Collection of new ideas in the Electrotechnical Industry

The ELEKTRO Tipp

Customer information for electricians

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Dear Readers

Current examples in London and Dubai show that fires in high-rise buildings or residential and commercial buildings with public traffic cannot be prevented in principle.

Professional fire protection measures are necessary so that all persons can leave the building and rescue workers can work. These must be able to rely on the technology, even if the cable system passes through the fire.

This also includes an electrical installation which guarantees the emergency power supply even in the event of a fire, for example, fire detection systems, emergency lighting systems, sprinkler systems and systems for the supply of water for fire fighting.

Already in planning, the correct electrical installation has to be taken into consideration and suitable materials for the fire case have to be selected.

As a leading manufacturer, Hensel offers an extensive range of cable junction boxes with intrinsic fire resistance and insulation integrity for professional fire protection.

Please do not hesitate to contact us for further information.

Felix G. Hensel

Managing partner of
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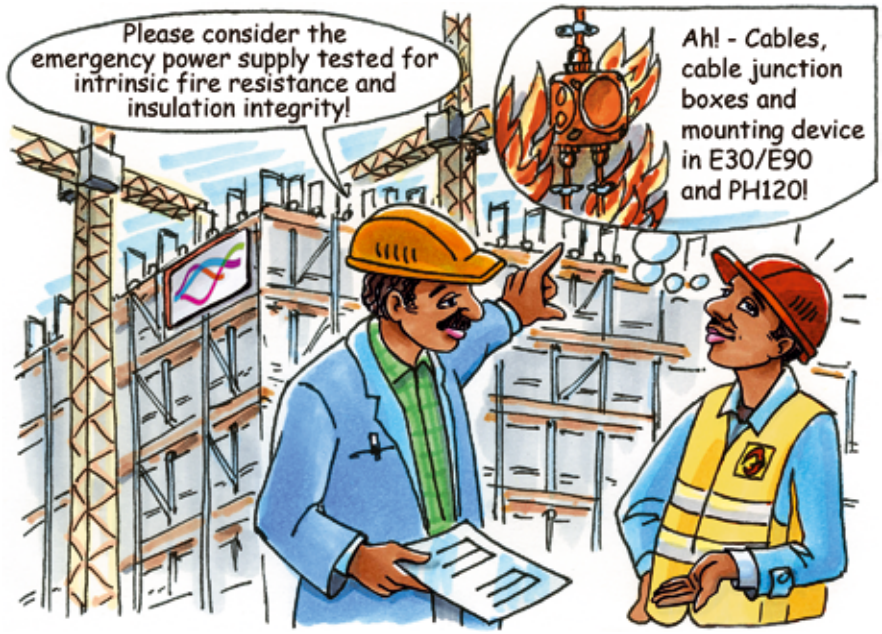


Saving lives: Safe power supply - even in the event of a fire

In the event of a fire, electricians must ensure the functional integrity of the emergency power supply for a specific period of time!

Especially in buildings with public traffic as department stores, airports, hospitals, etc. and other public places security is top priority. This is particularly true of buildings, such as residential and commercial buildings.

This ensures that electric devices, such as emergency lighting, lifts, smoke extractors, alarms, etc. remain operational for 30, 60 or 90 minutes and that people can leave the building and rescue services can work in case of fire.

The new Hensel cable junction boxes with functional and insulation integrity fulfill the special requirements in the event of a fire.

A safe power supply already starts with the planning process of a building!

A safe power supply already starts with the planning process of a building

Insulation integrity and intrinsic fire resistance are an essential element in the planning of buildings with continuous presence of people. They are legally required in the event of a fire. Electrical equipment must ensure escape and emergency routes so that people can leave the building and rescue services can work in case of fire. In addition to these requirements electrical installation systems must fulfill especially the electrical parameters with all components.

1 Check requirements

- according to type and utilisation of a building and legal country-specific requirements

The building permit specifies the safety-relevant requirements depending on the type and use of a building for the insulation or functional integrity.

Here electrical devices are specified for the intrinsic fire resistance according to classes E30 or E90 and the insulation integrity PH120.

2 Selection of material
e.g. cable junction boxes according to

- Approval of materials according to certificate for
  - intrinsic fire resistance E30/E90
  - insulation integrity PH120
- IP-rating and material

Examples of electrical equipment with intrinsic fire resistance and insulation integrity for self-rescue or evacuation:

- Fire alarm systems (smoke detectors)
- Systems for issuing alarms and giving instructions to visitors and employees
- Emergency lighting und rescue signs
- Natural smoke extraction systems for example via roof openings

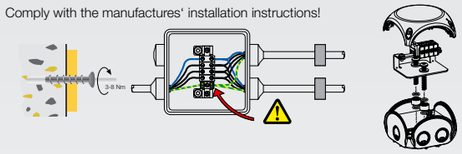
Examples of electrical equipment with intrinsic fire resistance and insulation integrity for fighting fires and rescuing persons:

Fire services and bed elevators

- Machine smoke extraction systems and smoke protection pressure systems
- Supply of water for firefighting purposes

3 Proper performance and installation of the cable system with intrinsic fire resistance and insulation integrity

- with quality-checked and documented material by the local building authorities, for example cable junction boxes
- according to installation instructions of the manufactureres



E30/E60/E90 - Which functions are tested?

A cable system with intrinsic fire resistance must always be tested as a complete system according to DIN 4102-12. The test approves a **cable system as a whole** under real-life conditions including all components as support systems, cable junction boxes and mounting device.

PH120 - Which functions are tested?

In case of a cable system with insulation integrity, each component is tested individually, regardless of their usage in installation practice. Cable, cable junction boxes and support systems can be combined individually. Complete cable systems are not subject of this test.

New from Hensel: Cable junction boxes with tested intrinsic fire resistance and insulation integrity in the event of a fire

meet the requirements for intrinsic fire resistance according to DIN 4102-12 and insulation integrity according to EN 50200 in combination with function- or insulation-retaining cables from 1.5-50 mm²

Cable junction boxes made from thermoplastic

for installations which require an insulating coating, e.g. ELA systems for the alarming of persons

- Housings made of thermoplastic, colour: orange RAL 2003
- Degree of protection IP 65 / IP 66
- Degree of protection against external mechanical impacts IK09 (10 Joules)
- Insulating coating

Cable junction boxes made of sheet steel

for applications that meet the highest demands on mechanical strength in the event of a fire.

- Houses made of sheet steel, powder coated, pastellorange RAL 2003
- Degree of protection IP 66
- No additional fire load, no toxic or corrosive emissions
- Protection against mechanical load IK10 (20 Joule)
- Protection against electric shock: earthed

ENYCASE cable junction boxes meet the highest requirements in installation technology!

Weatherproof

for the unprotected outdoor installation

Waterproof

for encapsulating

E30/E90 /PH120

Intrinsic fire resistance E30/E90 and insulation integrity PH120 in the event of a fire

All Hensel cable junction boxes comply with the relevant regulations and standards and work safely in operation. They provide protection against moisture, water, dust, corrosion and other influences.

In addition, FK cable junction boxes fulfill the special requirements for intrinsic fire resistance and insulation integrity in the event of fire!

Product information for download
Cable junction boxes with intrinsic fire resistance and isulation integrity E30/E90 and PH120
www.hensel.in

HENSEL

PASSION FOR POWER.

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