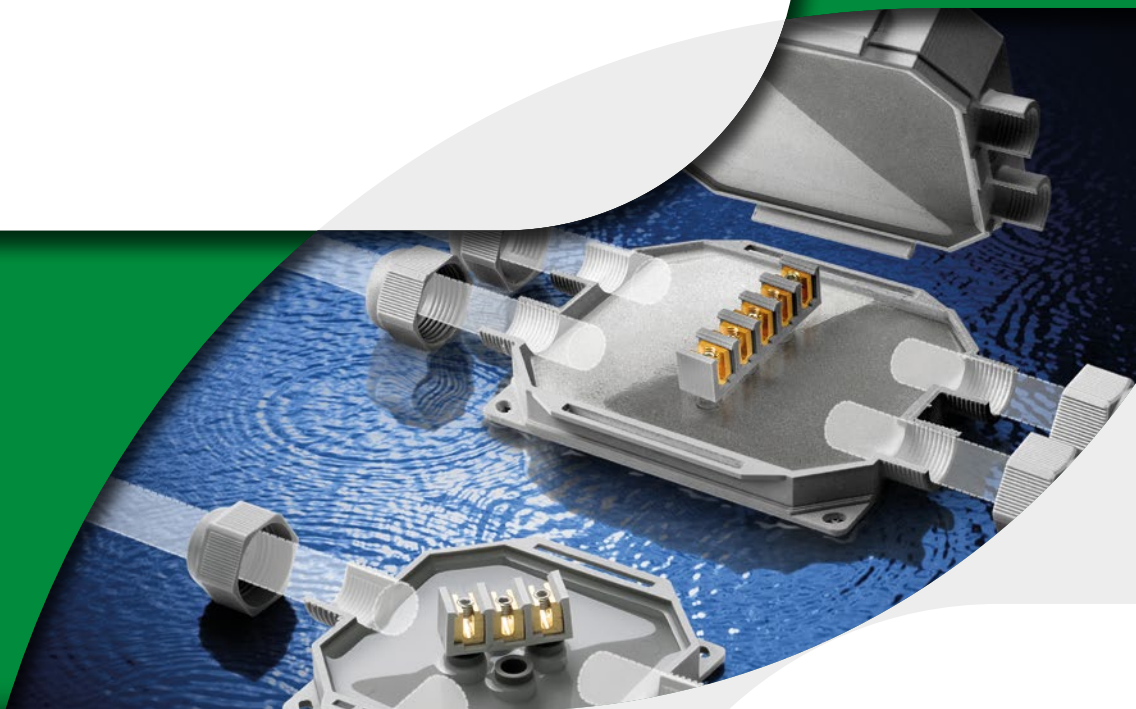


LOW VOLTAGE

FILLERS - JOINTING BOXES
CONNECTORS - TERMINAL BLOCKS
GEL COVER - GEL BOX
JOINTS - ACCESSORIES





LOW VOLTAGE FILLERS

GEL

MAGIC GEL SPRINT

MAGIC GEL

MAGIC FLUID

MAGIC POWER GEL

RAY GEL

WONDER GEL

MONOGEL

RUBBER

GEL GUM

SKY PLAST

MAGIC RUBBER

RESIN

SEAL UP RESIN

RAY RESIN





ALL IN ONE
Ready in 1 Bottle!



Gel: UL 94-HB

Dielectric strength:

>20 kV/mm

Cross linking time:

fast (about 7 min. at 23°C)

Volume resistivity:

>2 . 10¹⁵ Ω cm

Working temperature:

-60°C / +200°C

Overload temperature

for short periods:

up to 250°C

Stabilised for:

mould - UV

Degree of protection:

IP68 (in proper casings)

Magic Gel Sprint protects against dust and seals the connections from the effects of continuous immersion in water when it is poured into casings protected from the ingress of solid bodies, thus helping to create a **IP68** system.

IP68
OFFICIALLY
TESTED | **IMQ**



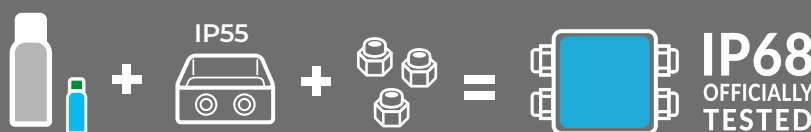
MAGIC GEL SPRINT

Insulating and sealing gel with very high dielectric and thermal characteristics, ideal for POWER cables, TELECOM cables and ELECTRONICS CIRCUITS.

Magic Gel Sprint is formulated for an extra fast curing directly inside the bottle. Practical, performing, eco-sustainable, it is the ideal GEL for insulating and sealing boxes of the most commonly used dimensions.

ADVANTAGES

- ▶ Non-toxic, safe and not classified as hazardous under CLP Directive.
- ▶ Suitable for installation in salt water (sea) and in chlorinated water (pools).
- ▶ For any type of indoor / outdoor and even submerged installation.
- ▶ For installations up to 1 kV.
- ▶ Suitable for high temperatures.
- ▶ Removable.
- ▶ No shelf life.



HOW IS IP68 DEGREE OF PROTECTION OBTAINED?

The GEL protects against dusts and seals the connections from the effects of continuous immersion in water when it is poured into enclosures protected from the ingress of solid bodies, therefore contributing to create an IP68 system.

1 UNSCREW



2 ACTIVATE



3 SHAKE



4 POUR



READY IN 1 BOTTLE!

Extra fast
curing!

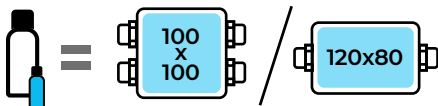


IP68

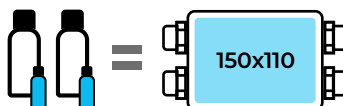


IP68

Magic Gel 450 Sprint



Magic Gel 900 Sprint



PRODUCT / Item	Colour	Package type	Total quantity
MAGIC GEL SPRINT 450 MAGICSPRINT450	●	1 bottle + 1 catalyst	450 ml
MAGIC GEL SPRINT 900 MAGICSPRINT900	●	2 bottles + 2 catalysts	900 ml



MAGIC GEL SPRINT is available in 2 version which are sustainable in terms of packaging and in terms of volume, as they are specifically designed for filling boxes in the most commonly used formats.



MAGIC GEL MAGIC FLUID

Two-component gel with very high dielectric and thermal characteristics, ideal for connection systems (joint shells or enclosures) for power cables.

The insulating and sealing gel, when cast in suitable casings, ensures an IP68 degree of protection and it is able to replace all types of resins. This is a self-sealing insulation polymeric type in two practical bottles or in a single use bag, with cold cross linking. Once poured, the insulation, characterized by very low viscosity, surrounds and envelopes any type of material, cross linking in less than 10 minutes. Completely non-toxic, cross linking with a very low isothermal peak that does not thermally stress the materials it comes into contact with.

ADVANTAGES

- For high temperature applications!
- The gel is not-classified as hazardous under the CLP Directive.
- Quick cross linking (only 10 minutes).
- Re-enterable also after long working periods.
- Low viscosity.
- No shelf life.



Gel: UL 94-HB   us

Dielectric strength:

>20 kV/mm

Cross linking time:

fast (about 10 min. at 23°C)

Volume resistivity

>2 . 10¹⁵ Ω cm

Working temperature:

-60°C / +200°C

Overload temperature

for short periods:

up to 250°C

Stabilised for:

mould - UV

Degree of protection:

IP68 (in proper casings)

Magic Gel protects against dust and seals the connections from the effects of continuous immersion in water when it is poured into casings protected from the ingress of solid bodies, thus helping to create a **IP68** system.

IP68
OFFICIALLY
TESTED

IMQ





Problem ENERGY

What does a gel for this type of system have to give?

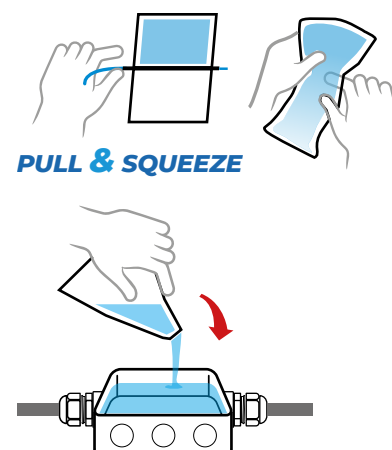
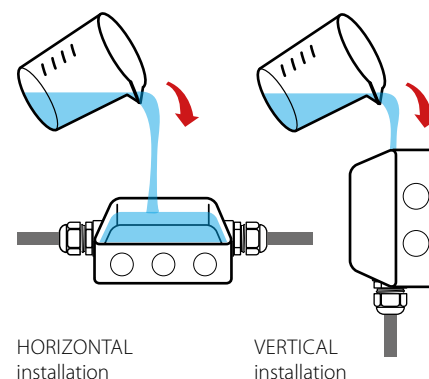
- ✓ **INSULATION:** Elevated voltages (1 kV operating, 4 kV testing)
- ✓ **THERMAL PERFORMANCE:** Operating temperature 90°C, overload temperature 130°C, short circuit temperature 250°C
- ✓ **SEALING:** Installations also possible in humid environments, flooded wells
- ✓ **DEGREE OF PROTECTION:** Must also work with water between the cores of the cable
- ✓ **CERTIFIED SYSTEMS:** The combination of insulation gel + casing must comply with current standards CEI 20-33 and EN 50393

Solution: *Magic Gel* meets all your Energy System requirements!

PRODUCT / Item	Colour	Package type	Total quantity
MAGIC GEL 300 MAGICGEL300	●	2 bottles	300 ml
MAGIC GEL 420 MAGICGEL-420	●	1 single, two-component bottle 1 jug - 1 spatula in wood	420 ml
MAGIC GEL 1000 MAGIC-GEL	●	2 bottles - 1 jug 1 spatula in wood	1000 ml
MAGIC GEL 2000 MAGICGEL-2000	●	2 single, two-component bottles 1 jug - 1 spatula in wood	2 x 1000 ml
MAGIC GEL 10000 MAGICGEL10	●	2 tanks - 1 jug 1 spatula in wood	10 lt



PRODUCT / Item	Colour	Package type	Total quantity
MAGIC FLUID 90 100090-MAG	●	Two-component single dose bag	90 ml
MAGIC FLUID 110 100110-MAG	●	Two-component single dose bag	110 ml
MAGIC FLUID 170 100170-MAG	●	Two-component single dose bag	170 ml
MAGIC FLUID 210 100210-MAG	●	Two-component single dose bag	210 ml
MAGIC FLUID 420 100420-MAG	●	Two-component single dose bag	420 ml
MAGIC FLUID 550 100550-MAG	●	Two-component single dose bag	550 ml





MAGIC POWER GEL

The unique two component gel in a single bottle, with superior dielectric, sealing and thermal characteristics, re-enterable and re-usable!

ADVANTAGES

- Very sticky.
- Strong self amalgamating characteristics.
- The gel is not-classified as hazardous under the CLP Directive.
- Single compact bottle; convenient twin compartment.
- Re-usable as well as re-enterable, even after long working periods.
- It doesn't give any waste.
- No shelf life.



Gel: UL 94-HB

Dielectric strength:

>20 kV/mm

Cross linking time:

fast (about 15 min. at 23°C)

Volume resistivity:

>2 . 10¹⁵ Ω cm

Operating temperature:

-60°C / +200°C

Overload temperature

for short periods:

up to 250°C

Stabilised for:

mould - UV

Degree of protection:

IP68 (in proper casings)

Magic Power Gel protects against dust and seals the connections from the effects of continuous immersion in water when it is poured into casings protected from the ingress of solid bodies, thus helping to create a **IP68** system.

IP68
OFFICIALLY
TESTED

IMQ



INSULATING and SEALING GEL

RE-ENTERABLE

RE-USABLE



For all types of connections, even in the toughest conditions, for power, telecom and signalling!

FILLERS



STICKINESS

- Exceptional sealing properties in any condition.
- Better resistance to pressure.
- Effective even in vertical or ceiling applications.

SELF-AGGLOMERATING

- Once cross linked it perfectly adheres on itself to get an homogeneous and compact mass.
- It can be therefore applied in multiple layers.

ZERO WASTE

- Due to the nature of the product waste is eliminated; even residual product can be saved and used for the next application.
- Also any left over product maintains its high performance characteristics.

SINGLE BOTTLE

- Highly useful.
- The most compact packaging.
- Less space occupied in the toolbox.
- Both components in the same packaging.



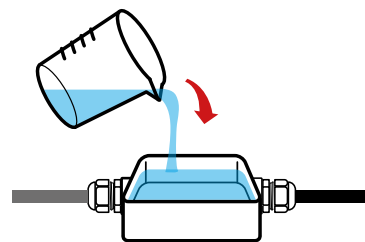
PRODUCT / Item	Colour	Package type	Total quantity
MAGIC POWER GEL 250 MAGICPOWER-250	●	1 single, two-component bottle	250 ml
MAGIC POWER GEL 500 MAGICPOWER-500	●	1 single, two-component bottle 1 jug - 1 spatula in wood	500 ml
MAGIC POWER GEL MAGICPOWER-GEL	●	1 single, two-component bottle 1 jug - 1 spatula in wood	1000 ml



PRODUCT / Item	Colour	Package type	Total quantity
MAGIC POWER GEL BAG 150 MAGICPOWERBAG150	●	Two-component single dose bag	150 ml
MAGIC POWER GEL BAG 250 MAGICPOWERBAG250	●	Two-component single dose bag	250 ml

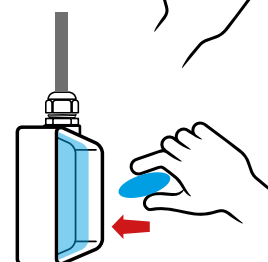
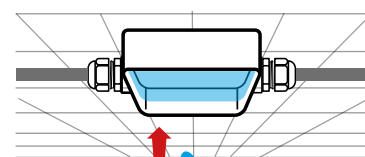
CASTING APPLICATION

HORIZONTAL installation



AFTER CURING MANUAL APPLICATION

CEILING or WALL application





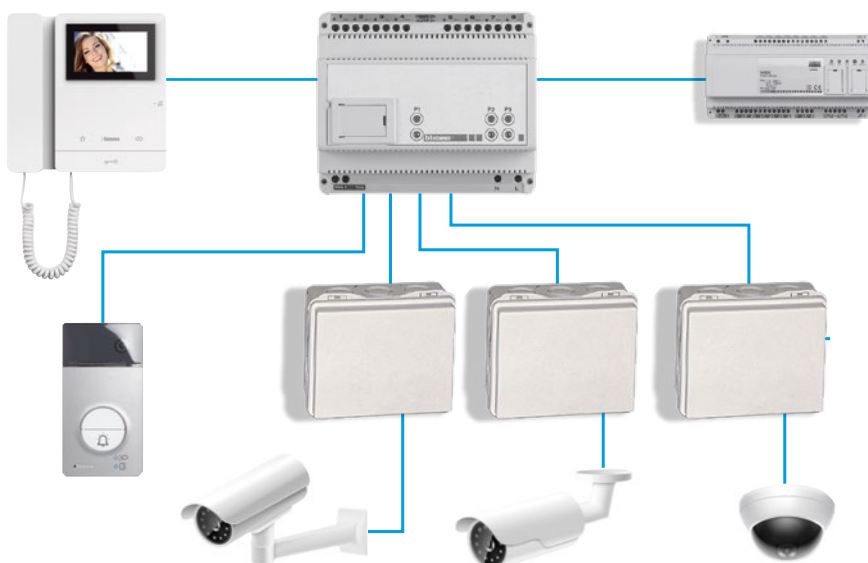
INTERCOMS
LED DISPLAY

RAY GEL

Insulating, sealing, re-enterable fast cross linking two-component silicone gel for telephone and intercom systems and for LED and display protection.

ADVANTAGES

- Quick cross linking.
- Antioxidant protection.
- Low temperature resistant.
- The gel is not-classified as hazardous under the CLP Directive.
- No shelf life.



Gel: UL 94-HB  us

Dielectric strength:

>20 kV/mm

Cross linking time:

about 15 min. at 23°C

Volume resistivity:

>1,5 x 10¹⁵ Ω cm

Operating temperature:

-60°C / +180°C

Thermal conductivity:

< 0,2 W/m°K

Dielectric constant:

< 7

Degree of protection:

IP68 (in proper casings)

Ray Gel protects against dust and seals the connections from the effects of continuous immersion in water when it is poured into casings protected from the ingress of solid bodies, thus helping to create a IP68 system.

IP68
OFFICIALLY
TESTED | **IMQ**





RED

- Specially formulated for UV resistance
- Suitable for "surface" installations
- Ideal for intercom systems



TRANSPARENT

- Excellent transparency
- Does not opacify
- Ideal for protecting printed circuit boards, for sealing displays, for insulating and sealing LEDs

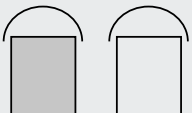


Problem TELECOM

What does a gel for this type of system have to give?

- ✓ **SEALING:** Installations also possible in humid environments, flooded wells.
- ✓ **DEGREE OF PROTECTION:** IP68 in proper casing.
- ✓ **PREVENTION FROM OXIDATION:** Contacts in Telecom connections shouldn't give attenuations (low signal currents).
- ✓ **HIGH INSULATION FLUIDITY:** During casting, the the insulation has to fill all interstitial spaces between the cores of the cable.
- ✓ **ANTICRACKING:** Insulation in the permanently cold joint should not crack at low temperatures.
- ✓ **INSULATION:** The filler should be an insulating component.

Solution: Ray Gel meets all your Telecom system requirements.

PRODUCT / Item	Colour	Package type	Total quantity
BAG GEL 200-T BAGGEL200-T	○	Two-component single dose bags	200 ml
BAG GEL 400-T BAGGEL400-T	○		400 ml
BAG GEL 200-R BAGGEL200-R	●		200 ml
BAG GEL 400-R BAGGEL400-R	●		400 ml
RAY GEL 300-T RAYGEL300-T	○	2 bottles	300 ml
RAY GEL 1000-T RAYGEL1000-T	○		1000 ml
RAY GEL 300-R RAYGEL300-R	●		300 ml
RAY GEL 1000-R RAYGEL1000-R	●		1000 ml
RAY GEL 10K-T RAYGEL10K-T	○	2 tanks	10 lt
RAY GEL 20K-T RAYGEL20K-T	○		20 lt
RAY GEL 10K-R RAYGEL10K-R	●		10 lt
RAY GEL 20K-R RAYGEL20K-R	●		20 lt





ALWAYS AT YOUR
FINGERTIPS!



Gel: UL 94-HB

Dielectric strength:

>20 kV/mm

Volume resistivity:

>2 . 10¹⁵ Ω cm

Operating temperature:

-60°C / +200°C

Overload temperature

for short periods:

up to 250°C

Stabilised for:

mould - UV

Degree of protection:

IP68 (in proper casings)

Wonder Gel protects against dust and seals the connections from the effects of continuous immersion in water when it is poured into casings protected from the ingress of solid bodies, thus helping to create a IP68 system.

IP68
OFFICIALLY
TESTED | **IMQ**

WONDER GEL

Single component insulating gels in cartridge to instantly protect new installations and oversee maintenance of all types of electrical connections.

Installer's best friends. Electrical connections, within empty enclosures, are exposed to the risk of short circuit, oxidation and corrosion, at times, resulting in irreparable damages. Without stress and no waiting around, **WonderGel** and **WonderGel Invisible** make your job easier, guaranteeing the protection and safety of systems in compliance to best practice rules to provide the highest quality solution, quick and perfect to get the satisfaction of both you and your clients.

ADVANTAGES

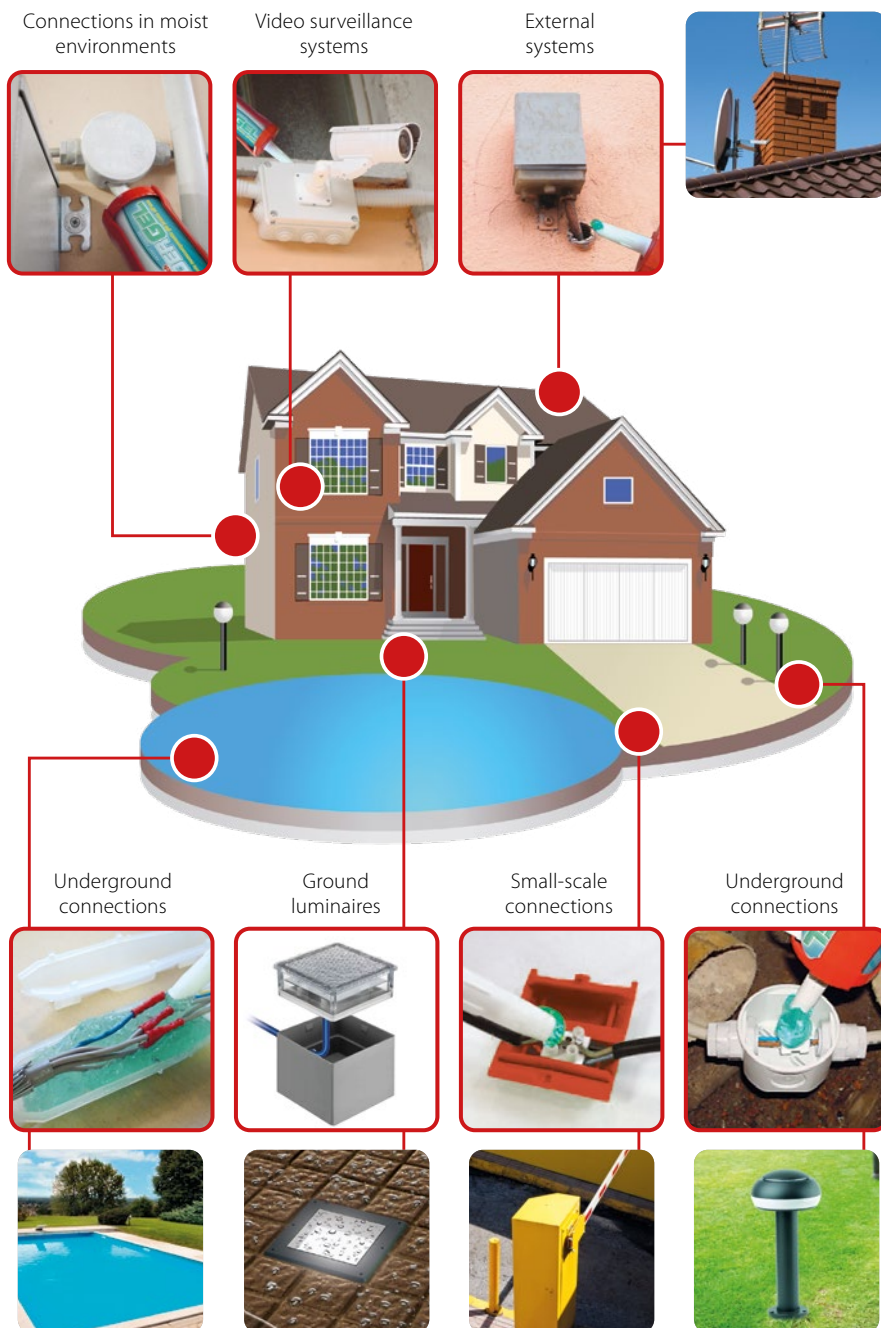
- ▶ Ready to use! No mixing required! Already cross-linked! No need to wait!
- ▶ Resolve issues connected to incorrect insulation or sealing.
- ▶ Eliminate annoying out of service instances caused by moisture.
- ▶ Protect your systems from the penetration of insects.
- ▶ Protect your electrical connections from oxidation and corrosion.
- ▶ Applicable in all climatic conditions.
- ▶ The gel is not-classified as hazardous under the CLP Directive.

EASY TO APPLY EVEN
IN AREAS WHICH ARE
DIFFICULT TO ACCESS!

INSPECTABLE



FILLERS



WHAT IS WONDER GEL?

- A single component gel
- Extremely sticky
- Stays soft with time
- Never dries
- Non-toxic and safe
- No shelf life



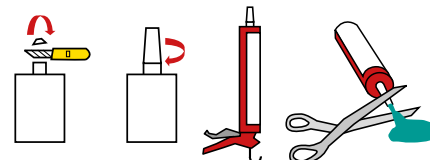
WHAT DOES GUARANTEE?

- Maximum insulation and sealing
- Effective and stable adhesion with the passing of time
- High resistance to water pressure
- Degree of protection IP68 when dispensed in suitable casings



WHY IS IT IN A CARTRIDGE?

- Always ready to use and at your fingertips
- Can be used with standard guns
- It is measurable
- No waste
- Complete with nozzle
- Extremely rapid to use even in difficult positions
- Compact



PRODUCT / Item	Colour	Package type	Total quantity
WONDER GEL WONDER	●	Cartridge with dosing nozzle	280 ml
WONDER GEL INVISIBLE WONDER-INV	○	Cartridge with dosing nozzle	280 ml



WONDER FLUID

Single component insulation fluid gel cartridge.

ADVANTAGES

- The gel is not-classified as hazardous under the CLP Directive.
- Ready-to-use fluid gel.
- Suitable for box filling.
- Does not solidify when opened.
- No waste.
- No shelf life.



Gel: UL 94-HB

Dielectric strength:

>20 kV/mm

Operating temperature:

-60°C / +200°C

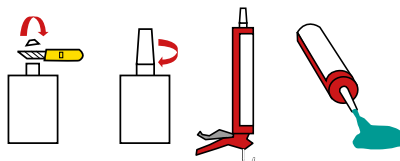
Installation temperature:

-40°C / +110°C

Degree of protection:

IP68 (in proper casings)

Wonder Gel Fluid protects against dust and seals the connections from the effects of continuous immersion in water when it is poured into casings protected from the ingress of solid bodies, thus helping to create a **IP68** system.



PRODUCT / Item	Colour	Package type	Total quantity
WONDER FLUID 280 WONDER-F280	●	Cartridge with dosing nozzle	280 ml

MONOGEL

Single component transparent insulation gel for generic use.

ADVANTAGES

- The gel is not-classified as hazardous under the CLP Directive.
- Ready to use.
- No shelf life.
- Inspectable.



Gel: UL 94-HB

Dielectric strength:

>20 kV/mm

Operating temperature:

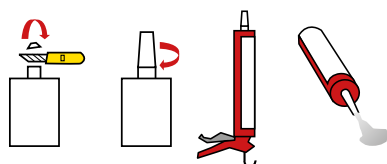
-60°C / +200°C

Installation temperature:

-40°C / +110°C

Degree of protection:

IP68 (in proper casings)



PRODUCT / Item	Colour	Package type	Total quantity
MONOGEL MONOGEL	○	Cartridge with dosing nozzle	300 ml

**Dielectric strength:**

>20 kV/mm

Specific weight:

~ 1.05

Cross linking time:

fast (about 15 min. at 23°C)

Volume resistivity:>2 . 10¹⁴ Ω cm**Operating temperature:**

-60°C / +200°C

Overload temperature**for short periods:**

up to 250°C

Stabilised for:

mould - UV

Degree of protection:

IP68 (in proper casings)

Techno Gel Gum protects against dust and seals the connections from the effects of continuous immersion in water when it is poured into casings protected from the ingress of solid bodies, thus helping to create a **IP68** system.

IP68
OFFICIALLY
TESTED

IMQ



TECHNO GEL GUM

Single bottle two-component insulation with very high dielectric, thermal and sealing characteristics. Waterproof and re-enterable!

TechnoGelGum is a strong hold flexible elastomer whose formula has been optimised for the protection of POWER CABLE, TELECOM CABLE and ELECTRONIC CIRCUIT connections. A new recipe that gives the product a surprising, original texture that combines the characteristics of GEL and RUBBER to emphasise its features. It's elastic and flexible like gel, but also tough and dry like rubber.

ADVANTAGES

- ▶ For installations up to 1 kV, suitable for high temperatures.
- ▶ Suitable for installation in salt water (sea) and in chlorinated water (pools).
- ▶ For any type of indoor / outdoor and even submerged installation.
- ▶ Waterproof > 1 MPa.
- ▶ Vibration resistant can act as a damper.
- ▶ Removable.
- ▶ The gel is not-classified as hazardous under the CLP Directive.
- ▶ No shelf life.

STRONG CONSISTENCY**EXTREMELY FLEXIBLE
AND WATER-REPELLENT**

FILLERS

FLEXIBLE like GEL

STRONG like RUBBER



SAFE



WATERPROOF



RE-ENTERABLE



Shake before using.



Pour TechnoGelGum into the provided jug in a 1:1 ratio.



Mix for 20" max.



Pour within 1 min. max.



In just 15 minutes the curing is completed.

PRODUCT / Item	Colour	Package type	Total quantity
TECHNO GEL GUM 500 TEGELGUM500	●	1 single, two-component bottle 1 jug - 1 spatula in wood	500 gr
TECHNO GEL GUM TEGELGUM	●	1 single, two-component bottle 1 jug - 1 spatula in wood	1 kg





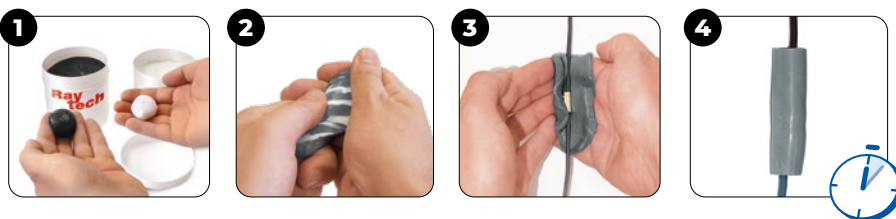
SKY PLAST

Two-component insulating rubber, mouldable, self-extinguishing paste with high dielectric characteristics.

Sky Plast is ideal for covering, protecting, insulating, finishing and fireproofing any electrical and non-electrical component. Once the 2 components have been blended in a ratio of 1:1 (for max 2 min.) until uniform, it cross links quickly at room temperature in less than 5 minutes. After being wrapped around the component to be protected, Sky Plast quickly transforms into a layer of rubber with high dielectric and self-extinguishing characteristics.

ADVANTAGES

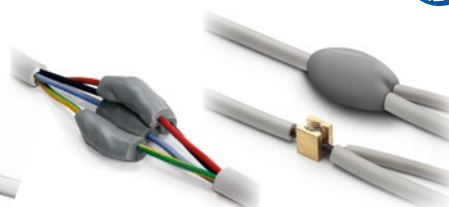
- Low smoke and toxic and corrosive gases emission.
- Able to replace taping, heat-shrinking, resin finishes.
- Flexible and elastic.
- Quickly ready for use.



Cable gland sealing



Creation of LV terminals



Insulation of multiple connections



Preparation on-site of expanders for inserts



Preparation of bars, washers, round wire insulators



Preparation on-site of seals



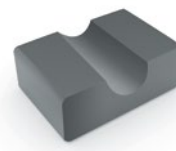
Conduit protection



Preparation on-site of small moulds for reliefs



Drop line, bar, transformer through insulation



On-site preparation of braces and supports



Preparation of deflectors, nozzles, flow deviators



**SKY PLAST
BECOMES RUBBER
IN 5 MINUTES**

PRODUCT / Item	Colour	Package type	Total quantity
SKY PLAST 250 SKYPLAST250	●	2 cans	250 gr
SKY PLAST SKYPLAST	●	2 cans	500 gr

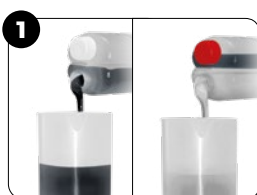
MAGIC RUBBER

Fast cross linking two-component rubber.

Two-component insulating liquid rubber, extremely conformable and fluid, flexible, elastic and re-enterable. In just a few minutes, transforms into a rubber with very high dielectric, thermal, mechanical and elastic characteristics.

ADVANTAGES

- For installation up to 1kV.
- Low smoke, toxic and corrosive gas emissions.
- Ideal also for casts and moulds.
- No shelf life.



Mix the 2 components in a ratio of 1:1.



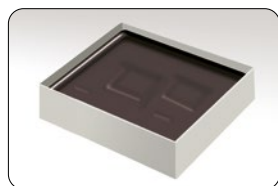
Mix for max 20".



Pour the product into the casing to be filled.



In just a few minutes, the product transforms into rubber.



Moulds for making models



Animal Barrier



Joint filling

PRODUCT / Item	Colour	Package type	Total quantity
MAGIC RUBBER 500 MAGIC-RUBBER	●	1 single two-component bottle 1 jug - 1 spatula in wood	500 gr
MAGIC RUBBER 10 MAGICRUBBER-10	●	Two-component tanks 1 jug - 1 spatula in wood	10 kg

PRODUCT / Item	Colour	Package type	Total quantity
RUBBER FLUID 200 RUBBERFLUID-200	●	Two-component single dose bags	200 gr
RUBBER FLUID 350 RUBBERFLUID350	●	Two-component single dose bags	350 gr

PRODUCT / Item	Colour	Package type	Total quantity
GASKET KIT RAYGASKIT	●	Mould + Two-component liquid rubber	360 gr



Side A



Side B



Cross linking time:

15 minutes at 23°C

Volume resistivity:

> 2 10¹⁵ Ω cm

Dielectric strength:

> 20 kV/mm

Specific weight:

1,22 approx

Degree of protection:

IP68 (in proper casings)

Magic Rubber protects against dust and seals the connections from the effects of continuous immersion in water when it is poured into casings protected from the ingress of solid bodies, thus helping to create a **IP68** system.



SEAL UP
RESIN

NEW

Dielectric strength:

>20 kV/mm

Specific density:

Approx. 1 gr/cc

Curing time:

15-20 min. at 25°C

Volume resistivity:>2 .10¹⁵ Ω cm**Operating Temperature:**

-60°C / +200°C

**Overload temperature
for short periods of time:**

Up to 250°C

Viscosity of the 2 parts:

3500 – 4500 cP

Cone penetration:

90-120 1/10 mm (ASTM D217/C)

Thermal conductivity:

0,2 W/mK

Water absorption after**30 days of immersion:**

<< 0,05%

Degree of protection:

IP68 (in suitable enclosures)

IP68
OFFICIALLY
TESTED

IMQ

SEAL UP RESIN

Insulating removable, sturdy resin with high mechanical resistance designed to prevent the penetration of moisture in both electrical and electronic fields.

Seal Up Resin it is suitable for multiple applications, both in the electrical and electronic fields, where reliability and speed of installation even at low temperature are of crucial importance. **Seal Up Resin** it is available in single-dose sachets, which are extremely easy to prepare as it is sufficient to remove the separator placed between the two components, blend the content for a few seconds and pour, thus obtaining, in a few minutes and at room temperature, a solid-plastic insulation. The product is also available in industrial formats. **The removability feature** allows an easy separation of the components at the end of life and consequent disposal of the products/casings in which it has been used.

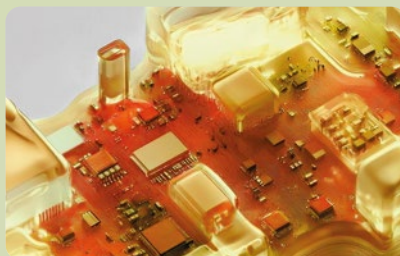
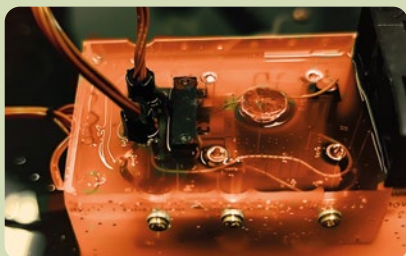
ADVANTAGES

- ▶ REACH compliant and free of substances classified as hazardous according to the current CLP regulation.
- ▶ Isocyanate-free resin.
- ▶ Resistant to mold and UV rays.
- ▶ No shelf-life.



**IDEAL FOR**

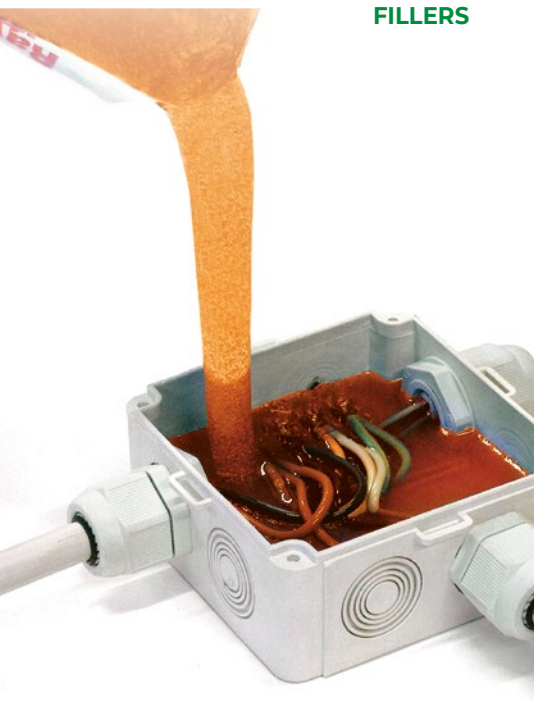
- Seal and insulate 0.6/1kV LV cable connections in junction boxes and cases.
- Accessing the connections in case of modifications.
- Direct buried and submerged installations even in the presence of chlorinated water.
- Installations even at low temperatures.

**OTHER BENEFITS**

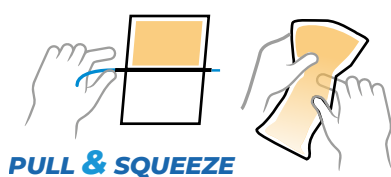
- No exothermic reaction
- Inspectable as it is translucent amber colour
- Mixing ratio: 1:1
- Performing over time

PRODUCT / Item	Colour	Package type	Total quantity
SEAL UP RESIN 170 SEALUPRESIN170	●	Two-component single-dose sachet	170 gr
SEAL UP RESIN 210 SEALUPRESIN210	●	Two-component single-dose sachet	210 gr
SEAL UP RESIN 420 SEALUPRESIN420	●	Two-component single-dose sachet	420 gr
SEAL UP RESIN 500 SEALUPRESIN500	●	1 single, two-component bottle 1 jug - 1 spatula in wood	500 gr
SEAL UP RESIN 10K SEALUPRESIN10K	●	5 litre tanks A+B	10 lt
SEAL UP RESIN 200K SEALUPRESIN200K	●	200 litre drums A+B	400 lt





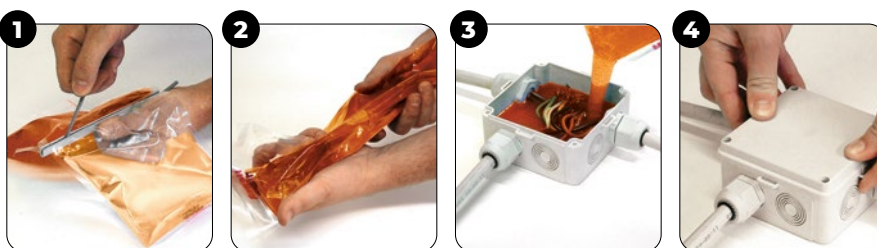
Cross linking time:
25 minutes at 25°C
Hardness:
95 Shore A
Dielectric strength:
20 kV/mm
Specific weight:
1,07 kg/dm³
Water absorption:
0,8% max



RAY RESIN

Two-component epoxy resin for installations up to 1 kV.

Resin for electrical insulation and for the protection of thermosetting LV and MV accessories. The two components, the base resin and hardener, are mixed in close contact to trigger the cross linking reaction. Excellent bonding to metal, plastic and rubber components.



Remove the separator from the Rayresin bag.

Mix the 2 components.

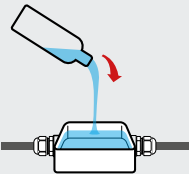
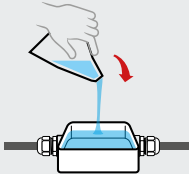
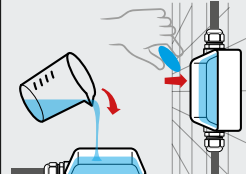
Pour Rayresin in the tray (1' max).

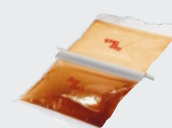
Installation completed.

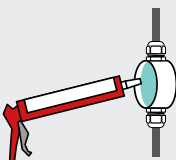
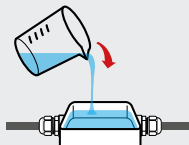
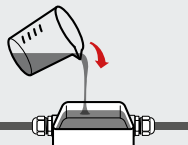
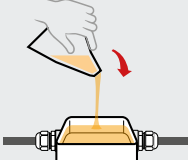
PRODUCT / Item	Colour	Package type	Total quantity
RAYRESIN 170 100170-000	●	Two-component single dose bags	170 gr
RAYRESIN 210 100210-000	●	Two-component single dose bags	210 gr
RAYRESIN 420 100420-000	●	Two-component single dose bags	420 gr

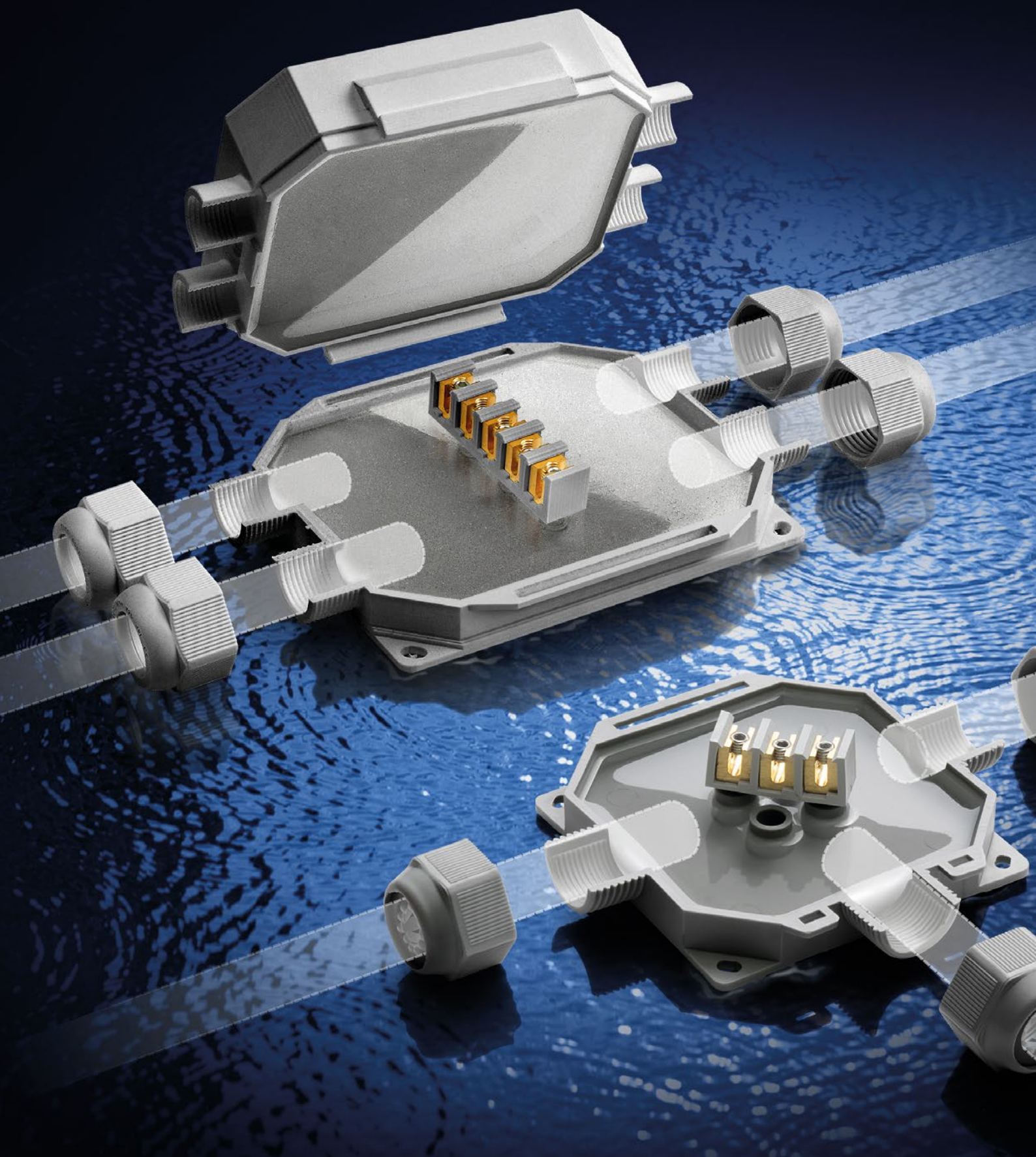
FILLERS COMPARISON CHART



	MAGIC GEL SPRINT	MAGIC FLUID	MAGIC GEL	MAGIC POWER GEL	RAY GEL
PACK CONTENTS	1 bottle + 1 catalyst	1 sachet	2 bottles or one single 2 compartment bottle + jug + spatula	One single 2 compartment bottle + jug + spatula	2 bottles or 1 sachet
MIXING RATIO	Predeterminate	Predeterminate	1:1 ratio with measuring Jug	1:1 ratio with measuring Jug	1:1 ratio
MIXING TIME	20 seconds	20 seconds	20 seconds	20 seconds	20 seconds
CURING TIME (at 23° C)	~ 7 minutes	~ 7 minutes	~ 10 minutes	~ 15 minutes	~ 15 minutes
INSTALLATION TEMPERATURE	-15° / +55°C	-15° / +55°C	-15° / +55°C	-15° / +55°C -40° / +60° (cured)	-15° / +55°C
USAGE	By pouring  ALL IN ONE Ready in 1 bottle!	By pouring  ALL IN ONE CLASSIC	By pouring  CLASSIC	By pouring or "cure and stick"  SELF AGGLOMERATING	By pouring  INTERCOMS Led display



	WONDER GEL / FLUID	TECHNO GEL GUM	MAGIC RUBBER	SEAL UP RESIN	RAY RESIN
PACK CONTENTS	1 cartridge	One single 2 compartment bottle + jug + spatula	One single 2 compartment bottle + jug + spatula	One single 2 compartment bottle + jug + spatula	1 sachet
MIXING RATIO	None	1:1 ratio with measuring Jug	1:1 ratio with measuring Jug	1:1 ratio with measuring Jug	Predeterminate
MIXING TIME	-	20 seconds	20 seconds	90 seconds	30 seconds
CURING TIME (at 23° C)	Already cross-linked	~ 15 minutes	~ 15 minutes	~ 19 minutes	~ 25 minutes
INSTALLATION TEMPERATURE	-15° / +55°C	-15° / +55°C	-15° / +55°C	-15° / +55°C	+5° / +55°C
USAGE	Injection 	By pouring 	By pouring 	By pouring 	By pouring 



LOW VOLTAGE JOINTING BOXES

PRE-FILLED IP68

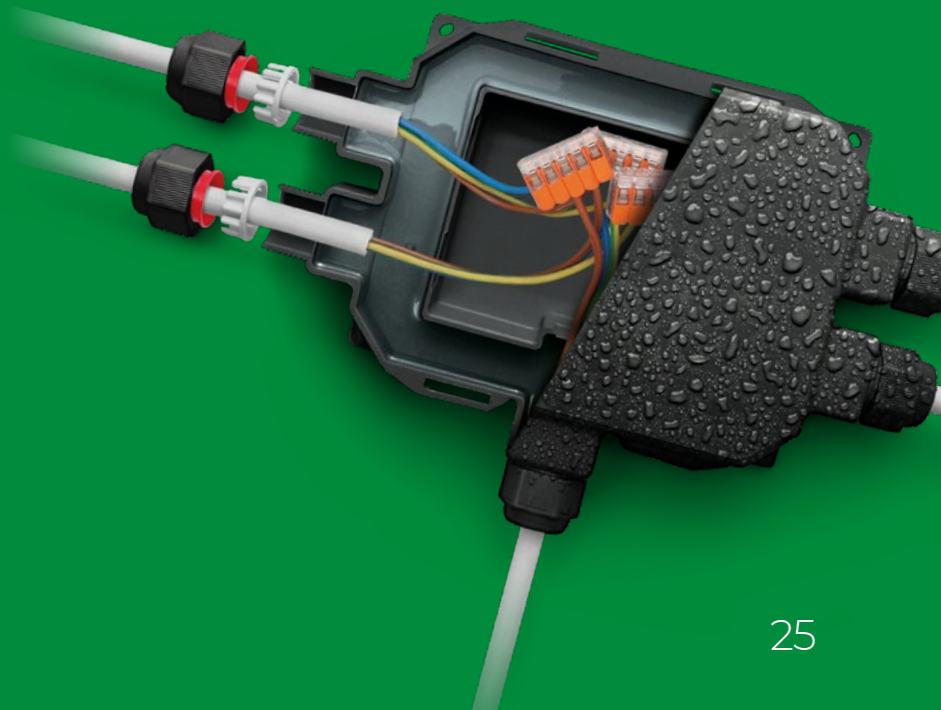
BOB
BABY BOX
READY BOX
FOX BOX

KIT IP68

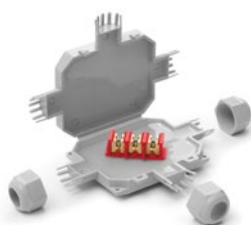
MAGIC BOX
POWER KIT
MAGIC GEL SPRINT BOX 100

IP55

J-BOX



RAYTECH PRE-FILLED BOXES



BOB 3

1
Entrance

2
Outputs


Connector
3x 4 mm²
or free
connections

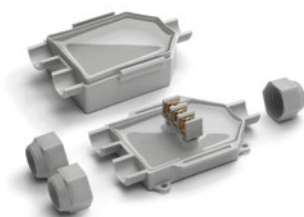


BOB 4

1
Entrance

3
Outputs


Connector
3x 4 mm²
or free
connections



**BABY
BOX**

1
Entrance

2
Outputs


Connector
3x 6 mm²
or free
connections



**BABY
BOX 3**

1
Entrance

3
Outputs


Connector
5x 6 mm²
or free
connections



**READY
BOX 90**

1
Entrance

2
Outputs


Connector
3x 6 mm²
or free
connections



**READY
BOX 120**

1
Entrance

3
Outputs


Connector
5x 6 mm²
or free
connections



**FOX
BOX 3**

1
Entrance

2
Outputs

Free
connections



**FOX
BOX**

1
Entrance

4
Outputs

Free
connections



3 nuts

Cables Ø
mm 8-13


Colours

mm

105 x 80 x h 25



4 nuts

Cables Ø
mm 8-13


Colours

mm

105 x 65 x h 25


3 nuts
+ adapters

Cables Ø
mm 8-18

Tubes Ø
mm 16/20


Colours

mm

95 x 80 x h 43


4 nuts
+ adapters

Cables Ø
mm 8-18

Tubes Ø
mm 16/20


Colours

mm

95 x 110 x h 43


3 nuts
+ adapters

Cables Ø
mm 8-18

Tubes Ø
mm 16/20/32


Colours

mm

90 x 90 x h 45


4 nuts
+ adapters

Cables Ø
mm 8-18

Tubes Ø
mm 16/20/32


Colours

mm

120 x 100 x h 45


3 nuts
+ adapters

Cables Ø
mm 8-18

Tubes Ø
mm 16/20/32


Colours

mm

180 x 135 x h 45


5 nuts
+ adapters

Cables Ø
mm 8-18

Tubes Ø
mm 16/20/32


Colours

mm

210 x 155 x h 45

Electrical performance:

CEI EN 50393

as applicable

Class 2 in accordance with CEI 64-8.

Gel: UL 94-HB

 Working temperature: 90°C

 Installation temperature: -40°C / +50°C

 Fully submersible
Can be used underground
Halogen-free Gel
UV resistant

IP68

OFFICIALLY
TESTED

IMQ

IP69K

OFFICIALLY
TESTED

IP68:

(6) protected against dust and solid objects over 1 mm.

(8) Protected from permanent immersion in water.

IP69K:

(9K) protected against close-range high pressure, high temperature spray downs.





BOB

The IP68 / IP69K micro-joints, gel pre-filled, complete with connector, suitable for any type of installation, even the most extreme.

Extremely compact and space-saving, pre-filled with soft, highly conformable gel. With minimal aesthetic impact and visually pleasing. Equipped with integrated cable glands for IP68 and IP69K degree of ingress protection and cable retention.

ADVANTAGES

- Pre-filled with a gel that is not-classified as hazardous under the CLP Directive.
- Extremely compact and ready to install.
- Ideal for connections in lighting systems for gardens, steps and stairways, pedestrian crossings, etc.
- Pre-threaded entries for the positioning of the clamping nuts.
- No shelf life.
- Always re-enterable.



Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

Gel: UL 94-HB  us

 Working temperature: 90°C

 Installation temperature: -40°C / +50°C

 Fully submersible

 Can be used underground

 Halogen-free Gel

 UV resistant

 Self-extinguishing and resistant to abnormal heat and fire:
Glow Wire Flammability Index at +960°C according to EN60695-2-12

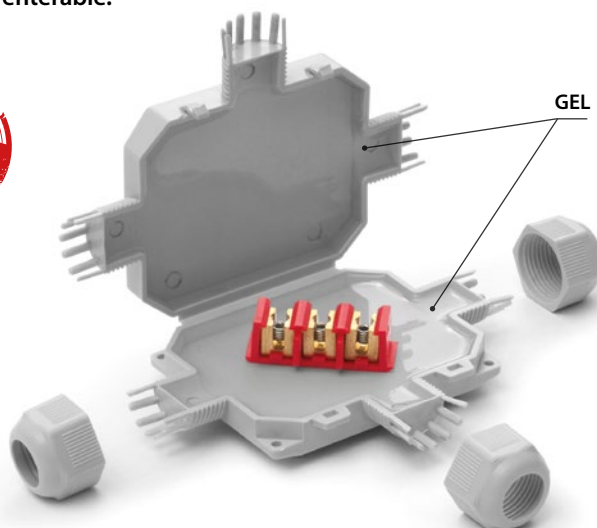
IP68
OFFICIALLY
TESTED

IMQ

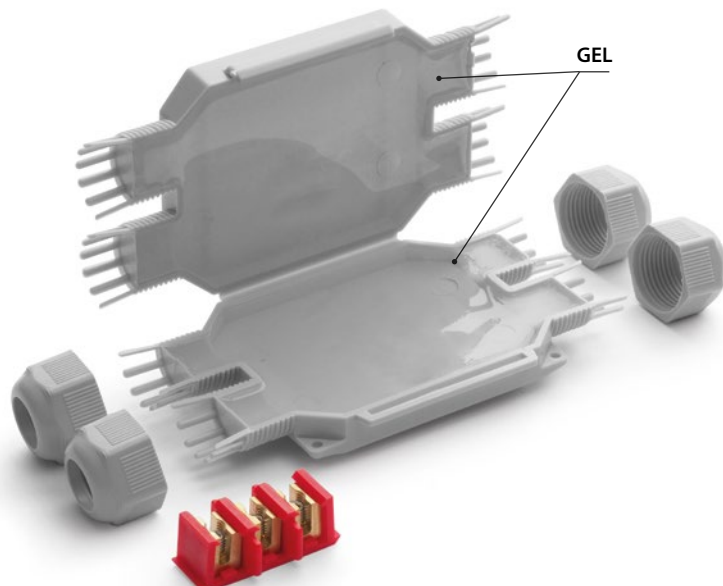
IP69K
OFFICIALLY
TESTED



BOB 3



BOB 4



Some installation possibilities for BOB 4

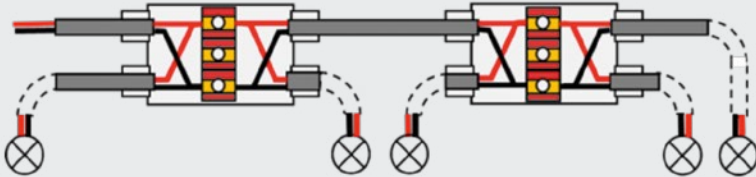
Parallel branch system with
3 three-core cables up to 3 x 4 mm²



Parallel branch system with
4 three-core cables up to 3 x 2.5 mm²

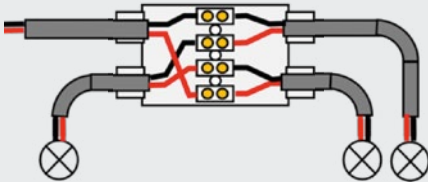


Parallel 5-lamp connection system

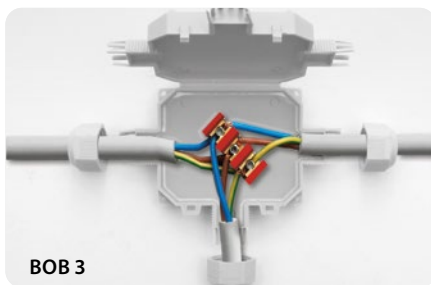
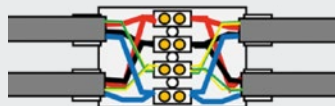


Can be installed with Mammut type connector (not included)

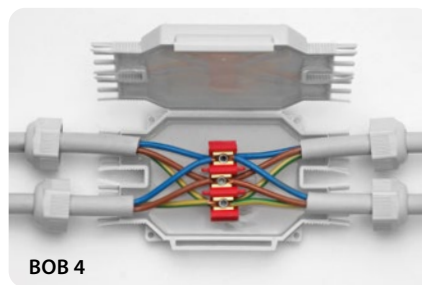
3-LED spotlight in-series system



3-LED RGB spotlight parallel system
with four-core cables



BOB 3

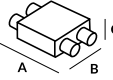


BOB 4



For use in traps. The ideal accessory for branch connections from a through cable to light fittings and spotlights. Suitable in applications where there is presence of water and moisture.

PRODUCT / Item	Colour	Max cable formation (N° x mm ²)		Cables Ø min - max (mm)	Pieces Pack	 (mm)
		Through	Branch			
BOB 3 BOB3	●	1 cable 3 x 4	2 cables 3 x 4	8 - 13	1 piece Blister	105 x 80 x 25
BOB 3 - N BOB3-N	●	1 cable 3 x 2,5	2 cables 3 x 2,5		1 piece Blister	

PRODUCT / Item	Colour	Max cable formation (N° x mm ²)		Cables Ø min - max (mm)	Pieces Pack	 (mm)
		Through	Branch			
BOB 4 BOB	●	1 cables 3 x 4	2 cables 3 x 4	8 - 13	1 piece Blister	105 x 65 x 25
BOB 4 - N BOB4-N	●	1 cables 3 x 2,5	3 cables 3 x 2,5		1 piece Blister	





**JOINT OR BOX?
CHOOSE BABY BOX!**



Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

 **Gel:** UL 94-HB 

 **Installation temperature:**
-40°C / +50°C

 **Working temperature:** 90°C

 **Gel operating temperature:**
-60°C / +200°C

 **Fully submersible**

 **Can be used underground**

 **Halogen-free Gel**

 **UV resistant**

 **Self-extinguishing and resistant to abnormal heat and fire:**
Glow Wire Flammability Index at +960°C according to EN60695-2-12

BABY BOX

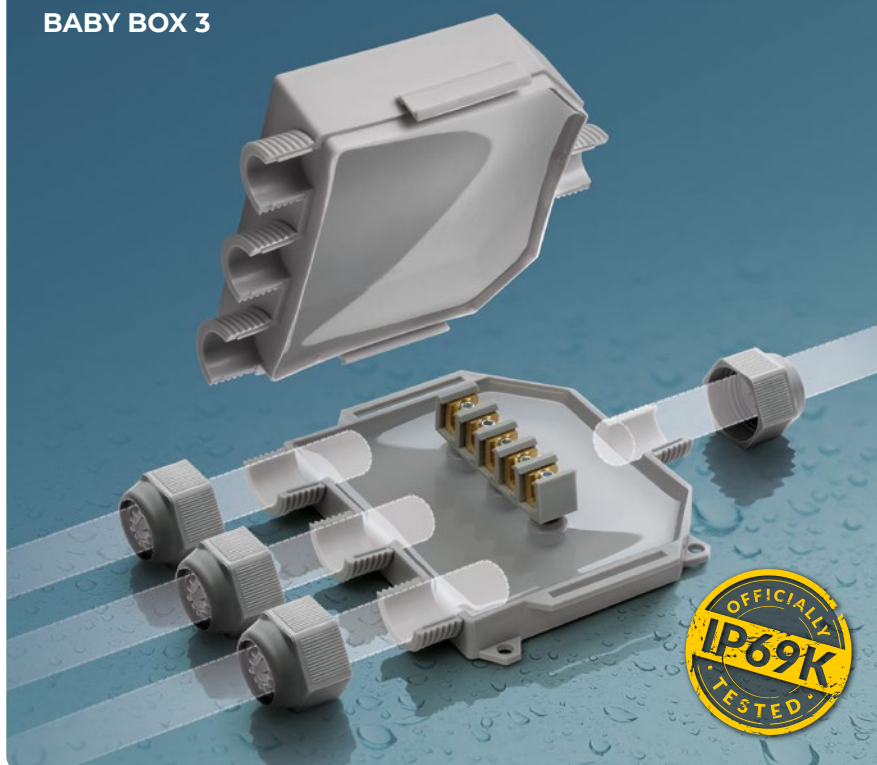
Pre-filled boxes (1 to 2) – (1 to 3)
with integrated terminal block and clamping nuts.

BABY BOX is the range of ready to use boxes/junction boxes, complete with terminal block and a kit of components that allow its use with cables from 8 to 18 mm in diameter and ducts from 16 to 20 mm in diameter. Nothing to pour and no waiting times as it is already pre-filled with a non-toxic gel, not classified as dangerous and with no shelf life, which insulates and seals the connection thoroughly and gives to the range the maximum of reliability; the accessory is ideal for underground, submerged or aerial installations. BABY BOX, 3-entrances box with three-pole terminal block and BABY BOX 3, 4-entrances box with five-pole terminal block, are available in grey or black, they are very simple to install and equipped with external holes for wall fixing.

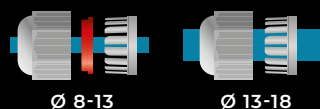
ADVANTAGES

- Pre-filled with a gel that is not-classified as hazardous under the CLP Directive.
- Ready to use.
- Also suitable for wet or flooded environments.
- Always re-enterable.
- Wall or external ceiling fixing system.
- Click and hook closure, does not require screws.
- No shelf life.

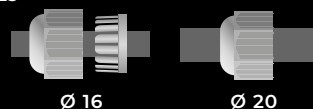
BABY BOX 3



CABLES



TUBES

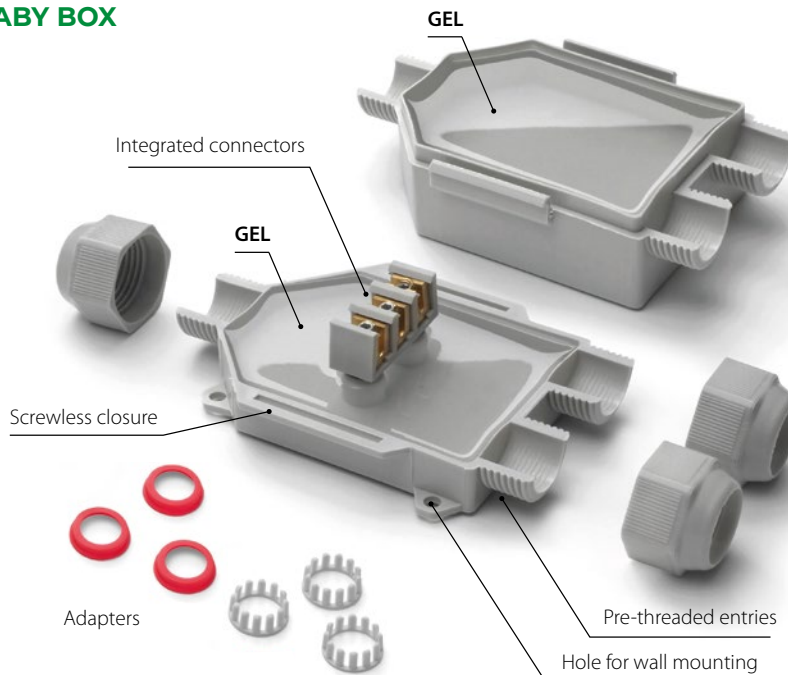


IP68
OFFICIALLY
TESTED

IMQ

IP69K
OFFICIALLY
TESTED

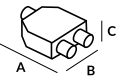
BABY BOX

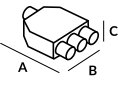


With integrated connectors.

Also suitable for extra-flat lever connectors.

Also suitable for screw terminals.

PRODUCT / Item	Colour		Connectors	Cables Ø min - max (mm)	Tubes Ø (mm)	 (mm)
BABY BOX BABYBOX	●	3	 3x Max 12 mm ²	8 - 18	16 / 20	90 x 80 x 47
BABY BOX - N BABYBOX-N	●					

PRODUCT / Item	Colour		Connectors	Cables Ø min - max (mm)	Tubes Ø (mm)	 (mm)
BABY BOX 3 BABYBOX3	●	4	 5x Max 12 mm ²	8 - 18	16 / 20	95 x 110 x 43
BABY BOX 3 - N BABYBOX3-N	●					

Baby Box



Baby Box 3





READY BOX

3 or 4 entrances junction boxes pre-filled with gel, complete with integrated terminal block and cable glands

Ready Boxes are pre-filled with gel and ready to use; complete with terminal blocks but can also be used with the most common connection systems. Supplied with nuts for the conformation with 3 or 4 outputs, they are suitable for a very wide range of cables or ducts diameters.

ADVANTAGES

- Pre-filled with a gel that is not-classified as hazardous under the CLP Directive.
- Ready to use.
- Also suitable for wet or flooded environments.
- Always re-enterable.
- Wall or external ceiling fixing system.
- Click and hook closure, does not require screws.
- Pre-threaded entries for cable gland mounting.
- No shelf life.



Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

🔧 Gel: UL 94-HB  us

🌡️ Working temperature: 90°C

🌡️ Gel operating temperature: -60°C / +200°C

🌊 Fully submersible

🔧 Can be used underground

🌿 Halogen-free Gel

☀️ UV resistant

🔥 Self-extinguishing and resistant to abnormal heat and fire:
Glow Wire Flammability Index at +960°C according to EN60695-2-12

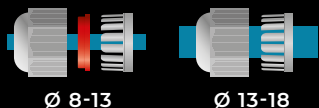
IP68
OFFICIALLY
TESTED

IMQ

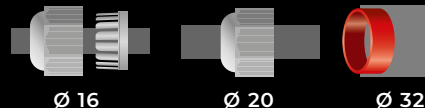
IP69K
OFFICIALLY
TESTED



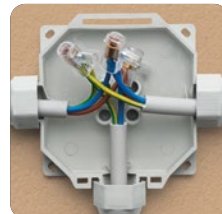
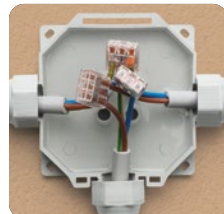
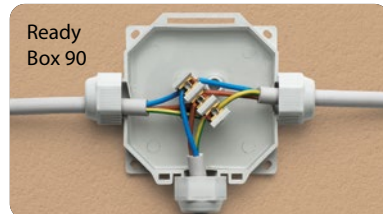
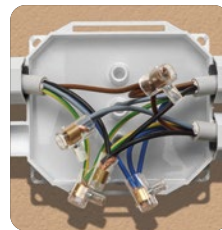
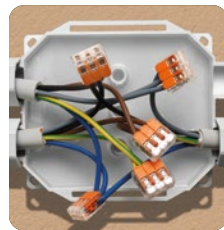
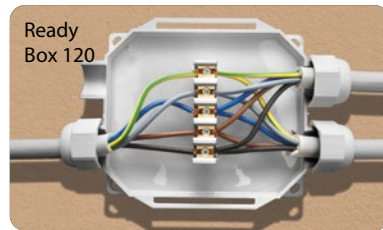
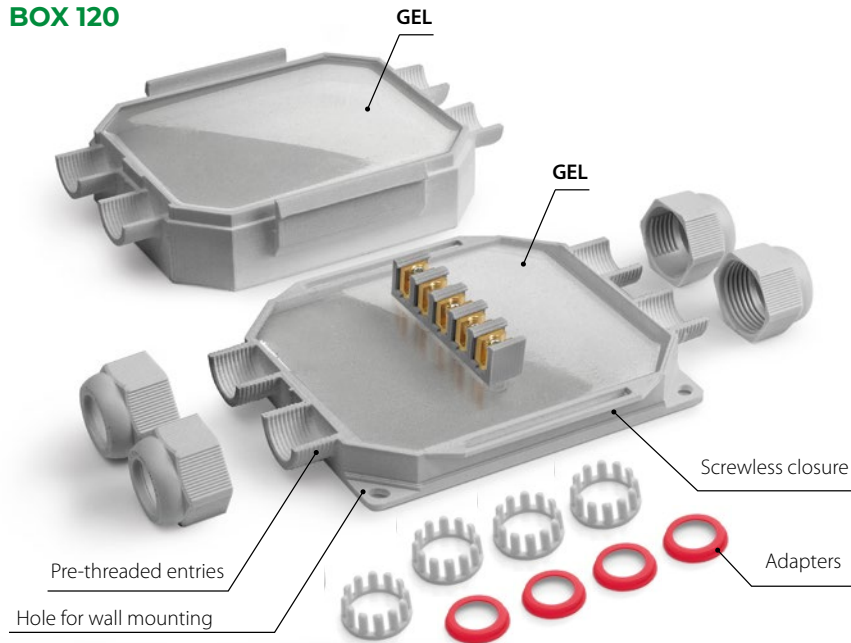
CABLES



TUBES



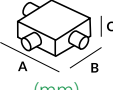
READY BOX 120

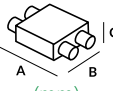


Thanks to its innovative design, unlike a standard box, there is no need to break through the walls of the box to insert the cable.

Also suitable for extra-flat lever connectors.

Also suitable for screw terminals.

PRODUCT / Item	Colour		Cables Ø min-max (mm)	Tubes Ø (mm)	 A B C (mm)
Ready Box IP68 90 READYBOX90	●	3	8 - 18	16 / 20 / 32	90 x 90 x 45
Ready Box IP68 90/N READYBOX90-N	●				

PRODUCT / Item	Colour		Cables Ø min-max (mm)	Tubes Ø (mm)	 A B C (mm)
Ready Box IP68 120 READYBOX120	●	4	8 - 18	16 / 20 / 32	120 x 100 x 45
Ready Box IP68 120/N READYBOX120-N	●				



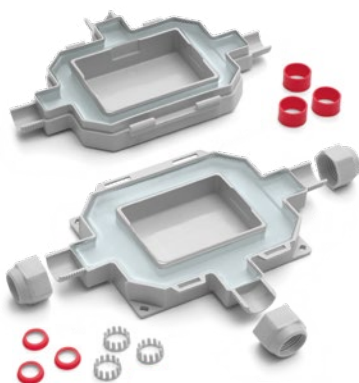
Installation with free cables.



Installation with cable gland duct.

READY BOX 90




Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

 **Gel:** UL 94-HB 

 **Working temperature:** 90°C

 **Gel operating temperature:**
-60°C / +200°C

 **Fully submersible**

 **Can be used underground**

 **Halogen-free Gel**

 **UV resistant**

 **Self-extinguishing and resistant to abnormal heat and fire:**
Glow Wire Flammability Index at +960°C according to EN60695-2-12

IP68
OFFICIALLY
TESTED

IMQ

IP69K
OFFICIALLY
TESTED

FOX BOX

3 or 5 entrance jointing enclosure with gel filled perimeter chamber providing lighter weight with maximum capacity.

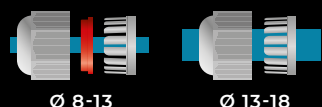
Kit includes accessories to maximise versatility allowing the use of cables from 8 to 18 mm in diameter or with 16, 20 and 32 mm diameter cable conduits. The internal, gel-free compartment allows for dry connections or any future alterations or disconnections. The gel, contained in the perimeter chamber also surrounds, insulates and seals any armour continuity connections or cable shields.

ADVANTAGES

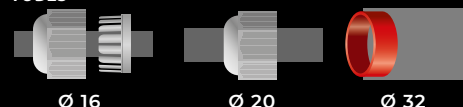
- Pre-filled with a gel that is not-classified as hazardous under the CLP Directive.
- Functional, elegant design.
- Ideal for exposed and safety systems and for video camera installation.
- Ready for use.
- Click and hook closure, does not require screws.
- Ready and installable in all environmental conditions.
- Also suitable for wet or flooded environments.
- Always re-enterable.
- Wall or external ceiling fixing system.
- No shelf life.

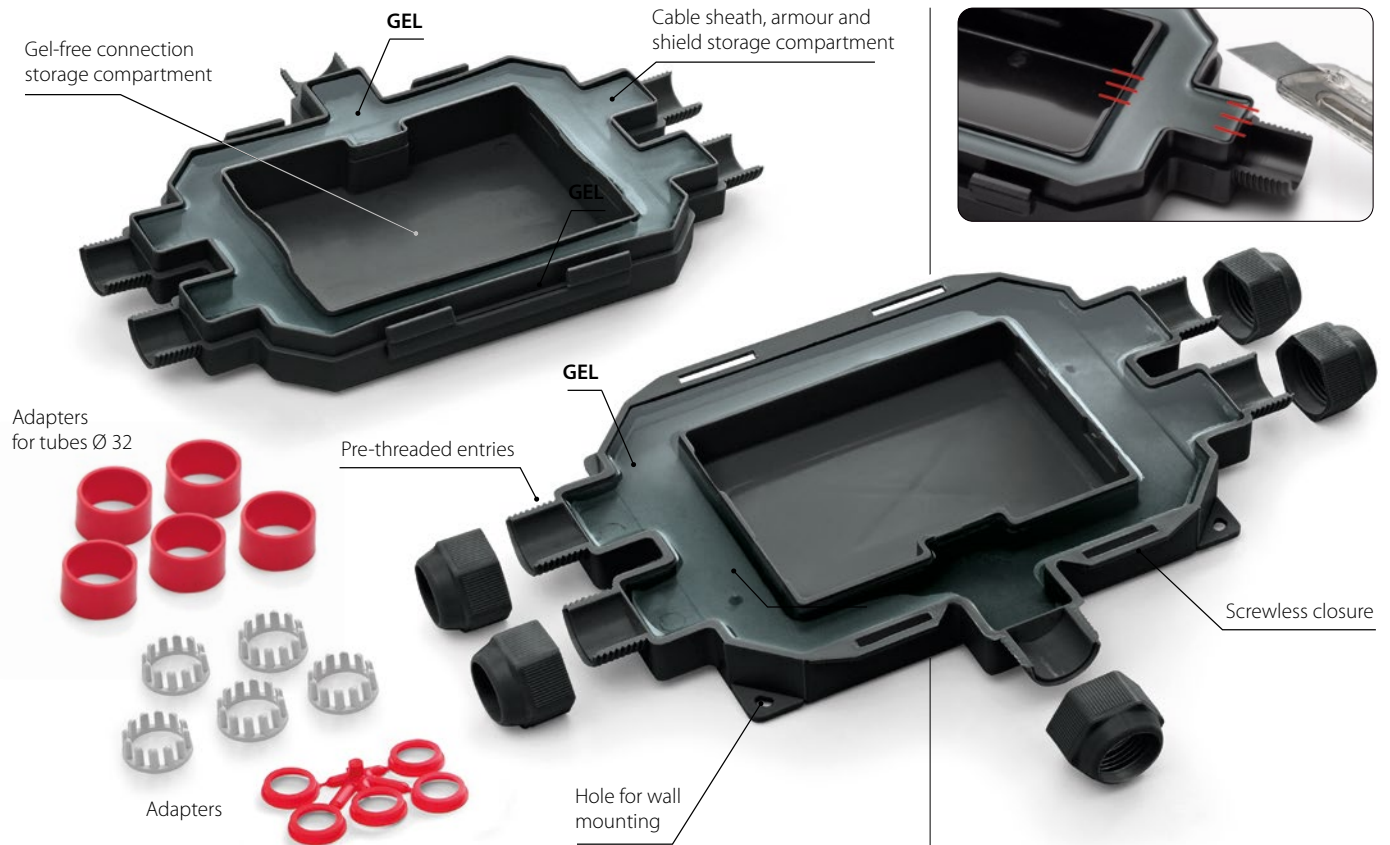


CABLES



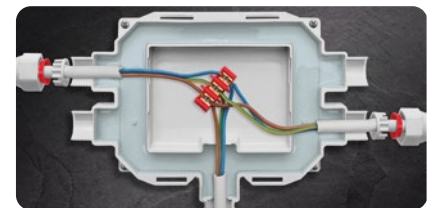
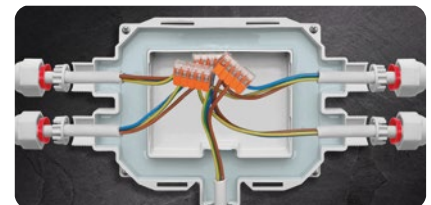
TUBES





PRODUCT / Item	Colour	Cables Ø min-max (mm)	Tubes Ø (mm)	Inner capacity (mm)	Outer dimensions (mm)
FOX BOX 3 FOXBOX3	●				
FOX BOX 3 - N FOXBOX3-N	●	8 - 18	16 / 20 / 32	79 x 60 x 32	180 x 135 x 45
FOX BOX 3 - ARM FOXBOX3-ARM	●				

PRODUCT / Item	Colour	Cables Ø min-max (mm)	Tubes Ø (mm)	Inner capacity (mm)	Outer dimensions (mm)
FOX BOX FOXBOX	●				
FOX BOX - N FOXBOX-N	●	8 - 18	16 / 20 / 32	116 x 78 x 32	210 x 155 x 45
FOX BOX - ARM FOXBOX-ARM	●				



The Fox Box – Arm kit includes:

- The yellow/green insulated wires.
- The roll springs to carry out the continuity of the armouring.

Armourings and their continuity are housed in the chamber with the gel, ensuring perfect sealing.



MAGIC BOX

IP68 Connection kit complete with Magic Fluid insulating gel.

Universal IP68 kit without shelf life, mechanically robust, non-toxic, suitable for installation even in the most extreme conditions, re-enterable, meeting all international standards. Protects from water, moisture, dust and accidental contact caused by small animals.

ADVANTAGES

- ▶ With pre-drilled walls for a faster installation.
- ▶ Re-enterable even after long periods of operation.
- ▶ Able to absorb external shock without fracturing.
- ▶ For installations even at high depths.
- ▶ Also suitable for vertical filling.
- ▶ No shelf life.
- ▶ The gel is not-classified as hazardous under the CLP Directive.



Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

 Gel: UL 94-HB 

 Working temperature: 90°C

 Gel operating temperature:
-60°C / +200°C

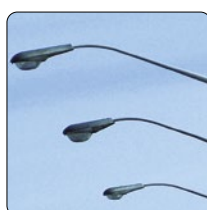
 Fully submersible

 Can be used underground

 Halogen-free Gel

 Self-extinguishing and resistant
to abnormal heat and fire:
Glow Wire Flammability Index at +960°C
according to EN60695-2-12

IP68
OFFICIALLY
TESTED | **IMQ**



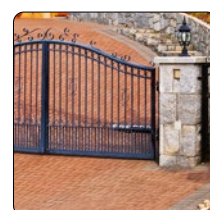
PUBLIC LIGHTING



NAVAL SECTOR



OUTDOOR - GARDENS



ELECTRIC GATES

Kit box installation sequence



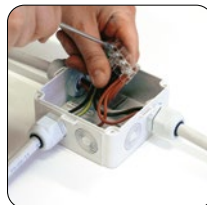
Fix the box and cover the screws with the caps.



Knock out the pre prepared holes.

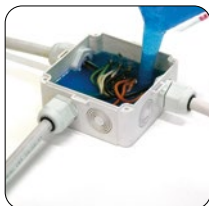


Install the cable glands.



Insert the cables and connect the wires.

Horizontal installation sequence



Vertical installation sequence



PRODUCT / Item	Input cables max. external Ø (mm)	N° and type of cable glands	Box dimensions (mm)
MAGIC BOX 65 MAGICBOX65	22	3 x PG16	Ø 65 x h 35
MAGIC BOX 80 MAGICBOX80	22	3 x PG16	Ø 80 x h 40
MAGIC BOX 100 MAGICBOX100	20	3 x M25 x 1.5	100 x 100 x h 50
MAGIC BOX 120 MAGICBOX120	20	3 x M25 x 1.5	120 x 80 x h 50
MAGIC BOX 150 MAGICBOX150	26	3 x M25 x 1.5	150 x 110 x h 70
MAGIC BOX 190 MAGICBOX190	26	3 x M25 x 1.5	190 x 140 x h 70
MAGIC BOX 240 MAGICBOX240	26	3 x M25 x 1.5	240 x 190 x h 90



Complete kit with:

- Cover
- 3 cable glands
- Series of closing plugs
- Insulating gel for complete filling



POWER KIT IP68

The only re-enterable and reusable IP68 kit. Can easily be used for ceiling mounted or recessed applications!

The most versatile, safe solution to fully protect connections in boxes with an IP68 degree of protection. Thanks to **Magic Power**, the newly developed, fast cross-linking, safe and reliable, extremely sticky self-agglomerating gel with very high dielectric, thermal and elastic characteristics, sealing is guaranteed in all type of installation, including submerged. The Power Kit IP68 solution is the only product of its kind! Not only because the insulation can be used in two different ways, both as a traditional "pour" in the box and as a "cross linked and sticky" product (cross linking first), but also because, thanks to its re-enterability and re-usability, it helps you save time and money!

ADVANTAGES

- ▶ **Magic Power Gel is not-classified as hazardous under the CLP Directive.**
- ▶ **Complete Kit for a perfect connection IP68.**
- ▶ **Insulated with Magic Power Gel the innovative self-amalgamating gel.**
- ▶ **Can also be used in severe environmental conditions.**
- ▶ **Suitable for very high depths.**
- ▶ **No waste.**
- ▶ **No shelf life.**



Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

🔧 **Gel:** UL 94-HB **cULus**

🌡️ **Working temperature:** 90°C

🌡️ **Gel operating temperature:**
-60°C / +200°C

🌊 **Fully submersible**

🔑 **Can be used underground**

🌿 **Halogen-free Gel**

🔥 **Self-extinguishing and resistant to abnormal heat and fire:**
Glow Wire Flammability Index at +960°C according to EN60695-2-12

IP68
OFFICIALLY
TESTED | **IMQ**

WHERE CAN YOU USE THE POWER KIT?

In pools, tanks, submerged pumps, outdoor lighting systems, underground, port piers, marinas, sewer systems, and with temporary connections such as with lights, street vendors, etc.

HOW DO YOU USE THE POWER KIT?

The insulation can be poured into the box (Pour!) or, for special applications, cross linked in the measuring jug and applied around the connection (Stick!). Mix the Magic Power gel in a 1:1 ratio in the supplied measuring jug. The gel will cross link in less than 15 minutes.

NO WASTE

The cross linked gel which remains on the bottom after mixing can be easily removed from the jug and saved for later use.

Chose the **POUR** or **STICK** method most suited for your needs

POUR



You can use the Magic Power gel supplied in the two-component bottle in a 1:1 ratio by simply pouring it after mixing into the box supplied in the kit, to protect and seal internal connections. The gel cross links in just 15 minutes, but the box can be energised immediately.

RE-ENTER AND RE-USE



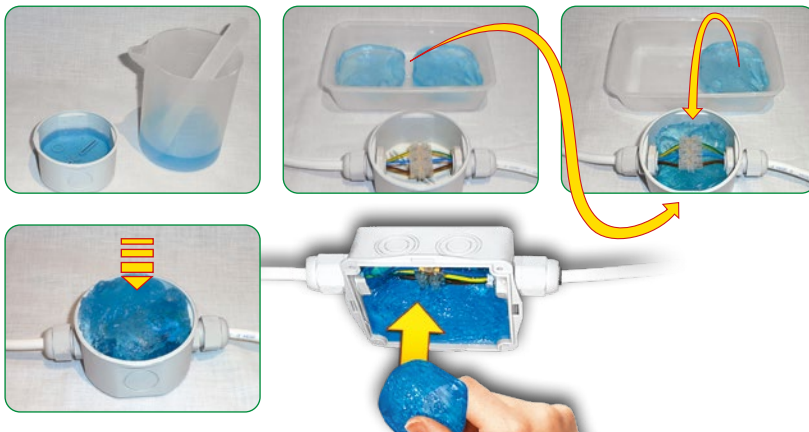
Thanks to Magic Power Gel, the box can be **re-opened, inspected** and **re-insulated** all using the original installed product.

STICK



Pour the components in the measuring jug, mix and leave to cross link (about 15 minutes). Remove the insulation and position it in small parts around the connection so that it is fully covered. Insulation saved from previous mixes can of course be utilised.

IN A HURRY? ADVERSE WEATHER CONDITIONS? PREPARE YOUR INSULATION BEFORE INSTALLING IT!





WHAT ARE THE ADVANTAGES TO USING THE POWER KIT?

- The insulation is extremely sticky and self-amalgamating, with no shelf life, it is non-toxic and it adheres to everything while leaving your hands clean and dry.
- The kit does not cause waste: insulation left over in the measuring jug can be saved for later use.
- Re-enterable and reusable, saving time and money.
- The supplied box has pre-marked holes.
- Compatible with Magic Gel.
- A slight exothermic reaction (temperature increase of about 3°C) speeds up cross linking in cold weather conditions.
- Even protects boxes mounted on the ceiling to IP68 if using the "stick" method. Could also use left over product from previous installations.
- Insulation can be pre-prepared: at home, at work or in your car and then applying it once cross linked, saving time when you're in a hurry or in adverse weather conditions.

SOME LEFT OVER? SAVE IT!



Left over gel that has already cross linked can be easily removed from the measuring jug and saved for later use.



PRODUCT / Item	Box	Insulating filler
POWER KIT 65 POWER-65	Ø 65 x h 35 mm + 2 cable glands PG16 / caps	Single two-component bottle 1 small jug - 1 spatula in wood
POWER KIT 80 POWER-80	Ø 80 x h 40 mm + 3 cable glands PG16 / caps	Single two-component bottle 1 small jug - 1 mixing spatula
POWER KIT 100 POWER-100	100 x 100 x h 50 mm + 3 cable glands M25 x 1,5 / caps	Single two-component bottle 1 small jug - 1 mixing spatula
POWER KIT 120 POWER-120	120 x 80 x h 50 mm + 3 cable glands M25 x 1,5 / caps	Single two-component bottle 1 small jug - 1 mixing spatula

MAGIC GEL SPRINT BOX 100

Kit for IP68 connections with Magic Gel Sprint.

The kit includes a pack of Magic Gel Sprint 450, the gel formulated for an extra-rapid polymerization directly inside the bottle, and a 100 x 100 x h50 mm box: once connected the conductors in the box, the gel is prepared simply by pouring into the large bottle the content of the small one. Then shake and pour. Operation finished!

ADVANTAGES

- For POWER CABLES, TELECOM CABLES and ELECTRONIC CIRCUITS.
- Non-toxic, safe and not classified as hazardous under CLP Directive.
- Suitable for installation in salt water (sea) and in chlorinated water (pools).
- Suitable for very high depths.
- For installations up to 1 kV.
- No shelf life.
- Re-enterable.
- Suitable for high temperatures.



Extra fast
curing!



UNSCREW



ACTIVATE



SHAKE

Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

Gel: UL 94-HB  US

Working temperature: 90°C

Gel operating temperature:
-60°C / +200°C

Fully submersible

Can be used underground

Halogen-free Gel

Self-extinguishing and resistant
to abnormal heat and fire:
Glow Wire Flammability Index at +960°C
according to EN60695-2-12

IP68
OFFICIALLY
TESTED

IMQ



IP68

PRODUCT / Item

MAGIC GEL SPRINT BOX 100
MAGICSPRINTBOX1

Box

100 x 100 x h 50 mm
+ 3 cable glands M25 x 1,5

Insulating filler

Bottle + Catalyst

**Electrical Performance:**

CEI 23-48, IEC 60670

Degree of protection:empty IP55
filled with Gel Raytech IP68**Self-extinguishing and
resistant to abnormal
heat and fire:**Glow Wire Flammability Index at +960° C
according to EN60695-2-12

J-BOX

Snap shut closing enclosures with perforated knockouts.

Enclosure with snap shut cover and perforated knockouts for faster mounting of cable glands. Very high mechanical and flame retardant properties. Re-enterable only by means of a tool. The screwless design prevents screws rusting over time due to moisture and always allows for easy re-entry. Screw caps are also supplied for the wall mounting screws along with 3 cable glands and a stopping plug for vertical filling.

ADVANTAGES

- ▶ Can be insulated with *Magic Power Gel, Magic Gel, Wonder Gel (IP68)*.
- ▶ Re-enterable only with the use of a tool.
- ▶ Snap-shut closing (without screws).
- ▶ Also suitable for vertical filling.
- ▶ Excellent shock-resistance.



Snap-shut closing (without screws)



Pre - drilled walls



PRODUCT Item	Max N° of cables that can be jointed	Max Ø predrilling holes (mm)	Max Ø possible drilling (mm)	Max dimension housed cable glands (pass)		Dimension (mm)
				PG	METRIC	
J-BOX 65 JBOX65	4	23	23	16	20	Ø 65 x h 35
J-BOX 80 JBOX80	4	23	23	16	20	Ø 80 x h 40
J-BOX100 JBOX100	8	29	29	21	25	100 x 100 x h 50
J-BOX120 JBOX120	6	25	29	21	25	120 x 80 x h 50
J-BOX150 JBOX150	10	29	37	29	32	150 x 110 x h 70
J-BOX190* JBOX190	10	37	37	29	32	190 x 140 x h 70
J-BOX240* JBOX240	12	37	37	29	32	240 x 190 x h 90

* Supplied with extractable hinge for opening book type.

Note: All boxes include 3 cable glands Ray Pass 16.

J-BOX ACCESSORIES

RAY-PRESS

METRIC pitch	Metric pict	Assembly hole Ø (mm)	Cable range Ø		Pack of (PCS)
PRODUCT / Item			min (mm)	max (mm)	
Ray PRESS-16 RAYPRESS16	M16 x 1.5	16	6	10	50
Ray PRESS-20 RAYPRESS20	M20 x 1.5	20	8	13	50
Ray PRESS-25 RAYPRESS25	M25 x 1.5	25	12	18	20
Ray PRESS-32 RAYPRESS32	M32 x 1.5	32	16	20	20



PG pitch	PG pict	Assembly hole Ø (mm)	Cable range Ø		Pack of (PCS)
PRODUCT / Item			min (mm)	max (mm)	
Ray PRESS-PG11 RAYPRESSPG11	11	19	6	9	50
Ray PRESS-PG13.5 RAYPRESSPG13.5	13,5	20	9	12	50
Ray PRESS-PG16 RAYPRESSPG16	16	23	11	14	50
Ray PRESS-PG21 RAYPRESSPG21	21	29	14	18	20



RAY-PASS

PRODUCT / Item	For pipe Ø max external (mm)	Assembly hole Ø (mm)	Pack of (PCS)
Ray PASS 16 RAYPASS16	20	23	50
Ray PASS 21 RAYPASS21	23,5	29	50
Ray PASS 29 RAYPASS29	32	38	50





LOW VOLTAGE
CONNECTORS
TERMINAL BLOCKS
GEL COVER
GEL BOX



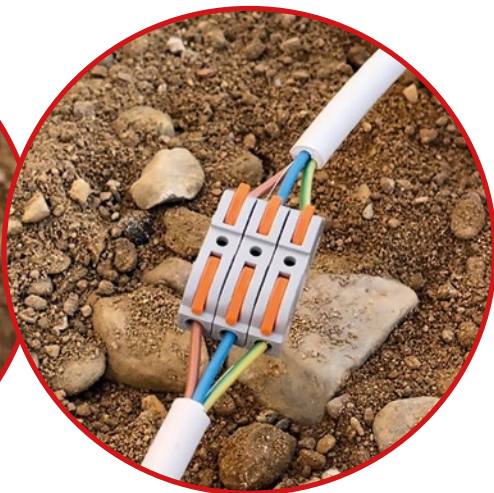
**RAY BLOCK
SUPER BLOCK
HAPPY LINE
GEL BOX LINE
NANO LINE
BRAVO**



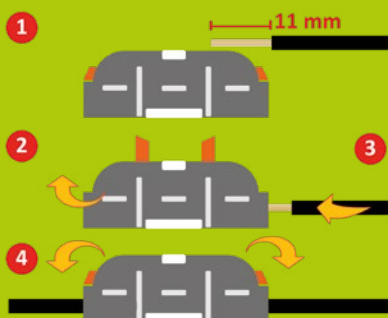
NEW

LEVER CONNECTORS IN & OUT

CE **UK**
CA
RoHS
Compliant



- MODULAR
- COMPOSABLE
- ULTRAFAST
- SELF-EXTINGUISHING



SECTION: 0.5-4 mm²
VOLTAGE: 600V
CAPACITY: 32A

**RAY
BLOCK**



x 50

COD. ART.
RAYBLOCK

MINIMUM ORDER QUANTITY
1 DISPLAY
OF 12 PACKS

**RAY
BLOCK** **uno**



x 20

COD. ART.
RAYBLOCKUNO

MINIMUM ORDER QUANTITY
1 DISPLAY
OF 20 BLISTERS

RAY BLOCK B

The new range of lever connectors, quick and safe, time and cost-saving.

ADVANTAGES

- ▶ Extra compact, robust, practical, safe and very quick to install.
- ▶ They do not require the use of tools.
- ▶ They allow independent locking and release of individual conductors.
- ▶ Equipped with 2 voltage test points: on front and on back side.
- ▶ With high-quality, acid-resistant stainless steel pressure spring.



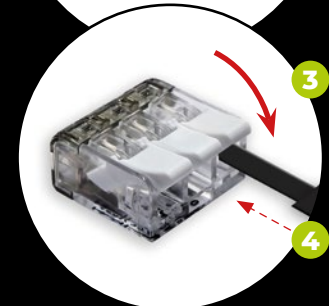
OPERATING: **Max 105° C**
VOLTAGE: **450V**
CAPACITY: **32A**

CEI/IEC 60998-1
CEI/IEC 60998-2-2



For **FLEXIBLE**
wires **0,34 - 4,0 mm²**

For **RIGID**
wires **0,2 - 4,0 mm²**



x 40 COD. ART.
RAYBLOCKB2

MINIMUM ORDER QUANTITY
1 DISPLAY
OF 20 BLISTERS



x 30 COD. ART.
RAYBLOCKB3

MINIMUM ORDER QUANTITY
1 DISPLAY
OF 20 BLISTERS



x 18 COD. ART.
RAYBLOCKB5

MINIMUM ORDER QUANTITY
1 DISPLAY
OF 20 BLISTERS

NEW

SUPERBLOCK



SUPER BLOCK

The new Gel Box with integrated lever connectors: ready, complete, submersible and compact.

The GEL BOX range, designed in 2015, is enriched with a new range of compact and waterproof connecting devices. For increasingly secure and high-performance connections over time.

ADVANTAGES

- For straight or branch connections of 3 or 5 rigid or flexible wires up to 4 mm².
- Tool-less.
- Can be powered immediately - Always re-enterable.
- Pre-filled with conforming viscoelastic gel, not classified as hazardous.
- Reusable.
- Without shelf-life.



Electrical performance:

- CEI EN 50393 as applicable (testing under water head of the accessory installed in a box).
- Class 2 in accordance with CEI 64-8.
- CEI EN 60998-1 - CEI EN 60998-2

Gel: UL 94-HB us

Working temperature: 90°C

Installation temperature: -40°C / +50°C

Fully submersible

Can be used underground

Halogen-free Gel

UV resistant

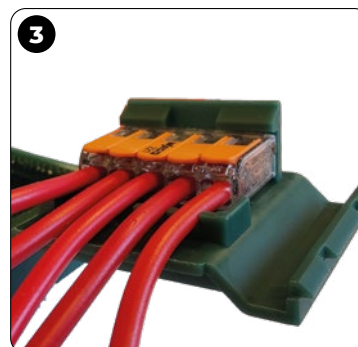
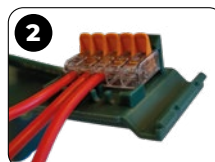
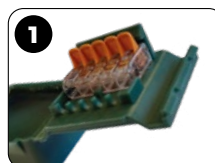
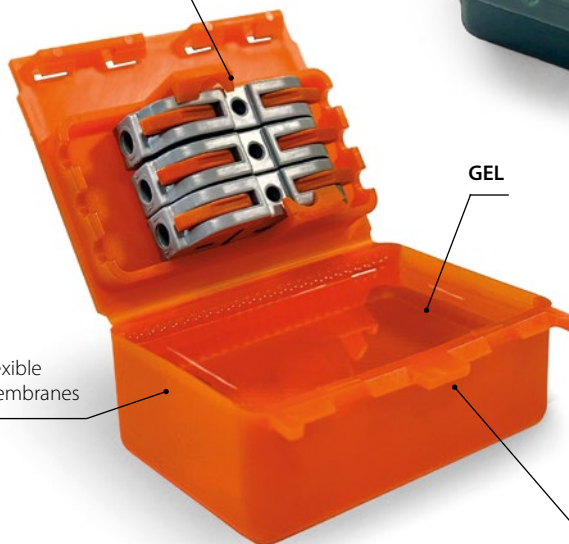
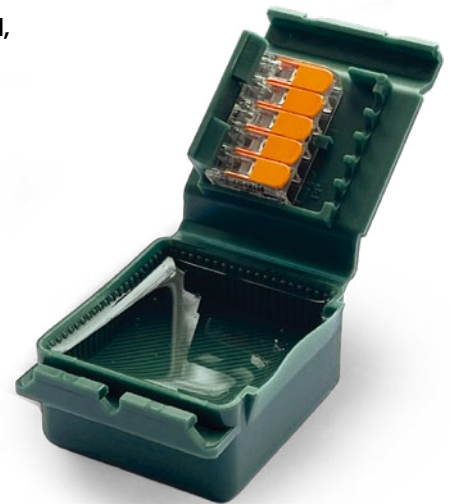
IP68
OFFICIALLY
TESTED | IMQ

Integrated connector

GEL

Flexible membranes

Safety closing system





SUPER BLOCK IN-OUT M

Item
SUPERBLOCKINOUTM

Up to 3 x 4 mm²

Dimensions:
67 x 50 x 28 mm



SUPER BLOCK 3W

Item
SUPERBLOCK3W

Up to 3 x 4 mm²

Dimensions:
57 x 47 x 26 mm



SUPER BLOCK 3

Item
SUPERBLOCK3

Up to 3 x 4 mm²

Dimensions:
57 x 47 x 26 mm



SUPER BLOCK 5W

Item
SUPERBLOCK5W

Up to 5 x 2.5 mm²

Dimensions:
57 x 47 x 26 mm



SUPER BLOCK 5

Item
SUPERBLOCK5

Up to 5 x 4 mm²

Dimensions:
57 x 47 x 26 mm



SUPER BLOCK IN-OUT W

Item
SUPERBLOCKINOUTW

Up to 3 x 4 mm²

Dimensions:
67 x 50 x 28 mm

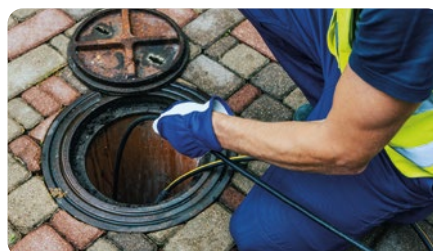


SUPER BLOCK IN-OUT

Item
SUPERBLOCKINOUT

Up to 3 x 4 mm²

Dimensions:
67 x 50 x 28 mm





HAPPY LINE

The revolutionary mini accessories with 3 entrances, pre-filled with gel and suitable for submersible installations (IPX8).

Designed in 3 dimensions to rapidly insulate and seal the most commonly used connectors. The 3 entrances not only guarantee the extreme flexibility in the range of these products by making possible triple configurations but also by the housing accepting a wide variety of connectors.

ADVANTAGES

- **Extremely versatile - Ready to use - Re-enterable.**
- **For rigid or flexible insulated wires up to 6 mm².**
- **Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.**
- **Small compact and robust.**

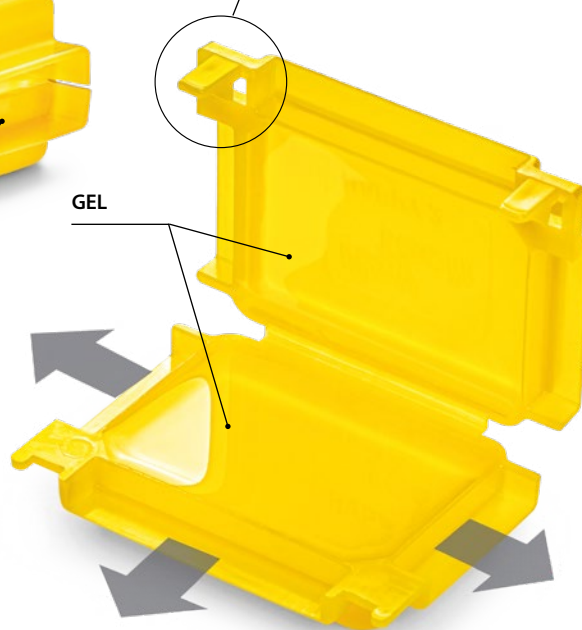
New closure
safety



Extra flexible
membranes

GEL

New closure
safety



Electrical performance:

- CEI EN 50393 as applicable (testing under water head of the accessory installed in a box).
- **Class 2** in accordance with CEI 64-8.
- CEI EN 60998-1 - CEI EN 60998-2

🔧 Gel: UL 94-HB **UL** **us**

🌡️ **Working temperature:** 90°C

🌡️ **Installation temperature:** -40°C / +50°C

🌊 **Fully submersible**

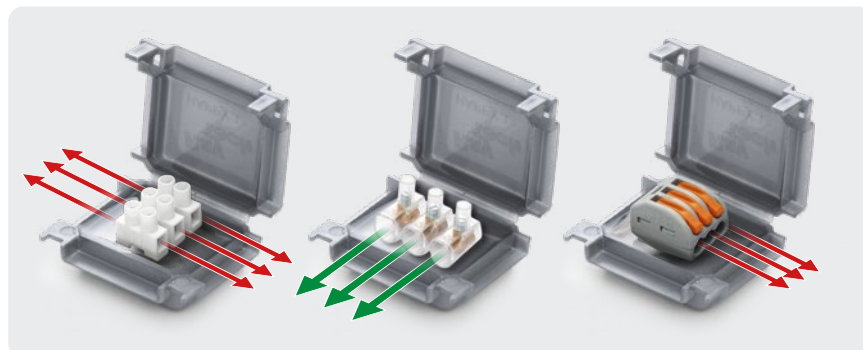
🔑 **Can be used underground**

🌿 **Halogen-free Gel**

☀️ **UV resistant**

IPX8
OFFICIALLY
TESTED | **IMQ**

Configuration examples



HAPPY 00

PRODUCT	Item	Colour	Pack of	Description	Dimension (mm)
HAPPY 00	HAPPY00	●	4 PCS	Blister	40 x 28 x 19
HAPPY 00-T	HAPPY00-T	○	4 PCS	Blister	
GEL BOX 00	GELBOX00	○	20 PCS	Blister	

IDEAL FOR (or similar):



2x 2.5 mm² 2x 1.5 mm² 2x 4 mm² 3x 4 mm²

HAPPY 0

PRODUCT	Item	Colour	Pack of	Description	Dimension (mm)
HAPPY 0	HAPPY0	●	4 PCS	Blister	40 x 29 x 22
HAPPY 0-T	HAPPY0-T	○	4 PCS	Blister	
HAPPY 0 BOX12	HAPPY0BOX12	○	12 PCS	Box	
GEL BOX 0	GELBOX0	○	20 PCS	Blister	

IDEAL FOR (or similar):



2x 2.5 mm² 2x 1.5 mm² 2x 2.5 mm² 3x 2.5 mm² 2x 2.5 mm² 3x 2.5 mm² 2x 4 mm² 3x 4 mm²

HAPPY 1

PRODUCT	Item	Colour	Pack of	Description	Dimension (mm)
HAPPY 1	HAPPY1	●	2 PCS	Blister	45 x 37 x 24
HAPPY 1-T	HAPPY1-T	○	2 PCS	Blister	
HAPPY 1 BOX10	HAPPY1BOX10	○	10 PCS	Box	
GEL BOX 1	GELBOX1	○	15 PCS	Blister	

IDEAL FOR (or similar):



3x 2.5 mm² 3x 2.5 mm² 2x + 2x 2.5 mm² 3x 2.5 mm² 5x 2.5 mm² 3x 2.5 mm² 5x 2.5 mm² 3x 4 mm² 5x 4 mm² 3x 6 mm² 2x + 2x 6 mm²

HAPPY 2

PRODUCT	Item	Colour	Pack of	Description	Dimension (mm)
HAPPY 2	HAPPY2	●	1 PC	Blister	53 x 39 x 24
HAPPY 2-T	HAPPY2-T	○	1 PC	Blister	
HAPPY 2 BOX7	HAPPY2BOX7	○	7 PCS	Box	
GEL BOX 2	GELBOX2	○	11 PCS	Blister	

IDEAL FOR (or similar):



3x 4 mm² 3x 4 mm² 2x+2x+2x 2.5 mm² 2x+2x+2x 4 mm² 5x 4 mm² 5x 6 mm²



Dimension (mm)



Dimension (mm)



Dimension (mm)



Dimension (mm)



Coloured casings are self-extinguishing according to the **UL 94-V2** standard.



HAPPY JOINT LINE

The revolutionary mini accessories with 3 entrances, pre-filled with gel and suitable for submersible installations (IPX8) complete with connectors.

ADVANTAGES

- ▶ Extremely versatile - ready to use - re-enterable.
- ▶ Small, compact and robust.
- ▶ No need for tools.
- ▶ Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.
- ▶ Can energise immediately.
- ▶ For straight and branch connections.
- ▶ For rigid or flexible insulated wires up to 6 mm².
- ▶ Up to 5 conductors on one phase or up to two conductors on two or three phases.



Electrical performance:

- CEI EN 50393 as applicable (testing under water head of the accessory installed in a box).
- **Class 2** in accordance with CEI 64-8.
- CEI EN 60998-1 - CEI EN 60998-2

🔧 Gel: UL 94-HB  us

🌡️ Working temperature: 90°C

🌡️ Installation temperature: -40°C / +50°C

🌊 Fully submersible

🔧 Can be used underground

🌿 Halogen-free Gel

☀️ UV resistant

IPX8
OFFICIALLY
TESTED | **IMQ**

New closure
safety

GEL

**ULTRA-FLAT TERMINALS
FOR WIRES UP TO
6 mm²**



HAPPY JOINT 3

PRODUCT / Item	Formation and wires cross section (Max N° x mm ²)		Pack of	Dimension (mm)
HAPPY JOINT 3 HAPPYJOINT3	3 x 1 - 4	2 through / 1 branch	4 PCS/ Blister	41 x 28 x 19
HAPPY JOINT 36 HAPPYJOINT36	3 x 1 - 6	2 through / 1 branch	2 PCS/ Blister	45 x 37 x 24

3 x 4 mm²3 x 6 mm²

With one connector
included for each Happy

HAPPY JOINT 4

PRODUCT / Item	Formation and wires cross section (Max N° x mm ²)		Pack of	Dimension (mm)
HAPPY JOINT 4 HAPPYJOINT4	2+2 x 1 - 4	2 through / in/out	2 PCS/ Blister	45 x 37 x 24
HAPPY JOINT 46 HAPPYJOINT46	2+2 x 1 - 6	2 through / in/out	2 PCS/ Blister	45 x 37 x 24

2+2 x 4 mm²2+2 x 6 mm²

With two connectors
included for each Happy

HAPPY JOINT 5

PRODUCT / Item	Formation and wires cross section (Max N° x mm ²)		Pack of	Dimension (mm)
HAPPY JOINT 5 HAPPYJOINT5	5 x 1 - 4	2 through / 3 branch	2 PCS/ Blister	45 x 37 x 24
Happy Joint 56 HAPPYJOINT56	5 x 1 - 6	2 through / 3 branch	1 PC/ Blister	53 x 39 x 24

5 x 4 mm²5 x 6 mm²

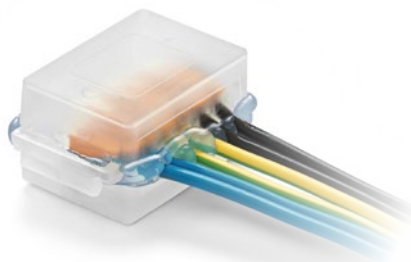
With one connector
included for each Happy

HAPPY JOINT 6

PRODUCT / Item	Formation and wires cross section (Max N° x mm ²)		Pack of	Dimension (mm)
HAPPY JOINT 6 HAPPYJOINT6	6 x 1 - 4	3 through / in/out	1 PC/ Blister	53 x 39 x 24

6 x 4 mm²

With three connectors
included for each Happy


Electrical performance:

- CEI EN 50393 as applicable (testing under water head of the accessory installed in a box).
- Class 2 in accordance with CEI 64-8.

🔧 **Gel:** UL 94-HB 

🌡️ **Working temperature:** 90°C

🌡️ **Installation temperature:** -40°C / +50°C

🌊 **Fully submersible**

🔧 **Can be used underground**

🌿 **Halogen-free Gel**

☀️ **UV resistant**

IPX8
OFFICIALLY
TESTED | **IMQ**

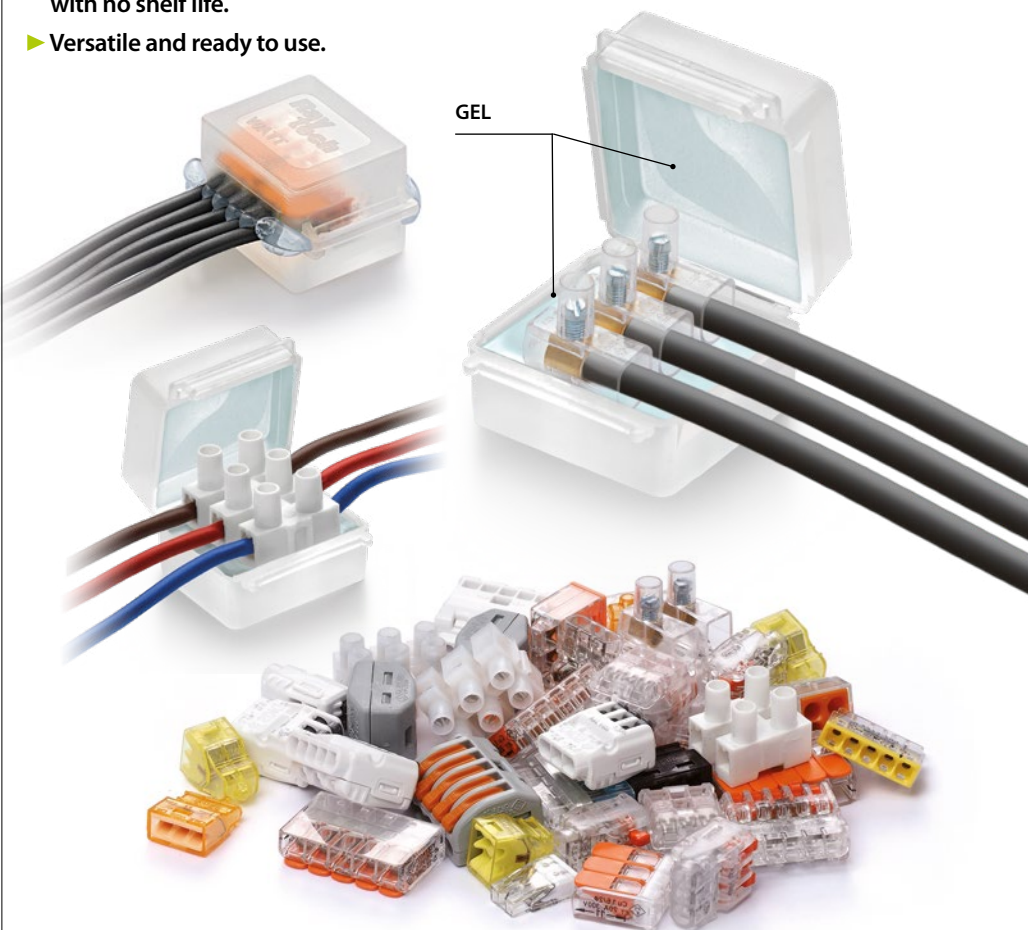


GEL BOX LINE

Gel pre-filled accessories for sealing, protecting and making safe electrical connections.

ADVANTAGES

- Designed with dimensions suitable for the most commonly used connectors.
- To put household systems in order.
- For rigid or flexible insulated wires.
- For civil and industrial connections.
- Also for submersible use.
- Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.
- Versatile and ready to use.



ISAAC

PRODUCT	Item	Pack of	Pack type	Dimension (mm)
ISAAC 4	ISAAC4	4 PCS	Blister	30 x 27 x 23
ISAAC 4 P30	ISAAC4P30	30 PCS	Box	
ISAAC 4 MP *	ISAAC4MP	50 PCS	Multipack	

IDEAL FOR
(or similar):



PASCAL

PRODUCT	Item	Pack of	Pack type	Dimension (mm)
PASCAL 6	PASCAL6	2 PCS	Blister	36 x 37 x 26
PASCAL 6 P15	PASCAL6P15	15 PCS	Box	
PASCAL 6 MP *	PASCAL6MP	25 PCS	Multipack	

IDEAL FOR
(or similar):



WATT

PRODUCT	Item	Pack of	Pack type	Dimension (mm)
WATT	WATT	2 PCS	Blister	30 x 42 x 26
WATT P15	WATTP15	15 PCS	Box	
WATT MP *	WATT-MP	25 PCS	Multipack	

IDEAL FOR
(or similar):



JOULE

PRODUCT	Item	Pack of	Pack type	Dimension (mm)
JOULE	JOULE	1 PC	Blister	33 x 52 x 26
JOULE MP *	JOULEMP	20 PCS	Multipack	

IDEAL FOR
(or similar):



KELVIN

PRODUCT	Item	Pack of	Pack type	Dimension (mm)
KELVIN	KELVIN	1 PC	Blister	52 x 53 x 29
KELVIN P9	KELVINP9	9 PCS	Box	
KELVIN MP *	KELVINMP	20 PCS	Multipack	

IDEAL FOR
(or similar):



* Also available in the self-extinguishing version according to the **UL 94-V2** standard in the colours: yellow, orange, blue or black.



GEL BOX LINE KIT

Complete with connectors.

PASCAL M2,5



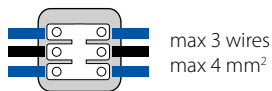
PRODUCT / Item	Pack content	Pack type	Dimension (mm)
PASCAL M2,5 PASCALM2,5	12 pieces + 36 terminal blocks (2.5 mm²)	Box	36 x 37 x 26



KELVIN M4



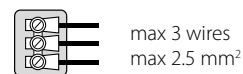
PRODUCT / Item	Pack content	Pack type	Dimension (mm)
KELVIN M4 KELVINM4	6 pieces + 24 terminal blocks (4 mm²)	Box	52 x 53 x 29



WATT +



PRODUCT / Item	Pack content	Pack type	Dimension (mm)
WATT + 1.5 WATT-1.5	10 pieces + 30 end connectors/ terminal blocks (1.5 mm²)	Box	30 x 42 x 26
WATT + 2.5 WATT-2.5	10 pieces + 30 end connectors/ terminal blocks (2.5 mm²)	Box	



KELVIN +



PRODUCT / Item	Pack content	Pack type	Dimension (mm)
KELVIN + 4 KELVIN-4	10 pieces + 30 end connectors/ terminal blocks (4 mm²)	Box	52 x 53 x 29
KELVIN + 6 KELVIN-6	10 pieces + 30 end connectors/ terminal blocks (6 mm²)	Box	
KELVIN 6+4 KELVIN6-4	6 pieces + 20 end connectors/ terminal blocks (4 mm²)	Box	
KELVIN 6+6 KELVIN6-6	6 pieces + 20 end connectors/ terminal blocks (6 mm²)	Box	



NANO JOINT LINE

Gel pre-filled accessories to seal, protect and make safe electrical connections.
Inclusive of connectors.

ADVANTAGES

- Ready to use, quick, re-enterable!
- No tools required.
- Can energise immediately.
- For straight & branch connections.
- For rigid or flexible insulated wires from 1 a 4 mm².
- For 1, 2 and 3 cores connections.
- Up to 5 conductors on one phase or up to 2 conductors on two or three phase.
- Small, compact and resistant.
- Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.



CONNECTORS
INCLUDED IN THE KIT

Electrical performance:

- CEI EN 50393 as applicable (testing under water head of the accessory installed in a box).
- Class 2 in accordance with CEI 64-8.
- CEI EN 60998-1 - CEI EN 60998-2

💧 Gel: UL 94-HB 

🌡 Working temperature: 90°C

🌡 Installation temperature: -40°C / +50°C

🌊 Fully submersible

🔑 Can be used underground

🌿 Halogen-free Gel

☀ UV resistant

🔥 Self-extinguishing according to UL 94-V2

IPX8
OFFICIALLY
TESTED

IMQ

With extra flat connectors included



NANO 3

PRODUCT / Item	Formation and wires cross section (Max N° x mm²)		Package	Dimension (mm)
		Combination		
NANO 3 NANO3	3 x 1 - 4	2 through / 1 branch	4 PCS Blister	30 x 27 x 23



max 3 wires
max 4 mm²



NANO 5

PRODUCT / Item	Formation and wires cross section (Max N° x mm²)		Package	Dimension (mm)
		Combination		
NANO 5 NANO5	5 x 1 - 4	2 through / 3 branch	2 PCS Blister	30 x 42 x 26



max 5 wires
max 4 mm²

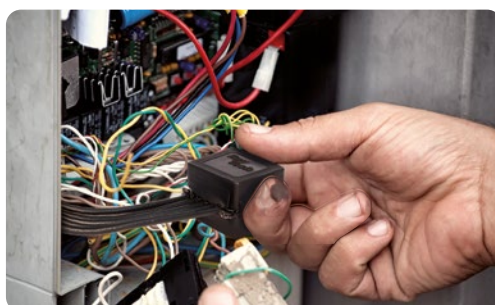


NANO 6

PRODUCT / Item	Formation and wires cross section (Max N° x mm²)		Package	Dimension (mm)
		Combination		
NANO 6 NANO6	6 x 1 - 4	3 through / In/Out	1 PC Blister	33 x 52 x 26



max 5 wires
max 4 mm²

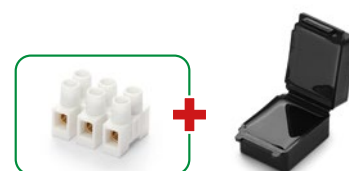


With one
connector
included



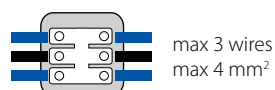
NANO MAM 2,5

PRODUCT / Item	Formation and wires cross section (Max N° x mm²)	Combination	Package	Dimension (mm)
NANO MAM 2,5 NANOMAM-2.5	3 x 1 - 2,5	3 through	2 PCS/ Blister	36 x 37 x 26



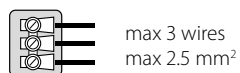
NANO MAM 4

PRODUCT / Item	Formation and wires cross section (Max N° x mm²)	Combination	Package	Dimension (mm)
NANO MAM 4 NANOMAM-4	3 x 1,5 - 4	3 through	1 PC/ Blister	52 x 53 x 29



NANO FOR 2,5

PRODUCT / Item	Formation and wires cross section (Max N° x mm²)	Combination	Package	Dimension (mm)
NANO FOR 2,5 NANOFOR-2.5	3 x 1 - 2,5	3 connections / In/Out	1 PC/ Blister	33 x 52 x 26



NANO FOR 4

PRODUCT / Item	Formation and wires cross section (Max N° x mm²)	Combination	Package	Dimension (mm)
NANO FOR 4 NANOFOR-4	3 x 1 - 4	3 connections / In/Out	1 PC/ Blister	52 x 53 x 29





BRAVO

The first "Gel-Box" with integrated connectors!

ADVANTAGES

- Ready to use, quick, re-enterable!
- For rigid or flexible insulated wires from 1 to 6 mm².
- It can be powered immediately.
- For straight & branch connections.
- For 1 or 3 cores connections.
- Small, compact and transparent.
- Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.



Electrical performance:

- CEI EN 50393 as applicable (testing under water head of the accessory installed in a box).
- Class 2 in accordance with CEI 64-8.

Gel: UL 94-HB  us

 Working temperature: 90°C

 Installation temperature: -40°C / +50°C

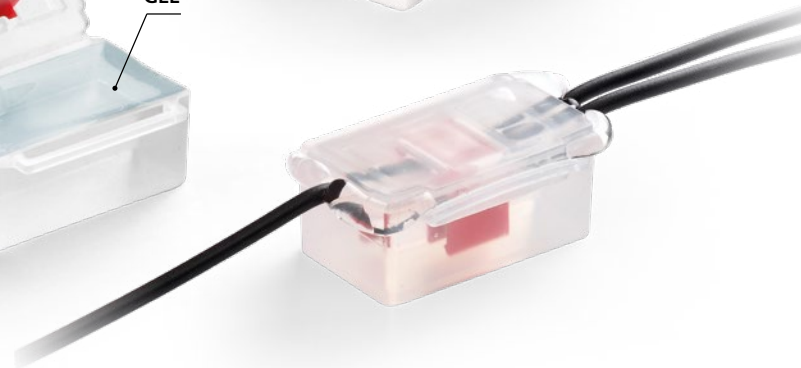
 Fully submersible

 Can be used underground

 Halogen-free Gel

 UV resistant

IPX8
OFFICIALLY
TESTED | **IMQ**



MINI BRAVO



1 CONNECT

2 FIX

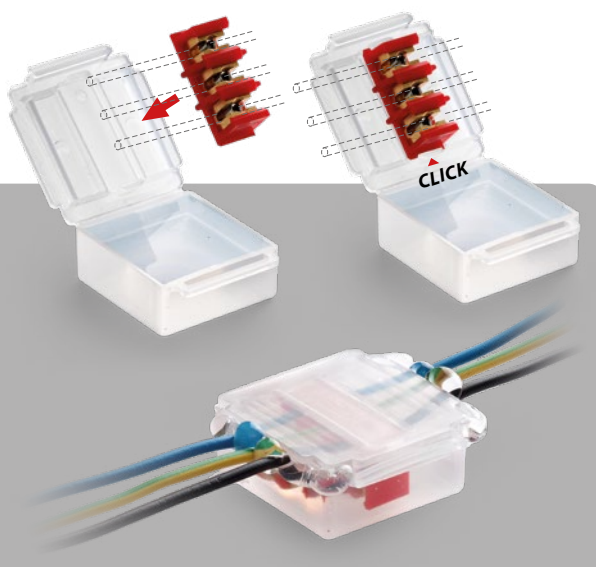
3 CLOSE



STRAIGHT



BRANCH



1



2



3



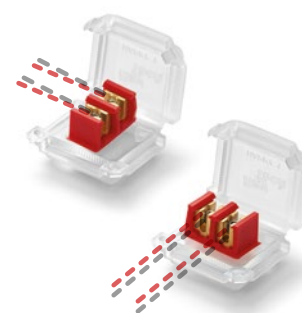
BRAVO

PRODUCT / Item	Formation and wires cross section		Package	Dimension (mm)
	Straight or through (N° x mm²)	Branch (N° x mm²)		
BRAVO 1-6 BRAVO1-6	1 x 1 - 6	1 x 1 - 6	1 PC/ Blister	50 x 29 x 22
BRAVO 3-6 BRAVO3-6	2 x 1 - 6 3 x 1 - 6	2 x 1 - 6 3 x 1 - 6	1 PC/ Blister	53 x 49 x 22



MINI BRAVO

PRODUCT / Item	Formation and wires cross section		Package	Dimension (mm)
	Straight or through (N° x mm²)	Branch (N° x mm²)		
MINI BRAVO 1 MINIBRAVO1	1 x 1 - 4	1 x 1 - 4	3 PCS/ Blister	41 x 28 x 19
MINI BRAVO 2 MINIBRAVO2	2 x 1 - 4	2 x 1 - 4	1 PC/ Blister	45 x 37 x 24
MINI BRAVO 3 MINIBRAVO3	3 x 1 - 4	3 x 1 - 4	1 PC/ Blister	53 x 39 x 24







LOW VOLTAGE JOINTS

PRE-FILLED FOR PHOTOVOLTAIC
SOLAR COVER

PRE-FILLED IP68
RAY JOLLY
LITTLE JOINT EASY
LITTLE JOINT
MINI RAPID JOINT IP68
RAPID JOINT IP68
READY CAST

PRE-FILLED IPX8 - FLAT
GEL COVER LINE
SUPERCLIK / CLIK / CLIK A2A

PRE-FILLED IPX8 - CYLINDRICAL
KING JOINT
RAPID JOINT

FOR CASTING
MAGIC POWER JOINT
MAGIC JOINT
SEAL UP JOINT
RAY CAST
RUBBER JOINT

HEAT-SHRINK
JOINTS / TERMINALS


NEW


It prevents the deterioration of connectors, preserving their performance over time, thus avoiding malfunctions and difficult and expensive maintenance.

Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

💧 **Gel:** UL 94-HB  **US**

💧 **Casing mix:** UL 94-V2

🌡️ **Working temperature:** 125°C

🌡️ **Installation temperature:** -40°C / +50°C

🍃 **Halogen-free Gel**

☀️ **Loaded with CARBON BLACK**
UV resistant

🔥 **No flame propagation:**
CEI 20-35 IEC 60332-1 HD405-1
As applicable

🔥 **Self-ignition temperature:**
> 400°C

⚡ **Operating voltage:** 1500V DC

IP68
OFFICIALLY
TESTED | **IMQ**

SOLAR COVER

The extra dark cover with gel filler, for sealing connectors from 4 to 10 mm² for solar.

It prevents the deterioration of connectors, preserving their performance over time, thus avoiding malfunctions and difficult and expensive maintenance.

Resistant to UV rays, corrosion and immersion in water, even if salty or chlorinated. Ready, fast and always inspectable.

ADVANTAGES

- ▶ Made of UL 94-V2 polypropylene.
- ▶ Highly resistant to water, corrosion and frost.
- ▶ Complete with sealing silicone gel filler, non-toxic and safe.
- ▶ It is the ideal accessory to protect cable connections for solar and photovoltaic systems over the seasons and consequently affected by variations in temperature and weather conditions.
- ▶ It allows the reduction of risks from electric arcs and the resulting overheating.



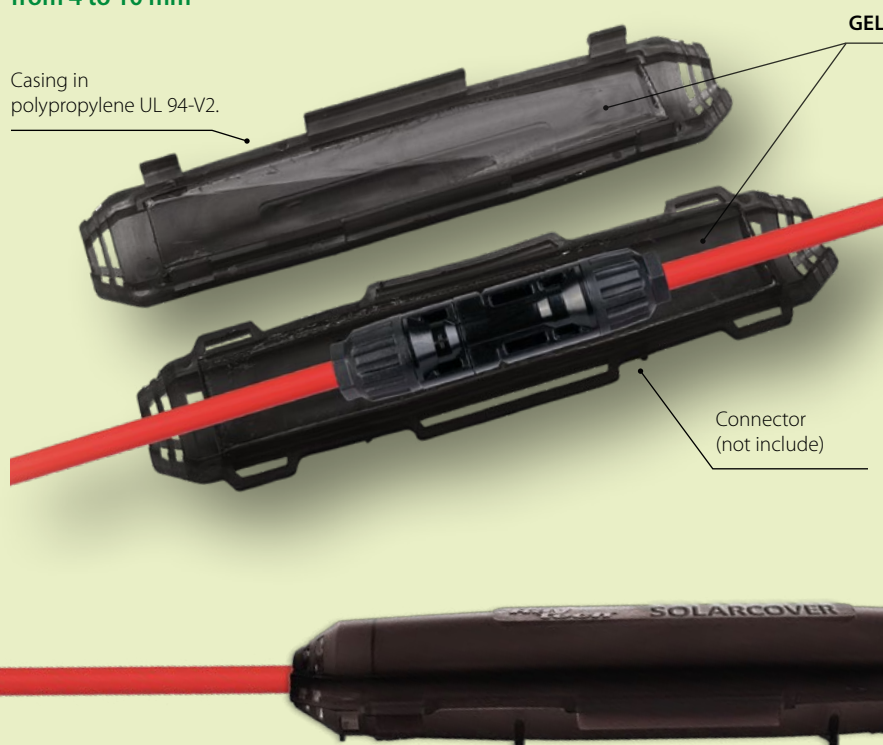


FOR CONNECTORS from 4 to 10 mm²

Casing in
polypropylene UL 94-V2.

GEL

Connector
(not include)



PRODUCT	Item	Pieces / Pack	Dimension (mm)
SOLARCOVER-4	SOLARCOVER-4	2 pcs / Box	165 x 45 x 27
SOLARCOVER-6	SOLARCOVER-6	2 pcs / Box	220 x 52 x 32

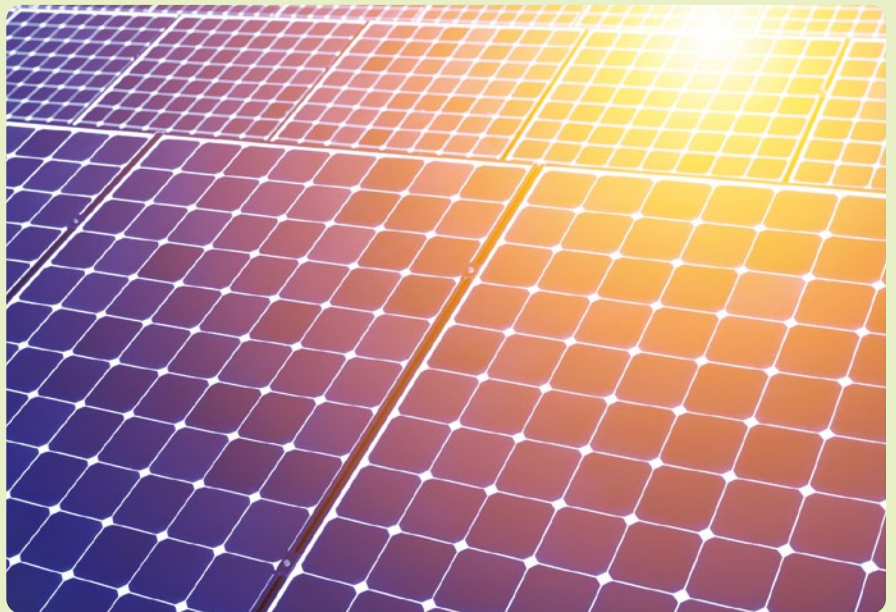


 SOLARCOVER**WHAT IT'S FOR**

In the design of systems:

• PHOTOVOLTAIC SOLAR • SOLAR THERMAL • AGRIVOLTAIC

it's crucial to keep in mind that connectors play an essential role, as they're electrical devices responsible for transferring the energy produced by the panels. **SolarCover** is a safety device designed to protect and prevent connectors in solar and photovoltaic systems from deteriorating. It's perfect for preventing accidental opening and the related risks. **SolarCover** is the most reliable accessory to keep your connectors safe all year round, even through the harshest weather. Ready to use, it comes pre-filled with cross-linked silicone gel to shield the connectors and maintain their performance over time.



WHY IT MATTERS

1 HELPS PREVENT CONNECTOR WEAR AND TEAR

Exposure to the elements (sun, rain, wind, snow, fog, and hail) can speed up connector degradation, leading to faulty contacts, insulation issues, and leaks. This decreases reliability, increasing the risk of outages and malfunctions, ultimately impacting the overall efficiency of your system. As a result, you may face more frequent maintenance, higher operating costs, and added safety risks.

Even though some connectors on the market come with IP65/IP67 protection ratings, and rarely IP68, plus a maximum operating temperature of 85°C, over time they can become brittle, crack, or lose the seal in their gaskets and locking nuts, which puts your system's performance at risk.

2 PREVENTS ACCIDENTAL OPENINGS

Accidental openings or improper crimping of connectors can create electrical arcs, posing safety hazards and, in some cases, leading to fires in the facilities or areas where the systems are operating.

3 PREVENTS DIRECT CONTACT WITH THE CONNECTOR

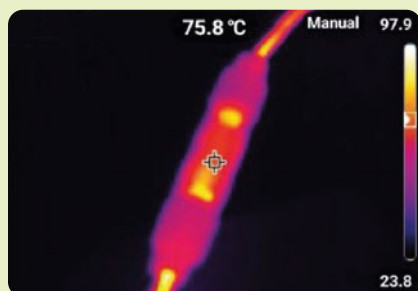
SolarCover, which can only be opened with a tool, provides an extra layer of protection against accidental contact with parts that may reach extremely high temperatures, especially during the hottest months.

4 ANNUAL MAINTENANCE, WASHING/CLEANING CYCLES

SolarCover fully wraps the connector, shielding it during module washing, a recommended routine for keeping your system at peak performance, and mandatory for AGRIVOLTAIC setups, where dirt, oil, debris, or the presence of lichens or fungi is not allowed (EN IEC 62446-2).

5 HELPS BOOST SYSTEMS PERFORMANCE

With **SolarCover**, thermal management for connections is straightforward and effective: • PREVENTS OVERHEATING • CONSISTENT STABILITY • ENHANCED SAFETY • LONGER SYSTEM LIFESPAN



CONNECTOR EXPOSED

Hotspots can form when the connector is exposed, causing it to reach high temperatures.



CONNECTOR + SOLAR COVER

Under the same conditions, **SolarCover** keeps the temperature significantly lower with improved heat distribution.



IP68 OFFICIAL
TESTED IMQ
8h @6BAR

CLICK
HERE

GEL MSDS



REACH
Conformity



TDS involucro



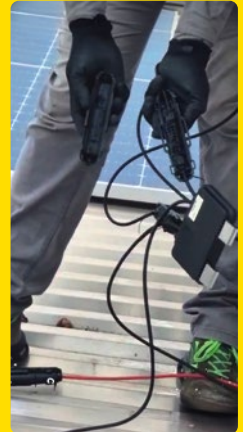
WHY USING IT NOW IS THE SMART CHOICE

SolarCover not only shields against water and moisture, but also prevents accidental contact with the connector by workers performing other maintenance, like antenna installation or root and chimney servicing.

Connectors must be selected in accordance with the Standard CEI EN 62852

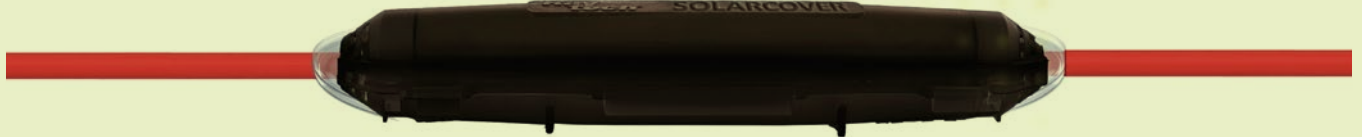
Connectors for DC applications in photovoltaic systems - Safety requirements and testing

Please note: "Connectors located in areas accessible to anyone other than trained personnel must be designed so they can only be disconnected using a key or tool, or they must be installed in an enclosure that can only be opened with a key or tool!"



It's also recommended to install DC cables in a straightforward, mechanically protected way that keeps the IP protection rating and prevents mechanical damage over time. These safety measures apply to all connection accessories as well.

INSTALLATION



PREPARATION

Cut the side membranes.



CONNECTION

Insert the connector and secure it inside the SolarCover.



CLOSING

Once the accessory is closed, the gel will be released to ensure a proper seal.

RAY JOLLY LINE

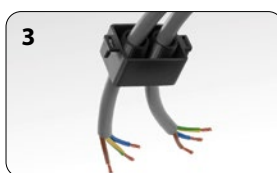
The range of one-way accessories for connecting or branching cables with terminals 450V or 0.6/1 kV

Ray Jolly Line are ready to use and very quick to install. They are supplied complete with pre-cross-linked silicone sealant gel, to ensure maximum insulation and sealing in the presence of water. Always re-opening and inspectable.

Ray Jolly Line are made of POLYPROPYLENE, a chemically resistant and 100% recyclable material and pre-filled with a highly sealing and insulating VISCOELASTIC GEL compliant with the REACH regulation and free of substances classified as hazardous according to the current CLP legislation.

ADVANTAGES

- ▶ Thanks to their compact design and degree of protection, they can be installed directly outdoors without junction boxes.
- ▶ Perfect for both straight and branch connections.
- ▶ Resistant to mold and UV rays.
- ▶ Compliant with EN 50393 as applicable.
- ▶ No shelf life.
- ▶ Halogen-Free Gel.



Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

💧 Gel: UL 94-HB c us

🌡 Working temperature: 90°C

🌡 Installation temperature: -40°C / +50°C

🌊 Fully submersible

🔧 Can be used underground

🌿 Halogen-free Gel

☀ UV resistant

🔥 Self-extinguishing and resistant to abnormal heat and fire:
UL 94-V2

IP68 | **IMQ**
OFFICIALLY TESTED





RAY JOLLY



RAY JOLLY L



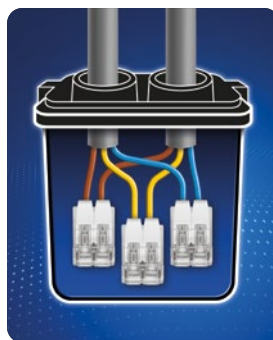
RAY JOLLY M



RAY JOLLY FOR STRAIGHT CONNECTIONS

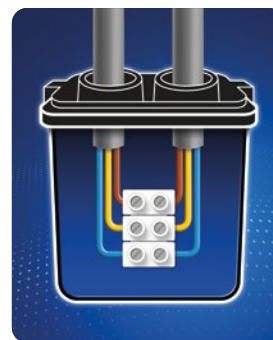


VERSATILE



Ray Jolly L

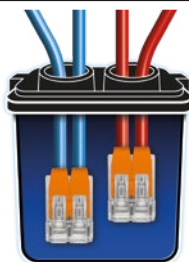
3 x 2 x 2,5 mm²
IP68 □



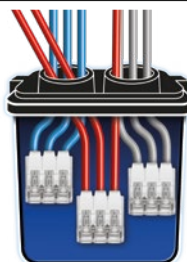
Ray Jolly M

3 x 2,5 mm²
IP68 □

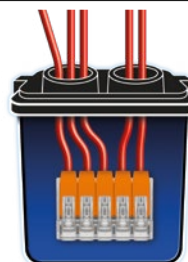
Other configurations can be used with various types of insulated terminals and wires.



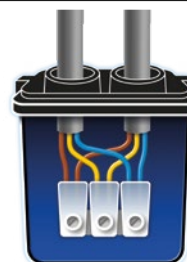
2 x 2 x 4 mm²
2 x 2 x 6 mm²
IPX8



3 x 3 x 2,5 mm²
3 x 4 mm²
IPX8



5 x 4 mm²
IPX8



3 x 2,5 mm²
IP68 □

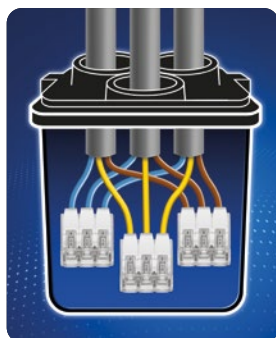
PRODUCT Item	Colour	Connector	Description	Pieces / Pack	 (mm)
RAY JOLLY RAYJOLLY	●	-	3 insulating/sealing accessories	3 / Blister	46 x 33 x 43
RAY JOLLY MP RAYJOLLY-MP	●	-	40 insulating/sealing accessories	40 / Multipack	46 x 33 x 43
RAY JOLLY L RAYJOLLYL	●		1 insulating/sealing accessory, 3 lever connectors 2x2,5 mm ² - 450 V	1 / Blister	46 x 33 x 43
RAY JOLLY L MP RAYJOLLYL-MP	●		40 insulating/sealing accessory, 120 lever connectors 2x2,5 mm ² - 450 V	40 / Multipack	46 x 33 x 43
RAY JOLLY M RAYJOLLYM	●		1 insulating/sealing accessory, 1 screw terminal 3x2,5 mm ² - 450 V	1 / Blister	46 x 33 x 43
RAY JOLLY M MP RAYJOLLYM-MP	●		40 insulating/sealing accessory, 40 screw terminal 3x2,5 mm ² - 450 V	40 / Multipack	46 x 33 x 43

JOINTS

RAY JOLLY 3 FOR BRANCH CONNECTIONS



VERSATILE



Ray Jolly 3 L

 $3 \times 3 \times 4 \text{ mm}^2$

IP68



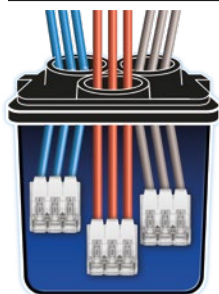
Ray Jolly 3 M

T: $3 \times 4 \text{ mm}^2$

B: $3 \times 2,5 \text{ mm}^2$

IP68

Other configurations can be used with various types of insulated terminals and wires.

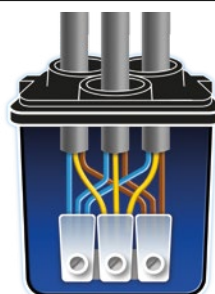

 $3 \times 3 \times 4 \text{ mm}^2$

IPX8


T: $3 \times 4 \text{ mm}^2$

B: $3 \times 4 \text{ mm}^2$

IPX8


T: $3 \times 4 \text{ mm}^2$

B: $3 \times 2,5 \text{ mm}^2$

IP68



RAY JOLLY 3



RAY JOLLY 3 is also designed for installing cables and conductors of section 6 mm^2 .

RAY JOLLY 3 redefines versatility in cable jointing. Thanks to its three-entrances configuration, it allows to create both classic straight and complex branches joints in a single product. It is the "all-in-one" solution for every wiring need.

RAY JOLLY 3 is made of POLYPROPYLENE, a chemically resistant and 100% recyclable material and pre-filled with a highly sealing and insulating VISCOELASTIC GEL compliant with the REACH regulation and free of substances classified as hazardous according to the current CLP legislation.

RAY JOLLY 3



RAY JOLLY 3 L



RAY JOLLY 3 M



PRODUCT Item	Colour	Connector	Description	Pieces / Pack	 (mm)
RAY JOLLY 3 RAYJOLLY3	●	-	Insulating/sealing accessory	2 / Blister	52 x 40 x 54
RAY JOLLY 3 MP RAYJOLLY3-MP	●	-	40 insulating/sealing accessories	40 / Multipack	52 x 40 x 54
RAY JOLLY 3 L RAYJOLLY3-L	●		1 insulating/sealing accessory, 3 lever connectors $3 \times 4 \text{ mm}^2$ - 450 V	1 / Blister	52 x 40 x 54
RAY JOLLY 3 L MP RAYJOLLY3-L-MP	●		40 insulating/sealing accessory, 120 lever connectors $2 \times 4 \text{ mm}^2$ - 450 V	40 / Multipack	52 x 40 x 54
RAY JOLLY 3 M RAYJOLLY3-M	●		1 insulating/sealing accessory, 1 screw terminal $3 \times 4 \text{ mm}^2$ - 450 V	1 / Blister	52 x 40 x 54
RAY JOLLY 3 M MP RAYJOLLY3-M-MP	●		40 insulating/sealing accessory, 40 screw terminal $3 \times 4 \text{ mm}^2$ - 450 V	40 / Multipack	52 x 40 x 54



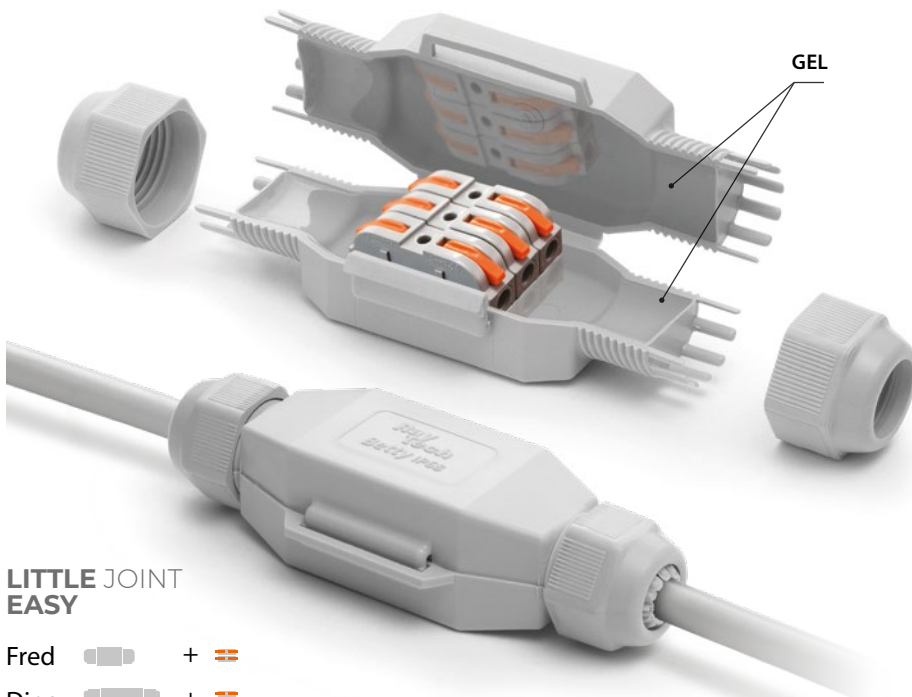
LITTLE JOINT EASY

The IP68/IP69K mini joints, gel pre-filled, complete with in-out lever connectors.

Thanks to the integrated cable glands, they allow the degree of protection IP68 and IP69K and at the same time the locking of the joint on the cable. Suitable for all types of installation, even the most extreme.

ADVANTAGES

- Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.
- Extremely compact and ready to install.
- Ideal for connections in lighting systems for gardens, steps and stairways, pedestrian crossings, etc.
- Always re-enterable.



LITTLE JOINT EASY

- Fred  + 
- Dino  + 
- Betty  + 

NEW IN-OUT LEVER CONNECTORS

- Modular, Composable, Ultra-fast, Self-extinguishing.



FRED EASY
2x 4 mm²



DINO EASY
3x 4 mm²



BETTY EASY
5x 4 mm²



Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

 Gel: UL 94-HB 

 Working temperature: 90°C

 Installation temperature: -40°C / +50°C

 Fully submersible

 Can be used underground

 Halogen-free Gel

 UV resistant

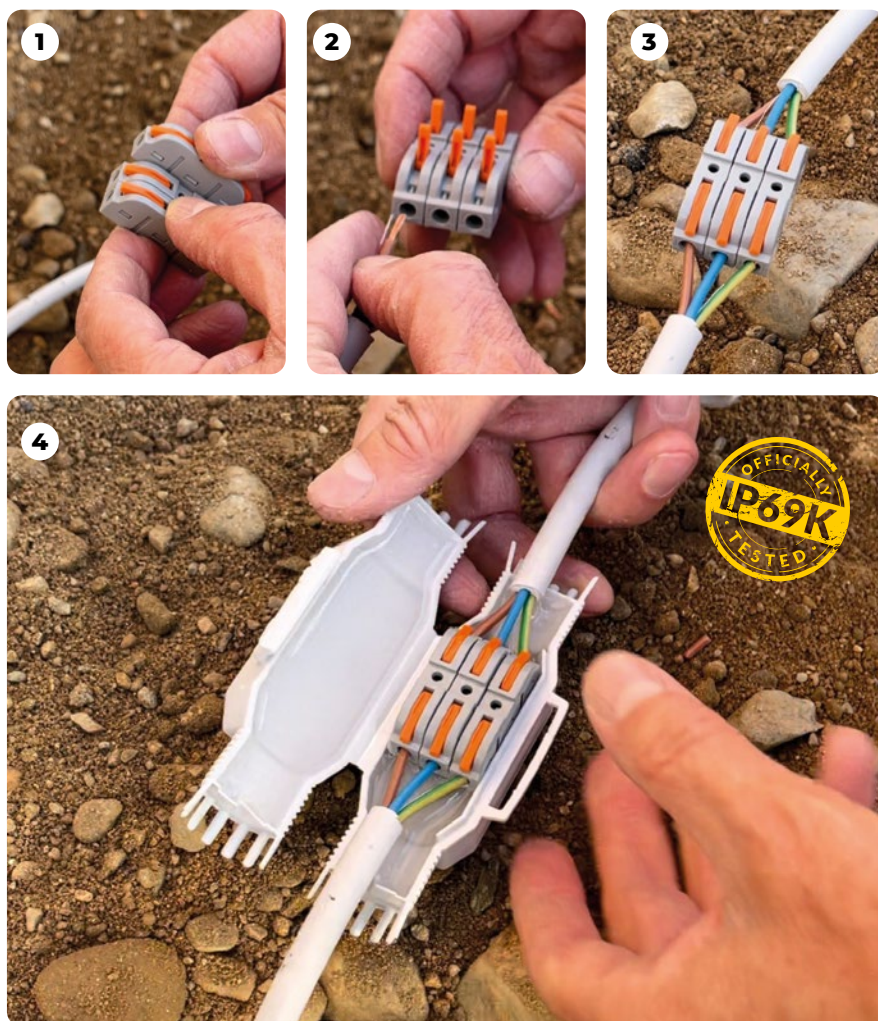
 Self-extinguishing and resistant to abnormal heat and fire:
Glow Wire Flammability Index at +960°C according to EN60695-2-12

IP68
OFFICIALLY
TESTED

IMQ

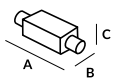
IP69K
OFFICIALLY
TESTED

JOINTS

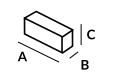


For use in traps. The ideal accessory for connections to light fittings and spotlights. Suitable in applications where there is presence of water and moisture.



PRODUCT Item	Colour	Connector	Cable formation max (N° x mm²)	Cable Ø min - max (mm)	Pieces / Pack	 (mm)
FRED EASY FRED-EASY	●		2 x 4	8 - 13	1 / Blister	80 x 36 x 23
DINO EASY DINO-EASY	●		3 x 4	10 - 16	1 / Blister	125 x 43 x 35
BETTY EASY BETTY-EASY	●		5 x 4	10 - 16	1 / Blister	145 x 46 x 35



PRODUCT Item	NEW IN-OUT LEVER CONNECTORS 0,5 - 4 mm²	Pieces / Pack	 (mm)
RAYBLOCK RAYBLOCK	Modular, Composable, Ultra-fast, Self-extinguishing Sections: 0,5 - 4 mm² Voltage: 600 V Capacity: 32 A Operating temperature of the insulating material: up to 105°C	50 / Box	39 x 8 x 15





Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

🔧 Gel: UL 94-HB 

🌡️ Working temperature: 90°C

🌡️ Installation temperature: -40°C / +50°C

🌊 Fully submersible

🔑 Can be used underground

🌿 Halogen-free Gel

☀️ UV resistant

🔥 Self-extinguishing and resistant to abnormal heat and fire:
Glow Wire Flammability Index at +960°C according to EN60695-2-12

IP68
OFFICIALLY
TESTED

IMQ

IP69K
OFFICIALLY
TESTED

LITTLE JOINT

The IP68 / IP69K micro-joints, gel pre-filled, complete with connector, suitable for any type of installation, even the most extreme.

Extremely compact and space-saving, pre-filled with soft, highly conformable gel. With minimal aesthetic impact and visually pleasing. Equipped with integrated cable glands for IP68 and IP69K degree of ingress protection and cable retention.

ADVANTAGES

- ▶ Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.
- ▶ Extremely compact and ready to install.
- ▶ Ideal for connections in lighting systems for gardens, steps and stairways, pedestrian crossings, etc.
- ▶ Always re-enterable.

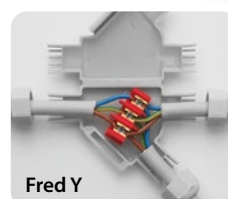
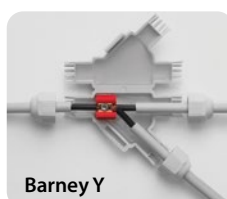
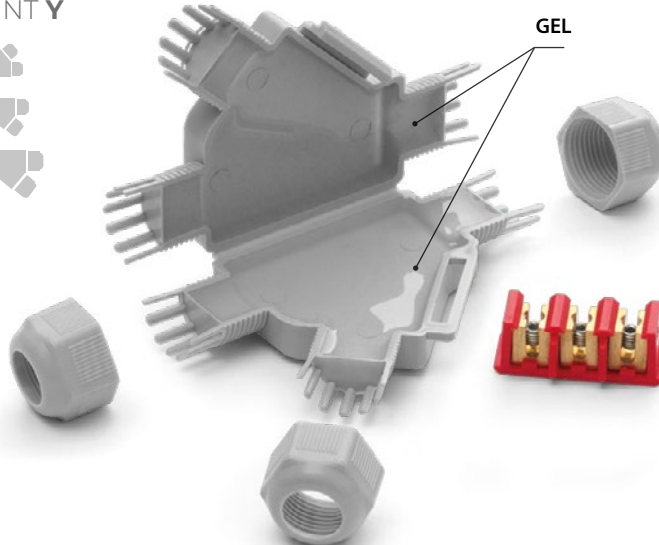
LITTLE JOINT L

- Barney 
- Fred 
- Dino 
- Betty 
- Tom 

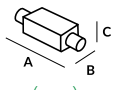


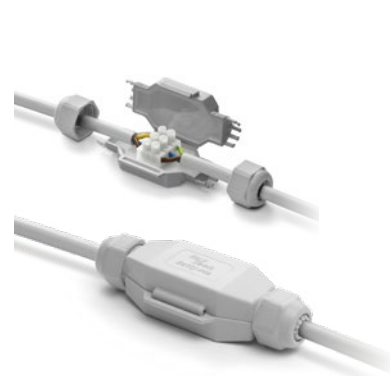
LITTLE JOINT Y

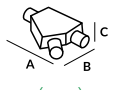
- Barney Y 
- Fred Y 
- Dino Y 



JOINTS

PRODUCT Item	Colour	Connector	Max cable formation (N° x mm²)	Cable Ø min - max (mm)	Pieces / Pack	 (mm)
BARNEY BARNEY	●				1 / Blister	
BARNEY - N BARNEY-N	●		2 x 2,5	6 - 10	1 / Blister	75 x 28 x 19
BARNEY MP BARNEY-MP	●				10 / Multipack	
FRED FRED	●				1 / Blister	
FRED - N FRED-N	●		3 x 2,5	8 - 13	1 / Blister	80 x 36 x 23
FRED MP FRED-MP	●				10 / Multipack	
FRED/4 FRED/4	●		3 x 4	8 - 13	1 / Blister	80 x 36 x 23
FRED/4 - N FRED/4-N	●				1 / Blister	
DINO DINO	●		4 x 4	10 - 16	1 / Blister	125 x 43 x 35
DINO - N DINO-N	●				1 / Blister	
DINO 6 DINO/6	●		3 x 6	10 - 16	1 / Blister	125 x 43 x 35
BETTY/4 BETTY/4	●		5 x 4	10 - 16	1 / Blister	145 x 46 x 35
BETTY/4 - N BETTY/4-N	●				1 / Blister	
BETTY/6 BETTY/6	●		5 x 6	14 - 19	1 / Blister	145 x 46 x 35
BETTY/6 - N BETTY/6-N	●				1 / Blister	
TOM TOM	●		5 x 16	19 - 23	1 / Blister	180 x 53 x 42
TOM - N TOM-N	●				1 / Blister	



PRODUCT Item	Colour	Connector	Max cable formation (N° x mm²)		Cable Ø min - max (mm)	Pieces / Pack	 (mm)
BARNEY Y BARNEY-Y	●		1 x 4	1 x 1,5	6 - 10	1 / Blister	85 x 55 x 22
BARNEY Y - N BARNEY-Y/N	●		1 x 2,5	1 x 2,5		1 / Blister	
FRED Y FRED-Y	●		3 x 4	3 x 1,5	8 - 13	1 / Blister	110 x 72 x 25
FRED Y - N FRED-Y/N	●		3 x 2,5	3 x 2,5		1 / Blister	
DINO Y DINOY	●		5 x 6	5 x 1,5	14 - 19	1 / Blister	160 x 75 x 37
DINO Y - N DINOY-N	●		5 x 4 *	5 x 2,5 *		1 / Blister	

* section for rigid cables.





MINI RAPID JOINT IP68

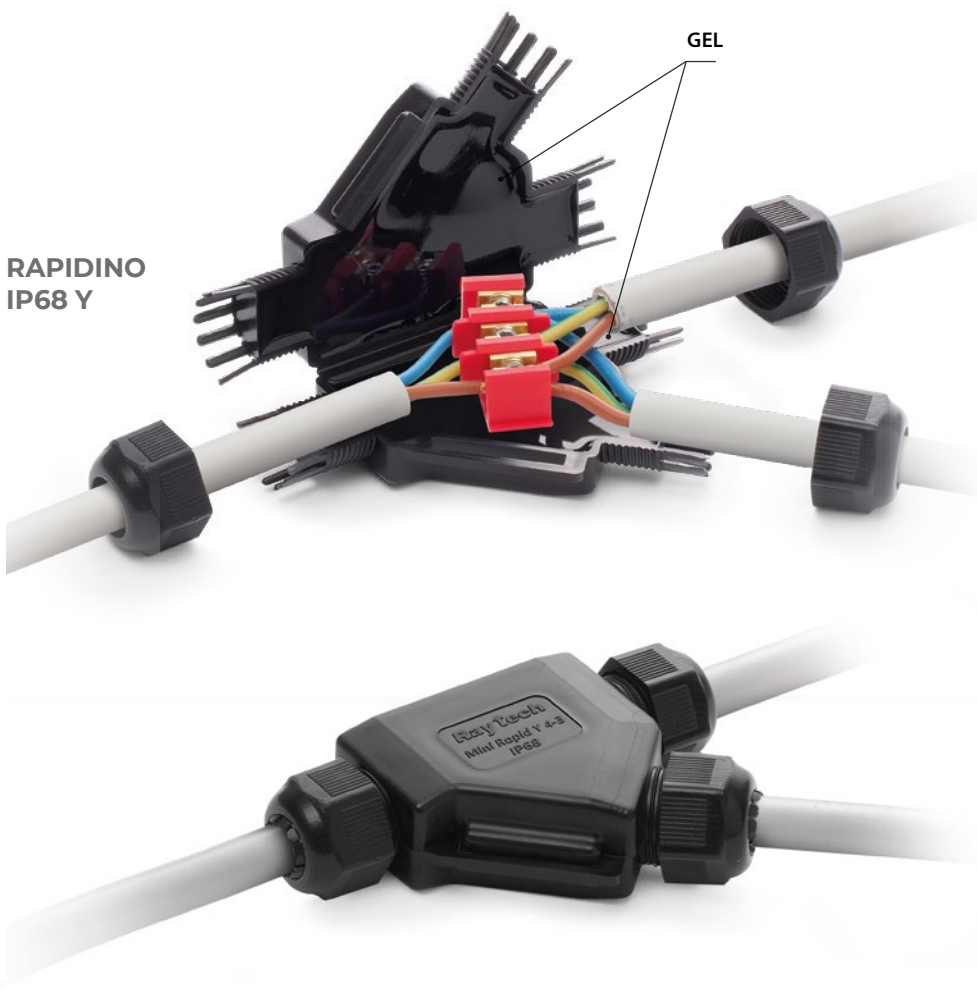
IP68 and IP69K joints for straight and branch connections, extremely compact and pre-filled with gel.

Extremely compact, ideal for lighting systems for gardens, steps and pedestrian crossings. Perfect for use in even small traps thanks to its very small overall dimensions. The cable glands supplied with the kit lock the joint on the cables.

ADVANTAGES

- Complete with screw connectors.
- Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.
- Extremely compact and ready to install.
- Always re-enterable.
- Ideal for straight or branch connections in lighting systems for gardens, steps and stairways, pedestrian crossings, etc.

RAPIDINO IP68 Y



Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

🔧 Gel: UL 94-HB **UL** **US**

🌡️ Working temperature: 90°C

🌡️ Installation temperature: -40°C / +50°C

🌊 Fully submersible

🔑 Can be used underground

🌿 Halogen-free Gel

☀️ UV resistant

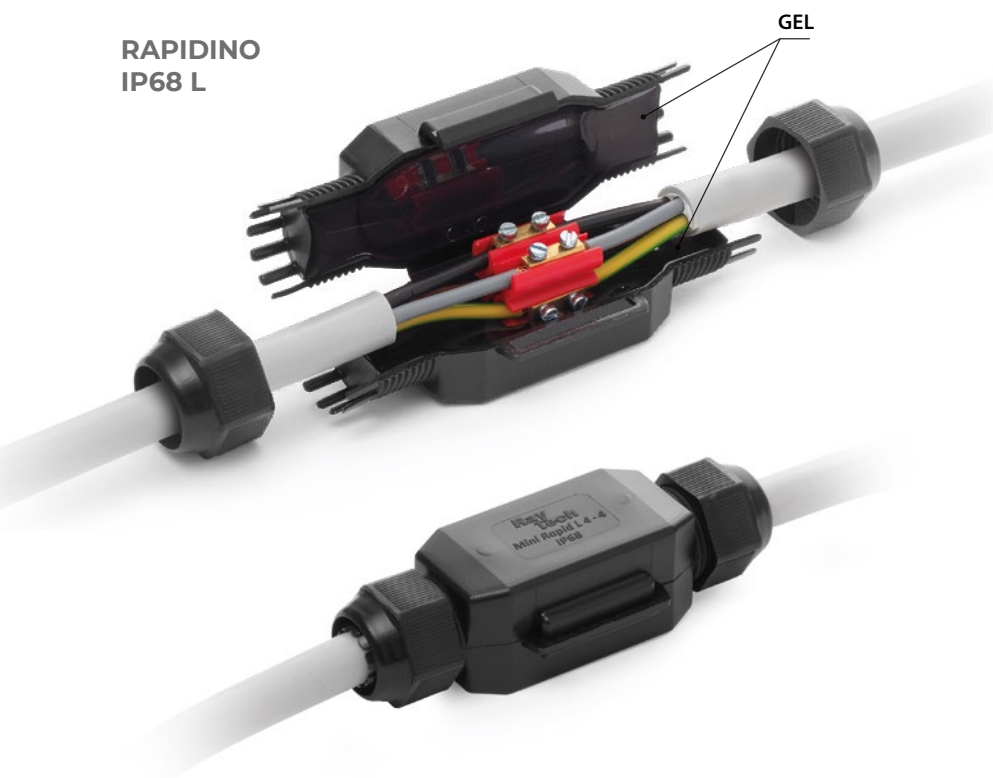
🔥 Self-extinguishing and resistant to abnormal heat and fire:
Glow Wire Flammability Index at +960°C according to EN60695-2-12

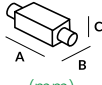
IP68
OFFICIALLY
TESTED

IMQ

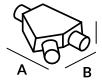
IP69K
OFFICIALLY
TESTED

RAPIDINO IP68 L



PRODUCT Item	Cable	Connector	Max cable formation (N° x mm²)	Cable Ø min - max (mm)	Pieces / Pack	 (mm)
RAPIDINO IP68 L2 RAPIDINOL2			2 x 2,5	6 - 10	3 PCS / Box	75 x 28 x 19
RAPIDINO IP68 L3 RAPIDINOL3			3 x 2,5	8 - 13	3 PCS / Box	80 x 36 x 23
RAPIDINO IP68 L4 RAPIDINOL4			4 x 4	10 - 16	1 PC / Box	125 x 43 x 35



PRODUCT Item	Cable	Connector	Max cable formation (N° x mm²)	Cable Ø min - max (mm)	Pieces / Pack	 (mm)
RAPIDINO IP68 Y1 RAPIDINOY1			1 x 4 1 x 2,5	1 x 1,5 1 x 2,5	2 PCS / Box	85 x 55 x 22
RAPIDINO IP68 Y3 RAPIDINOY3			3 x 4 3 x 2,5	3 x 1,5 3 x 2,5	1 PC / Box	110 x 72 x 25




Electrical performance:

- CEI EN 50393
- Class 2 in accordance with CEI 64-8.

 Gel: UL 94-HB 

 Working temperature: 90°C

 Installation temperature: -40°C / +50°C

 Fully submersible

 Can be used underground

 Halogen-free Gel

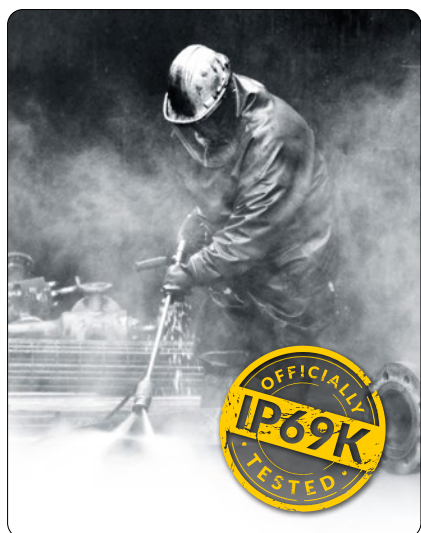
 UV resistant

 No flame propagation:
CEI 20-35 • IEC 60332-1 • HD405-1
(as applicable)

IP68
OFFICIALLY
TESTED

IMQ

IP69K
OFFICIALLY
TESTED



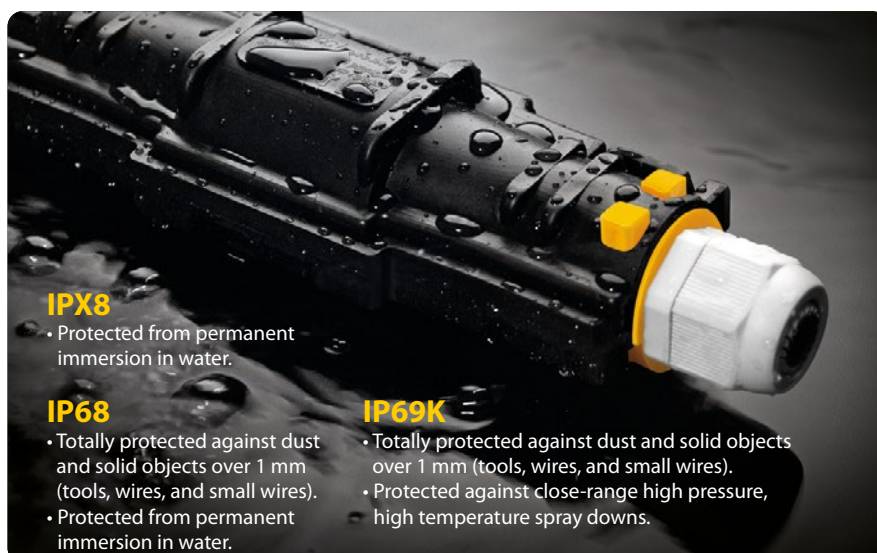
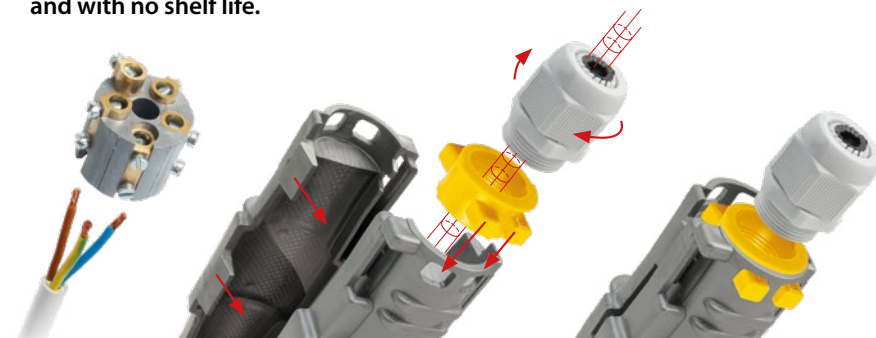
RAPID JOINT IP68

Radial closing gel pre-filled joint for extruded insulation cables up to 1 kV.

Primary insulation, consisting of a cross-linked polymer gel, and the exceptionally robust insulating plastic casing render Class 2 joints in accordance with the definitions contained in standard CEI 64-8. The joint has been tested in accordance with the main international specifications, with repeated flexing and torsion tests and immersion in water, and has been declared as conforming to the mechanical, electrical and sealing specifications required for plastic cable accessories. The joint and its components have an unlimited shelf life, are chemically inert and therefore completely safe. Conductor connections are re-enterable even after long periods of operation. Made with self-extinguishing material, flame retardant, for cables at 90°C working temperature. The radial closing system facilitates joint application, making them re-enterable only by means of a tool.

ADVANTAGES

- For straight connections (in line).
- For multi core cables of up to 5 cores.
- With suitable spacers.
- For all types of application, including submersible.
- Wide range of cable formations.
- Re-enterable only by means of a tool.
- Suitable for 3 core crossing.
- Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.



IPX8

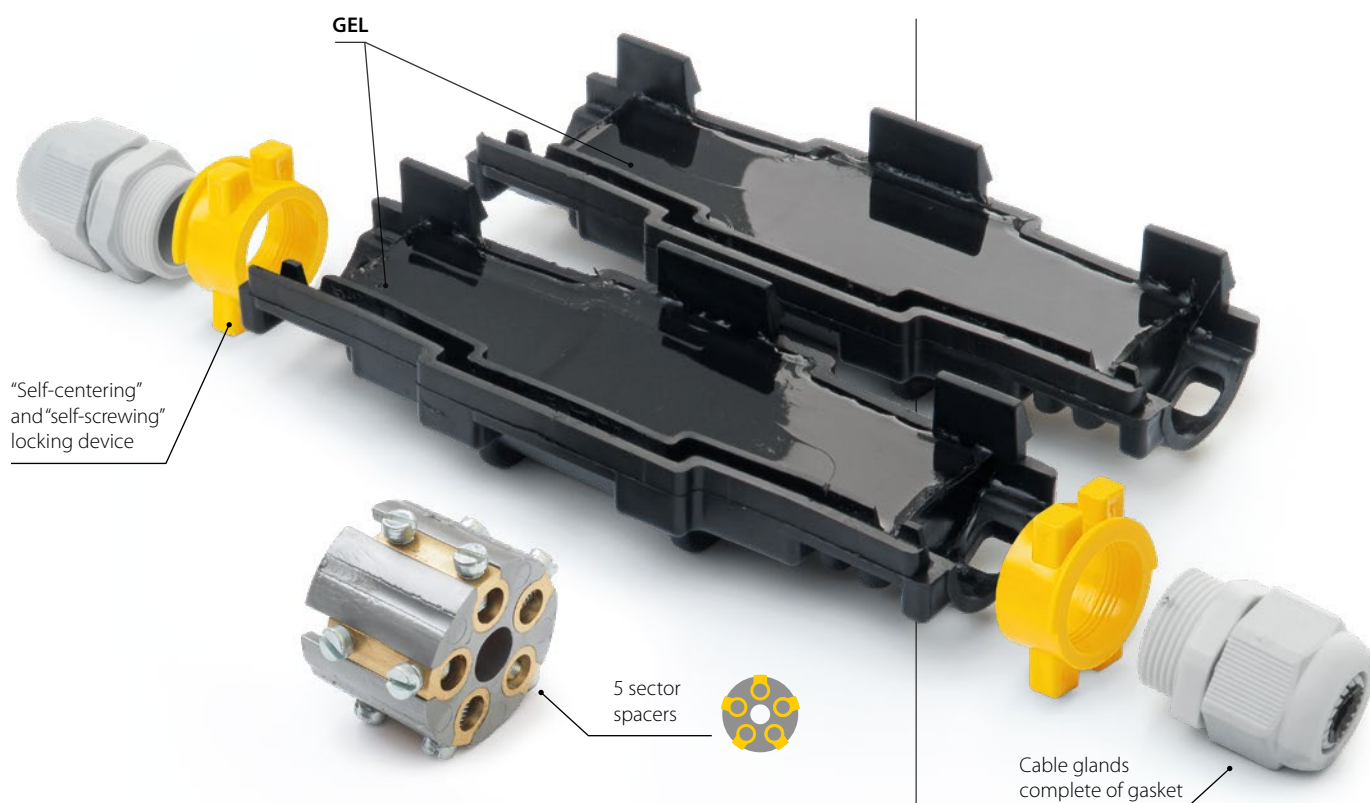
- Protected from permanent immersion in water.

IP68

- Totally protected against dust and solid objects over 1 mm (tools, wires, and small wires).
- Protected from permanent immersion in water.

IP69K

- Totally protected against dust and solid objects over 1 mm (tools, wires, and small wires).
- Protected against close-range high pressure, high temperature spray downs.



PRODUCT Item	Formation n°	Configuration IP68			Configuration IPX8		
		Section (mm²)	Cable Ø (mm)	A x B (mm)	Section (mm²)	Cable Ø (mm)	A x B (mm)
Rapid Joint L1,5-IP68 RAPIDJL1,5-IP68	•	4 - 25			1,5 - 50		
	⊕	1,5 - 4			1,5 - 6		
	⊕	1,5 - 2,5	8 - 13	155 x 55	1,5 - 6	20,5	105 x 55
	⊕	1,5			1,5 - 6		
Rapid Joint L6-IP68 RAPIDJL6-IP68	•	25 - 70			2,5 - 150		
	⊕	2,5 - 6			2,5 - 10		
	⊕	2,5 - 6	12 - 18	245 x 60	2,5 - 10	24	180 x 60
	⊕	2,5 - 6			2,5 - 10		
Rapid Joint L10-IP68 RAPIDJL10-IP68	•	70 - 95			120 - 240		
	⊕	10			10 - 25		
	⊕	10	16 - 20	275 x 65	10 - 25	31	210 x 65
	⊕	10			10 - 25		
Rapid Joint L25-IP68 RAPIDJL25-IP68	•	120 - 240			120 - 240		
	⊕	25			10 - 50		
	⊕	16 - 25	21 - 28	410 x 100	10 - 50	42	320 x 100
	⊕	16 - 25			10 - 50		



For single core cable: do not install the separator with screw connectors and connect with crimp connector.



READY CAST

The new pre-filled resin joint for extruded insulation cables up to 1 kV.

Thanks to its innovative pre-engraved and fracture-facilitated cable entry system, Ready Cast adapts itself quickly and extremely easily to any cable diameter, while respecting the minimum and maximum diameters that can be housed in the range. With the quick and safe connection block included in the pack or with commonly used connectors that can always be housed in the practical 4x separator, included in the kit. Ready Cast is equipped with an anti-traction system of the cable since it can be secured to the casing using the supplied cable ties.



**READY
CAST L**



**READY
CAST Y**



Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

 **Resin:** UL 94-HB

 **Working temperature:** 90°C

 **Installation temperature:** -40°C / +50°C

 **Fully submersible**

 **Can be used underground**

 **Halogen-free Resin**

 **UV resistant**

IP68
OFFICIALLY
TESTED



INNOVATIVE RESIN SOLUTIONS

► **EASY!**

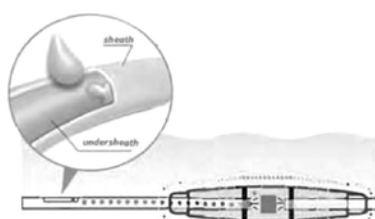
Scissors and nothing more!

► **MULTICONNECTION!**

Ideal for many types of connection.

► **INTEGRATED SOLUTIONS!**

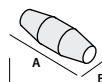
HOLE CASING technology - Anti-traction cable system using the supplied cable ties secured to the casing.

► **RELIABILITY!**

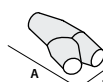
Range compliant with EN 50393

which consists in a test in air and of prolonged immersion for about 30 days, with repeated temperature changes, after the intentional removal of the cable sheath at the inlet and outlet with consequent infiltration of water between the cores of the cable.

PRODUCT Item	Cable Ø (mm)		Cable formation (N° x mm ²)					(mm)
			1 x	2 x	3 x	4 x	5 x	
READY CAST L4 READYCASTL4	8-18		6-25	2,5-4	2,5-4	2,5-4	-	160x45
			-	2,5-4	2,5-4	-	-	
READY CAST L10 READYCASTL10	8-23		16-50	4-10	4-10	4-10	-	180x50
			-	2,5-6	2,5-6	2,5-6	2,5-6	
READY CAST L 16/25 READYCASTL16/25	8-30		35-150	10-25	6-25	4-25	-	215x55
			-	6-25	6-25	6-16	6-16	



PRODUCT Item	Cable Ø (mm)		Cable formation (N° x mm ²)					(mm)
			1 x	2 x	3 x	4 x	5 x	
READY CAST Y6 READYCASTY6	T 8-20 B 8-20		T 16-50 B 6-35	T 4-10 B 2,5-4	T 2,5-6 B 1,5-4	T 2,5-6 B 1,5-2,5	-	180x100
			-	T 4-6 B 2,5-4	T 2,5-6 B 1,5-4	T 2,5-6 B 1,5-2,5	T 2,5-6 B 1,5-2,5	
READY CAST Y 16/25 READYCASTY16/25	T 8-30 B 8-30		T 70-150 B 50-150	T 10-25 B 6-25	T 6-25 B 6-16	T 6-25 B 6-10	-	220x105
			-	T 10-16 B 4	T 6-16 B 2,5-4	T 6-16 B 2,5-4	T 4-16 B 2,5-4	

**Each kit contains:**

- Enclosure, complete with filler
- Cable ties
- Screw connection system
- 4x separator
- Rayteam black insulating tape

T : Through cable - B : Branch cable

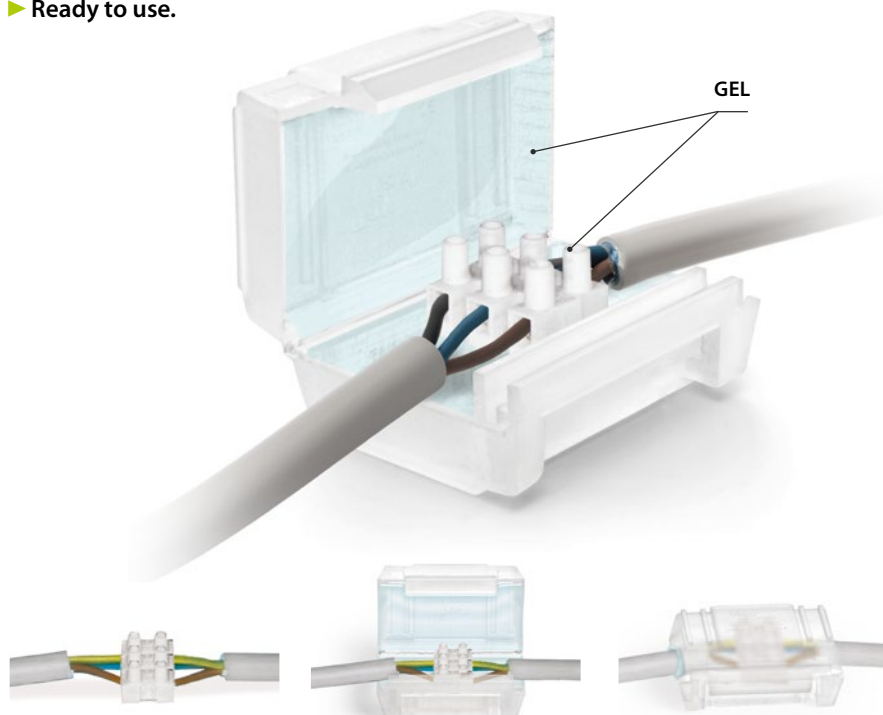


GEL COVER LINE

Gel pre-filled accessories for straight connections, for the protection, safety and covering of electrical connections using strip connectors or alternatives.

ADVANTAGES

- For 3 x 1 to 6 mm² cables or 3 insulated wires.
- For domestic and industrial connections.
- To put household systems in order.
- Also for underwater use.
- Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.
- Ready to use.



Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

🔧 **Gel:** UL 94-HB 

🌡️ **Working temperature:** 90°C

🌡️ **Installation temperature:** -40°C / +50°C

🌊 **Fully submersible**

🔑 **Can be used underground**

🌿 **Halogen-free Gel**

☀️ **UV resistant**

IPX8
OFFICIALLY
TESTED | **IMQ**





PRODUCT Item	Colour	Housed connectors type	N° pieces	Package type	Dimension (mm)
OHM OHM	○	2 from 4 mm ²	1	blister	61 x 35 x 28
OHM PACK 11 OHMPACK11			11	box	
BAR BAR	○	3 from 4 mm ² / 6 mm ²	1	blister	63 x 41 x 28
BAR PACK 9 BARPACK9			9	box	



PRODUCT Item	Colour	Housed connectors type	N° pieces	Package type	Dimension (mm)
GEL COVER 4 GELCOVER4	●	2 from 4 mm ²	1	blister	61 x 35 x 28
MAMMUT GEL COVER MAMMUTGELCOVER			8	box	
GEL COVER 6 GELCOVER6	●	3 from 4 mm ² / 6 mm ²	1	blister	63 x 41 x 28
MAMMUT GEL COVER 6 MAMMUTGELCOVER6			9	box	

No flame propagation. CEI 20-35 • IEC 60332-1 • HD405-1 (as applicable). **Casing mix:** UL 94-V2



SUPER CLIK

Range of fast gel pre-filled straight or branch type joints for 0.6/1 kV multi core cables of up to 5 conductors.

The combination of the primary insulation in a cross-linked polymer gel and the highly robust insulating plastic case makes this a Class 2 joint defined by CEI 64-8. The joint has been tested in accordance with the main international specifications, with repeated flexing and torsion tests and immersion in water, it has been declared as conforming to the mechanical, electrical and sealing specifications required for plastic cable accessories. The joint and its components have an unlimited shelf life, they are chemically inert and therefore completely safe; the connections are re-entrable even after long working periods. Made of self-extinguishing components the joint is flame retardant. For cables at 90°C working temperature.



Electrical performance:

- CEI EN 50393 as applicable
- Class 2 in accordance with CEI 64-8.

🔧 Gel: UL 94-HB **UL** US

🔧 Casing mix: UL 94-V2

🌡️ Working temperature: 90°C

🌡️ Installation temperature: -40°C / +50°C

🌊 Fully submersible

🔧 Can be used underground

🌿 Halogen-free Gel

☀️ UV resistant

🔥 No flame propagation:
CEI 20-35 • IEC 60332-1 • HD405-1
(as applicable)

IPX8
OFFICIALLY
TESTED | **IMQ**



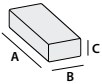
ADVANTAGES

- ▶ Complete with insulated terminal blocks.
- ▶ For straight and branch connections.
- ▶ For all types of application, including submersible.
- ▶ Re-accessible.
- ▶ Flame retardant.
- ▶ Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.



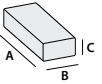
SUPER CLIK

SUPER CLIK MINI

PRODUCT Item	Cable formation and conductor cross sections (n° x mm²)				max cables Ø (mm)	 (mm)
	Straight Connections In line	Branch connections T B				
SUPER CLIK MINI L SUPERCLIKMINI-L	3 x 0,5 - 1,5	-	-		10	71 x 38 x 23
SUPER CLIK MINI Y SUPERCLIKMINI-Y	-	1 x 2,5 - 6	1 x 2,5		10	71 x 38 x 23

T : Through cable - B : Branch cable

SUPER CLIK

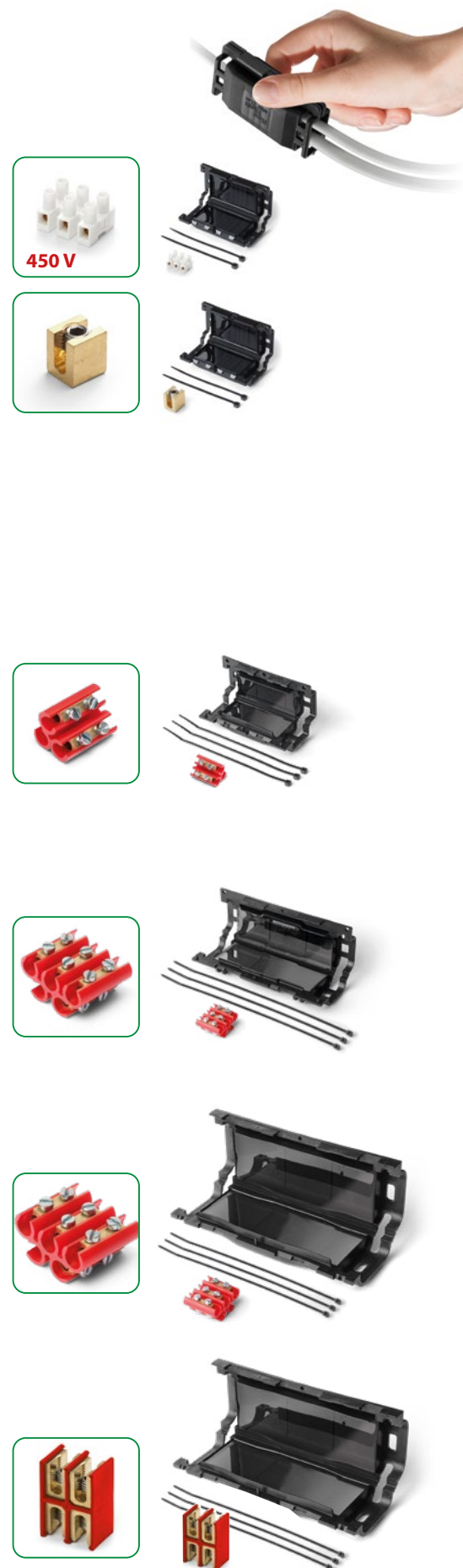
PRODUCT Item	Cable formation and conductor cross sections (n° x mm²)				max cables Ø (mm)	 (mm)
	Straight Connections In line	Branch connections T B				
SUPER CLIK 0 SUPERCLIK0	3 x 1,5 - 6	3 x 1,5 - 4	3 x 1,5 - 2,5		14	95 x 43 x 28

PRODUCT	In line	T	B	(mm)	(mm)
SUPER CLIK 1 SUPERCLIK1	2 x 1,5 - 6	2 x 4	2 x 2,5	20,5	150 x 56 x 30
	3 x 1,5 - 6	3 x 4	3 x 2,5		
	4 x 1,5 - 6	4 x 4	4 x 2,5		
	5 x 1,5 - 6	5 x 4	5 x 2,5		

PRODUCT	In line	T	B	(mm)	(mm)
SUPER CLIK 2 SUPERCLIK2	2 x 4 - 16	2 x 10	2 x 6	30	220 x 85 x 46
	3 x 4 - 16	3 x 10	3 x 6		
	4 x 4 - 16	4 x 10	4 x 6		
	5 x 4 - 16	5 x 10	5 x 6		

PRODUCT	In line	T	B	(mm)	(mm)
SUPER CLIK 3 SUPERCLIK3	-	2 x 4 - 25	2 x 1,5 - 16	30	220 x 85 x 46
		3 x 4 - 25	3 x 1,5 - 16		
		4 x 4 - 25	4 x 1,5 - 16		

T : Through cable - B : Branch cable



Electrical performance:

- CEI EN 50393
with connectors complying
with EN 61238-1
- Class 2 in accordance with CEI 64-8.

 **Gel:** UL 94-HB 

 **Casing mix:** UL 94-V2

 **Working temperature:** 90°X

 **Installation temperature:** -40°C / +50°C

 **Fully submersible**

 **Can be used underground**

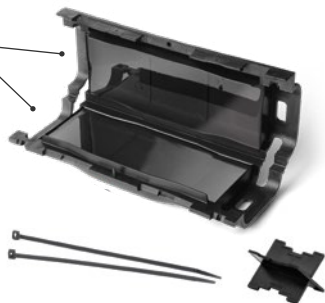
 **Halogen-free Gel**

 **UV resistant**

 **No flame propagation:**
CEI 20-35 • IEC 60332-1 • HD405-1
(as applicable)

IPX8
OFFICIALLY
TESTED

GEL



Sections based on
extruded 0,6/1 kV cable.

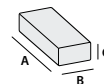
CLIK FIRE

Straight or branch gel pre-filled joint,
for multi core cables up to 4 cores.

► Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.



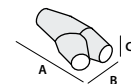
STRAIGHT OR BRANCH MULTI CORE JOINTS



PRODUCT / Item	Cable formation and conductor cross sections (n° x mm²)		max cables Ø (mm)		Dimension (mm)
	Through or straight	1 or 2 branch cables	Through or straight	Branch	
CLIK 0 Fire * 214663-003	1 x 2,5 - 50 2 x 2,5 - 6	1 x 1,5 - 10 2 x 1,5	16	10	95 x 43 x 28
CLIK 1 Fire * 225449-001	1 x 6 - 95 2 x 1,5 - 16 3 x 1,5 - 10 4 x 1,5 - 10	1 x 1,5 - 35 2 x 1,5 - 6 3 x 1,5 - 6 4 x 1,5 - 4	20,5	15	150 x 56 x 30
CLIK 2 Fire 301096-001	1 x 50 - 185 2 x 10 - 35 3 x 6 - 35 4 x 6 - 35	1 x 16 - 185 2 x 1,5 - 35 3 x 1,5 - 35 4 x 1,5 - 16	30	29	220 x 85 x 46

* Available in hangable BLISTER with the following Codes. Art.: CLIK0FIRE-BL and CLIK1FIRE-BL

BRANCH JOINTS WITH 30° OUTPUT



PRODUCT / Item	Through	Branch	Through	Branch	(mm)
CLIK 2000 Fire 214663-004	1 x 2,5 - 25	1 x 1,5 - 16	14	12,5	75 x 40 x 21
CLIK 2001 Fire 225448-002	1 x 6 - 95 2 x 1,5 - 16 3 x 2,5 - 16 4 x 2,5 - 10	1 x 1,5 - 70 2 x 1,5 - 10 3 x 1,5 - 10 4 x 1,5 - 6	22,5	18,5	138 x 60 x 37
CLIK 2002 Fire 301096-005	1 x 50 - 150 2 x 1,5 - 25 3 x 4 - 25 4 x 4 - 16	1 x 1,5 - 70 2 x 1,5 - 10 3 x 1,5 - 10 4 x 1,5 - 6	26	18,5	194 x 74 x 43
CLIK 2003 Fire 301097-006	1 x 150 - 240 2 x 16 - 50 3 x 16 - 50 4 x 16 - 50	1 x 50 - 120 2 x 10 - 25 3 x 10 - 25 4 x 6 - 16	36	26	290 x 105 x 51

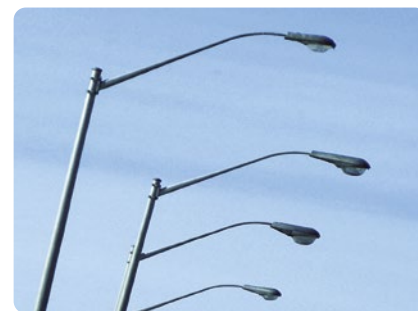
CLIK FIRE A2A

Main line branch joint for parallel type public lighting systems.

Branch joints from main to main cable, from main to pole rise, from overhead line to pole equipment, from pre-assembled cable to pole equipment, of a type certified by Azienda Elettrica Milanese (A2A, ex AEM). Accessories are complete with mantel-type, pre-insulated Allen screw connectors and, for installations with traps, with the specific protection monitor plate. Joints are non-toxic, with no shelf life and re-enterable.



PRODUCT Item	Approval code	Branch type	Through cable (n° x mm²)	Branch cable (n° x mm²)
CLIK 2 Fire Dor/Palo 301009-000	E 27.012	Main / Pole	RG7R 2 x 1 x 16	FG7OR 2 x 2,5
CLIK 1 Fire Dor/Dor 302009-000	E 27.013	Main / Main	RG7R 4 x 1 x 16	RG7R 4 x 1 x 16
CLIK 1 Fire Aer/Dap 302008-000	E 27.014	Overhead line / Equipment	UG7R 2 x 1 x 16	FG7R 2 x 1 x 4
CLIK 2 Fire Prec/Dap 301008-000	E 27.015	Pre-assembled / Equipment	RE4E4X 2 x 1 x 10	FG7OR 2 x 2,5



Electrical performance:

• CEI EN 50393 • CEI 20-33 • IP 0033 (A2A)

• Gel: UL 94-HB 

• Casing mix: UL 94-V2

• Working temperature: 90°

• Installation temperature: -40°C / +50°C

• Fully submersible

• Can be used underground

• No flame propagation:
CEI 20-35 • IEC 60332-1 • HD405-1
(as applicable)

• A2A Certified

IPX8
OFFICIALLY
TESTED

CLIK FIRE A2A (FUSE)

Branch joint from main to pole rise, with protection fuse.

Branch joints from main to pole rise complete with disconnectable fuse holder and fuse with signal indicating intervention. Accessories are complete with mantel-type, pre-insulated Allen screw connectors and, for installations with traps, with the specific protection monitor plate. Joints are non-toxic, with no shelf life and re-enterable and flame retardant.



PRODUCT / Item	Fuse inserted	Branch type	Through cable (n° x mm²)	Branch cable (n° x mm²)
CLIK 2 Fire Dor/Palo Fuse 301010-000	2 A	Main / Pole	RG7R 4 x 1 x 16	FG7OR 2 x 2,5



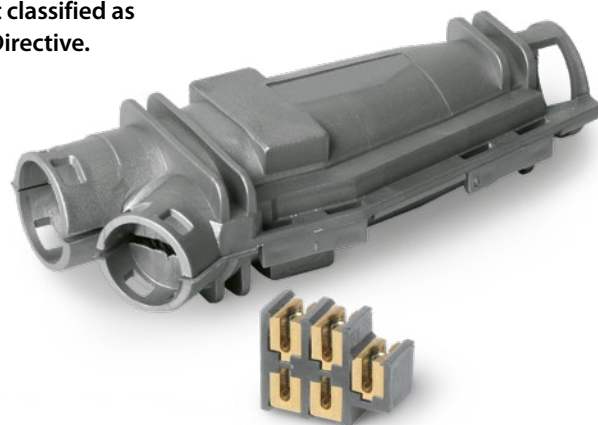
KING JOINT

Range of fast gel pre-filled straight or branch type joints for 0.6/1 kV multi core cables of up to 5 conductors.

The primary insulation, consisting of a cross-linked polymer gel and extremely strong plastic insulating housing, make the Class 2, in accordance with the definitions contained in CEI Regulation 64-8. The joint, tested in accordance with the most important international specifications with repeated bending and twisting cycles and immersion in water, was found to comply with the mechanical, electrical and sealing requirements necessary for accessories for plastic cables. The joint and its components have no self life, are chemically inert and therefore completely safe; the conductor connections are re-accessible even after long operating periods. Packaged with self-extinguishing material, it is flame retardant. Suitable for cables with a temperature of +90°C.

ADVANTAGES

- For multicore cables of up to 5 cores.
- 5 sector spacers for proper centring of five-core connection.
- Complete with screw connectors.
- For straight and branch connections, including armoured cable.
- For all types of application, including submersible.
- Non-toxic, safe and not classified as hazardous under CLP Directive.
- Re-accessible.
- Flame retardant.



KING
JOINT Y

Electrical performance:

- CEI EN 50393
- Class 2 in accordance with CEI 64-8.

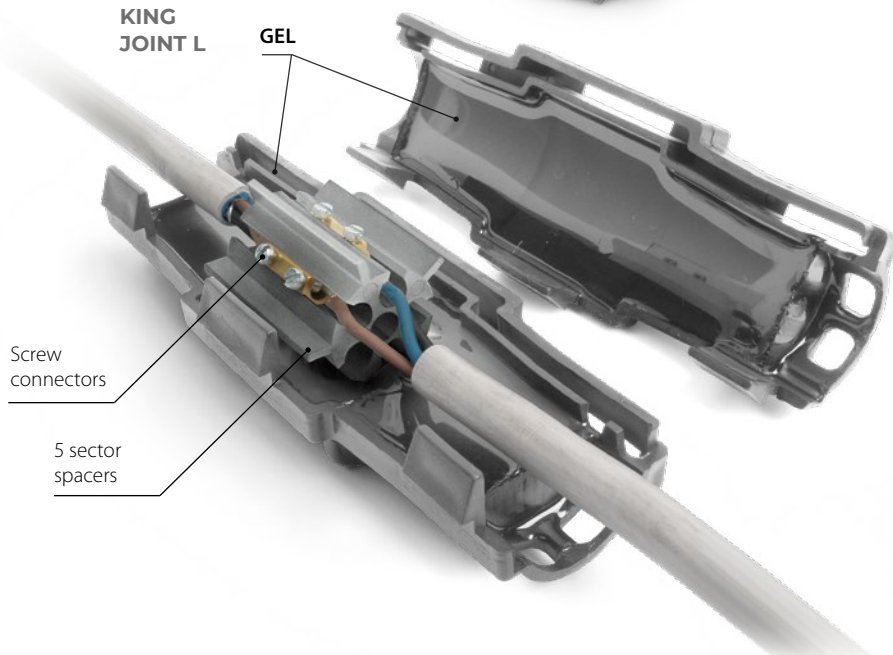
- Gel: UL 94-HB  us
- Casing mix: UL 94-V2
- Working temperature: 90°C
- Installation temperature: -40°C / +50°C
- Fully submersible
- Can be used underground
- Halogen-free Gel
- No flame propagation:
CEI 20-35 • IEC 60332-1 • HD405-1
(as applicable)
Low smoke and toxic and
corrosive gas emissions.
- Degree of protection: IPX8

KING
JOINT L

GEL

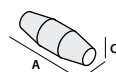
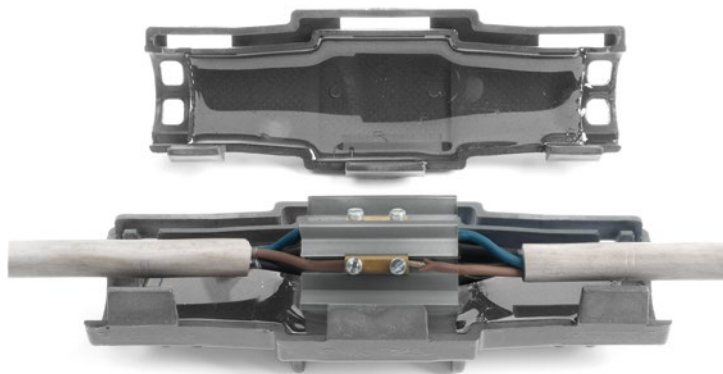
Screw
connectors

5 sector
spacers



KING JOINT L

Straight joints, including armoured cable.



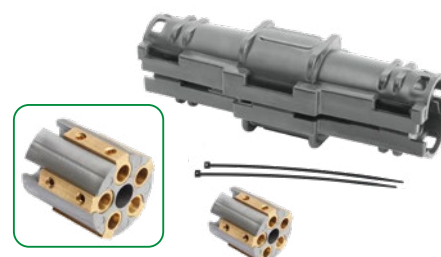
PRODUCT / Item	LINE CONNECTIONS Cable formation and conductor cross sections (n° x mm ²)	max cables Ø (mm)	Dimension (mm)
KING JOINT 0 blister RAYJOINT0	2 x 1,5 - 6	20,5	105 x 55 x 55
	3 x 1,5 - 6		
	4 x 1,5 - 6		
	5 x 1,5 - 6		
KING JOINT L6 box RAYJOINTL6	2 x 1,5 - 6	20,5	105 x 55 x 55
	3 x 1,5 - 6		
	4 x 1,5 - 6		
	5 x 1,5 - 6		



PRODUCT / Item	LINE CONNECTIONS Cable formation and conductor cross sections (n° x mm ²)	max cables Ø (mm)	Dimension (mm)
KING JOINT L10 RAYJOINTL10	2 x 2,5 - 10	24	180 x 60 x 60
	3 x 2,5 - 10		
KING JOINT L10 - ARM RAYJL10ARM	4 x 2,5 - 10		
	5 x 2,5 - 10		



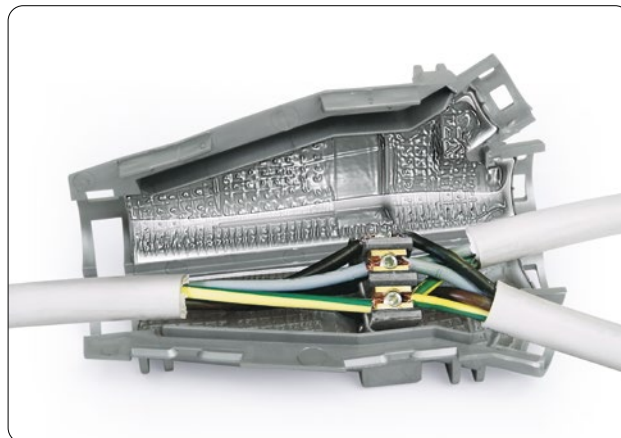
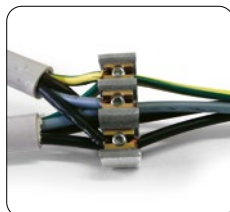
PRODUCT / Item	LINE CONNECTIONS Cable formation and conductor cross sections (n° x mm ²)	max cables Ø (mm)	Dimension (mm)
KING JOINT L25 RAYJOINTL25	2 x 10 - 25	31	210 x 65 x 65
	3 x 10 - 25		
KING JOINT L25 - ARM RAYJL25ARM	4 x 10 - 25		
	5 x 10 - 25		



ARM type joints complete with continuity device
suitable for connection to **armoured wire or steel tape cables**.

KING JOINT Y

Branch joints, including armoured cable.



PRODUCT / Item	BRANCH CONNECTIONS Cable formation and conductor cross sections (n° x mm²)		max cables Ø (mm)		Dimension (mm)
	T	B	T	B	
KING JOINT Y6 KINGJ-Y6	2 x 1,5 - 6	2 x 1,5 - 4			
	3 x 1,5 - 6	3 x 1,5 - 4			
KING JOINT Y6 - ARM KINGJ-Y6ARM	4 x 1,5 - 6	4 x 1,5 - 4	22,5	18,5	138 x 60 x 37
	5 x 1,5 - 6	5 x 1,5 - 4			

T: Through cable - B: Branch cable

PRODUCT / Item	BRANCH CONNECTIONS Cable formation and conductor cross sections (n° x mm²)		max cables Ø (mm)		Dimension (mm)
	T	B	T	B	
KING JOINT Y16 KINGJ-Y16	2 x 4 - 16	2 x 1,5 - 4			
	3 x 4 - 16	3 x 1,5 - 4			
KING JOINT Y16 - ARM KINGJ-Y16ARM	4 x 4 - 16*	4 x 1,5 - 4	26	18,5	194 x 74 x 43
	5 x 4 - 16*	5 x 1,5 - 4			

T: Through cable - B: Branch cable

* For armoured cables max conductor cross section 10 mm².

PRODUCT / Item	BRANCH CONNECTIONS Cable formation and conductor cross sections (n° x mm²)		max cables Ø (mm)		Dimension (mm)
	T	B	T	B	
KING JOINT Y35 KINGJ-Y35	2 x 10 - 35	2 x 1,5 - 6			
	3 x 10 - 35	3 x 1,5 - 6			
KING JOINT Y35 - ARM KINGJ-Y35ARM	4 x 10 - 35*	4 x 1,5 - 6	36	26	290 x 105 x 51

T: Through cable - B: Branch cable

* For armoured cables max conductor cross section 10 mm².

ARM type joints complete with continuity device suitable for connection to **armoured wire or steel tape cables**.

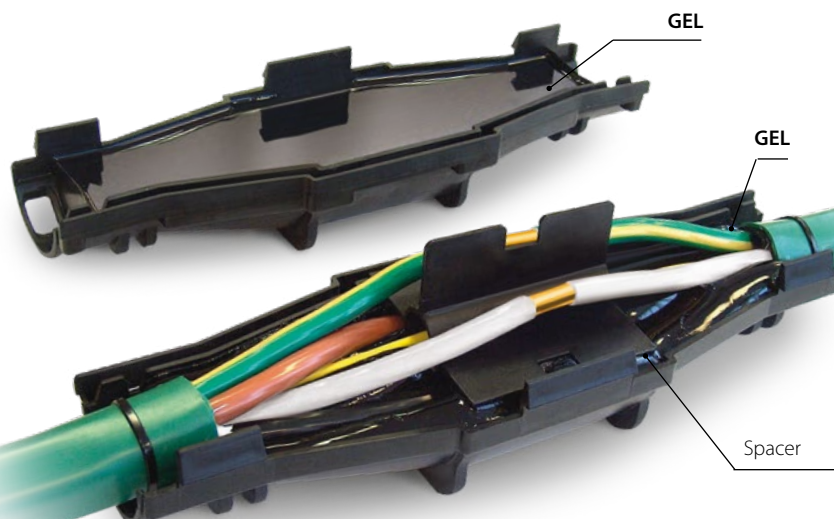
RAPID JOINT

Radial closing gel pre-filled joint for extruded insulation cables up to 1 kV.

Made with self-extinguishing material, flame retardant, for cables at 90°C working temperature. The radial closing system facilitates joint application, making them re-enterable only by means of a tool.

ADVANTAGES

- For straight connections (in line).
- With suitable spacers.
- For all types of application, including submersible.
- Wide range of cable formations.
- Pre-filled with a gel that is not-classified as hazardous under the CLP Directive and with no shelf life.

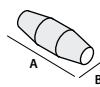


For **COPPER** cables

PRODUCT / Item	Cable formation and conductor cross sections (n° x mm²)				With fiber-optic separator 4x	Dimension (mm)
	1x	2x	3x	4x		
RAPID JOINT L6 301098-037	1,5 - 50	1,5 - 10	1,5 - 10	1,5 - 6	-	105 x 55
RAPID JOINT L10 301098-004	2,5 - 150	2,5 - 25	2,5 - 16	2,5 - 16	-	180 x 60
RAPID JOINT L25 301098-006	120 - 240	6 - 50	6 - 35	4 - 35	-	210 x 65
RAPID JOINT L95 301098-003	185 - 400	35 - 95	25 - 70	25 - 70	16 - 50	320 x 100

For **ALUMINIUM** cables

	1x	2x	3x	4x	4x	(mm)
RAPID JOINT L25 301098-006	120 - 150	16 - 35	10 - 25	10 - 25	-	210 x 65
RAPID JOINT L95 301098-003	185 - 400	35 - 95	25 - 70	25 - 70	16 - 50	320 x 100



Electrical performance:

- CEI EN 50393 with connectors complying with EN 61238-1
- Class 2 in accordance with CEI 64-8.

💧 Gel: UL 94-HB 

💧 Casing mix: UL 94-V2

🌡️ Working temperature: 90°C

🌡️ Installation temperature: -40°C / +50°C

🌊 Fully submersible

🔑 Can be used underground

🌿 Halogen-free Gel

🔥 No flame propagation:
CEI 20-35 • IEC 60332-1 • HD405-1 (as applicable)

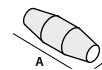
● Degree of protection: IPX8



Joint supplied with
armour continuity device

RAPID JOINT S/ARM

For screened or tape or wire armoured cables.

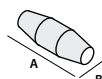


For copper wire SCREENED cables	Cable formation and conductor cross sections (n° x mm ²)				With fiber-optic separator 4x	Dimension (mm)
PRODUCT / Item	1x	2x	3x	4x		
RAPID JOINT L 10-S 301098-035	2,5 - 120	2,5 - 10	2,5 - 10	2,5 - 10	-	180 x 60
RAPID JOINT L 25-S 301098-036	120 - 185	16 - 25	10 - 25	10 - 25	-	210 x 65
RAPID JOINT L 95-S 301098-012	240 - 400	35 - 95	25 - 70	25 - 70	16 - 50	320 x 100

For ARMoured cables	1x	2x	3x	4x	(mm)
RAPID JOINT L 10-ARM 301098-10ARM	2,5 - 10	2,5 - 10	2,5 - 10	-	180 x 60
RAPID JOINT L 25-ARM 301098-25ARM	16 - 25	10 - 25	10 - 25	-	210 x 65
RAPID JOINT L 95-ARM 301098-016	35 - 95	25 - 70	25 - 70	16 - 50	320 x 100

RAPID JOINT LS

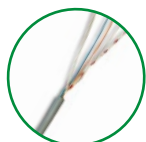
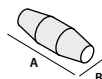
For signalling and control cables.



PRODUCT Item	Conductors (mm ²)	Cable formation (n° conduttori)										Dimension (mm)
		5x	7x	10x	12x	16x	19x	24x	40x	75x	100x	
RAPID JOINT-LS1 301098-018	1,5 2,5	•	•	•	•	•	•					180 x 60
RAPID JOINT-LS2 301098-019	1,5 2,5					•	•	•	•			210 x 65
RAPID JOINT-LS3 301098-020	1,5 2,5				•	•	•	•	•	•	•	320 x 100

RAPID JOINT T

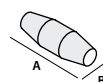
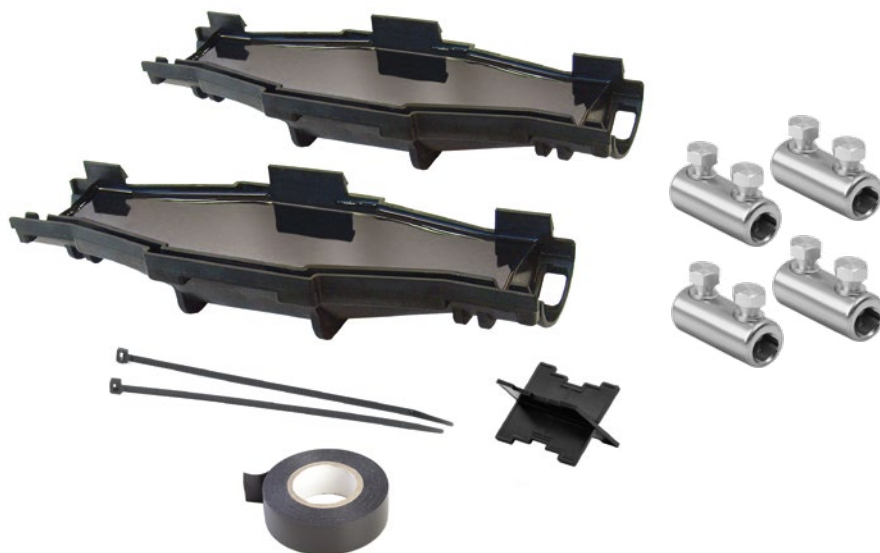
Straight joints for telephone cables.



UNscreened	SCREENED	N° pairs for conductor cross sections (n° x mm ²)	Dimension (mm)
PRODUCT / Item	PRODUCT / Item		
RAPID JOINT-T26 301098-021	RAPID JOINT-TS26 301098-024	(1 - 26) x (0,5 - 0,6)	180 x 60
RAPID JOINT-T61 301098-022	RAPID JOINT-TS61 301098-025	(30 + 1 - 64 + 1) x (0,5 - 0,6)	210 x 65
RAPID JOINT-T101 301098-023	RAPID JOINT-TS101 301098-026	(60 + 1 - 100 + 1) x (0,5 - 0,6)	320 x 100

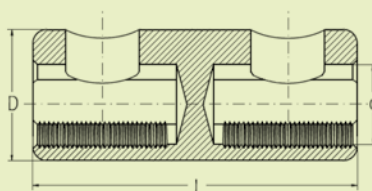
RAPID JOINT SYSTEM FAST RP

Straight joint + Shear bolt connectors.



PRODUCT / Item	Cable formation from 2x a 4x (n° x mm ²)	Dimension (mm)
RAPID JOINT L 10 RP RAPIDJL10RP	1,5 - 10	180 x 60
RAPID JOINT L 25 RP RAPIDJL25RP	10 - 25	210 x 65
RAPID JOINT L 95 RP RAPIDJL95RP	35 - 95	320 x 100

Shear bolt connectors



PRODUCT / Item	Aluminium cross sections* (mm ²)	Copper cross sections (mm ²)	Breakaway torque (Nm)	Dimension L D d (mm)		
RAY-TTF 1,5/16 RAY-TTF1,5/16	10 - 16	1,5 - 16	4	30	12	6,1
RAY-TTF 10/35 RAY-TTF10/35	10 - 35	10 - 35	10	36	16	9,0
RAY-TTF 25/50 RAY-TTF25/50	25 - 50	25 - 50	12	36	18	10,0
RAY-TTF 35/150 RAY-TTF35/150	35 - 150	35 - 150	30	70	28	17,0

* For round conductors.

**Electrical performance:**

- CEI EN 50393
with connectors complying
with EN 61238-1
- Class 2 in accordance with CEI 64-8.

💧 **Gel:** UL 94-HB

🌡️ **Working temperature:** 90°C

🌡️ **Installation temperature:** -15°C / +55°C

🌊 **Fully submersible**

🔑 **Can be used underground**

🌿 **Halogen-free Gel**

IP68
OFFICIALLY
TESTED

MAGIC POWER JOINT

Straight or branch joint with Magic Power Gel, for extruded insulation cables up to 1 kV.

Joints for extruded cables F(R)G7OR 0.6/1 kV. Easy installation, composed of two anti-fracture plastic shells, to be filled with non-toxic quick cross linking two-component insulation such as Magic Power Gel. Suitable for installation in traps, channels or directly underground or under water. Non-toxic, safe, light and re-enterable. Thanks to the softness of the insulation, they are able to absorb external shock without cracking or fracturing. The extreme stickiness of the insulation together with its softness allow it to transmit water pressure for installation even at high depths.

ADVANTAGES

- ▶ **Re-enterable and inspectable joint.**
- ▶ **Insulated with Magic Power Gel, the innovative self-amalgamating gel.**
- ▶ **For installations even in harsh conditions and high depths!**
- ▶ **Extremely adherent and tight sealing.**
- ▶ **The gel is not-classified as hazardous under the CLP Directive and it has no shelf life.**

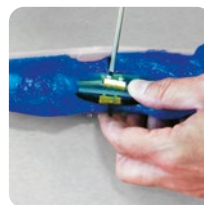
RE-ENTERABLE



REMOVABLE



INSPECTIONABLE



REUSABLE

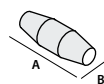


In 15 minutes, the gel is cross-linked and **Magic Power Joint** is ready!



MAGIC POWER JOINT L

Straight joint for 0.6/1 kV extruded cables.



For COPPER cables		Cable formation and conductor cross sections (n° x mm ²)				max cable Ø (mm)	Dimension (mm)
PRODUCT / Item		1x	2x	3x	4x		
MAGIC P JOINT L10 MPOWERJOINT-L10		2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10 *	8 - 27	180 x 50
MAGIC P JOINT L25 MPOWERJOINT-L25		16 - 150	4 - 25	4 - 25	2,5 - 25	8 - 32	215 x 55
MAGIC P JOINT L35 MPOWERJOINT-L35		16 - 185	16 - 35	16 - 35	16 - 35	12 - 33	232 x 70
MAGIC P JOINT L50 MPOWERJOINT-L50		50 - 300	16 - 50	16 - 50	16 - 50	14 - 34	266 x 72
MAGIC P JOINT L95 MPOWERJOINT-L95		120 - 400	25 - 95	25 - 95	25 - 95	15 - 42	330 x 95
MAGIC P JOINT L120 MPOWERJOINT-L120		240 - 500	70 - 120	70 - 120	50 - 120	25 - 50	365 x 95
MAGIC P JOINT L240 MPOWERJOINT-L240		400 - 1000	120 - 300	120 - 240	120 - 240	30 - 75	510 x 120
MAGIC P JOINT L300 MPOWERJOINT-L300		630 - 2000	240 - 400	240 - 300	240 - 300	41 - 78	760 x 180

For ALUMINIUM cables		1x	2x	3x	4x	(mm)	(mm)
MAGIC P JOINT L50 MPOWERJOINT-L50		16 - 150	16 - 25	16 - 25	16 - 25	14 - 34	266 x 72
MAGIC P JOINT L120 MPOWERJOINT-L120		185 - 400	25 - 95	25 - 95	25 - 95	25 - 50	365 x 95
MAGIC P JOINT L240 MPOWERJOINT-L240		400 - 630	95 - 185	95 - 185	95 - 185	30 - 75	510 x 120
MAGIC P JOINT L300 MPOWERJOINT-L300		630 - 2000	185 - 300	185 - 300	185 - 300	41 - 78	760 x 180

* Magic Power Joint L10 suggested for cable diameters smaller than 16 mm.

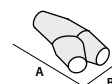


MAGIC POWER JOINT Y

Branch joint for 0.6/1 kV extruded cables.

For COPPER cables		Cable formation and conductor cross sections (n° x mm ²)								max cables Ø (mm)		Dimension (mm)
PRODUCT / Item		1x		2x		3x		4x		T	B	
MAGIC P JOINT Y6 MPOWERJOINT-Y6		4 - 50	4 - 50	4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	8 - 27	8 - 27	180 x 90
MAGIC P JOINT Y25 MPOWERJOINT-Y25		50 - 150	50 - 150	10 - 25	10 - 25	6 - 25	6 - 16	6 - 25	6 - 10	8 - 32	8 - 32	220 x 105
MAGIC P JOINT Y95 MPOWERJOINT-Y95		120 - 400	95 - 240	25 - 95	16 - 50	25 - 95	16 - 50	25 - 95	10 - 50	15 - 42	8 - 32	315 x 115
MAGIC P JOINT Y240* MPOWERJOINT-Y240		240 - 630	240 - 630	95 - 240	50 - 240	95 - 240	50 - 240	95 - 240	50 - 240	65 max		600 x 285

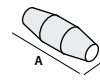
* also for aluminium cables. T: Through - B: Branch





MAGIC POWER JOINT L-S

Straight joint for 0.6/1 kV screened extruded cables.



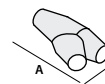
For COPPER cables						
PRODUCT / Item	Cable formation and conductor cross sections (n° x mm ²)				max cable Ø (mm)	Dimension (mm)
	1x	2x	3x	4x		
MAGIC P JOINT L10-S MPOWERJOINT-L10S	2,5 - 50	1,5 - 10	1,5 - 6	1,5 - 6	8 - 27	180 x 50
MAGIC P JOINT L25-S MPOWERJOINT-L25S	16 - 120	4 - 25	4 - 16	2,5 - 16	8 - 32	215 x 55
MAGIC P JOINT L35-S MPOWERJOINT-L35S	16 - 185	16 - 35	16 - 25	16 - 25	12 - 33	232 x 70
MAGIC P JOINT L50-S MPOWERJOINT-L50S	50 - 240	16 - 50	16 - 50	16 - 50	14 - 34	266 x 72
MAGIC P JOINT L120-S MPOWERJOINT-L120S	240 - 500	70 - 120	70 - 120	50 - 95	25 - 50	365 x 95
MAGIC P JOINT L240-S MPOWERJOINT-L240S	400 - 1000	120 - 300	120 - 185	120 - 185	30 - 75	510 x 120
MAGIC P JOINT L300-S MPOWERJOINT-L300S	630 - 2000	240 - 400	240 - 300	240 - 300	41 - 78	760 x 180

For ALUMINIUM cables						
PRODUCT / Item	1x	2x	3x	4x	(mm)	(mm)
MAGIC P JOINT L50-S MPOWERJOINT-L50S	16 - 150	16 - 25	16 - 25	16 - 25	14 - 34	266 x 72
MAGIC P JOINT L120-S MPOWERJOINT-L120S	185 - 400	25 - 95	25 - 95	25 - 95	25 - 50	365 x 95
MAGIC P JOINT L240-S MPOWERJOINT-L240S	400 - 630	95 - 185	95 - 185	95 - 185	30 - 75	510 x 120
MAGIC P JOINT L300-S MPOWERJOINT-L300S	630 - 2000	185 - 300	185 - 300	185 - 300	41 - 78	760 x 180



MAGIC POWER JOINT Y-S

Branch joint for 0.6/1 kV screened extruded cables.

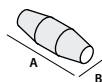


For COPPER cables		Cable formation and conductor cross sections (n° x mm²)								max cables Ø (mm)		Dimension (mm)
PRODUCT	Item	1x		2x		3x		4x		T	B	
		T	B	T	B	T	B	T	B			
MAGIC P JOINT Y6-S	MPOWERJOINT-Y6S	4 - 35	4 - 35	4 - 10	4-10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	8 - 27	8 - 27	180 x 90
MAGIC P JOINT Y25-S	MPOWERJOINT-Y25S	35 - 120	35 - 120	10 - 25	10-25	6 - 16	6 - 16	6 - 16	6 - 10	8 - 32	8 - 32	220 x 105
MAGIC P JOINT Y95-S	MPOWERJOINT-Y95S	95 - 300	70 - 150	25 - 95	16-50	16 - 70	16 - 35	16 - 50	10 - 35	15 - 42	8 - 32	315 x 115
MAGIC P JOINT Y240-S*	MPOWERJOINTY240S	240 - 630	150 - 630	95 - 240	50-240	70 - 240	35 - 240	50 - 240	35 - 240	65 max		600 x 285

* also for aluminium cables. T : Through - B : Branch

MAGIC POWER JOINT L-ARM

Straight joint for 0,6/1 kV extruded cables with tape, wire or plate armouring.



For COPPER cables		Cable formation and conductor cross sections (n° x mm²)			max cables Ø (mm)	Dimension (mm)
PRODUCT / Item		2x	3x	4x		
MAGIC P JOINT L10-ARM MPJOINTL10-ARM		1,5 - 10	1,5 - 6	1,5 - 6	8 - 27	180 x 50
MAGIC P JOINT L25-ARM MPJOINTL25-ARM		4 - 25	4 - 16	2,5 - 16	8 - 32	215 x 55
MAGIC P JOINT L35-ARM MPJOINTL35-ARM		16 - 35	16 - 25	16 - 25	12 - 33	232 x 70
MAGIC P JOINT L50-ARM MPJOINTL50-ARM		16 - 50	16 - 50	16 - 50	14 - 34	266 x 72
MAGIC P JOINT L120-ARM MPJOINTL120-ARM		70 - 120	70 - 120	50 - 95	25 - 50	365 x 95
MAGIC P JOINT L240-ARM MPJOINTL240-ARM		120 - 300	120 - 185	120 - 185	30 - 75	510 x 120
MAGIC P JOINT L300-ARM MPJOINTL300-ARM		240 - 400	240 - 300	240 - 300	41 - 78	760 x 180

For ALUMINIUM cables		2x	3x	4x	(mm)	(mm)
MAGIC P JOINT L50-ARM MPJOINTL50-ARM		16 - 25	16 - 25	16 - 25	14 - 34	266 x 72
MAGIC P JOINT L120-ARM MPJOINTL120-ARM		25 - 95	25 - 95	25 - 95	25 - 50	365 x 95
MAGIC P JOINT L240-ARM MPJOINTL240-ARM		95 - 185	95 - 185	95 - 185	30 - 75	510 x 120
MAGIC P JOINT L300-ARM MPJOINTL300-ARM		185 - 300	185 - 300	185 - 300	41 - 78	760 x 180



MAGIC POWER JOINT Y-ARM

Branch joint for 0,6/1 kV extruded cables with tape, wire or plate armouring.



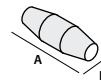
For WIRE armoured COPPER cables		Cable formation and conductor cross sections (n° x mm²)						max cables Ø (mm)		Dimension (mm)
PRODUCT	Item	2x		3x		4x		T	B	
MAGIC P JOINT Y6-ARM-F	MPJOINTY6-ARM-F	4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	8 - 27	8 - 27	180 x 90
MAGIC P JOINT Y25-ARM-F	MPJOINTY25-ARM-F	10 - 25	10 - 25	6 - 16	6 - 16	6 - 16	6 - 10	8 - 32	8 - 32	220 x 105
MAGIC P JOINT Y95-ARM-F	MPJOINTY95-ARM-F	25 - 70	16 - 50	25 - 70	16 - 35	25 - 50	10 - 35	15 - 42	8 - 32	315 x 115
MAGIC P JOINT Y240-ARM-F*	MPJOINTY240ARM-F	70 - 240	50 - 240	70 - 240	35 - 240	50 - 240	35 - 240	65 max		600 x 285

For TAPE, WIRE OR PLATE armoured COPPER cables		Cable formation and conductor cross sections (n° x mm²)						max cables Ø (mm)		Dimension (mm)
PRODUCT	Item	2x		3x		4x		T	B	
MAGIC P JOINT Y6-ARM	MPJOINTY6-ARM	4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	8 - 27	8 - 27	180 x 90
MAGIC P JOINT Y25-ARM	MPJOINTY25-ARM	10 - 25	10 - 25	6 - 16	6 - 16	6 - 16	6 - 10	8 - 32	8 - 32	220 x 105
MAGIC P JOINT Y95-ARM	MPJOINTY95-ARM	25 - 70	16 - 50	25 - 70	16 - 35	25 - 50	10 - 35	15 - 42	8 - 32	315 x 115
MAGIC P JOINT Y240-ARM*	MPJOINTY240ARM	70 - 240	50 - 240	70 - 240	35 - 240	50 - 240	35 - 240	65 max		600 x 285

* also for aluminium cables. T: Through - B: Branch

MAGIC POWER JOINT-SL

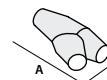
Straight joint for signaling and control multi core extruded 0,6/1 kV cables



PRODUCT	Item	Conductor (mm²)	Cable formation (n° conductors)												max cables Ø (mm)	Dimension (mm)
			5x	7x	10x	12x	16x	19x	24x	40x	75x	100x	250x	500x		
MAGIC P JOINT SL11	MPOWERJOINTSL11	1,5 2,5	•	•	•	•	•								8 - 27	180 x 50
MAGIC P JOINT SL12	MPOWERJOINTSL12	1,5 2,5			•	•	•	•	•						8 - 32	215 x 55
MAGIC P JOINT SL13	MPOWERJOINTSL13	1,5 2,5					•	•	•	•					14 - 34	266 x 72
MAGIC P JOINT SL14	MPOWERJOINTSL14	1,5 2,5							•	•	•				15 - 42	330 x 75
MAGIC P JOINT SL15	MPOWERJOINTSL15	1,5 2,5								•	•	•			25 - 50	365 x 95
MAGIC P JOINT SL16	MPOWERJOINTSL16	1,5 2,5									•	•	•		30 - 75	510 x 120
MAGIC P JOINT SL17	MPOWERJOINTSL17	1,5 2,5										•	•	•	41 - 78	760 x 180

MAGIC POWER JOINT-SY

Branch joint for signaling and control multi core extruded 0,6/1 kV cables.

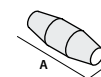


PRODUCT	Item	Conductor (mm²)	Cable formation (n° conductors)												max cables Ø (mm)		Dimension (mm)
			5x	7x	10x	12x	16x	19x	24x	40x	75x	100x	250x	500x	T	B	
MAGIC P JOINT SY1	MPOWERJOINTSY1	1,5 2,5	•	•	•	•	•	•							8 - 27	8 - 27	180 x 90
MAGIC P JOINT SY2	MPOWERJOINTSY2	1,5 2,5			•	•	•	•	•						8 - 32	8 - 32	220 x 105
MAGIC P JOINT SY3	MPOWERJOINTSY3	1,5 2,5						•	•	•	•				15 - 42	8 - 32	315 x 115
MAGIC P JOINT SY4	MPOWERJOINTSY4	1,5 2,5								•	•	•	•	•	65 max		600 x 285

T: Through - B: Branch

MAGIC POWER JOINT-T e TS

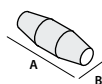
Straight joint for Telecom cables.



UNSCREENED		SCREENED		N° pairs per conductor cross sections (n° x mm²)	max cables Ø (mm)	Dimension (mm)
PRODUCT	Item	PRODUCT	Item			
MAGIC P JOINT T16	MPOWERJOINT-T16	MAGIC P JOINT TS16	MPOWERJOINT-TS16	1 - 16 x 0,5 - 0,6	8 - 27	180 x 50
MAGIC P JOINT T25	MPOWERJOINT-T25	MAGIC P JOINT TS25	MPOWERJOINT-TS25	16 - 25 x 0,5 - 0,6	8 - 32	215 x 55
MAGIC P JOINT T35	MPOWERJOINT-T35	MAGIC P JOINT TS35	MPOWERJOINT-TS35	25 - 35 x 0,5 - 0,6	12 - 33	266 x 72
MAGIC P JOINT T40	MPOWERJOINT-T40	MAGIC P JOINT TS40	MPOWERJOINT-TS40	35 - 40 x 0,5 - 0,6	15 - 42	330 x 75
MAGIC P JOINT T64	MPOWERJOINT-T64	MAGIC P JOINT TS64	MPOWERJOINT-TS64	40 - 64 x 0,5 - 0,6	25 - 50	365 x 95
MAGIC P JOINT T500	MPOWERJOINT-T500	MAGIC P JOINT TS500	MPOWERJOINT-TS500	60 - 500 x 0,5 - 0,6	30 - 75	510 x 120
MAGIC P JOINT T1000	MPOWERJOINT-T1000	MAGIC P JOINT TS1000	MPOWERJOINT-TS1000	450 - 1000 x 0,5 - 0,6	41 - 78	760 x 180

MAGIC POWER JOINT SYSTEM PLUS L

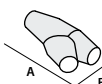
Straight joint + Five-core spacer + Screw connectors.



For COPPER cables	Cable formation and conductor cross sections (n° x mm²)				max cables Ø (mm)	Dimension (mm)
PRODUCT / Item	2x	3x	4x	5x		
MAGIC P JOINT SP L6 MPOWERJSPL6	1,5 - 6	1,5 - 6	1,5 - 6	1,5 - 6	8 - 27	180 x 50
MAGIC P JOINT SP L16 MPOWERJSPL16	4 - 16	4 - 16	4 - 16	4 - 16	8 - 32	215 x 55
MAGIC P JOINT SP L25 MPOWERJSPL25	4 - 25	4 - 25	4 - 25	4 - 25	8 - 32	215 x 65

MAGIC POWER JOINT SYSTEM PLUS Y

Y Branch joint + Five-core spacer + Screw connectors.

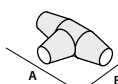


For COPPER cables	Cable formation and conductor cross sections (n° x mm²)								max cables Ø (mm)	Dimension (mm)
PRODUCT / Item	2x		3x		4x		5x			
	T	B	T	B	T	B	T	B		
MAGIC P JOINT SP Y6 MPOWERJSPY6	1,5-6	1,5-4	1,5-6	1,5-4	1,5-6	1,5-4	1,5-6	1,5-4	T 8 - 27 B 8 - 27	180 x 90
MAGIC P JOINT SP Y16 MPOWERJSPY16	4-16	1,5-4	4-16	1,5-4	4-16	1,5-4	4-16	1,5-4	T 8 - 32 B 8 - 32	220 x 105

T : Through - B : Branch

MAGIC POWER JOINT SYSTEM PLUS T

T Branch joint + Four-core spacer + Screw connectors.

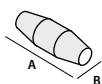


For COPPER cables	Cable formation and conductor cross sections (n° x mm²)						max cables Ø (mm)	Dimension (mm)
PRODUCT / Item	2x		3x		4x			
	T	B	T	B	T	B		
MAGIC P JOINT SP T35 MPOWERJSPT35	6 - 35	1,5 - 10	6 - 35	1,5 - 10	6 - 35	1,5 - 10	P 22 - 42 D 22 - 42	305 x 155

T : Through - B : Branch

MAGIC POWER JOINT SYSTEM FAST RP

Straight joint + Shear bolt connectors.



PRODUCT / Item	Cable formation from 2x to 4x (n° x mm²)		max cables Ø (mm)	Dimension (mm)
MAGIC P JOINT L 35- RP/16 MPOWERJL35RP16	Cu 1,5 - 16	Al 10 - 16	12 - 33	232 x 70
MAGIC P JOINT L 35- RP/35 MPOWERJL35RP35	10 - 35		12 - 33	232 x 70
MAGIC P JOINT L 50- RP/50 MPOWERJL50RP50	25 - 50		14 - 34	266 x 72
MAGIC P JOINT L 120- RP/120 MPOWERJL120RP120	35 - 120		25 - 50	365 x 95
MAGIC P JOINT L 240- RP/150 MPOWERJL240RP150	35 - 150		30 - 75	510 x 120





MAGIC JOINT

Straight or branch joint with Magic Gel filling gel for extruded insulation cables up to 1 kV.

Joints for extruded cables F(R)G7OR 0.6/1 kV. Easy installation, composed of two anti-fracture plastic shells, to be filled with non-toxic quick cross linking two-component insulation with no shelf life, Magic Gel type. Suitable for installation in traps, channels or directly underground or under water. Non-toxic, safe, light and re-enterable. Thanks to the softness of the insulation, they are able to absorb external shock without cracking or fracturing. The extreme stickiness of the insulation, together with its softness allow it to transmit water pressure for installation even at high depths. Thanks to the materials used, joints are completely non-toxic, safe, re-enterable even after long periods of operation.

ADVANTAGES

- Quick cross linking gel, (only 10 minutes at 23°C) .
- Extremely adherent and tight sealing.
- The gel is not-classified as hazardous under the CLP Directive and it has no shelf life.



Electrical performance:

- CEI EN 50393
with connectors complying
with EN 61238-1
- Class 2 in accordance with CEI 64-8.

🔧 Gel: UL 94-HB c  us

🌡️ Working temperature: 90°C

🌡️ Installation temperature: -15°C / +55°C

🌊 Fully submersible

🔑 Can be used underground

🌿 Halogen-free Gel

IP68



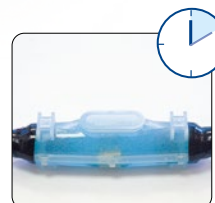
Slip off the separator.



Mix for 20 seconds maximum



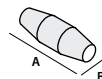
Pour within a minute.



After 10 minutes, Magic joint is ready.

MAGIC JOINT

Straight joint for 0.6/1 kV extruded cables.



For COPPER cables	Cable formation and conductor cross sections (n° x mm ²)				max cables Ø (mm)	Dimension (mm)
PRODUCT / Item	1x	2x	3x	4x		
MAGIC JOINT 4 100004-002	1,5 - 25	1,5 - 4	1,5 - 4	1,5 - 4	10 - 18	160 x 45
MAGIC JOINT 10 100001-MAG	2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10 *	8 - 27	180 x 50
MAGIC JOINT 25 100002-MAG	16 - 150	4 - 25	4 - 25	2,5 - 25	8 - 32	215 x 55
MAGIC JOINT 35 100035-002	16 - 185	16 - 35	16 - 35	16 - 35	12 - 33	232 x 70
MAGIC JOINT 50 100005-MAG	50 - 300	16 - 50	16 - 50	16 - 50	14 - 34	266 x 72
MAGIC JOINT 95 100003-MAG	120 - 400	25 - 95	25 - 95	25 - 95	15 - 42	330 x 75
MAGIC JOINT 120 100007-MAG	240 - 500	70 - 120	70 - 120	50 - 120	25 - 50	365 x 95
MAGIC JOINT 240 100004-MAG	400 - 1000	120 - 300	120 - 240	120 - 240	30 - 75	510 x 120
MAGIC JOINT 300 100009-000	630 - 2000	240 - 400	240 - 300	240 - 300	41 - 78	760 x 180

For ALUMINIUM cables	1x	2x	3x	4x	(mm)	(mm)
MAGIC JOINT 50 100005-MAG	16 - 150	16 - 25	16 - 25	16 - 25	14 - 34	266 x 72
MAGIC JOINT 120 100007-MAG	185 - 400	25 - 95	25 - 95	25 - 95	25 - 50	365 x 95
MAGIC JOINT 240 100004-MAG	400 - 630	95 - 185	95 - 185	95 - 185	30 - 75	510 x 120
MAGIC JOINT 300 100009-000	630 - 2000	185 - 300	185 - 300	185 - 300	41 - 78	760 x 180

* Magic Joint 10 suggested for cable diameters smaller than 16 mm.

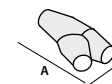


MAGIC JOINT Y

Branch joint for 0.6/1 kV extruded cables.

For COPPER cables	Cable formation and conductor cross sections (n° x mm ²)								max cables Ø (mm)		Dimension (mm)
PRODUCT	1x		2x		3x		4x		T	B	
MAGIC JOINT Y6 100006-MAG	4 - 50	4 - 50	4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	8 - 27	8 - 27	180 x 90
MAGIC JOINT Y25 100025-MAG	50 - 150	50 - 150	10 - 25	10 - 25	6 - 25	6 - 16	6 - 25	6 - 10	8 - 32	8 - 32	220 x 105
MAGIC JOINT Y95 100095-MAG	120 - 400	95 - 240	25 - 95	16 - 50	25 - 95	16 - 50	25 - 95	10 - 50	15 - 42	8 - 32	315 x 115
MAGIC JOINT Y240* 100240-MAG	240 - 630	240 - 630	95 - 240	50 - 240	95 - 240	50 - 240	95 - 240	50 - 240	65 max		600 x 285

* also for aluminium cables. T: Through - B: Branch



SEAL UP JOINT

NEW


Technical characteristics of shells:

Material:

PP – POLYPROPYLENE

Dielectric strength:

52 kV/mm

Volume resistivity:

10 16 Ω cm

Thermal conductivity:

0,2 W/mK

Operating Temperature:

Up to 120°C



Technical characteristics of the filler resin:

Dielectric strength:

20 kV/mm

Curing time:

15/20 min. at 25°C

Volume resistivity:

2.10 15 Ω cm

Cone penetration:

120 1/10 mm (ASTM D217/C)

Thermal conductivity:

0,2 W/mK

Operating Temperature:

-60/+200°C

Overload temperature for short periods of time:

Up to 250°C

Water absorption after 30 days of immersion:

<< 0,05%

Electrical performance:

• CEI EN 50393

with connectors complying with EN 61238-1

• Class 2 in accordance with CEI 64-8.



Working temperature: 90°C



Installation temperature: -15°C / +55°C

IP68
OFFICIALLY
TESTED | **IMQ**

SEAL UP JOINT

IP68 joint range, for splicing or branching 0.6/1 kV cables, with two-component solid-plastic resin sealant. Ideal for underground and submerged use.

Seal Up Joint is a range consisting of polypropylene shells/casings, a material characterized by excellent chemical resistance, resistant to many polar organic solvents and aqueous solutions containing inorganic salts, acids, strong alkalis, bases, alcohols, aldehydes, ketones, esters, weak acids and alkaline solutions, alcohol and some oils;

- ▶ Low permeability to gases such as carbon dioxide, hydrocarbons and chlorohydrocarbons at low boiling point.
- ▶ Long durability and resistant to abrasion and wear.
- ▶ High load/resistance to dynamic loads.
- ▶ Weather resistant.
- ▶ Good electrical insulator.
- ▶ Good thermal resistance.
- ▶ 100% recyclable.



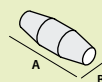
The joints are supplied complete with two-component solid-plastic resin sealant **Seal Up Resin**: a removable, tough resin with high mechanical resistance developed to prevent the penetration of moisture in both electrical and electronic fields.

- ▶ REACH compliant and free of substances classified as hazardous according to the current CLP regulation.
- ▶ Resistant to mold and UV rays.
- ▶ No shelf life.
- ▶ Isocyanate-free resin.



SEAL UP JOINT L

Straight joint for 0.6/1 kV extruded cables.



For COPPER cables	Cable formation and conductor cross sections (n° x mm ²)				max cables Ø (mm)	Dimension (mm)
PRODUCT / Item	1x	2x	3x	4x		
SEALUPJ L10 SEALUPJL10	2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10 *	8 - 27	180 x 50
SEALUPJ L16/25 SEALUPJL16/25	16 - 150	4 - 25	4 - 25	2,5 - 25	8 - 32	215 x 55
SEALUPJ L35 SEALUPJL35	16 - 185	16 - 35	16 - 35	16 - 35	12 - 33	232 x 70
SEALUPJ L50 SEALUPJL50	50 - 300	16 - 50	16 - 50	16 - 50	14 - 34	266 x 72
SEALUPJ L95 SEALUPJL95	120 - 400	25 - 95	25 - 95	25 - 95	15 - 42	330 x 75
SEALUPJ L120 SEALUPJL120	240 - 500	70 - 120	70 - 120	50 - 120	25 - 50	365 x 95
SEALUPJ L240 SEALUPJL240	400 - 1000	120 - 300	120 - 240	120 - 240	30 - 75	510 x 120

For ALUMINIUM cables	1x	2x	3x	4x	(mm)	(mm)
SEALUPJ L50 SEALUPJL50	16 - 150	16 - 25	16 - 25	16 - 25	14 - 34	266 x 72
SEALUPJ L120 SEALUPJL120	185 - 400	25 - 95	25 - 95	25 - 95	25 - 50	365 x 95
SEALUPJ L 240 SEALUPJL240	400 - 630	95 - 185	95 - 185	95 - 185	30 - 75	510 x 120

* Seal Up Joint L10 suggested for cable diameters smaller than 16 mm.



SEAL UP JOINT D

Branch joint for 0.6/1 kV extruded cables.

For COPPER cables	Cable formation and conductor cross sections (n° x mm²)								max cables Ø (mm)		 Dimension (mm)
PRODUCT / Item	1x		2x		3x		4x		T	B	
	T	B	T	B	T	B	T	B			
SEALUPJ D6 SEALUPJD6	4 - 50	4 - 50	4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	8 - 27	8 - 27	180 x 90
SEALUPJ D16/D25 SEALUPJD16-D25	50 - 150	50 - 150	10 - 25	10 - 25	6 - 25	6 - 16	6 - 25	6 - 10	8 - 32	8 - 32	220 x 105
SEALUPJ D95 SEALUPJD95	120 - 400	95 - 240	25 - 95	16 - 50	25 - 95	16 - 50	25 - 95	10 - 50	15 - 42	8 - 32	315 x 115

T : Through - B : Branch



SEAL UP RESIN

PRODUCT / Item	Colour	Package type	Total quantity
SEAL UP RESIN 170 SEALUPRESIN170	●	Two-component single dose bag	170 gr
SEAL UP RESIN 210 SEALUPRESIN210	●	Two-component single dose bag	210 gr
SEAL UP RESIN 420 SEALUPRESIN420	●	Two-component single dose bag	420 gr
SEAL UP RESIN 500 SEALUPRESIN500	●	1 single, two-component bottle	500 gr
SEAL UP RESIN 10K SEALUPRESIN10K	●	5 liter tanks A+B	10 lt
SEAL UP RESIN 200K SEALUPRESIN200K	●	200 liter drums A+B	400 lt



Electrical performance:

- CEI EN 50393
with connectors complying with EN 61238-1
- Class 2 in accordance with CEI 64-8.

 **Working temperature:** 90°C

 **Installation temperature:** 0°C / +45°C

 **Can be used underground**

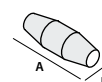

RAY CAST

Straight or branch joint with two-component epoxy resin insulation for 0.6/1 kV cables.

Straight or branch joints for 0.6/1 kV extruded cables: easily installed, composed of two anti-fracture plastic shells, to be filled with two-component epoxy resin such as Rayresin. For installation in traps, channels or directly underground.

RAYCAST L

Straight joint.



For COPPER cables		Cable formation and conductor cross sections (n° x mm²)				max cables Ø (mm)	Dimension (mm)
PRODUCT / Item		1x	2x	3x	4x		
RAYCAST L10 100001-000		2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10 *	8 - 27	180 x 50
RAYCAST L16/25 100002-000		16 - 150	4 - 25	4 - 25	2,5 - 25	8 - 32	215 x 55
RAYCAST L35 100035-001		16 - 185	16 - 35	16 - 35	16 - 35	12 - 33	232 x 70
RAYCAST L50 100500-000		50 - 300	16 - 50	16 - 50	16 - 50	14 - 34	266 x 72
RAYCAST L95 100095-000		120 - 400	25 - 95	25 - 95	25 - 95	15 - 42	330 x 75
RAYCAST L120 100120-000		240 - 500	70 - 120	70 - 120	50 - 120	25 - 50	365 x 95
RAYCAST L240 100240-000		400 - 1000	120 - 300	120 - 240	120 - 240	30 - 75	510 x 120

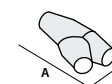
For ALUMINIUM cables		1x	2x	3x	4x	(mm)	(mm)
RAYCAST L50 100500-000		16 - 150	16 - 25	16 - 25	16 - 25	14 - 34	266 x 72
RAYCAST L120 100120-000		185 - 400	25 - 95	25 - 95	25 - 95	25 - 50	365 x 95
RAYCAST L240 100240-000		400 - 630	95 - 185	95 - 185	95 - 185	30 - 75	510 x 120

* Raycast L10 is suggested for cable diameters not exceeding 16 mm.



RAYCAST D

Branch joint.

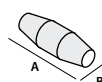


For COPPER cables		Cable formation and conductor cross sections (n° x mm²)								max cables Ø (mm)		Dimension (mm)
PRODUCT / Item		1x		2x		3x		4x		T	B	
RAYCAST D6 100006-000		4 - 50	4 - 50	4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	8 - 27	8 - 27	180 x 90
RAYCAST D16/D25 100016-000		50 - 150	50 - 150	10 - 25	10 - 25	6 - 25	6 - 16	6 - 25	6 - 10	8 - 32	8 - 32	220 x 105
RAYCAST D95 100095-001		120 - 400	95 - 240	25 - 95	16 - 50	25 - 95	16 - 50	25 - 95	10 - 50	15 - 42	8 - 32	315 x 115

T : Through - B : Branch

RAYCAST L-S

Screened joint.



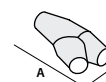
For COPPER cables		Cable formation and conductor cross sections (n° x mm²)				max cables Ø (mm)	Dimension (mm)
PRODUCT / Item		1x	2x	3x	4x		
RAYCAST L10-S 100001-005		2,5 - 50	1,5 - 10	1,5 - 6	1,5 - 6	8 - 27	180 x 50
RAYCAST L25-S 100025-005		16 - 120	4 - 25	4 - 16	2,5 - 16	8 - 32	215 x 55
RAYCAST L35-S 100035-005		16 - 185	16 - 35	16 - 25	16 - 25	12 - 33	232 x 70
RAYCAST L50-S 100050-005		50 - 240	16 - 50	16 - 50	16 - 50	14 - 34	266 x 72
RAYCAST L120-S 100120-005		240 - 500	70 - 120	70 - 120	50 - 95	25 - 50	365 x 95
RAYCAST L240-S 100240-055		400 - 1000	120 - 300	120 - 185	120 - 185	30 - 75	510 x 120

For ALUMINIUM cables		1x	2x	3x	4x	(mm)	(mm)
RAYCAST L50-S 100050-005		16 - 150	16 - 25	16 - 25	16 - 25	14 - 34	266 x 72
RAYCAST L120-S 100120-005		185 - 400	25 - 95	25 - 95	25 - 95	25 - 50	365 x 95
RAYCAST L240-S 100240-055		400 - 630	95 - 185	95 - 185	95 - 185	30 - 75	510 x 120



RAYCAST D-S

Screened joint.



For COPPER cables		Cable formation and conductor cross sections (n° x mm²)								max cables Ø (mm)		Dimension (mm)
PRODUCT / Item		1x		2x		3x		4x		T	B	
RAYCAST D6-S 100006-005		T	B	T	B	T	B	T	B			
RAYCAST D25-S 100017-005		4 - 35	4 - 35	4 - 10	4 - 10	2,5 - 6	1,5 - 6	2,5 - 6	2,5 - 6	8 - 27	8 - 27	180 x 90
RAYCAST D95-S 100950-005		35 - 120	35 - 120	10 - 25	10 - 25	6 - 16	6 - 16	6 - 16	6 - 10	8 - 32	8 - 32	220 x 105
RAYCAST D95-S 100950-005		95 - 300	70 - 150	25 - 95	16 - 50	16 - 70	16 - 35	16 - 50	10 - 35	15 - 42	8 - 32	315 x 115



T : Through - B : Branch



RAYCAST L-ARM

Joint for tape, wire or plate armoured cables.



For COPPER cables		Cable formation and conductor cross sections (n° x mm²)			max cables	Dimension
PRODUCT / Item		2x	3x	4x	Ø (mm)	(mm)
RAYCAST L10-ARM 100001-001		1,5 - 10	1,5 - 6	1,5 - 6	8 - 27	180 x 50
RAYCAST L25-ARM 100002-002		4 - 25	4 - 16	2,5 - 16	8 - 32	215 x 55
RAYCAST L35-ARM 100035-ARM		16 - 35	16 - 25	16 - 25	12 - 33	232 x 70
RAYCAST L50-ARM 100003-001		16 - 50	16 - 50	16 - 50	14 - 34	266 x 72
RAYCAST L120-ARM 100120-002		70 - 120	70 - 120	50 - 95	25 - 50	365 x 95
RAYCAST L240-ARM 100240-LARM		120 - 300	120 - 185	120 - 185	30 - 75	510 x 120
For ALUMINIUM cables		2x	3x	4x	(mm)	(mm)
RAYCAST L50-ARM 100003-001		16 - 25	16 - 25	16 - 25	14 - 34	266 x 72
RAYCAST L120-ARM 100120-002		25 - 95	25 - 95	25 - 95	25 - 50	365 x 95
RAYCAST L240-ARM 100240-LARM		95 - 185	95 - 185	95 - 185	30 - 75	510 x 120



RAYCAST D-ARM

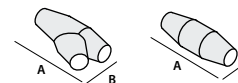
Joint for tape, wire or plate armoured cables.



For COPPER cables		Cable formation and conductor cross sections (n° x mm²)						max cables Ø		
PRODUCT / Item		2x		3x		4x		(mm)		(mm)
		T	B	T	B	T	B	T	B	
RAYCAST D6-ARM-F 100006-002		4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	8 - 27	8 - 27	180 x 90
RAYCAST D16-ARM-F 100016-002		10 - 25	10 - 25	6 - 16	6 - 16	6 - 16	6 - 10	8 - 32	8 - 32	220 x 105
RAYCAST D95-ARM-F 100095-003		25 - 70	16 - 50	25 - 70	16 - 35	25 - 50	10 - 35	15 - 42	8 - 32	315 x 115
For TAPE OR PLATE armoured		2x		3x		4x		(mm)		(mm)
		T	B	T	B	T	B	T	B	
RAYCAST D6-ARM 100006-001		4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	8 - 27	8 - 27	180 x 90
RAYCAST D16-ARM 100016-001		10 - 25	10 - 25	6 - 16	6 - 16	6 - 16	6 - 10	8 - 32	8 - 32	220 x 105
RAYCAST D95-ARM 100095-004		25 - 70	16 - 50	25 - 70	16 - 35	25 - 50	10 - 35	15 - 42	8 - 32	315 x 115

T: Through - B: Branch

JOINTS



RAYCAST LPS / DPS

Joint for very deep submersible pumps.

For **COPPER** cables

PRODUCT	Item	Cable formation and conductor cross sections (n° x mm ²)				max cables Ø (mm)	 (mm)
		1x	2x	3x	4x		
RAYCAST LPS10	100010-LPS	2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10	8 - 27	180 x 50
RAYCAST LPS25	100025-LPS	16 - 150	4 - 25	4 - 25	2,5 - 25	8 - 32	215 x 55
RAYCAST LPS95	100095-LPS	120 - 400	25 - 95	25 - 95	25 - 95	15 - 42	330 x 75
RAYCAST LPS240	100240-LPS	400 - 1000	120 - 300	120 - 240	120 - 240	30 - 75	510 x 120

For **COPPER** cables

PRODUCT		1x		2x		3x		4x		(mm)		(mm)
	Item	T	B	T	B	T	B	T	B	T	B	
RAYCAST DPS6	100006-DPS	4 - 50	4 - 50	4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	8 - 27	8 - 27	180 x 90
RAYCAST DPS25	100025-DPS	50 - 150	50 - 150	10 - 25	10 - 25	6 - 25	6 - 16	6 - 16	6 - 10	8 - 32	8 - 32	220 x 105
RAYCAST DPS95	100095-DPS	120 - 400	95 - 240	25 - 95	16 - 50	25 - 95	16 - 50	25 - 95	10 - 50	15 - 42	8 - 32	315 x 115

T: Through - B: Branch

RAYCAST SL /SD

Joint for signalling and control.

		Conductor (mm²)	Cable formation (n° conductors)												max cables Ø (mm)	
PRODUCT	Item		5x	7x	10x	12x	16x	19x	24x	40x	75x	100x	250x	(mm)		
RAYCAST SL11	100011-OSL	1,5 2,5	• •	• •	• •	• •	• •							8 - 27	180 x 50	
RAYCAST SL12	100012-OSL	1,5 2,5			• •	• •	• •	• •	• •					8 - 32	215 x 55	
RAYCAST SL13	100013-OSL	1,5 2,5					• •	• •	• •	• •				14 - 34	266 x 72	
RAYCAST SL14	100014-OSL	1,5 2,5							• •	• •	• •			15 - 42	330 x 75	
RAYCAST SL15	100015-OSL	1,5 2,5								• •	• •	• •		25 - 50	365 x 95	
RAYCAST SL16	100016-OSL	1,5 2,5									• •	• •	• •	30 - 75	510 x 120	

		Conductor (mm²)	Cable formation (n° conductors)									max cables Ø (mm)		 (mm)
PRODUCT	Item		5x	7x	10x	12x	16x	19x	24x	40x	75x	T	B	
RAYCAST SD1	100001-OSD	1,5 2,5	• •	• •	• •	• •	• •	• •				8 - 27	8 - 27	180 x 90
RAYCAST SD2	100002-OSD	1,5 2,5					• •	• •	• •			8 - 32	8 - 32	220 x 105
RAYCAST SD3	100003-OSD	1,5 2,5						• •	• •	• •	• •	15 - 42	8 - 32	315 x 115

T: Through - B: Branch

RAYCAST TL AND TSL

Straight joint for telephone cable.

UNSCREENED

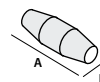
PRODUCT	Item	SCREENED	PRODUCT	Item	N° pairs per conductor cross sections (n° x mm ²)	max cables Ø (mm)	Dimension (mm)
RAYCAST TL16	100016-OTL	RAYCAST TSL16	100016-TSL		1 - 16 x 0,5 - 0,6	8 - 27	180 x 50
RAYCAST TL25	100025-OTL	RAYCAST TSL25	100025-TSL		16 - 25 x 0,5 - 0,6	8 - 32	215 x 55
RAYCAST TL35	100035-OTL	RAYCAST TSL35	100035-TSL		25 - 35 x 0,5 - 0,6	12 - 33	266 x 72
RAYCAST TL40	100040-OTL	RAYCAST TSL40	100040-TSL		35 - 40 x 0,5 - 0,6	15 - 42	330 x 75
RAYCAST TL64	100064-OTL	RAYCAST TSL64	100064-TSL		40 - 64 x 0,5 - 0,6	25 - 50	365 x 95
RAYCAST TL500	100500-OTL	RAYCAST TSL500	100500-TSL		60 - 500 x 0,5 - 0,6	30 - 75	510 x 120





RAYCAST SYSTEM PLUS L

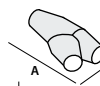
Straight joint + Five-core spacer + Screw connectors.



PRODUCT / Item	Cable formation and conductor cross sections (n° x mm ²)				max cables Ø (mm)	Dimension (mm)
	2x	3x	4x	5x		
RAYCAST SP L6 RAYCASTSPL6	1,5 - 6	1,5 - 6	1,5 - 6	1,5 - 6	8 - 27	180 x 50
RAYCASTSP L16 RAYCASTSPL16	4 - 16	4 - 16	4 - 16	4 - 16	8 - 32	215 x 55
RAYCASTSP L25 RAYCASTSPL25	4 - 25	4 - 25	4 - 25	4 - 25	8 - 32	215 x 65

RAYCAST SYSTEM PLUS Y

Y Branch joint + Five-core spacer + Screw connectors.

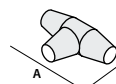


For COPPER cables	Cable formation and conductor cross sections (n° x mm ²)								max cables Ø (mm)	 (mm)
PRODUCT / Item	2x		3x		4x		5x			
	T	B	T	B	T	B	T	B		
RAYCAST SP D6 RAYCASTSPD6	1,5-6	1,5-4	1,5-6	1,5-4	1,5-6	1,5-4	1,5-6	1,5-4	T 8 - 27 B 8 - 27	180 x 90
RAYCAST SP D16 RAYCASTSPD16	4-16	1,5-4	4-16	1,5-4	4-16	1,5-4	4-16	1,5-4	T 8 - 32 B 8 - 32	220 x 105

T : Through - B : Branch

RAYCAST SYSTEM PLUS T

T Branch joint + Four-core spacer + Screw connectors.

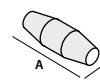


For COPPER cables	Cable formation and conductor cross sections (n° x mm²)						max cables Ø (mm)	
PRODUCT / Item	2x		3x		4x			
	T	B	T	B	T	B		
RAYCAST SP T 35 RAYCASTSPT35	6 - 35	1,5 - 10	6 - 35	1,5 - 10	6 - 35	1,5 - 10	T 22 - 42 B 22 - 42	305 x 155

T : Through - B : Branch

RAYCAST SYSTEM FAST RP

Straight joint + Shear bolt connectors.



PRODUCT / Item	Cable formation from 2x a 4x (n° x mm ²)	max cables Ø (mm)	Dimension (mm)
RAYCAST L 35- RP/16 RAYCASTL35RP16	1,5 - 16	12 - 33	232 x 70
RAYCAST L 35- RP/35 RAYCASTL35RP35	10 - 35	12 - 33	232 x 70
RAYCAST L 50- RP/50 RAYCASTL50RP50	25 - 50	14 - 34	266 x 72
RAYCAST L 120- RP/120 RAYCASTL120RP120	35 - 120	25 - 50	365 x 95
RAYCAST L 240- RP/150 RAYCASTL240RP150	35 - 150	30 - 75	510 x 120

RUBBER JOINT

Straight or branch joint with two-component cast quick cross linking rubber insulation for 0.6/1 kW cables.

With Magic Rubber insulation, designed and developed by Raytech for 0.6/1 kV cables. A range of accessories with extremely high mechanical characteristics, as well as dielectric and thermal properties. The range is re-enterable even after long periods of operation, is free of exotherm during cross linking, is extremely fast-acting and has no shelf life. Significant also for its very low emission of toxic and corrosive gases and fumes. Thanks to its exceptional mechanical characteristics, these joints are especially suitable for placement in traps or channels where there is the possibility of handling even after the laying of cables or, however, in cases of heavy abrasion, or mechanical stress within the normal parameters of installation and operation.

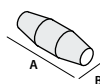
ADVANTAGES

- Quick cross linking rubber (only 15 minutes).
- Very high mechanical and elastic characteristics.
- For 0.6/1 kV extruded cables.
- No shelf life.



RUBBER JOINT

Straight joint for 0.6/1 kV extruded cables.



For COPPER cables	Cable formation and conductor cross sections (n° x mm²)				max cables	Dimension
PRODUCT / Item	1x	2x	3x	4x	Ø (mm)	(mm)
RUBBER JOINT 4 RUBBERJOINT4	1,5 - 25	1,5 - 4	1,5 - 4	1,5 - 4	10 - 18	160 x 45
RUBBER JOINT 10 RUBBERJOINT10	2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10 *	8 - 27	180 x 50
RUBBER JOINT 25 RUBBERJOINT25	16 - 150	4 - 25	4 - 25	2,5 - 25	8 - 32	215 x 55
RUBBER JOINT 35 RUBBERJOINT35	16 - 185	16 - 35	16 - 35	16 - 35	12 - 33	232 x 70
RUBBER JOINT 50 RUBBERJOINT50	50 - 300	16 - 50	16 - 50	16 - 50	14 - 34	266 x 72
RUBBER JOINT 95 RUBBERJOINT95	120 - 400	25 - 95	25 - 95	25 - 95	15 - 42	330 x 75
RUBBER JOINT 120 RUBBERJOINT120	240 - 500	70 - 120	70 - 120	50 - 120	25 - 50	365 x 95
RUBBER JOINT 240 RUBBERJOINT240	400 - 1000	120 - 300	120 - 240	120 - 240	30 - 75	510 x 120
RUBBER JOINT 300 RUBBERJOINT300	630 - 2000	240 - 400	240 - 300	240 - 300	41 - 78	760 x 180

* Rubber Joint 10 suggested for cable diameters smaller than 16 mm.



Electrical performance:

- CEI EN 50393
- with connectors complying with EN 61238-1
- Class 2 in accordance with CEI 64-8.

Working temperature: 90°C

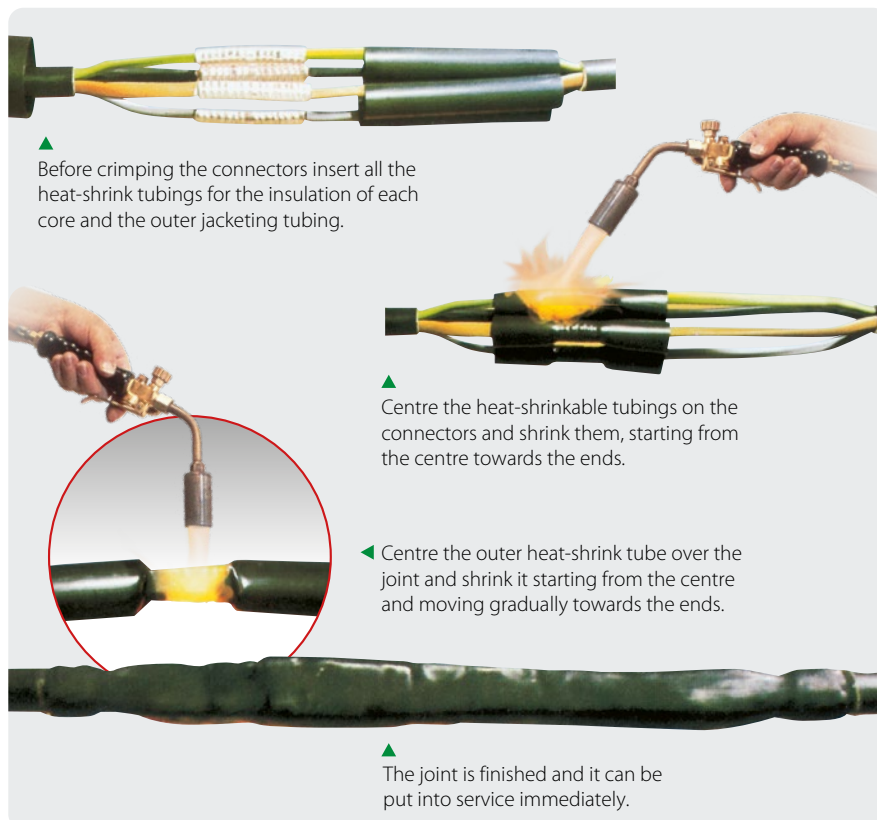
Installation temperature: -15°C / +55°C

Can be used underground

IP68

HEAT-SHRINK

Straight or branch heat-shrinkable joints for extruded insulation cables up to a 1 kV.

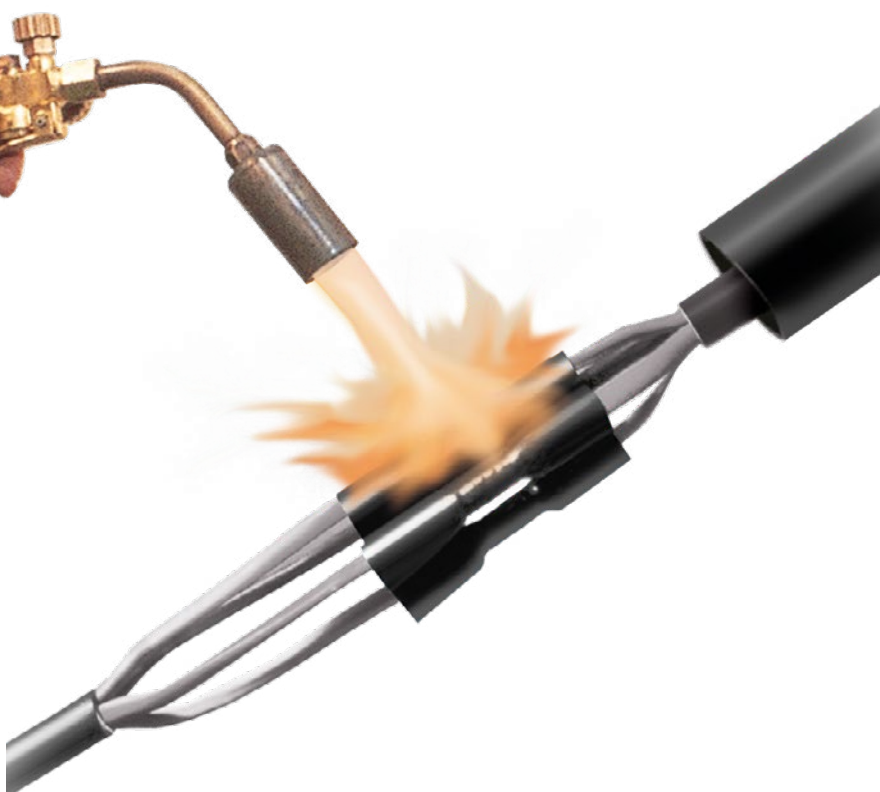


Electrical performance:

- CEI EN 50393
with connectors complying with EN 61238-1
- Class 2 in accordance with CEI 64-8.

🌡 Working temperature: 90°C

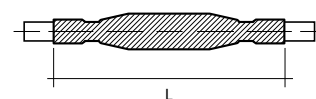
🌡 Installation temperature: -15°C / +45°C



GDL

Joint for single core cables including concentric neutral.

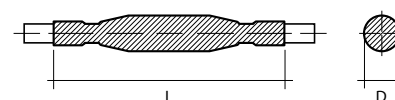
PRODUCT / Item	Conductor cross section mm ²		Dimension L (mm)
	from	to	
GDL 92 A1 224578-TEC	4	10	300
GDL 92 A2 945252-TEC	16	150	300
GDL 92 A3 935251-000	185	400	300
GDL 92 PA 210254-TEC	10	50	300



GLV

Joint for multi core cables (also for submersible pumps).

PRODUCT / Item	Conductor cross section mm ²		Number of phases	Dimension	
	from	to		L (mm)	D (mm)
GLV 0306 254656-TEC	1,5	6	3	250	18
GLV 0316 224477-TEC	10	16	3	400	37
GLV 0335 554268-TEC	25	35	3	550	43
GLV 0370 457896-TEC	50	70	3	650	52
GLV 3150 789992-000	95	150	3	800	65
GLV 3300 789994-000	185	300	3	900	82
GLV 0406 336598-TEC	1,5	6	4	250	20
GLV 0416 789890-000	10	16	4	400	40
GLV 0435 789891-000	25	35	4	650	45
GLV 0470 234477-TEC	50	70	4	650	54
GLV 4150 482979-000	95	150	4	800	67
GLV 4300 609695-000	185	300	4	900	84
GLV 2,5 - CP 411124-TEC	2,5 complete with connectors		4	300	15

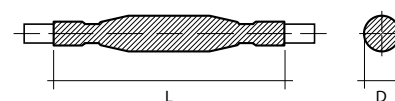


For both copper and aluminium cables. For aerial, underground, submerged installation.

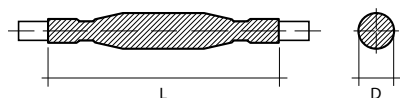
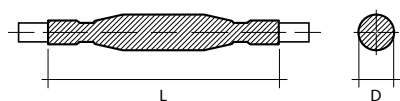
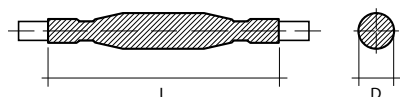
GLV-N

Joint for multi core cables with concentric neutral.

PRODUCT / Item	Conductor cross section mm ²		Number of phases	Dimension	
	from	to		L (mm)	D (mm)
GLV 0306 - N 788459-000	1,5	6	3	250	18
GLV 0316 - N 788429-000	10	16	3	400	37
GLV 0335 - N 788460-000	25	35	3	550	43
GLV 0370 - N 788461-000	50	70	3	650	52
GLV 3150 - N 788462-000	95	150	3	800	65
GLV 3300 - N 210054-TEC	185	300	3	900	82
GLV 0406 - N 789995-000	1,5	6	4	250	20
GLV 0416 - N 789996-000	10	16	4	400	40
GLV 0435 - N 789997-000	25	35	4	650	45
GLV 0470 - N 789998-000	50	70	4	650	54
GLV 4150 - N 405718-000	95	150	4	800	67
GLV 4300 - N 788463-000	185	300	4	900	84



These kits include components for the phase insulation, metallic braiding to replace the neutral and external self-sealing heat-shrinkable tube.



GLV-ARM

Joint for armoured multi core cables.

For armoured tape cables		Conductor cross section (mm ²)		Dimension	
PRODUCT / Item		from	to	L (mm)	D (mm)
GLV 0406-ARM	788969-000	1,5	6	300	25
GLV 0416-ARM	307689-000	6	16	400	40
GLV 0450-ARM	630855-000	25	50	800	60
GLV 4150-ARM	378703-000	70	150	1000	100
GLV 4300-ARM	152410-000	185	300	1000	120

BOPA

Joint for MV cables for public lighting.

PRODUCT / Item	Operating voltage kV	Number of phases	Section (mm ²)	Dimension	
				L (mm)	D (mm)
BOPA 3 BOPA3-TEC	3	1	1x10	300	50
BOPA 4 BOPA4-TEC	3	2	2x10	450	60
BOPA 5 BOPA5-TEC	3	3	3x10	450	70
BOPA 3/2 BOPA3/2-TEC	3,6	1 + concentric neutral	1 x 6 + 6 concentric	700	35
BOPA 4/T transition 784472-TEC	3	2	2,5 - 10 paper / 10 - 50 extruded	750	40

DJ

LV branch joint.

PRODUCT / Item	Single core cables cross section (mm ²)		Multi core cables cross section (mm ²)		Dimension	
	Through	Branch	Through	Branch	L (mm)	D (mm)
DJ01 416127-000	1 x 4 - 50	1 x 2,5 - 50	4 x 1,5 - 10	2 x 1,5	200	25
DJ02 396633-000	1 x 50 - 120	1 x 6 - 120	4 x 16 - 25 2 single core cables 1 x 6 - 50	2 x 1,5 1 two core cable 2 x 2,5	250	40
DJ03 396634-000	1 x 150 - 300	1 x 6 - 300	4 x 25 - 3,5 x 50	4 x 2,5 - 25	400	70

GLV SYSTEM FAST RP

Straight joint + Shear bolt connectors.

PRODUCT / Item	Cable formation 4x (n° x mm ²)	Dimension L x D (mm)
GLV 0435- RP/16 GLV0435RP16	6 - 16	650 x 50
GLV 0470- RP/35 GLV0470RP35	25 - 35	650 x 70
GLV 0470- RP/50 GLV0470RP50	25 - 50	650 x 75
GLV 4150- RP/150 GLV4150RP150	50 - 150	800 x 80

GLV F/R - GMP F/R

Joint for flame resistant cables (0,6/1 kV).

For NAVAL TYPE POWER cables

UNARMoured	Cable formation (n° x mm²)	L (mm)	ARMoured	Cable formation (n° x mm²)	L (mm)
PRODUCT / Item			PRODUCT / Item		
GLV 4004-F/R GLV4004-F/R	4 x 1,5 - 4	300	GLV 4004-ARM-F/R GLV4004-ARM-F/R	4 x 1,5 - 4	400
GLV 4016-F/R GLV4016-F/R	4 x 6 - 16	300	GLV 4016-ARM-F/R GLV4016-ARM-F/R	4 x 6 - 16	400
GLV 4050-F/R GLV4050-F/R	4 x 25 - 50	400	GLV 4050-ARM-F/R GLV4050-ARM-F/R	4 x 25 - 50	500
GLV 4150-F/R GLV4150-F/R	4 x 70 - 150	500	GLV 4150-ARM-F/R GLV4150-ARM-F/R	4 x 70 - 150	750

For NAVAL TYPE signalling and control cables

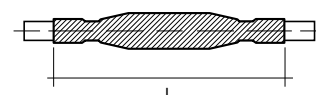
UNARMoured	Cable formation (n° x mm²)	L (mm)	ARMoured	Cable formation (n° x mm²)	L (mm)
PRODUCT / Item			PRODUCT / Item		
GMP 007-F/R GMP007-F/R	4 - 7 x 1,5 - 2,5	300	GMP 007-ARM-F/R GMP007-ARM-F/R	4 - 7 x 1,5 - 2,5	300
GMP 014-F/R GMP014-F/R	10 - 14 x 1,5 - 2,5	300	GMP 014-ARM-F/R GMP014-ARM-F/R	10 - 14 x 1,5 - 2,5	300
GMP 030-F/R GMP030-F/R	16 - 30 x 1,5 - 2,5	400	GMP 030-ARM-F/R GMP030-ARM-F/R	16 - 30 x 1,5 - 2,5	400

For UNDERGROUND POWER cables

UNARMoured	Cable formation (n° x mm²)	L (mm)	ARMoured	Cable formation (n° x mm²)	L (mm)
PRODUCT / Item			PRODUCT / Item		
GLV 4006-F/R-G7 GLV4006-F/R-G7	4 x 1,5 - 6	300	GLV 4006-ARM-F/R-G7 GLV4006-ARM-F/R-G7	4 x 1,5 - 6	400
GLV 4016-F/R-G7 GLV4016-F/R-G7	4 x 6 - 16	300	GLV 4016-ARM-F/R-G7 GLV4016-ARM-F/R-G7	4 x 6 - 16	400
GLV 4050-F/R-G7 GLV4050-F/R-G7	4 x 25 - 50	400	GLV 4050-ARM-F/R-G7 GLV4050-ARM-F/R-G7	4 x 25 - 50	500
GLV 4150-F/R-G7 GLV4150-F/R-G7	4 x 70 - 150	500	GLV 4150-ARM-F/R-G7 GLV4150-ARM-F/R-G7	4 x 70 - 150	750

For UNDERGROUND signalling and control cables

UNARMoured	Cable formation (n° x mm²)	L (mm)	ARMoured	Cable formation (n° x mm²)	L (mm)
PRODUCT / Item			PRODUCT / Item		
GMP 014-F/R-G7 GMP014-F/R-G7	Up to 14 x 1,5 - 2,5	300	GMP 014-ARM-F/R-G7 GMP014-ARM-F/R-G7	Up to 14 x 1,5 - 2,5	400
GMP 019-F/R-G7 GMP019-F/R-G7	Up to 19 x 1,5 - 2,5	400	GMP 019-ARM-F/R-G7 GMP019-ARM-F/R-G7	Up to 19 x 1,5 - 2,5	500

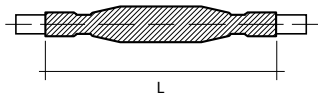
**Electrical performance:**

- **CEI EN 50393**
with connectors complying with **EN 61238-1**
- **Class 2** in accordance with **CEI 64-8**.

No flame propagation:

IEC 60331-21 • CEI 20-36/2-1
(as applicable).

For other formations and cable sections please contact Raytech.



DJ F/R

Branch joint for flame resistant cables (0,6/1 kV).

For POWER cables

UNARMoured		ARMoured		Cable formation (n° x mm²)		L (mm)
PRODUCT / Item		PRODUCT / Item		Through	Branch	
DJ 4016 - F/R DJ4016FR		DJ 4016 - ARM-F/R DJ4016-ARM-FR		3 - 4 x 1,5 - 16	3 - 4 x 1,5 - 16	300

GMP

Joining kits for multi conductor cables
for signalling, command and control.

NON ARMoured cable		N° of conductors		Section mm²		External Ø of cable	
PRODUCT / Item		from	to	from	to	min (mm)	max (mm)
GMP 007	786768-000	4	7	1,0	2,5	8	19
GMP 014	666635-TEC	8	14	1,0	2,5	12	22
GMP 021	786272-000	15	21	1,0	2,5	15	27
GMP 040	786684-000	22	40	1,0	2,5	20	35
GMP 075	786683-000	41	75	1,0	2,5	26	44
GMP 100	786688-000	76	100	1,0	2,5	26	60

ARMoured cable		N° of conductors		Section mm²		External Ø of cable	
PRODUCT / Item		from	to	from	to	min (mm)	max (mm)
GMP 007-A	786686-000	4	7	1,0	2,5	14	23
GMP 014-A	786687-000	8	14	1,0	2,5	15	26
GMP 021-A	786785-000	15	21	1,0	2,5	24	35
GMP 040-A	786356-000	22	40	1,0	2,5	30	45
GMP 075-A	786689-000	41	75	1,0	2,5	39	55

GMC

Joining kits for multi pair cables
for communication, command and control.

NON ARMoured cable		N° of pairs		Section mm²		External Ø of cable	
PRODUCT / Item		from	to	from	to	min (mm)	max (mm)
GMC 010	939629-000	5	10	2 x 0,6	2 x 1,0	9	14
GMC 020	786828-000	11	20	2 x 0,6	2 x 1,0	13	20
GMC 030	946619-000	21	30	2 x 0,6	2 x 1,0	16	24
GMC 050	934676-000	31	50	2 x 0,6	2 x 1,0	22	29
GMC 100	156732-000	51	100	2 x 0,6	2 x 1,0	30	40

ARMoured cable		N° of pairs		Section mm²		External Ø of cable	
PRODUCT / Item		from	to	from	to	min (mm)	max (mm)
GMC 004-A	802965-000	1	4	2 x 0,6	2 x 1,0	15	23
GMC 007-A	786769-000	5	7	2 x 0,6	2 x 1,0	15	26
GMC 019-A	803162-000	8	19	2 x 0,6	2 x 1,0	24	35
GMC 037-A	786412-000	20	37	2 x 0,6	2 x 1,0	30	45
GMC 061-A	786355-000	38	61	2 x 0,6	2 x 1,0	39	55

HEAT-SHRINK TERMINATIONS

TLV

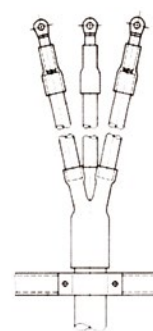
Terminations for armoured and non armoured extruded cables up to 1 kV.

NON ARMoured extruded cables

PRODUCT / Item	
TLV 0216	946613-000
TLV 0316	496973-000
TLV 0416	288775-000
TLV 0250	101526-000
TLV 0350	786134-000
TLV 0450	786200-000
TLV 3150	786220-000
TLV 4150	597107-000
TLV 3300	208159-000
TLV 4300	063097-000

Extruded cables with WIRE ARMOUR

PRODUCT / Item		Conductor section mm ²		Number of phases
		from	to	
TLV 0216 - AF	106391-000	4	16	2
TLV 0316 - AF	178316-000	4	16	3
TLV 0416 - AF	121775-000	4	16	4
TLV 0250 - AF	024865-000	25	50	2
TLV 0350 - AF	179335-000	25	50	3
TLV 0450 - AF	868777-000	25	50	4
TLV 3150 - AF	181196-000	70	150	3
TLV 4150 - AF	223409-000	70	150	4
TLV 3300 - AF	181097-000	185	300	3
TLV 4300 - AF	803719-000	185	300	4
TLV 4500 - AF	915556-000	500		4

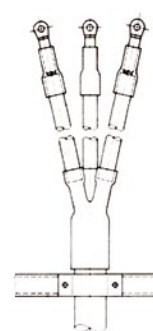


Include sheath to cover phases, sealing of the point of divergence of phases and sealing between phase and cable terminal.

TLV 500

Terminations for concentric neutral extruded cables up to 1 kV.

PRODUCT / Item		Conductor section mm ²		Number of phases
		from	to	
TLV 0116 - 500	181198-000	4	16	1
TLV 0216 - 500	181198-001	4	16	2
TLV 0316 - 500	816659-000	4	16	3
TLV 0150 - 500	181198-002	25	50	1
TLV 0250 - 500	181198-003	25	50	2
TLV 0350 - 500	828617-000	25	50	3
TLV 2150 - 500	179925-000	70	150	2
TLV 3150 - 500	181198-004	70	150	3
TLV 2300 - 500	181198-005	185	300	2
TLV 3300 - 500	909765-000	185	300	3

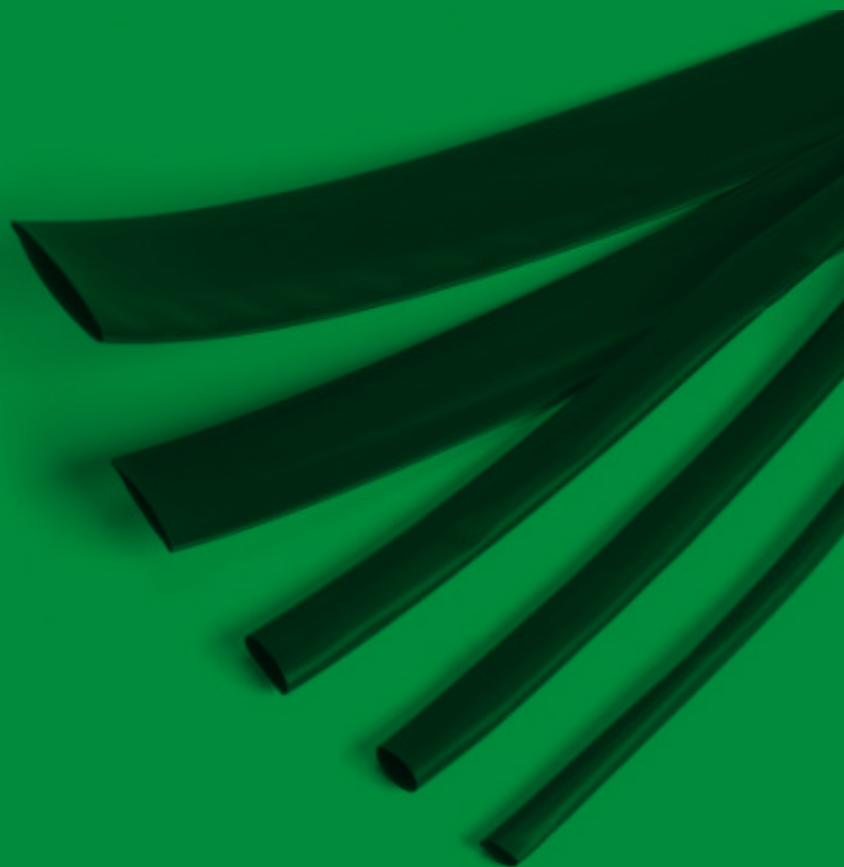


Include sheath to cover the concentric conductor.



**LOW VOLTAGE
OTHERS**

**HEAT-SHRINK SHEATHS
INSULATION TAPES
CABLE PULLERS
FIRE STOP BARRIERS
SPECIALS**



 Operating temperature: -55°C / +125°C

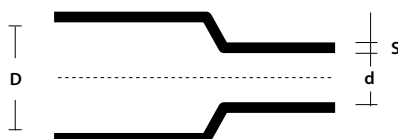
Tensile resistance	10,4 Min
Elongation	200 % Min
Tensile resistance after ageing	7,3 Min
Elongation after ageing	100 % Min
Dielectric strength	20 kV/mm
Flammability	VW1*
Minimum shrinkage temperature	110°C

* except transparent sheath.

THIN-WALL SHEATHS

Flexible heat-shrink modified polyolefin sheaths, cross linked by means of radiation. Longitudinal shortening up to 15%. Suitable for insulation and covering of conductors and their connections, bars. etc. Replace self-adhesive, self-amalgamating insulating tapes.

- Black
- Red
- Blue
- Yellow
- White
- ① Transparent
- Yellow Green



D = min. Ø before shrinkage

d = max. Ø after free shrinkage

S = min. rated thickness after free shrinkage (+/- 20%)



LST-TEC

Heat-shrink sheaths in dispensers for commercial use.

PRODUCT	Item	Colour	D (mm)	d (mm)	S (mm)	Lenght (m)
LST-TEC 1,6 *	6635996003	●	1,6	0,8	0,50	10
LST-TEC 2,4 *	7284836003	●	2,4	1,2	0,55	10
LST-TEC 3,2 *	0316676003	●	3,2	1,6	0,55	10
LST-TEC 4,8 *	3876656003	●	4,8	2,4	0,55	9
LST-TEC 6,4 *	3363736003	●	6,4	3,2	0,65	8
LST-TEC 9,5 *	0915756003	●	9,5	4,8	0,65	6
LST-TEC 12,7 *	1963796004	●	12,7	6,4	0,65	6
LST-TEC 19,0 *	9601076004	●	19,0	9,5	0,80	5
LST-TEC 25,4 *	2348536003	●	25,4	12,7	0,95	3
LST-TEC-GV 3/1,5	5038106035	●	3	1,5	0,51	7
LST-TEC-GV 4,8/2,4	5038815824	●	4,8	2,4	0,55	10
LST-TEC-GV 6/3	5038606049	●	6	3	0,58	5
LST-TEC-GV 10/5	5038816019	●	10	5	0,64	4
LST-TEC-GV 12/6	5038812764	●	12	6	0,65	7
LST-TEC-GV 19/9	5038496027	●	19	9	0,74	3
LST-TEC-GV 26/13	5038186026	●	26	16	0,89	2,5

* Also available in blue colour ● in red colour ● - See codes on page 126



RAY ROLL

Heat-shrink sheaths in dispensers for industrial use.

PRODUCT	Item	Colour	D (mm)	d (mm)	S (mm)	Lenght (m)
RAY ROLL 1,6	RAYROLL-1.6	●	1,6	0,8	0,50	20
RAY ROLL 2,4	RAYROLL-2.4	●	2,4	1,2	0,55	20
RAY ROLL 3,2	RAYROLL-3.2	●	3,2	1,6	0,55	10
RAY ROLL 4,8	RAYROLL-4.8	●	4,8	2,4	0,55	10
RAY ROLL 6,4	RAYROLL-6.4	●	6,4	3,2	0,65	10
RAY ROLL 9,5	RAYROLL-9.5	●	9,5	4,8	0,65	10
RAY ROLL 12,7	RAYROLL-12.7	●	12,7	6,4	0,65	10
RAY ROLL 19,0	RAYROLL-19.0	●	19,0	9,5	0,80	5
RAY ROLL 25,4	RAYROLL-25.4	●	25,4	12,7	0,95	5

MAXI ROLL

Heat-shrink sheaths in maxi dispensers for industrial use.

PRODUCT	Item	Colour	D (mm)	d (mm)	S (mm)	Spool (m)
MAXI ROLL 1,6	MAXIROLL-1.6	●	1,6	0,8	0,50	300
MAXI ROLL 2,4	MAXIROLL-2.4	●	2,4	1,2	0,55	300
MAXI ROLL 3,2	MAXIROLL-3.2	●	3,2	1,6	0,55	300
MAXI ROLL 4,8	MAXIROLL-4.8	●	4,8	2,4	0,55	150
MAXI ROLL 6,4	MAXIROLL-6.4	●	6,4	3,2	0,65	75
MAXI ROLL 9,5	MAXIROLL-9.5	●	9,5	4,8	0,65	150
MAXI ROLL 12,7	MAXIROLL-12.7	●	12,7	6,4	0,65	150
MAXI ROLL 19,0	MAXIROLL-19.0	●	19,0	9,5	0,80	75
MAXI ROLL 25,4	MAXIROLL-25.4	●	25,4	12,7	0,95	60

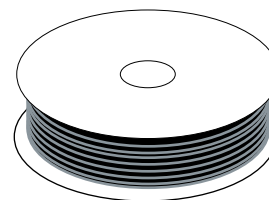


CGP-TEC

Heat-shrink sheaths for commercial use.

PRODUCT	Item	Colour	D (mm)	d (mm)	S (mm)	Spool (m)
CGP-TEC 1,2/0,6	5069794007	●	1,2	0,6	0,45	600
CGP-TEC 1,6/0,8	5069804009	●	1,6	0,8	0,45	300
CGP-TEC 2,4/1,2	5069814012	●	2,4	1,2	0,50	300
CGP-TEC 3,2/1,6	5069824023	●	3,2	1,6	0,50	300
CGP-TEC 4,8/2,4	5069834023	●	4,8	2,4	0,50	150
CGP-TEC 6,4/3,2	5069844021	●	6,4	3,2	0,65	75
CGP-TEC 9,5/4,8	5069854021	●	9,5	4,8	0,65	150
CGP-TEC 12,7/6,4	5069864018	●	12,7	6,4	0,65	150
CGP-TEC 19/9,5	5069874011	●	19,0	9,5	0,75	75
CGP-TEC 25,4/12,7	5069884015	●	25,4	12,7	0,90	60
CGP-TEC 38/19	5069894005	●	38,0	19,0	1,00	60
CGP-TEC 51/26	5069904003	●	51,0	26	1,15	30
CGP-TEC 76/38	5067104003	●	76,0	38,0	1,27	15
CGP-TEC 102/51	5067164001	●	102,0	51,0	1,40	15

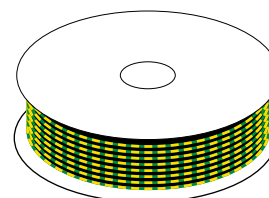
Also available in Red, Blue, Yellow, White, Transparent colours ●●●○Ⓢ - See codes on page 126



DCP-TEC

Heat-shrink sheaths suitable for coating grounding cables.

PRODUCT	Item	Colour	D (mm)	d (mm)	S (mm)	Spool (m)
DCP-TEC 3/1,5	5038104002	●	3,0	1,5	0,51	300
DCP-TEC 6/3	5038604008	●	6,0	3,0	0,58	75
DCP-TEC 10/5	5038814001	●	10,0	5,0	0,64	75
DCP-TEC 12/6	5038114002	●	12,0	6,0	0,64	75
DCP-TEC 19/9	5038494001	●	19,0	9,0	0,74	75
DCP-TEC 26/13	5038184001	●	26,0	13,0	0,89	30
DCP-TEC 38/19	5673904001	●	38,0	19,0	1,00	60



 **Operating temperature:** -55°C / +125°C

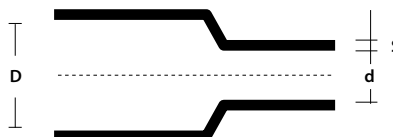
Tensile resistance	10,4 Min
Elongation	200 % Min
Tensile resistance after ageing	7,3 Min
Elongation after ageing	100 % Min
Dielectric strength	20 kV/mm
Flammability	VW1*
Minimum shrinkage temperature	110°C

* except transparent sheath.

SHEATHS IN BARS

Flexible heat-shrink modified polyolefin sheaths, cross linked by means of radiation. Longitudinal shortening up to 15%. Suitable for insulation and covering of conductors and their connections, bars. etc. Replace self-adhesive, self-amalgamating insulating tapes.

- Black
- Red
- Blue
- Yellow
- White
- ⓘ Transparent
- Yellow Green

 **Minimum shrinkage temperature:** 125°C


D = min. Ø before shrinkage

d = max. Ø. after free shrinkage

S = min. rated thickness after free shrinkage (+/- 20%)



RDCT-B

Yellow green tube for general use in bars.

Shrinkage ratio **2:1**

PRODUCT	Item	Colour	D (mm)	d (mm)	S (mm)	Bars (m)
RDCT-B 3/1,5	315002-BAR	●	3,0	1,5	0,51	1,2
RDCT-B 6/3	630045-BAR	●	6,0	3,0	0,58	1,2
RDCT-B 10/5	105004-BAR	●	10,0	5,0	0,64	1,2
RDCT-B 12/6	126040-BAR	●	12,0	6,0	0,64	1,2
RDCT-B 19/9	199550-BAR	●	19,0	9,0	0,74	1,2
RDCT-B 26/13	261345-BAR	●	26,0	13,0	0,89	1,2



RGPO-B

Tube for general use in bars.

Shrinkage ratio **2:1**

PRODUCT	Item	Colour	D (mm)	d (mm)	S (mm)	Bars (m)
RGPO-B 2,4/1,2	241200-BAR	●	2,4	1,2	0,50	1,2
RGPO-B 3,2/1,6	321600-BAR	●	3,2	1,6	0,50	1,2
RGPO-B 4,8/2,4	482400-BAR	●	4,8	2,4	0,50	1,2
RGPO-B 6,4/3,2	643200-BAR	●	6,4	3,2	0,65	1,2
RGPO-B 9,5/4,8	954800-BAR	●	9,5	4,8	0,65	1,2
RGPO-B 12,7/6,4	127640-BAR	●	12,7	6,4	0,65	1,2
RGPO-B 19/9,5	199500-BAR	●	19,0	9,5	0,75	1,2
RGPO-B 25,4/12,7	254120-BAR	●	25,4	12,7	0,90	1,2
RGPO-B 38/19	381900-BAR	●	38,0	19,0	1,00	1,2
RGPO-B 51/26	512600-BAR	●	51,0	26	1,15	1,2

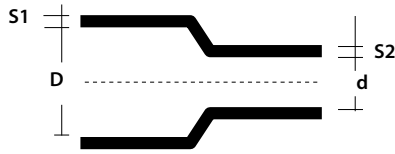
Shrinkage ratio **3:1**

RGPO-B-3/1-NERO	RGPOB-3/1-N	●	3,0	1,0	0,50	1,2
RGPO-B-4,5/1,5-NERO	RGPOB-4.5/1.5-N	●	4,5	1,5	0,60	1,2
RGPO-B-6/2-NERO	RGPOB-6/2-N	●	6,0	2,0	0,65	1,2
RGPO-B-9/3-NERO	RGPOB-9/3-N	●	9,0	3,0	0,75	1,2
RGPO-B-12/4-NERO	RGPOB-12/4-N	●	12,0	4,0	0,80	1,2
RGPO-B-18/6-NERO	RGPOB-18/6-N	●	18,0	6,0	0,90	1,2
RGPO-B-24/8-NERO	RGPOB-24/8-N	●	24,0	8,0	1,00	1,2
RGPO-B-39/13-NERO	RGPOB-39/13-N	●	39,0	13,0	1,20	1,2

Also available in Red, Blue, White, Transparent colours ● ● ○ ⓘ - See codes on page 126

RAY-TUM

Sheaths in bars with adhesive.



D = min. Ø before shrinkage
d = max. Ø after free shrinkage
S1 = rated thickness as supplied
S2 = min. rated thickness after free shrinkage

Shrinkage ratio **3:1**

PRODUCT	Item	Colour	D (mm)	d (mm)	S ₂ (mm)	S ₁ (mm)	Bars (m)
RAY-TUM-3/1-0	5504062059	●	3	1	1,00	0,5	1,2
RAY-TUM-6/2-0	5509092033	●	6	2	1,00	0,5	1,2
RAY-TUM-9/3-0	5507832055	●	9	3	1,40	0,6	1,2
RAY-TUM-12/4-0	5509102048	●	12	4	1,75	0,7	1,2
RAY-TUM-19/6-0	5067452035	●	19	6	2,25	0,8	1,2
RAY-TUM-24/8-0	5509112040	●	24	8	2,50	1,0	1,2
RAY-TUM-40/13-0	5509122053	●	40	13	2,50	1,0	1,2

Operating temperature: -55°C / +125°C

Tensile resistance	10,4 MPa min
Elongation	200 % min
Tensile resistance after ageing	7,3 MPa min
Elongation after ageing	100 % min
Thermal shock 4h a 250°C	No-drip No breaking
Flexibility at low temperature (1h a -30°C)	No breaking
Dielectric strength	Min 15,8 kV/mm
Resistance to fluids (lubricant oil, hydraulic fluid, diesel)	

THERMO MINI MIX

Pre-cut heat-shrink sheaths kit.

Ready-for-installation heat-shrink sheaths in a practical, multi-compartment box divided by diameter. Indispensable for Electrical systems, as a replacement for taped insulation, wiring of all types, switchboards, Hi-Fi, hobbies, DIY.

ADVANTAGES

- Wide range of diameters and colours.
- Always ready, quick application.
- Flexible.

BLACK COLOUR PRODUCT	MIXED COLOURS PRODUCT	Ø before and after shrinkage (mm)	Length of sheath (mm)	Pieces for box
THERMO MINI MIX-N THERMOMIN-N	THERMO MINI MIX-MC THERMOMIN-MC	1,0 / 0,5	97	60
		2,0 / 1,0	97	40
		3,0 / 1,5	97	30
		4,5 / 2,25	97	20
		6,0 / 3,0	97	10
		9,0 / 4,5	97	10





D = min. Ø before shrinkage
d = max. Ø after free shrinkage
S1 = rated thickness as supplied
S2 = min. rated thickness after free shrinkage

Operating temperature: -55°C / +125°C

Tensile resistance	12 MPa min
Elongation	350% min
Tensile resistance after ageing	12 MPa
Elongation after ageing	300% min
Dielectric strength	12 kV/mm min
Minimum shrinkage temperature	125°C

HF Halogen Free

MEDIUM-WALL SHEATHS

Heat-shrink modified polyolefin sheaths, cross linked by means of radiation for insulation, sealing and LV component protection. It is in fact used for restoring insulation and for the outer covering of LV cables and wherever optimal mechanical characteristics are required for resistance to impact, abrasion, general weathering including UV radiation, or for use in under water environments. Used for the insulation of bars or naked LV connections with optimal mechanical resistance for sealing, especially if used with hot-melt adhesive, and for anti-corrosion protection. Also replaces self-adhesive and self-amalgamating tapes.

MTR	WITH ADHESIVE	WITHOUT ADHESIVE	Applications by Ø		D	d	S ₁	S ₂
PRODUCT	Item	Item	from (mm)	to (mm)	(mm)	(mm)	(mm)	(mm)
MTR 10/3*	488809-000	854745-000	3,5	9,0	10	3	0,3	1,0
MTR 16/5*	925679-000	411365-000	5,5	14,0	16	5	0,3	1,4
MTR 25/8*	717783-000	082743-000	8,5	22,0	25	8	0,4	2,0
MTR 35/12*	064641-000	089407-000	13,0	32,0	35	12	0,4	2,0
MTR 50/16*	046911-000	738765-000	17,5	45,0	50	16	0,5	2,0
MTR 63/19*	223993-000	644113-000	21,0	57,0	63	19	0,6	2,4
MTR 75/22*	237137-000	605711-000	24,0	68,0	75	22	0,6	2,7
MTR 85/25*	727282-000	917867-000	28,0	77,0	85	25	0,6	2,8
MTR 95/29*	498559-000	355919-000	32,0	86,0	95	29	0,7	3,1
MTR 115/34*	827835-000	036893-000	37,0	104,0	115	34	0,7	3,1
MTR 140/42*	891939-000	149759-000	46,0	126,0	140	42	0,7	3,1
MTR 160/55*	474381-000	938745-000	55,0	144,0	160	55	0,7	3,2
MTR 180/60*	323497-000	827643-000	66,0	162,0	180	60	0,7	3,2

* Complete the item code adding the length (in mm), adhesive (/172) or without adhesive (/U).

MTN

Suitable for submersible pumps

WITH ADHESIVE		Applications by Ø		D	d	S ₁	S ₂
PRODUCT	Item	from (mm)	to (mm)	(mm)	(mm)	(mm)	(mm)
MTN 10/3*	MTN1031000172	3,5	9,0	10	3	0,3	1,0
MTN 16/5*	MTN1651000172	5,5	14,0	16	5	0,3	1,4
MTN 25/8*	MTN2581000172	8,5	22,0	25	8	0,4	2,0
MTN 35/12*	MTN35121000172	13,0	32,0	35	12	0,4	2,0
MTN 50/16*	MTN50161000172	17,5	45,0	50	16	0,5	2,0
MTN 63/19*	MTN63191000172	21,0	57,0	63	19	0,6	2,4
MTN 75/22*	MTN75221000172	24,0	68,0	75	22	0,6	2,7
MTN 85/25*	MTN85251000172	28,0	77,0	85	25	0,6	2,8
MTN 95/29*	MTN95291000172	32,0	86,0	95	29	0,7	3,1
MTN 115/34*	MTN115341000172	37,0	104,0	115	34	0,7	3,1

* Complete the item code adding the length (in mm).

HEAVY-WALL SHEATHS

RAY-CSM heat-shrink tubular sheath is very thick and has been designed for uses requiring exceptional mechanical characteristics. Its ideal field of application is in underwater or directly underground environments, or where exceptional resistance to abrasion and impact is required, but also outstanding resistance to weathering, including UV radiation, for sealing, especially if used with hot-melt adhesive, and for anti-corrosion protection.

RAY-CSM

PRODUCT	Item	Applications by Ø		D	d	S ₁	S ₂
		from (mm)	to (mm)	(mm)	(mm)	(mm)	(mm)
Ray-CSM 12/3*	672693-000	3,5	10	12	3	0,8	2,0
Ray-CSM 16/4*	542973-000	4,5	14	16	4	0,9	2,4
Ray-CSM 24/6*	050119-000	6,5	22	24	6	1,0	2,7
Ray-CSM 34/8*	453083-000	9	31	34	8	1,3	4,0
Ray-CSM 48/12*	582237-000	13	44	48	12	1,5	4,5
Ray-CSM 56/16*	898079-000	17,5	50	56	16	1,5	4,4
Ray-CSM 70/21*	862223-000	22	63	70	21	1,4	4,4
Ray-CSM 90/25*	862225-000	27	81	90	25	1,3	4,3
Ray-CSM 110/30*	934589-000	33	100	110	30	1,2	4,3
Ray-CSM 130/36*	833598-000	38	118	130	36	1,2	4,3
Ray-CSM 160/50*	430277-000	55	144	160	50	1,0	4,3
Ray-CSM 180/50*	237977-000	55	162	180	50	1,0	4,3

* Complete the item code adding the length (mm), adhesive (/172).

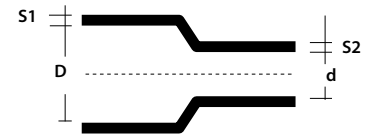
WRAP AROUND

Wrap around heat-shrink sheath for repairing plastic or metal cable sheaths. It combines the previously seen mechanical, protective and sealing properties of tubular junctions with easy of application and closing. Indispensable when cable cutting is not possible. Does not require pre-insertion, reducing the space necessary for its application.

RAY-RSM

	1000	1500	Ø Cable (mm)		D	d
PRODUCT	Item	Item	from	to	(mm)	(mm)
Ray-RSM 34/10*	406345-000	240699-000	12	21	34	10
Ray-RSM 53/13*	279727-000	505955-000	15	32	53	13
Ray-RSM 84/20*	953639-000	219483-000	23	50	84	20
Ray-RSM 107/29*	395359-000	546145-000	34	65	107	29
Ray-RSM 143/36*	002611-000	091525-000	42	86	143	36
Ray-RSM 198/55*	318575-000	247637-000	62	120	198	55
Ray-RSM 250/98*	595947-000	247698-000	111	150	250	98

* Complete the item code adding the length (mm) and adhesive (/232).



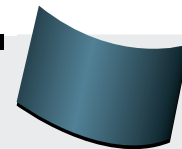
D = min. Ø before shrinkage
d = max. Ø after free shrinkage
S1 = rated thickness as supplied
S2 = min. rated thickness after free shrinkage



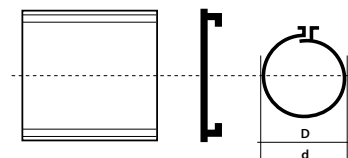
Operating temperature: -55°C / +125°C

Tensile resistance	12 MPa min
Elongation	350% min
Tensile resistance after ageing	12 MPa
Elongation after ageing	300% min
Dielectric strength	12 kV/mm min
Minimum shrinkage temperature	125°C

HF Halogen Free



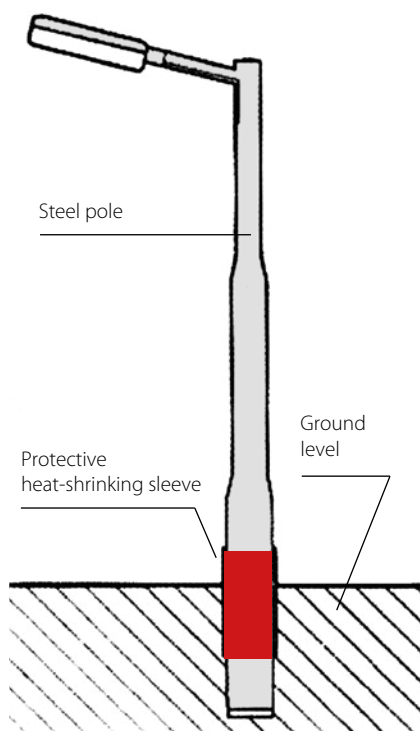
WRAP
AROUND



D = min. Ø before shrinkage
d = max. Ø after free shrinkage

Tensile resistance	17 MPa (min)
Elongation	350 % (min)
Density	1,0-1,2 g/cm ³
Hardness	50-70 Shore D
Thermal duration	120°C
Flexibility at low temperature	4h a -40°C Non-crackin
Dielectric strength	Wall 1 mm 180 kV/cm Wall 3,5 mm 120 kV/cm

HF Halogen Free



ANTI-CORROSION POLE PROTECTION

On installed poles, the section most vulnerable to corrosion is right above and below ground. This section is attacked by corrosive agents that cause a rapid decay of the metal with a significant reduction of the operating life of the pole. Special heat-shrinking sheaths are suitable for the rust protection of public lighting and electric traction poles, traffic lights and traffic signs. They are composed of very thick cross linked polyolefin. The inside of the tubes and the ends are covered in a suitable thermal fuse adhesive that ensures perfect sealing without allowing moisture to enter.

ADVANTAGES

- ▶ Ultra adhesive.
- ▶ Excellent electrical properties.
- ▶ Good chemical resistance.
- ▶ Resistant to mould and micro-organisms.
- ▶ Constant protection against stray electrical currents.
- ▶ Easy application.
- ▶ Long-term stability of all properties.



WPCT

Open ends complete with closing pieces for already installed poles.

PRODUCT / Item	End height (mm)	Package roll (m)	Code for closing piece for pole diameter	
			Up to 450 mm	Over 450 mm
WPCT-17X100-RL WPCT17X100-RL	450	30	WPCP-IV-4X17 WPCP-IV-4X17	WPCP-IV-6X17 WPCP-IV-6X17
WPCT-24X100-RL WPCT24X100-RL	600	30	WPCP-IV-4X24 WPCP-IV-4X24	WPCP-IV-6X24 WPCP-IV-6X24

Closing pieces sold separately



LTPSM

Tubular sleeve for poles for installation.

PRODUCT / Item	Diameter before/after shrinkage (mm)	Sleeve length (mm)
LTPSM 180/58-500 LTPSM180/58-500	180/58	500
LTPSM 245/80-500 LTPSM245/80-500	245/80	500

SELF-SEALING CAP

Self-sealing heat-shrink cap with adhesive for sealing cable heads.

D = Ø min. before shrinkage
d = Ø max. after free shrinkage
S / L1 = min. rated size after free shrinkage



PRODUCT	Item	Ø Cable from (mm) to (mm)		D (mm)	d (mm)	S (±20% mm)	L1 (±10% mm)
RAYL011	334969-000	4	8	12	4,0	2,0	40
RAYL022	821617-000	8	17	20	6	2,3	55
RAYL033	692333-000	17	30	35	16	3,0	83
RAYL044	547889-000	30	45	55	26	3,3	103
RAYL048	068743-000	45	65	75	36	3,3	120
RAYL055	190805-000	65	95	100	52	3,8	140
RAYL066	855203-000	95	115	120	60	3,8	150



HF Halogen Free

Tensile resistance		12 MPa (min)
Elongation		200 % (min)
Density		0,9-1,2 g/cm³
Hardness		50-70 Shore D
Accelerated ageing (7 days at 150°C)	Tensile resistance	12 Mpa (min)
	Ultimate elongation	200% (min)
Flexibility at low temperature		4h a -40°C Non-cracking
Water absorption		0,5% max after 24h a 23°C

SELF-SEALING TERMINATION



PRODUCT	LV cable conductor (mm²) from to		D1 (mm)	d1 (mm)	S1 ±20% (mm)	D2 (mm)	d2 (mm)	S2 ±20% (mm)	L1 ±10% (mm)	L2 ±10% (mm)
RayK333 324253-000	4	16	22	8	2	9	3,5	2	55	18
RayK224 522347-000	25	70	40	16	2	15	7,5	2	125	35
RayK466 556514-001	95	185	60	23	2,5	25	7,5	2,5	155	45



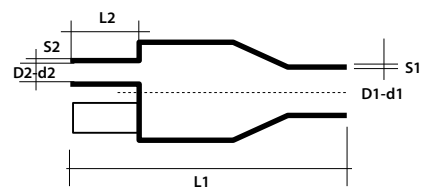
PRODUCT	LV cable conductor (mm²) from to		D1 (mm)	d1 (mm)	S1 ±20% (mm)	D2 (mm)	d2 (mm)	S2 ±20% (mm)	L1 ±10% (mm)	L2 ±10% (mm)
RayW533 443425-000	4	35	38	17	2,7	14	4,5	2,5	98	23
RayW516 519411-000	50	150	60	25	3	25	8	2,5	165	50
RayW526 395067-000	185	300	80	38	3,5	35	11	3,5	185	55
RayW248 102022-TEC	185	500	110	50	4,0	46	17,5	3,5	250	65



PRODUCT	LV cable conductor (mm²) from to		D1 (mm)	d1 (mm)	S1 ±20% (mm)	D2 (mm)	d2 (mm)	S2 ±20% (mm)	L1 ±10% (mm)	L2 ±10% (mm)
RayK033 645763-000	4	35	42	15	2,3	14	3,5	1,9	105	26
RayK046 747267-000	50	70	55	21	3,1	20	5	2,5	150	40
RayK016 119983-000	95	150	65	26	3,5	26	7	2,9	175	45
RayK026 017847-000	185	300	102	47	3,9	38	12	3	198	58

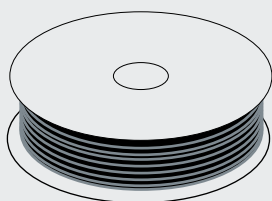


HF Halogen Free



D = min. Ø before shrinkage
d = max. Ø after free shrinkage
S1 / S2 = min. rated size after free shrinkage
L1 / L2

Tensile resistance		10,5 MPa (min)
Elongation		300 % (min)
Density		1,0-1,3 g/cm³
Hardness		50-70 Shore D
Accelerated ageing (7 days at 150°C)	Tensile resistance	8,5 Mpa (min)
	Ultimate elongation	100% (min)
Flexibility at low temperature		4h a -40°C Nessuna cricca
Water absorption		0,5% max after 14 days at 23°C

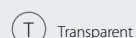
OTHER AVAILABLE
COLOURS

LST-TEC



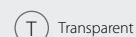
PRODUCT	Item	Item
LST-TEC 1,6	5068276019	LSTTEC16-ROS
LST-TEC 2,4	5068286021	LSTTEC24-ROS
LST-TEC 3,2	5068296023	LSTTEC32-ROS
LST-TEC 4,8	5068306020	LSTTEC48-ROS
LST-TEC 6,4	5068316033	LSTTEC64-ROS
LST-TEC 9,5	5068326022	LSTTEC95-ROS
LST-TEC 12,7	5068336020	LSTTEC127-ROS
LST-TEC 19,0	5068346012	LSTTEC190-ROS
LST-TEC 25,4	5068356017	LSTTEC254-ROS

CGP-TEC



PRODUCT	Item	Item	Item	Item	Item
CGP-TEC 1,2/0,6	5069674009	5069674010	5069674011	5069914004	5069674008
CGP-TEC 1,6/0,8	5068034005	5068274004	5068154005	5069924005	5069684005
CGP-TEC 2,4/1,2	5068044005	5068284006	5068164005	5069934006	5069694007
CGP-TEC 3,2/1,6	5068054008	5068294010	5068174005	5069944006	5069704005
CGP-TEC 4,8/2,4	5068064006	5068304007	5068184005	5069954004	5069714007
CGP-TEC 6,4/3,2	5068074011	5068314009	5068194012	5069964007	5069724010
CGP-TEC 9,5/4,8	5068084007	5068324006	5068204006	5069974006	5069734006
CGP-TEC 12,7/6,4	5068094006	5068334005	5068214005	5069984005	5069744004
CGP-TEC 19/9,5	5068104006	5068344005	5068224005	5069944004	5069754005
CGP-TEC 25,4/12,7	5068114005	5068354006	5068234005	5068384005	5069764008
CGP-TEC 38/19	5068124001	5068364001	5068244001	5068004001	5068364005
CGP-TEC 51/26	5068134001	5068374001	5068254001	226598-TEC	5069784002
CGP-TEC 76/38	5067104002	889754-TEC	5067144001	230701-000	763800-TEC
CGP-TEC 102/51	5067204002	5068204003	5067204001	254199-TEC	5067214001

RGPO-B



PRODUCT	Item	Item	Item	Item
RGPO-B 2,4/1,2	241202-BAR	241206-BAR	241209-BAR	241201-BAR
RGPO-B 3,2/1,6	321602-BAR	321606-BAR	321609-BAR	321601-BAR
RGPO-B 4,8/2,4	482402-BAR	482806-BAR	482009-BAR	482401-BAR
RGPO-B 6,4/3,2	643202-BAR	643206-BAR	643209-BAR	643201-BAR
RGPO-B 9,5/4,8	954802-BAR	954806-BAR	954809-BAR	954801-BAR
RGPO-B 12,7/6,4	127642-BAR	127646-BAR	127649-BAR	127641-BAR
RGPO-B 19/9,5	199502-BAR	199506-BAR	199509-BAR	199501-BAR
RGPO-B 25,4/12,7	254722-BAR	254726-BAR	254129-BAR	254721-BAR
RGPO-B 38/19	381902-BAR	381906-BAR	381909-BAR	381901-BAR
RGPO-B 51/26	-	-	512609-BAR	-
RGPO-B-3/1	RGPOB-3/1-R	RGPOB-3/1-B	RGPOB-3/1-W	RGPOB-3/1-T
RGPO-B-4,5/1,5	RGPOB-4.5/1.5-R	RGPOB-4.5/1.5-B	RGPOB-4.5/1.5-W	RGPOB-4.5/1.5-T
RGPO-B-6/2	RGPOB-6/2-R	RGPOB-6/2-B	RGPOB-6/2-W	RGPOB-6/2-T
RGPO-B-9/3	RGPOB-9/3-R	RGPOB-9/3-B	RGPOB-9/3-W	RGPOB-9/3-T
RGPO-B-12/4	RGPOB-12/4-R	RGPOB-12/4-B	RGPOB-12/4-W	RGPOB-12/4-T
RGPO-B-18/6	RGPOB-18/6-R	RGPOB-18/6-B	RGPOB-18/6-W	RGPOB-18/6-T
RGPO-B-24/8	RGPOB-24/8-R	RGPOB-24/8-B	RGPOB-24/8-W	RGPOB-24/8-T
RGPO-B-39/13	RGPOB-39/13-R	RGPOB-39/13-B	RGPOB-39/13-W	RGPOB-39/13-T

INSULATION TAPES



SELF-ADHESIVE TAPES IN PVC

RAYTEAM

Self-adhesive for general use



RAYTECH SUPER 3-3

Self-adhesive for low and high temperatures



SELF-AMALGAMATING

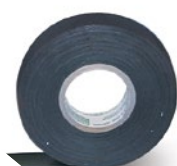
RAYTECH 2.3

EPR insulation tape



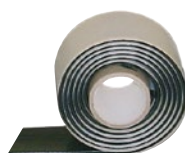
RAYTECH 23 BT

LV insulation tape



RAYTEFILL

Heavy duty insulation tape



RAYTECH 7-0

Silicone insulation tape



SPECIAL TAPES

RAYCOPPER

Copper braid tape



MCA-FV

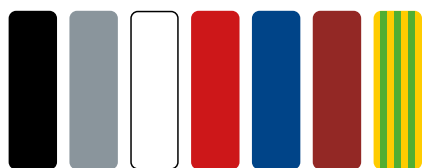
Self-adhesive fibreglass tape



MCA-ALL

Self-adhesive aluminium tape




VDE marking
Complies with standards CEI 60454 (EN60454)


Available colours: black, grey, white, red, blue, brown, yellow/green.
Contact Raytech for other sizes and thicknesses.

Property	Typical values
Breaking Strength (tensile)	30 N/cm min
Elongation at break	> 170 %
Adhesion to steel	1,8 N/cm
Adhesion to backing	1,8 N/cm
Self-extinguishing	Self-extinguishing
Operating temperature	-10°C / +90°C
Electric strength after exposure to damp environment	40 kV/mm min

RAYTEAM

Self-adhesive tape for general use.

PVC adhesive tape for electrical applications and mechanical protection for general use. Recommended for insulating low-voltage joints and for covering cables, accessories and products in general. It is self-extinguishing and does not propagate fire. Excellent resistance to ageing, exposure to weather conditions, hydrocarbons and chemical solvents in general.

PRODUCT	Item	Item	Thickness	Width	Length
RAYTEAM 1925/13	270913-000	270913-008	0,13 mm	19 mm	25 m
RAYTEAM 1510/13	021513-000	021513-008		15 mm	10 m
RAYTEAM 1925	012141-000	012141-004	0,15 mm	19 mm	25 m
RAYTEAM 1510	021514-000	021514-006		15 mm	10 m
RAYTEAM 1525	270999-000	270999-008		15 mm	25 m
RAYTEAM 2525	280999-000	280997-000		25 mm	25 m

PRODUCT	Item	Item	Item	Item	Item
RAYTEAM 1925/13	270913-005	270913-002	270913-006	270913-001	270913-045
RAYTEAM 1510/13	021513-009	021513-002	021513-006	-	021513-045
RAYTEAM 1925	012141-007	012141-001	012141-002	012141-005	012141-003
RAYTEAM 1510	021514-004	021514-001	021514-002	021514-007	021514-003
RAYTEAM 1525	270999-009	270999-002	270999-006	-	270999-045
RAYTEAM 2525	280998-000	-	-	-	-

RAYTEAM K20

20 RAYTEAM TAPES
+ 3 MT MEASURING TAPE
INCLUDED



PRODUCT / Item

RAYTEAM K20
RAYTEAM-K20

Description

20 **RAYTEAM 1925** PVC adhesive tapes dimension: 0,15 mm x 19 mm x 25 m + measuring tape in ABS with retractable belt clip and lanyard.

RAYTECH SUPER 3-3

Self-adhesive tape for use at low and high temperatures.

PVC adhesive tape with excellent electrical and mechanical properties for a wide range of working temperatures. This tape is particularly suitable for use at low temperatures and in all weather conditions, including the most extreme. The tape is flame retardant and self-extinguishing. It is recommended as the primary insulation for joints up to 0.6/1 kV, and as the outer covering for joints and other products, and for all applications at low temperatures.

PRODUCT / Item	Colour	Width	Thickness	Length
RAYTECH SUPER 3-3 3-3061-00-13	●	19 mm	0,18 mm	20 m

Complies with standards
CEI 60454 (EN60454)



Property	Typical values
Breaking Strength (tensile)	35 N/cm min
Elongation at break	180 %
Adhesion to steel	> 1,8 N/cm
Adhesion to backing	> 1,8 N/cm
Self-extinguishing	Self-extinguishing
Temperatura d'esercizio	-18°C / 105°C
Electric Strength after exposure to damp environment	40 kV/mm min

RAYTECH 2.3

EPR Self-amalgamating tape low and high voltage tape.

This ethylene-propylene (EPR) self-amalgamating tape is used for insulating and sealing high voltage electrical joints for voltages up to Um 72 kV. It amalgamates rapidly, adapting itself to the product underneath, forming a solid unit without air bubbles. It is particularly resistant to partial discharges (corona), with the characteristics remaining unchanged with time. Joints must be protected with a PVC tape or similar.

PRODUCT / Item	Colour	Width	Thickness	Length
RAYTECH 2.3 3-2001-00-13	●	19 mm	0,76 mm	9 m



Property	Typical values
Breaking Strength (tensile)	2.2 MPa min
Elongation at break	800% min
Overload temperature	130°C
Operating temperature	90°C
Dielectric strength	38 kV/mm min
Volume resistivity	10 ¹⁵ Ω cm min
Resistance to ozone	Positive
Resistance to U.V.	Positive

RAYTECH 23 BT

Low voltage Self-amalgamating tape.

This rubber self-amalgamating low voltage tape (0.6/1 kV) is used for insulating and sealing low voltage electrical joints. It amalgamates rapidly, adapting itself to the product underneath, forming a solid unit. The joints must be protected with a PVC tape. The characteristics remain unchanged with time.

PRODUCT / Item	Colour	Width	Thickness	Length
RAYTECH 23 BT 3-2002-96-13	●	19 mm	0,76 mm	6,7 m



Property	Typical values
Breaking Strength (tensile)	3 MPa min
Elongation at break	500% min
Operating temperature	80°C
Dielectric strength	20 kV/mm min



RAYTEFILL

Thick low voltage Self-amalgamating tape.

This self-amalgamating thick-wall (3.2mm) has been specially designed for the rapid reconstruction of low-voltage cable insulation, to cover complex shapes (insulating and covering joints between busbars and relative bolts, clamps, etc.) and to seal against possible penetration of humidity. Once applied it becomes a solid, absolutely non-porous mass, with first class electrical qualities and ageing resistance, perfectly suited to the product it is covering.

Property	Typical values
Breaking Strength (tensile)	0,1 MPa
Operating temperature: Continuous	From -30°C to 80°C
Dielectric strength	23,0 kV/mm

PRODUCT / Item	Colour	Width	Thickness	Length
RAYTEFILL 3-2140-00-13	●	38 mm	3,2 mm	1,5 m



Complies with standards
ASTM-D-2148

RAYTECH 7-0

Self-amalgamating silicone rubber tape.

This self-amalgamating silicone rubber tape is used for covering medium and high voltage terminations on extruded cables up to Um 72 kV, because of its first-rate performance for electrical installations in damp or polluted environments, against corrosion, corona and against ageing. It is used as an insulation up to 180°C due to its excellent heat properties. It can be perfectly adapted to all the shapes to be covered.

Property	Typical values
Elongation at break	300%
Resistance to U.V.	Positive
Resistance to ozone	Positive
Working temperature maximum	180°C
Dielectric strength	24 kV/mm

PRODUCT / Item	Colour	Width	Thickness	Length
RAYTECH 7-0 3-2042-00-13	●	25 mm	0,51 mm	9,1 m

RAYCOPPER

Tinned copper mesh tape for electrical screening.

Property	Typical values
Material	Tinned copper mesh tape with high flexibility
Elongation at break	70% min
Breaking Strength (tensile)	35 N/10 mm
Volume resistivity	0,3 cm

PRODUCT	Item	Colour	Width	Thickness	Length
RAYCOPPER 1000	COPPER-100	Silver	60 mm	0,3 mm	1 m
RAYCOPPER 2000	COPPER-200	Silver	60 mm	0,3 mm	2 m
RAYCOPPER 3000	COPPER-300	Silver	60 mm	0,3 mm	3 m
RAYCOPPER 5000	COPPER-500	Silver	60 mm	0,3 mm	5 m
RAYCOPPER 6000	COPPER-600	Silver	60 mm	0,3 mm	6 m

MCA-FV

Fiberglass adhesive tape.

Self-adhesive mono-directional fibreglass tape with polypropylene support. Suitable for cable fixing on pipes (i.e.: Raytech MCA... cables for electrical tracing), and for any kind of strong fixing. Inextensible, it is suitable for temperatures up to 130°C.

Property	Typical values
Breaking Strength (tensile)	300 N/cm min
Ultimate elongation	8%
Adhesion to steel	2 N/cm min

PRODUCT / Item	Colour	Width	Thickness	Length
MCA-FV 012521-000	White	12 mm	0,13 mm	50 m

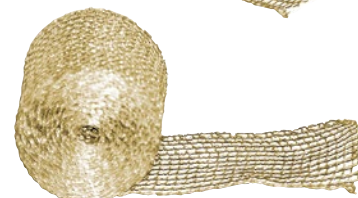
MCA-ALL

Self-adhesive aluminium tape.

Self-adhesive aluminium tape suitable for fixing on flat surfaces (i.e.: for heating cable fixing on tanks outer surfaces); used also for holes or abrasion repairs on metallic or plastic surfaces. Strong adhesion.

Property	Typical values
Breaking Strength (tensile)	1,2 da N/cm min
Elongation at break	5% min
Adhesion to steel	4 N/cm min
Adhesion to backing	4,5 N/cm min
Flame resistance BS476-7	Class 1

PRODUCT / Item	Colour	Width	Thickness	Length
MCA-ALL 75 R42562	Aluminium	75 mm	0,06 mm	50 m



SPEEDY LINE

Raytech, leader in the field of cable accessories, has always based its research and product line on the quality. This is why Raytech offers in the field of pulling tapes and lubricants too, systems of extremely high reliability and quality, always over the conventional types offered by the market:

- These fixed head, interchangeable nylon fishtapes are constructed with very high mechanical characteristic, long-lasting materials. Speedy Sonda tapes are made of PERLON, a practically non-deformable nylon, protecting the installer from unexpected elongation or breakage of the probe in ducts.
- "Twisted" polyester tapes, self-lubricated, extremely flexible and light, with exceptional mechanical characteristics, able to be inserted into long cable ducts, avoid the need of intermediate cable boxes; allowable bending radius is very small and, once bent, they do not break and released they come back to their original shape.
- Fibreglass tapes, thanks to their "nervous" elasticity together with their strength, are easy to use in any type of conduit.
- Nylon-steel tapes, when an exceptional strength is required.
- The widest range of accessories for all the types.
- Raytech offers the widest range of high sliding, non-toxic lubricants that are easily removable from cables. Choose from lubricant oil, lubricant gel (non-drip, allowing for a savings of up to 3 times compared to conventional types) or lubricant spray (easy application directly into the cable ducts, non-drip and dramatically reducing friction and traction force).



PRODUCT

Speedy Nylon and Speedy Sonda
Polyester Speedy Helix
Fibreglass Speedy Glass
Nylon-Steel Speedy Steel



Positioning



Ease of bending



Pulling resistance

Good

Good

Very good

Very good

Very good

Very good

Excellent

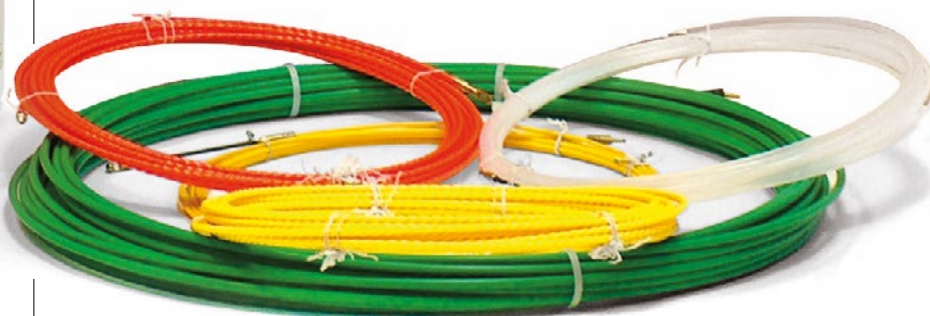
Good

Good

Very good

Excellent

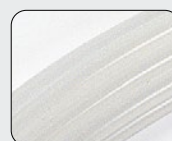
Excellent



Speedy Nylon
Fixed head Nylon probes



Speedy Sonda 3
Fixed head or interchangeable Nylon Perlon® Ø 3 mm



Speedy Sonda 4
Fixed head or interchangeable Nylon Perlon® Ø 4 mm



Speedy Helix 5
Polyester Ø 5 mm with eyelet and fixed flexible head

SPEEDY WIRE OIL - SPEEDY WIRE GEL

Lubricants for threading any kind of cable, power, telecom and optical fibre in ducts, smooth or corrugated piping, etc. With a very high lubrication power, especially when compared to products for similar uses, these are easily removable from cables, and require very low installation strength, even in the case of bent conduits.

Speedy Wire Oil is a standard, fluid and low viscosity lubricant.

Speedy Wire Gel, thanks to its consistency, allows for savings of up to 3 times the amount used compared to other solutions.

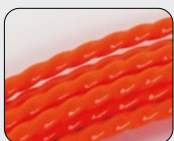
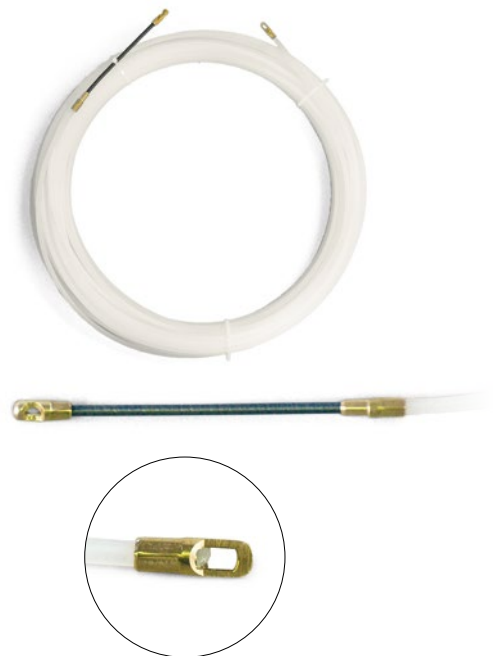
PRODUCT / Item	Package	Wrapping	Appearance	PH	Density
SPEEDY WIRE OIL 900000-003	1 L bottle	12-piece pack	Transparent gel	6 - 8	About 1
SPEEDY WIRE GEL 900000-001	1 L bottle	12-piece pack	Milky liquid	6 - 8	About 1
SPEEDY WIRE GEL 500 SPEEDYWG500	0,5 L bottle	12-piece pack	Milky liquid	6 - 8	About 1


NEW

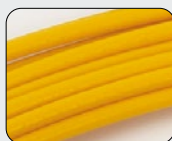
SPEEDY NYLON

Fixed head Nylon transparent cable pullers.

PRODUCT	Item	Ø (mm)	Length (m)	Pack of (PCS)
SPEEDY NYLON 3/5-F	SPEEDYNYLON3/5F	3	5	50
SPEEDY NYLON 3/10-F	SPEEDYNYLON3/10F	3	10	40
SPEEDY NYLON 3/15-F	SPEEDYNYLON3/15F	3	15	30
SPEEDY NYLON 3/20-F	SPEEDYNYLON3/20F	3	20	20
SPEEDY NYLON 3/25-F	SPEEDYNYLON3/25F	3	25	15
SPEEDY NYLON 4/5-F	SPEEDYNYLON4/5F	4	5	50
SPEEDY NYLON 4/10-F	SPEEDYNYLON4/10F	4	10	25
SPEEDY NYLON 4/15-F	SPEEDYNYLON4/15F	4	15	20
SPEEDY NYLON 4/20-F	SPEEDYNYLON4/20F	4	20	15
SPEEDY NYLON 4/25-F	SPEEDYNYLON4/25F	4	25	12



Speedy Helix 4
Polyester Ø 4 mm
with eyelet and fixed
flexible head



Speedy Glass
Interchangeable
head fibreglass
probe Ø 3 mm



Speedy Steel
Nylon-steel
probe Ø 6 mm



Accessories



SPEEDY SONDA 3

Nylon tape PERLON® Ø 3 mm with fixed or interchangeable head*.

FIXED head

PRODUCT	Item	Colour	Ø (mm)	Length (m)	Pack of (PCS)
SPEEDY SONDA 3/5-F	7139-0001	Transparent	3	5	50
SPEEDY SONDA 3/10-F	7139-0002		3	10	40
SPEEDY SONDA 3/15-F	7139-0003		3	15	30
SPEEDY SONDA 3/20-F	7139-0004		3	20	20

INTERC. head*

SPEEDY SONDA 3/5-I	7139-0005	Transparent	3	5	50
SPEEDY SONDA 3/15-I	7139-0007		3	15	30
SPEEDY SONDA 3/20-I	7139-0008		3	20	20

Other dimensions available on request

* Supplied with flexible head curve guide and pulling eyelet.

SPEEDY SONDA 4

Nylon tape PERLON® Ø 4 mm with fixed or interchangeable head*.

FIXED head

PRODUCT	Item	Colour	Ø (mm)	Length (m)	Pack of (PCS)
SPEEDY SONDA 4/5-F	7139-0009	Transparent	4	5	35
SPEEDY SONDA 4/10-F	7139-0010		4	10	25
SPEEDY SONDA 4/15-F	7139-0015		4	15	20
SPEEDY SONDA 4/20-F	7139-0012		4	20	18
SPEEDY SONDA 4/25-F	7139-0059		4	25	15

INTERC. head*

SPEEDY SONDA 4/5-I	7139-0017	Transparent	4	5	35
SPEEDY SONDA 4/10-I	7139-0018		4	10	25
SPEEDY SONDA 4/15-I	7139-0019		4	15	20
SPEEDY SONDA 4/20-I	7139-0020		4	20	18
SPEEDY SONDA 4/25-I	7139-0058		4	25	15

FIXED head

PRODUCT	Item	Colour	Ø (mm)	Length (m)	Pack of (PCS)
SPEEDY SONDA 4/5-F-N	7139-0013	Black	4	5	35
SPEEDY SONDA 4/10-F-N	7139-0014		4	10	25
SPEEDY SONDA 4/15-F-N	7139-0011		4	15	20
SPEEDY SONDA 4/20-F-N	7139-0016		4	20	18
SPEEDY SONDA 4/25-F-N	7139-0065		4	25	15

INTERC. head*

SPEEDY SONDA 4/5-I-N	7139-0021	Black	4	5	35
SPEEDY SONDA 4/10-I-N	7139-0022		4	10	25
SPEEDY SONDA 4/15-I-N	7139-0023		4	15	20
SPEEDY SONDA 4/20-I-N	7139-0024		4	20	18
SPEEDY SONDA 4/25-I-N	7139-0066		4	25	15

Other dimensions available on request

* Supplied with flexible head curve guide and pulling eyelet.

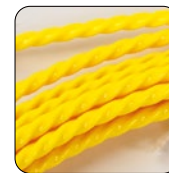
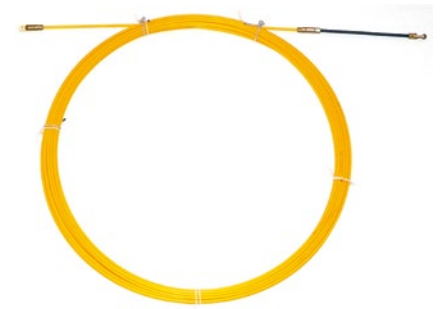
SPEEDY HELIX 5

Polyester tape Ø 5 mm with fixed eyelet and flexible interchangeable head.

Twisted tapes, very strong, extremely flexible and light. They pass the "4 curves test" on both rigid and corrugated pipes, but they can also avoid to have an intermediate box, and even if bent on themselves they do not break.

PRODUCT / Item	Colour	Ø (mm)	Length (m)	Pack of (PCS)
SPEEDY HELIX 5/10 7139-0025	 Yellow	5	10	1
SPEEDY HELIX 5/15 7139-0026		5	15	1
SPEEDY HELIX 5/20 7139-0027		5	20	1
SPEEDY HELIX 5/25 7139-0064		5	25	1
SPEEDY HELIX 5/30 7139-0028		5	30	1
SPEEDY HELIX 5/50 7139-0029		5	50	1
SPEEDY HELIX 5/60 7139-0030		5	60	1

Other dimensions available on request



SPEEDY HELIX 4

Polyester tape Ø 4 mm with interchangeable eyelet and head*.

Twisted tapes, very strong, extremely flexible and light. They pass the "4 curves test" on both rigid and corrugated pipes, but they can also avoid to have an intermediate box, and even if bent on themselves they do not break.

PRODUCT / Item	Colour	Ø (mm)	Length (m)	Pack of (PCS)
SPEEDY HELIX 4/10 7139-0031	 Orange	4	10	1
SPEEDY HELIX 4/15 7139-0032		4	15	1
SPEEDY HELIX 4/20 7139-0033		4	20	1
SPEEDY HELIX 4/30 7139-0034		4	30	1

Other dimensions available on request * Supplied with flexible head curve guide and pulling eyelet



Accessories for Speedy Helix 4

PRODUCT	Item	Description	Pack of (PCS)	
TGF SPEEDY HELIX 4	TGF-SPEEDYHELIX4	Flexible head curve guide	1	
OTL SPEEDY HELIX 4	OTL-SPEEDYHELIX4	Long pulling eyelet	1	
PN SPEEDY HELIX 4	PN-SPEEDYHELIX4	Pin M4 (for tape Ø 4 mm)	1	

Accessories for Speedy Helix 5

PRODUCT	Item	Description	Pack of (PCS)	
TGF SPEEDY HELIX 5	TGF-SPEEDYHELIX5	Flexible head curve guide	1	
OTL SPEEDY HELIX 5	OTL-SPEEDYHELIX5	Long pulling eyelet	1	
PN SPEEDY HELIX 5	PN-SPEEDYHELIX5	Pin M4 (for tape Ø 5 mm)	1	



The tape is complete of repairing kit.



SPEEDY GLASS

Interchangeable head "self-starting" fibreglass Ø 3 mm cable pullers*.

Suitable for light use, even on long lengths, easy to use thanks to their "nervous" elasticity which makes easier their positioning in pipes and conduits.

INTERC. head

PRODUCT / Item	Colour	Ø (mm)	Length (m)	Pack of (PCS)
SPEEDY GLASS 3/10 7139-0035	Yellow	3	10	10
SPEEDY GLASS 3/15 7139-0036		3	15	10
SPEEDY GLASS 3/20 7139-0037		3	20	10
SPEEDY GLASS 3/25 7139-0060		3	25	10
SPEEDY GLASS 3/30 7139-0038		3	30	10

Other dimensions available on request

* Supplied with flexible head curve guide and pulling eyelet

SPEEDY STEEL

Nylon-steel tape Ø 6 mm complete of all accessories.

Nylon-steel tapes are extremely robust, and are made of an internal core 4 x 1,5 mm steel made, coated with a nylon layer. Particularly suitable for industrial use with heavy duty. Use in installations without voltage.

PRODUCT / Item	Colour	Ø (mm)	Length (m)	Pack of (PCS)
SPEEDY STEEL 6/20 7139-0039	Green	6	20	1
SPEEDY STEEL 6/25 7139-0061		6	25	1
SPEEDY STEEL 6/30 7139-0040		6	30	1
SPEEDY STEEL 6/40 7139-0041		6	40	1
SPEEDY STEEL 6/50 7139-0062		6	50	1
SPEEDY STEEL 6/60 7139-0063		6	60	1

Other dimensions available on request

ACCESSORIES

For Speedy Sonda cable pullers.

PRODUCT	Item	Description	Pack of (PCS)	
Speedy TFG	7139-0042	Flexible head curve guide	3	
Speedy TFC	7139-0043	Flexible head with sheave	3	
Speedy OTL	7139-0047	Long pulling eyelet	3	
Speedy OTC	7139-0044	Short pulling eyelet	3	
Speedy BU	7139-0045	Joint bush for fishtapes	3	
Speedy PN	7139-0050	Pin M4 (for tape Ø 4 mm)	3	
Speedy AT	7139-0048	Pulling slot	3	
Speedy CA	7139-0049	Accessories kit	1	

For Speedy Glass cable pullers.

PRODUCT	Item	Description	Pack of (PCS)	
Speedy REP	7139-0051	Repairing kit	3	
Speedy TFG	7139-0042	Flexible head curve guide	3	
Speedy TFC	7139-0043	Flexible head with sheave	3	
Speedy OTL	7139-0047	Long pulling eyelet	3	
Speedy OTC	7139-0044	Short pulling eyelet	3	
Speedy BU	7139-0045	Joint bush for fishtapes	3	
Speedy PNG	7139-0046	Pin for Speedy Glass tape	3	
Speedy AT	7139-0048	Pulling slot	3	
Speedy CA	7139-0049	Accessories kit	1	

For Speedy Steel cable pullers.

PRODUCT	Item	Description	Pack of (PCS)	
Speedy MO	7139-0072	Snap link	3	
Speedy TS	7139-0069	Flexible head curve guide	3	
Speedy OL	7139-0071	Clamping device	3	
Speedy RS	7139-0070	Sliding wheel device	3	

Accessories available upon request
for Speedy Helix and:

PRODUCT	Item	Description	Pack of (PCS)	
Speedy AS	7139-0054	Reels with support	1	(see A)
Speedy AF	7139-0053	Reels on frame	1	(see B)
Speedy AFS	7139-0055	Steel reels on frame	1	(see C)
Speedy PR Glass	7139-0052	Repairing pliers for Speedy Glass tapes	1	(see D)



(A)



(B)



(C)



(D)



FIRE STOP BARRIERS

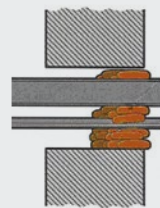
FIRE STOP BAG

Fire stop barrier in an intumescent bag.

Intumescent incombustible bags which stop the passage of fire through openings in walls. They are available in different sizes and they have to be placed to seal the openings, both in walls and floor slabs. At a temperature of 200°C the material starts to compact sealing the gaps thus avoiding the passage of the flames.

- **Made from a fireproof fabric.**
- **Contains intumescent putty seal inside.**

PRODUCT / Item	Bag dimensions
FSB-11 FSB-11	mm 250 x 100 x 25
FSB-12 FSB-12	mm 250 x 200 x 35
FSB-13 FSB-13	mm 250 x 300 x 35



INSTALLATION

Finish and opening then lay, the bags as bricks, staggered and overlapped.

For the application on plasterboard walls please contact Raytech.

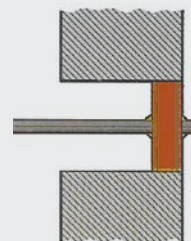
FIRE STOP PANEL

Fire stop barriers in panels.

Incombustible panels treated on the surface with putty to stop the passage of fire through openings in walls. This product allows for the sealing of cavities in walls safely and cost effectively.

- **Manufactured from Rockwool.**
- **Coated with putty.**
- **Resistant to mould and bacteria .**

PRODUCT / Item	Dimension (mm)
FSP-11 FSP-11	600 x 600 x 51



INSTALLATION

Finish and clean the opening edges then cut the panels with a cutters and position them in the opening. The edges and the jointing lines, as well as the interstices among the cables, are sealed and covered with FIRE STOP SEAL FSS sealant..

For the application on plasterboard walls please contact Raytech.



APPROVAL

Class EI 120 Non toxic and asbestos free.
In compliance with standard EN 1366-3.



APPROVAL

Class EI 120 Non toxic, asbestos and solvent free.
In compliance with standard EN 1366-3.

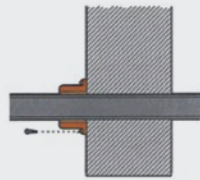
FIRE STOP COLLAR

Fire stop transit collar for plastic pipes.

Fire stop barrier transit collar for plastic pipes (minimum wall thickness 200mm). Available in a wide range of dimensions to surround pipes that pass through walls.

- Stainless steel outer band.
- Contains intumescent putty seal inside.

PRODUCT / Item		Ø (mm)
FSC 11	FSC-11	from 63 to 110
FSC 12	FSC-12	from 110 to 160
FSC 13	FSC-13	200
FSC 14	FSC-14	250



INSTALLATION

No special care is required: the collar, when opened, is positioned around the duct, closed and fastened by means of inserts.

For other dimensions and installation please contact Raytech.



APPROVAL

Class EI 120 non toxic and asbestos free.
In compliance with standard EN 1366-3.

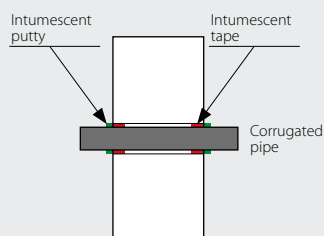
FIRE STOP TAPE

Fire stop barrier in an intumescent tape for plastic corrugated pipes.

Fire stop barrier in an intumescent tape for the crossing closure of single corrugated pipes. Highly heat-sensitive, intumescent graphite tape with high expansion properties for the protection of corrugated electrical pipes containing cables. Applied on both sides of the pipe crossing through the wall so as to surround the pipe. The heat from a fire causes the tape to expand and fill all possible voids.

RECOMMENDATION

The solution is 10m long, and it can be cut at the required length, saving the remaining parts for a future application. Can also be used in conjunction with FSCI, FSSE, FSCC box covering protections.



INSTALLATION

Wrap the tape twice around the corrugation, on both sides of the wall, fitting it in the through hole. Seal with FIRE STOP SEAL (FSS) sealant putty. Let dry.

PRODUCT / Item	Application corrugated pipe diameter range (mm)	Width (mm)	Thickness (mm)	Length (m)
FST-E-25/32 FST-E-25/32	da 25 a 32 *	20	2	10

*containing cables up to 10 mm²



APPROVAL

Class EI 120 non toxic and asbestos free.
In compliance with standard EN 1366-3.



APPROVAL

Class EI 120

Non toxic and asbestos free.

Does not emit toxic gases and dense fumes.

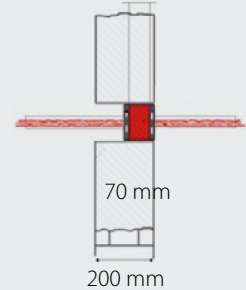
In compliance with standard EN 1366-3.

FIRE STOP SEAL

Fire stop barrier in intumescent sealing mastic.

Intumescent mastic to seal and close small voids in walls, also in addition to other types of barriers. It is applied to seal a void or to provide a barrier in a cable duct.

- ▶ A polymer compound with fireproof fibres and intumescent in an aqueous solution.
- ▶ Non-hygroscopic and thixotropic.
- ▶ Can be applied with a spatula.



INSTALLATION

Once the edges of the opening have been finished and cleaned, the sealant putty is put in place with a spatula in the case of product in bucket.

For the application on plasterboard walls please contact Raytech.

PRODUCT / Item	Package
FSS 10 FSS-10	Spatula type, 10 kg drum



APPROVAL

Class EI 120

Non toxic and asbestos free.

Does not emit toxic gases and dense fumes.

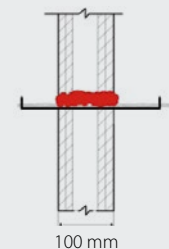
In compliance with standard EN 1366-3.

FIRE STOP FOAM

Fire stop barriers in expanding foam.

Single-component expandable sealant foam for filling and fire sealing of small crossing gates on cable duct channels that have been previously compartmented with FSB bags and small gaps. Each canister covers a volume of approximately 20 L.

- ▶ Made from a fire resistant polyurethane based foam.
- ▶ Graphite fortified.
- ▶ Hardens upon contact with air.
- ▶ Suitable for the protection of plasterboard walls or slabs.



INSTALLATION

After the edges of the openings have been cleaned, shake the can for at least 30 seconds, then turn upside down and spray the product.

PRODUCT / Item	Package
FSF 700 FSF-700	Spray can of 750 ml

FSC-TPC

Fire stop barrier for plastic and/or corrugated pipes with cables.

Protection designed to be built into the wall after pipes have been installed. Can be installed in locations where the construction support is damaged and there is an annular space around the services. It is possible to protect mixed corrugated plastic pipes in the same crossing.

- For PE/PP, PVC, Abs pipes containing electrical cables or other services.
- Pipes can be grouped and protected in bundles.

PRODUCT / Item		For pipes with Ø (mm)
FSC-TPC 050	FSC-TPC-050	50
FSC-TPC 060	FSC-TPC-060	60
FSC-TPC 090	FSC-TPC-090	90
FSC-TPC 120	FSC-TPC-120	125

INSTALLATION

Clean the pipe. Open the sleeve longitudinally, place it around the pipe and clamp it on it using special metal tabs. Push the collar towards the centre of the wall.

Fix with FSS putty in the event of installation on a special crossover pipe.

Contact Raytech regarding through openings or installation on inclined piping.



APPROVAL

Class EI 120

Non toxic and asbestos free.

Does not emit toxic gases and dense fumes.

In compliance with standard EN 1366-3.

FSM

Fire stop barriers in incombustible plaster.

Protective coating to seal and prevent fire propagation in wall cavities; it can be applied manually or sprayed. It can be easily mixed in big quantities with suitable mixer (e.g. concrete mixer).

- Made from mineral fibres.
- Simply mix with water and with or without cement mixes.
- For gates on walls or slabs.

PRODUCT / Item	Package
FSM 20 FSM-20	20 kg bag

INSTALLATION

After the edges of the openings have been finished and cleaned, the incombustible plaster is mixed with water, then applied manually, with a trowel or a pump, and left to dry in air. Water quantity: about 0,85 lt/kg (volume 1 kg = about 2,5 dm³).

For other applications please contact Raytech.



APPROVAL

Class EI 120

Non toxic and asbestos free.

Does not emit toxic gases and dense fumes.

In compliance with standard EN 1366-3.

FSCP

Fire stop barriers for ceiling lights.

Fireproof barriers for fluorescent lights in suspended ceilings. Maintains conditions of fire resistance of ceilings and suspended ceilings. Slightly reduces the temperature in the space between the ceiling and the ceiling panel.

- Made from non-toxic mineral fibres.
- Prevents propagation.
- Flexible, light and self-supporting, easy to install and to remove.

PRODUCT / Item	Dimension (mm)	Weight (kg)
FSCP 600 FSCP-600	720 x 750 x 150	1,7 circa
FSCP 1200 FSCP-1200	1330 x 720 x 140	3,5 circa



INSTALLATION

No special care is required. The protection must be placed on the ceiling light grid adhering to the panel.



APPROVAL

Class EI 120

Non toxic and in compliance with standard EN 1365-2 • 1363-1.


APPROVAL

Class EI 120 Non toxic.
It expands up to 5 times.
In compliance with standard
EN 1365-2 • 1363-1

FSCF

Fire stop hoods for downlighters.

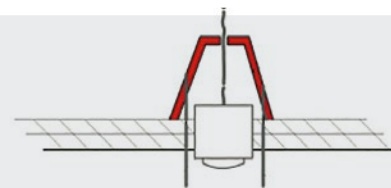
Fireproof dome shaped hood for downlighters in suspended ceilings. Maintains conditions of fire resistance of ceilings and suspended ceilings. Prevents fire propagation and slightly reduces the temperature in the void between the ceiling and the suspended ceiling.

- ▶ **Made from non-toxic mineral fibres.**
- ▶ **Resistant to fire and expandable compounds.**
- ▶ **Prevents lamp overheating.**
- ▶ **Flexible, light and self-supporting.**
- ▶ **Easy to install and to remove.**

INSTALLATION

No special care is required.
The protection must be placed on the
spotlight, adhering to the panel.

For other dimensions please contact Raytech.



PRODUCT / Item	Dimension (mm)	Type
FSCF 250 FSCF-250	250 x 280	Cone-shaped
FSCF 350 FSCF-350	350 x 230	Dome-shaped



FSSE

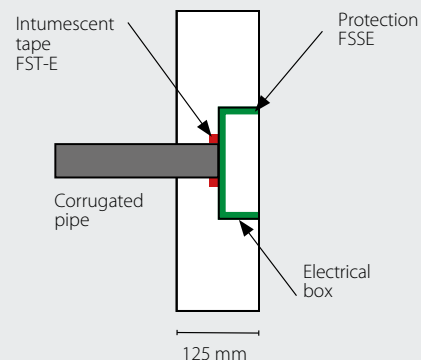
Intumescent fire stop barrier for electrical boxes.

Intumescent barrier for the fire protection of electrical system components built into walls.

- ▶ **Inserted in electrical boxes.**
- ▶ **Protection with high expansion properties.**
- ▶ **Guarantees wall conditions in the event of a fire.**

INSTALLATION

The protections are inserted inside the box before the insertion of modules. Protect corrugated pipes crossing walls with FST-E-25/32



PRODUCT / Item	For electric boxes
FSSE 01 FSSE01	Up to three modules (type 503)
FSSE 02 FSSE02	Up to six modules (type 506)

APPROVAL

Class EI 120 Non toxic.
In compliance with standard EN 1364-1

FSCC

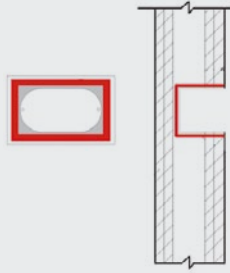
Fire stop barriers for covering enclosures.

Fire protection system for electrical enclosures and junction boxes. These protect plasterboard wall compartments from heat and fire propagation.

- Made from calcium silicate.
- Contains enclosure.

INSTALLATION

After the opening edges have been finished and cleaned, the protection is properly placed and fixed to the wall by means of screws and putty.



PRODUCT / Item	External dimension (mm)	Internal dimension (mm)
FSCC 150 FSCC-150	150 x 120 x 75	110 x 80 x 55



APPROVAL

Class EI 120 Non toxic and asbestos free.
Does not emit toxic gases and dense fumes.
In compliance with standard EN 1364-1.

FSCO T110

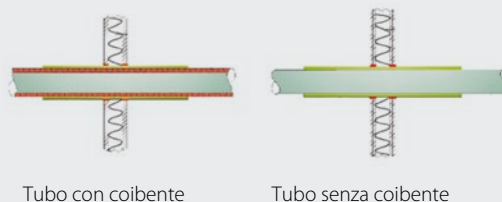
Metal pipe insulating mat protective barrier.

The FSCO T110 barrier is made up a flexible and easily conformable, highly fire resistant insulating mat. It is clad with an aluminium sheet and protects insulated or non-insulated metal piping in wall crossings. The product is cut and modelled with ease, wrapped in a single layer around the pipe, and then closed with aluminised tape. Protects metal piping crossing walls or slabs, preventing longitudinal transmission of heat and fusion of any insulating material.

- Composed of fibres free of any resins or organic binders.
- For wall thicknesses of at least 125 mm.

INSTALLATION

The product is laid in a single layer around the pipe, matching the edges and fastening them with aluminised tape. The installation is then reinforced with wrapped steel wire pulled with pliers. It is positioned letting at least 430 mm come out from each side.



PRODUCT / Item	Colour	Width	Thickness	Length
FSCO T110 FSCO-T110	Aluminium	1 m	20 mm	5 m



APPROVAL

Class EI 120 Non toxic and asbestos free.
In compliance with standard
EN 1366-1 • EN 1366-3 • EN 1366-5



GALACTIC MAMMUT SECURITY

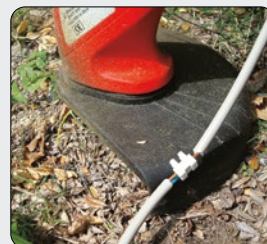
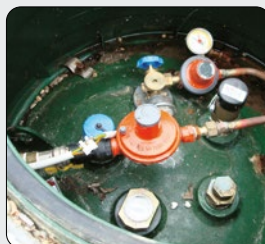
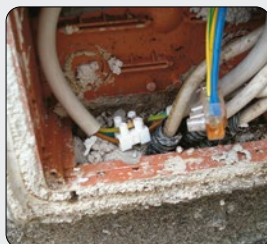
Straight joint pre-filled with gel.

Galactic Mammut Security is an extremely compact accessory that is suitable for resolving insulation and sealing problems. Make reliable strip connector connections using the components found within the kit. Supplied with connectors for up to 3 core 4mm cables. Suitable for all types of domestic and industrial uses. Make safe temporary or uninsulated connections already in place. For quick repairs of damaged cable and extension cords. Suitable for outdoor use, in panels, within the kitchen etc. Non-toxic, no shelf life, easily re-enterable. Once closed the internal connectors are immediately protected. Galactic Mammut is essential in any area where water is present.

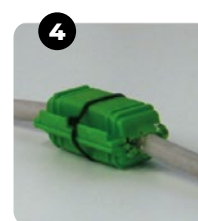
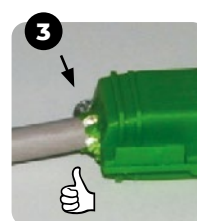
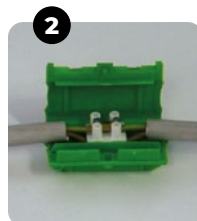
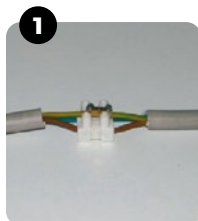
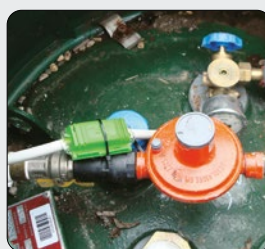
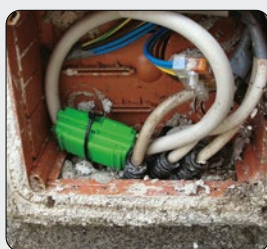
ADVANTAGES

- No more tangled wires or uncovered connectors!
- A safe, reliable and quick solution *Galactic Mammut Security*.

BEFORE



AFTER



Package:
3-piece blister pack

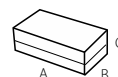
Electrical performance:
CEI EN 50393 as applicable
(testing under water head
of the accessory installed in a box)

PRODUCT / Item

GALACTIC MAMMUT SECURITY
GALACTIC-MAM

Cable formation

Cables 3 x 1 to 4 mm²
3 insulated conductors
with ground from 1 to 4 mm²



Dimension (mm)

61 x 35 x 28

SHINY SOLAR

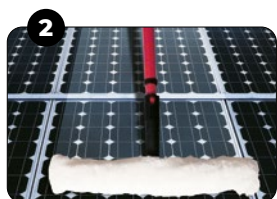
Solution for solar and photovoltaic panel maintenance.

Shiny Solar is a product for photovoltaic and solar module maintenance, for easy removal of grease, limestone and crystallised deposits, dust, smog, excrement, etc. A photovoltaic panel can reduce generated power by up to 15% for non-polluted areas and 25% for highly polluted areas. Regular use of Solar Shiny keeps systems running efficiently. Extremely effective and easy to apply, with no shelf life. To maintain system efficiency, proceed with 2-3 applications/year for medium-polluted areas. The degreasing and anti-static protection contained in the product allows excellent results even with rinsing with hard water (even higher than 30°F). Rapid application: treatment of a 6 kW system (approximately 50 m²), thanks to the fact that degreasing, cleaning and application of the anti-static protection are all part of one single operation, requires less than 20 minutes. Shiny Solar respects panel components, the aluminium frame, gaskets and protective glass. A single package of Shiny Solar can treat installed photovoltaic panel power from 10 to 15 kW, equal to a surface of about 80-120 m². The order data table shows the power and surfaces which can be treated with different packages.

- For easy removal of grease, limestone and crystallised deposits, dust, smog, excrement, etc.
- Contains anti-static protection.



Spray the product evenly on the solar or photovoltaic panel or on the surface to be cleaned and protected.



Let stand for a few minutes, depending on the level of dirt to be cleaned, then wipe with a soft, non-abrasive, slightly damp pad or sponge.



Rinse with water or remove product with a paper towel. Repeat for especially dirty surfaces.



PRODUCT / Item	Product contents	Efficiency (kW/ surfaces treated per package)	
		Power in kW	Surfaces (m ²)
Shiny Solar SHINYSOLAR	750 ml	10 - 15	80 - 120
Shiny Solar 5 SHINYSOLAR5	5 lt	70 - 100	530 - 800
Shiny Solar 1000 SHINYSOLAR-1000	1000 lt	14.000 - 20.000	106.000 - 160.000
Shiny Brush SB4 SHINYBRUSCH4	brush microfiber		



Advantages:

The 750 ml and 5 lt kits are supplied together with a professional sprayer, with an adjustable spray jet nozzle with a range in the latter case of up to 3 m.

For proper application of the product even in hard to reach areas, a microfiber brush mounted on a telescopic arm which projects up to 4 m is available.



Shiny Brush
SB4



Kit composition:
1 can for component (A+B)

GALACTIC ANIMAL BARRIER

Mouldable two-component rubber paste to prevent animal intrusion.

Galactic Animal Barrier is a two-component paste with no shelf life that can be easily moulded before cross linking is complete. It can be applied to entries to protect against intrusion (conduits, cable ducts and pipes etc). It cross links quickly to form an effective barrier against small insects however it is easily removable. Ideal for electric gate type installations.

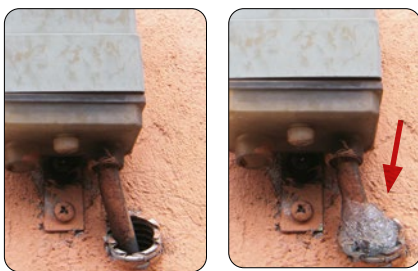
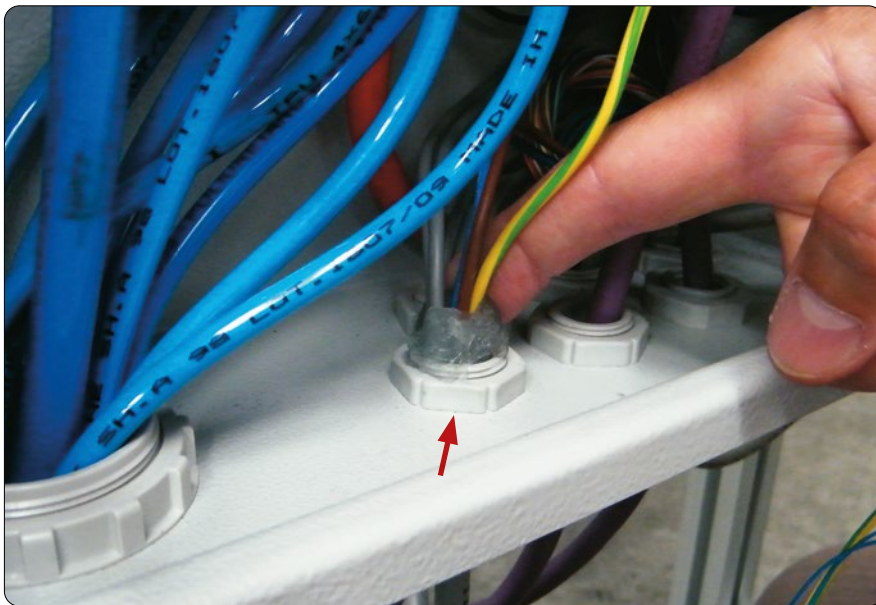


PRODUCT / Item	Description	Rubber colour	Total quantity (g)
GALACTIC ANIMAL BARRIER GALACTIC-ANIBAR	two-component rubber	●	250

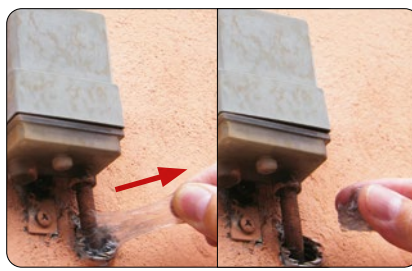
GALACTIC WATER STOP

Ready to use single component gel.

The Galactic Water Stop single component gel is a soft, extremely sticky product supplied in convenient, ready to use packages: just tear open the quantity needed and place it at the entry point to protect from infiltration. Thanks to its stickiness, it provides stable and effective sealing over time. Easily removable and re-enterable, allowing repeated access to the protected component without leaving traces. Non-drip so it can also be installed vertically or on the ceiling. Highly sealant, lends itself to the insulation of small connections, or for the protection of particularly exposed connections (connections to external car battery terminals, etc.). This product can be applied wherever there may be leakages from pipes, corrugated pipes, channels, etc., or where there is a need for rapid and efficient insulation.



Corrugated pipe entry protection



Removal



Kit composition: 2 cans, 100 g each

PRODUCT / Item	Description	Gel colour	Package (g)
GALACTIC WATER STOP GALAWATERSTOP	single component gel	transparent	2 x 100



RAY RTV

Fast cross linking two-component silicone rubber with high mechanical, thermal and elastic characteristics.

Ray-RTV cross links quickly at room temperature, transforming into a rubber with high mechanical, thermal and elastic characteristics. Available in single dose bags, bottles, tanks and boxes, in standard 30 Shore A hardness for black. Fast cross linking (less than 8 minutes at 30°C) and easily re-enterable.

ADVANTAGES

- Highly resistant, non-stick, insulating and sealing.
- No shelf life.



In 15 minutes
Ray RTV is ready!

Density: about 1.24 gr/cm³
Cross linking: (pot life) at + 30°C: <8 minutes
Viscosity: 4000-6000 max MPa
Elongation at break: 350 %
Tensile strength: 2,8 MPa
Operating temperature: -60°C / +200°C
Overload temperature: +250°C
Thermal conductivity: 0,2 W/m°K
Dielectric strength: >21 kV/mm
Volume resistivity: >1,5 x 10 exp 15 Ω cm

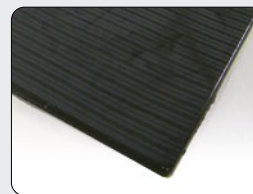
Applications Examples



Glass sealing



Pit sealing



Rubber mats



Extruded profiles



Rubber gaskets



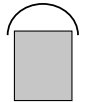
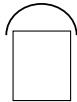
Profile reliefs



Anti-corrosion protection



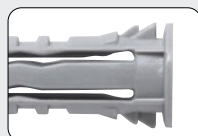
Moulds for making models and for industry

PRODUCT / Item	Colour	Shore A hardness	Weight	Package type
BAG-RTV 200-N BAGRTV200-N	●	30	200 g	Single dose bag 
BAG-RTV 350-N BAGRTV350-N	●	30	350 g	
RAY-RTV 10K-N RAYRTV10K-N	●	30	10 kg	Boxes  
RAY-RTV 20K-N RAYRTV20K-N	●	30	20 kg	
RAY-RTV 400K-N RAYRTV400K-N	●	30	400 kg	

Other colours, hardness and cross linking times (pot life) are available upon request for tanks of 400 Kg. Ray-RTV is available in bags up to 600 g.

RAY FIX

Universal multi-expansion nylon dowels complete with DIN 7505/a chipboard screw.



The 10 opposing wings, 2 of which are along the body, 4 near the collar and 4 connecting the body and the edge, prevent rotation during installation even in friable materials.



The particular shape of the inside of the dowel allows for 40% greater expansion than all other existing dowels.



The expansion on 4 sides allows total and uniform adhesion. The longitudinal grooves along the body facilitate anchoring inside the dowel installation hole, facilitating anchoring.



The flared edge with the 4 connecting wings prevents the dowel from penetrating inside the installation hole.



Ellipsoidal screw guide that accompanies the screw without slipping.



Reduced insertion part to facilitate penetration into the hole.



The two guides on the edge of the dowel allow locking during screwing.



Expansion by winding in perforated brick materials, panels and slabs.

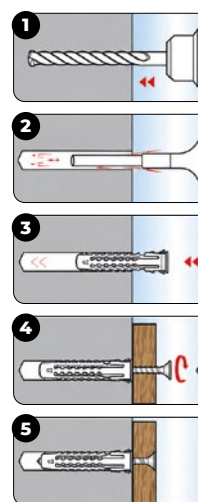


NEW

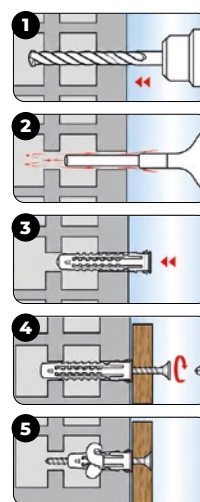
Ideal for secure and versatile fixings



Solid bricks



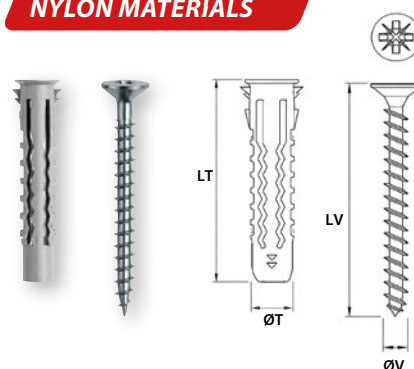
Perforated bricks



CAN BE USED WITH

- Drywall sheets
- Concrete
- Natural stone
- Solid bricks
- Perforated bricks
- CLS solid bricks
- CLS perforated bricks

**HIGH-QUALITY
NYLON MATERIALS**



PRODUCT / Item	Pieces	Description	ØT (mm)	LT (mm)	ØV (mm)	LV (mm)
RAYFIX 5x25 300 RAYFIX5x25-300	Bucket 300 pieces	Dowels + screw 4 x 30 mm	5	25	4,0	30
RAYFIX 6x30 100 RAYFIX6x30-100	Bucket 100 pieces	Dowels + screw 4,5 x 40 mm	6	30	4,5	40
RAYFIX 6x30 600 RAYFIX6x30-600	Bucket 600 pieces	Dowels + screw 4,5 x 40 mm	6	30	4,5	40



Self extinguishing: according to UL94.

Halogen free.

Excellent resistance to basis, oils, fats, hydrocarbons, chemicals, chlorinated solvents.

 **Operating temperature:** -40°C / +85°C

 **Installation temperature:** -10°C / +60°C



100-piece pack.



100-piece pack.

CABLE TIES

Tilted tip for easy insertion into clamping head. Rounded corners for greater safety. Quick sliding thanks to a low material friction coefficient. Good UV resistance thanks to it's black colour.

ESSENTIAL FOR:

- **Electrical installations.**
- **Industrial applications.**
- **Panels.**
- **Special applications.**

Colour Black		Width (mm)	Length (mm)	Appl. diameter		Strength	
PRODUCT	Item			min	max	(Kg)	(n)
Ray-fasc N 22/75	700000-050	2,2	75	0.75	15	6.12	60
Ray-fasc N 25/98	700000-026	2,5	98	1	21	8.16	80
Ray-fasc N 25/135	700000-027	2,5	135	1	32	8.16	80
Ray-fasc N 26/160	700000-028	2,6	160	1	40	8.16	80
Ray-fasc N 26/200	700000-029	2,6	200	2	52	8.16	80
Ray-fasc N 36/140	700000-030	3,6	140	2	35	13.26	130
Ray-fasc N 36/200	700000-031	3,6	200	2	50	13.26	130
Ray-fasc N 36/290	700000-032	3,6	290	2	80	13.26	130
Ray-fasc N 36/370	700000-033	3,6	370	2	103	13.26	130
Ray-fasc N 48/178	700000-035	4,8	178	2	45	22.44	220
Ray-fasc N 48/200	700000-036	4,8	200	3	50	22.44	220
Ray-fasc N 48/250	700000-037	4,8	250	3	68	22.44	220
Ray-fasc N 48/290	700000-038	4,8	290	3.5	79	22.44	220
Ray-fasc N 48/360	700000-039	4,8	360	3.5	103	22.44	220
Ray-fasc N 48/430	700000-041	4,8	430	3.5	115	22.44	220
Ray-fasc N 78/180	700000-051	7,8	180	3.5	45	55.08	540
Ray-fasc N 78/240	700000-043	7,8	240	3.5	63	55.08	540
Ray-fasc N 78/300	700000-044	7,8	300	4	80	55.08	540
Ray-fasc N 78/365	700000-045	7,8	365	8	100	55.08	540
Ray-fasc N 78/450	700000-046	7,8	450	35	130	55.08	540
Ray-fasc N 78/540	700000-047	7,8	540	35	158	55.08	540
Ray-fasc N 78/750	700000-048	7,8	750	35	220	55.08	540

Colour White		Width (mm)	Length (mm)	Appl. diameter		Strength	
PRODUCT	Item			min	max	(Kg)	(n)
Ray-fasc B 22/75	700000-049	2,2	75	0.75	15	6.12	60
Ray-fasc B 25/98	700000-002	2,5	98	1	21	8.16	80
Ray-fasc B 25/135	700000-003	2,5	135	1	32	8.16	80
Ray-fasc B 26/160	700000-004	2,6	160	1	40	8.16	80
Ray-fasc B 26/200	700000-005	2,6	200	2	52	8.16	80
Ray-fasc B 36/140	700000-006	3,6	140	2	35	13.26	130
Ray-fasc B 36/200	700000-007	3,6	200	2	50	13.26	130

Ray-fasc B 36/290	700000-008	3,6	290	2	80	13.26	130
Ray-fasc B 36/370	700000-009	3,6	370	2	103	13.26	130
Ray-fasc B 48/178	700000-011	4,8	178	2	45	22.44	220
Ray-fasc B 48/200	700000-012	4,8	200	3	50	22.44	220
Ray-fasc B 48/250	700000-013	4,8	250	3	68	22.44	220
Ray-fasc B 48/290	700000-014	4,8	290	3.5	79	22.44	220
Ray-fasc B 48/360	700000-015	4,8	360	3.5	103	22.44	220
Ray-fasc B 48/430	700000-017	4,8	430	3.5	115	22.44	220
Ray-fasc B 78/180	700000-052	7,8	180	3.5	45	55.08	540
Ray-fasc B 78/240	700000-019	7,8	240	3.5	63	55.08	540
Ray-fasc B 78/300	700000-020	7,8	300	4	80	55.08	540
Ray-fasc B 78/365	700000-021	7,8	365	8	100	55.08	540
Ray-fasc B 78/450	700000-022	7,8	450	35	130	55.08	540
Ray-fasc B 78/540	700000-023	7,8	540	35	158	55.08	540
Ray-fasc B 78/750	700000-024	7,8	750	35	220	55.08	540

CABLE TIE SUPPORT

Fastening with standard inserts for cable ties with widths up to 9 mm. UV resistant.

PRODUCT / Item	Dimension (mm)			
	A	B	C	D
Ray-fasc S 700001-000	9,4	5	23	17,6

BI-DIRECTIONAL ADHESIVE FIXING DEVICE

Self adhesive, can be used on all materials. Suitable for cable ties up to 4.8 mm. Made from ABS with rubber based adhesive foam. UV resistant.

Colour Black	Colour White	Tie width (mm)	Dimension (mm)				
PRODUCT / Item	PRODUCT / Item		A	B	C	F	H
Ray-fasc NBA36 700003-000	Ray-fasc BBA36 700002-000	3,6	19	4,1	19	4	5
Ray-fasc NBA48 700005-000	Ray-fasc BBA48 700004-000	4,8	27	4,8	27	6	6,5

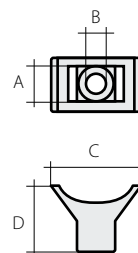
BAYONET-JOINT SUPPORT

Push fit support for cable ties up to 7.8mm. Can be used on sheet surfaces with up to 3.2 mm thick. 6.2mm O/D hole required. Polyamide 6.6.

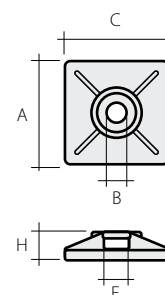
PRODUCT / Item	Dimension (mm)						Ø Hole (mm)
	A	B	C	D	E	F	
Ray-fasc SI 700006-000	10	10,6	8,1	3,2	8	7,1	6,2



100-piece pack.



100-piece pack.



100-piece pack.

