EkoSecure ATEX Pager

Safeguard employees in potentially explosive atmospheres

Explosive Atmospheres: the challenges

If you work in an industry where your business is at risk from potentially explosive atmospheres, then you should be aware of the EU ATEX Directive 2014/34/EU.

The ATEX Directive provides the legal framework that manufacturers must follow, in order to sell equipment intended for use in areas with potentially explosive atmospheres. These regulations are intended to protect and safeguard employees in dangerous environments such as oil, gas, mining or chemical installations and those whose work creates potentially explosive atmospheres. Originally introduced in 1994 as the ATEX Directive 94/9/EC, it was introduced by the European Union to ensure the formal safety certification of equipment and systems, including two-way paging devices, as used by workers in potentially explosive atmospheres.

Multitone ATEX certified pagers are designed and manufactured to very stringent intrinsically safe standards, to reduce the risk of generating the tiniest spark or heat, which could trigger an explosive reaction.

The Platform

Multitone's EkoSecure wide area staff security system, enables employers to have the assurance that if an employee or visitor gets into difficulty, an alarm can be raised and rescuers directed to their location.

Moreover, the rescue party will know whether the alarm has been raised manually, by the wearer pressing the red button, or automatically, by virtue of the 'Man Down' or 'Dead Man' alerts, or 'Snatch Cord' activation.

The EkoSecure ATEX pager provides all of these features and may be worn in explosive atmospheres requiring equipment conforming to:

EN60079-0: General Requirements

EN60079–11: Equipment protection by Intrinsic Safety

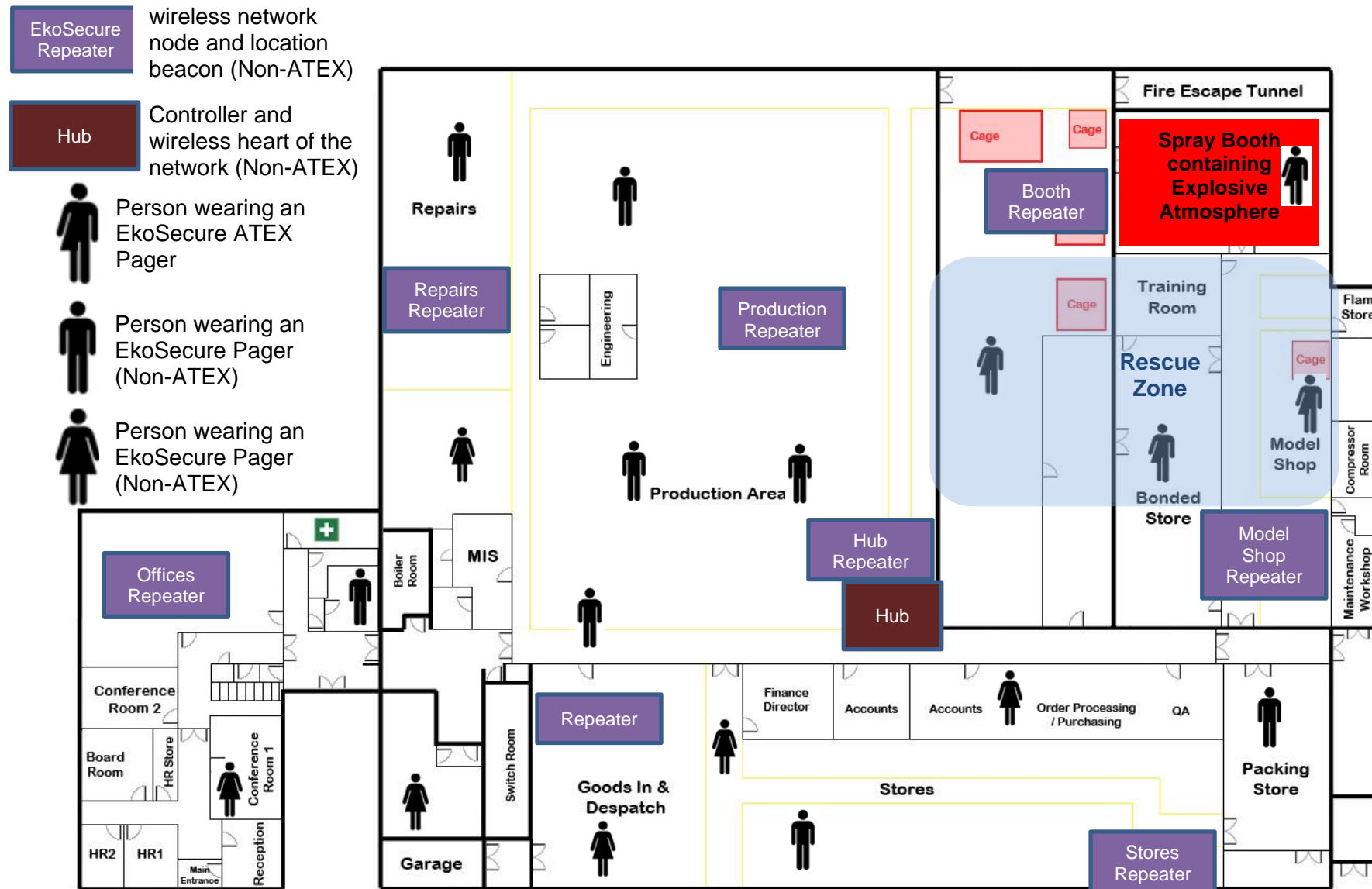Certified IS rating: ⟨Ex⟩ **II 1G Ex ia IIC T3 Ga (-10ºC ≤Ta≤ +55ºC)**

(The pager must be charged in an EKOPC4B rack, outside of any hazardous area).

Explosive Atmospheres: the challenges

If some of your workforce are at risk from potentially explosive atmospheres, then the EkoSecure ATEX pager allows them and their assigned rescuers normally working in the Rescue Zone, to stay safe across your site, whilst other personnel not exposed to this risk, can be provided with standard EkoSecure Pagers.

Here's a schematic example of how the layout could look.

EkoSecure Repeater — wireless network node and location beacon (Non-ATEX)

Hub — Controller and wireless heart of the network (Non-ATEX)

Person wearing an EkoSecure ATEX Pager

Person wearing an EkoSecure Pager (Non-ATEX)

Person wearing an EkoSecure Pager (Non-ATEX)

EkoSecure – Sends the alarm to the right people

Operational Features

- The Hub comprises the controller and memory of an EkoSecure network, it manages a radio mesh network of EkoSecure repeaters (and other devices) and is configured by web pages.

- An alarm message from an Ekosecure Pager is sent through the mesh to the Hub, which processes the alarm and notifies the configured group(s) of other Ekosecure Pagers, with a message including the user's identification, location and type of alarm.

  In the schematic example, all EkoSecure ATEX Pagers have been configured in the same exclusive pager group so that only EkoSecure ATEX pager wearers are alerted when an ATEX-only rescue needs to be performed of the Paint Sprayer in the Spray Booth; standard EkoSecure pager (non-ATEX) wearers are not disturbed.

- EkoSecure repeaters and locators transmit their location, EkoSecure Pagers will show this as a precise location if they are within a few metres of the transmitter, or as a general location if further away.

- EkoSecure Pagers are available in ATEX and Non-ATEX models; all other EkoSecure devices are non-ATEX.

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