



Junction box with connected cables after testing.



Test temperature curve in accordance with DIN 4102

Safety circuits must remain operational for a sufficient period in accordance with the national regulations governing fire protection requirements for cable installations during exposure to fire.

This ensures that electrotechnical equipment such as luminaires, lifts, smoke outlets, alarm systems etc. are supplied with power for 30 or 90 minutes and thereby enable people to leave the building and assist rescue teams in carrying out their work.

When planning and implementing these cable installations, the current specimen regulation for fire protection requirements in these installations must be observed.

FK Cable junction boxes comply with these requirements when used together with type-approved cables as well as suitable cable clamps or mounting devices.

- Cable junction boxes tested for intrinsic fire resistance.
- Degree of protection IP 65, IP 66
- Box made from sheet steel with powder coating or duroplastic, pastel orange RAL 2003
- No additional fire load, no toxic or corrosive emissions
- Intrinsic fire resistance according to DIN 4102 part 12 (German standard) in connection with function-retaining cables of 0.5-16 mm²
- Protection against direct contact also maintained due to the box
- Captive cover with 4 screw fixings

Box fixing with plugs:

Anchor (building materials)

- Limestone blocks KS 12
- Building bricks Mz 12
- Airbricks HLz 12
- Limestone air blocks KSL 12
- Prestressed concrete slabs
- Porous concrete slabs => 3.3
- Porous concrete blocks => 4
- Concrete => B25 / =< B55

| Fischer type ... | | | | | Hilti type ... | | |
|------------------|-------|-------|-------|-------|----------------|-------|----------|
| FIS V.. | FNA.. | FBS.. | FBN.. | FHY.. | HUS.. | HSA.. | HIT-HY.. |
| x | | | | | x | | x |
| x | | | | | x | | x |
| x | | | | | | | x |
| x | | | | | | | x |
| | | | | x | | | |
| | | | | | x | | x |
| | | | | | x | | x |
| | x | x | x | | x | x | |

Please observe the current approvals and notes from the manufacturer of the plugs.

Ambient conditions in working operation:

Application area

Suitable for indoor installation and outdoor installation, protected against weather influences

Ambient temperature

- Average value over 24 hours
- Maximum value
- Minimum value

Relative humidity

- short-time

Material

Degree of protection against mechanical load

| FK 7xx5 | FK 9xx5 | FK 9259 |
|---------------------------------|---|---------------------------------|
| + 35° C + 40° C - 25° C | + 35° C + 40° C - 25° C | + 35° C + 40° C - 5° C |
| 50 % at 40° C 100 % at 25° C | 50 % at 40° C 100 % at 25° C | 50 % at 40° C 100 % at 25° C |
| duroplastic halogen-free | sheet steel with powder coating halogen-free | |
| IK06 (1 Joule) | IK 10 (20 Joule) | |

Standards and regulations:

| | | |
|------------------|------------------|------------------|
| IEC 60 998 -1 | IEC 60 529 | DIN 4102 Part 2 |
| IEC 60 998 -2 -1 | IEC 60 947 -7 -1 | DIN 4102 Part 12 |
| IEC 60 998 -2 -5 | EN 50 262 | |

Potentially explosive atmospheres according to ATEX

Zone definitions*:

- From 1.1.2003 onwards within the European Union only materials that comply with EU directive 94/9/EG (ATEX 100a) must be installed in new systems.
- The change creates a complete separation between dust-explosion protection and gas-explosion protection.

| GAS-explosive area | DUST-explosive area |
|---|--|
| Zone 0 - gases An area in which an explosive atmosphere comprising a mixture of air and flammable substances in the form of gases, vapours or liquid aerosol is present continuously, for long periods or frequently. | Zone 20 - dust An area in which an explosive atmosphere in the form of a cloud of combustible dust in air is present continuously, for long periods or frequently. |
| Zone 1 - gases An area in which it is expected that an explosive atmosphere comprising a mixture of air and flammable substances in the form of gas, vapour or liquid aerosol may occur occasionally during normal operations. | Zone 21 - dust An area in which it is expected that an explosive atmosphere in the form of a cloud of combustible dust in air is likely to occur occasionally during normal operations. |
| Zone 2 - gases An area in which it is not expected that an explosive atmosphere comprising a mixture of air and flammable substances in the form of gas, vapour or liquid aerosol occurs during normal operation; but if it does occur, then only for a short period. | Zone 22 - dust An area in which it is not expected that an explosive atmosphere in the form of a cloud of combustible dust in air occurs during normal operations; but if it does occur, then only for a short period. |

Selecting the equipment*

1. The proprietor specifies the separation into explosive areas (dust/gas), the zones and the type of material (atmosphere/dust) with flash point, ignition temperature, conductive or non-conductive.
2. This information must be used to define the requirements in regard to selecting the right equipment.
3. The device ID must provide information about where and in which areas the equipment must be used (device category and, consequently, allocation to the hazard zone).

* Please consider possible different local regulations.

