

The new cable junction boxes

# The evolution of the original.

Level 3 - for intrinsic fire resistance







## The Hensel cable junction box: A success story!

Since its founding, Gustav Hensel GmbH und Co. KG has continuously met the challenges of the times! The invention of the first cable junction box made of thermoset plastics in 1931 revolutionised an entire generation's everyday work routine: A multitude of installation tasks could be solved in a most simple method. A convenience that has become indispensable by now and the start of an unprecedented success story.

## The evolution of the original: Enycase

We have raised the original to the next level of evolution, followed up on impulses from practical experience and rendered them in the form of new features in the ENYCASE cable junction boxes. They are the embodiment of our very own competency because our know-how flourishes particularly in demanding settings, under difficult conditions, in industry and trade. The series of innovative and high-quality junction boxes made of state-of-the-art materials are manufactured by means of pioneering production procedures. Our products have made their case for many generations. It is our claim to always continue the development and optimise our original for you.



## Reliable power supply even in the event of fire.

FK cable junction boxes meet intrinsic fire protection requirements and keep emergency power supply in operation for at least 30 -90 minutes.



Included as standard: screw anchors, high-temperatureresistant ceramic terminal E 30 - E 90 and cable entries



Multi-level knockouts in different sizes for cable glands



Closes quickly by a quarter turn – closing position visible at a single glance





## **Planning process for intrinsic fire resistance**

#### 1. Requirements

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

The relevant regional regulations of legislators, fire brigades or similar services, which are placed on the building and its use must be observed. 2. Intrinsic fire resistance or insolation integrity in the event of fire?

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

- Are there requirements for
- intrinsic fire resistance in electrical installations or
- insolation integrity FE 180 according to VDE 0472 Part 814, IEC 331?

#### 3. Selection of m

## Country-specific require have to be observed!

In Germany selection is c 1<sup>st</sup> intrinsic fire resistance 2<sup>nd</sup> cable junction or cabl 3<sup>rd</sup> installation procedure 4<sup>th</sup> type of cable installati 5<sup>th</sup> anchoring method on 6<sup>th</sup> approval of materials

## Reliable power supply even in the event of fire!

- cable junction boxes approved for intrinsic fire resistance
- degree of protection IP 65 / IP 66
- box made of thermoplast, orange RAL 2003
- 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 mm<sup>2</sup>



#### aterial

#### ments and national laws

arried out according to E 30 / E 90 le connection in buildings ion the building material according to certificate

#### 4. Manufacturer

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

In Germany the selection of cable maufacturer is carried out according to 1. type of cable installation

2. required cable junction / cable connection

#### 5. Operating

Professional execution of the installation work.



## Approved for intrinsic fire resistance with included grommets



- Connecting terminal made from ceramic with resistance to high temperatures
- 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 for the intrinsic fire resistance E30 up to E90, see test certificate no.: P-MPA-E-15-018, 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



#### FK 0402

#### Cable junction box 1.5 mm<sup>2</sup>, Cu Connection box 1.5-2.5 mm<sup>2</sup>, Cu

Cable junction box 1.5-2.5 mm<sup>2</sup>, Cu Connection box 1.5-4 mm<sup>2</sup>, Cu

- 5-pole per pole 4 x 1.5 mm<sup>2</sup> sol and 2 x 2.5 mm<sup>2</sup> sol
- included cable entry: 3 EDKF 25,sealing range: Ø 9-17 mm, IP 65

5-pole per pole 8 x 1.5 mm<sup>2</sup> sol, 4 x 2.5 mm<sup>2</sup> sol, 2 x 4 mm<sup>2</sup> sol
 included cable entry: 3 EDKF 25,sealing range: Ø 9-17 mm, IP 65

rated insulation voltage	$U_i = 400 \text{ V a.c./d.c.}$
current carrying capacity	24 A



IP

IP

IP

65/66

65/66

65/66



PC

PC

RAL

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2003

2003

RAL

2003

ll+70→

PC



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### FK 0604

rated insulation voltage

current carrying capacity

**FK 0404** 

#### Cable junction box 1.5-2.5 mm<sup>2</sup>, Cu Connection box 1.5-6 mm<sup>2</sup>, Cu

5-pole per pole 8 x 1.5 mm<sup>2</sup> sol, 4 x 2.5 mm<sup>2</sup> sol, 2 x 4 mm<sup>2</sup> sol, 2 x 6 mm<sup>2</sup> sol
included cable entry: 3 EDKF 32, sealing range: 8-23 mm, IP 65

rated insulation voltage	U <sub>i</sub> = 400 V a.c./d.c.	Ī
current carrying capacity	41 A	

 $U_i = 400 V a.c./d.c.$ 

32 A

#### FK 0606

#### Cable junction box 1.5-6 mm<sup>2</sup>, Cu Connection box 1.5-6 mm<sup>2</sup>, Cu

5-pole per pole 12 x 1.5 mm<sup>2</sup> sol, 8 x 2.5 mm<sup>2</sup> sol, 6 x 4 mm<sup>2</sup> sol, 4 x 6 mm<sup>2</sup> sol
 included cable entry: 3 EDKF 32, sealing range: 8-23 mm, IP 65

rated insulation voltage	$U_i = 400 \text{ V a.c./d.c.}$
current carrying capacity	41 A

#### FK 1606

#### Cable junction box 1.5-6 mm<sup>2</sup>, Cu Connection box 1.5-6 mm<sup>2</sup>, Cu

- 5 terminals per pole 12 x 1,5 mm<sup>2</sup> sol, 8 x 2,5 mm<sup>2</sup> sol, 6 x 4 mm<sup>2</sup> sol, 4 x 6 mm<sup>2</sup> sol
- terminal for 4 x 1,5 mm<sup>2</sup> sol or 2 x 2,5 mm<sup>2</sup> sol and PE terminal
- included cable entry: 3 EDKF 32, sealing range: 8-23 mm, IP 65

rated insulation voltage	$U_i = 400 V a.c./d.c.$
current carrying capacity	41 A





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## Approved for intrinsic fire resistance with included grommets



RAL

2003

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- Connecting terminal made from ceramic with resistance to high temperatures
- 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 for the intrinsic fire resistance E30 up to E90, see test certificate no.: P-MPA-E-15-018, 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



#### FK 1608

#### Cable junction box 1.5 mm<sup>2</sup>, Cu Connection box 1.5-2.5 mm<sup>2</sup>, Cu

- 10-pole per pole 4 x 1.5 mm<sup>2</sup> sol and 2 x 2.5 mm<sup>2</sup> sol
- included cable entry: 4 EDKF 25,sealing range: Ø 9-17 mm, IP 65



IP

IP

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65/66





#### FK 1610

#### Cable junction box 1.5-2.5 mm<sup>2</sup>, Cu Connection box 1.5-10 mm<sup>2</sup>, Cu

- 5-pole per pole 8 x 1.5 mm<sup>2</sup> sol, 4 x 2.5 mm<sup>2</sup> sol, 2 x 4 mm<sup>2</sup> sol, 2 x 6 mm<sup>2</sup> sol, 2 x 10 mm<sup>2</sup> sol
- included cable entry: 3 EDKF 32, sealing range: 8-23 mm, IP 65

rated insulation voltage	$U_i = 400 V a.c./d.c.$
current carrying capacity	57 A



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#### FK 1616

rated insulation voltage current carrying capacity

#### Cable junction box 1.5-6 mm<sup>2</sup>, Cu Connection box 1.5-16 mm<sup>2</sup>, Cu

5-pole per pole 12 x 1.5 mm<sup>2</sup> sol, 8 x 2.5 mm<sup>2</sup> sol, 6 x 4 mm<sup>2</sup> sol, 4 x 6 mm<sup>2</sup> sol, 2 x 10 mm<sup>2</sup> sol, 2 x 16 mm<sup>2</sup> r
included cable entry: 3 EDKF 40, sealing range: 11-30 mm, IP 65

 $U_i = 400 V a.c./d.c.$ 

76 A

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PC



BAL

2003





Approved for intrinsic fire resistance Cable entry

<ul> <li>ambient temperature - 25 °C to</li> <li>glow wire test IEC 60695-2-11;</li> </ul>		
tightening torque	4.U NM	
AKMF 25 Cable glands for knockouts M 25 sealing range Ø 11-17 mm ISO thread M 25 x 1.5 bore-hole: Ø 25.3 mm wall thickness up to 3 mm with strain relief and locknut for indoor - normal environment ambient temperature - 25 °C to glow wire test IEC 60695-2-11;		
tightening torque	7.5 Nm	
AKMF 32 Cable glands for knockouts M 32 sealing range Ø 15-21 mm ISO thread M 32 x 1.5 bore-hole: Ø 32.3 mm wall thickness up to 3 mm with strain relief and locknut for indoor - normal environment ambient temperature - 25 °C to glow wire test IEC 60695-2-11;		PA 2003
tightening torque	10.0 Nm	
AKMF 40 Cable glands for knockouts M 40 sealing range: Ø 19-28 mm ISO thread M 40 x 1.5 bore-hole: Ø 40.3 mm		PA PA 2003
<ul> <li>wall thickness up to 3 mm</li> <li>with strain relief and locknut</li> <li>for indoor - normal environment</li> <li>ambient temperature - 25 °C to</li> <li>glow wire test IEC 60695-2-11;</li> </ul>		M







<ul> <li>EDKF 20</li> <li>Grommets for knockouts M 20</li> <li>sealing range: Ø 6-13 mm</li> <li>bore-hole: Ø 20.5 mm</li> <li>wall thickness 1.5-3.5 mm</li> <li>for indoor - normal environment and (or) protected outdoor installation</li> <li>ambient temperature - 25° to + 35 °C</li> <li>glow wire test IEC 60 695-2-11: 750 °C</li> </ul>	IP   TPE   RAL     2003
<ul> <li>EDKF 25</li> <li>Grommets for knockouts M 25</li> <li>sealing range: Ø 9-17 mm</li> <li>bore-hole: Ø 25.5 mm</li> <li>wall thickness 1.5-3.5 mm</li> <li>for indoor - normal environment and (or) protected outdoor installation</li> <li>ambient temperature - 25° to + 35 °C</li> <li>glow wire test IEC 60 695-2-11: 750 °C</li> </ul>	E5/66 TPE 2003
<ul> <li>EDKF 32</li> <li>Grommets for knockouts M 32</li> <li>sealing range: Ø 8-23 mm</li> <li>bore-hole: Ø 32.5 mm</li> <li>wall thickness 1.5-3.5 mm</li> <li>for indoor - normal environment and (or) protected outdoor installation</li> <li>ambient temperature - 25° to + 35 °C</li> <li>glow wire test IEC 60 695-2-11: 750 °C</li> </ul>	IP   TPE   RAL     2003
EDKF 40 Grommets for knockouts M 40 sealing range:Ø 11-30 mm bore-hole: Ø 40,5 mm	19 65/66 TPE 2003

- bore-hole: Ø 40.5 mm
- wall thickness 1.5-3.5 mm
- for indoor normal environment and (or) protected outdoor installation
   ambient temperature 25° to + 35 °C
- glow wire test IEC 60 695-2-11: 750 °C



