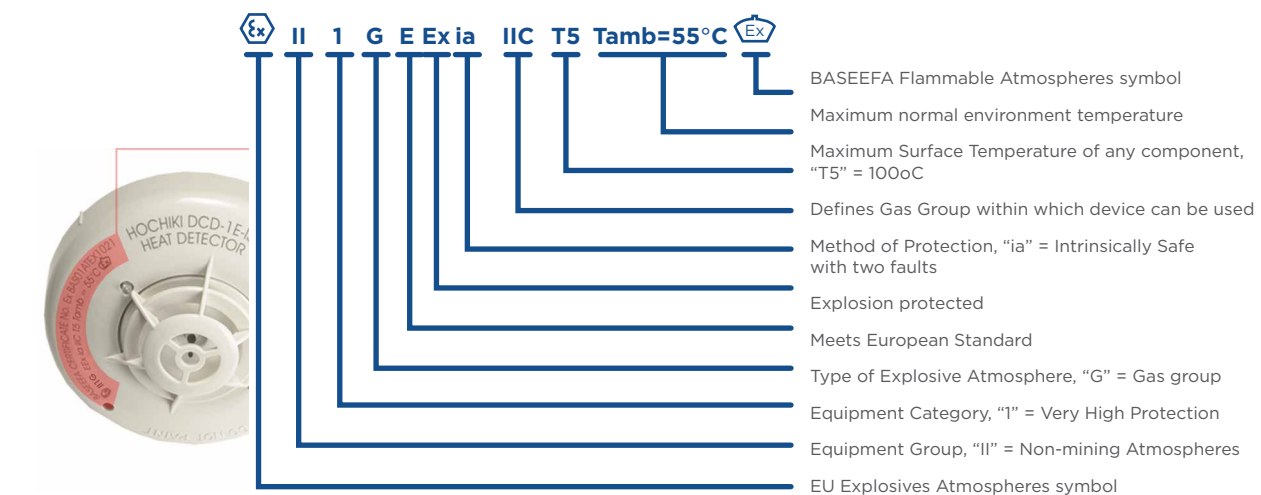
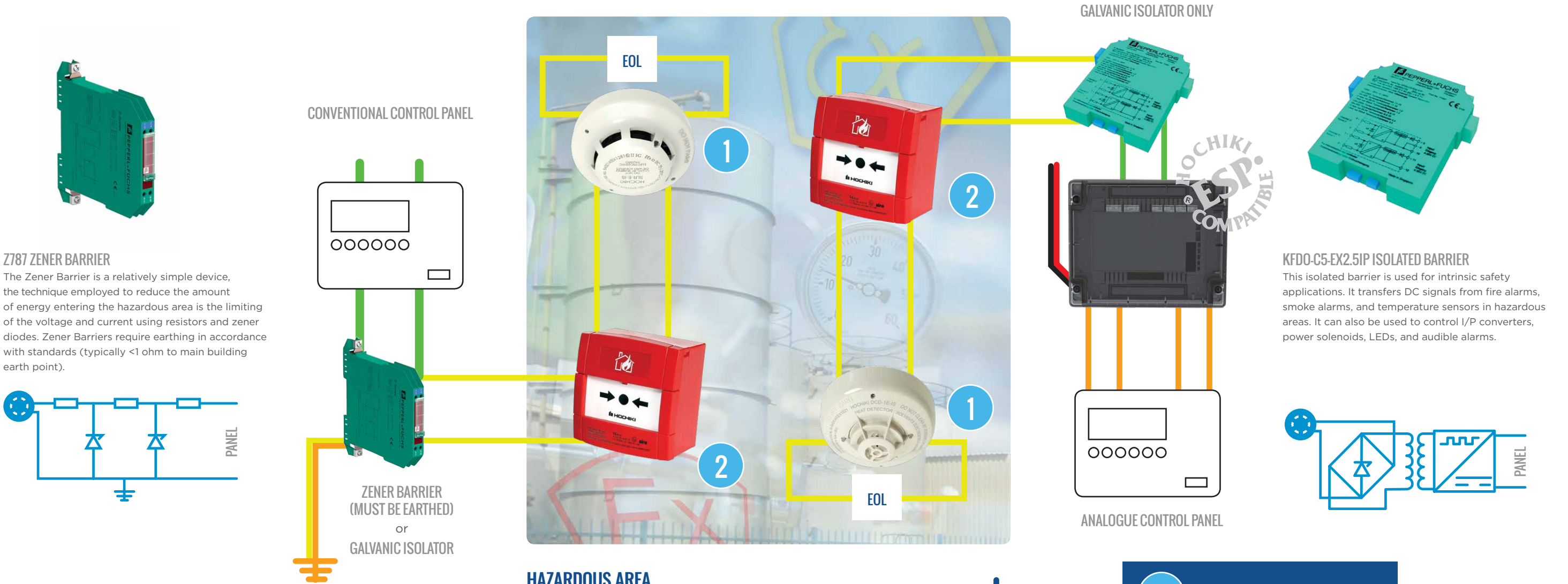


INTRINSICALLY SAFE FIRE DETECTION



Hochiki's Intrinsically Safe Conventional range of products has been designed around the existing world-proven Hochiki conventional range. The detectors have been approved for hazardous area use by both LPCB and Germanischer Lloyd.



Hochiki's Intrinsically Safe detectors have been certified by BASEEFA under the new ATEX directive which will become mandatory as of the 1st July 2003. This directive changes the classification for the risk areas into categories and also changes the bias to prevent explosive atmospheres (EN 1127-1). The certification marking of Hochiki's DCD-1E-IS Heat Detector and SLR-E-IS Photoelectric Smoke Detector is shown left with an explanation of each part.

- 1** Up to 20 INTRINSICALLY SAFE Detectors (SLR-E-IS or DCD-1E-IS)
 - 2** Unlimited number of INTRINSICALLY SAFE Manual Call Points (CCP-E-IS) (always first on the zone)
- EOL** To ensure that the surface temperature of the resistor remains below that of the flash-point of the hazardous material present it is certified that the overall surface area must be greater than 230mm².

- LOOP**
- SAFE AREA ZONE CIRCUIT**
- HAZARDOUS AREA ZONE CIRCUIT**
- AUXILIARY POWER 24Vd.c**



SLR-E-IS

A **Conventional I.S. Photoelectric Smoke Detector** designed for use in hazardous areas. Incorporates a remote indicator output and a removable chamber for easy maintenance.



- High Performance Chamber
- Twin fire LEDs allow 360° viewing
- Supported by a range of barriers
- Remote indicator output
- IECEx certification to: II 1G EEx ia IIC T5 (Tamb=55°C)
- Suitable for installation in areas at category 1 (inc. all lower categories)
- Approved by BASEEFA



DCD-1E-IS

A **Conventional I.S. Rate of Rise Heat Detector** designed for use in hazardous areas. Incorporates a remote indicator output and a 60°C fixed temperature element.



- Twin fire LEDs allow 360° viewing
- Electronics free mounting base
- Remote indicator output
- IECEx certification to: II 1G EEx ia IIC T5 (Tamb=55°C)
- Suitable for installation in areas at category 1 (inc. all lower categories)
- Approved by BASEEFA



YBN-R/4 (IS)

A **Conventional Detector Mounting Base** associated with the Hochiki conventional range of Intrinsically Safe Detectors and is fully compatible with the majority of existing conventional fire alarm Control Panels.



- Low profile, only 8mm
- Rugged design
- Dedicated cable screen terminal
- Accepts from 1 to 2.5mm² cables
- Quick connection via square cable clamps
- Electronics free



IFD-E (IS)

Infra Red Intrinsically Safe Flame Detector Alloy Housing is an Intrinsically Safe IRD flame detector designed for use where open flaming fires may be expected and responds to the light emitted from flames during combustion. The detector discriminates between flames and other light sources by responding only to particular optical wavelengths and flame flicker frequencies. This enables the detector to avoid false alarms due to such factors as flickering sunlight. Ideal for the detection of flames from the burning of Aviation Fuels (kerosene), Butane, Grain & Feeds, Hydrogen, Paper, Natural Gas, Petrol (gasoline) etc.

- Unaffected by convection currents, draughts or wind and solar-blind
- Tolerant of fumes, vapours, dust and mist
- ATEX certification to: EEx ia IIC T4 (135 C) (zones 0, 1 and 2)
- Responsive to a flame more than 25 m away
- Selectable response speed
- Class 1 performance as defined in BS EN54 10:2002 (on the high sensitivity setting)
- Optical self-test
- SIL capable



IFD-E (EXD)

Infra Red Flame Detector Alloy Flameproof Housing is an Explosion-Proof IRD flame detector designed for use where open flaming fires may be expected and responds to the light emitted from flames during combustion. The detector discriminates between flames and other light sources by responding only to particular optical wavelengths and flame flicker frequencies. This enables the detector to avoid false alarms due to such factors as flickering sunlight. Ideal for the detection of flames from the burning of Aviation Fuels (kerosene), Butane, Grain & Feeds, Hydrogen, Paper, Natural Gas, Petrol (gasoline) etc.

- Supports either a 'Frangible Glass' element or a 'Non-Frangible Plastic' element
- Terminals can accommodate up to a 2.5mm² solid conductor
- Approved to EN54 part 12
- Rugged design
- ATEX classification to II 1G EEx ia IIC T4



CCP-E-IS

A **Conventional Manual Call Point** designed for use in hazardous areas and based upon the industry standard KAC world series housing.



- Supports either a 'Frangible Glass' element or a 'Non-Frangible Plastic' element
- Terminals can accommodate up to a 2.5mm² solid conductor
- Approved to EN54 part 12
- Rugged design
- ATEX classification to II 1G EEx ia IIC T4



CCP-W-IS

A **Conventional Manual Call Point** designed for use in hazardous areas and based upon the industry standard KAC world series housing.



- Supports either a 'Frangible Glass' element or a 'Non Frangible Plastic' element
- Terminals can accommodate up to a 2.5mm² solid conductor
- Approved to EN54 part 12
- Rugged design
- ATEX classification to II 1G EEx ia IIC T4



CHQ-DZM (SCI)-IS

A **Dual Zone Module** which is fully compatible with Hochiki's ESP Analogue Addressable protocol and I.S. equipment. The module will allow connection of up to 40 Hochiki I.S. conventional detectors (20 per zone) through a Galvanic Isolator, which are then fully monitored for open and short circuit. Also available as a DIN Rail mountable version. Both models feature an integral Short-Circuit Isolator.



- Single loop address
- Supports two independent zones of Hochiki I.S. conventional detectors
- Both zones fully monitored for short/open-circuit
- Requires an auxiliary 24 Vdc supply
- DIN Rail version available
- Both models feature an integral Short-Circuit Isolator



CHQ-ISM

This **Sounder Control Module interfaces** between the Hochiki Analogue system via a CHQ-DSC or conventional sounder O/P's and the intrinsically safe sounder/beacon units via an intrinsically safe barrier. The module provides line monitoring for open or short circuits on the wiring connected to both the safe and hazardous areas.



- Provides dual sounder circuits
- Provides fault-monitored input
- Interfaces between loop and I.S. sounders/beacons
- Fully monitored for short-circuits
- Requires 24 Vdc external power supply
- Also available as a DIN module



Z728 ZENER BARRIER

Zener barriers provide cost saving Ex-protection for various applications in process automation systems. The amount of energy transferred to the hazardous location is limited to a safe level incapable of igniting the explosive atmosphere.

- 1-channel
- DC version, positive polarity
- Working voltage 26.5 V at 10 QA
- Series resistance max. 327 ff
- Fuse rating 50 mA
- DIN rail mounting



Z787 ZENER BARRIER

Zener barriers provide cost saving Ex-protection for various applications in process automation systems. The amount of energy transferred to the hazardous location is limited to a safe level incapable of igniting the explosive atmosphere.

- 2-channel
- DC version, positive polarity
- Working voltage 26.5 V at 10 Q_A
- Series resistance max. 327 ff
- Fuse rating 50 mA
- DIN rail mounting
- With diode return



KFDO-CS-EX2.51P ISOLATED BARRIER

This **Isolated Barrier** is used for intrinsic safety applications. It transfers DC signals from fire alarms, smoke alarms, and temperature sensors in hazardous areas. It can also be used to control I/P converters, power solenoids, LEDs, and audible alarms. Reverse polarity protection prevents damage to the isolator caused by faulty wiring. Since this isolator is loop powered, use the technical data to verify that proper voltage is available to the field devices.

- 2-channel isolated barrier
- 24 Vdc supply (Loop powered)
- Current input/output 0 mA ~ 40 mA
- I/P or transmitter power supply
- Accuracy 1%
- Reverse polarity protection
- Up to SIL2 acc. to IEC 61508



IS-A105N ALARM SOUNDER

The **IS-A105N** is a high output, 105dB(A) alarm sounder. Approvals include ATEX, IECEx and GOST-R for Zone 0 applications and FM approval for Class I Division 1 and Class I Zone 0 applications. The IS-A105N is suitable for all intrinsically safe signalling applications including fire, security and process control.



- Input overload and reverse current protection
- Auto synchronised sound output
- Unit can be mounted using external lugs or internal BESA compatible fixing positions.
- Duplicate cable terminations (in & out for daisy-chain installations)
- Available with custom tone configurations and frequencies



IS-L101L INTRINSICALLY SAFE L.E.D BEACON

The **IS-L101L** unit is an intrinsically safe field mounting beacon which provides a bright flashing warning signal. The unit can be used independently or combined with an IS-A105N 49 alarm sounder. Combination units can utilise a common zener barrier or galvanic isolator and may be coupled together or mounted separately. With the IS-A105N the alarm accept function can be utilised. By closing a pair of external contacts (i.e push switch) the operator may silence the alarm for set periods between 5 seconds and 2 hours. If after the pre-set time the alarm condition still exists the sounder will activate again.



- Input overload and reverse current protection
- Prismatic lens optimises L.E.D effectiveness
- Approved to ATEX, IECEx



IS-mA1 IS-MINIALARM

The **IS-mA1** is a compact, 100dB(A) alarm sounder. Approvals include ATEX, IECEx and GOST-R for Zone 0 applications and FM approval for Class I Division 1 and Class I Zone 0 applications. The IS-mA1 is suitable for all intrinsically safe signalling applications including fire, security and process control. The IS-mA1M version is also available for Group I mining environments.



- Input overload and reverse current protection
- End of line resistor certified
- Auto synchronised sound output
- Available with custom tone configurations and frequencies.



IS-mB1 IS-MINIALITE

The **IS-mB1** is a compact beacon with an array of six high output L.E.D's. Approvals include ATEX, IECEx and GOST-R for Zone 0 applications and FM approval for Class I Division 1 and Class I Zone 0 applications. The IS-mB1 is suitable for all intrinsically safe signalling applications including fire, security and process control.



- Input overload and reverse current protection
- End of line resistor certified
- Prismatic lens optimises L.E.D effectiveness



IS-mC1 IS-MINIALERT

The **IS-mC1** is a compact combined 100dB(A) alarm sounder and L.E.D. beacon – only one Zener barrier or galvanic isolator required to run both sounder & beacon or alternatively the unit can be operated as individual signals. Approvals include ATEX, IECEx and GOST-R for Zone 0 applications and FM approval for Class I Division 1 and Class I Zone 0 applications.



- Input overload and reverse current protection
- End of line resistor certified
- Auto synchronised sound output
- Prismatic lens optimises L.E.D effectiveness
- Available with custom tone configurations and frequencies