FIREBOX

Fire-resistant junction boxes

Palazzoli

FIREBOX

FIREBOX

Fire-resistant junction boxes with guide

The fire-resistant junction boxes of the FIREBOX series, accessorizable with its components, are certified in class E30, E60, E90 according to the DIN 4102-12 standard and subjected to additional tests compliant with the IEC 60331-1 standard comparable to the PH120 class of the EN 50200 standard.

This ensures that critical services such as emergency lighting and fire alarm systems remain operational for a sufficient period to allow rescue interventions in case of fire. The boxes are made of halogen-free technopolymer and steel, freely customizable with single and double derivation ceramic terminals, ceramic fuse holders, and signal terminals.

FIREBOX junction boxes are mandatory in all places where many people frequently gather, such as schools, hospitals, public buildings, industrial facilities, or shopping centers.

FP FIRE PROOF

it resists at 1000°C for 90'
it resists at 830°C for 120'

1 For fire safety purposes, FIREBOX ensures the maintenance of electrical functionalities up to 1000°C for 90 minutes and 830°C for 120 minutes.

Thanks to the high degree of IP66/IP67 protection, FIREBOX junction boxes also maintain electrical functionalities outdoors, ranging from class E30 to E90 according to DIN 4102-12 **2**
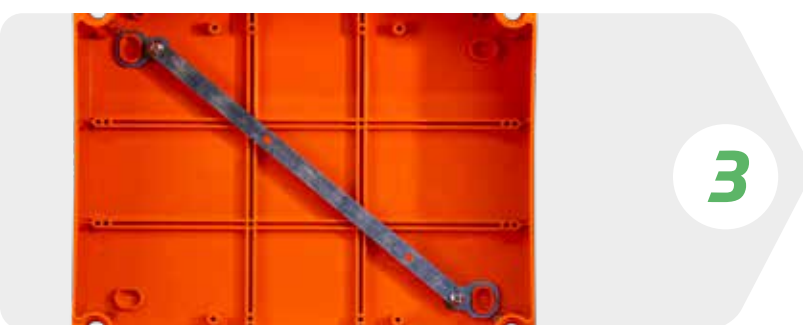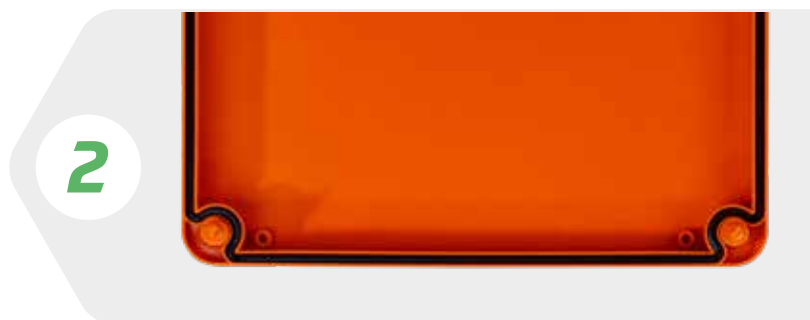
3 FIREBOX in technopolymer.
Thanks to the provided mounting guide, it is possible to customize the junction box by assembling power terminals, a signal terminal block, and fuses.
The cover is attached to the box with captive screws and a retention system.

FIREBOX in steel.
Thanks to the provided rotating bottom plate, easy wiring of cables can be achieved.
Power terminals, a signal terminal block, and fuses can be installed on the rotating plate.
The cover is attached to the box with captive screws. **4**

FIREBOX

Fire-resistant junction boxes with guide

Body material	**Steel or Technopolymer Halogen free**
Surface finish	**Painted (steel)**
Colour	**RAL2003 Pastel orange**
Protection rating	**IP66/IP67 (steel) IP66 (technopolymer)**
Impact resistance	**IK10 (steel) IK08 (technopolymer)**
Resistance to abnormal heat and fire	**650°C (technopolymer)**
Insulation class	**I (steel) II (technopolymer)**
Ambient operating temperature	**-40°C ÷ +70°C (steel) -25°C ÷ +50°C (technopolymer)**
Ambient storage temperature	**-50°C ÷ +90°C (steel) -30°C ÷ +70°C (technopolymer)**
Insulation voltage	**690V**
Line cable cross-section	**0,5 ÷ 35 mm²**
Functional maintenance	**830°C 120' IEC 60331-1 E30 - E60 - E90 DIN 4102 -12**

CE

DIRECTIVES

2014/35/UE (LVD)
2011/65/UE (RoHS)
2012/19/UE (RAEE)

PRODUCT STANDARDS

IEC/EN 60670-1
IEC 60331-1
DIN 4102-12
EN 60670-22
EN 60998-2-1

Fire-resistant junction boxes are essential for keeping emergency electrical circuits operational during a fire, so it is crucial that they are classified following rigorous testing. Classification according to the DIN 4102-12 standard is divided into categories "E30," "E60," and "E90," where the letter "E" denotes electricity and the number indicates the duration of functional maintenance in minutes during a fire. During the testing phase, it is imperative that the junction boxes ensure the protection of electrical lines, preventing short circuits and conductor interruptions.

Testing according to the IEC 60331-1 standard guarantees performance equivalent to the PH120 class of the EN 50200 standard. The specification "PH120" indicates a class of fire resistance and functionality for electrical cables, where "PH" stands for "Fire Test" and "120" indicates the duration in minutes of the test. Maintaining electrical power is essential for the operation of safety devices such as fire alarm systems, emergency lighting, and other crucial devices in emergency situations.

For the electronic catalogue
FIREBOX
scan the QR code.

FIREBOX

Fire-resistant junction boxes with guide

Fire-resistant junction boxes
in technopolymer
830°C 120' / 1000°C 90'
IP66

Outer dimensions (mm)	Hole type	Guide length (mm)	Palazzoli code	Pack Qty
160x120x80	blind walls	95	**151700**	1
200x150x80	blind walls	145	**151702**	1
250x200x100	blind walls	200	**151703**	1

**Equipment included:** steel terminal guide and 2 wall mounting kits.
Box 151700 with 4xM25 rubber cable glands.
Box 151702 with 2xM25 and 2xM40 rubber cable glands.
Box 151703 with 4xM40 rubber cable glands.

Fire-resistant junction boxes
in steel
830°C 120' / 1000°C 90'
IP66/IP67

Outer dimensions (mm)	Hole type	Guide length (mm)	Palazzoli code	Pack Qty
150x150x90	M25→ ←M25 M25→ ←M25	95	**151301**	1
250x250x130	M40→ ←M40 M40→ ←M40	155	**151304**	1

Equipment included: 4 rubber cable glands. 4 adjustable mounting brackets.
Features: perforated walls.
Code 151301 prepared for 1 D01 fuse holder base;
code 151304 prepared for 2 D01 fuse holder bases.

Modular fire-resistant
ceramic branch terminals
for power lines

Terminal type	Entry cable cross-section (mm²)	Terminal width (mm)	Palazzoli code	Pack Qty
single	2,5 - 6	9	**151711**	1
single	6,0 - 10	13	**151712**	1
	10 - 16	15	**151713**	1
double	0,5 - 6	17	**151721**	1
double	4 - 16	29	**151722**	1
	10 - 35	29	**151723**	1

Notes: single terminals for through connection, double terminals for through connection with 2 branches.

Modular ceramic
fuse holder base

Fuse type	Entry cable cross-section (mm²)	Rated max current (A)	Width (mm)	Palazzoli code	Pack Qty
gL 8,5 x 32	1,5-4	16	18	**151793**	1

Ceramic fuse holder
base

Fuse type	Entry cable cross-section (mm²)	Rated max current (A)	Palazzoli code	Pack Qty
D01	1,5-4	16	**151792**	1

Notes: only for steel boxes.

E30 signal line branch
terminal block

No. of poles	Entry cable cross-section (mm²)	Palazzoli code	Pack Qty
20	0,3-2	**151791**	1

FIREBOX-T54

FIREBOX-T54

Fire-resistant junction boxes with terminal blocks

The fire-resistant junction boxes of the FIREBOX-T54 series represent a reliable and certified solution to ensure the safety and continuous operation of critical services in tunnels, subways, and all environments at risk of fire.

The boxes undergo tests compliant with classes E30, E60, E90 according to DIN 4102-12 standard and comply with the IEC 60331-1 standard to ensure performance equivalent to the PH120 class of the EN 50200 standard; these standards guarantee fundamental protection for environments at high risk in case of fire.

Made of halogen-free technopolymer and steel, the boxes ensure optimal resistance to fire and high temperatures, keeping emergency electrical circuits intact and operational. Each box comes equipped with terminal blocks and ceramic fuse holder bases, simplifying installation and ensuring immediate efficiency.

FIRE PROOF

it restists at 1000°C for 90'
it restists at 830°C for 120'

1

For fire safety purposes, FIREBOX-T54 ensures the maintenance of electrical functionalities up to 1000°C for 90 minutes and 830°C for 120 minutes.

2

Thanks to the high degree of IP66/IP67 protection, FIREBOX-T54 junction boxes also maintain electrical functionalities in tunnels with water infiltrations, ranging from class E30 to E90 according to DIN 4102-12.

3

FIREBOX-T54 in technopolymer.
Branch terminal block made of ceramic. The terminal guide includes two robust steel snap-in supports to anchor the terminal block to the wall using the included screw kit for concrete. The cover is attached to the box with captive screws and a retention system.

FIREBOX-T54 in steel.
Branch terminal block made of ceramic. The orientable external mounting brackets allow for quick installation. Cables enter and exit through replaceable rubber cable glands with cable glands. The rotating bottom plate allows for orienting the terminal block to facilitate wiring. The cover is attached to the box with captive screws.

4

FIREBOX-T54

Fire-resistant junction boxes with terminal blocks

Body material	**Steel or Technopolymer Halogen free**
Surface finish	**Painted (steel)**
Colour	**RAL2003 Pastel orange**
Protection rating	**IP66/IP67 (steel) IP66 (technopolymer)**
Impact resistance	**IK10 (steel) IK08 (technopolymer)**
Resistance to abnormal heat and fire	**650°C (technopolymer)**
Insulation class	**I (steel) II (technopolymer)**
Ambient operating temperature	**-40°C ÷ +70°C (steel) -25°C ÷ +50°C (technopolymer)**
Ambient storage temperature	**-50°C ÷ +90°C (steel) -30°C ÷ +70°C (technopolymer)**
Insulation voltage	**690V**
Line cable cross-section	**0,5 ÷ 35 mm²**
Functional maintenance	**830°C 120' IEC 60331-1 E30 - E60 - E90 DIN 4102 -12**

CE

DIRECTIVES

2014/35/UE (LVD)
2011/65/UE (RoHS)
2012/19/UE (RAEE)

PRODUCT STANDARDS

IEC/EN 60670-1
IEC 60331-1
DIN 4102-12
EN 60670-22
CEI 64-20
EN 60998-2-1

Fire-resistant junction boxes are essential for keeping emergency electrical circuits operational during a fire, so it is crucial that they are classified following rigorous testing. Classification according to the DIN 4102-12 standard is divided into categories "E30," "E60," and "E90," where the letter "E" denotes electricity and the number indicates the duration of functional maintenance in minutes during a fire. During the testing phase, it is imperative that the junction boxes ensure the protection of electrical lines, preventing short circuits and conductor interruptions.

Testing according to the IEC 60331-1 standard guarantees performance equivalent to the PH120 class of the EN 50200 standard. The specification "PH120" indicates a class of fire resistance and functionality for electrical cables, where "PH" stands for "Fire Test" and "120" indicates the duration in minutes of the test. Maintaining electrical power is essential for the operation of safety devices such as fire alarm systems, emergency lighting, and other crucial devices in emergency situations.

For the electronic catalogue FIREBOX -T54 scan the QR code.

FIREBOX-T54

Fire-resistant junction boxes with terminal blocks

Fire-resistant junction boxes
with terminal block
in technopolymer
830°C 120′ / 1000°C 90′
IP66

Outer dimensions (mm)	No. of poles for section (mm2)	Hole type	Palazzoli code	Pack Qty
160x120x80	3x6	M25→ ←M25 / M25→ ←M25	**151735**	1
160x120x80	5x6	M25→ ←M25 / M25→ ←M25	**151755**	1
200x150x80	3x16	M40→ ←M40 / M25→ ←M25	**151731**	1
200x150x80	5x16	M40→ ←M40 / M25→ ←M25	**151751**	1
250x200x100	3x35	M40 / M40→ ←M40 / M40	**151733**	1
250x200x100	5x35	M40 / M40→ ←M40 / M40	**151753**	1

Equipment included: 4 rubber cable glands. 2 wall mounting kits.

Fire-resistant junction boxes
with terminal block
in steel
830°C 120′ / 1000°C 90′
IP66/IP67

Outer dimensions (mm)	No. of poles for section (mm2)	Hole type	Palazzoli code	Pack Qty
150x150x90	5x6	M25→ ←M25 / M25→ ←M25	**151355**	1
250x250x130	5x16	M40→ ←M40 / M40→ ←M40	**151351**	1
250x250x130	5x35	M40→ ←M40 / M40→ ←M40	**151353**	1

Equipment included: 4 rubber cable glands. 4 adjustable mounting brackets.

Fire-resistant junction boxes
with terminal block and fuse
in technopolymer
830°C 120' / 1000°C 90'
IP66

Outer dimensions (mm)	No. of poles for section (mm2)	Hole type	Palazzoli code	Pack Qty
200x150x80	3x6	M40→ ←M40 / M25→ ←M25	**151835**	1
200x150x80	5x6	M40→ ←M40 / M25→ ←M25	**151855**	1
250x200x100	3x16	M40→ ←M40 / M25→ ←M25	**151831**	1
250x200x100	5x16	M40→ ←M40 / M25→ ←M25	**151851**	1

Equipment included: 4 rubber cable glands. 1 4A fuse. 2 wall mounting kits.

Set of 10 rubber cable glands
with metric thread
IP66

Type inputs	Cable passage diameter (mm)	Palazzoli code	Pack Qty
M25	11-17	**581425**	1
M40	19-28	**581440**	1

Cable glands in insulating material
with metric thread
IP68

Threading	Max. mounting hole (mm)	Tightening diameter (mm)	Thread length (mm)	Palazzoli code	Pack Qty
M12x1,5	12,5	2,5-6,5	8	**581012**	100
M16x1,5	16,5	3,5-10	10	**581016**	50
M20x1,5	20,5	7-14	10	**581020**	50
M25x1,5	25,5	9-18	10	**581025**	25
M32x1,5	32,5	14-25	10	**581032**	20
M40x1,5	40,5	18-32	10	**581040**	10
M50x1,5	50,5	24-38,5	12	**581050**	5
M63x1,5	63,5	35-48	12	**581063**	5

Locknuts in insulating material
with metric thread

Threading	Palazzoli code	Pack Qty
M12x1,5	**581212**	50
M16x1,5	**581216**	50
M20x1,5	**581220**	50
M25x1,5	**581225**	50
M32x1,5	**581232**	50
M40x1,5	**581240**	20
M50x1,5	**581250**	10
M63x1,5	**581263**	5

Screwcaps in insulating material
with metric thread
IP68

Threading	Max. mounting hole (mm)	Thread length (mm)	Palazzoli code	Pack Qty
M12x1,5	12,5	10	**581312**	1
M16x1,5	16,5	15	**581316**	1
M20x1,5	20,5	15	**581320**	1
M25x1,5	25,5	15	**581325**	1
M32x1,5	32,5	15	**581332**	1
M40x1,5	40,5	18	**581340**	1
M50x1,5	50,5	18	**581350**	1
M63x1,5	63,5	18	**581363**	1

Cable glands in nickel-plated brass
with metric thread
IP68

Threading	Max. mounting hole (mm)	Tightening diameter (mm)	Thread length (mm)	Palazzoli code	Pack Qty
M12x1,5	12,5	2,5-6,5	6,5	**582012**	100
M16x1,5	16,5	4-9,5	7	**582016**	50
M20x1,5	20,5	7-13	8	**582020**	50
M25x1,5	25,5	8-16	8	**582025**	25
M32x1,5	32,5	11-21	9	**582032**	20
M40x1,5	40,5	15-27	9	**582041**	10
M50x1,5	50,5	22-35	10	**582050**	5

Locknuts in nickel-plated brass
with metric thread

Threading	Palazzoli code	Pack Qty
M12x1,5	**582212**	50
M16x1,5	**582216**	50
M20x1,5	**582220**	50
M25x1,5	**582225**	25
M32x1,5	**582232**	20
M40x1,5	**582240**	10
M50x1,5	**582250**	10
M63x1,5	**582263**	5

Screw caps in nickel-plated brass
with metric thread
IP68

Threading	Max. mounting hole (mm)	Thread length (mm)	Palazzoli code	Pack Qty
M12x1,5	12,5	5	**582312**	100
M16x1,5	16,5	6	**582316**	100
M20x1,5	20,5	6,5	**582320**	100
M25x1,5	25,5	7	**582325**	100
M32x1,5	32,5	8	**582332**	50
M40x1,5	40,5	9	**582340**	50
M50x1,5	50,5	10	**582350**	25
M63x1,5	63,5	10	**582363**	25

TECHNOPOLYMER JUNCTION BOX

fire-resistant

USES

The FIREBOX junction boxes in technopolymer are light-weight and easy to install. They withstand dust and water and can be used in indoor environments not exposed to extreme environmental conditions.

The FIREBOX series in technopolymer is the best solution for:

- Shopping centers
- Residential buildings
- Schools
- Shops and commercial premises
- Hospitals
- Theatres and auditoriums

Assembly instructions
FIREBOX in technopolymer

STEEL JUNCTION BOX

fire-resistant

USES

The FIREBOX junction boxes in steel, thanks to their high resistance and durability, ensure reliable protection against structural damage and extreme weather conditions. Steel is suitable for environments exposed to chemicals.

The FIREBOX series in steel is the best solution for:

- Railway stations
- Roadway tunnels
- Railway and metro tunnels
- Power plants
- Historic or monumental buildings
- Industrial buildings and factories

Assembly instructions
FIREBOX in steel

Customer focused operations

Smart engineering

Top Manufacture

Service excellence

Palazzoli
SISTEMI ELETTRICI D'AUTORE