



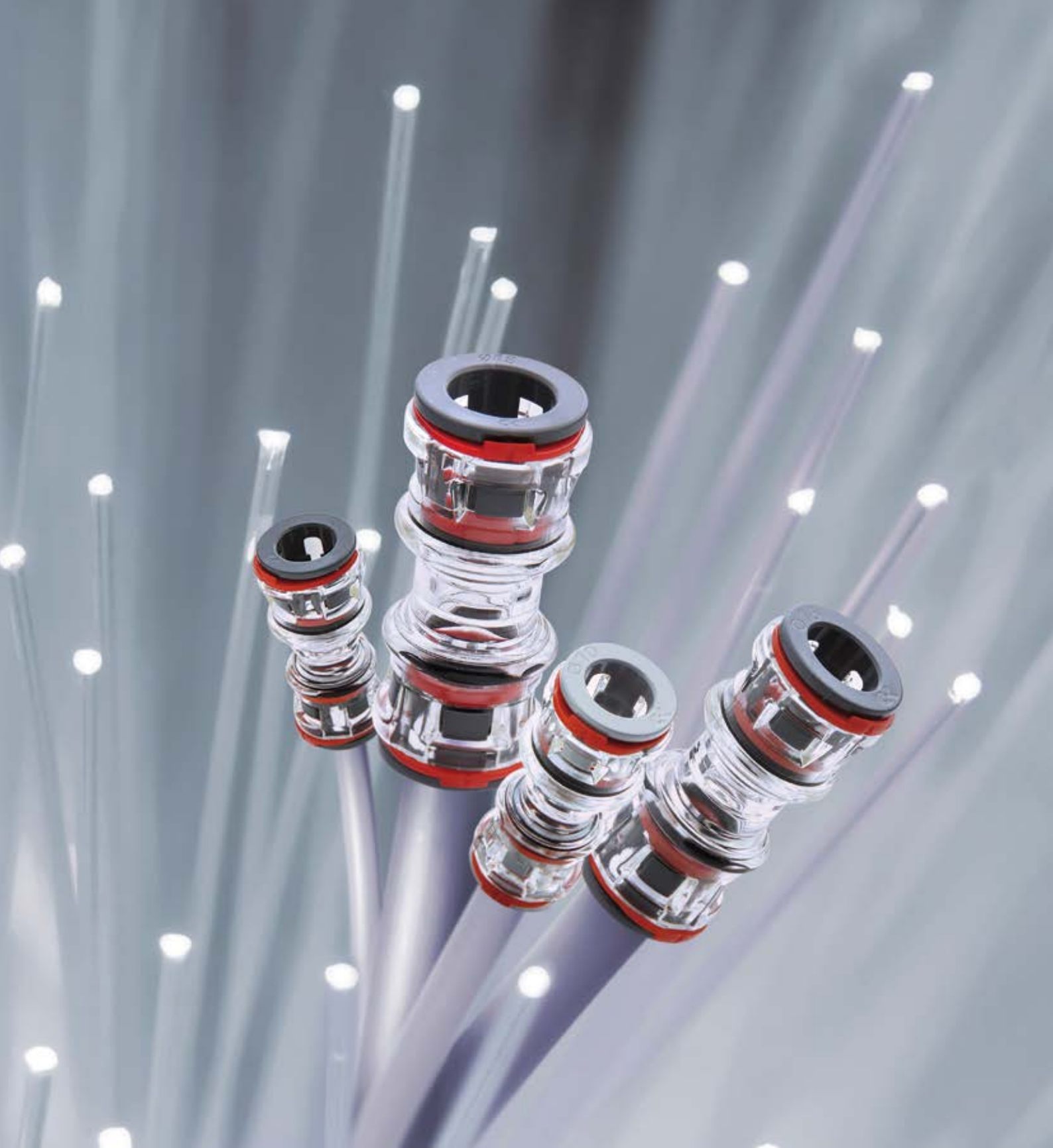
Fibre to telecommunications solutions



**C\_FTTS**

*Components and accessories  
for fibre optic telecommunications networks*







## Fibre to telecommunications solutions

# C\_FTTS

### Camozzi components and accessories for fibre optic and telecommunications networks

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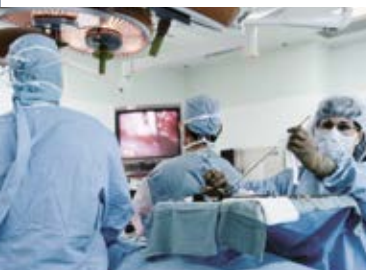


Telecommunications networks are evolving throughout the world in order to satisfy the increasing demand for high speed data services. When it comes to the selection of components for use in these networks, quality and reliability are recognised as being prerequisites for success. Components and accessories for fibre optic telecommunications networks are now being produced by the new C\_FTTS division of the Camozzi Group, which has in excess of 50 years experience in the delivery of innovative solutions to a wide range of industries.

Our experience in the design and production of connectors and fittings has enabled us to introduce a high quality range of durable and easy to use fibre optic microduct connectors which are in accordance with CEI EN50411-2-8.

Camozzi microduct connectors are characterized by:

- No Metal Parts
- Transparent Body
- Easy "Push-In" Connection
- Direct Buried (DB) Applications







CAMOZZI GROUP

## Worldwide network To respond and act quickly



Technology connects the world at the speed of light but face to face communication remains as important as ever before. The Camozzi Group invests heavily in its global support infrastructure and today has a presence in over 75 countries worldwide. This network is made up of local subsidiaries, exclusive distributors, service centres and a total of 17 production and assembly facilities. The vision of the group is global with all product development being driven by customer requirements and international standards. Product certification for each target market is at the forefront of our minds throughout every stage of development. All levels of assistance and technical support are designed to be efficient and fast across a network which is spread throughout the world.



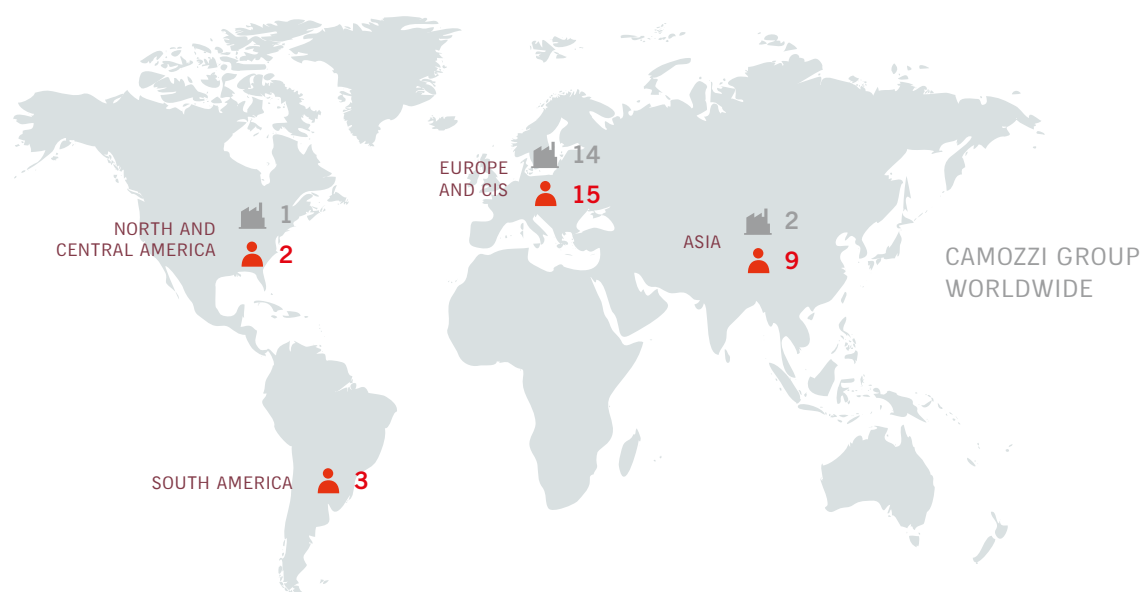
29 COMMERCIAL AND AFTER-SALES  
SERVICE SUBSIDIARIES

55 EXCLUSIVE DISTRIBUTORS

17 PRODUCTION AND ASSEMBLY  
FACILITIES WORLDWIDE

WORLDWIDE TECHNICAL SUPPORT

INTERNATIONAL CERTIFICATIONS



17 PRODUCTION AND ASSEMBLY  
FACILITIES WORLDWIDE

29 COMMERCIAL AND AFTER-SALES  
SERVICE SUBSIDIARIES



INNOVATION, EFFICIENT SERVICE AND QUALITY

## Key concepts that deliver real benefits to customers

Everything revolves around the customer at Camozzi with every action contributing to the delivery of customer benefits. Each Camozzi Group company has a system in place to monitor customer needs and all activity is then driven by this. Our goal is to anticipate market trends and customer service requirements and to continuously innovate. With this approach we aim to fulfil emerging requirements

with solutions which add great value to each customer. We strive to achieve these objectives whilst also respecting the environment, ensuring a safe workplace, developing our human resources and fully considering our social responsibilities. The Camozzi Group will only operate in accordance with these ethical standards as we believe this approach to business helps to inspire additional customer confidence.

### CUSTOMER RELATIONSHIP

#### INNOVATION

ENGINEERING & DESIGN  
DEVELOPMENT  
OF NEW TECHNOLOGIES  
PARTNERSHIPS  
WITH UNIVERSITIES  
CAMOZZI RESEARCH  
CENTER  
COMMITMENT TO  
CONSTANTLY IMPROVED  
PERFORMANCE

#### EFFICIENT SERVICE

COSTS SAVINGS  
ANALYSIS  
LEAN THINKING  
SUPPLY CHAIN  
MANAGEMENT  
ON-TIME DELIVERY  
OPTIMISING  
INTERNAL PROCESSES

#### SOLUTIONS

CUSTOMER NEEDS  
ANALYSIS  
ENGINEERING  
CUSTOMISED TURNKEY  
SOLUTIONS  
PRODUCTION,  
TESTING AND DELIVERY  
PRE AND AFTER  
SALES SERVICE

#### QUALITY

CERTIFIED SAFETY  
PROCEDURES  
ENVIRONMENTAL  
AWARENESS  
CONTINUOUS STAFF  
TRAINING  
FOCUS ON THE QUALITY  
OF PRODUCTS AND  
PRODUCTION PROCESSES  
EMPLOYEE SATISFACTION



## CAMOZZI GROUP

A group with  
a world of experience



GLOBAL VISION

INNOVATION AS AN ENGINE  
OF SUCCESS

LEAN PRODUCTION PHILOSOPHY

TOTAL QUALITY MANAGEMENT



**CAMOZZI AUTOMATION**  
PNEUMATIC COMPONENTS  
FOR INDUSTRIAL AUTOMATION



**CAMOZZI MACHINE TOOLS**  
HIGH PRECISION MACHINE TOOLS, INTEGRATED SYSTEMS DESIGNED  
TO OPERATE WITHIN VARIOUS APPLICATION SECTORS, SPECIALIZED MACHINES  
FOR MILLING/LATHING AND CARBON FIBRE MACHINES



**CAMOZZI TEXTILE MACHINERY**  
TEXTILE MACHINERY FOR YARN PRODUCTION  
AND TURNKEY YARN SPINNING SOLUTIONS



Innse Milano  
Società a partecipazione paritetica



**CAMOZZI MANUFACTURING**  
ADVANCED TECHNOLOGIES FOR THE PROCESSING OF RAW  
MATERIALS AND THE MACHINING OF COMPONENTS

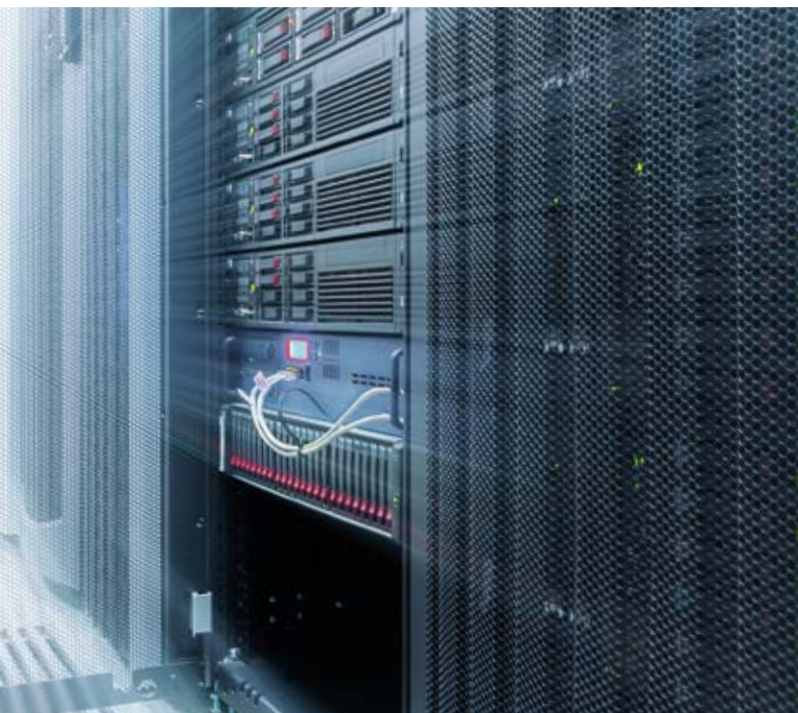


**CAMOZZI DIGITAL**  
DIGITAL INNOVATION AND IOT SOLUTIONS FOR INDUSTRY





The Camozzi Group works in a number of different sectors of industry, with specialised companies that interact to create synergies in production, services and financing. We invest significant resources in the decentralisation of responsibility at international level and in the development of skills and of increasingly advanced products to continue broadening our markets. The Camozzi Group is now present all over the world, with its own offices and agencies to keep up with changes on the global market and take advantage of the new opportunities it offers every day.



# Series V4000 Microduct Connectors

Fluid Block models



Microduct external diameters: 3, 4, 5, 7, 8, 8.5, 10, 12,  
12.7, 14, 15, 16, 18 mm

Connectors: standard, Direct Buried (DB), Reducing, Endstop.



Series V4000 connectors have been designed and produced to connect fibre optic microducts.

They are supplied with a blowing system and are suitable for minicable applications.

The push-in system used throughout the range ensures the microduct can be connected/disconnected simply and quickly.

These connectors and their accessories have been designed to be strong so that they can be used in both standard and DB (direct buried) applications.

In addition, each connector is also waterproof and resistant to high compression forces.

A visual inspection of each microcable passage is possible due to the transparent body of each connector and the absence of metal parts ensures they are non-conductive.

Impact tests were carried out in-house in compliance with CEI EN 61386-24 standards.

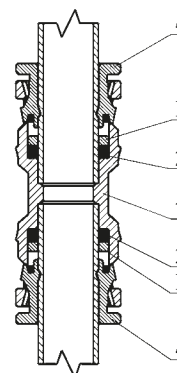
Moreover, aging tests were carried out by the University of Perugia in accordance with CEI EN 50411-2-8 standards which allowed Series V4000 to obtain the TÜV certification.

» Series V4000 is enriched with the Fluid Block which guarantees a hermetic seal of the micro cable against gas and water. Further technical details on the following pages.

## GENERAL DATA

<b>Materials:</b>	1 = body 2 = seal 3 = washer 4 = collet	Polyamide NBR Polyacetal Polyacetal
<b>Working pressure</b>	20 bar using for blowing system	
<b>Working temperature</b>	-20°C ÷ +50°C	
<b>Fluid</b>	Compressed air with blowing system	
<b>Microduct to connect</b>	Polyethylene HDPE	
<b>Microduct outer diameters</b>	3, 4, 5, 7, 8, 8.5, 10, 12, 12.7, 14, 15, 16, 18 mm	
<b>Estimated life</b>	25 years	
<b>Standards</b>	CEI EN 50411-2-8 Rohs CEI EN 61386-24	
<b>Patent</b>	Connectors patent	
<b>Protection class</b>	IP68	

## Connector with microduct





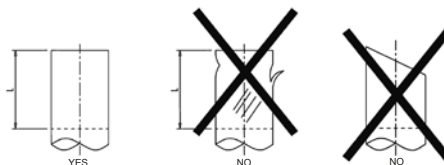
## Installation Procedures

### Connection of the Microduct

1. **Cut the Microduct** perpendicularly to its axis.  
We recommend Camozzi tube cutters (mod. PNZ-25 or PNPZ-12).



The microduct should be clean and free from chips, cuts, scratches or any other damage before it is inserted into the connector.



2. **To connect the microduct** push it to the back of the connector. It is possible to insert the microduct either with or without the safety clip mounted.



Ensure the microduct is pushed to the back of the connector.

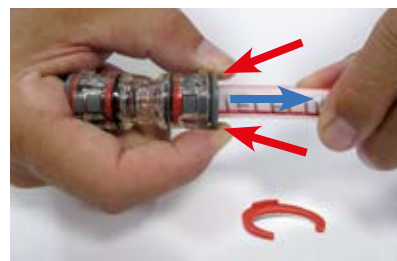


3. **To disconnect the microduct.**

First remove the safety clip and then pull the gripper towards the connector as shown by the arrows opposite. The microduct can then be disconnected.



Ensure the system is decompressed before disconnecting the microduct from the connector.



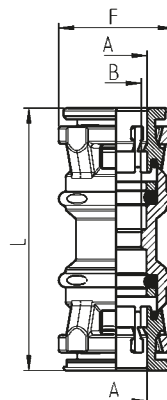
4. **For direct buried (DB) applications** we recommend a protective cap is placed on the connector before the microduct is inserted.



If you need to disconnect the microduct in a DB system we recommend using a protective cap (mod. 4708). The protective cap prevents waste, soil, stones or sand entering the connector during disconnection.



## Straight Connector Mod. V4580



### DIMENSIONS

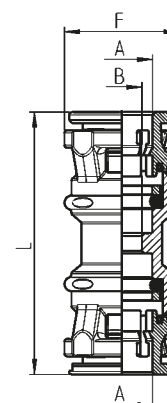
Mod.	A	B	F	L	Weight (g)	Package (pieces)
V4580 3/2,1	3	2.1	10	30	1.5	25
V4580 4/2,5	4	2.5	10	30	1.5	25
V4580 5/3,5	5	3.5	12.5	39	3	25
V4580 7/5,5	7	5.5	16.5	41.5	5	25
V4580 8/6	8	6	17.5	43	6	25
V4580 8,5/6	8.5	6	17.5	43	6	25
V4580 10/8	10	8	20.5	48	8	25
V4580 12/10	12	10	23	52	10	25
V4580 12,7/10	12.7	10	23	52	10	25
V4580 14/11	14	11	25.5	59	15	10
V4580 14/12	14	12	25.5	59	15	10
V4580 15/12	15	12	27	60	17	10
V4580 16/14	16	14	30	66	23	10
V4580 18/15	18	15	33.5	77	34	10

## Straight Connector Mod. V4581

New size



In Direct Buried (DB) applications we recommend using the protection cap Mod. 4708.



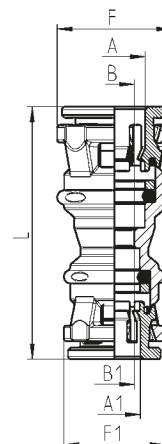
### DIMENSIONS

Mod.	A	B	F	L	Weight (g)	Package (pieces)
V4581 5/2,1	5	2.1	12.5	39	3	25
V4581 7/3,5	7	3.5	16.5	41.5	5	25
V4581 7/4	7	4	16.5	41.5	5	25
V4581 8/4,5	8	4.5	17.5	43	6	25
V4581 8/5	8	5	17.5	43	6	25
V4581 10/5,5	10	5.5	20.5	48	8	25
V4581 10/6	10	6	20.5	48	8	25
V4581 10/7	10	7	20.5	48	8	25
V4581 12/8	12	8	23	52	10	25
V4581 14/10	14	10	25.5	59	15	10
V4581 16/12	16	12	30	66	23	10
V4581 18/12	18	12	33.5	77	34	10
V4581 18/14	18	14	33.5	77	34	10

## Reducing Straight Connector Mod. V4582

**New**

For microducts of different sizes.

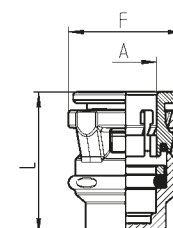


### DIMENSIONS

Mod.	A	A1	B	B1	F	F1	L	Weight (g)	Package (pieces)
<b>V4582 5/3,5-3/2,1</b>	5	3	3.5	2.1	16.5	10	35	4	25
<b>V4582 7-5/3,5</b>	7	5	3.5	3.5	16.5	12.5	40	4	25
<b>V4582 10-7/5,5</b>	10	7	5.5	5.5	20.5	16.5	44.5	6	25
<b>V4582 10/5,5-8/5</b>	10	8	5.5	5	20.5	17.5	45.5	7	25
<b>V4582 12-10/8</b>	12	10	8	8	23	20.5	50	9	25
<b>V4582 14-12/10</b>	14	12	10	10	25.5	23	55.5	13	10

## Endstop Connector Mod. V4750

Used for closing microduct



### DIMENSIONS

Mod.	A	F	L	Weight (g)	Package (pieces)
<b>V4750 3</b>	3	10	16.5	1	25
<b>V4750 4</b>	4	10	16.5	1	25
<b>V4750 5</b>	5	12.5	21.5	2	25
<b>V4750 7</b>	7	16.5	22.5	3	25
<b>V4750 8</b>	8	17.5	23.5	3	25
<b>V4750 8,5</b>	8.5	17.5	23.5	3	25
<b>V4750 10</b>	10	20.5	26	4	25
<b>V4750 12</b>	12	23	28	6	25
<b>V4750 12,7</b>	12.7	23	28	6	25
<b>V4750 14</b>	14	25.5	32.5	8	10
<b>V4750 15</b>	15	27	33	9	10
<b>V4750 16</b>	16	30	36	13	10
<b>V4750 18</b>	18	33.5	42	18	10



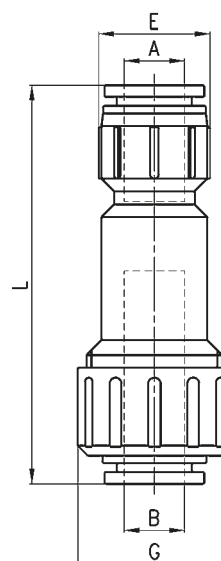
## Fluid Block Mod. V4590 - In-line

New



Materials: body = polyamide  
 cartridge = nickel-plated brass  
 collet = polyacetal  
 seal = NBR  
 lock claw = stainless steel  
 compression nut = polyacetal  
 cable seal = silicon

Safety clips are available on request.



Mod.	A	B	E	G	Cable size range	Cable seal colour	L (open)	L (closed)	Weight (g)	Package (pieces)
V4590 5-0,5/3	5	5	14	20.5	0.5/3	BLUE	56	53	11	25
V4590 7-0,5/3	7	7	15.5	22.5	0.5/3	BLUE	67	64	14	25
V4590 7-3/5	7	7	15.5	22.5	3/5	RED	67	64	14	25
V4590 10-0,5/3	10	10	20	27	0.5/3	BLUE	75	71	26	20
V4590 10-3/6	10	10	20	27	3/6	RED	75	71	26	20
V4590 10-6/8	10	10	20	27	6/8	YELLOW	75	71	26	20
V4590 12-3/6	12	12	22.5	30.5	3/6	RED	79.5	75	33	15
V4590 12-6/8	12	12	22.5	30.5	6/8	YELLOW	79.5	75	33	15
V4590 12-8/10	12	12	22.5	30.5	8/10	GREEN	79.5	75	33	15
V4590 14-3/6	14	14	24	31.5	3/6	RED	82	77	37	15
V4590 14-6/8	14	14	24	31.5	6/8	YELLOW	82	77	37	15
V4590 14-8/10	14	14	24	31.5	8/10	GREEN	82	77	37	15

After the Fluid Block is totally open, the cable can be blown and then blocked by turning the gray nut.

The Fluid Block is used at transition points of buildings where gas or water pipes are present.

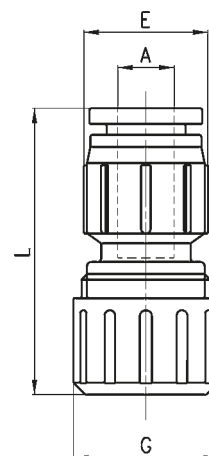
## Fluid Block Mod. V4790 - End line

New



Materials: body = polyamide  
 cartridge = nickel-plated brass  
 collet = polyacetal  
 seal = NBR  
 lock claw = stainless steel  
 compression nut = polyacetal  
 cable seal = silicon

Safety clips are available on request.



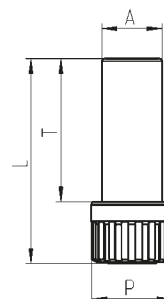
Mod.	A	E	G	Cable size range	Cable seal colour	L (open)	L (closed)	Weight (g)	Package (pieces)
V4790 7-2,6/4	7	16	18	2,6/4	RED	35.5	33	7.5	100

After the Fluid Block is totally open, the cable can be blown and then blocked by turning the gray nut.

The Fluid Block is used at transition points of buildings where gas or water pipes are present.

### Plug Mod. 4900

Material: polyethylene  
Colour: neutral



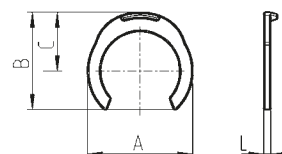
#### DIMENSIONS

Mod.	A	L	P	T	Weight (g)	Package (pieces)
<b>4900 3</b>	3	20.5	6	13.5	1	10
<b>4900 4</b>	4	29	8	20	1	10
<b>4900 5</b>	5	29	8	20	1	10
<b>4900 8</b>	8	33.5	12	23.5	1	10
<b>4900 10</b>	10	36	12	26	2	10
<b>4900 12</b>	12	39	16	27.5	2	10
<b>4900 14</b>	14	41.5	16	29.5	3	10

### SERIES V4000 ACCESSORIES - SAFETY CLIP Mod. 4702

The SAFETY CLIP (Mod. 4702) is used to help prevent accidental disconnection between the microduct and the connector.

Material: polyacetal  
Colour: red



#### DIMENSIONS

Mod.	A	B	C	L	Weight (g)	Package (pieces)
<b>4702 3-4</b>	9.6	9.2	5.5	1	0.1	100 *
<b>4702 5</b>	11.8	11.5	6.9	1.2	0.1	100
<b>4702 7</b>	15.3	14.4	8.8	1.2	0.15	100
<b>4702 8</b>	16.4	15.2	9.4	1.2	0.15	100 **
<b>4702 10</b>	18.5	17.2	10.5	1.3	0.2	100
<b>4702 12</b>	21	19.3	11.7	1.4	0.25	100 ***
<b>4702 14</b>	23.8	21.9	13.1	1.4	0.35	50
<b>4702 15</b>	25	23.2	13.7	1.4	0.35	50
<b>4702 16</b>	28	26.2	15.2	1.4	0.45	50
<b>4702 18</b>	30.5	29.5	17.2	1.6	0.7	50

\* suitable for use with ø 3 and 4

\*\* also suitable for use with  
mod. V4580 8,5/6 and  
mod. V4750 8,5

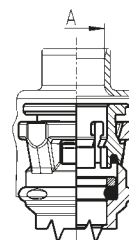
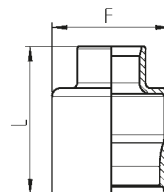
\*\*\* also suitable for use with  
mod. V4580 12,7/10 and  
mod. V4750 12,7

## SERIES V4000 ACCESSORIES - PROTECTION CAP Mod. 4708



The PROTECTION CAP (Mod. 4708) for Direct Buried (DB) applications is inserted on the connector to protect it from water and waste (soil, stones, sand, etc.)

Material: thermoplastic rubber  
Colour: black



### DIMENSIONS

Mod.	A	F	L	Weight (g)	Package (pieces)
<b>4708 5</b>	5	14.5	23.5	1.5	25
<b>4708 7</b>	7	18	25	2	25
<b>4708 8</b>	8	19	25.5	2	25
<b>4708 10</b>	10	21.5	28	3	25
<b>4708 12</b>	12	24	29.5	4	25
<b>4708 14</b>	14	26.6	33.2	5	25
<b>4708 15</b>	15	28.4	34	5	25
<b>4708 16</b>	16	31	37	6	25

## SERIES V4000 ACCESSORIES - CUTTERS Mod. PNZ-25, PNZP-12

TUBE CUTTER Mod. PNZ-25

MICRODUCTS CUTTER Mod. PNZP-12



Mod. PNZ



Mod. PNZP

Mod.	Package (pieces)
<b>PNZ-25</b>	for tubes Ø up to 25mm 1
<b>PNZP-12</b>	for tubes Ø up to 12mm 1







Fibre to telecommunications solutions

**C\_FTTs**



MIX COMUNICAZIONE - MI

## *C\_FTTs Main Contacts*

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