

CORNING



## Product Line

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- Distribution Blocks
- Underground Splices
- No-Sealed Splice Closure
- Sealed Splice Closure
- Connectors
- Network Access Terminal
- Subscriber Terminal
- Residential Line
- Optical Network
- Protectors



Distribution Blocks

 <p>BTRE Block</p>	 <p>Bloco Com Ferramenta Incorporada</p>	 <p>M10 Block</p>	 <p>M10 Super Compact Block</p>
 <p>S10 Block</p>	 <p>BTDG</p>	 <p>xDSL</p>	 <p>HC Hyper Small Block</p>

# CORNING

## BTRE Block

The BTRE Block has been developed to interconnect metallic conductors using the IDC technology. It allows the connection of conductors with diameters between 0,40 and 0,65 mm. The BTRE Block is available in two configurations: BTRE-CP (permanent connection), in dark blue, and BTRE-NF (normally closed), in light blue.



## BTRE Rack



## Connecting Tool Europa



## BTRE Set



## Identifiers



## BTRE TB Tester and BTRE TT



## Test Comb



## Bloco com Ferramenta Incorporada

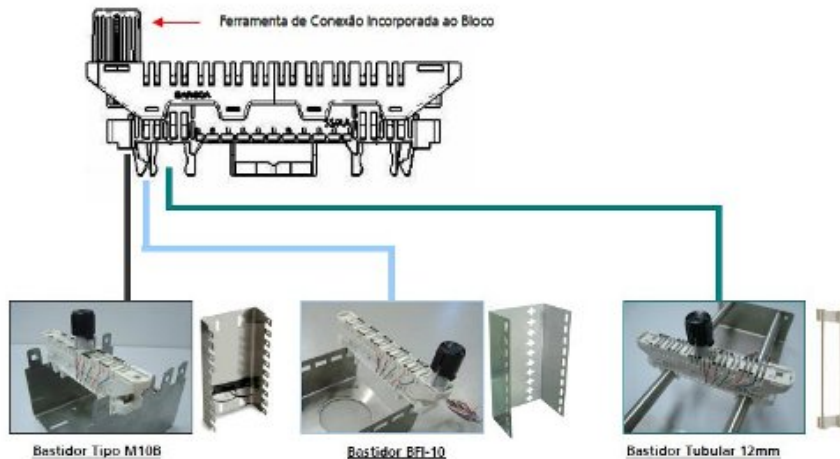
O Bloco com Ferramenta Incorporada - BFI 10 pares - Barga foi desenvolvido para ser instalado em armários de distribuição (Poste ou Pedestal), Caixas Prediais e redes de cabeamento estruturado de linha de dados CAT 5e, abrangendo conexões em condutores com diâmetro de 0,40 a 0,64 mm.

O Bloco BFI 10 pares, com design moderno, possui apenas uma ferramenta incorporada que possibilita conectar tanto os condutores do cabo alimentador quanto os fios jumpers.

É constituído de corpo plástico inteiriço que armazena os contatos cobertos com um gel especial, que protege as conexões contra a oxidação em ambientes agressivos.



O Bloco com Ferramenta Incorporada pode ser aplicado em três tipos de bastidor:



### Vantagens:

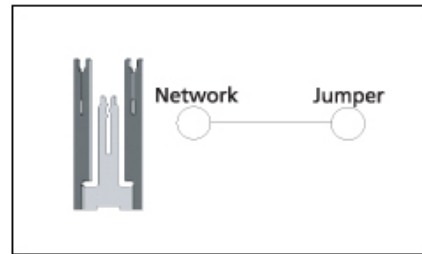
- A Ferramenta é prisioneira junto ao Bloco que efetua a conexão e o corte do excesso do fio dispensando o uso da tesoura;
- Rápida instalação e manutenção;
- Alto grau de compactação;
- O Bloco possui a possibilidade de fixação nos bastidores para os blocos tipo M10B, BFI-10 de várias capacidades ou em perfil tubular de 12mm;
- Possui tecnologia de conexão IDC;
- Conexão Selada para proteção contra oxidação;
- Possui contato de corte para teste A - B e A' - B';

## M10 Block

The M10 Blocks have been developed to be used in the connection of the external network and the subscriber's internal network, which can be used in distribution cabinets, building cabinets and general distributors in telephone centrals. They use IDC technology and allow the connection of conductors with diameters between 0,40 and 0,65 mm. They can be supplied with or without gel and can be mounted on racks with various capacities (stainless steel, wall or tubular profile). For the connection, the Connecting Tool M10FC from Barga must be used.

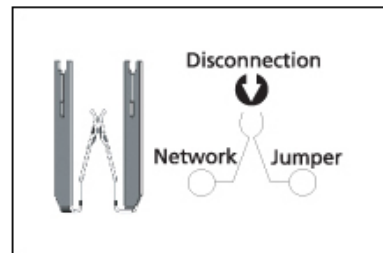
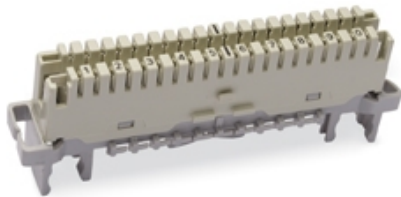
### M10B

The M10B Terminal Block, with Permanent Connection contact (CP), is used in distribution cabinets for the connections of the primary and secondary networks.



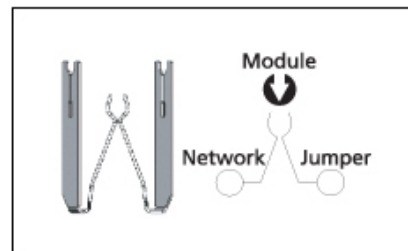
### M10 B with Disconnection

The M10 B Terminal Block, with a Normally Closed contact (NF), is used in distribution cabinets and allows the installation of protection modules. The M10 Block with disconnection allows the interruption of the line through the introduction of an insulating element – which can be an insulation module, or an insulator.



### M10 A

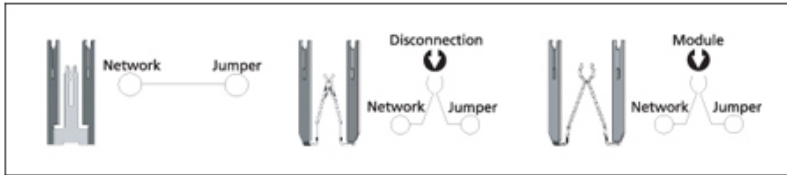
The M10A Terminal Block, with a Normally Open contact (NA), is used in general distributors and allows the installation of protection modules against current and voltage surges. The signal passage is allowed only through the introduction of a protection module (more common), or of a continuity module.



# CORNING

## M8

The M8 Terminal Block has a capacity for 8 pairs and presents the same characteristics and advantages of the M10 blocks. It can be supplied in three different models, depending on the contact type (CP, NF and NA).



- » [Electrical Protection](#)
- » [Accessories for the M10 Type Blocks](#)

## M10 Block - Electrical Protection

The MPEI Protection Module has been developed to be used with the M10 terminal blocks, in order to provide electrical protection for the telecommunication devices.

The modules can be equipped with gas or solid state arresters for protection against voltage surges, and for protection against current surges PTCs can be used, always according to the user's needs.

The plastic body of the MPEI is injected in flame retardant material and resistant against the most severe operation conditions, without deforming or exposing its internal components.

### MPEI R Module



### MPEI N (ADSL) Module



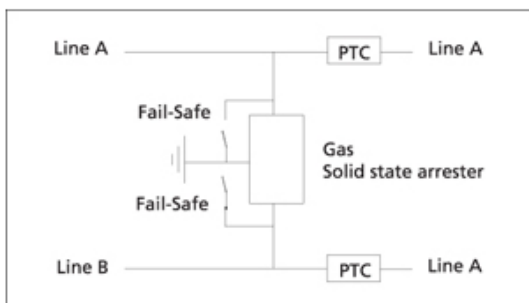
### MPEI Serial Module



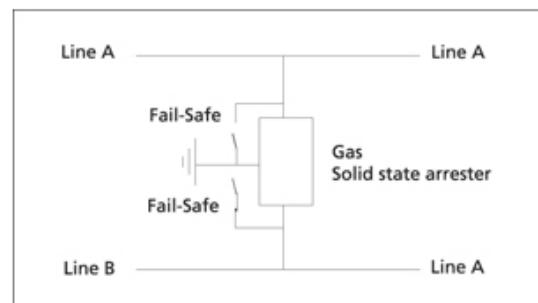
The MPEI Protection Module is available in several configurations. The table below informs the details for each one of them:

Module	Technology	Operation Range	Type of Protection
Mini PEI RS	Solid State	Tensions between 200 and 300 Vcc	Against voltage surges (parallel)
	PTC	Nominal current 120mA	Against self-regenerating current surge (serial)
Mini PEI NS	Solid State	Tensions between 200 and 300 Vcc	Against voltage surges (parallel)
Mini PEI NG	Gas arrester	Tensions between 200 and 300 Vcc	Against voltage surges (parallel)
Mini PEI Serial	PTC	Nominal current 120mA	Against self-regenerating current surge (serial)

### Electrical Diagram of the Components:



MPR



MPN



## M10 Block Accessories

Connecting Tool M10 FC Slim



Markers and Insulators



M10 TT y M10 TB Tester



Tag case



Rack and Tubular Profile



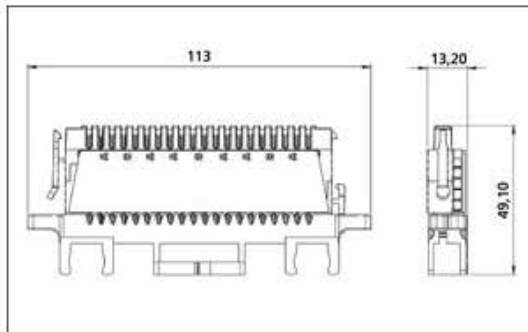
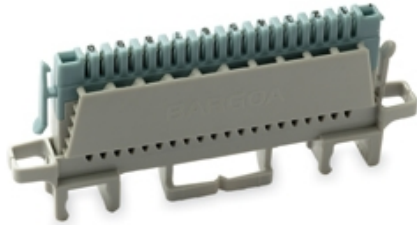
Test Comb



## M10 Super Compact Block

The M10 SC Terminal Block has been developed to be used in outside plant cabinets and general distributors, making the interconnection of the metallic conductors with diameters between 0,40 and 0,60mm possible. The Block used IDC technology with capacity for 10 pairs, and can be supplied in the blue, green, grey or ivory colors, with or without guide wire, according to the project's requirements. It can be installed replacing the "Miguelão" blocks (BST Block) and replacing the BLA-50.

Due to its compaction degree regarding the M10 blocks, the M10SC block is the ideal solution for the amplification projects in ARD-AL distribution cabinets.



Dimensions in mm

Tubular Frame for M10 SC Block



Identifiers



50 Pairs Set



Connecting Tool M10 FC Slim



Tester



Frame for Rack 19" with M10 SC Block

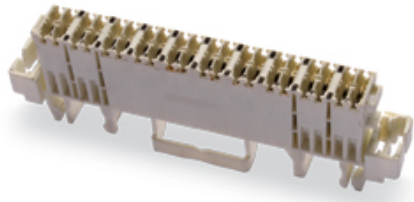


# CORNING

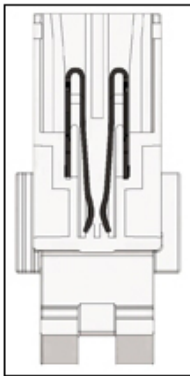
## S10 Block

The S10 Sealed Block has been developed to be used in distribution cabinets, building cabinets and x-DSL high speed networks, comprising connections of conductors with diameters between 0,40 and 0,65mm. This block presents connection of the IDC type and uses the S10 special tool to realize the connection, to remove the conductors and the block from the cabinet. It has a plastic body which stores the contacts covered with a special gel, the block protects the connections against oxidation in aggressive environments.

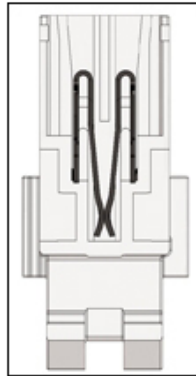
## S 10 Block



### Diagram of the Contacts



normally closed contact



normally open contact

### S 10 Block (Wall version)



### S 10 Block (Tubular Rack)



### Connecting Tool S 10

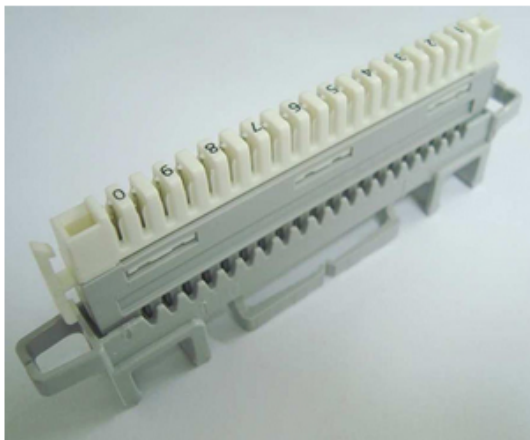


# CORNING

## HC Hyper Small Block

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The terminal block M10 HC is a product intended for application in cabinets and general distributors network external enabling interconnection conductors metal whose diameter varies between 0,40 and 0,65 mm. Block is made with IDC connection type and has connections for up to ten pairs, can be supplied in the colors blue, green, gray or cream with or without guide wire, according to the needs of Project. It can be installed in place of the blocks (BST) and replacing the BLA-50. Depending on their degree of compaction in relation to M10 block, the block M10SC is the ideal solution for projects expansion in distribution cabinets type AL-ARD.



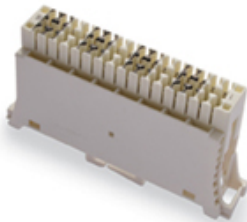
## BTDG

The BTDG block has been developed to be used in main distribution frames, with the possibility of electrical protection against current and voltage surges. It allows the connection of conductors with diameters between 0,40 and 0,90mm, with plastic or paper insulation.

The cylindric contacts of the BTDG use IDC technology and admit connection of up to two conductors in the same contact. The block can be supplied in the 8 and 10 pairs version (NA and NF), always with the grounding bar built in.

The BTDG blocks, when substituting the B310 and B318 blocks, Offer high compactation degree, allowing the increase of the main frame's capacity.

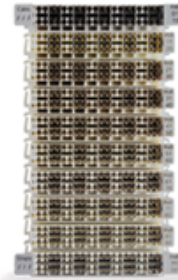
BTDG-8 Pairs Block



BTDG-10 Pairs Block



BTDG-100 Pairs Set



Description	Colors	Electrical Characteristic
BTDG NA 10 Pairs Block	Ivory and Grey	Normally open circuit
BTDG NF 10 Pairs Block	Ivory and Grey	Normally closed circuit
BTDG NA 8 Pairs Block	Ivory and Grey	Normally open circuit
BTDG NF 8 Pairs Block	Ivory and Grey	Normally closed circuit

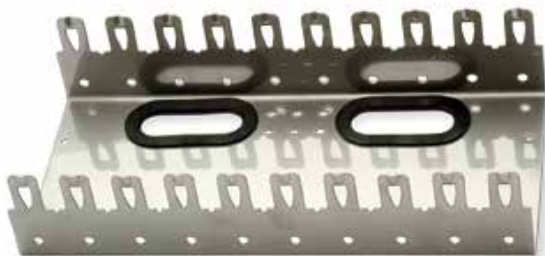
- » [Accessories](#)
- » [Electrical Protection](#)
- » [Rotating BTDG Block](#)

# CORNING

## BTDG Accessories

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The rack can be supplied in several sizes, according to the client's needs. It comes with adapting bar, that allows its fastening on main frames' structures installed in the Centrals.



### Flaps and Identification Cover

### BTDG Connection Tool



### Cutting and Signaling Device



### Retractile Tester



## BTDG - Electrical Protection

The MPDG protection module has been developed for the application in BTDG Terminal blocks, to provide the electrical protection necessary for the devices of a telecommunications network. It can be produced according to the user's needs and equipped with gas arresters or solid state arrester for protection against voltage surges, and with PTCs for protection against current surges.

The plastic body of the MPDG is injected with flame retardant material, investing it with resistance against adverse operation conditions, without presenting deformations or exposing its internal components.

The MPDG allows the coupling of the tester or testing cord in its back part, without the need of removing it from the terminal block.

### MPDG R Module



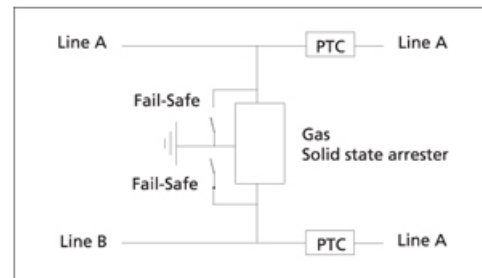
The MPDG Protection Module is available in several configurations. The table informs the details of each one of them:

Module	Technology	Operation Range	Type of Protection
MPDG Slim RG	Gas arrester	Tensions between 200 and 300 Vcc	Against voltage surge (parallel)
	PTC	Nominal current 120mA	Against self-regenerating current surge (serial)
MPDG Slim RS	Solid State	Tensions between 200 and 300 Vcc	Against voltage surge (parallel)
	PTC	Nominal current 120mA	Against self-regenerating current surge (serial)
MPDG Slim NG	Gas arrester	Tensions between 200 and 300 Vcc	Against voltage surge (parallel)
MPDG Slim NS	Solid State	Tensions between 200 and 300 Vcc	Against voltage surge (parallel)

### MPDG N Module

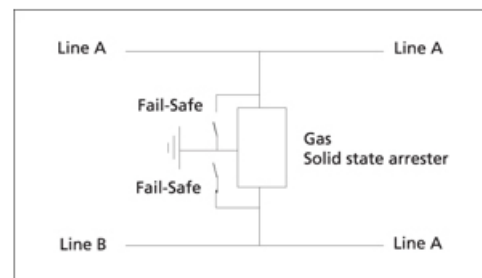


### Diagrams of the components Electrical:



MPDG R

### Accessory Modules



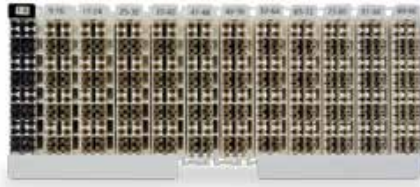
MPDG N

# CORNING

## Rotating BTDG Block

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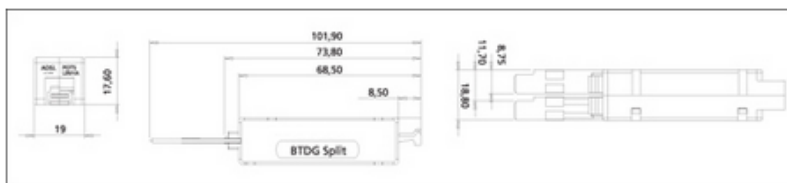
It is a modular block, with 8 pairs, and can be supplied with various capacities, according to the general distributor's size.



## xDSL

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The BTDG Split is a product for applications ADSL (Asymmetric Digital Subscriber Line), allows multiple forms of data, voice and video can be transmitted over copper wires. Making it possible to use simultaneously access the internet and traditional telephony. For broadband signals (ADSL II), acts as a protective barrier to high frequency transients and impedance mismatches that occur in communications telephone service. For telephone services, the filter provides the necessary protection to the interference signals ADSL II may cause the terminals, maintaining the quality of the connection between users..

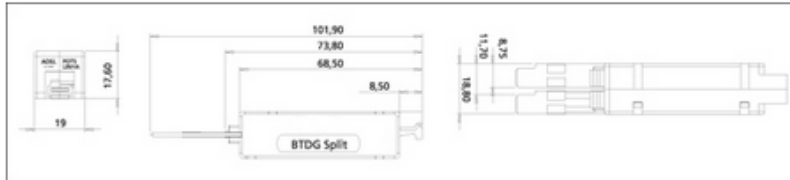




# CORNING

## xDSL

The BTDG Split is a product for applications ADSL (Asymmetric Digital Subscriber Line), allows multiple forms of data, voice and video can be transmitted over copper wires. Making it possible to use simultaneously access the internet and traditional telephony. For broadband signals (ADSL II), acts as a protective barrier to high frequency transients and impedance mismatches that occur in communications telephone service. For telephone services, the filter provides the necessary protection to the interference signals ADSL II may cause the terminals, maintaining the quality of the connection between users..



Product Line



Underground Splices



CEMP



MUFLA



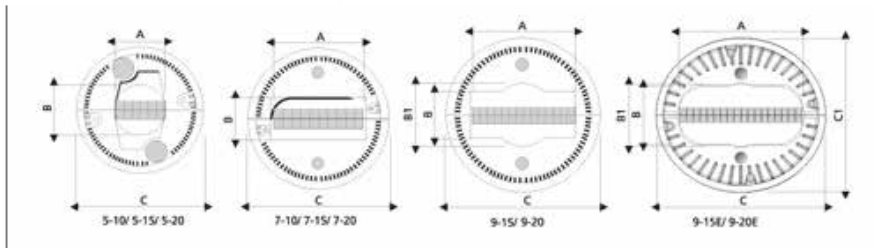
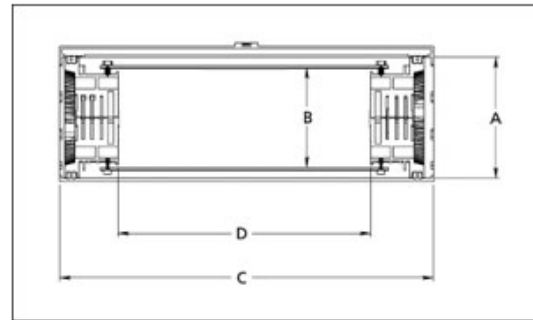
Tooling Kit  
K-CEM

## CEMP

The Pressurized Mechanical Splice Closure – CEMP – has been developed to accommodate and protect direct or branch splices of cables with high pair capacity (10 to 2.800), in underground, pressurized and not-pressurized installations.

The plastic elements of the CEMP are highly resistant against deterioration, when exposed in the environment for long periods, including against ultra violet radiation and aggressive chemical agents.

The Closure does not use flames/fire in its application/operation and the reopening for maintenance or installation of new cables is possible without having to replace the closure.



The following table presents the nine existing models and its dimensions:

Size	Model	A (mm)	B (mm)	B1 (mm)	C (mm)	C1 (mm)
1	5-10 / 5-15 / 5-20	53	46		116	
2	7-10 / 7-15 / 7-20	105	64		168	
3	9-15 / 9-20	145	80	100	209	
4	9-15 E / 9-20 E	183,6	88	93	252	230

Size	A (mm)	B (mm)	C (mm)	D (mm)
5-10	116	95	525	355
5-15	116	95	665	485
5-20	116	95	765	580
7-10	168	140	525	355
7-15	168	140	665	485
7-20	168	140	765	580
9-15	210	180	665	485
9-20	210	180	765	580
9-15 E	See Table.	210	665	485
9-20 E	See Table.	210	765	580

### Tooling Kit – KCEM

To install the CEMP and the MUFLA, the tooling kit – KCEM (available from Corning) is necessary.



## MUFLA

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The Gallery Splice Closure – MUFLA – has been developed to connect the main external cables and the internal distribution cables (CI) inside the general distributors of telephone centrals.



There are two available models of this product, according to the table below:

Model	Capacity
Mufla 9-20 / 20	1200 -2000 pairs
Mufla 9-20 / 24	1200 -2400 pairs

## Aluminum Headstock

Aluminum headstock with 24 exits for CI cables of 100 pairs.



## Tooling Kit – KCEM

To install the CEMP and the MUFLA, the tooling kit – KCEM (available from Corning) is necessary.



Product Line



No-Sealed Splice Closure

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CEANS 4



CEANS SS/MS/LS

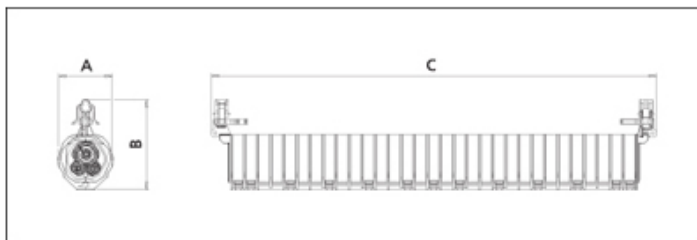
# CORNING

## CEANS 4

The Non-sealed Aerial Splice Closure has been developed to accommodate and protect direct or branch splices between the subscriber's multipair cables in aerial installations.

It is produced in plastic material with protection against the UV radiation, investing it with durability and mechanical resistance, apart from avoiding torsion and bending problems. Its design allows the exit of accumulated water in its interior and its installation and closing does not require special tools or screws, once the fastening hooks have an efficient closing system.

The sealing rubbers of the CEANS 4 headstocks are prisoners and allow a main entrance and two independent exits (branching), guaranteeing the splicing and excellent sealing.



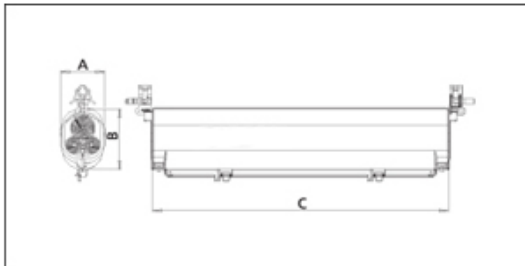
The table below presents the four existing models and its dimensions:

Model	Capacity (Pairs)	Quota A	Quota B	Quota C
Mini CEMA 40A	10 - 200	85	145	660
Mini CEMA 60A	100 - 200	85	145	715
CEANS 4 5.5	200 - 300	90	160	530
CEANS 4 7.5	300 - 400	90	160	865

# CORNING

## CEANS SS/MS/LS

The new models CEANS SS y MS, due to its differed length, allow the distribution of connectors groups with more space in the splice closure's interior. The casing of the closures has smooth surface allowing the painting or fixation of identification labels.



dimensions in mm

Model	Capacity (Pairs)	Quota A	Quota B	Quota C
CEANS SS	Up to 200	75	105	530
CEANS MS	Up to 400	86	120	580

Product Line



Sealed Splice Closure

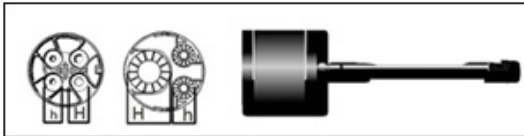
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## CEASH

The Sealed Horizontal Aerial Splice Closure, CEASH, has been developed to protect and accommodate direct or branch splices of subscribers multipair cables in aerial or underground non pressurized networks, offering total imperviousness to the closure, through the special gel of the headstocks. The plastic elements present characteristics that invest the product with high resistance against deterioration, when exposed to the environment for long periods, inclusive against the action of UV radiation.



CEASH 1, 2, 3, and 4

CEASH 1A, 2A, 3A

H= Main cables entrance

h= Branch cables entrance

The CEASH can be supplied in different colours according to the client's needs.

The CEASH is commercialized according to the models listed below:

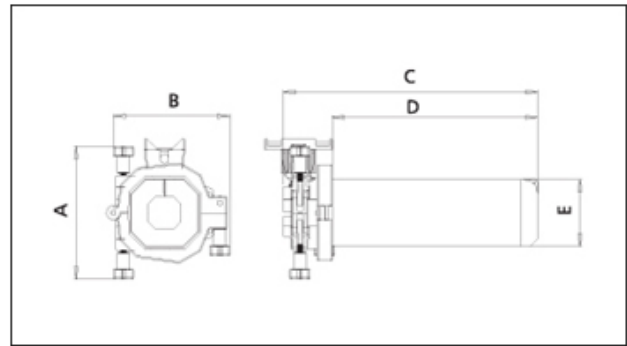
Description	Telephonic Equivalence	Cables Exit	Max. Cable Diam.	Min. Cable Diam.	Max. Splice Diam.	Useful Length	Closure Total Length
CEASH 1	Type 1	4 x h	h= 19	h= 10	50	340	465
CEASH 1 A		1 x H 2 x h	H= 30 h= 19	H= 13 h= 12	50	340	465
CEASH 2	Type 2	4 x h	h= 19	h= 10	55	525	655
CEASH 2 A		1 x H 2 x h	H= 30 h= 19	H= 13 h= 12	55	525	655
CEASH 3	Type 3	2 x H 2 x h	H= 27 h= 19	H= 10 h= 10	80	628	800
CEASH 3 A	Type 4	1 x H 2 x h	H= 42 h= 19	H= 26 h= 10	80	628	800
CEASH 4	Type 5	2 x H 2 x h	H= 42 h= 27	H= 26 h= 10	100	610	805

## CEASV

The Vertical Sealed Aerial Splice Closure, CEASV, has been developed to protect and accommodate direct or branch splices of subscriber's multipair cables in aerial or underground non pressurized networks, offering total imperviousness to the closure, through the special gel of the headstocks. The plastic elements present characteristics that invest the product with high resistance against deterioration, when exposed to the environment for long periods, inclusive against the action of UV radiation. For its application, the CEASV does not require special tools or additional efforts and, because of its tripartite base, the maintenance process and the installation of new cables are simpler.






CEASV Dimensions:



Model	Dimensions				
	A	B	C	D	E
CEASV 1	185mm	180mm	375mm	305mm	98mm
CEASV 2	185mm	180mm	490mm	415mm	98mm
CEASV 3	205mm	185mm	515mm	445mm	139mm

Configurations of the CEASV's tripartite base:

Model	Cable Diameter			Cupola Internal Diameter	Cupola Useful Length
	A	B	C		
 CEASV 1	30mm	20mm	22mm	92mm	310mm
 CEASV 2	30mm	20mm	22mm	92mm	430mm
 CEASV 3	40mm	22mm	10mm	133mm	430mm

Product Line



## Connectors

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## Top Connectors

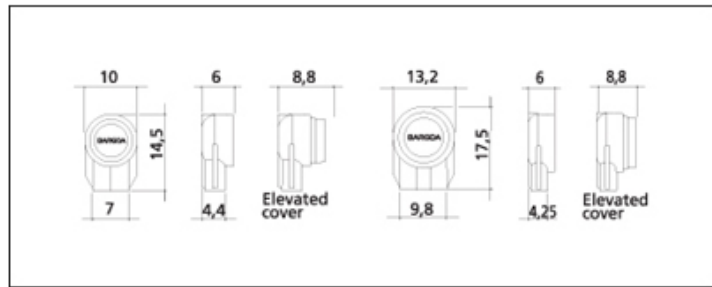
Have been developed to realize top splicing of telephone cable conductors. As the majority of the Bargoa products, the top connectors use IDC technology (Insulation Displacement Connection), and according to the model, are indicated for usage in direct or branch splices. The top connectors demand the usage of special pliers, guaranteeing security to the connection.

### UP2 and UP3 (UNIF1 and UNIF 2)

The UP2 Connector (blue) is indicated for direct splices and the UP3 connector (red) is indicated for branch splices. Both allow the connection of conductors with diameter between 0,40 and 0,90mm, with paper or plastic insulation. They are constituted by a "U formed contact", that realizes the double connection of the wire. These connectors have translucent base, allowing the visualization of the connection, and they can be supplied with or without sealing gel. For its installation, special pliers, commercialized by Bargoa, are necessary.



special pliers

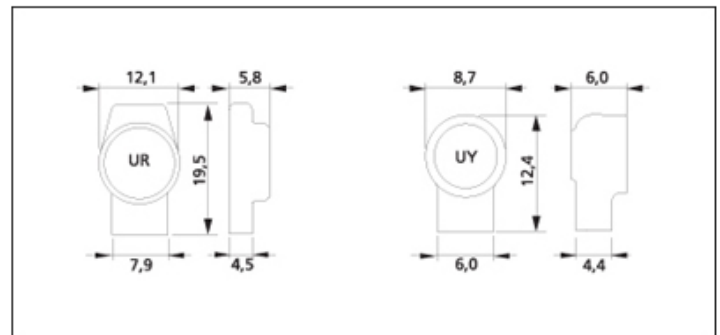


### UY and UR

The UY Connector (yellow) has been developed for direct splices in conductors with diameters between 0,40 and 0,65mm. The UR Connector (red) is indicated for branch splices in conductors with diameters between 0,40 and 0,90mm. These connectors have translucent base, allowing the visualization of the connection, and they can be supplied with or without sealing gel. For its installation, special pliers, commercialized by Bargoa, are necessary.



special pliers



# CORNING

## B Type

The B Type Connectors allow the connection of conductors with diameters between 0,40 and 0,65mm (B1 type) and between 0,40 and 0,90mm (B2 type) and can be supplied with or without sealing gel. Connectors without sealing gel can be used on conductors with paper insulation. In case of the version with sealing gel, they are indicated only for conductors with plastic insulation. For its installation, Type B pliers, commercialized by Bargoa, are necessary.



B type pliers

# CORNING

## FE/FE – FE/FI Connectors

The FE/FE and FE/FI type connectors have been developed to interconnect external cables or to connect external to internal cables. The closure of these type of connectors have protection against UV radiation and flame retardant material (UL 94 V0) and are provided with sealing gel in its interior for protection against damage caused by humidity.

These connectors use IDC technology, meaning that they do not require previous peeling of the conductor, and also admit the connection of external cables with diameters between 0,80 and 1,00mm, including cables bore of steel, with a maximum insulation of 5,5mm.

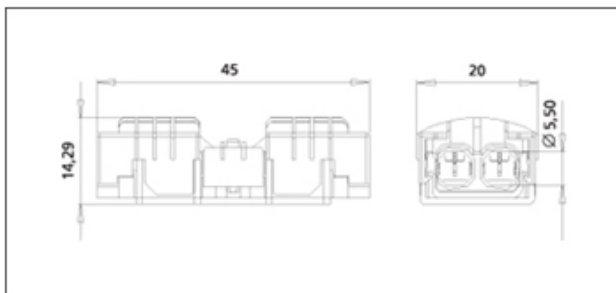
The application of the connectors does not require special tools, being the universal pliers enough for this purpose.

### FE/FE Connector

The FE/FE Connector is indicated for the connection of external cables with diameters between 0,80 and 1,00mm.



FE/FE Connector application

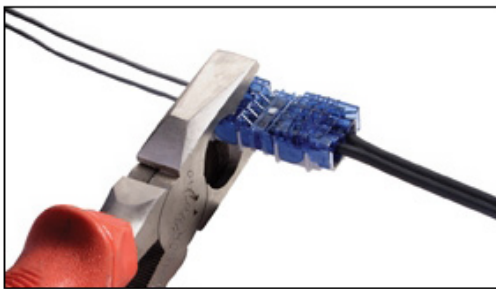


dimensions in mm

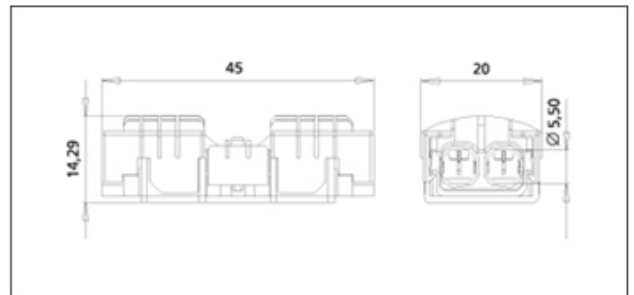
# CORNING

## FE/FI Connector

The FE/FI Connector is indicated for the connection of external cables, with diameters between 0,80 and 1,00mm, and internal cables, with diameters between 0,40 and 0,65mm, both with the possibility of being connected on one side.



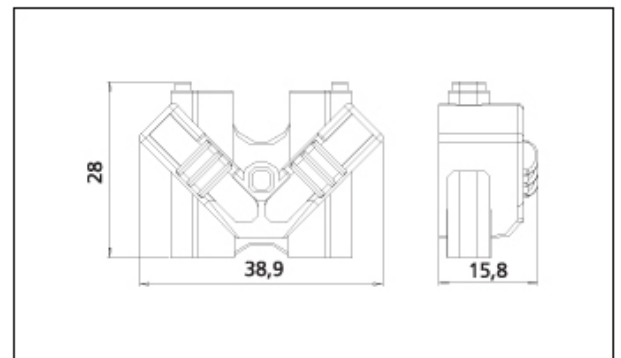
FE/FI Connector application



dimensions in mm

## FE/FI Connector (BC) Branching

The FE/FI Connector indicated for the connection of external cables, with diameters between 0,80 and 1,00mm, and internal cables, with diameters between 0,40 and 0,65mm, allowing the branching of the internal cable.



FE/FI Connector Branching

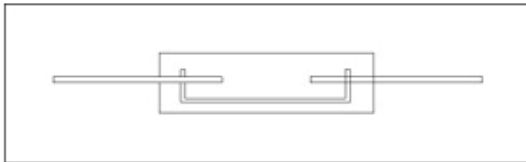
## Linear Connectors

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The 101 Connector has been developed to realize the connection of telephone cables with diameters between 0,40 and 0,65mm using plastic or paper insulation. It uses IDC technology (Insulation Displacement Connection) and, according to the model, is indicated for direct or branch splices, in aerial or underground installations. Some characteristics differ the 101 Connector from other connectors available in the market, like: does not require special tool; universal or flat pliers used to realize the connection; transparent body, allowing visualization of the conductors after the connection; can be supplied with UL 94-V0 material; direct splicing of the pair of conductors and maximum maintenance of its tressing, complying with the xDSL networks requirements; when supplied with in the gel version, due to its geometry, provides a sealed connection, stopping the entrance of water.

### 101 E Connector

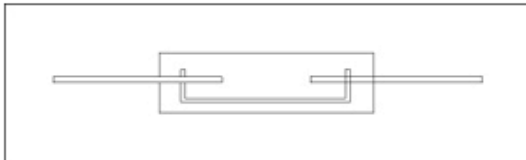
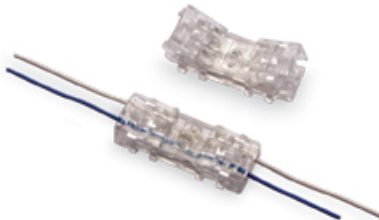
The 101 E Linear Connector, with gel, is indicated for direct splices in aerial (ventilated or sealed) or underground (sealed or pressurized) installations. The 101 E Connector has the UL certification.



direct connection

### 101 I Connector

The 101 I Linear Connector, without gel, is indicated specially for direct splices in aerial (sealed) or underground (sealed or pressurized) installations.



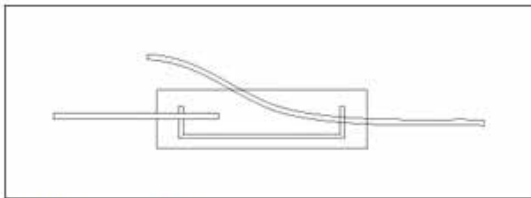
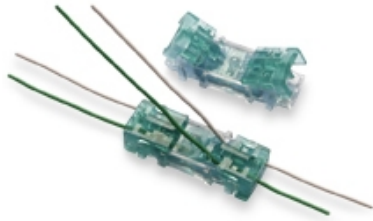
direct connection



# CORNING

## 101 SG Connector

The 101 SG Linear Connector has been developed to realize derivation splicing using only one connector, and can be supplied with or without gel. The derivation is made directly on the cover, through the two-existing openings. In the derivation splices cases, this connector eliminates the need of adapting cover, known as 101 S.



derivation connection

## 101 S Cover



## with Adapting Cover





**Network Access Terminal**

The network access terminals have been developed to accommodate and protect terminal blocks of various capacities – 10 to 25 pairs – in external telecommunications networks. They are manufactured in plastic materials investing them with resistance against impacts and adverse environment conditions.

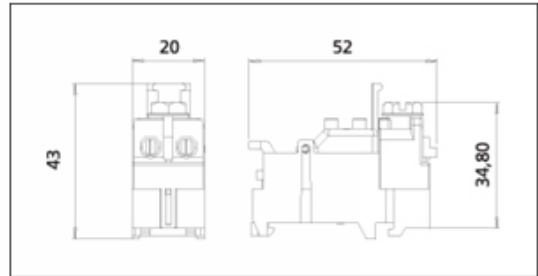
The Network Access Terminals present the following common characteristics:

- application onto posts, trough the usage of steel bands, or onto walls, with screws;
- bascule and prisoner cover with opening levels at 90, 135 y 180°. The closing is realized trough manual pressure, without the need of tools;
- testing area allowing the access to the line without the need or removing or peeling the cable;
- possibility of electrical protection of the pairs, depending on the model of the terminal block, through the fastening of special protection modules instead of continuity modules;
- can be supplied with ends of different sizes, according to the customer's needs;
- usage of terminal blocks of 10, 15, 20 or 25 pairs, according to the model, with IDC technology, for external cables with diameters between 0,50 and 1,00 mm;
- possibility of substituting the closure without the total loss of the set and disconnection of the subscribers;
- insulating support, fulfilling the electrical protection requirements established by PROTEL (15 to 35 KVA);
- grounding terminal linked to the cable's cover, allowing the application of grounding cordage.



## BTMA Protection Module

Module used in the protection of the MTMA 3 blocks. It is supplied in two versions: red, with a discharge voltage of 300 to 500 Vcc (Brazil standard) and blue, with discharge voltage of 188 to 276 Vcc (International standard).



## BTMA Protection Module

Module used in the protection of the MTMA 3 blocks. It is supplied in two versions: red, with a discharge voltage of 300 to 500 Vcc (Brazil standard) and blue, with discharge voltage of 188 to 276 Vcc (International standard).



# CORNING

## TF Protection Module

Used for the protection of the BTMA 2 and TF blocks. It is manufactured in the blue color and has discharge pressure of 300 – 500 Vcc.



## TM Continuity Tester

Allows access to the line without the need of previous peeling or removal of the cables.



## TF Continuity Module

Establishes the electrical continuity and protects the testing area.



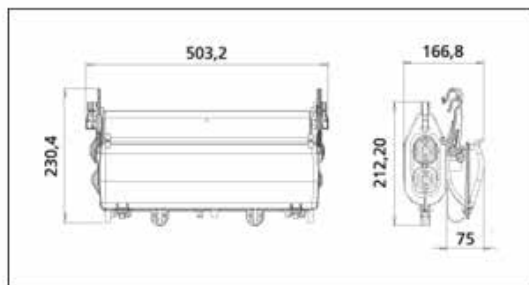
# CORNING

## CERTA

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Constituted of a non sealed splice of up to 400 pairs and its branches and of a network access terminal with final capacity of 20 pairs, being all the cables interconnected.

The Splice Closure with Reentrance and Access Terminal - CERTA has been developed to attend situations of posts congested by energy meters and cases of networks ends (condominiums, commercial establishments and network crossings). It is fastened directly on the cordage, eliminating the need of space available on posts.

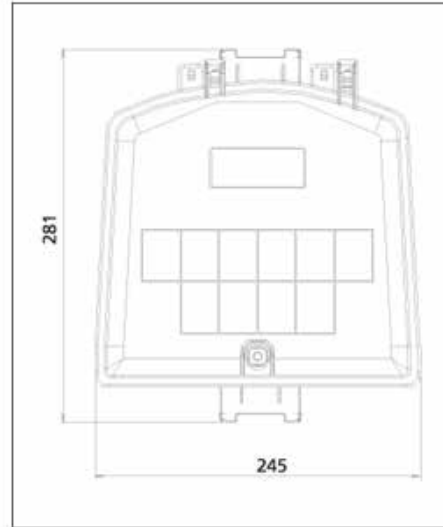


# CORNING

## TAR 10 Pairs MX

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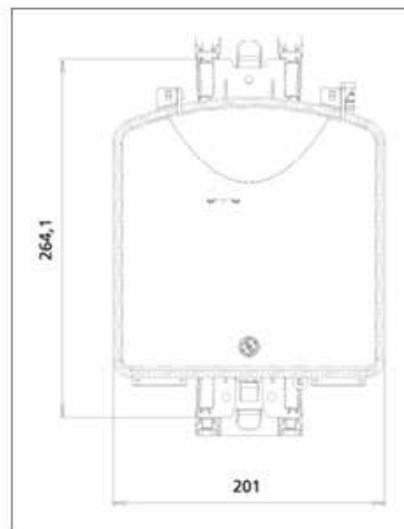
Characteristics: in polycarbonate; grey color; BTMA 3 terminal block; with prediction of electrical protection; BTMA type protection module; works also as a passage closure allowing derivation of cables of up to 200 pairs with diameters of 0,40 mm.



## TAR 10 Pairs PR

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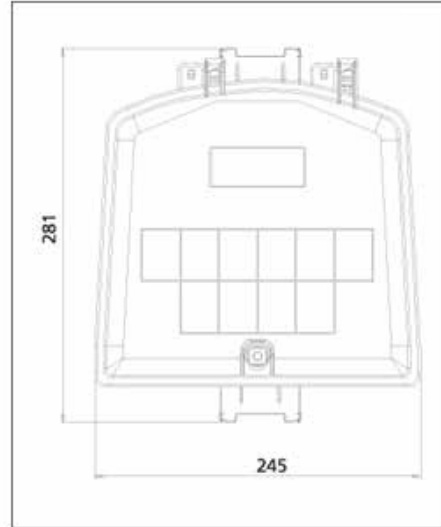
Characteristics: in polycarbonate; grey color; BTMA 3 terminal block with testing point on the cover and prediction of electrical protection. BTMA type protection module; external grounding element.



# CORNING

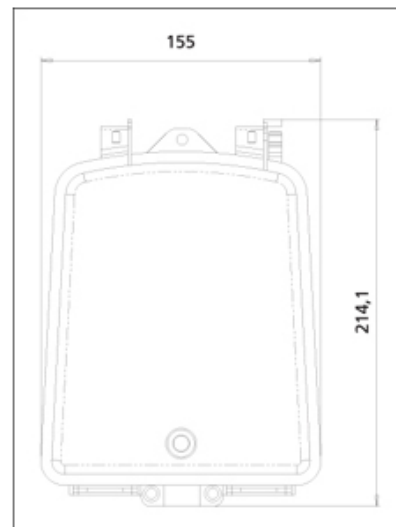
## TAR 10 Pairs SG

Characteristics: in polycarbonate; grey color; BTMA 3 terminal block; with prediction of electrical protection; BTMA type protection module; works also as a passage closure allowing derivation of cables of up to 200 pairs with diameters of 0,40 mm.



## TAR 10/15 Pairs AG

Characteristics: in polycarbonate; grey color; BTMA 3 terminal block; with prediction of electrical protection; BTMA type protection module; presents pilot pair



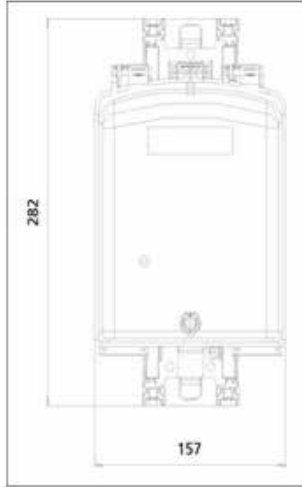
# CORNING

## TAR 10/20 Pairs BT

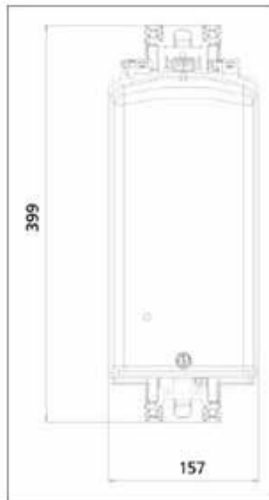
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Characteristics: in polycarbonate; grey color; TM terminal block; no prediction of electrical protection; with continuity tester.

### TAR 10 Pairs BT



### TAR 20 Pairs BT





# CORNING

## TAR 10/20 Pairs TF

Characteristics: in polycarbonate; grey color; TF 10/20 Pairs terminal block; with prediction of electrical protection; TF type protection module; presents pilot pair.

### TAR 10 Pairs TF



### TAR 20 Pairs TF



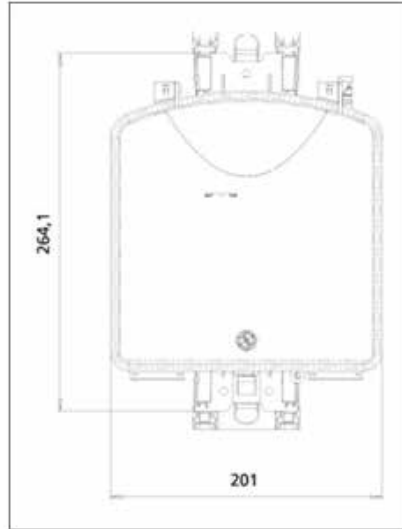
# CORNING

## TAR 10/20 Pairs TM

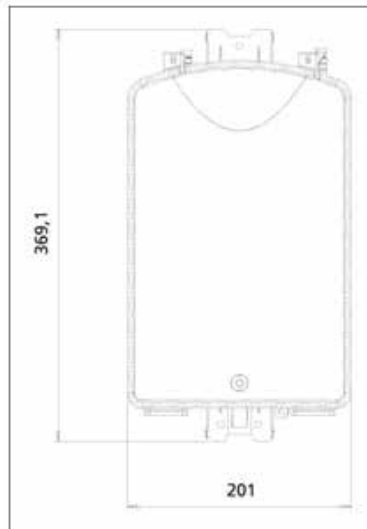
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Characteristics: in polycarbonate; grey color; TM terminal block; no prediction of electrical protection; with continuity tester.

### TAR 10 Pairs TM



### TAR 20 Pairs TM

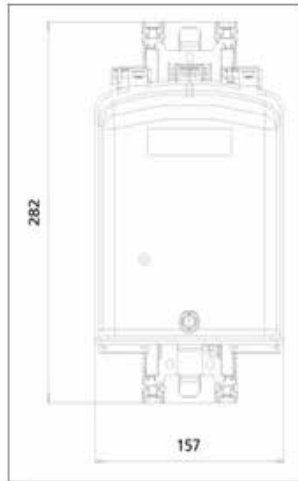


# CORNING

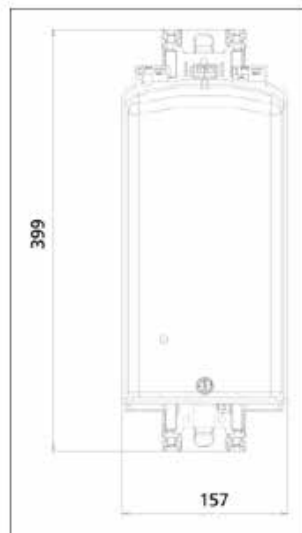
## TAR 15/25 Pairs EP

Characteristics: in polycarbonate; grey color; EP 15/25 Pairs terminal block; with prediction of electrical protection; BTMA type protection module; presents pilot pair.

### TAR 15 Pairs EP



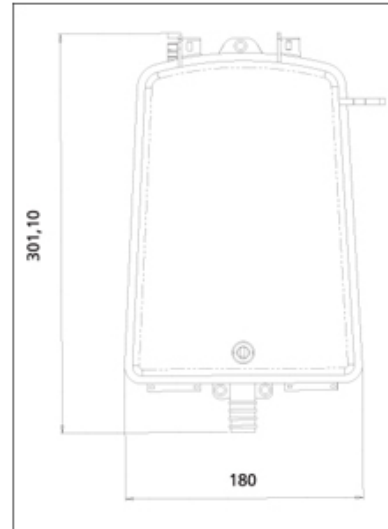
### TAR 25 Pairs EP



# CORNING

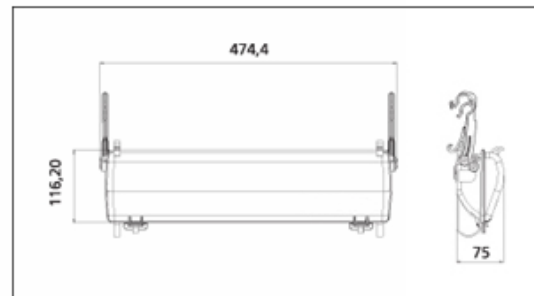
## TAR 20/25 Pairs AG

Characteristics: in polycarbonate; grey color; BTMA 3 terminal block; with prediction of electrical protection; BTMA type protection module; presents pilot pair.



## Horizontal TAR up to 20 pairs

Characteristics: in polypropylene; black color; BTMA 3 terminal block; with prediction of electrical protection; BTMA type protection module; presents pilot pair; capacity of up to 20 pairs.



Product Line



Subscriber Terminal

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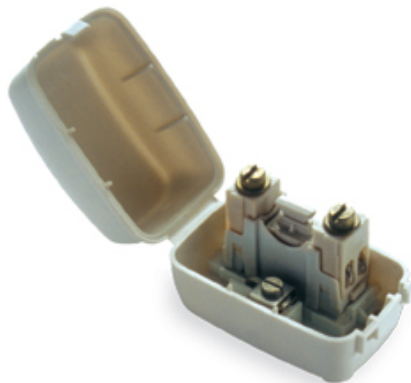
# CORNING

## TA

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The Subscriber's Access Terminal TA has been developed to realize the interface between the external and internal cables of the subscriber, acting as a network termination point. It is manufactured in plastic materials that withstand the adverse weather conditions and are resistant to impacts. The blocks have a special sealing gel that stops the entrance of humidity and allows continuity tests without having to disconnect the cables and the conductors. It uses blocks of 1 or 2 pairs, with IDC connection, for internal cables with diameters between 0,40 and 0,65 mm, and for external cables with diameters between 0,50 mm and 1,00 mm.

The Subscriber's Access Terminal TA1 has a block of 1 pair that can be supplied with or without protection and can be fastened directly onto walls through the usage of screws.



The Subscriber's Access Terminal TA2 can be supplied with blocks of 1 or 2 pairs and offers two options of covers, sliding or bascule. It can be fastened onto pulleys, walls or directly onto posts with steel belts of 3/4.

**TA2 with bascule cover**



**TA2 with sliding cover**



**TA2 with BTMA 3 Block**



Product Line



Residential Line



Microfilters



Subscriber's Split  
RSPLIT (ADSL)



Line Access  
Terminal

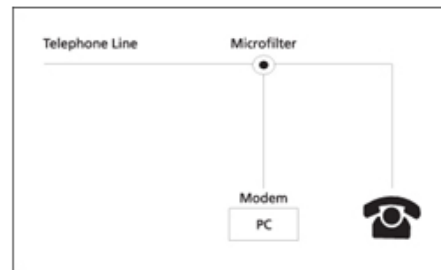
## Microfilters

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The Microfilter is a low-pass filter (300 to 3.400 Hz) that should be installed between each telephone and the telephone socket. Its application on xDSL and RF systems avoids the hearing of interferences generated by the modulation of these systems. Specifically for the ADSL technology (Asymmetric Digital Subscriber Line), it provides an attenuation higher than 40 dB in the range of 30Khz to 2.2 Mhz.

### Microfilter Telebrás Standard (Brazil Only)

The Telebrás Microfilter has an entry for telephone sockets Telebrás Standard and an exit Telebrás Standard through the low-pass filter for the telephone. Besides, it incorporates two more connectors (RJ11 female), one identified with the symbol "Tel" for the telephone, and the other with the symbol "Modem PC" for the connection of the ADSL modem.



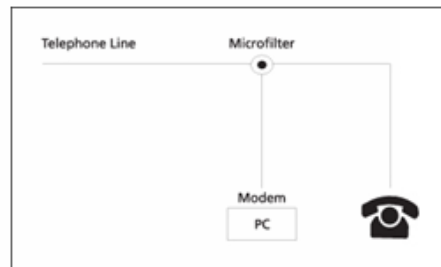
### Single Microfilter (ADSL)

The Simple Microfilter has an entry for the telephone socket and an exit (RJ11 female) for the telephone or for the user's Terminal device, through the low-pass.



### Double Microfilter (ADSL)

The Combined Microfilter has an entry (RJ11 male) for the telephone socket and two exits (RJ11 female) for the telephone or for the user's Terminal device, through the low-pass filter, and another for the ADSL modem.

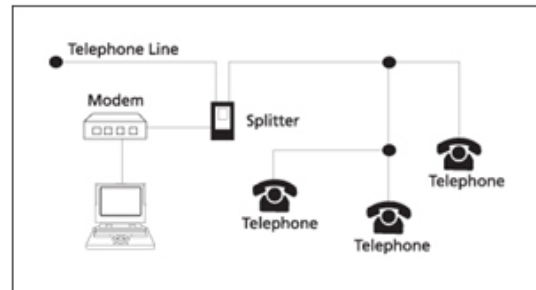




## Subscriber's Split – RSPLIT (ADSL)

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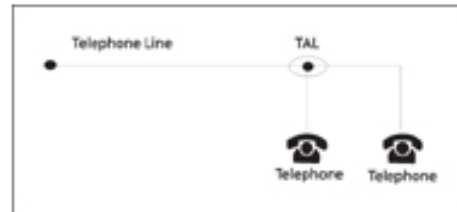
The Splitter is a low-pass filter that allows the clients of broadband services (ADSL) to use also the telephone signal. For broadband signals, it works as a protection barrier against the high frequency transients generated by the telephone and separation of impedances that occur in the communications of the telephone service. For voice signals, it offers protection against the interference that ADSL signals might cause in the terminals (telephone, fax machines and others), maintaining the quality of the connection among the users.



## Line Access Terminal

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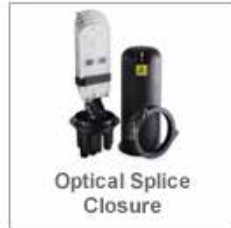
The TAL is a subscriber's line access Terminal that realizes the connection of the telecommunication network and the telephone in the clients' environment. It has a double IDC connector – being one pair for the line entrance and the other a possible derivation to connect internal cables (FI) as well as one pair CCI cables – and one RJ11 connector (female), to connect the client's telephone. Of easy installation, can be fastened onto walls through the usage of screws or double FACE tape.



Product Line



Optical Network



## Optical Splice Closure

The Optical Splice Closure has been Developed to Project and accommodate direct or Branch splices of optical cables with capacity of up to 72 fibers in aerial and underground installations. It allows the entrance of cables with diameters between 10 and 25 mm, offering a capacity of up to 72 fibers for the main cable and of up to 36 fibers for the branch cables. The fibers are accommodated on special trays, each one with a maximum capacity of 24 splices for fusion, and due to its ventilation system, allows simple handling and protection of the cables. The plastic elements have characteristics that invest the product with high resistance against deterioration, when exposed to the environment for large periods, inclusive the action of UV radiation. It does not require special tools. It allows a fiber reserve with 'loose' tube for the recovery in case of fiber loss.

TSU 72 FO







TSU 24 FO



CEAFO 36 FO Tripartite Base



The Optical Splice Closures are commercialized according to the models described below:

Model	Capacity	Base Characteristics	Model	Cable Diameter			Cupola Internal Diam.	Cupola Internal Height
				A	B	C		
TSU 24	12 a 24 Fibers	Thermoretractile	 T1	30mm	20mm	22mm	92	310
TSU 36	12 a 36 Fibers	Thermoretractile	 T2	30mm	20mm	22mm	92	430
TSU 72	12 a 72 Fibers	Thermoretractile	 T3	30mm	20mm	22mm	92	430
CEAFO 24	12 a 24 Fibers	Tripartite	 TSU Size.2	40mm	22mm	10mm	133	430
CEAFO 36	12 a 36 Fibers	Tripartite		20mm	22mm	74mm	136	355
CEAFO 72	12 a 72 Fibers	Tripartite						

## CEFO

O Conjunto de Emenda Fibra Óptica – CEFO foi desenvolvido para proteger e abrigar emendas de cabos ópticos entre 12 e 144 fibras, em redes subterrâneas ou aéreas.

Pode ser aplicada em cabos com diâmetro variando entre 10 e 25mm e com capacidade até 144 fibras para o cabo principal e até 36 fibras para os cabos derivados.

Projetada para obter estanqueidade nas mais exigentes situações através de um sistema de fechamento rápido e eficaz, sem o uso de ferramentas especiais.



A CEFO possui 2 configurações diferentes que variam conforme o número de fibras, as configurações estão definidas na tabela abaixo:

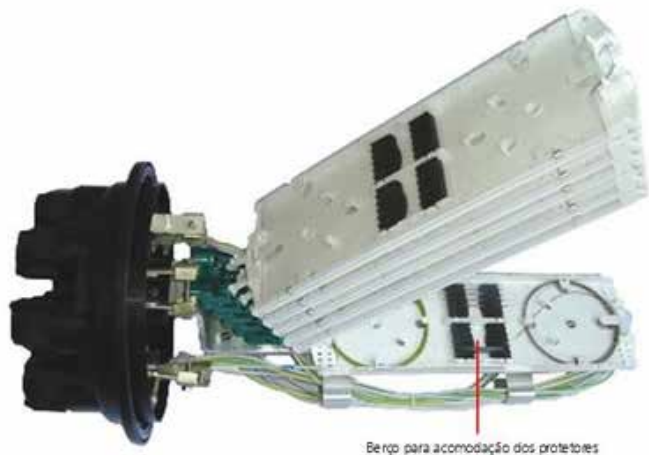
Modelo	Nº de fibras
CEFO G2 12 FO	Até 12
CEFO G2 24 FO	12 a 24
CEFO G2 36 FO	12 a 36
CEFO G2 48 FO	12 a 48
CEFO G2 72 FO	12 a 72
CEFO G2 96 FO	12 a 96
CEFO G2 144 FO	12 a 144

**Nota:** Para que seja possível a utilização da capacidade máxima dos modelos 96 e 144 FO, é necessária a aplicação de dois protetores de emenda sobrepostos em cada bandeja.

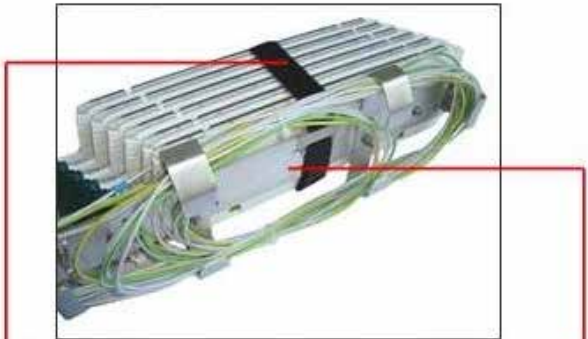
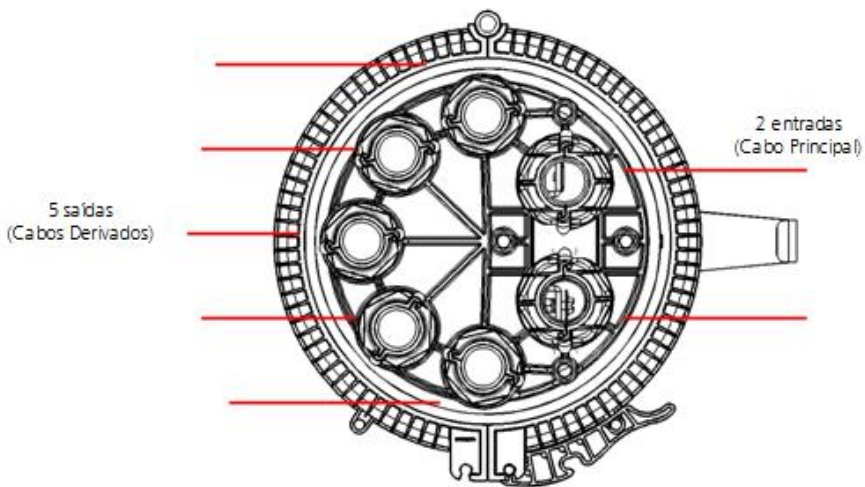
### Informações Dimensionais:

Descrição	A	B
CEFO G2 T1	553	285

## Informações Adicionais:



Berço para acomodação dos protetores de emenda (fusão ou mecânico)



Compartimento para armazenamento da reserva de tubo loose

Veículo para fixação das Bandejas



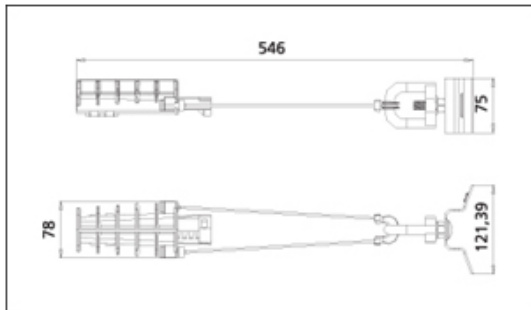
Sistema de Travaimento das Bandejas em 60 graus

Armazenamento da Reserva de Fibra

# CORNING

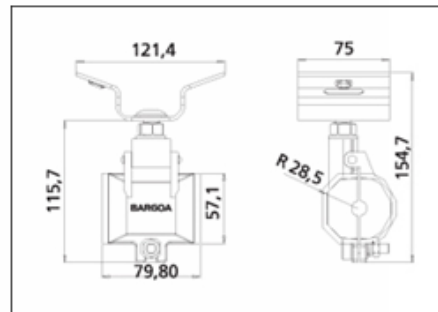
## Anchorage Set

The Anchorage Set for Aerial Self Sustainable Optical Cable has been developed to be applied on optical cables installed in telecommunications external networks, being used on the beginning and on the end of the cable, and on itinerary changing points of the posts, allowing a perfect positioning. Through its closing system, the anchorage set offers an efficient fastening to the cable, without deformations and without damaging the system's performance.



## Dielectric Support

The Dielectric Support has been developed to sustain and fasten optical and coaxial cables, dielectric and conventional cordages; being projected to be installed on posts.





Protectors



## MPDG Protection Module

The MPDG protection module has been developed for the application in BTDG Terminal blocks, to provide the electrical protection necessary for the devices of a telecommunications network.

It can be produced according to the user's needs and equipped with gas arresters or solid state arrester for protection against voltage surges, and with PTCs for protection against current surges..

The plastic body of the MPDG is injected with flame retardant material, investing it with resistance against adverse operation conditions, without presenting deformations or exposing its internal components.

The MPDG allows the coupling of the tester or testing cord in its back part, without the need of removing it from the terminal block.

### MPDG R Module



### MPDG N Module



### Accessory Modules



*MC Yellow*  
*MC Red*  
*MA Grey*

The MPDG Protection Module is available in several configurations. The table informs the details of each one of them:

Module	Technology	Operation Range	Type of Protection
MPDG Slim RG	Gas arrester	Tensions between 200 and 300 Vcc	Against voltage surge (parallel)
	PTC	Nominal current 120mA	Against self-regenerating current surge (serial)
MPDG Slim RS	Solid State	Tensions between 200 and 300 Vcc	Against voltage surge (parallel)
	PTC	Nominal current 120mA	Against self-regenerating current surge (serial)
MPDG Slim NG	Gas arrester	Tensions between 200 and 300 Vcc	Against voltage surge (parallel)
MPDG Slim NS	Solid State	Tensions between 200 and 300 Vcc	Against voltage surge (parallel)



## MPEI Protection Module

The MPEI Protection Module has been developed to be used with the M10 terminal blocks, in order to provide electrical protection for the telecommunication devices. The modules can be equipped with gas or solid state arresters for protection against voltage surges, and for protection against current surges PTCs can be used, always according to the user's needs.

The plastic body of the MPEI is injected in flame retardant material and resistant against the most severe operation conditions, without deforming or exposing its internal components.

### MPEI R Module



### MPEI N (ADSL) Module



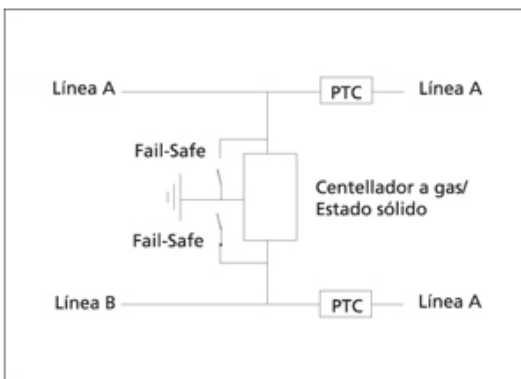
### MPEI Serial Module



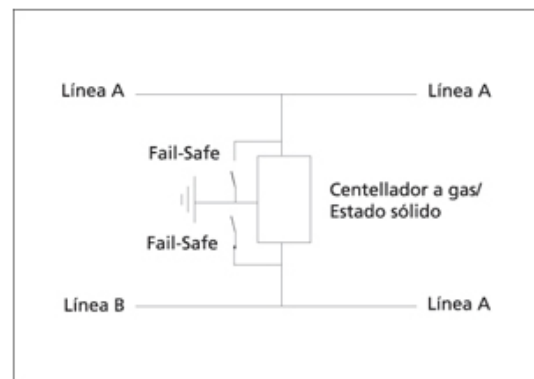
The MPEI Protection Module is available in several configurations. The table below informs the details for each one of them:

Module	Technology	Operation Range	Type of Protection
Mini PEI RS	Solid State	Tensions between 200 and 300 Vcc	Against voltage surge (parallel)
	PTC	Nominal current 120mA	Against self-regenerating current surge (serial)
Mini PEI NS	Solid State	Tensions between 200 and 300 Vcc	Against voltage surge (parallel)
Mini PEI NG	Gas arrester	Tensions between 200 and 300 Vcc	Against voltage surge (parallel)
Mini PEI Serie	PTC	Nominal current 120mA	Against self-regenerating current surge (serial)

### Electrical Diagram of the Components



MPR



MPN

## MPBS Protection Module S10

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Module Shield MPBS is a product intended for Block S10 application, in order to provide the Electrical protective equipment required to network telecommunications. Through its versatile geometry allows the coupling to terminal block quickly and manual, dispensing use tools for installation. The product is supplied with protection technology through the use of spark gas (for the protection of strain), and using PTC (for protection against over current). The MPBS has its inner region filled with gel, in order to prevent penetration of moisture and deterioration of the components. In order to provide adequate electrical protection for the most diverse requirements in existing networks external telecommunication module Guard MP's Block S10 is presented in the following models:

MPBS-R

MPBS-N

