



## JOINTS


LV

### GEL CONNECTION

Micro-joints IPX8

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

Gel: UL 94-HB 

Operating  
temperature 

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

Fully submersible 

Can be used underground 

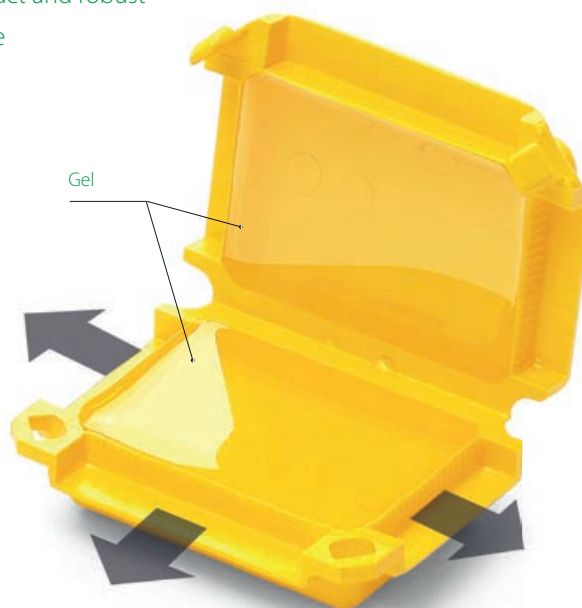
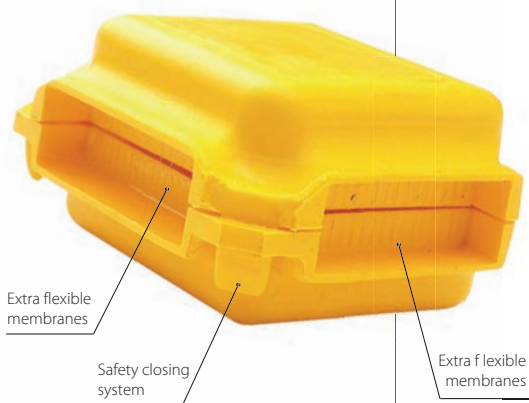
IPX8  
OFFICIALLY  
TESTED 

# Happy

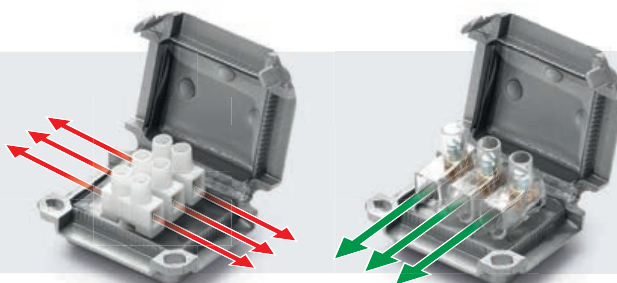
The revolutionary mini accessories with 3 entrances, pre-filled with gel and suitable for submersible installations (IPX8).

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 but also by the housing accepting a wide variety of connectors.

- Extremely versatile - Ready to use - Re-enterable
- For rigid or flexible insulated wires up to 4 mm<sup>2</sup>
- Pre-filled with gel, non toxic and no shelf life
- Small compact and robust
- Halogen free
- UV resistant



Configuration  
examples



**Ray  
tech**



## Happy 0

Product	Pieces	Color	Description	A x B x C (mm)
Happy 0	x 4	●	Blister	
Happy 0 Box12	x 12	○	Box	41 x 28 x 19

IDEAL FOR (or similar):

2x 2.5 mm<sup>2</sup>2x 1.5 mm<sup>2</sup>2x 2.5 mm<sup>2</sup>3x 2.5 mm<sup>2</sup>2x 4 mm<sup>2</sup>3x 4 mm<sup>2</sup>

A x B x C (mm)



## Happy 1

Product	Pieces	Color	Description	A x B x C (mm)
Happy 1	x 2	●	Blister	
Happy 1 Box10	x 10	○	Box	45 x 37 x 24

IDEAL FOR (or similar):

3x 2.5 mm<sup>2</sup>3x 2.5 mm<sup>2</sup>3x 2.5 mm<sup>2</sup>2x + 2x 2.5 mm<sup>2</sup>5x 2.5 mm<sup>2</sup>3x 4 mm<sup>2</sup>2x + 2x 4 mm<sup>2</sup>5x 4 mm<sup>2</sup>

A x B x C (mm)



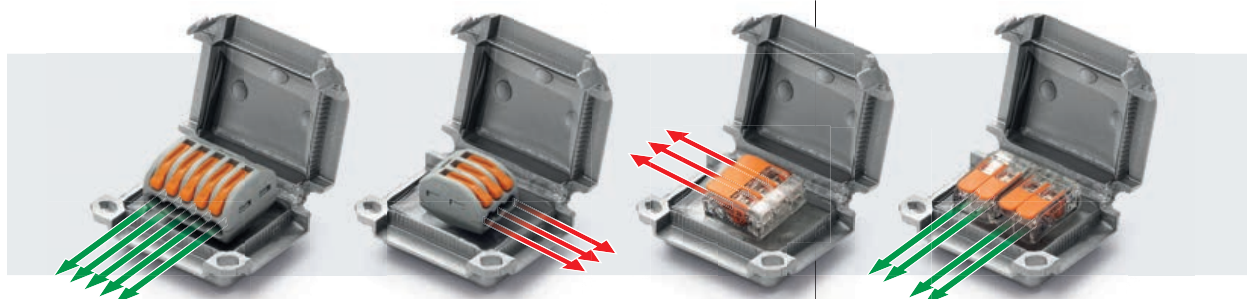
## Happy 2

Product	Pieces	Color	Description	A x B x C (mm)
Happy 2	x 1	●	Blister	
Happy 2 Box7	x 7	○	Box	53 x 39 x 24

IDEAL FOR (or similar):

3x 4 mm<sup>2</sup>3x 4 mm<sup>2</sup>2x + 2x 2.5 mm<sup>2</sup>2x + 2x 4 mm<sup>2</sup>

A x B x C (mm)





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

Gel: UL 94-HB 

Operating  
temperature 

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

Fully submersible 

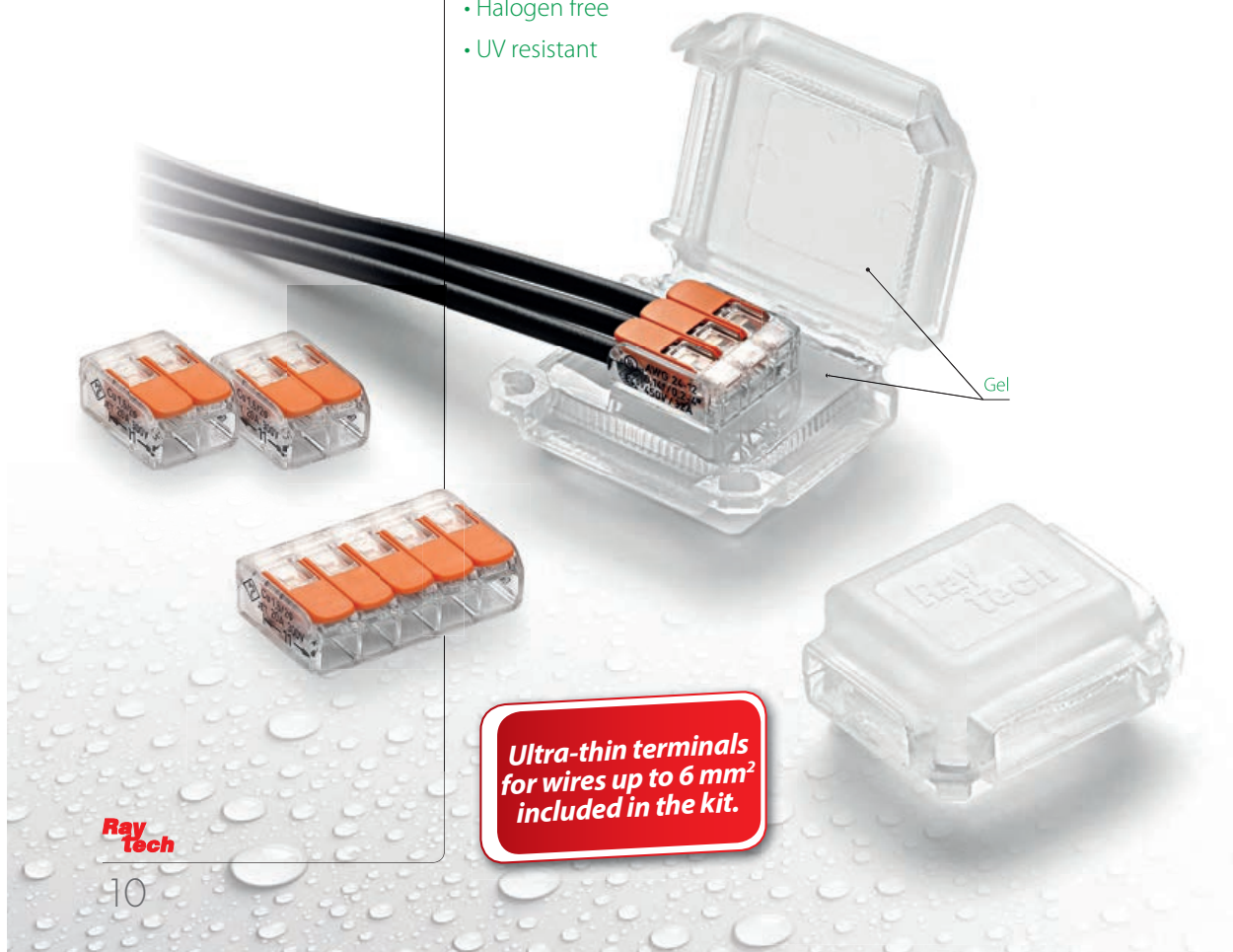
Can be used underground 

IPX8  
OFFICIALLY  
TESTED 

# Happy Joint

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

- Extremely versatile - ready to use - re-enterable
- Small, compact and robust
- No need for tools
- Pre-filled with gel, non toxic and no shelf life
- Can energise immediately
- For straight and branch connections
- For rigid or flexible insulated wires up to 6 mm<sup>2</sup>
- Up to 5 conductors on one phase or up to two conductors on two or three phases
- Halogen free
- UV resistant





## Happy Joint 3



Product	Formation and wires cross section (Max N° x mm²)		Pieces for package	A x B x C (mm)
	Combination			
Happy Joint 3	3 x 1 - 4	2 through / 1 branch	4 pcs/ Blister	41 x 28 x 19
Happy Joint 36	3 x 1 - 6	2 through / 1 branch	2 pcs/ Blister	45 x 37 x 24



3 x 4 mm²



3 x 6 mm²



With one connector  
included for each Happy

## Happy Joint 4

Product	Formation and wires cross section (Max N° x mm²)		Pieces for package	A x B x C (mm)
	Combination			
Happy Joint 4	4 x 1 - 4	2 through / in/out	2 pcs/ Blister	45 x 37 x 24
Happy Joint 46	2+2 x 1 - 6	2 through / in/out	2 pcs/ Blister	45 x 37 x 24



2+2 x 4 mm²



2+2 x 6 mm²



With two connectors  
included for each Happy

## Happy Joint 5

Product	Formation and wires cross section (Max N° x mm²)		Pieces for package	A x B x C (mm)
	Combination			
Happy Joint 5	5 x 1 - 4	2 through / 3 branch	2 pcs/ Blister	45 x 37 x 24
Happy Joint 56	5 x 1 - 6	2 through / 3 branch	1 pc/ Blister	53 x 39 x 24



5 x 4 mm²



5 x 6 mm²



With one connector  
included for each Happy

## Happy Joint 6

Product	Formation and wires cross section (Max N° x mm²)		Pieces for package	A x B x C (mm)
	Combination			
Happy Joint 6	6 x 1 - 4	3 through / in/out	1 pc/ Blister	53 x 39 x 24



+



With three connectors  
included for each Happy







## JOINTS

### GEL CONNECTION


Micro-joints IPX8

LV



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

Gel: UL 94-HB 

Operating  
temperature 

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

Fully  
submersible 

Can be used  
underground 

**IPX8**  
OFFICIALLY  
TESTED | **IMQ**

# Gel Box Line

Pre-filled gel accessories for sealing, protecting and making safe electrical connections.

- To put household systems in order
- For civil and industrial connections
- Also for submersible use
- Non-toxic and with no shelf life
- Versatile and ready to use
- Designed with dimensions suitable for the most commonly used connectors
- Halogen free
- UV resistant



**GEL BOX LINE**  
*a simple way  
to bring indoor  
connectors  
outdoors*

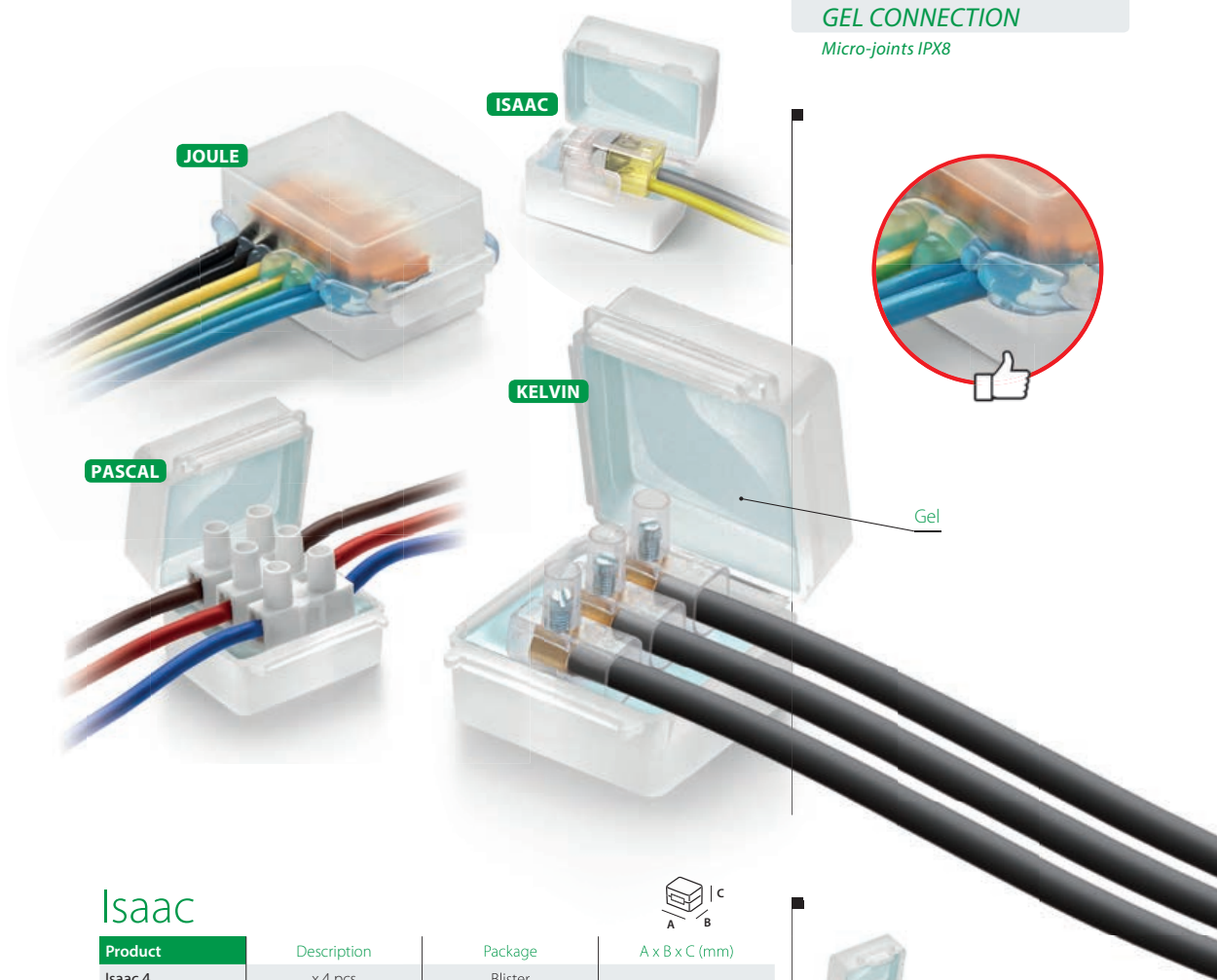
LV

## JOINTS



### GEL CONNECTION

Micro-joints IPX8



## Isaac

Product	Description	Package	A x B x C (mm)
Isaac 4	x 4 pcs	Blister	30 x 27 x 23
Isaac 4 P30	x 30 pcs	Box	
Isaac 4 MP *	x 50 pcs	Multipack	

IDEAL FOR (or similar):



## Pascal

Product	Description	Package	A x B x C (mm)
Pascal 6	x 2 pcs	Blister	36 x 37 x 26
Pascal 6 P15	x 15 pcs	Box	
Pascal 6 MP *	x 25 pcs	Multipack	

IDEAL FOR (or similar):



\* Also available the flame retardant version in the following colours: yellow, orange, blue or black.

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## JOINTS

### GEL CONNECTION

Micro-joints IPX8

## LV



### Watt

Product	Description	Package	A x B x C (mm)
Watt	x 2 pcs	Blister	30 x 42 x 26
Watt P15	x 15 pcs	Box	
Watt MP *	x 25 pcs	Multipack	

IDEAL FOR (or similar):



3x 2.5 mm<sup>2</sup>



2x + 2x 2.5 mm<sup>2</sup>



5x 2.5 mm<sup>2</sup>



2x + 2x 4 mm<sup>2</sup>



5x 4 mm<sup>2</sup>



### Joule

Product	Description	Package	A x B x C (mm)
Joule	x 1 pcs	Blister	33 x 52 x 26
Joule MP *	x 20 pcs	Multipack	

IDEAL FOR (or similar):



2x + 2x + 2x 2.5 mm<sup>2</sup>



2x + 2x + 2x 4 mm<sup>2</sup>



### Kelvin

Product	Description	Package	A x B x C (mm)
Kelvin	x 1 pcs	Blister	52 x 53 x 29
Kelvin P9	x 9 pcs	Box	
Kelvin MP *	x 20 pcs	Multipack	

IDEAL FOR (or similar):



3x 6 mm<sup>2</sup>



3x 6 mm<sup>2</sup>



Also available the flame retardant version in the following colours: yellow, orange, blue or black.





## Gel Box Line Kit

Complete with connectors.

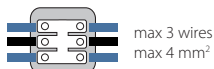
### Pascal M2,5

Product	Description	Package	A x B x C (mm)
Pascal M2,5	12 pieces + 36 terminal blocks (2.5 mm <sup>2</sup> )	Box	36 x 37 x 26



### Kelvin M4

Product	Description	Package	A x B x C (mm)
Kelvin M4	6 pieces + 24 terminal blocks (4 mm <sup>2</sup> )	Box	52 x 53 x 29



### Watt +

Product	Description	Package	A x B x C (mm)
Watt + 1.5	10 pieces + 30 end connectors/terminal blocks (1.5 mm <sup>2</sup> )	Box	30 x 42 x 26
Watt + 2.5	10 pieces + 30 end connectors/terminal blocks (2.5 mm <sup>2</sup> )	Box	



### Kelvin +

Product	Description	Package	A x B x C (mm)
Kelvin + 4	10 pieces + 30 end connectors/terminal blocks (4 mm <sup>2</sup> )	Box	52 x 53 x 29
Kelvin + 6	10 pieces + 30 end connectors/terminal blocks (6 mm <sup>2</sup> )	Box	
Kelvin 6+4	6 pieces + 20 end connectors/terminal blocks (4 mm <sup>2</sup> )	Box	
Kelvin 6+6	6 pieces + 20 end connectors/terminal blocks (6 mm <sup>2</sup> )	Box	



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## JOINTS

### GEL CONNECTION

Micro-joints IPX8



**Electrical performance:**  
CEI EN 50393 with connectors  
complying with EN 61238-1  
(with testing under water head and water  
between the cable cores)  
Class 2 in accordance with CEI 64-8.

Gel: UL 94-HB 

Operating  
temperature 

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

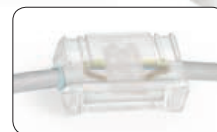
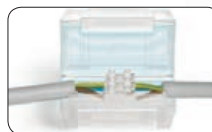
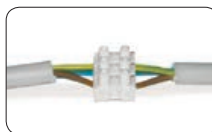
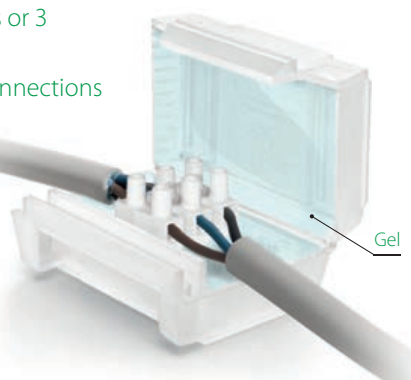
**IPX8**  
OFFICIALLY  
TESTED 

## LV

# Gel Cover Line

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

- For 3 x 1 to 6 mm<sup>2</sup> cables or 3 insulated wires
- For civil and industrial connections
- To put household systems in order
- Also for underwater use
- Non-toxic and with no shelf life
- Halogen free
- UV resistant



## OHM & BAR



Product	Housed connectors type	Pieces for package	Package type	Dimensions A x B x C (mm)
OHM				
OHMp11	2 from 4 mm <sup>2</sup>	1	Blister	61 x 35 x 28
BAR				
BARp9	3 from 4 mm <sup>2</sup> / 6 mm <sup>2</sup>	1	Blister	63 x 41 x 28
		9	Box	



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## Mammut Gel Cover



Product	Housed connectors type	Pieces for package	Package type	Dimensions A x B x C (mm)
Gel Cover 4				
Mammut Gel Cover	2 from 4 mm <sup>2</sup>	1	Blister	61 x 35 x 28
		8	Box	
Gel Cover 6				
Mammut Gel Cover 6	3 from 4 mm <sup>2</sup> / 6 mm <sup>2</sup>	1	Blister	63 x 41 x 28
		6	Box	

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



LV

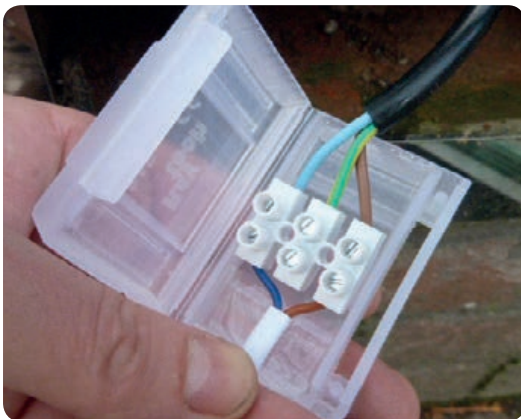
## JOINTS



### GEL CONNECTION

Micro-joints IPX8

#### Installation examples





## JOINTS


### GEL CONNECTION

Micro-joints IPX8

LV

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

Gel: UL 94-HB 

Operating  
temperature 

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

Fully submersible 

Can be used underground 

IPX8  
OFFICIALLY  
TESTED 

# Nano Joint

Pre-filled gel accessories to seal, protect and make safe electrical connections.

Inclusive of connectors

- 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 mm<sup>2</sup>
- 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
- No shelf life
- Halogen free
- UV resistant



NANO JOINT 3



NANO JOINT 5



NANO JOINT 6



Latest generation,  
extra flat  
connectors  
included in the kit.

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## GEL CONNECTION

Micro-joints IPX8

## Nano 3

Product	Formation and wires cross section (Max N° x mm²)		Pieces for package	A x B x C (mm)
Nano 3	3 x 1 - 4	2 through / 1 branch	4 pcs Blister	30 x 27 x 23



With one connector  
included for each  
Nano Joint



## Nano 5

Product	Formation and wires cross section (Max N° x mm²)		Pieces for package	A x B x C (mm)
Nano 5	5 x 1 - 4	2 through / 3 branch	2 pcs Blister	30 x 42 x 26

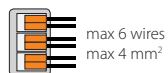


With one connector  
included for each  
Nano Joint



## Nano 6

Product	Formation and wires cross section (Max N° x mm²)		Pieces for package	A x B x C (mm)
Nano 6	6 x 1 - 4	3 through / In/Out	1 pcs Blister	33 x 52 x 26



With three connectors  
included for each  
Nano Joint







## JOINTS


### GEL CONNECTION

Micro-joints IPX8

LV

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

Gel: UL 94-HB 

Operating  
temperature 

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

Fully submersible 

Can be used underground 

IPX8  
OFFICIALLY  
TESTED 

# Nano Mam - For

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

- Ready to use, quick, re-enterable!
- Ideal for outdoor & underground installations, fully submersible
- Immediately energizable
- For rigid or flexible insulated wires from 1 a 4 mm<sup>2</sup>
- For 1, 2 or 3 cores connections
- Small, compact and resistant
- No shelf life
- Halogen free
- UV resistant



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LV

## JOINTS



### GEL CONNECTION

Micro-joints IPX8

## Nano Mam 2,5

Product	Formation and wires cross section (Max N° x mm²)	Combination	Pieces for package	A x B x C (mm)
Nano Mam 2,5	3 x 1 - 2,5	3 through	2 pcs/ Blister	36 x 37 x 26



With one connector included for each Nano Mam

## Nano Mam 4

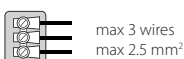
Product	Formation and wires cross section (Max N° x mm²)	Combination	Pieces for package	A x B x C (mm)
Nano Mam 4	3 x 1,5 - 4	3 through	1 pcs/ Blister	52 x 53 x 29



With one connector included for each Nano Mam

## Nano For 2,5

Product	Formation and wires cross section (Max N° x mm²)	Combination	Pieces for package	A x B x C (mm)
Nano For 2,5	3 x 1 - 2,5	3 connections / In/Out	1 pcs/ Blister	33 x 52 x 26



With one connector included for each Nano For

## Nano For 4

Product	Formation and wires cross section (Max N° x mm²)	Combination	Pieces for package	A x B x C (mm)
Nano For 4	3 x 1 - 4	3 connections / In/Out	1 pcs/ Blister	52 x 53 x 29



With one connector included for each Nano For







## JOINTS

### GEL CONNECTION


Micro-joints IPX8

LV

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

**Gel:** UL 94-HB 

**Operating voltage:** 0,6 / 1kV

Operating temperature 

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

Fully submersible 

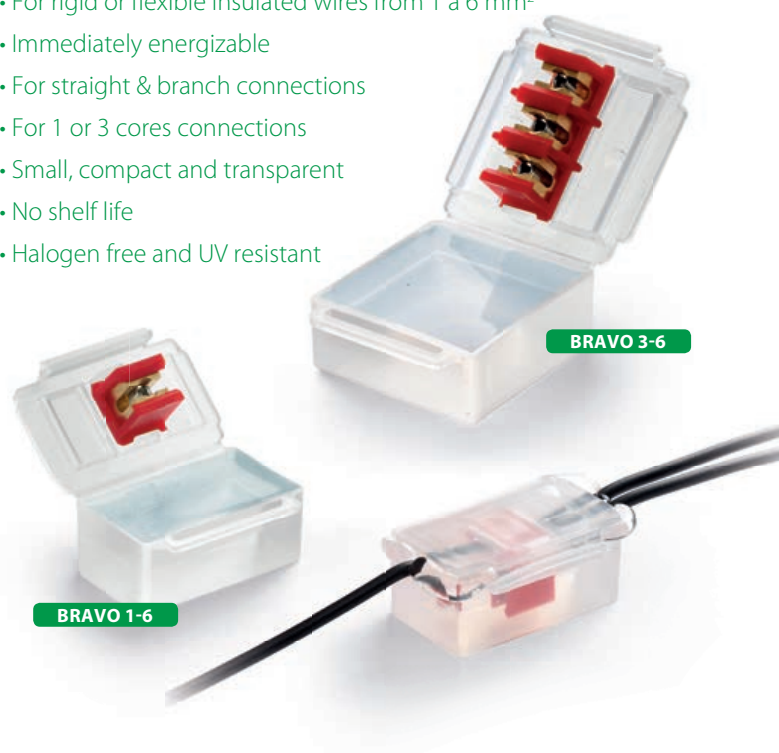
Can be used underground 

**IPX8**  
OFFICIALLY  
TESTED 

## Bravo

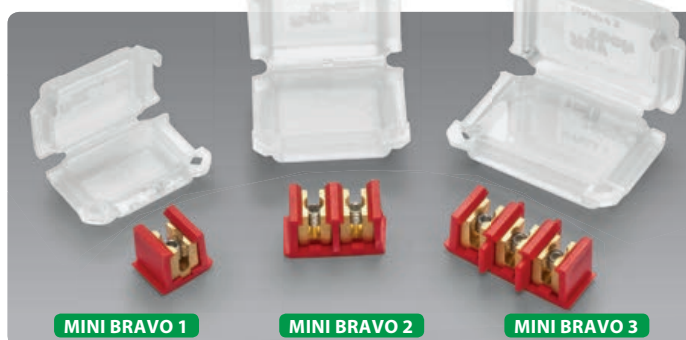
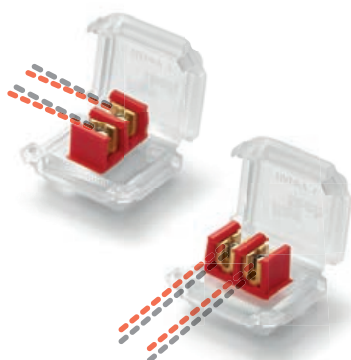
The first "Gel-Box" with integrated connectors!

- Ready to use, quick, re-enterable!
- For rigid or flexible insulated wires from 1 a 6 mm<sup>2</sup>
- Immediately energizable
- For straight & branch connections
- For 1 or 3 cores connections
- Small, compact and transparent
- No shelf life
- Halogen free and UV resistant



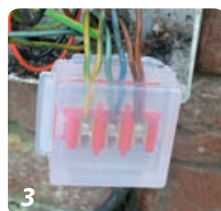
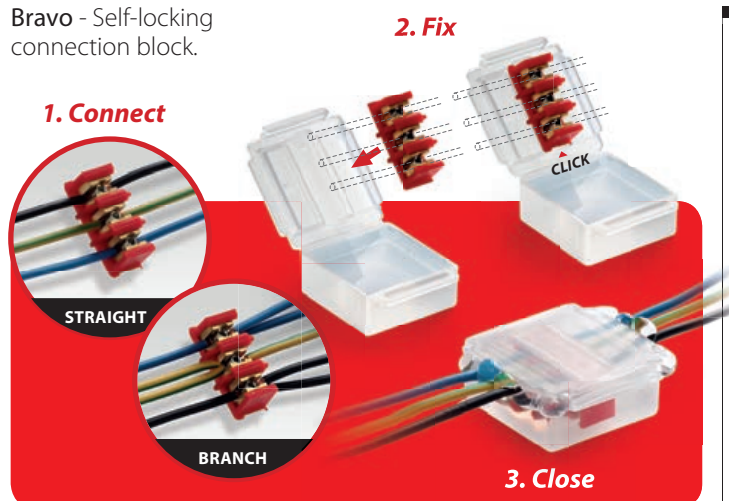
## Mini Bravo

Extra-flat mini box  
with terminal block.





Bravo - Self-locking connection block.



## Bravo

Product	Formation and wires cross section		Pieces for package	A x B x C (mm)
	Straight or through (N° x mm²)	Branch (N° x mm²)		
Bravo 1-6	1 x 1 - 6	1 x 1 - 6	1 pcs/ Blister	50 x 29 x 22
Bravo 3-6	2 x 1 - 6 3 x 1 - 6	2 x 1 - 6 3 x 1 - 6	1 pcs/ Blister	53 x 49 x 22



## Mini Bravo

Product	Formation and wires cross section		Pieces for package	A x B x C (mm)
	Straight or through (N° x mm²)	Branch (N° x mm²)		
Mini Bravo 1	1 x 1 - 4	1 x 1 - 4	3 pcs/ Blister	41 x 28 x 19
Mini Bravo 2	2 x 1 - 4	2 x 1 - 4	1 pcs/ Blister	45 x 37 x 24
Mini Bravo 3	3 x 1 - 4	3 x 1 - 4	1 pcs/ Blister	53 x 39 x 24



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## JOINTS

### GEL CONNECTION

Micro-joints IP68/IP69K

LV



Electrical performance:  
CEI EN 50393  
as applicable

Gel: UL 94-HB

Operating temperature

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

Fully submersible

Can be used underground

**IP69K** OFFICIALLY TESTED **IP68** OFFICIALLY TESTED **IMQ**



**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.

# Little Joint Line



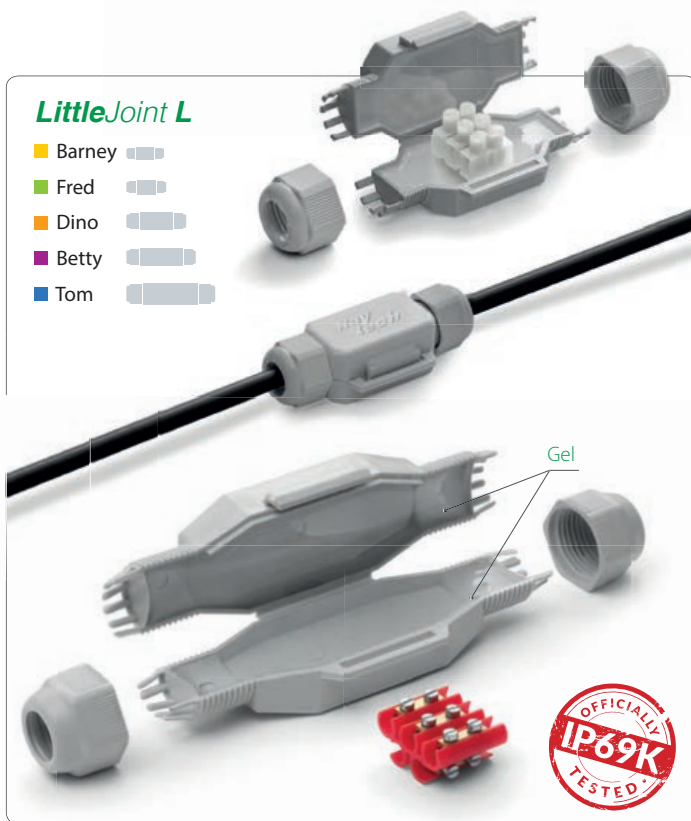
The IP68 / IP69K micro-joints, gel pre-filled, complete with connector, suitable for any type of installation, even the most extreme.

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.

- Pre-filled with classified non-toxic gel
- Extremely compact and ready to install
- Ideal for connections in lighting systems for gardens, steps and stairways, pedestrian crossings, etc.
- Halogen Free & UV resistant
- Always re-enterable

### LittleJoint L

- Barney
- Fred
- Dino
- Betty
- Tom



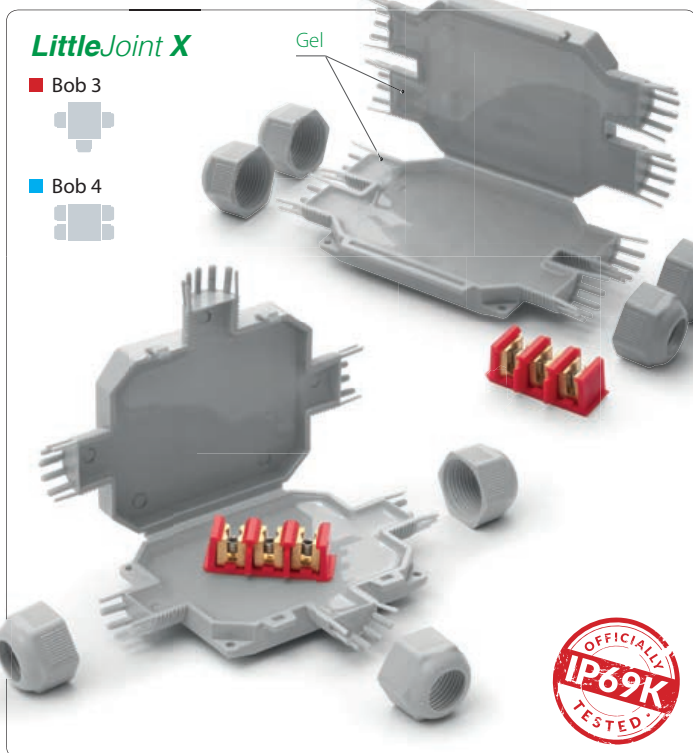
LV

## JOINTS



### GEL CONNECTION

Micro-joints IP68/IP69K



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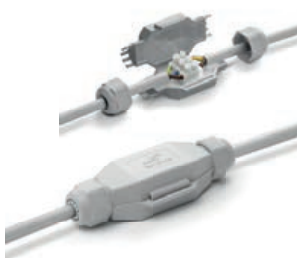


## JOINTS

### GEL CONNECTION

Micro-joints IP68/IP69K

## LV



### LittleJoint L

Product	Colour	Connector	Cable formation max (N° x mm²)	Ø cables min - max (mm)	Pieces / Pack	A x B x C (mm)
Barney	●		2 x 2,5	6 - 10	1 / Blister	75 x 28 x 19
Barney - N	●				1 / Blister	
Barney MP	●				10 / Multipack	
Fred	●		3 x 2,5	8 - 13	1 / Blister	80 x 36 x 23
Fred - N	●				1 / Blister	
Fred MP	●				10 / Multipack	
Fred/4	●		3 x 4	8 - 13	1 / Blister	80 x 36 x 23
Fred/4 - N	●				1 / Blister	
Dino	●		4 x 4	10 - 16	1 / Blister	125 x 43 x 35
Dino - N	●				1 / Blister	
Betty/4	●		5 x 4	10 - 16	1 / Blister	145 x 46 x 35
Betty/4 - N	●				1 / Blister	
Betty/6	●		5 x 6	14 - 19	1 / Blister	145 x 46 x 35
Betty/6 - N	●				1 / Blister	
Tom	●		5 x 16	19 - 23	1 / Blister	180 x 53 x 42
Tom-N	●				1 / Blister	



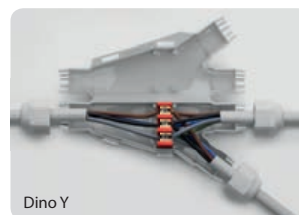
### LittleJoint Y

Product	Colour	Connector	Cable formation max (N° x mm²)		Ø cables min - max (mm)	Pieces / Pack	A x B x C (mm)
			Through	Branch			
Barney Y	●		1 x 4	1 x 1,5	6 - 10	1 / Blister	85 x 55 x 22
Barney Y - N	●		1 x 2,5	1 x 2,5		1 / Blister	
Fred Y	●		3 x 4	3 x 1,5	8 - 13	1 / Blister	110 x 72 x 25
Fred Y - N	●		3 x 2,5	3 x 2,5		1 / Blister	
Dino Y	●		5 x 6	5 x 1,5	14 - 19	1 / Blister	160 x 75 x 37
Dino Y - N	●		5 x 4 *	5 x 2,5 *		1 / Blister	

\* section for rigid cables



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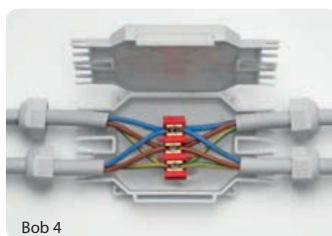
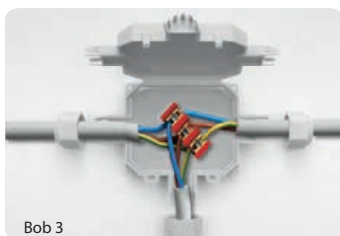
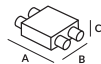
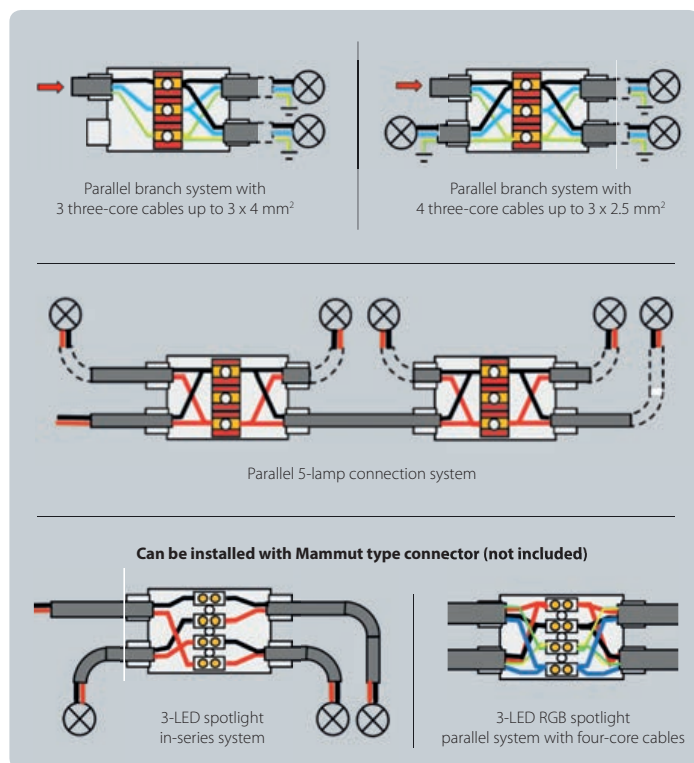


## GEL CONNECTION

Micro-joints IP68/IP69K

## LittleJoint X

Product	Colour	Connector	Cable formation max (N° x mm²)		Ø cables min - max (mm)	Pieces / Pack	A x B x C (mm)
			Through	Branch			
Bob 3	●		1 cable 3 x 4 3 x 2,5	2 cables 3 x 4	8 - 13	1 / Blister	105 x 80 x 25
Bob 3 - N	●			2 cables 3 x 2,5		1 / Blister	
Bob 4	●		1 cable 3 x 4 3 x 2,5	2 cables 3 x 4	8 - 13	1 / Blister	105 x 65 x 25
Bob 4 - N	●			3 cables 3 x 2,5		1 / Blister	

Some installation possibilities for **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.

Raytech



## JOINTS

### GEL CONNECTION

Box IP68/IP69K

LV




**Electrical performance:**  
CEI EN 50393  
as applicable

**Gel:** UL 94-HB 

**Halogen free:**  
according to CEI EN 50267 2-2

**Self-extinguishing and  
resistant to abnormal  
heat and fire:**

Glow wire test a +960°C  
according to EN 60695-2-11

Operating  
temperature 

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

**IP69K** OFFICIALLY  
TESTED **IP68** OFFICIALLY  
TESTED **IMQ**

# Fox Box IP68

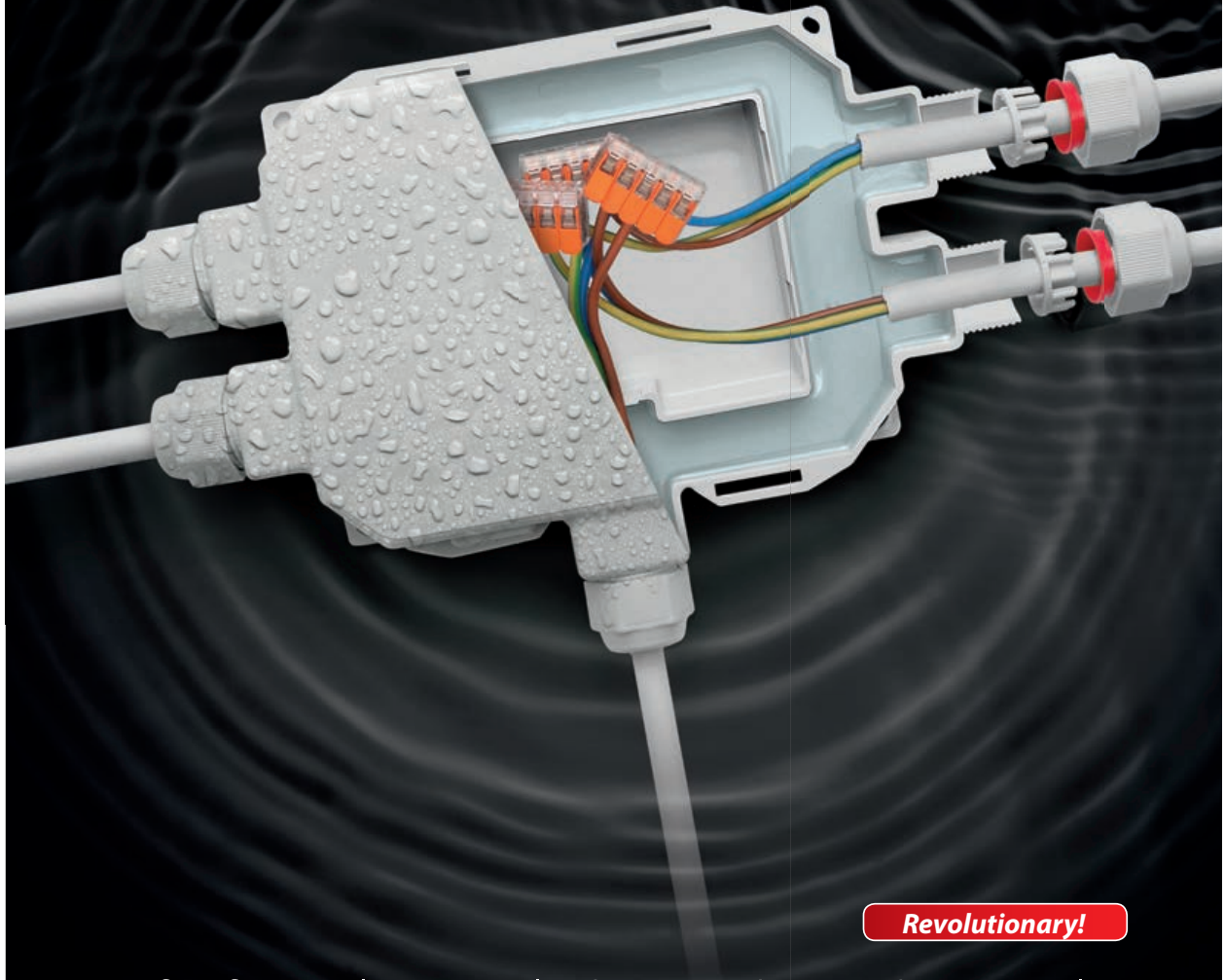
3 or 5 entrance jointing enclosure with gel filled perimeter chamber providing lighter weight with maximum capacity.

Kit includes accessories to maximise versatility allowing the use of cables from 6 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.

- 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
- No shelf life
- Always re-enterable
- Wall or external ceiling fixing system
- Halogen free & UV resistant



# Fox Box



**Revolutionary!**

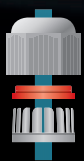
Safe, fast, elegant, lightweight and versatile!

**IP68**  
OFFICIALLY  
TESTED



CABLES

Ø 6-13



Ø 13-18

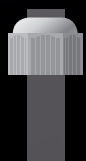


TUBES

Ø 16



Ø 20



Ø 32



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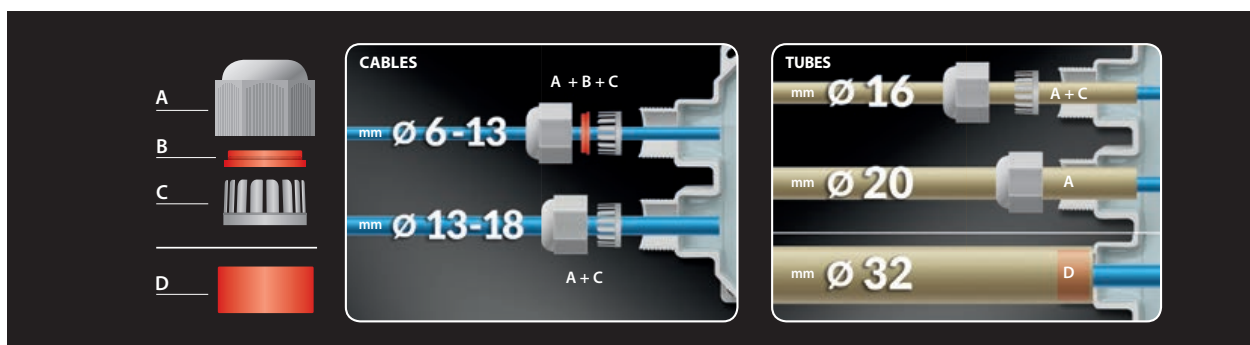


## JOINTS

LV

### GEL CONNECTION

Box IP68/IP69K



## FOX BOX

Box with 5 entrances for cables and conduits

Screwless click hook closure

Cable sheath, armour and shield storage compartment

Gel-free connection storage compartment

Chamber pre-filled with insulating and sealing gel



Adapters

Can be mounted on walls or ceilings

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Tech

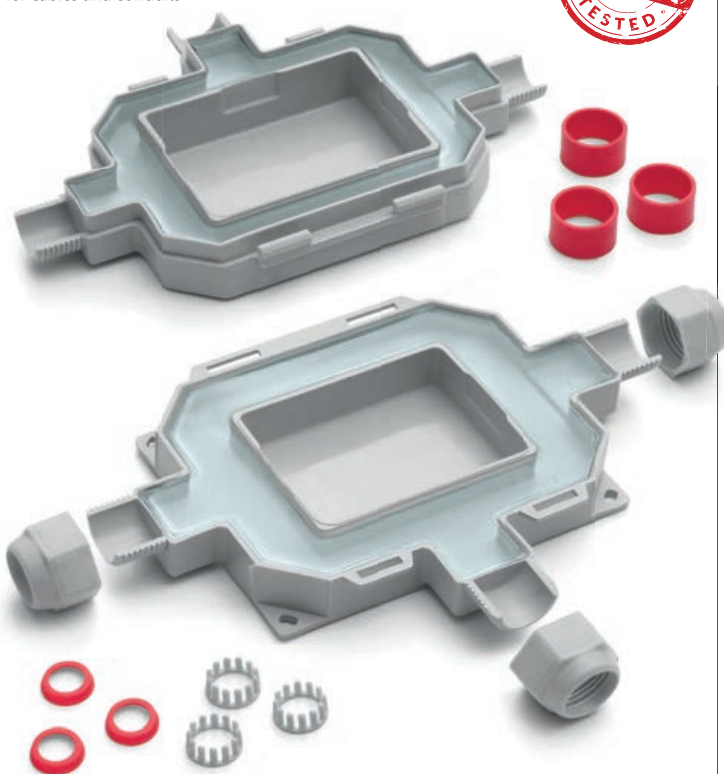


Product	Colour	N° of entrances	Ø entrances with cable glands min (mm) max (mm)	Ø tubes (mm)	A x B x C (mm)
FOX BOX	●	5	6 18	16 / 20 / 32	210 x 155 x 45
FOX BOX - N	●				
FOX BOX - ARM	●				



FOX BOX 3

Box with 3 entrances  
for cables and conduits



FOX BOX VIDEO



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Product	Colour	N° of entrances	Ø entrances with cable glands min (mm)	max (mm)	Ø tubes (mm)	A x B x C (mm)
FOX BOX 3	●	3	6	18	16 / 20 / 32	180 x 135 x 45
FOX BOX 3 - N	●					
FOX BOX 3 - ARM	●					







## JOINTS

### GEL CONNECTION

Box IP68/IP69K

LV




**Electrical performance:**  
CEI EN 50393  
as applicable

**Gel:** UL 94-HB 

**Halogen free:**  
according to CEI EN 50267 2-2

**Self-extinguishing and  
resistant to abnormal  
heat and fire:**

Glow wire test a +960°C  
according to EN 60695-2-11

Operating  
temperature 

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

**IP69K**  
OFFICIALLY  
TESTED

**IP68**  
OFFICIALLY  
TESTED

**IMQ**

# Ready Box IP68

3 or 4 entrances junction boxes pre-filled with gel, complete with integrated terminal block and cable glands for 6 to 18 mm diameter cables and for 16/20/32 mm ducts/conduit.

- Ready to use, they can be installed in all environmental conditions
- Also suitable for wet or flooded environments
- Always re-enterable
- Pre-filled with gel. Non-toxic and non-classified as hazardous under CLP
- Pre-threaded entries for cable gland mounting
- Snap shut closure, does not require screws
- Wall or external ceiling fixing system
- Halogen free & UV resistant
- No shelf life

**Box pre-filled with  
non-toxic, safe gel.  
Nothing to pour,  
mix or cast!**



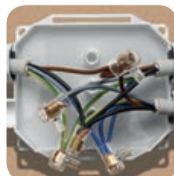
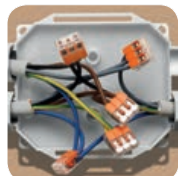
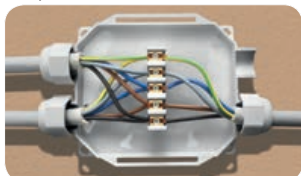
Ready, safe, quick and innovative



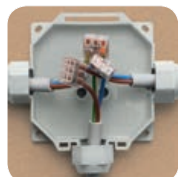
# GEL CONNECTION

Box IP68/IP69K

Ready Box IP68 - 120



Ready Box IP68 - 90



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.



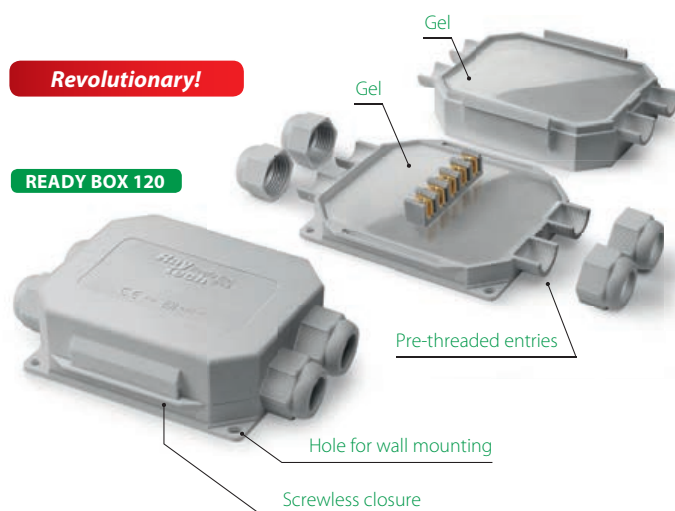
Installation with free cables.



Installation with cable gland duct.

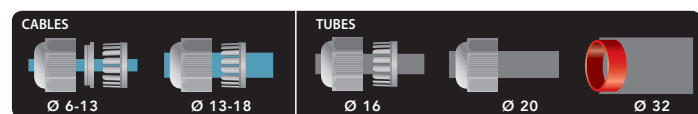
**Revolutionary!**

**READY BOX 120**



**READY BOX 90**

Product	Colour		Ø entrances with cable glands		Ø tubes (mm)	A x B x C (mm)
			min (mm)	max (mm)		
Ready Box IP68 90	●	3	6	18	16 / 20 / 32	90 x 90 x 45
Ready Box IP68 90/N	●					
Ready Box IP68 120	●	4	6	18	16 / 20 / 32	120 x 100 x 45
Ready Box IP68 120/N	●					



**Ray  
tech**



## JOINTS

LV

PRE-FILLED WITH GEL  
for integrated connections




**Electrical performance:** CEI EN 50393  
(with testing under water head  
and water between the cable cores)  
Class 2 in accordance with CEI 64-8.

**No flame propagation:**  
CEI 20-35 • IEC 60332-1 • HD405-1  
(as applicable)  
Low smoke and toxic and corrosive  
gas emissions

**Gel:** UL 94-HB 

**Casing mix:** UL 94-V2

**Degree of protection:** IP68

Operating  
temperature 

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

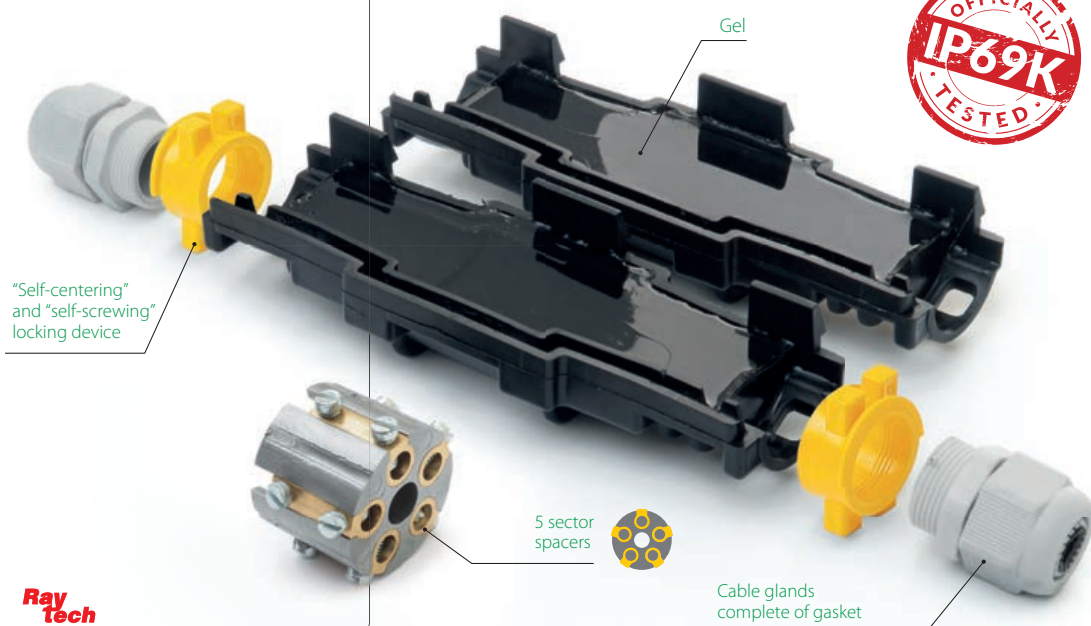
**IP69K** OFFICIALLY  
TESTED **IP68** OFFICIALLY  
TESTED **IMQ**

# 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.

- 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
- Non-toxic, with no expiry date



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Tech**

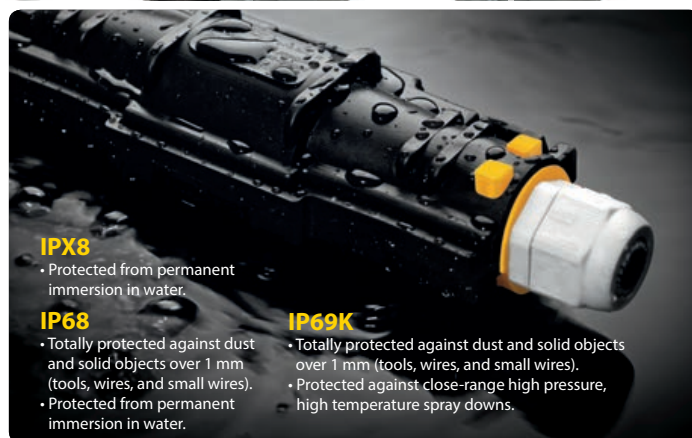
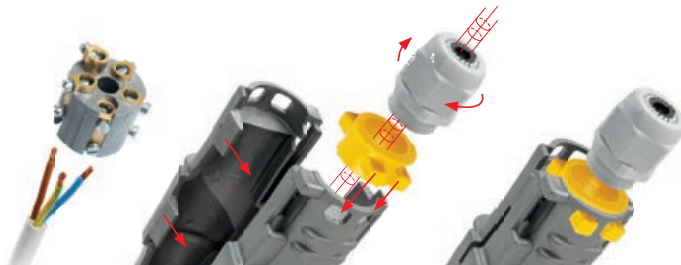


**PRE-FILLED WITH GEL**

for integrated connections

Product	Formation n°	Configuration IP68			Configuration IPX8		
		Section (mm²)	Ø cable (mm)	A x B (mm)	Section (mm²)	Ø cable (mm)	A x B (mm)
Rapid Joint L1,5-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	•	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	•	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	•	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.








## JOINTS

LV

PRE-FILLED WITH GEL  
for integrated connections

**Electrical performance:**  
CEI EN 50393  
as applicable

Gel: UL 94-HB 

Operating temperature 

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

Fully submersible 

Can be used underground 

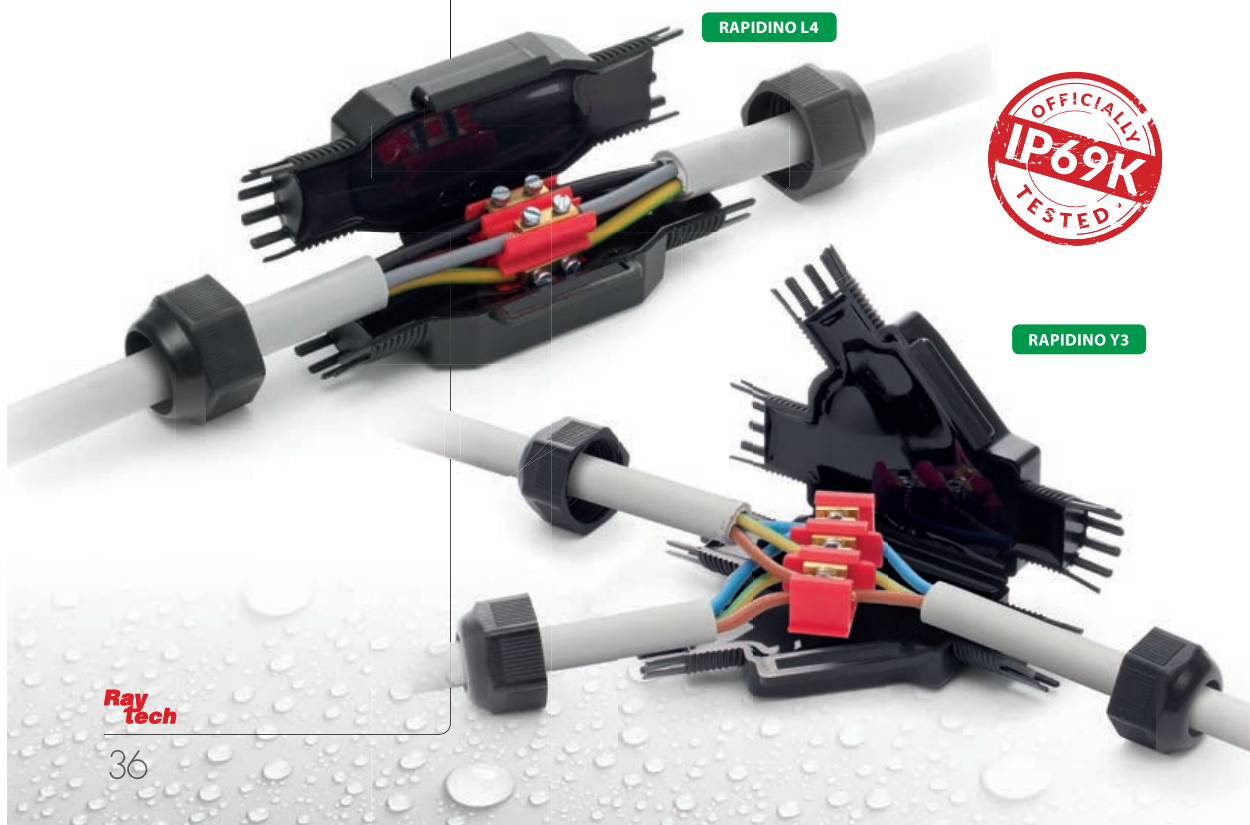
**IP69K** OFFICIALLY TESTED  
**IP68** OFFICIALLY TESTED  
**IMQ**

# 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.

- Provided with 2 (straight joints) or 3 (branch joints) cable glands to avoid accidental cable traction
- Complete with screw connectors
- Pre-filled with non-toxic, non-classified gel
- Extremely compact and ready to install
- Always re-enterable
- Halogen Free & UV resistant
- Ideal for straight or branch connections in lighting systems for gardens, steps and stairways, pedestrian crossings, etc.



Ray  
tech

LV

## JOINTS



PRE-FILLED WITH GEL  
for integrated connections

### Mini Rapid Joint IP68 L

Product	Formation	Connector	Cable formation max (N° x mm²)	Ø cables min - max (mm)	Pieces / Pack	(mm)
Rapidino IP68 L2			2 x 2,5	6 - 10	3 pcs / Box	75 x 28 x 19
Rapidino IP68 L3			3 x 2,5	8 - 13	3 pcs / Box	80 x 36 x 23
Rapidino IP68 L4			4 x 4	10 - 16	1 pc / Box	125 x 43 x 35



### Mini Rapid Joint IP68 Y

Product	Formation	Connector	Through	Branch	Ø cables min - max (mm)	Pieces / Pack	(mm)
Rapidino IP68 Y1			1 x 4 1 x 2,5	1 x 1,5 1 x 2,5	6 - 10	2 pcs / Box	85 x 55 x 22
Rapidino IP68 Y3			3 x 4 3 x 2,5	3 x 1,5 3 x 2,5	8 - 13	1 pc / Box	110 x 72 x 25





## JOINTS

PRE-FILLED WITH GEL  
for integrated connections

LV




**Electrical performance:** CEI EN 50393  
(with testing under water head  
and water between the cable cores)  
Class 2 in accordance with CEI 64-8.

**No flame propagation:**  
CEI 20-35 • IEC 60332-1 HD405-1  
(as applicable)  
Low smoke and toxic and  
corrosive gas emissions

**Gel:** UL 94-HB 

**Mescola Involucro:** UL 94-V2

Operating  
temperature 

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

**IPX8**  
OFFICIALLY  
TESTED 



# 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.

- Complete with isolated terminal blocks
- For straight and branch connections
- For all types of application, including submersible
- Re-accessible and with no shelf life
- Flame retardant
- Non toxic and safe




SUPERCLIK

LV

## JOINTS

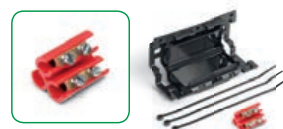


**PRE-FILLED WITH GEL**  
for integrated connections

Product	Cable formation and conductor cross sections (n° x mm²)				Ø max cables (mm)	 A x B x C (mm)
	Straight Connections		Branch connections			
	In line		T	B		
Super Klik 0	3 x 1,5 - 6		3 x 1,5 - 4	3 x 1,5 - 2,5	14	95 x 43 x 28

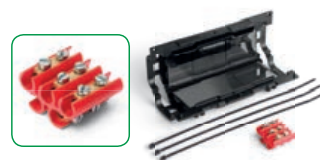


T: Through cable - B: Branch cable



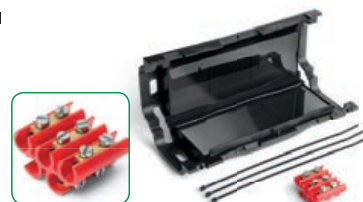
	Cable formation and conductor cross sections (n° x mm²)			Ø	
	Straight Connections	Branch connections		max cables	A x B x C
Product	In line	T	B	(mm)	(mm)
Super Klik 1	2 x 1,5 - 6	2 x 4	2 x 2,5	20,5	150 x 56 x 30
	3 x 1,5 - 6	3 x 4	3 x 2,5		
	4 x 1,5 - 6	4 x 4	4 x 2,5		
	5 x 1,5 - 6	5 x 4	5 x 2,5		

T: Through cable - B: Branch cable



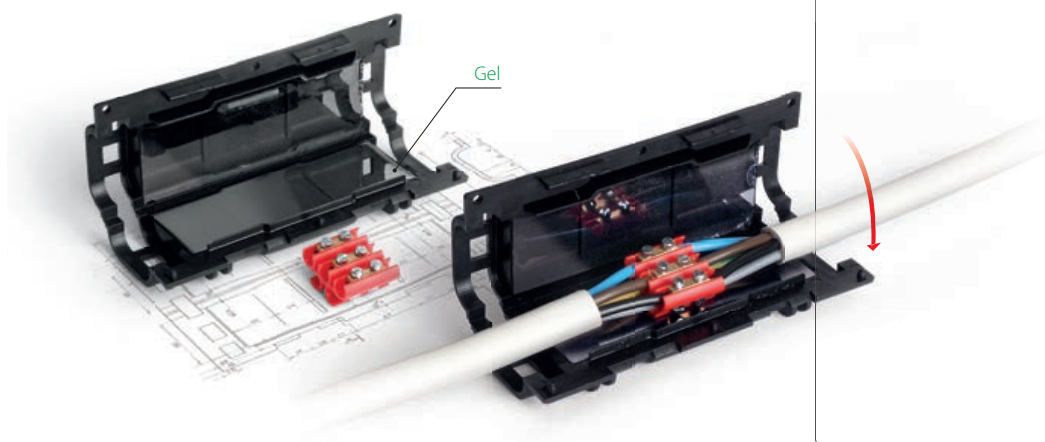
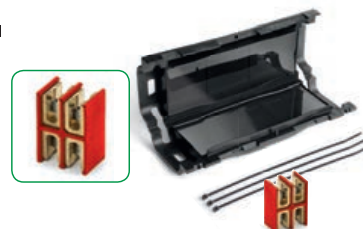
	Cable formation and conductor cross sections (n° x mm²)			Ø	
	Straight Connections	Branch connections		max cables	A x B x C
Product	In line	T	B	(mm)	(mm)
Super Klik 2	2 x 4 - 16	2 x 10	2 x 6	30	220 x 85 x 46
	3 x 4 - 16	3 x 10	3 x 6		
	4 x 4 - 16	4 x 10	4 x 6		
	5 x 4 - 16	5 x 10	5 x 6		

T: Through cable - B: Branch cable



	Cable formation and conductor cross sections (n° x mm²)				Ø max cables (mm)	A x B x C (mm)
	Straight Connections		Branch connections			
Product	In line		T	B		
Super Klik 3	-		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



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tech**





## JOINTS

PRE-FILLED WITH GEL  
for integrated connections

## LV



**Electrical performance:**

CEI EN 50393  
(with testing under water head  
and water between the cable cores)  
Class 2 in accordance with CEI 64-8.


**No flame propagation:**

CEI 20-35 • IEC 60332-1 HD405-1  
(as applicable)  
Low smoke and toxic and  
corrosive gas emissions

Gel: UL 94-HB 

Casing mix: UL 94-V2

Degree of protection: IPX8

Operating  
temperature 

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

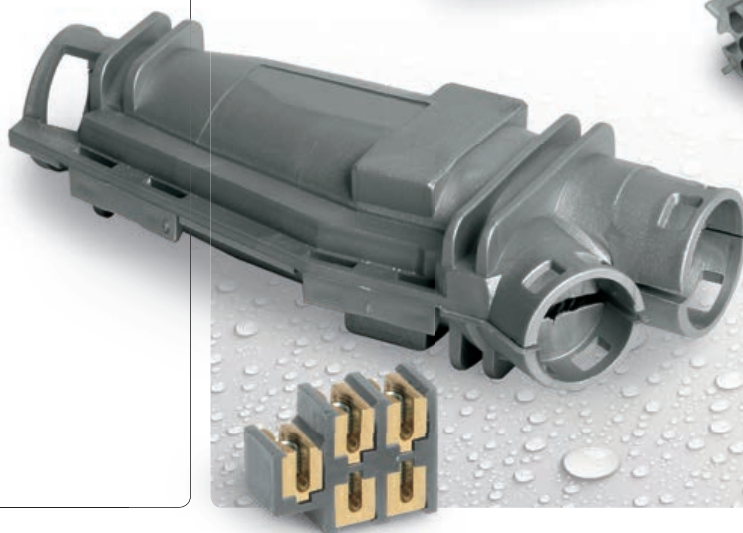
**IPX8**  
OFFICIALLY  
TESTED **IMQ**

# 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.

- 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
- Re-accessible and with no shelf life
- Flame retardant
- Non toxic and safe



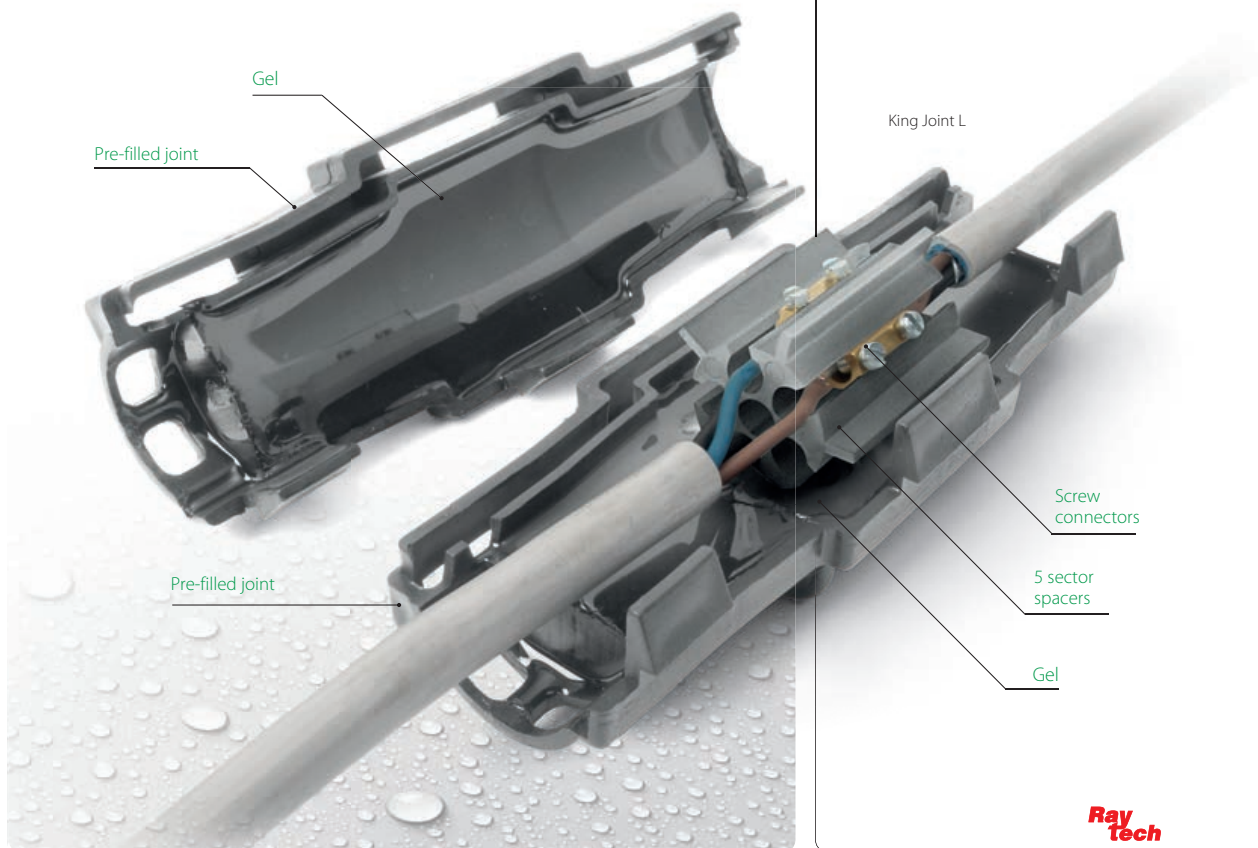
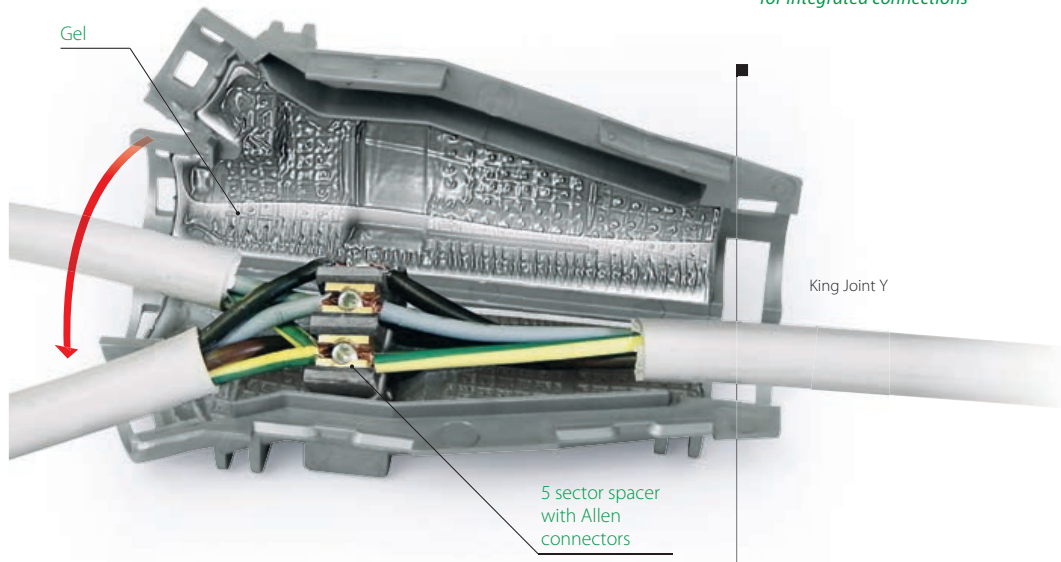
**Ray  
tech**

LV

## JOINTS



PRE-FILLED WITH GEL  
for integrated connections



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tech



## JOINTS

PRE-FILLED WITH GEL  
for integrated connections

## LV

### King Joint L

Straight joints, including armoured cable.



Product	LINE CONNECTIONS Cable formation and conductor cross sections (n° x mm <sup>2</sup> )	Ø max cables (mm)	Dimensions A x B x C (mm)
• King Joint 0 blister	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	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		



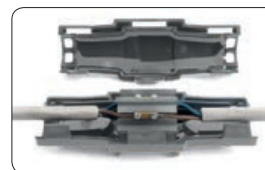
Product	STRAIGHT CONNECTIONS Cable formation and conductor cross sections (n° x mm <sup>2</sup> )	Ø max cables (mm)	Dimensions A x B x C (mm)
• King Joint L10 • King Joint L10 - ARM	2 x 2,5 - 10	24	180 x 60 x 60
	3 x 2,5 - 10		
	4 x 2,5 - 10		
	5 x 2,5 - 10		



Product	STRAIGHT CONNECTIONS Cable formation and conductor cross sections (n° x mm <sup>2</sup> )	Ø max cables (mm)	Dimensions A x B x C (mm)
• King Joint L25 • King Joint L25 - ARM	2 x 10 - 25	31	210 x 65 x 65
	3 x 10 - 25		
	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**.

#### Installation sequence King Joint L



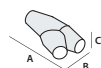
**Ray  
tech**



**PRE-FILLED WITH GEL**  
for integrated connections

## King Joint Y

Branch joints, including armoured cable.



Product	BRANCH CONNECTIONS Cable formation and conductor cross sections (n° x mm²)		Ø max cables (mm)		Dimensions A x B x C (mm)
	T	B	T	B	
• King Joint Y6 • King Joint Y6 - ARM	2 x 1,5 - 6 3 x 1,5 - 6 4 x 1,5 - 6 5 x 1,5 - 6	2 x 1,5 - 4 3 x 1,5 - 4 4 x 1,5 - 4 5 x 1,5 - 4	22,5	18,5	138 x 60 x 37

T : Through cable - B : Branch cable



Product	BRANCH CONNECTIONS Cable formation and conductor cross sections (n° x mm²)		Ø max cables (mm)		Dimensions A x B x C (mm)
	T	B	T	B	
• King Joint Y16 • King Joint Y16 - ARM	2 x 4 - 16 3 x 4 - 16 4 x 4 - 16* 5 x 4 - 16*	2 x 1,5 - 4 3 x 1,5 - 4 4 x 1,5 - 4 5 x 1,5 - 4	26	18,5	194 x 74 x 43

T : Through cable - B : Branch cable

\* For armoured cables max conductor cross section 10 mm².



Product	BRANCH CONNECTIONS Cable formation and conductor cross sections (n° x mm²)		Ø max cables (mm)		Dimensions A x B x C (mm)
	T	B	T	B	
• King Joint Y35 • King Joint Y35 - ARM	2 x 10 - 35 3 x 10 - 35 4 x 10 - 35*	2 x 1,5 - 6 3 x 1,5 - 6 4 x 1,5 - 6	36	26	290 x 105 x 51

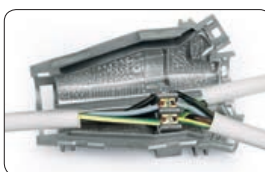
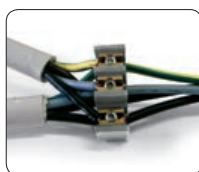
T : Through cable - B : Branch cable

\* For armoured cables max conductor cross section 25 mm².

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



### Installation sequence King Joint Y







## JOINTS

PRE-FILLED WITH GEL  
for free connections

## LV

**Electrical performance:** CEI EN 50393  
(with testing under water head  
and water between the cable cores)  
Class 2 in accordance with CEI 64-8.

**No flame propagation:**  
CEI 20-35 • IEC 60332-1 • HD405-1  
(as applicable)  
Low smoke and toxic and corrosive  
corrosive gas emissions

**Gel:** UL 94-HB 

**Casing mix:** UL 94-V2

**Degree of protection:** IP68

Operating temperature 

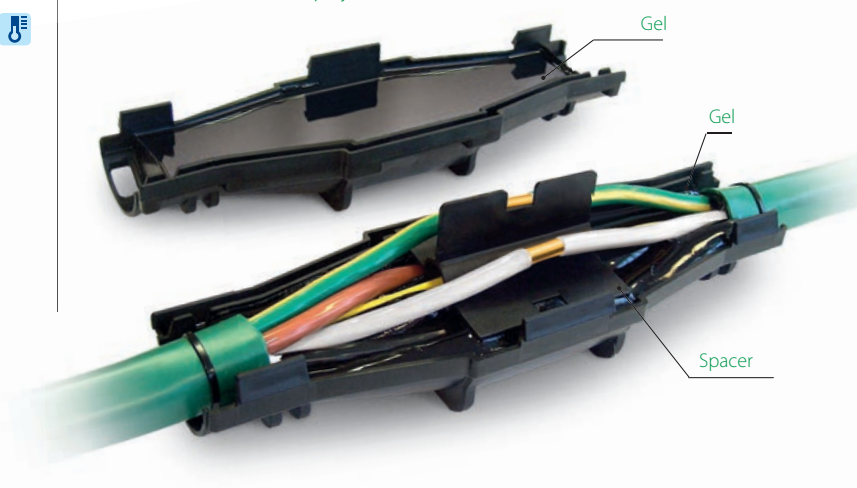
Installation temperature:   
-40°C / +50°C

# 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.

- For straight connections (in line)
- With suitable spacers
- For all types of application, including submersible
- Wide range of cable formations
- Non-toxic, with no expiry date



## Rapid Joint



For <b>COPPER</b> cables	Cable formation and conductor cross sections (n° x mm <sup>2</sup> )				With optical fibre separator 4x	Dimensions A x B (mm)
	1x	2x	3x	4x		
<b>Rapid Joint L6</b>	1,5 - 50	1,5 - 10	1,5 - 10	1,5 - 6	-	105 x 55
<b>Rapid Joint L10</b>	2,5 - 150	2,5 - 25	2,5 - 16	2,5 - 16	-	180 x 60
<b>Rapid Joint L25</b>	120 - 240	6 - 50	6 - 35	4 - 35	-	210 x 65
<b>Rapid Joint L95</b>	185 - 400	35 - 95	25 - 70	25 - 70	16 - 50	320 x 100

For <b>ALUMINIUM</b> cables	1x	2x	3x	4x	4x	(mm)
	1x	2x	3x	4x	4x	(mm)
<b>Rapid Joint L 25</b>	120 - 150	16 - 35	10 - 25	10 - 25	-	210 x 65
<b>Rapid Joint L 95</b>	185 - 400	35 - 95	25 - 70	25 - 70	16 - 50	320 x 100

LV

## JOINTS



**PRE-FILLED WITH GEL**

for free connections

### Rapid Joint S/ARM



For **copper wire**  
SCREENED cables

Product	Cable formation and conductor cross sections (n° x mm²)				With optical fibre separator 4x	Dimensions A x B (mm)
	1x	2x	3x	4x		
Rapid Joint L 10-S	2,5 - 120	2,5 - 10	2,5 - 10	2,5 - 10	-	180 x 60
Rapid Joint L 25-S	120 - 185	16 - 25	10 - 25	10 - 25	-	210 x 65
Rapid Joint L 95-S	240 - 400	35 - 95	25 - 70	25 - 70	16 - 50	320 x 100

For **copper tape**  
ARMoured cables

	2x	3x	4x	4x	(mm)
Rapid Joint L 10-ARM	2,5 - 10	2,5 - 10	2,5 - 10	-	180 x 60
Rapid Joint L 25-ARM	16 - 25	10 - 25	10 - 25	-	210 x 65
Rapid Joint L 95-ARM	35 - 95	25 - 70	25 - 70	16 - 50	320 x 100

For screened or tape  
or wire armoured cables



Joint supplied with  
armour continuity device

### Rapid Joint LS

Product	Conductors (mm²)	Cable formation (n° conductors)										Dimensions A x B (mm)
		5x	7x	10x	12x	16x	19x	24x	40x	75x	100x	
Rapid Joint-LS1	1,5 2,5	•	•	•	•	•	•					180 x 60
Rapid Joint-LS2	1,5 2,5					•	•	•	•			210 x 65
Rapid Joint-LS3	1,5 2,5						•	•	•	•	•	320 x 100

For signalling and control  
cables



### Rapid Joint T

UNscreened Product	SCREENED Product	N° pairs for conductor cross sections (n° x mm²)	Dimensions A x B (mm)
Rapid Joint-T26	Rapid Joint-TS26	(1 - 26) x (0,5 - 0,6)	180 x 60
Rapid Joint-T61	Rapid Joint-TS61	(30 + 1 - 64 + 1) x (0,5 - 0,6)	210 x 65
Rapid Joint-T101	Rapid Joint-TS101	(60 + 1 - 100 + 1) x (0,5 - 0,6)	320 x 100

Straight joints for  
telephone cables



### Rapid Joint System Fast RP

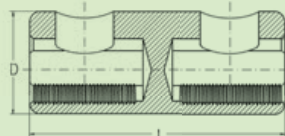
Straight joint + Shear bolt connectors.

Product	Cable formation from 2x a 4x (n° x mm²)	Dimensions A x B (mm)
Rapid Joint L 10 RP	1,5 - 10	180 x 60
Rapid Joint L 25 RP	10 - 25	210 x 65
Rapid Joint L 95 RP	35 - 95	320 x 100



#### Shear bolt connectors

Product	Aluminium cross sections (mm²)	Copper cross sections (mm²)	Breakaway torque (Nm)	Dimensions L D d (mm)
Ray-TTF 1,5/16	10 - 16	1,5 - 16	4	30 12 6,1
Ray-TTF 10/35	10 - 35	10 - 35	10	36 16 9,0
Ray-TTF 25/50	25 - 50	25 - 50	12	36 18 10,0
Ray-TTF 35/150	35 - 150	35 - 150	30	70 28 17,0





## JOINTS

**PRE-FILLED WITH GEL**  
for free connections

LV


**Electrical performance:**  
CEI EN 50393 with connectors  
complying with EN 61238-1  
(with testing under water head  
and water between the cable cores)  
Class 2 in accordance with CEI 64-8.

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

**Gel:** UL 94-HB 

**Casing mix:** UL 94-V2

**Degree of protection:** IPX8

Operating temperature 



RINA

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

## Clik Fire

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



Straight or branch multi core joints.



Product	Cable formation and conductor cross sections (n° x mm <sup>2</sup> )		Ø max cables (mm)		Dimensions A x B x C (mm)
	Through or straight	1 or 2 branch cables	Through or straight	Branch	
CLIK 0 Fire	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	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	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



Branch joints with 30° output.



Product	Through	Branch	Through	Branch	(mm)
	Through	Branch	Through	Branch	(mm)
CLIK 2000 Fire	1 x 2,5 - 25 1 x 6 - 95	1 x 1,5 - 16 1 x 1,5 - 70	14	12,5	75 x 40 x 21
CLIK 2001 Fire	2 x 1,5 - 16 3 x 2,5 - 16 4 x 2,5 - 10	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	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	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

Sections evaluated on the base  
extruded 0,6 1 kV cable.

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tech**



**PRE-FILLED WITH GEL**  
for free connections

## 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	Approval code	Branch type	Through cable (n° x mm²)	Branch cable (n° x mm²)
CLIK 2 Fire Dor/Palo	E 27.012	Main / Pole	RG7R 2 x 1 x 16	FG7OR 2 x 2,5
CLIK 1 Fire Dor/Dor	E 27.013	Main / Main	RG7R 4 x 1 x 16	RG7R 4 x 1 x 16
CLIK 1 Fire Aer/Dap	E 27.014	Overhead line / Equipment	UG7R 2 x 1 x 16	FG7R 2 x 1 x 4
CLIK 2 Fire Prec/Dap	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)

### No flame propagation:

CEI 20-35 • IEC 60332-1 HD405-1  
A2A certified (as applicable)

Gel: UL 94-HB

Casing mix: UL 94-V2

Degree of protection: IPX8

Operating temperature

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



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



### Electrical performance:

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

### No flame propagation:

CEI 20-35 • IEC 60332-1 HD405-1  
A2A certified (as applicable)

Gel: UL 94-HB

Casing mix: UL 94-V2

Degree of protection: IPX8

Operating temperature

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





## JOINTS

FOR CASTING • GEL

LV



**Electrical performance:**  
CEI EN 50393 with connectors  
complying with EN 61238-1  
(with testing under water head  
and water between the cable cores)  
Class 2 in accordance with CEI 64-8.

**Gel:** UL 94-HB

**Degree of protection:** IP68

Operating  
temperature

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

# 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 bicomponent 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.

### RE-ENTERABLE



### REMOVABLE



### INSPECTIONABLE



### REUSABLE



- 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
- Non-toxic and safe
- No shelf life



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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 <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)				Dimensions A x B (mm)
Product		1x	2x	3x	4x	
Magic P Joint L10		2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10 *	180 x 50
Magic P Joint L25		16 - 150	4 - 25	4 - 25	2,5 - 25	215 x 55
Magic P Joint L35		16 - 185	16 - 35	16 - 35	16 - 35	232 x 70
Magic P Joint L50		50 - 300	16 - 50	16 - 50	16 - 50	266 x 72
Magic P Joint L95		120 - 400	25 - 95	25 - 95	25 - 95	330 x 75
Magic P Joint L120		240 - 500	70 - 120	70 - 120	50 - 120	365 x 95
Magic P Joint L240		400 - 1000	120 - 300	120 - 240	120 - 240	510 x 120
Magic P Joint L300		630 - 2000	240 - 400	240 - 300	240 - 300	760 x 180

For <b>ALUMINIUM</b> cables		1x	2x	3x	4x	(mm)
Magic P Joint L50		16 - 150	16 - 25	16 - 25	16 - 25	266 x 72
Magic P Joint L120		185 - 400	25 - 95	25 - 95	25 - 95	365 x 95
Magic P Joint L240		400 - 630	95 - 185	95 - 185	95 - 185	510 x 120
Magic P Joint L300		630 - 2000	185 - 300	185 - 300	185 - 300	760 x 180

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



## Magic Power Joint Y

Branch joint for 0.6/1 kV extruded cables.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )								Dimensions A x B (mm)
		1x		2x		3x		4x		
Product		T	B	T	B	T	B	T	B	
Magic P Joint Y6		4-50	4-50	4-10	4-10	2,5-6	2,5-6	2,5-6	2,5-6	180 x 90
Magic P Joint Y25		50-150	50-150	10-25	10-25	6-25	6-16	6-25	6-10	220 x 105
Magic P Joint Y95		120-400	95-240	25-95	16-50	25-95	16-50	25-95	10-50	315 x 115
Magic P Joint Y240*		240-630	240-630	95-240	50-240	95-240	50-240	95-240	50-240	600 x 285

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

Magic Power Joint Y





## JOINTS

FOR CASTING • GEL

## LV



### Magic Power Joint L-S

Straight joint for 0.6/1 kV screened extruded cables.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)				Dimensions A x B (mm)
Product		1x	2x	3x	4x	
Magic P Joint L10-S		2,5 - 50	1,5 - 10	1,5 - 6	1,5 - 6	180 x 50
Magic P Joint L25-S		16 - 120	4 - 25	4 - 16	2,5 - 16	215 x 55
Magic P Joint L35-S		16 - 185	16 - 35	16 - 25	16 - 25	232 x 70
Magic P Joint L50-S		50 - 240	16 - 50	16 - 50	16 - 50	266 x 72
Magic P Joint L120-S		240 - 500	70 - 120	70 - 120	50 - 95	365 x 95
Magic P Joint L240-S		400 - 1000	120 - 300	120 - 185	120 - 185	510 x 120
Magic P Joint L300-S		630 - 2000	240 - 400	240 - 300	240 - 300	760 x 180

For <b>ALUMINIUM</b> cables		1x	2x	3x	4x	(mm)
Magic P Joint L50-S		16 - 150	16 - 25	16 - 25	16 - 25	266 x 72
Magic P Joint L120-S		185 - 400	25 - 95	25 - 95	25 - 95	365 x 95
Magic P Joint L240-S		400 - 630	95 - 185	95 - 185	95 - 185	510 x 120
Magic P Joint L300-S		630 - 2000	185 - 300	185 - 300	185 - 300	760 x 180



### Magic Power Joint Y-S

Branch joint for 0.6/1 kV screened extruded cables.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )								Dimensions A x B (mm)
Product		1x		2x		3x		4x		
		T	B	T	B	T	B	T	B	
Magic P Joint Y6-S		4-35	4-35	4-10	4-10	2,5-6	2,5-6	2,5-6	2,5-6	180 x 90
Magic P Joint Y25-S		35-120	35-120	10-25	10-25	6-16	6-16	6-16	6-10	220 x 105
Magic P Joint Y95-S		95-300	70-150	25-95	16-50	16-70	16-35	16-50	10-35	315 x 115
Magic P Joint Y240-S*		240-630	150-630	95-240	50-240	70-240	35-240	50-240	35-240	600 x 285

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



## Magic Power Joint L-ARM

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



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)			Dimensions A x B (mm)
Product		2x	3x	4x	
Magic P Joint L10-ARM		1,5 - 10	1,5 - 6	1,5 - 6	180 x 50
Magic P Joint L25-ARM		4 - 25	4 - 16	2,5 - 16	215 x 55
Magic P Joint L35-ARM		16 - 35	16 - 25	16 - 25	232 x 70
Magic P Joint L50-ARM		16 - 50	16 - 50	16 - 50	266 x 72
Magic P Joint L120-ARM		70 - 120	70 - 120	50 - 95	365 x 95
Magic P Joint L240-ARM		120 - 300	120 - 185	120 - 185	510 x 120
Magic P Joint L300-ARM		240 - 400	240 - 300	240 - 300	760 x 180

For <b>ALUMINIUM</b> cables		2x	3x	4x	(mm)
Magic P Joint L50-ARM		16 - 25	16 - 25	16 - 25	266 x 72
Magic P Joint L120-ARM		25 - 95	25 - 95	25 - 95	365 x 95
Magic P Joint L240-ARM		95 - 185	95 - 185	95 - 185	510 x 120
Magic P Joint L300-ARM		185 - 300	185 - 300	185 - 300	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 mm <sup>2</sup> )						Dimensions A x B (mm)
Product	2x		3x		4x			
	T	B	T	B	T	B		
Magic P Joint Y6-ARM-F	4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	180 x 90	
Magic P Joint Y25-ARM-F	10 - 25	10 - 25	6 - 16	6 - 16	6 - 16	6 - 10	220 x 105	
Magic P Joint Y95-ARM-F	25 - 70	16 - 50	25 - 70	16 - 35	25 - 50	10 - 35	315 x 115	
Magic P Joint Y240-ARM-F*	70 - 240	50 - 240	70 - 240	35 - 240	50 - 240	35 - 240	600 x 285	

For TAPE, WIRE OR PLATE armoured <b>COPPER</b> cables		2x		3x		4x		(mm)
Product		T	B	T	B	T	B	
Magic P Joint Y6-ARM		4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	180 x 90
Magic P Joint Y25-ARM		10 - 25	10 - 25	6 - 16	6 - 16	6 - 16	6 - 10	220 x 105
Magic P Joint Y95-ARM		25 - 70	16 - 50	25 - 70	16 - 35	25 - 50	10 - 35	315 x 115
Magic P Joint Y240-ARM*		70 - 240	50 - 240	70 - 240	35 - 240	50 - 240	35 - 240	600 x 285

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







## JOINTS

FOR CASTING • GEL

## LV



### Magic Power Joint-SL

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



	Conductor cross sections (mm²)	Cable formation (n° conductors)												Dimensions A x B (mm)
Product		5x	7x	10x	12x	16x	19x	24x	40x	75x	100x	250x	500x	
Magic P Joint SL11	1,5 2,5	•	•	•	•	•								180 x 50
Magic P Joint SL12	1,5 2,5	•	•		•	•	•	•						215 x 55
Magic P Joint SL13	1,5 2,5					•	•	•	•					266 x 72
Magic P Joint SL14	1,5 2,5							•	•	•				330 x 75
Magic P Joint SL15	1,5 2,5								•	•	•			365 x 95
Magic P Joint SL16	1,5 2,5									•	•	•		510 x 120
Magic P Joint SL17	1,5 2,5										•	•	•	760 x 180



### Magic Power Joint-SY

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



	Conductor cross sections (mm²)	Cable formation (n° conductors)												Dimensions A x B (mm)
Product		5x	7x	10x	12x	16x	19x	24x	40x	75x	100x	250x	500x	
Magic P Joint SY1	1,5 2,5	•	•	•	•	•	•							180 x 90
Magic P Joint SY2	1,5 2,5						•	•	•					220 x 105
Magic P Joint SY3	1,5 2,5							•	•	•	•			315 x 115
Magic P Joint SY4	1,5 2,5										•	•	•	600 x 285



### Magic Power Joint-T e TS

Straight joint for telephone cables.



UNSCREENED	SCREENED	N° pairs per conductor cross sections (n° x mm²)	Dimensions A x B (mm)
Product	Product		
Magic P Joint T16	Magic P Joint TS16	1 - 16 x 0,5 - 0,6	180 x 50
Magic P Joint T25	Magic P Joint TS25	16 - 25 x 0,5 - 0,6	215 x 55
Magic P Joint T35	Magic P Joint TS35	25 - 35 x 0,5 - 0,6	266 x 72
Magic P Joint T40	Magic P Joint TS40	35 - 40 x 0,5 - 0,6	330 x 75
Magic P Joint T64	Magic P Joint TS64	40 - 64 x 0,5 - 0,6	365 x 95
Magic P Joint T500	Magic P Joint TS500	60 - 500 x 0,5 - 0,6	510 x 120
Magic P Joint T1000	Magic P Joint TS1000	450 - 1000 x 0,5 - 0,6	760 x 180

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## Magic Power Joint System Plus L

Straight joint + Five-core spacer.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)				Dimensions A x B (mm)
Product		2x	3x	4x	5x	
Magic P Joint SP L6		1,5 - 6	1,5 - 6	1,5 - 6	1,5 - 6	180 x 50
Magic P Joint SP L16		4 - 16	4 - 16	4 - 16	4 - 16	215 x 55
Magic P Joint SP L25		4 - 25	4 - 25	4 - 25	4 - 25	215 x 65



## Magic Power Joint System Plus Y

Y Branch joint + Five-core spacer.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)								Dimensions A x B (mm)
Product		2x		3x		4x		5x		
		T	B	T	B	T	B	T	B	
Magic P Joint SP Y6		1,5 - 6	1,5 - 4	1,5 - 6	1,5 - 4	1,5 - 6	1,5 - 4	1,5 - 6	1,5 - 4	180 x 90
Magic P Joint SP Y16		4 - 16	1,5 - 4	4 - 16	1,5 - 4	4 - 16	1,5 - 4	4 - 16	1,5 - 4	220 x 105

T: Through - B: Branch



## Magic Power Joint System Plus T

T Branch joint + Four-core spacer.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)						Dimensions A x B (mm)
Product		2x		3x		4x		
		T	B	T	B	T	B	
Magic P Joint SP T35		6-35	1,5-10	6-35	1,5-10	6-35	1,5-10	305 x 155

T: Through - B: Branch



## Magic Power Joint System Fast RP

Straight joint + Shear bolt connectors.



Product	Cable formation from 2x a 4x (n° x mm²)	Dimensions A x B (mm)
Magic P Joint L 35- RP/16	1,5 - 16	232 x 70
Magic P Joint L 35- RP/35	10 - 35	232 x 70
Magic P Joint L 50- RP/50	25 - 50	266 x 72
Magic P Joint L 120- RP/120	35 - 120	365 x 95
Magic P Joint L 240- RP/150	35 - 150	510 x 120



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## JOINTS

FOR CASTING • GEL


LV



**Electrical performance:**  
CEI EN 50393 with connectors  
complying with EN 61238-1  
(with testing under water head  
and water between the cable cores)  
Class 2 in accordance with CEI 64-8.

**Gel:** UL 94-HB 

**Degree of protection:** IP68

Operating  
temperature 

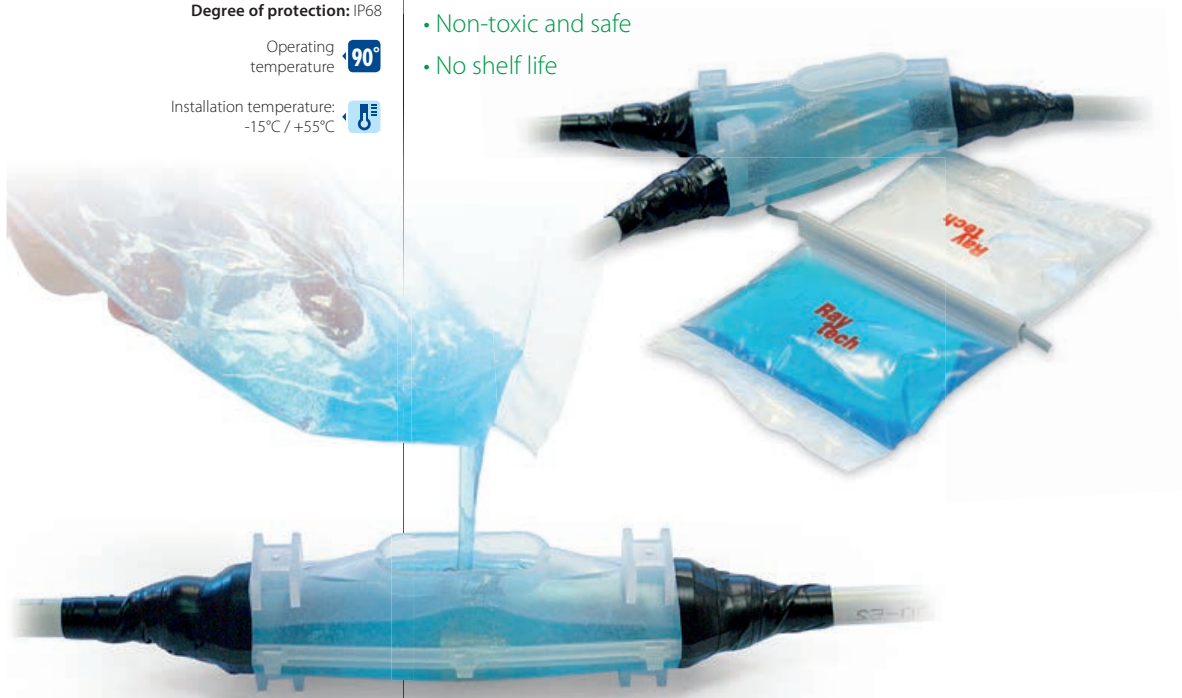
Installation temperature:  
-15°C / +55°C 

# 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 bicomponent 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.

- Quick cross linking gel, (only 10 minutes at 23°C)
- Extremely adherent and tight sealing
- Non-toxic and safe
- No shelf life



### Installation sequence



Slip off the separator.



Mix for a minute.



Pour within a minute.



After 10 minutes,  
Magic joint is ready.

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## Magic Joint

Straight joint for 0.6/1 kV extruded cables.

For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )				Dimensions (mm)
Product		1x	2x	3x	4x	
Magic Joint 4		1,5 - 25	1,5 - 4	1,5 - 4	1,5 - 4	160 x 45
Magic Joint 10		2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10 *	180 x 50
Magic Joint 25		16 - 150	4 - 25	4 - 25	2,5 - 25	215 x 55
Magic Joint 35		16 - 185	16 - 35	16 - 35	16 - 35	232 x 70
Magic Joint 50		50 - 300	16 - 50	16 - 50	16 - 50	266 x 72
Magic Joint 95		120 - 400	25 - 95	25 - 95	25 - 95	330 x 75
Magic Joint 120		240 - 500	70 - 120	70 - 120	50 - 120	365 x 95
Magic Joint 240		400 - 1000	120 - 300	120 - 240	120 - 240	510 x 120
Magic Joint 300		630 - 2000	240 - 400	240 - 300	240 - 300	760 x 180

For <b>ALUMINIUM</b> cables		1x	2x	3x	4x	(mm)
Magic Joint 50		16 - 150	16 - 25	16 - 25	16 - 25	266 x 72
Magic Joint 120		185 - 400	25 - 95	25 - 95	25 - 95	365 x 95
Magic Joint 240		400 - 630	95 - 185	95 - 185	95 - 185	510 x 120
Magic Joint 300		630 - 2000	185 - 300	185 - 300	185 - 300	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 <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )								Dimensions A x B (mm)
Product	1x		2x		3x		4x			
	T	B	T	B	T	B	T	B		
Magic Joint Y 6	4 - 50	4 - 50	4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	180 x 90	
Magic Joint Y25	50 - 150	50 - 150	10 - 25	10 - 25	6 - 25	6 - 16	6 - 25	6 - 10	220 x 105	
Magic Joint Y95	120 - 400	95 - 240	25 - 95	16 - 50	25 - 95	16 - 50	25 - 95	10 - 50	315 x 115	
Magic Joint Y240*	240 - 630	240 - 630	95 - 240	50 - 240	95 - 240	50 - 240	95 - 240	50 - 240	600 x 285	

T: Through - B: Branch

\* also for aluminium cables.







## JOINTS

FOR CASTING • GEL

## LV



### Magic Joint System Plus L

Straight joint + Five-core spacer.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )				Dimensions A x B (mm)
Product		2x	3x	4x	5x	
Magic Joint SP L6		1,5 - 6	1,5 - 6	1,5 - 6	1,5 - 6	180 x 50
Magic Joint SP L16		4 - 16	4 - 16	4 - 16	4 - 16	215 x 55
Magic Joint SP L25		4 - 25	4 - 25	4 - 25	4 - 25	215 x 65



### Magic Joint System Plus Y

Y branch joint with **cast gel**

Five-core spacer + screw connectors.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)								Dimensions A x B (mm)
Product		2x		3x		4x		5x		
		T	B	T	B	T	B	T	B	
Magic Joint SP Y6		1,5-6	1,5-4	1,5-6	1,5-4	1,5-6	1,5-4	1,5-6	1,5-4	180 x 90
Magic Joint SP Y16		4-16	1,5-4	4-16	1,5-4	4-16	1,5-4	4-16	1,5-4	220 x 105

T: Through - B: Branch



### Magic Joint System Plus T

T Branch joint + Four-core spacer.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )						Dimensions A x B (mm)
Product		2x		3x		4x		
		T	B	T	B	T	B	
Magic Joint SPT35		6 - 35	1,5 - 10	6 - 35	1,5 - 10	6 - 35	1,5 - 10	305 x 155

T: Through - B: Branch



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### Magic Joint System Fast RP

Straight joint + Shear bolt connectors.



Product	Cable formation from 2x a 4x (n° x mm <sup>2</sup> )	Dimensions A x B (mm)
Magic Joint 35- RP/16	1,5 - 16	232 x 70
Magic Joint 35- RP/35	10 - 35	232 x 70
Magic Joint 50- RP/50	25 - 50	266 x 72
Magic Joint 120- RP/120	35 - 120	365 x 95
Magic Joint 240- RP/150	35 - 150	510 x 120



# Magic Joint Fire

Straight or branch joint with quick cross linking  
bi-component cast gel for 0.6/1 kV flame retardant cables.

Magic line joints are now also available in the flame retardant version, MAGIC JOINT-FIRE, particularly suitable for installations in places most at risk of fire: available in straight and branch types, they maintain the electrical and sealing characteristics of the traditional Magic line described above, but add a self-extinguishing property, together with their low smoke and toxic gas development and absence of halogen, as required by main international legislation.

- Flame retardant
- Quick cross linking gel
- Extremely adherent and tight sealing
- For 0.6/1 kV extruded cables
- Non-toxic and safe
- No shelf life



Installation sequence



## Electrical performance:

CEI EN 50393 with connectors  
complying with EN 61238-1  
(with testing under water head  
and water between the cable cores)  
Class 2 in accordance with CEI 64-8.

## No flame propagation:

CEI 20-35 • IEC 60332-1 HD405-1  
(as applicable)  
Low smoke and toxic and  
corrosive gas emissions

Gel: UL 94-HB

Casing mix: UL 94-V2

Degree of protection: IP68

Operating  
temperature

Installation temperature:  
-10°C / +55°C



## JOINTS

FOR CASTING • GEL

## LV



### Magic Joint Fire

Straight joint for 0.6/1 kV extruded cables.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )				Dimensions A x B (mm)
Product		1x	2x	3x	4x	
Magic Joint 4-Fire		1,5 - 25	1,5 - 4	1,5 - 4	1,5 - 4	160 x 45
Magic Joint 10-Fire		2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10 *	180 x 50
Magic Joint 25-Fire		16 - 150	4 - 25	4 - 25	2,5 - 25	215 x 55
Magic Joint 35-Fire		16 - 185	16 - 35	16 - 35	16 - 35	232 x 70
Magic Joint 50-Fire		50 - 300	16 - 50	16 - 50	16 - 50	266 x 72
Magic Joint 95-Fire		120 - 400	25 - 95	25 - 95	25 - 95	330 x 75
Magic Joint 120-Fire		240 - 500	70 - 120	70 - 120	50 - 120	365 x 95
Magic Joint 240-Fire		400 - 1000	120 - 300	120 - 240	120 - 240	510 x 120
Magic Joint 300-Fire		630 - 2000	240 - 400	240 - 300	240 - 300	760 x 180

For <b>ALUMINIUM</b> cables		1x	2x	3x	4x	(mm)
Magic Joint 50-Fire		16 - 150	16 - 25	16 - 25	16 - 25	266 x 72
Magic Joint 120-Fire		185 - 400	25 - 95	25 - 95	25 - 95	365 x 95
Magic Joint 240-Fire		400 - 630	95 - 185	95 - 185	95 - 185	510 x 120
Magic Joint 300-Fire		630 - 2000	185 - 300	185 - 300	185 - 300	760 x 180



### Magic Joint Y Fire

Branch joint for 0.6/1 kV extruded cables.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )								Dimensions A x B (mm)
		1x		2x		3x		4x		
Product		T	B	T	B	T	B	T	B	
Magic Joint Y 6-Fire		4-50	4-50	4-10	4-10	2,5-6	2,5-6	2,5-6	2,5-6	180 x 90
Magic Joint Y25-Fire		50-150	50-150	10-25	10-25	6-25	6-16	6-25	6-10	220 x 105
Magic Joint Y95-Fire		120-400	95-240	25-95	16-50	25-95	16-50	25-95	10-50	315 x 115

T: Through - B: Branch



## Magic Joint S<sub>Fire</sub>

Straight joint for signalling and control.



	Conductor cross sections (mm²)	Cable formation (n° conductors)												Dimensions A x B (mm)
Product		5x	7x	10x	12x	16x	19x	24x	40x	75x	100x	250x	500x	
Magic Joint S11 Fire	1,5 2,5	• •	• •	• •	• •	• •								180 x 50
Magic Joint S12 Fire	1,5 2,5			• •	• •	• •	• •	• •						215 x 55
Magic Joint S13 Fire	1,5 2,5					• •	• •	• •	• •					266 x 72
Magic Joint S14 Fire	1,5 2,5							• •	• •	• •				330 x 75
Magic Joint S15 Fire	1,5 2,5								• •	• •	• •			365 x 95
Magic Joint S16 Fire	1,5 2,5									• •	• •	• •		510 x 120
Magic Joint S17 Fire	1,5 2,5										• •	• •	• •	760 x 180



## Magic Joint SY<sub>Fire</sub>

Branch joint for signalling and control.



Product	Conductor cross sections (mm <sup>2</sup> )	Cable formation (n° conductors)									Dimensions A x B (mm)
		5x	7x	10x	12x	16x	19x	24x	40x	75x	
Magic Joint SY1 Fire	1,5 2,5	•	•	•	•	•	•				180 x 90
Magic Joint SY2 Fire	1,5 2,5					•	•	•			220 x 105
Magic Joint SY3 Fire	1,5 2,5							•	•	•	315 x 115



## Magic Joint T<sub>Fire</sub>

Straight joint for telephone cable.



UNscreened	SCREENED	N° pairs per conductor cross sections (n° x mm <sup>2</sup> )	Dimensions A x B (mm)
Product	Product		
Magic Joint T16-Fire	Magic Joint TS16-Fire	1 - 16 x 0,5 - 0,6	180 x 50
Magic Joint T25-Fire	Magic Joint TS25-Fire	16 - 25 x 0,5 - 0,6	215 x 55
Magic Joint T35-Fire	Magic Joint TS35-Fire	25 - 35 x 0,5 - 0,6	266 x 72
Magic Joint T40-Fire	Magic Joint TS40-Fire	35 - 40 x 0,5 - 0,6	330 x 75
Magic Joint T64-Fire	Magic Joint TS64-Fire	40 - 64 x 0,5 - 0,6	365 x 95
Magic Joint T500-Fire	Magic Joint TS500-Fire	60 - 500 x 0,5 - 0,6	510 x 120
Magic Joint T1000-Fire	Magic Joint TS1000-Fire	450 - 1000 x 0,5 - 0,6	760 x 180







## JOINTS

FOR CASTING • RUBBER

LV

# Rubber Joint

**Electrical performance:**  
CEI EN 50393 with connectors  
complying with EN 61238-1  
(with testing under water head  
and water between the cable cores)  
Class 2 in accordance with CEI 64-8.

**Degree of protection:** IP68

Operating  
temperature 

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

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

With new Magic Rubber insulation, designed and developed by Raytech for 0.6/1 kV cables. A new line of accessories with extremely high mechanical characteristics, as well as dielectric and thermal properties. The new line 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.

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



Installation sequence



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## JOINTS

FOR CASTING • RUBBER



## Rubber Joint

Straight joint for 0.6/1 kV extruded cables.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)				Dimensions A x B (mm)
Product		1x	2x	3x	4x	
Rubber Joint 4		1,5 - 25	1,5 - 4	1,5 - 4	1,5 - 4	160 x 45
Rubber Joint 10		2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10 *	180 x 50
Rubber Joint 25		16 - 150	4 - 25	4 - 25	2,5 - 25	215 x 55
Rubber Joint 35		16 - 185	16 - 35	16 - 35	16 - 35	232 x 70
Rubber Joint 50		50 - 300	16 - 50	16 - 50	16 - 50	266 x 72
Rubber Joint 95		120 - 400	25 - 95	25 - 95	25 - 95	330 x 75
Rubber Joint 120		240 - 500	70 - 120	70 - 120	50 - 120	365 x 95
Rubber Joint 240		400 - 1000	120 - 300	120 - 240	120 - 240	510 x 120
Rubber Joint 300		630 - 2000	240 - 400	240 - 300	240 - 300	760 x 180

\* Rubber Joint 10 suggerito per diametri di cavo non superiori a 16 mm.



## Rubber Joint Y

Branch joint for 0.6/1 kV extruded cables.



For <b>COPPER</b> cables	Cable formation and conductor cross sections (n° x mm²)								Dimensions A x B (mm)
Product	1x		2x		3x		4x		
	T	B	T	B	T	B	T	B	
Rubber Joint Y6	4-50	4-50	4-10	4-10	2,5-6	2,5-6	2,5-6	2,5-6	180 x 90
Rubber Joint Y25	50-150	50-150	10-25	10-25	6-25	6-16	6-25	6-10	220 x 105
Rubber Joint Y95	120-400	95-240	25-95	16-50	25-95	16-50	25-95	10-50	315 x 115
Rubber Joint Y240*	240-630	240-630	95-240	95-240	95-240	95-240	95-240	50-240	600 x 285

T: Through - B: Branch

\* also for aluminium cables.



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## JOINTS

FOR CASTING • RESIN

## LV

# Raycast

Straight or branch joint with bicomponent 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 bicomponent epoxy resin such as Rayresin. For installation in traps, channels or directly underground.

**Electrical performance:**  
CEI EN 50393 with connectors complying with EN 61238-1 (with testing under water head and water between the cable cores)  
Class 2 in accordance with CEI 64-8.

Operating temperature **90°**

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



## Raycast L

Straight joint.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )				Dimensions A x B (mm)
Product		1x	2x	3x	4x	
Raycast L10		2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10 *	180 x 50
Raycast L16/25		16 - 150	4 - 25	4 - 25	2,5 - 25	215 x 55
Raycast L35		16 - 185	16 - 35	16 - 35	16 - 35	232 x 70
Raycast L50		50 - 300	16 - 50	16 - 50	16 - 50	266 x 72
Raycast L95		120 - 400	25 - 95	25 - 95	25 - 95	330 x 75
Raycast L120		240 - 500	70 - 120	70 - 120	50 - 120	365 x 95
Raycast L240		400 - 1000	120 - 300	120 - 240	120 - 240	510 x 120

For <b>ALUMINIUM</b> cables		1x	2x	3x	4x	(mm)
Raycast L50		16 - 150	16 - 25	16 - 25	16 - 25	266 x 72
Raycast L120		185 - 400	25 - 95	25 - 95	25 - 95	365 x 95
Raycast L240		400 - 630	95 - 185	95 - 185	95 - 185	510 x 120

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



## Raycast D

Branch joint.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )								Dimensions A x B (mm)
Product		1x		2x		3x		4x		
		T	B	T	B	T	B	T	B	
Raycast D6		4 - 50	4 - 50	4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6	180 x 90
Raycast D16/D25		50 - 150	50 - 150	10 - 25	10 - 25	6 - 25	6 - 16	6 - 25	6 - 10	220 x 105
Raycast D95		120 - 400	95 - 240	25 - 95	16 - 50	25 - 95	16 - 50	25 - 95	10 - 50	315 x 115

T: Through - B: Branch

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## Raycast L-S / Raycast D-S

Joint screened.

For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)				Dimensions A x B (mm)
Product		1x	2x	3x	4x	
Raycast L10-S		2,5 - 50	1,5 - 10	1,5 - 6	1,5 - 6	180 x 50
Raycast L25-S		16 - 120	4 - 25	4 - 16	2,5 - 16	215 x 55
Raycast L35-S		16 - 185	16 - 35	16 - 25	16 - 25	232 x 70
Raycast L50-S		50 - 240	16 - 50	16 - 50	16 - 50	266 x 72
Raycast L120-S		240 - 500	70 - 120	70 - 120	50 - 95	365 x 95
Raycast L240-S		400 - 1000	120 - 300	120 - 185	120 - 185	510 x 120

For <b>ALUMINIUM</b> cables		Cable formation and conductor cross sections (n° x mm²)				Dimensions A x B (mm)
Product		1x	2x	3x	4x	
Raycast L50-S		16 - 150	16 - 25	16 - 25	16 - 25	266 x 72
Raycast L120-S		185 - 400	25 - 95	25 - 95	25 - 95	365 x 95
Raycast L240-S		400 - 630	95 - 185	95 - 185	95 - 185	510 x 120

For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)								
Product		1x		2x		3x		4x		
		T	B	T	B	T	B	T	B	
Raycast D6-S		4 - 35	4 - 35	4 - 10	4 - 10	2,5 - 6	1,5 - 6	2,5 - 6	2,5 - 6	180 x 90
Raycast D25-S		35 - 120	35 - 120	10 - 25	10 - 25	6 - 16	6 - 16	6 - 16	6 - 10	220 x 105
Raycast D95-S		95 - 300	70 - 150	25 - 95	16 - 50	16 - 70	16 - 35	16 - 50	10 - 13	315 x 115

T: Through - B: Branch




## Raycast L-ARM / D-ARM

Joint for tape, wire or plate armoured cables.

For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)				Dimensions A x B (mm)
Product		2x	3x	4x		
Raycast L10-ARM		1,5 - 10	1,5 - 6	1,5 - 6		180 x 50
Raycast L25-ARM		4 - 25	4 - 16	2,5 - 16		215 x 55
Raycast L35-ARM		16 - 35	16 - 25	16 - 25		232 x 70
Raycast L50-ARM		16 - 50	16 - 50	16 - 50		266 x 72
Raycast L120-ARM		70 - 120	70 - 120	50 - 95		365 x 95
Raycast L240-ARM		120 - 300	120 - 185	120 - 185		510 x 120

For <b>ALUMINIUM</b> cables		2x	3x	4x	(mm)
Raycast L50-ARM		16 - 25	16 - 25	16 - 25	266 x 72
Raycast L120-ARM		25 - 95	25 - 95	25 - 95	365 x 95
Raycast L240-ARM		95 - 185	95 - 185	95 - 185	510 x 120

For WIRE armoured COPPER cables		Cable formation and conductor cross sections (n° x mm²)								
Product	2x		3x		4x					
	T	B	T	B	T	B	T	B		
Raycast D6-ARM-F	4 - 10	4 - 10	2,5 - 6	2,5 - 6	2,5 - 6	2,5 - 6			180 x 90	
Raycast D16-ARM-F	10 - 25	10 - 25	6 - 16	6 - 16	6 - 16	6 - 10			220 x 105	
Raycast D95-ARM-F	25 - 70	16 - 50	25 - 70	16 - 35	25 - 50	10 - 35			315 x 115	

For <b>TAPE OR PLATE</b> armoured		2x	3x	4x	
Raycast D6-ARM		4 - 10	4 - 10	2,5 - 6	2,5 - 6
Raycast D16-ARM		10 - 25	10 - 25	6 - 16	6 - 16
Raycast D95-ARM		25 - 70	16 - 50	25 - 70	16 - 35

T: Through - B: Branch







## JOINTS

FOR CASTING • RESIN

## LV




## Raycast LPS / DPS

Joint for very deep submersible pumps.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )				A x B (mm)
Product		1x	2x	3x	4x	
Raycast LPS10		2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10	180 x 50
Raycast LPS25		16 - 150	4 - 25	4 - 25	2,5 - 25	215 x 55
Raycast LPS95		120 - 400	25 - 95	25 - 95	25 - 95	330 x 75
Raycast LPS240		400 - 1000	120 - 300	120 - 240	120 - 240	510 x 120

For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )								
		1x		2x		3x		4x		
Product		T	B	T	B	T	B	T	B	
Raycast DPS6		4-50	4-50	4-10	4-10	2,5-6	2,5-6	2,5-6	2,5-6	180 x 90
Raycast DPS25		50-150	50-150	10-25	10-25	6-25	6-16	6-16	6-10	220 x 105
Raycast DPS95		120-400	95-240	25-95	16-50	25-95	16-50	25-95	10-50	315 x 115

T : Through - B : Branch



## Raycast SL /SD

Joint for signalling and control.



Product	Conductor cross sections (mm <sup>2</sup> )	Cable formation (n° conductors)										Dimensions A x B (mm)
		5x	7x	10x	12x	16x	19x	24x	40x	75x	100x 250x	
Raycast SL11	1,5 2,5	•	•	•	•	•						180 x 50
Raycast SL12	1,5 2,5			•	•	•	•	•				215 x 55
Raycast SL13	1,5 2,5					•	•	•	•			266 x 72
Raycast SL14	1,5 2,5							•	•	•		330 x 75
Raycast SL15	1,5 2,5							•	•	•	•	365 x 95
Raycast SL16	1,5 2,5								•	•	•	510 x 120

Product	(mm <sup>2</sup> )	5x	7x	10x	12x	16x	19x	24x	40x	75x	Dimensions A x B (mm)
Raycast SD1	1,5 2,5	•	•	•	•	•	•				180 x 90
Raycast SD2	1,5 2,5			•	•	•	•	•			220 x 105
Raycast SD3	1,5 2,5						•	•	•	•	315 x 115



## Raycast TL and TSL

Straight joint for telephone cable.



UNscreened	SCREENED	N° pairs per conductor cross sections	Dimensions
Product	Product	(n° x mm²)	A x B (mm)
Raycast TL16	Raycast TSL16	1 - 16 x 0,5 - 0,6	180 x 50
Raycast TL25	Raycast TSL25	16 - 25 x 0,5 - 0,6	215 x 55
Raycast TL35	Raycast TSL35	25 - 35 x 0,5 - 0,6	266 x 72
Raycast TL40	Raycast TSL40	35 - 40 x 0,5 - 0,6	330 x 75
Raycast TL64	Raycast TSL64	40 - 64 x 0,5 - 0,6	365 x 95
Raycast TL500	Raycast TSL500	60 - 500 x 0,5 - 0,6	510 x 120

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## JOINTS

FOR CASTING • RESIN



### Raycast System Plus L

Straight joint + Five-core spacer.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)				Dimensions A x B (mm)
Product		2x	3x	4x	5x	
Raycast SP L6		1,5 - 6	1,5 - 6	1,5 - 6	1,5 - 6	180 x 50
Raycast SP L16		4 - 16	4 - 16	4 - 16	4 - 16	215 x 55
Raycast SP L25		4 - 25	4 - 25	4 - 25	4 - 25	215 x 65



### Raycast System Plus Y

Y Branch joint + Five-core spacer.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm²)								Dimensions A x B (mm)
Product		2x		3x		4x		5x		
		T	B	T	B	T	B	T	B	
Raycast SP D6		1,5 - 6	1,5 - 4	1,5 - 6	1,5 - 4	1,5 - 6	1,5 - 4	1,5 - 6	1,5 - 4	180 x 90
Raycast SP D16		4 - 16	1,5 - 4	4 - 16	1,5 - 4	4 - 16	1,5 - 4	4 - 16	1,5 - 4	220 x 105

T: Through - B: Branch



### Raycast System Plus T

T Branch joint + Four-core spacer.



For <b>COPPER</b> cables		Cable formation and conductor cross sections (n° x mm <sup>2</sup> )						Dimensions A x B (mm)
Product		2x		3x		4x		
		T	B	T	B	T	B	
Raycast SPT 35		6-35	1,5-10	6-35	1,5-10	6-35	1,5-10	305 x 155

T: Through - B: Branch



### Raycast System Fast RP

Straight joint + Shear bolt connectors.



Product	Cable formation from 2x a 4x (n° x mm²)	Dimensions A x B (mm)
Raycast L 35- RP/16	1,5 - 16	232 x 70
Raycast L 35- RP/35	10 - 35	232 x 70
Raycast L 50- RP/50	25 - 50	266 x 72
Raycast L 120- RP/120	35 - 120	365 x 95
Raycast L 240- RP/150	35 - 150	510 x 120



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LV

## Wonder Joint

Straight or branch injectable joint using Wonder Fluid, single component insulating gel. Quick to use and can be installed at any temperature.

Joint equipped with injection valve; insert the cartridge in the gun, connect the nozzle stably on the valve and inject the gel until completely filled. The valve on the container prevents insulation from leaking out, ensuring perfect cleaning and reliability. Can be installed without any special tools: only requires a regular silicone gun.

- Joints insulated with **Wonder Fluid**, fluid, single-component, gel
- Clean installation, re-enterable and inspectable
- Container provided with no-return valve
- Immediately energizable
- Even suitable for high depths
- Non-toxic, with no expiry date



**Electrical performance:**  
CEI EN 50393 with connectors  
complying with EN 61238-1  
(with testing under water head  
and water between the cable cores)  
Class 2 in accordance with CEI 64-8.

**Gel:** UL 94-HB

**Degree of protection:** IP68

Operating  
temperature

Installation temperature:  
-50°C / +60°C

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tech**

### Installation sequence



LV

## JOINTS

INJECTABLE



### Wonder Joint L

Straight joint with injected gel insulation.



For <b>COPPER</b> cables	Cable formation and conductor cross sections (n° x mm <sup>2</sup> )				A x B (mm)
Product	1x	2x	3x	4x	
Wonder Joint L4	1,5 - 25	1,5 - 4	1,5 - 4	1,5 - 4	160 x 45
Wonder Joint L10	2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10	180 x 50
Wonder Joint L25	16 - 150	4 - 25	4 - 25	2,5 - 25	215 x 55



### Wonder Joint System Plus L

Straight joint with injected gel insulation  
+ Five-core spacer.



For <b>COPPER</b> cables	Cable formation and conductor cross sections (n° x mm <sup>2</sup> )				A x B (mm)
Product	2x	3x	4x	5x	
Wonder Joint SP L6	1,5 - 6	1,5 - 6	1,5 - 6	1,5 - 6	180 x 50
Wonder Joint SP L25	4 - 25	4 - 25	4 - 25	4 - 25	215 x 55



### Wonder Joint Y

Branch joint with injected gel insulation.



For <b>COPPER</b> cables	Cable formation and conductor cross sections (n° x mm²)								A x B (mm)
Product	1x		2x		3x		4x		
	P	D	P	D	P	D	P	D	
Wonder Joint Y6	4-50	4-50	4-10	4-10	2,5-6	2,5-6	2,5-6	2,5-6	180 x 90
Wonder Joint Y25	50-150	50-150	10-25	10-25	6-25	6-16	6-25	6-10	220 x 105

T: Through - B: Branch



### Wonder Joint System Plus Y

Branch joint with injected gel insulation  
+ Five-core spacer.



For <b>COPPER</b> cables	Cable formation and conductor cross sections (n° x mm²)								A x B (mm)
Product	2x		3x		4x		5x		
	T	B	T	B	T	B	T	B	
Wonder Joint SP Y6	1,5 - 6	1,5 - 4	1,5 - 6	1,5 - 4	1,5 - 6	1,5 - 4	1,5 - 6	1,5 - 4	180 x 90
Wonder Joint SP Y16	4 - 16	1,5 - 4	4 - 16	1,5 - 4	4 - 16	1,5 - 4	4 - 16	1,5 - 4	220 x 105

T: Through - B: Branch







## JOINTS

### HEAT-SHRINK

LV

**Electrical performance:**  
CEI EN 50393 with connectors  
complying with EN 61238-1  
(with testing under water head  
and water between the cable cores)  
Class 2 in accordance with CEI 64-8.

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

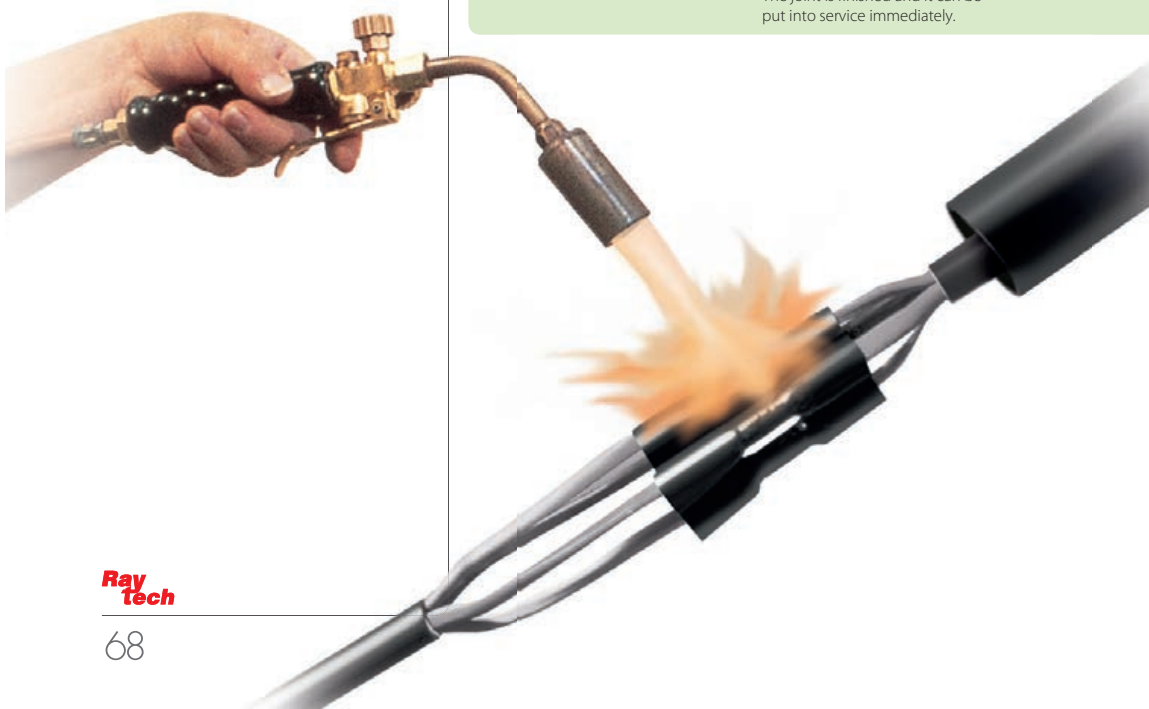
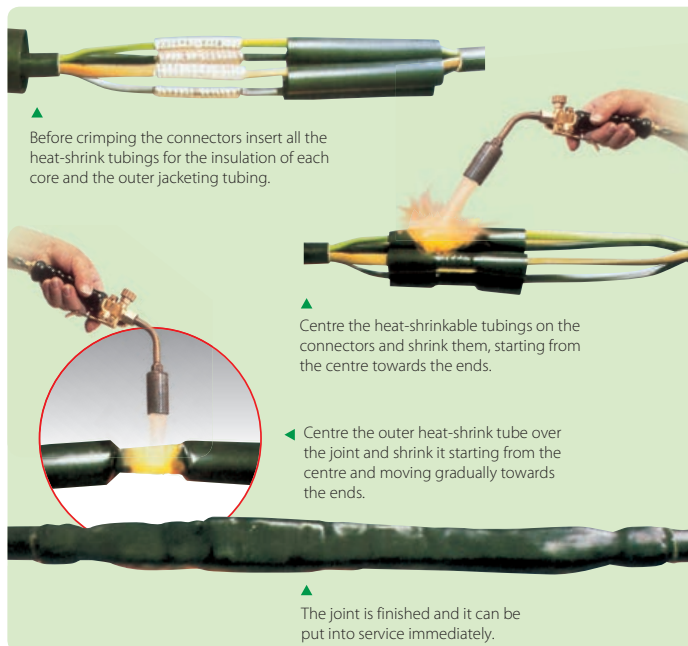
Operating temperature 

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

# Heat-shrink

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

## Installation sequence



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tech**

LV

## JOINTS

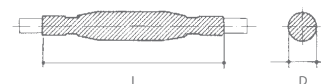
HEAT-SHRINK



### GDL

Joint for single core cables including concentric neutral.

Product	Conductor cross section mm <sup>2</sup>		Dimensions L (mm)
	from	to	
GDL 92 A1	4	10	300
GDL 92 A2	16	150	300
GDL 92 A3	185	400	300
GDL 92 PA	10	50	300



### GLV

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

Product	Conductor cross section mm <sup>2</sup>		Number of phases	Dimensions L (mm) D (mm)	
	from	to		L (mm)	D (mm)
GLV 0306	1,5	6	3	250	18
GLV 0316	10	16	3	400	37
GLV 0335	25	35	3	550	43
GLV 0370	50	70	3	650	52
GLV 3150	95	150	3	800	65
GLV 3300	185	300	3	900	82
GLV 0406	1,5	6	4	250	20
GLV 0416	10	16	4	400	40
GLV 0435	25	35	4	650	45
GLV 0470	50	70	4	650	54
GLV 4150	95	150	4	800	67
GLV 4300	185	300	4	900	84
GLV 2,5 - CP	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	Conductor cross section mm <sup>2</sup>		Number of phases	Dimensions L (mm) D (mm)	
	from	to		L (mm)	D (mm)
GLV 0306 - N	1,5	6	3	250	18
GLV 0316 - N	10	16	3	400	37
GLV 0335 - N	25	35	3	550	43
GLV 0370 - N	50	70	3	650	52
GLV 3150 - N	95	150	3	800	65
GLV 3300 - N	185	300	3	900	82
GLV 0406 - N	1,5	6	4	250	20
GLV 0416 - N	10	16	4	400	40
GLV 0435 - N	25	35	4	650	45
GLV 0470 - N	50	70	4	650	54
GLV 4150 - N	95	150	4	800	67
GLV 4300 - N	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.



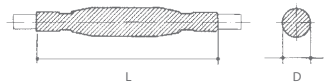
Ray  
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## JOINTS

HEAT-SHRINK

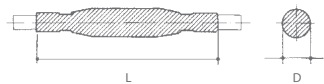
## LV



### GLV-ARM

Joint for armoured multi core cables.

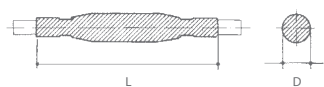
For armoured <b>tape</b> cables		Conductor cross section (mm <sup>2</sup> )		Dimensions	
Product		from	to	L (mm)	D (mm)
GLV 0406-ARM		1,5	6	300	25
GLV 0416-ARM		6	16	400	40
GLV 0450-ARM		25	50	800	60
GLV 4150-ARM		70	150	1000	100
GLV 4300-ARM		185	300	1000	120



### BOPA

Joint for MV cables for public lighting.

Product	Operating voltage kV	Number of phases	Section (mm <sup>2</sup> )	Dimensions	
				L (mm)	D (mm)
BOPA 3	3	1	1x10	300	50
BOPA 4	3	2	2x10	450	60
BOPA 5	3	3	3x10	450	70
BOPA 3/2	3,6	1 + concentric neutral	1 x 6 + 6 concentric	700	35
BOPA 4/T transition	3	2	2,5 - 10 paper / 10 - 50 extruded	750	40



### DJ

LV branch joint.

Product	Single core cables cross section (mm <sup>2</sup> )		Multi core cables cross section (mm <sup>2</sup> )		Dimensions	
	Through	Branch	Through	Branch	L (mm)	D (mm)
DJ01	1 x 4 - 50	1 x 2,5 - 50	4 x 1,5 - 10	2 x 1,5	200	25
DJ02	1 x 50 - 120	1 x 6 - 120	4 x 16 - 25 2 single core cables 1 x 6 - 50	2x1,5 1 two core cable 2 x 2,5	250	40
DJ03	1 x 150 - 300	1 x 6 - 300	4 x 25 - 3,5 x 50	4 x 2,5 - 25	400	70



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70

### GLV System Fast RP

Straight joint + Shear bolt connectors.



Product	Cable formation 4x (n° x mm <sup>2</sup> )	Dimensions A x B (mm)
GLV 0435- RP/16	6 - 16	650 x 50
GLV 0470- RP/35	25 - 35	650 x 70
GLV 0470- RP/50	25 - 50	650 x 75
GLV 4150- RP/150	50 - 150	800 x 80



## GLV F/R - GMP F/R

Joint for fire 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			Product		
GLV 4004-F/R	4 x 1,5 - 4	300	GLV 4004-ARM-F/R	4 x 1,5 - 4	400
GLV 4016-F/R	4 x 6 - 16	300	GLV 4016-ARM-F/R	4 x 6 - 16	400
GLV 4050-F/R	4 x 25 - 50	400	GLV 4050-ARM-F/R	4 x 25 - 50	500
GLV 4150-F/R	4 x 70 - 150	500	GLV 4150-ARM-F/R	4 x 70 - 150	750

### FOR NAVAL TYPE SIGNALLING AND CONTROL CABLES

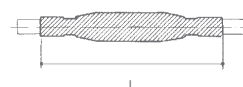
UNARMoured	Cable formation (n° x mm²)	L (mm)	ARMoured	Cable formation (n° x mm²)	L (mm)
Product			Product		
GMP 007-F/R	4 - 7 x 1,5 - 2,5	300	GMP 007-ARM-F/R	4 - 7 x 1,5 - 2,5	400
GMP 014-F/R	10 - 14 x 1,5 - 2,5	300	GMP 014-ARM-F/R	10 - 14 x 1,5 - 2,5	400
GMP 030-F/R	16 - 30 x 1,5 - 2,5	400	GMP 030-ARM-F/R	16 - 30 x 1,5 - 2,5	500

### FOR UNDERGROUND POWER CABLES

UNARMoured	Cable formation (n° x mm²)	L (mm)	ARMoured	Cable formation (n° x mm²)	L (mm)
Product			Product		
GLV 4006-F/R-G7	4 x 1,5 - 6	300	GLV 4006-ARM-F/R-G7	4 x 1,5 - 6	400
GLV 4016-F/R-G7	4 x 6 - 16	300	GLV 4016-ARM-F/R-G7	4 x 6 - 16	400
GLV 4050-F/R-G7	4 x 25 - 50	400	GLV 4050-ARM-F/R-G7	4 x 25 - 50	500
GLV 4150-F/R-G7	4 x 70 - 150	500	GLV 4150-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			Product		
GMP 014-F/R-G7	Fino a 14 x 1,5 - 2,5	300	GMP 014-ARM-F/R-G7	Fino a 14 x 1,5 - 2,5	400
GMP 019-F/R-G7	Fino a 19 x 1,5 - 2,5	400	GMP 019-ARM-F/R-G7	Fino a 19 x 1,5 - 2,5	500



#### Prestazioni elettriche:

CEI EN 50393 con connettori a norma EN 61238-1 (con prova sotto battente d'acqua e acqua tra le anime del cavo) in classe 2 secondo la norma CEI 64-8

#### Resistenza alla fiamma:

IEC 60331-21 • CEI 20-36/2-1 (per quanto applicabili)

Per altre formazioni e sezioni di cavo contattare Raytech.

## DJ F/R

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

### FOR POWER CABLES

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

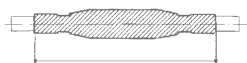




## JOINTS

HEAT-SHRINK

### LV



## GMP

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

NON ARMoured cable		N° of conductors		Section mm <sup>2</sup>		External Ø of cable	
Product		from	to	from	to	min (mm)	max (mm)
GMP 007		4	7	1,0	2,5	8	19
GMP 014		8	14	1,0	2,5	12	22
GMP 021		15	21	1,0	2,5	15	27
GMP 040		22	40	1,0	2,5	20	35
GMP 075		41	75	1,0	2,5	26	44
GMP 100		76	100	1,0	2,5	26	60

ARMoured cable		N° of conductors		Section mm <sup>2</sup>		External Ø of cable	
Product		from	to	from	to	min (mm)	max (mm)
GMP 007-A		4	7	1,0	2,5	14	23
GMP 014-A		8	14	1,0	2,5	15	26
GMP 021-A		15	21	1,0	2,5	24	35
GMP 040-A		22	40	1,0	2,5	30	45
GMP 075-A		41	75	1,0	2,5	39	55



## GMC

Joint kits for multi pair cables for communication, command or control.

NON ARMoured cable		N° of pairs		Section mm <sup>2</sup>		External Ø of cable	
Product		from	to	from	to	min (mm)	max (mm)
GMC 010		5	10	2 x 0,6	2 x 1,0	9	14
GMC 020		11	20	2 x 0,6	2 x 1,0	13	20
GMC 030		21	30	2 x 0,6	2 x 1,0	16	24
GMC 050		31	50	2 x 0,6	2 x 1,0	22	29
GMC 100		51	100	2 x 0,6	2 x 1,0	30	40

ARMoured cable		N° of pairs		Section mm <sup>2</sup>		External Ø of cable	
Product		from	to	from	to	min (mm)	max (mm)
GMC 004-A		1	4	2 x 0,6	2 x 1,0	15	23
GMC 007-A		5	7	2 x 0,6	2 x 1,0	15	26
GMC 019-A		8	19	2 x 0,6	2 x 1,0	24	35
GMC 037-A		20	37	2 x 0,6	2 x 1,0	30	45
GMC 061-A		38	61	2 x 0,6	2 x 1,0	39	55



# Terminals heat-shrink

## TLV

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

NON ARMoured extruded cables	Extruded cables with WIRE ARMOUR	Section conductor mm <sup>2</sup> from to		Number of phases
Product	Product			
TLV 0216	TLV 0216 - AF	4	16	2
TLV 0316	TLV 0316 - AF	4	16	3
TLV 0416	TLV 0416 - AF	4	16	4
TLV 0250	TLV 0250 - AF	25	50	2
TLV 0350	TLV 0350 - AF	25	50	3
TLV 0450	TLV 0450 - AF	25	50	4
TLV 3150	TLV 3150 - AF	70	150	3
TLV 4150	TLV 4150 - AF	70	150	4
TLV 3300	TLV 3300 - AF	185	300	3
TLV 4300	TLV 4300 - AF	185	300	4
	TLV 4500 - AF	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	Section conductor mm <sup>2</sup> from to		Number of phases
TLV 0116 - 500	4	16	1
TLV 0216 - 500	4	16	2
TLV 0316 - 500	4	16	3
TLV 0150 - 500	25	50	1
TLV 0250 - 500	25	50	2
TLV 0350 - 500	25	50	3
TLV 2150 - 500	70	150	2
TLV 3150 - 500	70	150	3
TLV 2300 - 500	185	300	2
TLV 3300 - 500	185	300	3



Include sheath to cover the concentric conductor.

# FILLERS

Insulators and sealing for protecting electrical connections.

## Gel

BICOMPONENT CAST

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### Magic Power Gel

Self-amalgamating bicomponent gel in single bottles



### Magic Gel

Bicomponent gel in bottles



### Magic Fluid

Bicomponent gel in single dose bags



### Ray Gel

Bicomponent gel in bottles for telephone and intercom systems



### Bag Gel

Bicomponent gel in bags for telephone and intercom systems



## GelGum

BICOMPONENT CAST

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### TechnoGelGum

Bicomponent in single bottle



### GelGum Joint

Kit Techno Gel Gum + joints



## Gel

SINGLE COMPONENT INJECTABLE

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**Wonder Gel**  
Single coloured  
component



**Wonder Gel Invisible**  
Single transparent  
component



**Wonder Fluid**  
Single fluid  
component



**Monogel**  
Single coloured  
component

ITALIAN UTILITY MODEL



## Rubber

BICOMPONENT PASTE/CAST

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**Sky Plast**  
Mouldable bicomponent  
rubber



**Magic Rubber & Rubber Fluid**  
Bicomponent rubber in bottles or single dose bags

## Resin

BICOMPONENT CAST

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**Ray Resin**  
Bicomponent epoxy resin  
in single dose bags

**Ray  
tech**



## FILLERS

GEL

LV



### INSULATING and SEALING GEL



### RE-ENTERABLE



### RE-USABLE



# Magic Power Gel

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

- Very sticky
- Strong self amalgamating characteristics
- Single compact bottle; convenient twin compartment
- Re-usable as well as re-enterable, even after long working periods
- It doesn't give any waste
- Non toxic and safe







### 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 characteristics 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



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

Product	Colour	Package type	Quantity
Magic Power Gel	●	1 single, bi-component bottle 1 small basin - 1 mixing spoon	1000 ml
Magic Power Gel 500	●	1 single, bi-component bottle 1 small basin - 1 mixing spoon	500 ml
Magic Power Gel 250	●	1 single, bi-component bottle	250 ml
Magic Power Gel Bag 150	●	Bicomponent single dose bags	150 ml
Magic Power Gel Bag 250	●	Bicomponent single dose bags	250 ml

Gel: UL 94-HB

**Dielectric strength:**

>23 kV/mm

**Cross linking time:**

fast (about 15 min. at 25°C)

**Volume resistivity:**

>2 . 10<sup>15</sup> Ω cm

**Operating temperature:**

-60°C / +200°C

**Overload temperature**

**for short periods:**

uo to 250°C

**Stabilised for:**

mould - UV

**Degree of protection:**

IP68 (in proper casings)

**IP68**  
OFFICIALLY  
TESTED

**IMQ**





## FILLERS

GEL

LV



Gel: UL 94-HB 

**Dielectric strength:**  
>23 kV/mm

**Cross linking time:**  
fast (about 10 min. at 23°C)

**Volume resistivity:**  
>2 . 10<sup>15</sup> Ω cm

**Working temperature:**  
-60°C / +200°C

**Overload temperature  
for short periods:**  
uo to 250°C

**Stabilised for:**  
mould - UV

**Degree of protection:**  
IP68 (in proper casings)

**IP68**  
OFFICIALLY  
TESTED 

# Magic Gel & Magic Fluid

Bicomponent 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-polymer insulation 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 slow isothermal peak that does not thermally stress the materials it comes into contact with.

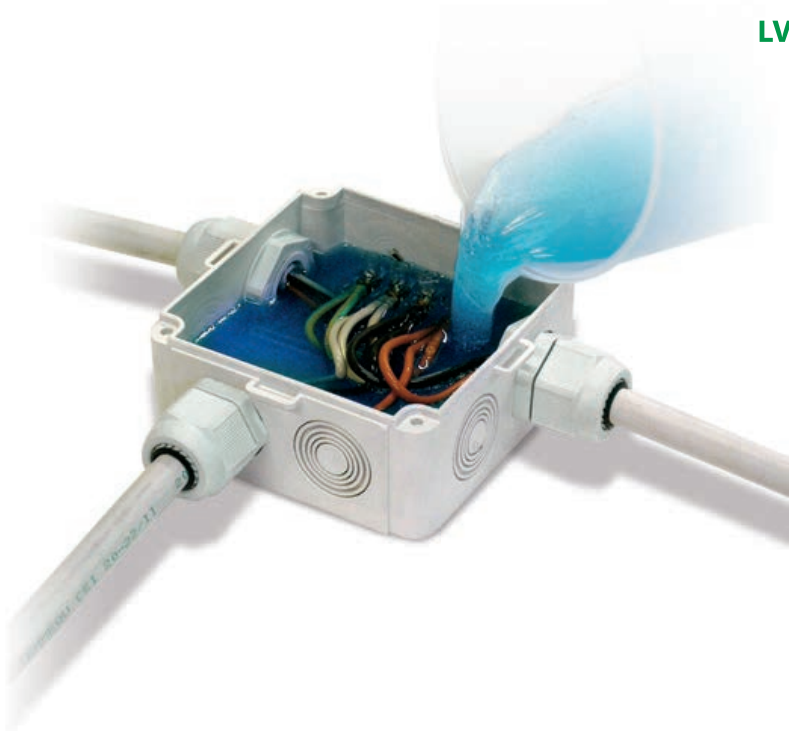
- For high temperature applications!
- Quick cross linking (only 10 minutes)
- Re-enterable also after long working periods
- Non-toxic and safe with no shelf life
- Low viscosity



Examples of use



**Ray  
Tech**



LV

## FILLERS



### GEL

#### Magic Gel

Product	Colour	Package type	Total quantity
Magic Gel 300	●	2 bottles	300 ml
Magic Gel 1000	●	2 bottles - 1 small basin - 1 mixing spoon	1000 ml
Magic Gel 2000	●	2 bottles - 1 small basin - 1 mixing spoon	2000 ml
Magic Gel 10000	●	2 tanks - 1 small basin - 1 mixing spoon	10 lt



#### Magic Fluid

Product	Colour	Package type	Total quantity
Magic Fluid 90	●	Bicomponent single dose bags	90 gr
Magic Fluid 110	●	Bicomponent single dose bags	110 gr
Magic Fluid 170	●	Bicomponent single dose bags	170 gr
Magic Fluid 210	●	Bicomponent single dose bags	210 gr
Magic Fluid 420	●	Bicomponent single dose bags	420 gr
Magic Fluid 550	●	Bicomponent single dose bags	550 gr



#### 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!



Ray  
Tech



## FILLERS

GEL

LV

# Ray Gel

Gel: UL 94-HB 

**Dielectric strength:**  
>23 kV/mm

**Cross linking time:**  
fast (about 3 min. at 30°C)

**Volume resistivity:**  
>1,5 x 10<sup>15</sup> Ω cm

**Operating temperature:**  
-60°C / +180°C

**Thermal conductivity:**  
< 0,2 W/m<sup>2</sup>K

**Dielectric constant:**  
< 7

**Degree of protection:**  
IP68 (in proper casings)

IP68  
OFFICIALLY  
TESTED | IMQ

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

- Quick cross linking
- Antioxidant protection
- Low temperature resistant
- Non-toxic and safe with no shelf life



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**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



## Ray Gel / Bag Gel

Product	Colour	Package type	Total quantity
Bag Gel 200-T	○	Bicomponent single dose bags 	200 gr
Bag Gel 400-T	○		400 gr
Bag Gel 200-R	●		200 gr
Bag Gel 400-R	●		400 gr
Ray Gel 300-T	○	2 bicomponent bottles 	300 gr
Ray Gel 1000-T	○		1000 gr
Ray Gel 300-R	●		300 gr
Ray Gel 1000-R	●		1000 gr
Ray Gel 10K-T	○	2 bicomponent boxes 	10 kg
Ray Gel 20K-T	○		20 kg
Ray Gel 10K-R	●		10 kg
Ray Gel 20K-R	●		20 kg

**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







FILLERS

GEL

LV



IP68  
OFFICIALLY  
TESTED

IMQ

(In proper casings)




*Always at your  
fingertips!*

## 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.

- 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
- Italian Utility Model 

VIDEO SURVEILLANCE  
SYSTEMS



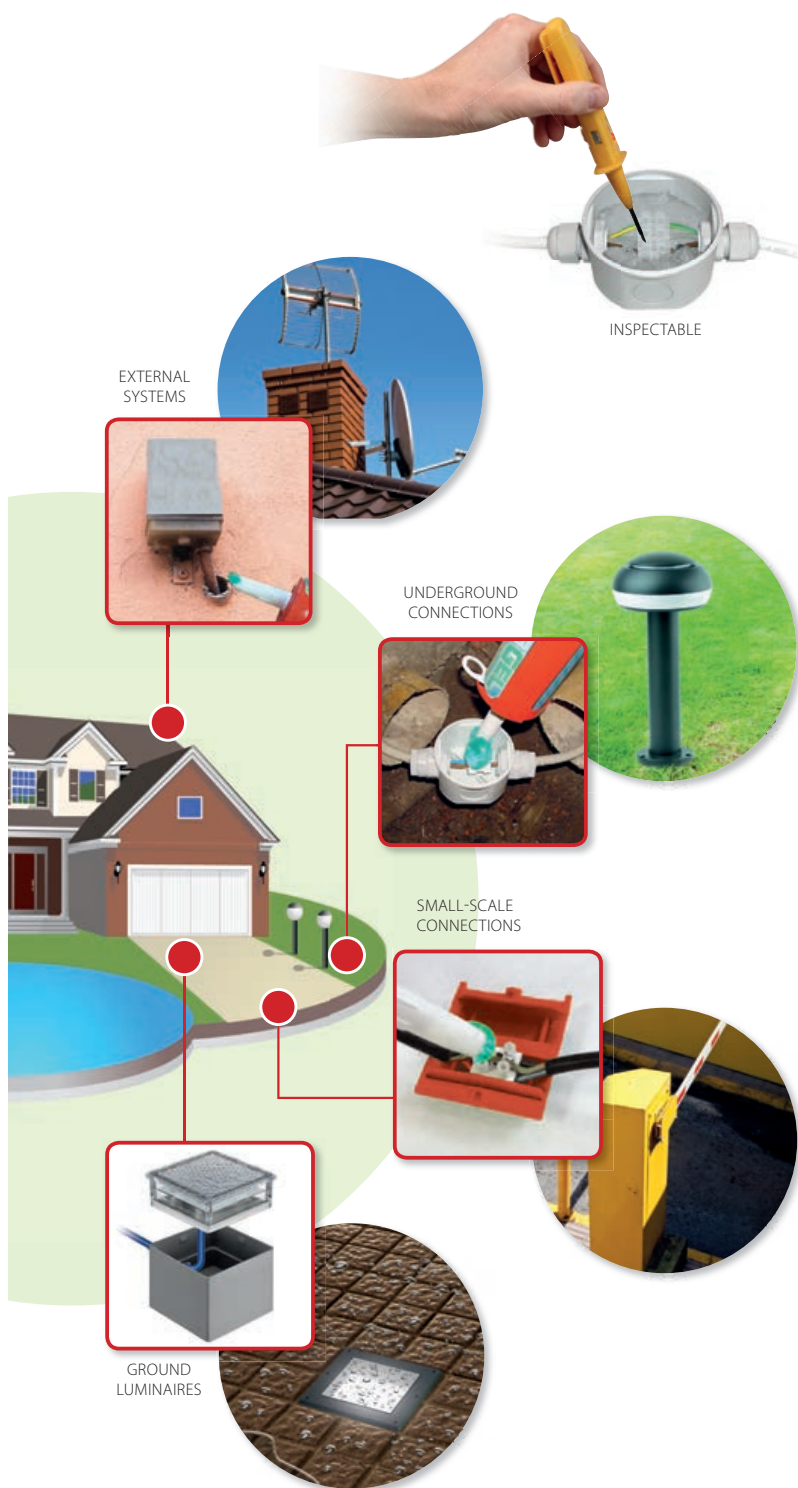
CONNECTIONS IN MOIST  
ENVIRONMENTS



UNDERGROUND  
CONNECTIONS

*Time and  
space-saver*

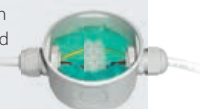
EASY TO APPLY EVEN  
IN AREAS WHICH ARE  
DIFFICULT TO ACCESS!

**WHAT IS GEL WONDER?**

- 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

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## FILLERS

GEL

LV



## WonderGel & WonderGel Invisible

### Characteristics

- Single component gel which comes already cross-linked in a cartridge
- No mixing, no waiting time
- Visco-elastic gel which is extremely fluid
- Self-levelling and self-vulcanizing
- Can be applied using standard silicone ratchets
- Easy to measure
- Does not expire and does not harden
- Easy to apply even to inaccessible areas
- Characteristics do not deteriorate with the passing of time
- Re-enterable
- Non-toxic and safe
- Can be applied in all weather conditions, even when raining or in the heat of the summer sun
- Can be applied to powered appliances
- Dielectric strength > 23 kV/mm
- Volume resistivity >  $2 \cdot 10^{15} \Omega \text{ cm}$
- Operating temperature from  $-60 / +200^{\circ}\text{C}$
- Overload temperature for brief periods:  $250^{\circ}\text{C}$
- Gel UL 94-HB

\* Protection degree IP68 in proper casings



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### Wonder Gel

Product	Colour	Package type	Total quantity
Wonder Gel	●	Cartridge with measuring nozzle	280 ml
Wonder Gel Invisible	○	Cartridge with measuring nozzle	280 ml

## Gel technology comparison

PRODUCT	 <p><b>MAGIC GEL</b> Bi-component gel in 2 bottles</p>	 <p><b>MAGIC POWER GEL</b> Bi-component gel in single, 2 compartment bottle</p>	 <p><b>WONDER GEL</b> Ready-to-use single component gel in a cartridge</p>	
METHOD OF APPLICATION	 <p>MIX AND POUR</p>	 <p>1 MIX AND POUR</p>	 <p>2 MIX, WAIT &amp; STICK</p>	 <p>INJECT</p>
INSTALLATION TEMPERATURE (°C)	- 5 * -10 ** / +55 -15 ***	-5 * -10 ** / +55 -15 ***	-40 / +60	-40 / +110
OPERATING TEMPERATURE (°C)	-60 / +200	-60 / +200	-60 / +200 Ready to use in 15 min	-60 / +200 Ready to use
CROSS LINKING TIME (minutes at 25°C)	< 10 min.	ca. 15 min.	-	-
PRINCIPAL CHARACTERISTICS	RE-ENTERABLE	RE-ENTERABLE REUSABLE	STICKY RE-ENTERABLE REUSABLE	INJECTABLE RE-ENTERABLE

\* Poured at -5°C from bottles stored at >10°C.

\*\* Poured at -10°C from bottles stored at >20°C.

\*\*\* Poured at -15°C from bottles stored at -15°C (cross linking within 48 hours).

Raytech gels can be used for the filling and sealing of all junction boxes and are ideal to ensure maximum protection if applied in cable jointing systems of our production.





## FILLERS

GEL

LV

Gel: UL 94-HB

Operating temperature:

-60°C / +200°C

Installation temperature:

-40°C / +110°C

Dielectric strength:

> 23 kV/mm

Degree of protection:

IP68 (in proper casings)



# Wonder Fluid

Single component insulation fluid gel cartridge.

- Ready-to-use fluid gel
- Created for filling new Raytech joint shells with no-return valves
- Suitable for filling trays
- Does not solidify when opened
- No waste
- No shelf life



## Wonder Fluid

Product	Colour	Package type	Total quantity
Wonder Fluid 210	●	Cartridge with measuring nozzle	210 ml
Wonder Fluid 280	●	Cartridge with measuring nozzle	280 ml



# Monogel

Single component transparent insulation gel for generic use.

- Ready to use
- No shelf life



## Monogel

Product	Colour	Package type	Total quantity
Monogel	○	Cartridge with measuring nozzle	300 ml

**Gel:** UL 94-HB

**Operating temperature:**

-60°C / +200°C

**Installation temperature:**

-40°C / +110°C

**Dielectric strength:**

> 23 kV/mm

**Degree of protection:**

IP68 (in proper casings)



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## FILLERS

GELGUM

LV

**Dielectric strength:**  
≥ 21 kV/mm  
**Cross linking time:**  
fast (about 10 min. at 25°C)  
**Volume resistivity:**  
≥ 2 x 10<sup>14</sup> 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)

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.

- For installations up to 1 kV
- Suitable for high temperatures
- Even suitable for high depths under water
- Waterproof > 1 MPa
- UV resistant
- Removable
- Vibration resistant  
can act as a damper
- Suitable for installation in  
salt water (sea) and in  
chlorinated water (pools)
- Non toxic and safe

EXTREMELY FLEXIBLE  
AND WATER-REPELLENT

NEW EXCEPTIONALLY  
STRONG CONSISTENCY

TECHNO  
**GELGUM**

**FLEXIBLE LIKE GEL**

**STRONG LIKE RUBBER**

**BORN TO BE  
UNIQUE**

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Not quite a GEL and not quite RUBBER,  
BUT HAS THE BEST FEATURES OF BOTH!



SAFE



WATERPROOF



RE-ENTERABLE

Product	Colour	Package type	Quantity
Techno Gel Gum	•	1 single, bi-component bottle 1 small basin - 1 mixing spoon	1 kg
Techno Gel Gum 500	•	1 single, bi-component bottle 1 small basin - 1 mixing spoon	500 gr

#### Installation sequence



Shake before using.



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



Mix for 1 min. max.



Pour within 1 min. max.



In just 10 minutes the curing is completed.



# GelGum JOINT

Kit composed of 5 joint shells in fracture resistant plastic and 1 kg of Techno Gel Gum, bottled two-component waterproof and re-enterable insulation with very high dielectric, sealing and thermal characteristics. Techno Gel Gum is a strong flexible elastomer whose formula has been optimised for the protection of power cables, Telecom cables 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.



## GelGum JOINT - L

KIT for line joints

art. **GELGUM JOINT-L**

Kit composed of:  
1kg of Techno Gel Gum  
+  
5 casings  
+  
a black 19x25, 0.13 mm-thick  
tape



Cable formation and conductor cross sections (n° x mm²)

	1x	2x	3x	4x
<b>4 L10 casings</b> (180x50 mm)	2,5 - 50	1,5 - 10	1,5 - 10	1,5 - 10
<b>1 L25 casing</b> (215x55 mm)	16 - 150	4 - 25	4 - 25	2,5 - 25

## GelGum JOINT - Y

KIT for branch joints

art. **GELGUM JOINT-Y**

Kit composed of:  
1kg of Techno Gel Gum  
+  
5 casings  
+  
a black 19x25, 0.13 mm-thick  
tape



Cable formation and conductor cross sections (n° x mm²)

	1x		2x		3x		4x	
	T	B	T	B	T	B	T	B
<b>4 LY6 casings</b> (180x90 mm)	4-50	4-50	4-10	4-10	2,5-6	2,5-6	2,5-6	2,5-6
<b>1 Y25 casing</b> (220x105 mm)	50-150	50-150	10-25	10-25	6-25	6-16	6-25	6-10

# Sky Plast

Bicomponent rubber in insulating, mouldable, self-extinguishing paste with high dielectric characteristics.

Thanks to Raytech's constant and careful research and development of new technologies comes Sky Plast, absolute technical innovation 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.

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

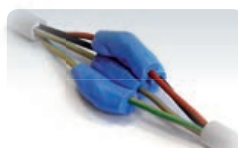
## Installation examples



Cable gland sealing



Creation of LV terminals



Insulation of multiple connections



Conduit protection



Drop line, bar, transformer through insulation



On-site preparation of braces and supports



Preparation of deflectors, nozzles, flow deviators



Preparation on-site of expanders for inserts



Preparation on-site of small moulds for reliefs



Preparation of bars, washers, round wire insulators



Preparation on-site of seals

## Sky Plast

Product	Colour	Package type	Total quantity
Sky Plast	•	2 bicomponent cans	500 gr
Sky Plast 250	•	2 bicomponent cans	250 gr

**Dielectric strength:**

> 23 kV/mm

**Degree of protection:**

IP68 (in proper casings)



## Installation sequence







## FILLERS

### RUBBER

LV

**Cross linking time:**  
15 minutes at 23°C  
**Volume resistivity:**  
> 2  $10^{15}$   $\Omega$  cm  
**Dielectric strength:**  
> 23 kV/mm  
**Specific weight:**  
1,22 approx  
**Degree of protection:**  
IP68 (in proper casings)

# Magic Rubber

Fast cross linking bicomponent rubber.

Bicomponent 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.

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

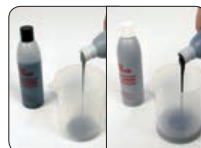


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## Magic Rubber & Rubber Fluid

Product	Colour	Package type	Total quantity
Magic Rubber 500	●	2 bicomponent bottles 1 measuring cup - 1 mixing palette	500 gr
Magic Rubber 10	●	2 bicomponent tanks 1 measuring cup - 1 mixing palette	10 kg
Rubber Fluid 200	●	Bicomponent single dose bags	200 gr
Rubber Fluid 350	●	Bicomponent single dose bags	350 gr



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



Mix for  
max 30".



Pour the product into  
the casing to be filled.



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