

CATALOGUE



FTTx
PASSIVE COMPONENTS FOR
TELECOMS APPLICATIONS





FTTx METAL-FREE STRAIGHT PUSH-IN CONNECTORS, REDUCING CONNECTORS AND ENDSTOP CONNECTORS

The increasing demand for high data volumes and short latencies all over the world is driving the continuous expansion of passive infrastructure for telecommunications, to bring glass fibre to consumers.

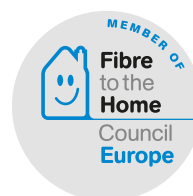
The main requirements for infrastructure components are quality and reliability, which will ensure a long service life.

Camozzi's experience goes back more than 50 years and represents continuous innovation and success in many industry sectors. It provides a guarantee for customers of the FTTx Business Unit, which specialises in the production of passive technology components for telecommunications.

Camozzi's wide range of connectors and fittings along with its production expertise has enabled the development of a high-quality range of connectors, that meets all CEI EN50411-2-8 requirements. These connectors are distinguished by their long life and ease of use.

CAMOZZI'S CONNECTORS ARE CHARACTERISED BY:

- **FULL PLASTIC DESIGN (METAL-FREE)**
- **TRANSPARENT BODY**
- **EASY 'PUSH-IN' CONNECTION**
- **SUITABLE FOR USE IN DIRECT BURIED (DB) APPLICATIONS**



WORLDWIDE NETWORK TO RESPOND AND ACT QUICKLY

Established in 1964, the Camozzi Group is the leading Italian multinational enterprise, producing components and systems for **industrial automation**. It also operates in various other sectors, from advanced machine tools to textile machines, to the processing of raw materials.

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.

At a glance



5

Divisions

11

Companies



The 12 companies that make up the group specialise in different technical and production activities but have organisational, financial, logistical and commercial similarities.



Components and solutions for the Industrial Automation, Transportation and Life Science sectors. Plastic moulding for industrial and civil applications.



Production of machine tools for heavy machinery and aerospace, transportation and energy sectors



Production of textile machines and components for short-staple fibre processing



Mechanical processing of raw materials



Digital solutions for process automation



Series V4000 microduct connectors

External diameters: 3, 4, 5, 7, 8, 8.5, 10, 12, 12.7, 14, 16, 18, 20 mm;
Versions: Standard, Direct Buried (DB), Reducing, Endstop



SERIES V4000



These connectors were developed to connect microducts with each other. Our system enables an easy, fast connection and disconnection of the microduct.

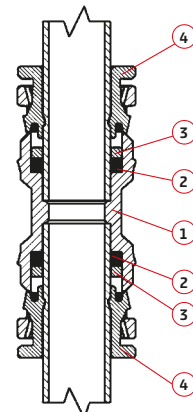
The connectors' robust construction includes IP68 water ingress protection and resistance to high pressure forces, allowing them to be used in direct buried (DB) applications. The transparent body enables easy visual inspection of the cable within the connector. The straight push-in and endstop connectors have a fully plastic design utilising non-conductive parts only and are also free from metal parts.

The connectors are made in accordance with Standard CEI EN 50411-2-8. In addition, the uniformity of production is ensured by an external, recognised quality assurance program, TÜV Süd. Besides production uniformity, TÜV Süd also tests the tightness, any pressure drop during tests, the tensile strength of the microduct as well as the (cyclic) temperature change, waterproofness and resistance to stress cracking solvents. Further, the connectors are subjected to visual inspection and a salt spray test.

General data

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

Operating scheme

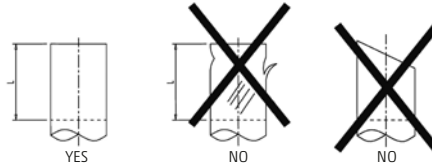
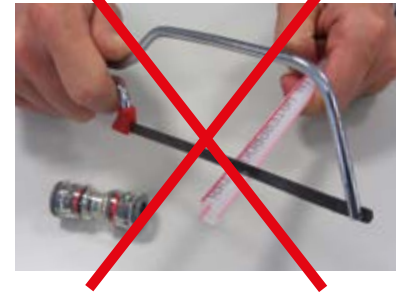


DIRECT BURIED (DB) USE	CV4580-V4580 - CV4581-V4581 - CV4582-V4582 - CV4750-V4750 models can be used in direct buried installation. We don't recommend the burying of thin microduct which can fail in DB conditions while the connector will perform correctly
WARNING	Not to be used in sealed closures without an over pressure safety system
CONFLICT OF SUBSTANCES	No liquids may be introduced into the infrastructure except for water-based lubricants specifically designed for optical fibers
STORAGE CONDITIONS	Store in a dry environment, in the absence of dirt and dust, away from direct sunlight and heat sources

Installation guidelines

1. Preparing the microduct to be connected

Take the microduct to be connected, clean it, check its dimension and ovality. The microduct should be clean and free from burrs, cuts, scratches or any other damage before it is inserted into the connector. In case of ovalization of the microduct the round profile is mandatory. Cut the microduct (recommended cut with Camozzi tube cutters Mod. PNZ-25 or Mod. PNZP-12) with a tilt angle of $90^\circ (\pm 3^\circ)$ and remove any burr due to the cut by trimming the edges of the microduct with a bevel tool.



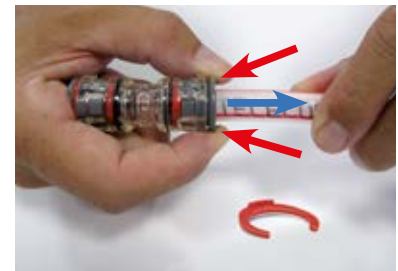
2. Installing the connector

With the microduct properly prepared, install the push-fit connector (removal of safety clip is not required) reaching the internal register which indicates the correct position of the microduct in the connector.



3. Releasing the connector

Make sure that the system is depressurised before you remove the microduct from the connector. If present remove the safety clip and press the collet towards the inside of the connector. The connector can be pulled following the installation axis. Avoid twisting and rotating the connector around the microduct during the pulling operation as this could damage the design of the collets and render the connector unusable. If release of connector has been done by twisting and rotating don't use the same connector for new installation or reinstallation. Using the correct procedure the connector can be released and installed up to 5 times. For interventions on the infrastructure, after years of installation, during which maintenance and / or disconnection of the microduct from the connectors is required, we recommend the use of the Protection cap Mod. 4708.



4. Position of the connector in the infrastructure

Straight connectors CV4580-V4580 CV4581-V4581 and Reducing Straight connectors CV4582-V4582 are designed to work parallel to the installation axis of the connected microducts, for this reason it is mandatory to respect at least 200 mm on each side of overlapped alignment of the axis of the connectors with respect to the axis of the microducts.

5. Reinstalling the connector

To reinstall the connector on the infrastructure please refer to point 1 and point 4. Cutting the used ends of the microduct may be necessary and is certainly advisable.

6. Direct Buried (DB) installation

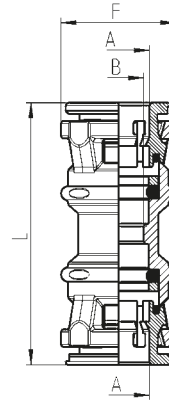
Although the V4000 series can be direct buried we recommend a protective cap is placed on the connector before the microduct is inserted, especially on very challenging environmental conditions. The protective cap prevents waste, soil, stones or sand entering the connector during disconnection.



■ Straight connector Mod. CV4580



Standard connector for DI (Direct Installation)
sizes of microduct
Compatible for eventual DB (Direct Buried) use

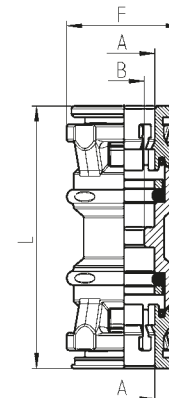


DIMENSIONS						
Mod.	A	B	F	L	Weight (g)	Package (pieces)
CV4580 3/2,1	3	2.1	10	30	2	100
CV4580 4/2,5	4	2.5	10	30	2	100
CV4580 5/3,5	5	3.5	12.5	39	4	100
CV4580 7/5,5	7	5.5	16.5	41.5	6.5	100
CV4580 8/6	8	6	17.5	43	7	100
CV4580 8,5/6	8.5	6	17.5	43	7	100
CV4580 10/8	10	8	20.5	48	9	100
CV4580 12/10	12	10	23	52	12	100
CV4580 12,7/10	12.7	10	23	52	12	100
CV4580 14/12	14	12	25.5	59	16	100
CV4580 16/14	16	14	30	66	26	50
CV4580 18/15	18	15	33.5	77	37	50

■ Straight connector Mod. CV4581



Connector for DB (Direct Buried)
sizes of microduct

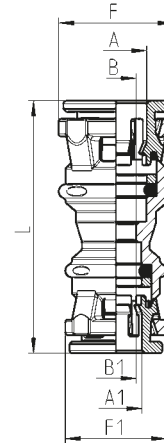


DIMENSIONS						
Mod.	A	B	F	L	Weight (g)	Package (pieces)
CV4581 5/2,1	5	2.1	12.5	39	4	100
CV4581 7/3,5	7	3.5	16.5	41.5	6.5	100
CV4581 7/4	7	4	16.5	41.5	6.5	100
CV4581 8/4	8	4	17.5	43	7.5	100
CV4581 8/4,5	8	4.5	17.5	43	7.5	100
CV4581 8/5	8	5	17.5	43	7.5	100
CV4581 10/5,5	10	5.5	20.5	48	10	100
CV4581 10/6	10	6	20.5	48	10	100
CV4581 10/7	10	7	20.5	48	10	100
CV4581 12/8	12	8	23	52	12	100
CV4581 14/10	14	10	25.5	59	16	100
CV4581 16/10	16	10	30	66	26	50
CV4581 16/12	16	12	30	66	26	50
CV4581 18/12	18	12	33.5	77	37	50
CV4581 18/14	18	14	33.5	77	37	50
CV4581 20/15	20	15	37.5	81.5	45	50
CV4581 20/16	20	16	37.5	81.5	45	50

Reducing straight connector Mod. CV4582



Reducing connector for DI (Direct Installation)
and DB (Direct Buried) different sizes of microduct
Compatible for DB (Direct Buried) use

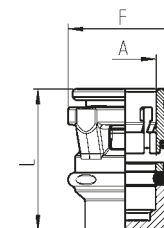


DIMENSIONS										
Mod.	A	A1	B	B1	F	F1	L	Weight (g)	Package (pieces)	
CV4582 5/3,5-3/2,1	5	3	3.5	2.1	16.5	10	35	4	100	
CV4582 7-5/3,5	7	5	3.5	3.5	16.5	12.5	40	4.5	100	
CV4582 10-7/5,5	10	7	5.5	5.5	20.5	16.5	44.5	6	100	
CV4582 10/5,5-8/5	10	8	5.5	5	20.5	17.5	45.5	5	100	
CV4582 12-10/8	12	10	8	8	23	20.5	50	10	100	
CV4582 14-12/10	14	12	10	10	25.5	23	55.5	14	100	
CV4582 16/12-14/10	16	12	14	10	25.5	23	55.5	15	50	

Endstop connector Mod. CV4750



Endstop connector for DI (Direct Installation)
and DB (Direct Buried) sizes of microduct
Compatible for DB (Direct Buried) use



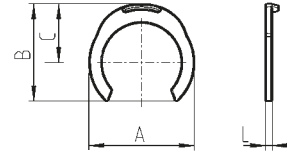
DIMENSIONS					
Mod.	A	F	L	Weight (g)	Package (pieces)
CV4750 3	3	10	16.5	1.5	100
CV4750 4	4	10	16.5	1.5	100
CV4750 5	5	12.5	21.5	2.5	100
CV4750 7	7	16.5	22.5	3.5	100
CV4750 8	8	17.5	23.5	3.5	100
CV4750 8,5	8.5	17.5	23.5	3.5	100
CV4750 10	10	20.5	26	5	100
CV4750 12	12	23	28	7	100
CV4750 12,7	12.7	23	28	7	100
CV4750 14	14	25.5	32.5	9	100
CV4750 16	16	30	36	13.5	50
CV4750 18	18	33.5	42	19	50
CV4750 20	20	37.5	45.5	25	50

Accessories

Safety clip Mod. 4702

This SAFETY CLIP is used to help prevent accidental disconnection between the microduct and the connector.

Material: polyacetal
Colour: red



DIMENSIONS						
Mod.	A	B	F	L	Weight (g)	Package (pieces)
4702 3-4	9.6	9.2	5.5	1	0.1	100 *
4702 5	11.8	11.5	6.9	1.2	0.1	100
4702 7	15.3	14.4	8.8	1.2	0.15	100
4702 8	16.4	15.2	9.4	1.2	0.15	100 **
4702 10	18.5	17.2	10.5	1.3	0.2	100
4702 12	21	19.3	11.7	1.4	0.25	100 ***
4702 14	25.8	21.9	13.1	1.4	0.35	50
4702 15	25	23.2	13.7	1.4	0.35	50
4702 16	28	26.2	15.2	1.4	0.45	50
4702 18	30.5	29.5	17.2	1.6	0.7	50
4702 20	35	32.7	19.1	1.8	1	50

* suitable for use with \varnothing 3 and 4

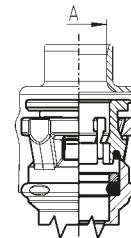
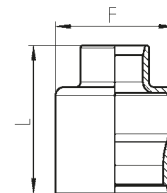
** also suitable for use with mod. V4580 8,5/6 and mod. V4750 8,5

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

Series V4000 - 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)
4708 5	5	14.5	23.5	1.5	25
4708 7	7	18	25	2	25
4708 8	8	19	25.5	2	25
4708 10	10	21.5	28	3	25
4708 12	12	24	29.5	4	25
4708 14	14	26.6	33.2	5	25
4708 15	15	28.4	34	5	25
4708 16	16	31	37	6	25

Tube cutter Mod. PNZ-25
Microducts cutter Mod. PNZP-12



CHARACTERISTICS		
Mod.		Package (pieces)
PNZ-12	for tubes \varnothing up to 12 mm	1
PNZ-25	for tubes \varnothing up to 25 mm	1
PNZP-12	for tubes \varnothing up to 12 mm	1

Contact

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