

HENSEL

PASSION FOR POWER.

Reliable power supply, even in the event of fire

Cable junction boxes

with intrinsic fire resistance
and insulation integrity



**E30 E60 E90
PH120**



For more information see www.hensel-electric.de



ENYCASE®



Planning process for intrinsic fire resistance and insulation integrity

1. Requirements

Country-specific requirements and national laws have to be observed!

The relevant local regulations of legislators, fire brigades or similar services, which are placed on the building and its use must be observed.

2. E30 / E60 / E90 PH120?

Are there any requirements for

- intrinsic fire resistance in electrical installations E30/E60/E90 or
- insulation integrity PH120 according to BS EN 50200?

Reliable power supply - even in the event of fire!

- Cable junction boxes approved for intrinsic fire resistance and insulation integrity
- Degree of protection IP 65 / IP 66
- Boxes made of thermoplastic or sheet steel
- No toxic or corrosive emissions
- Intrinsic fire resistance according to DIN 4102 Part 12 (German Standard) in connection with function-retaining cables of 1.5-16 mm²
- Insulation integrity PH120* in accordance with BS EN 50200
- Colour orange RAL 2003

PH120*: one final test for insulation integrity is pending.



3. Selection of material

Selection should be carried out according to

- intrinsic fire resistance E30 or E90 or insulation integrity e.g. PH120
- cable junction or cable connection
- installation procedure in buildings
- type of cable installation
- anchoring method on the building material
- approval of materials according to certificate

4. Manufacturer

Country-specific requirements and national laws have to be observed!

The selection of a cable manufacturer is carried out according to

- type of cable installation
- required cable junction or cable connection

5. Operating

Country-specific requirements and national laws have to be observed!

Professional execution of the installation work.

Safety in the event of a fire

Cable junction boxes from Hensel are tested for insulation integrity PH120 and intrinsic fire resistance in electrical systems E30/E60/E90

Especially in buildings with public traffic as department stores, airports, hospitals, etc. and other public places security is top priority. The emergency power supply in accordance with regional building regulations is generally required. In the event of fire, the functional integrity of the emergency power supply must be guaranteed for a specific period of time. 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. In addition to these requirements electrical installation systems must fulfill especially the electrical parameters with all components.

Generally two, but completely different standards and testing procedures have been established.



BS BS EN 50200 Flame exposure period	Classification
15 minutes	PH15
30 minutes	PH30
60 minutes	PH60
90 minutes	PH90
120 minutes	PH120

Insulation integrity PH120

Testing for resistance to fire of unprotected cable lines (cables with cable junction boxes) for use in emergency circuits.

This test method considers single tested products regardless of their usage.

This test determines the period for which a mechanically unloaded cable maintains a minimum insulation integrity under fire exposure.

The test is passed, if after a test period of 120 minutes the current still flows and no short circuit or cable break can be detected. The tested product achieves PH120 Classification.

Testing for insulation integrity is a hardness test, which only high quality materials can pass.

Complete cable installations are not subject of this test.

Hensel products comply with the PH120 Classification of standard BS EN 50200. Local requirements must be considered additionally. E.g. British Standard BS 5839-1:2013 places additional demands to enhance the fire-resisting level.

Testing for insulation integrity PH120:
BS EN 50200 (> 842 °C)

Cable junction boxes with connected cables after testing



DIN 4102-12 Intrinsic fire resistance for	Classifica- tion
30 minutes	E30
60 minutes	E60
90 minutes	E90

Intrinsic fire resistance E30/E60/E90 places higher demands

In contrast to insulation integrity, the testing of intrinsic fire resistance accesses not just a single test product, but the cable system as a whole including all components.

The German standard DIN 4102-12 sets the requirements on a complete cable system to achieve the functional integrity in the event of fire.

The classifications E30, E60, E90 indicate the period for which a complete cable system ensures functional integrity so that emergency power supply remains operational in case of fire, for example E90 is 90 minutes.

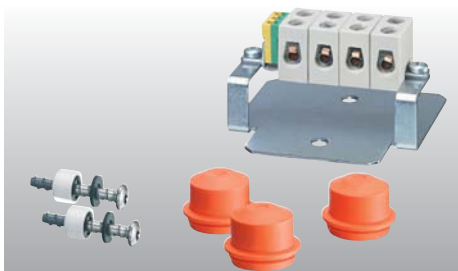
The test approves a cable system as a whole under real-life conditions including all components as support systems, cable junction boxes and mounting device.

Testing of functional integrity sets extreme but realistic demands on a complete cable system in combination with all installed components.

Therefore this method of test allows meaningful conclusions to be drawn on the realistic behaviour in the event of fire (full intrinsic fire resistance).

Testing on functional integrity E30/E60/E90 of cable systems in the event of fire:

DIN 4102-12 (E30-E90) German Standard



DK Cable junction boxes

Approved for intrinsic fire resistance with grommets

- Intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- Insulation integrity PH120* in accordance with BS EN 50200 in combination with insulation retaining cables
- Included screw anchors, connecting terminal made from ceramic with resistance to high temperatures E30 - E90 and cable entries as standard
- Multi-level knockouts for cable glands in different sizes
- Closes quickly by a quarter turn – closed position is visible
- Material: PC-GFS polycarbonate
- Colour: orange, RAL 2003
- Glow wire test in accordance with IEC 60695-2-11: 960 °C, flame-retardant, self-extinguishing
- Resistance to impact: IK 09 (10 Joule)
- Degree of protection: IP 65/66

PH120*: one final test for insulation integrity is pending.

DK Cable junction boxes
Approved for intrinsic fire resistance,
with included grommets

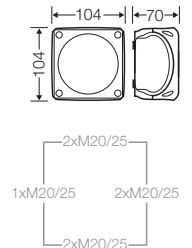


FK 0402

Cable junction box 1.5 mm², Cu
Connection box 1.5-2.5 mm², Cu



- 5-pole per pole 4 x 1.5 mm² sol and 2 x 2.5 mm² sol
- connecting terminal made from ceramic with resistance to high temperatures
- included cable entry: 3 EDKF 25, sealing range: Ø 9-17 mm, IP 65
- IP 66 using AKMF cable glands, please order separately
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- tested with the cable manufacturer Dätwyler and Eupen for the intrinsic fire resistance E30 up to E90, see test certificate no.: P-MPA-E-15-018, valid until 27 January 2021, download available from www.hensel-electric.de > type - documents
- tested for insulation integrity PH120* in combination with insulation retaining cables in accordance with BS EN 50200, see test certificate, download available from www.hensel-electric.de > type - documents
- screw anchors enclosed can be used for concrete C20/25, limestone blocks KSV 12, building bricks MZ 12 and clinker bricks KS 12
- for normal environment and protected outdoor



rated insulation voltage	U _i = 400 V a.c./d.c.
current carrying capacity	24 A
tightening torque for terminal material	0,5 Nm PC (Polycarbonate)

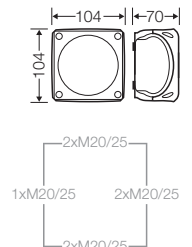


FK 0404

Cable junction box 1.5-2.5 mm², Cu
Connection box 1.5-4 mm², Cu



- 5-pole per pole 8 x 1.5 mm² sol, 4 x 2.5 mm² sol, 2 x 4 mm² sol
- connecting terminal made from ceramic with resistance to high temperatures
- included cable entry: 3 EDKF 25, sealing range: Ø 9-17 mm, IP 65
- IP 66 using AKMF cable glands, please order separately
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- tested with the cable manufacturer Dätwyler and Eupen for the intrinsic fire resistance E30 up to E90, see test certificate no.: P-MPA-E-15-018, valid until 27 January 2021, download available from www.hensel-electric.de > type - documents
- tested for insulation integrity PH120* in combination with insulation retaining cables in accordance with BS EN 50200, see test certificate, download available from www.hensel-electric.de > type - documents
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- for normal environment and protected outdoor



rated insulation voltage	U _i = 400 V a.c./d.c.
current carrying capacity	32 A
tightening torque for terminal material	1.2 Nm PC (Polycarbonate)

PH120*: one final test for insulation integrity is pending.

DK Cable junction boxes

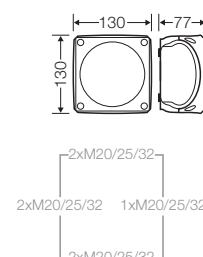
Approved for intrinsic fire resistance with included grommets



FK 0604

**Cable junction box 1.5-2.5 mm², Cu
Connection box 1.5-6 mm², Cu**

- 5-pole per pole 8 x 1.5 mm² sol, 4 x 2.5 mm² sol, 2 x 4 mm² sol, 2 x 6 mm² sol
- connecting terminal made from ceramic with resistance to high temperatures
- included cable entry: 3 EDKF 32, sealing range: 8-23 mm, IP 65
- IP 66 using AKMF cable glands, please order separately
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- tested with the cable manufacturer Dätwyler and Eupen for the intrinsic fire resistance E30 up to E90, see test certificate no.: P-MPA-E-15-018, valid until 27 January 2021, download available from www.hensel-electric.de > type - documents
- tested for insulation integrity PH120* in combination with insulation retaining cables in accordance with BS EN 50200, see test certificate, download available from www.hensel-electric.de > type - documents
- screw anchors enclosed can be used for concrete C20/25, limestone blocks KSV 12, building bricks MZ 12 and clinker bricks KS 12
- for normal environment and protected outdoor



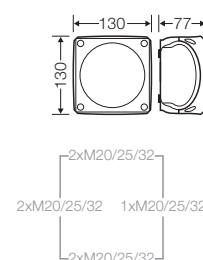
rated insulation voltage	U _i = 400 V a.c./d.c.
current carrying capacity	41 A
tightening torque for terminal material	1.2 Nm PC (Polycarbonate)



FK 0606

**Cable junction box 1.5-6 mm², Cu
Connection box 1.5-6 mm², Cu**

- 5-pole per pole 12 x 1.5 mm² sol, 8 x 2.5 mm² sol, 6 x 4 mm² sol, 4 x 6 mm² sol
- connecting terminal made from ceramic with resistance to high temperatures
- included cable entry: 3 EDKF 32, sealing range: 8-23 mm, IP 65
- IP 66 using AKMF cable glands, please order separately
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- tested with the cable manufacturer Dätwyler and Eupen for the intrinsic fire resistance E30 up to E90, see test certificate no.: P-MPA-E-15-018, valid until 27 January 2021, download available from www.hensel-electric.de > type - documents
- tested for insulation integrity PH120* in combination with insulation retaining cables in accordance with BS EN 50200, see test certificate, download available from www.hensel-electric.de > type - documents
- screw anchors enclosed can be used for concrete C20/25, limestone blocks KSV 12, building bricks MZ 12 and clinker bricks KS 12
- for normal environment and protected outdoor



rated insulation voltage	U _i = 400 V a.c./d.c.
current carrying capacity	41 A
tightening torque for terminal material	2.0 Nm PC (Polycarbonate)

PH120*: one final test for insulation integrity is pending.

DK Cable junction boxes

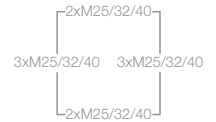
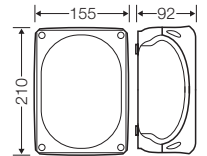
Approved for intrinsic fire resistance with included grommets

FK 1606

**Cable junction box 1.5-6 mm², Cu
Connection box 1.5-6 mm², Cu**



- 5 terminals per pole 12 x 1,5 mm² sol, 8 x 2,5 mm² sol, 6 x 4 mm² sol, 4 x 6 mm² sol
- terminal for 4 x 1,5 mm² sol or 2 x 2,5 mm² sol and PE terminal
- connecting terminal made from ceramic with resistance to high temperatures
- included cable entry: 3 EDKF 32, sealing range: 8-23 mm, IP 65
- IP 66 using AKMF cable glands, please order separately
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- tested with the cable manufacturer Dätwyler and Eupen for the intrinsic fire resistance E30 up to E90, see test certificate no.: P-MPA-E-15-018, valid until 27 January 2021, download available from www.hensel-electric.de > type - documents
- tested for insulation integrity PH120* in combination with insulation retaining cables in accordance with BS EN 50200, see test certificate, download available from www.hensel-electric.de > type - documents
- screw anchors enclosed can be used for concrete C20/25, limestone blocks KSV 12, building bricks MZ 12 and clinker bricks KS 12
- for normal environment and protected outdoor



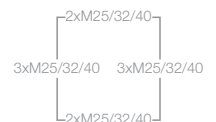
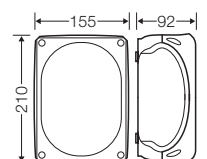
rated insulation voltage	U _i = 400 V a.c./d.c.
current carrying capacity	41 A
tightening torque for terminal	2.0 Nm 0,5 Nm
material	PC (Polycarbonate)

FK 1608

**Cable junction box 1.5 mm², Cu
Connection box 1.5-2.5 mm², Cu**



- 10-pole per pole 4 x 1.5 mm² sol and 2 x 2.5 mm² sol
- connecting terminal made from ceramic with resistance to high temperatures
- included cable entry: 4 EDKF 25, sealing range: Ø 9-17 mm, IP 65
- IP 66 using AKMF cable glands, please order separately
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- tested with the cable manufacturer Dätwyler and Eupen for the intrinsic fire resistance E30 up to E90, see test certificate no.: P-MPA-E-15-018, valid until 27 January 2021, download available from www.hensel-electric.de > type - documents
- tested for insulation integrity PH120* in combination with insulation retaining cables in accordance with BS EN 50200, see test certificate, download available from www.hensel-electric.de > type - documents
- screw anchors enclosed can be used for concrete C20/25, limestone blocks KSV 12, building bricks MZ 12 and clinker bricks KS 12
- for normal environment and protected outdoor



rated insulation voltage	U _i = 400 V a.c./d.c.
current carrying capacity	24 A
tightening torque for terminal	0,5 Nm
material	PC (Polycarbonate)

PH120*: one final test for insulation integrity is pending.

DK Cable junction boxes

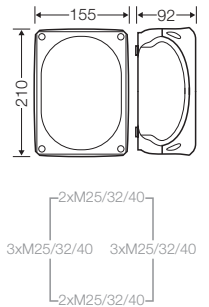
Approved for intrinsic fire resistance with included grommets



FK 1610

**Cable junction box 1.5-2.5 mm², Cu
Connection box 1.5-10 mm², Cu**

- 5-pole per pole 8 x 1.5 mm² sol, 4 x 2.5 mm² sol, 2 x 4 mm² sol, 2 x 6 mm² sol, 2 x 10 mm² sol
- connecting terminal made from ceramic with resistance to high temperatures
- included cable entry: 3 EDKF 32, sealing range: 8-23 mm, IP 65
- IP 66 using AKMF cable glands, please order separately
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- tested with the cable manufacturer Dätwyler and Eupen for the intrinsic fire resistance E30 up to E90, see test certificate no.: P-MPA-E-15-018, valid until 27 January 2021, download available from www.hensel-electric.de > type - documents
- tested for insulation integrity PH120* in combination with insulation retaining cables in accordance with BS EN 50200, see test certificate, download available from www.hensel-electric.de > type - documents
- screw anchors enclosed can be used for concrete C20/25, limestone blocks KSV 12, building bricks MZ 12 and clinker bricks KS 12
- for normal environment and protected outdoor



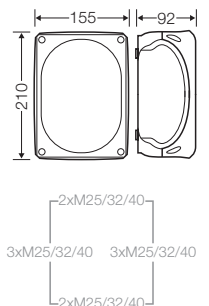
rated insulation voltage	U _i = 400 V a.c./d.c.
current carrying capacity	57 A
tightening torque for terminal material	1.2 Nm
	PC (Polycarbonate)



FK 1616

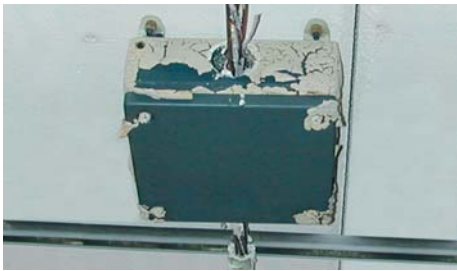
**Cable junction box 1.5-6 mm², Cu
Connection box 1.5-16 mm², Cu**

- 5-pole per pole 12 x 1.5 mm² sol, 8 x 2.5 mm² sol, 6 x 4 mm² sol, 4 x 6 mm² sol, 2 x 10 mm² sol, 2 x 16 mm² r
- connecting terminal made from ceramic with resistance to high temperatures
- included cable entry: 3 EDKF 40, sealing range: 11-30 mm, IP 65
- IP 66 using AKMF cable glands, please order separately
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- tested with the cable manufacturer Dätwyler and Eupen for the intrinsic fire resistance E30 up to E90, see test certificate no.: P-MPA-E-15-018, valid until 27 January 2021, download available from www.hensel-electric.de > type - documents
- tested for insulation integrity PH120* in combination with insulation retaining cables in accordance with BS EN 50200, see test certificate, download available from www.hensel-electric.de > type - documents
- screw anchors enclosed can be used for concrete C20/25, limestone blocks KSV 12, building bricks MZ 12 and clinker bricks KS 12
- for normal environment and protected outdoor



rated insulation voltage	U _i = 400 V a.c./d.c.
current carrying capacity	76 A
tightening torque for terminal material	2.0 Nm
	PC (Polycarbonate)

PH120*: one final test for insulation integrity is pending.



DK Cable junction boxes

Approved for intrinsic fire resistance with grommets

- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- Insulation integrity PH120 in accordance with BS EN 50200 in combination with insulation retaining cables
- Protection against accidental contact is ensured with the housing
- Mounted using exterior wall fixing
- Cable junction box for tunnel application for large conductor cross-sections up to 50 mm²
- Communication junction box for the installation of connecting device for telecommunications
- Material: sheetsteel, powder-coated
- Colour: orange, RAL 2003
- Resistance to impact: IK 10 (20 Joule)
- Degree of protection: IP 66
- Low fire load

DK Cable junction boxes

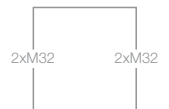
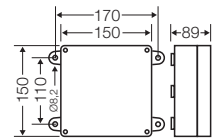
Approved for intrinsic fire resistance
cable entry via mounted grommets



FK 9025

Cable junction box Ø 0.8 mm / 0.5-1.5 mm², Cu
Connection box Ø 0.8 mm / 0.5-4 mm², Cu

- 5-pole per pole 4 x Ø 0.8 mm / 0.5 mm² sol, 4 x 1.5 mm² sol, 2 x 2.5 mm² sol, 2 x 4 mm² sol
- connecting terminal made from ceramic with resistance to high temperatures
- mounted grommets 4 EDKF 32, sealing range: Ø 8-23 mm, closed
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- Tested with cable manufacturers Dätwyler, Eupen, Nexans, Studer, Pirelli and Lynenwerk for the intrinsic fire resistance E30 and E90, see test certificate no.: P-MPA-E-02-032, valid till March 20, 2018, download available from www.hensel-electric.de
- tested for insulation integrity PH120* in combination with insulation retaining cables in accordance with BS EN 50200, see test certificate, download available from www.hensel-electric.de > type - documents mounted using exterior wall fixings, bore hole 8.2 mm (for dowels refer to technical data)
- for normal environment and protected outdoor



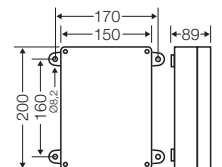
rated insulation voltage	U _i = 400 V a.c./d.c.
current carrying capacity	32 A
tightening torque for terminal	0,5 Nm
material	sheet steel, powder-coated



FK 9105

Cable junction box 1.5-4 mm², Cu
Connection box 1.5-10 mm², Cu

- 5-pole per pole 4 x 1.5 mm² sol, 4 x 2.5 mm² sol, 4 x 4 mm² sol, 2 x 6 mm² sol, 2 x 10 mm² sol
- connecting terminal made from ceramic with resistance to high temperatures
- mounted grommets 4 EDKF 32, sealing range: Ø 8-23 mm, closed
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- Tested with cable manufacturers Dätwyler, Eupen, Nexans, Studer, Pirelli and Lynenwerk for the intrinsic fire resistance E30 and E90, see test certificate no.: P-MPA-E-02-032, valid till March 20, 2018, download available from www.hensel-electric.de
- tested for insulation integrity PH120 in combination with insulation retaining cables in accordance with BS EN 50200, see test certificate, download available from www.hensel-electric.de > type - documents
- mounted using exterior wall fixings, bore hole 8.2 mm (for dowels refer to technical data)
- for normal environment and protected outdoor



rated insulation voltage	U _i = 400 V a.c./d.c.
current carrying capacity	40 A
tightening torque for terminal	1.2 Nm
material	sheet steel, powder-coated

DK Cable junction boxes

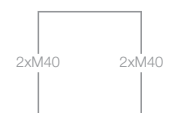
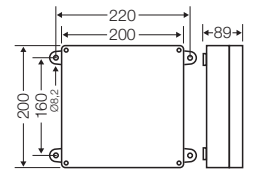
**Approved for intrinsic fire resistance
cable entry via mounted grommets**



FK 9255

**Cable junction box 1.5-6 mm², Cu
Connection box 1.5-16 mm², Cu**

- 5-pole per pole 4 x 1.5 mm² sol, 4 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 2 x 10 mm² sol, 2 x 16 mm² r (remove cable protection)
- connecting terminal made from ceramic with resistance to high temperatures
- mounted grommets 4 EDKF 40, sealing range Ø 11-30 mm, closed
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- Tested with cable manufacturers Dätwyler, Eupen, Nexans, Studer, Pirelli and Lynenwerk for the intrinsic fire resistance E30 and E90, see test certificate no.: P-MPA-E-02-032, valid till March 20, 2018, download available from www.hensel-electric.de
- tested for insulation integrity PH120 in combination with insulation retaining cables in accordance with BS EN 50200, see test certificate, download available from www.hensel-electric.de > type - documents
- mounted using exterior wall fixings, bore hole 8.2 mm (for dowels refer to technical data)
- for normal environment and protected outdoor



rated insulation voltage	$U_i = 400 \text{ V a.c./d.c.}$
current carrying capacity	63 A
tightening torque for terminal	2.0 Nm
material	sheet steel, powder-coated

DK Cable junction boxes

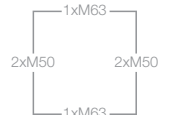
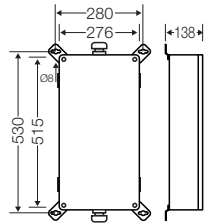
Approved for intrinsic fire resistance
cable entry via mounted cable glands



FK 6505

Cable junction box E90 16-35 mm², Cu, "r"
Connection box E90 16-50 mm², Cu, "r"

- 5-pole per pole 6 x 16 mm² r, 4 x 25 mm² r, 4 x 35 mm² r, 2 x 50 mm² r
- connecting terminal made from ceramic with resistance to high temperatures
- mounted cable entries 2 ASS 63, sealing range Ø 20-48 mm
- on the longitudinal sides each with 2 locking screws M 50
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- Tested with cable manufacturers Dätwyler, Prysmian and Eupen for the intrinsic fire resistance E90, see test certificate no.: P-1011 DMT DO, download at www.hensel-electric.de > Type - Documents
- mounted using exterior wall fixings, keyhole 8 mm (dowel refer to technical data)
- for normal environment and protected outdoor



rated insulation voltage	$U_i = 690 \text{ V a.c./d.c.}$
current carrying capacity	150 A
tightening torque for terminal material	4.0 Nm
	External brackets for wall fixing: Stainless steel 1.4462, resistance class IV
	Enclosure including lid and outer screws: Stainless steel 1.4571, resistance class III powder-coated

For tunnel application stainless steel enclosures are required.



DK Cable junction boxes

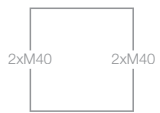
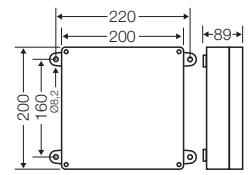
**Approved for intrinsic fire resistance
cable entry via mounted grommets**



FK 9259

Cable junction box 1.5-10 mm², Cu

- cable junction box with fused outgoing unit
- D 01 neozed fuse base
- 5-pole terminal with 2 connecting terminals, 2 junction terminals and 2 PE terminals, each 1.5-10 mm² sol
- terminal block made from ceramic with resistance to high temperatures
- mounted grommets 4 EDKF 40, sealing range Ø 11-30 mm, closed
- intrinsic fire resistance E30 in accordance with DIN 4102 part 12
- the use of this equipment requires the approval from the building and regulatory authorities for the individual case
- Tested with cable manufacturers Dätwyler and Nexans for the intrinsic fire resistance E30, see test certificate no.: P-MPA-E-02-032, valid till March 20, 2018, download available from www.hensel-electric.de
- mounted using exterior wall fixings, bore hole 8.2 mm (for dowels refer to technical data)
- for normal environment and protected outdoor

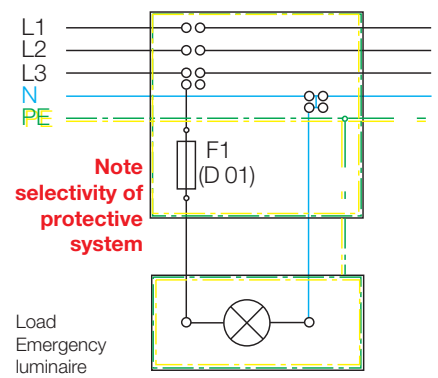


rated insulation voltage	$U_i = 400 \text{ V a.c.}$
current carrying capacity	40 A
tightening torque for terminal material	2.0 -2.4 Nm
	sheet steel, powder-coated

FK 9259, with fused outgoing circuit

Can be used in emergency lighting in installations that cover a large area (e.g. tunnels). The use of a fused branch circuit makes it possible to supply a group of emergency luminaires with one supply lead. If one or several emergency luminaires are damaged during a fire, the back-up fuse is tripped and ensures that the power supply of the common supply lead is maintained.

The use of this equipment requires approval from the planning department and building control office for individual cases.



DK Cable junction boxes

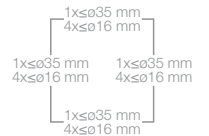
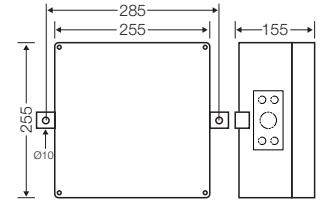
Approved for intrinsic fire resistance
Communication box



FK 5000

**Communication junction box E30
for the installation of connecting device
for telecommunications**

- without terminals
- with mounting brackets for the installation of connecting device for telecommunications
- intrinsic fire resistance in accordance with DIN 4102 Part 12 (German standard) in combination with function-retaining cables
- cable entry via integrated elastic membranes
- cable entry on 4 sides each 1 x up to Ø 36 mm and 4 x up to Ø 14 mm
- the attached screw anchors must be used for concrete ≥ C20/25, B25 up to ≤ C50/60, B55
- the use of this equipment requires the approval from the building and regulatory authorities for the individual case
- general approval by the German building authorities DIBt: Z-86.1-37, Celsion fire protection systems, download at www.hensel-electric.de > FK 5000 - documents



material

sheet steel, powder-coated



FK 5110

**Connecting device for telecommunications
screwless for 10 pairs**

- LSA connection technology, solder and screwless, no insulation removal is required
- for installation on mounting brackets in FK 5000
- suitable for a solid conductor with diameter of 0.4 up to 0.8 mm or for two identical solid conductors with diameters of 0.4 up to 0.65 mm
- outer diameter of insulation 0.7 up to 1.6 mm
- with fixing screws

rated insulation voltage	U _i = 100 V a.c. U _i = 125 V d.c.
current carrying capacity	Solid conductor up to Ø 0.6 mm max. 2.1 A Solid conductor Ø 0.8 mm max. 5.0 A



FK 5120

**Connecting device for telecommunications
screwless for 20 pairs**

- LSA connection technology, solder and screwless, no insulation removal is required
- for installation on mounting brackets in FK 5000
- suitable for a solid conductor with diameter of 0.4 up to 0.8 mm or for two identical solid conductors with diameters of 0.4 up to 0.65 mm
- outer diameter of insulation 0.7 up to 1.6 mm
- with fixing screws

rated insulation voltage	U _i = 100 V a.c. U _i = 125 V d.c.
current carrying capacity	Solid conductor up to Ø 0.6 mm max. 2.1 A Solid conductor Ø 0.8 mm max. 5.0 A

DK Cable junction boxes

Approved for intrinsic fire resistance
Communication box



FK 5210

Connecting device for telecommunications
Screw-type connection for 10 pairs

- screw/screw connection technology
- for installation on mounting brackets in FK 5000
- suitable for a solid conductor with diameter of 0.4 up to 0.8 mm or for two identical solid conductors with diameters of 0.4 up to 0.65 mm
- with fixing screws
- with labelling strips

rated insulation voltage	U _i = 100 V a.c. U _i = 125 V d.c.
current carrying capacity	Solid conductor up to Ø 0.6 mm max. 2.1 A Solid conductor Ø 0.8 mm max. 5.0 A



FK 5220

Connecting device for telecommunications
screw-type connection for 20 pairs

- screw/screw connection technology
- for installation on mounting brackets in FK 5000
- suitable for a solid conductor with diameter of 0.4 up to 0.8 mm or for two identical solid conductors with diameters of 0.4 up to 0.65 mm
- with fixing screws
- with labelling strips

rated insulation voltage	U _i = 100 V a.c. U _i = 125 V d.c.
current carrying capacity	Solid conductor up to Ø 0.6 mm max. 2.1 A Solid conductor Ø 0.8 mm max. 5.0 A

DK Cable junction boxes

Approved for intrinsic fire resistance
Cable entry



Cable glands

- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C up to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

Sealing range	ISO thread	Bore-hole	Tightening torque
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AKMF 20

Cable glands for knockouts M 20

Ø 6.5 -13.5 mm	M 20 x 1.5	Ø 20.3 mm	4.0 Nm
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AKMF 25

Cable glands for knockouts M 25

Ø 11-17 mm	M 25 x 1.5	Ø 25.3 mm	7.5 Nm
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AKMF 32

Cable glands for knockouts M 32

Ø 15-21 mm	M 32 x 1.5	Ø 32.3 mm	10.0 Nm
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AKMF 40

Cable glands for knockouts M 40

Ø 19-28 mm	M 40 x 1.5	Ø 40.3 mm	10.0 Nm
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IP
66



Grommets

- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C up to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C

Sealing range	Bore-hole
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EDKF 20

Grommets for knockouts M 20

Ø 6-13 mm	Ø 20.5 mm
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EDKF 25

Grommets for knockouts M 25

Ø 9-17 mm	Ø 25.5 mm
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EDKF 32

Grommets for knockouts M 32

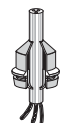
Ø 8-23 mm	Ø 32.5 mm
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EDKF 40

Grommets for knockouts M 40

Ø 11-30 mm	Ø 40.5 mm
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IP
65/66



Ambient conditions in working operation:

Type	FK 04xx, FK 06xx, FK 16xx	FK 5000, FK 6505, FK 9xx5	FK 9259
Application area	Suitable for indoor installation (normal environment and/or protected outdoor)		
Ambient temperature			
- Average value over 24 hours	+ 35 °C	+ 35 °C	+ 35 °C
- Maximum value	+ 40 °C	+ 40 °C	+ 40 °C
- Minimum value	- 25 °C	- 25 °C	- 5 °C
Relative humidity			
- short-time	50 % at 40 °C 100 % at 25 °C	50 % at 40 °C 100 % at 25 °C	50 % at 40 °C 100 % at 25 °C
Material	PC (polycarbonate) halogen-free	sheet steel, powder-coated halogen-free	
Degree of protection against mechanical load	IK09 (10 Joule)	IK10 (20 Joule)	

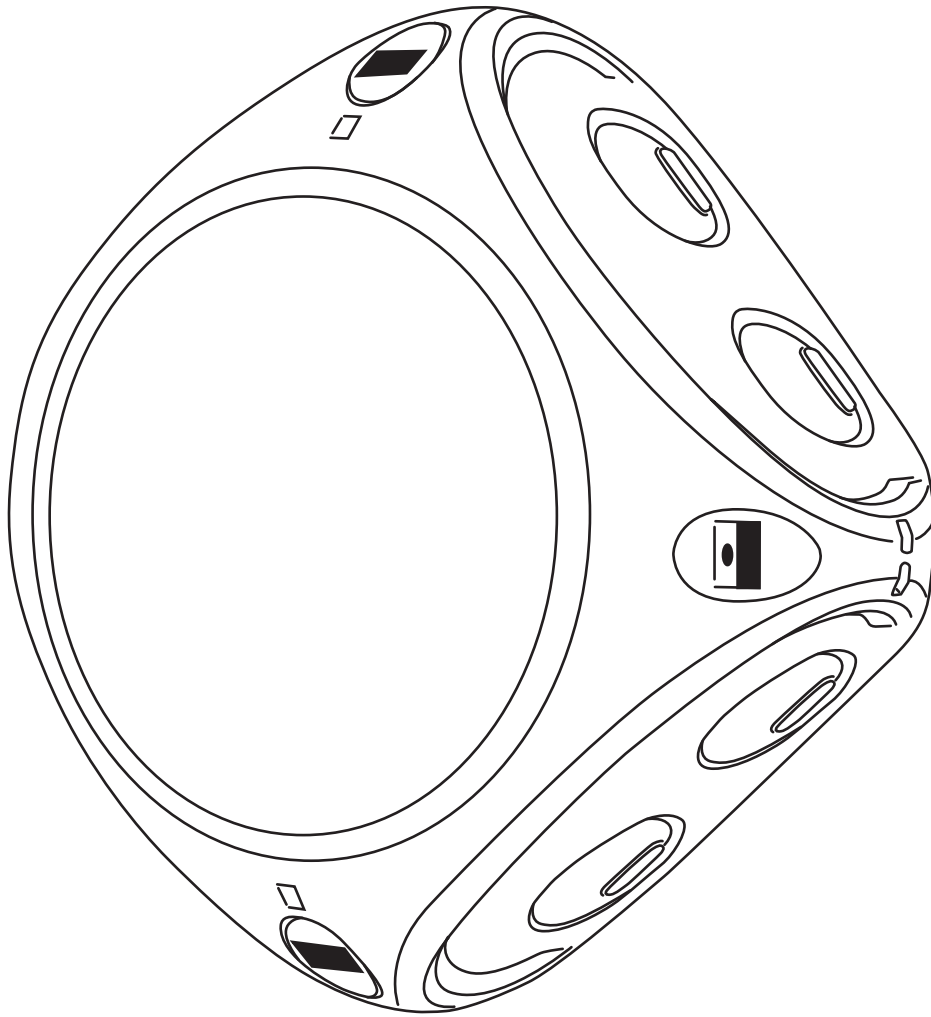
Box fixing with anchors:

Anchor (building materials)	Fischer type ...					Hilti type ...		
	FIS V..	FNA..	FBS..	FBN..	FHY..	HUS..	HSA..	HIT-HY..
Limestone blocks KS 12	x					x		x
Building bricks Mz 12	x					x		x
Airbricks HLz 12	x							x
Limestone air blocks KSL 12	x							x
Prestressed concrete slabs					x			
Porous concrete slabs => 3.3						x		x
Porous concrete blocks => 4						x		x
Concrete => B25 / =< B55		x	x	x		x	x	

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

Standards and regulations:

- **IEC 60998-1, DIN EN 60998 Teil 1**
 Connecting devices for low-voltage circuits for household and similar purpose
 Part 1: General requirements
- **IEC 60998-2-1, DIN EN 60998 Teil 2-1**
 Connecting devices for low-voltage circuits for household and similar purposes.
 Part 2-1. Particular requirements for connecting devices as separate entities with screw-type terminals
- **IEC 60670-22**
 Particular requirements for connecting boxes and enclosures
- **IEC 60529, DIN VDE 0470 Teil 1 (German standard)**
 Degrees of protection provided by enclosures (IP Code)
- **EN 60947-7-1**
 Low-voltage switchgear and controlgear -
 Part 7-1: Auxiliary equipment - Terminal blocks for copper conductors
- **DIN EN 50262**
 Metric cable glands for electrical installations
- **DIN 4102 Part 12 (German standard)**
 Fire behaviour of building materials and structural elements) -
 Part 12 - Intrinsic fire resistance of electric cable systems; requirements and tests
- **EN 50200**
 Method of test for resistance to fire of unprotected small cables for use in emergency circuits.



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