Case study

Panasonic Fire & Security Europe AB

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PTDC Logistics Center

Images source
Parviainen architecture studio
www.parviainenark.fi

PTDC trusts in Panasonic fire alarm systems for its new large-scale Logistics Center

S Group's grocery business PTDC logistics center, the largest building in Finland, has been equipped with Panasonic fire alarm systems.

With a huge surface area of 195.000 m^2, PTDC logistics Center in Helsinki is the largest building in Finland. This installation houses the logistical functions of the S-group's grocery business. The U-shaped facility holds robotized warehouses that require ceiling heights of up to 28 meters. Its volume is a massive 3.56 million m^3 which of them, 330.000 m^3 are kept at -26°C with the use of carbon dioxide coolers. The heating of the buildings is taken care of by a geothermic system with 160 wells with a depth of 300 meters each.

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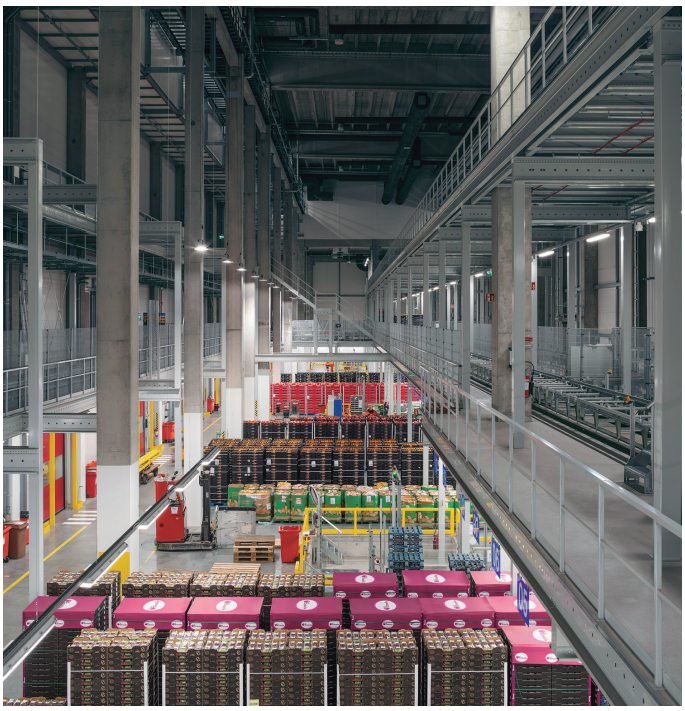
Challenges

Apart from its huge volume, PTDC logistics center has different types of storage areas with varying temperatures to suit every kind of product.:

- High ceiling fire detection of up to 28 m high was required
- Massive volume of 3.56 million m^3 to be covered
- Detection systems for storage temperatures down to - 26°C



Solution

To meet the complex and massive challenges that PTDC installation required, Panasonic has offered an intelligent solution with a mix of advanced point detectors (multi and smoke) and very robust Aspect addressable aspirating systems.

- 30 EBL512 G3 Control and Indication Equipment
- More than 6.000 addressable multi / smoke detectors
- 410 Aspect addressable aspirating systems with more than 80 Km pipes
- EBL Graphics monitoring system

Additional fire protection accessories such as fire ventilation, hatches, fire door controls, elevators, smoke curtains or extinguishing controls are controlled directly by the FAS' I/O control modules. I/O units and sirens are located on separate loops with fireproof cable for maximum safety. The voice alarm system is conveniently integrated directly with the EBL fire alarm system.

Connection between the fire alarm system and the building management system is made by WEB Server implementations. This means that the fire alarm system could be monitored and controlled from the BMS system.

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CONCLUSION

Panasonic's very flexible fire alarm system with its scalability and extremely high reliability has proved ideal for this complex building. Another major advantage is the addressable aspirating detectors with built-in power supply that can operate down to -30°C and thereby eliminate the need for expensive heaters, power supplies, I/O units and unnecessary piping and cabling.