large cross-sectional areas such as 2.5mm<sup>2</sup>.

## 12) Heat Detector Option and Testing

The heat detector is available in the following temperature options.

Unit option code [t]	Setting Temperature	Spacings feet (meters)			RTI (1)	Colour Coding (2)
		UL	ULc	FM		
01	140°F / 60°C	50 (15)	50 (15)	25 (8)	Fast	Black
02	160°F / 71°C	25 (8)	25 (8)	25 (8)	Fast	Black
03	190°F / 88°C	50 (15)	50 (15)	25 (8)	Fast	White
04	210°F / 99°C	25 (8)	50 (15)	30 (9)	V- Fast	White
05	225°F / 107°C	25 (8)	50 (15)	30 (9)	V- Fast	White
06	275°F / 135°C	25 (8)	50 (15)	30 (9)	V- Fast	Blue
07	325°F / 163°C	50 (15)	50 (15)	30 (9)	V- Fast	Red
08	360°F / 182°C	25 (8)	50 (15)	30 (9)	V- Fast	Red
09	450°F / 232°C	25 (8)	50 (15)	30 (9)	V- Fast	Green
10	500°F / 260°C	50 (15)	50 (15)	30 (9)	V- Fast	Orange
11	600°F / 316°C	N/A	50 (15)	30 (9)	V- Fast	Orange
12	725°F / 385°C	N/A	50 (15)	30 (9)	V- Fast	Orange

Table 3 – Heat Detector Temperature Codes.

- (1) Response Time Index – Heat Detectors sensitivity and speed see EN54-5  
 (2) Colour of detector shell marking band.

### Functional Test

The functional test of the heat detector is a GO / No Go Test.

- Disconnect the unit from the system.
- Using a heat gun, or similar heat source, apply heat evenly to the complete heat detector element / shell. The heated air temperature must be above the alarm set point temperature of the unit.
- Using an ohm meter, see that the units internal contacts close when the set temperature is reached. Alternatively connect a 24Vdc bulb and power source in series with the detector to see if bulb light on activation.
- Remove the heat immediately after activation to prevent damage to the detector.
- Allow detector to cool to return to it initial open contact state, if the unit fails to return to the original state or activate replace unit.

Note :- The above test must only be performed if the appropriate steps have been taken to prevent unwarranted system activation/deactivation, or unwarranted discharge of an automatic fire extinguishing system. See note below.

### HEAT DETECTOR WARNINGS

For an automatic fire extinguishing system, all releasing devices need to be physically disconnected from the release circuits of the control unit prior to any test. Refer to the

automatic fire extinguishing systems maintenance manual for the appropriate steps to be taken to physically disconnect the releasing devices prior to testing the detector. Failure to take the necessary steps could result in an accidental discharge that could cause injury and property damage.

- DO NOT overshoot the set point of the unit by more than 100°F (55°C), this could result in a shift of the set point temperature.
- DO NOT contact the sensing shell with a heating device such as a soldering iron or blowtorch as this will damage the unit and cause a shift in the set point temperature.
- Keep the sensing shell of the unit free from Paint, grease and oil, etc. IF build up occurs, do not attempt to remove the buildup, Replace the unit.
- Detectors mounted in an area of physical abuse or damage must be protected without obstructing the thermal airpaths to the unit.
- Do not install the unit where the shell would be physically damaged by sand, grain, rock, etc.
- Any detector that has been involved in a fire or damaged must be replaced.
- Do not re-install or tighten detector element in junction box.

Note that any of the above could change the factory temperature settings, which may result in property damage and/or personal injury or death. It is possible for a unit to have been abused or damaged and not display any outwards indication of the damage. All units should be tested periodically in accordance with National Fire Protection Association Requirements (72e) or the Authority having local jurisdiction.

## 13) Maintenance, Overhaul & Repair

Maintenance, repair and overhaul of the equipment should only be carried out by suitably qualified personnel in accordance with the current relevant standards:

### For ATEX / IECEx / UKEx

EN60079-19/IEC60079-19 Explosive atmospheres - Equipment repair, overhaul and reclamation

EN60079-17/IEC60079-17 Explosive atmospheres - Electrical installations inspection and maintenance

Units must not be opened while an explosive atmosphere is present.

Units must not be opened while an explosive atmosphere is present.

If opening the unit during maintenance operations a clean environment must be maintained and any dust layer removed prior to opening the unit.

Repair of the flameproof threaded joints is not permitted.

Potential electrostatic charging hazard - Clean only with a damp cloth.

### **For NEC / CEC**

- UL 60079-19 Explosive atmospheres – Equipment repair, overhaul and reclamation
- UL 60079-17 Explosive atmospheres – Electrical installations inspections and maintenance

Potential Electrostatic charging hazard – clean only with a damp cloth.

Units must not be opened while an explosive atmosphere is present.

To avoid a possible ELECTROSTATIC CHARGE the unit must only be cleaned with a damp cloth.

Units must not be opened while an explosive atmosphere is present.

### **Heat Detector for all installations**

As part of the recommended maintenance procedure, perform a visual inspection of the GNEH1 Heat Detector in accordance with NFPA 72 guidelines, ensuring:-

- The heat detector element / shell is free of dents, dings or build up of foreign matter of any kind.
- If the shell is dented or shows signs of any physical damage, replace the unit immediately.
- If a build up of dust has accumulated on the unit, clean the unit with a clean damp cloth.
- If the detector element / shell has been painted, replace the unit. Note that some units are factory coated (set temperature identification band). Do not confuse these with units that were painted by the owners.

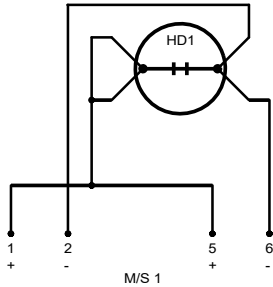
# HEAT DETECTOR DEVICES

ISSUE	MOD No.	REASON - INITIAL - DATE
1		INTRODUCTION RNP 31-05-2024

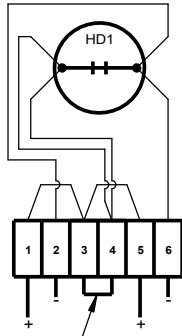
PRODUCTS:  
D1xH1-E ; STExH1-E ; GNExH1-E ;  
GNExH1-H

HEAT DETECTOR      CONFIG. A1-1

PRODUCT VERSION [v] [E]    Ex e  
 PRODUCT OPTION [o] [1]    Default  
 LED INDICATOR [u] [N]    N/A



M/S 1



Default Link  
Wire in Terminals

Circuit shown in Unoperated condition

**Unoperated condition**  
(Heat Detector in Standby Condition)  
Terminals (+1,-2) & (+5,-6) open  
**Operated condition**  
(Heat Detector in operated condition)  
Terminals (+1,-2) & (+5,-6) closed

DRAWING TO BS8888:2000  
GEOMETRIC TOLERANCES TO ISO1101:1983  
LINEAR DIMENSIONAL TOLS  
ANGULAR DIMENSIONAL TOLS

DRAWN      DATE  
R.N.POTTS    31-05-2024

SURFACE FINISH      WEIGHT (Kg)

CHECKED      DATE  
B.ISARD        31-05-2024

MATERIAL

APPROVED      DATE  
R.N.POTTS      31-05-2024

ALTERNATIVE MATERIAL

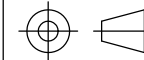
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ALL DIMENSIONS IN MM  
IF IN DOUBT, ASK -  
DO NOT SCALE



A3

TITLE  
D1xH1-E ; STExH1-E ; GNExH1-E & -H ; Ex e HEAT  
DETECTOR WIRING / CIRCUIT OPERATION DIAGRAM

SCALE	SHEET	DRAWING NUMBER
NTS	1 OF 1	D255-06-031

STANDARDS

D1xH1-E ;  
STExH1-E ;  
GNExH1-E ; GNExH1-H



# EU Declaration of Conformity



Manufacturer: European Safety Systems Ltd.  
Impress House, Mansell Road, Acton  
London, W3 7QH  
United Kingdom

Authorised Representative: E2S Warnsignaltechnik UG  
Charlottenstrasse 45-51  
72764 Reutlingen  
Germany

Equipment Type: GNExH1-E, GNExH1-H, GNExJ2-E

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## Directive 2014/34/EU: Equipment and Protective Systems for use in Potentially Explosive Atmospheres (ATEX)

Notified Body for EU type Examination (Module B):	UL International Demko A/S Notified Body No.: 0539 Borupvang 5A, 2750 Ballerup, Denmark
EU-type Examination Certificate (Module B):	DEMKO 15 ATEX 1448X
Notified Body for Quality Assurance Notification / Conformity to EU-type based on quality assurance of the production process (Module D):	Sira Certification Service Notified Body No.: 2813 Unit 6, Hawarden Industrial Park, Hawarden, Deeside, CH5 3US, UK
Quality Assurance Notification (Module D):	SIRA 05 ATEX M342
Provisions fulfilled by the equipment:	II 2G Ex db eb IIC T6...T4 Gb      GNExH1-E & GNExH1-H Only II 2G Ex db IIC T6 Gb                  GNExJ2-E Only II 2D Ex tb IIIC T75 °C C...110 °C Db
Standards applied:	EN IEC 60079-0:2018 EN 60079-1:2014                          GNExH1-E & GNExH1-H Only EN IEC 60079-7:2015 / A1:2017 EN60079-31:2014

## Directive 2014/30/EU: Electromagnetic Compatibility Directive (EMC)

Standards applied:	EN 61000-6-1:2007 EN 61000-6-2:2005 EN 61000-6-3:2007 / A1:2011 / AC: 2012 EN 61000-6-4:2007 / A1: 2011
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## Directive 2014/35/EU: Low Voltage Directive (LVD)

Standards applied:	EN 60947-1:2007 + A2:2014
--------------------	---------------------------

## Directive 2011/65/EU: Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

The product and all the components contained within it are in accordance with the restriction of the use of hazardous substances in electrical and electronic equipment, including amendment by Directive 2015/863/EU.

## Regulation (EC) 1907/2006: Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

The product and all the components contained within it are free from substances of very high concern.

## Other Standards and Regulations

EN 60529:1992+A2:2013 - Degrees of protection provided by enclosures (IP code) – enclosure rated IP66/7

---

On behalf of European Safety Systems Ltd., I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives, regulations and standards.

This Declaration is issued under the sole responsibility of the manufacturer.

A blue ink signature of Desmond Gayler.

Desmond Gayler  
Quality Assurance Manager

Document No.: DC-124\_Issue\_A  
Date and Place of Issue: London, 07/06/2024



# UKCA Declaration of Conformity



Manufacturer: European Safety Systems Ltd.  
 Impress House, Mansell Road, Acton  
 London, W3 7QH  
 United Kingdom

Equipment Type: GNExH1-E, GNExH1-H, GNExJ2-E

Directive UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1 : Product or Protective System Intended for use in Potentially Explosive Atmospheres (UKCA)

Notified Body for UK type Examination (Module B):	UL International (UK) Ltd Notified Body No.: 0843 Unit 1-3 Horizon Kingsland Business Park, Wade Road, Basingstoke, Hampshire RG24 8AH UK
UK-type Examination Certificate (Module B):	UL21UKEX2130X
Notified Body for Quality Assurance Notification / Conformity to EU-type based on quality assurance of the production process (Module D):	Sira Certification Service Notified Body No.: 0518 Rake Lane, Eccleston, Chester CH4 9JN, UK
Quality Assurance Notification (Module D):	CSAE 22UKQAN0046
Provisions fulfilled by the equipment:	II 2G Ex db eb IIC T6...T4 Gb      GNExH1-E & GNExH1-H Only II 2G Ex db IIC T6 Gb                      GNExJ2-E Only II 2D Ex tb IIIC T75°C C...110°C Db
Standards applied:	EN IEC 60079-0:2018 EN 60079-1:2014                              GNExH1-E & GNExH1-H Only EN IEC 60079-7:2015 / A1:2017 EN60079-31:2014

Directive 2014/30/EU: Electromagnetic Compatibility Directive (EMC)

Standards applied:	EN 61000-6-1:2007 EN 61000-6-2:2005 EN 61000-6-3:2007 / A1:2011 / AC: 2012 EN 61000-6-4:2007 / A1: 2011
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Directive 2014/35/EU: Low Voltage Directive (LVD)

Standards applied:	EN 60947-1:2007 + A2:2014
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Directive 2011/65/EU: Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

The product and all the components contained within it are in accordance with the restriction of the use of hazardous substances in electrical and electronic equipment, including amendment by Directive 2015/863/EU.

Regulation (EC) 1907/2006: Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

The product and all the components contained within it are free from substances of very high concern.

Other Standards and Regulations

EN 60529:1992+A2:2013 - Degrees of protection provided by enclosures (IP code) – enclosure rated IP66/7

On behalf of European Safety Systems Ltd., I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives, regulations and standards.

This Declaration is issued under the sole responsibility of the manufacturer.

Desmond Gayler  
 Quality Assurance Manager

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 Date and Place of Issue: London, 07/06/2024