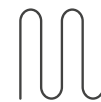


RC102P, RC122P RC151P, RC165P



Radiant
Systems

Plastic “push-fittings”

Datasheet
0974EN 07/2026



Push-fit connection fittings, with internal gaskets in the pipe with embedded internal sleeve for pipe support.

The fittings have the following advantages:

- ease of insertion into the pipe;
- effective locking systems;
- low loss of pressure;
- guarantee of fluid tightness thanks to the action of the double O-Ring;
- possibility to visually check the correct insertion of the pipe;
- do not require RC900 sleeves.

Versions and product codes

PRODUCT CODE	SIZE	DESCRIPTION
RC102P002	Ø8 x 1 mm	Straight fitting
RC102P109	Ø20 x 2 mm	
RC122P109	Ø20 x 2 mm	90° elbow fitting
RC151P153	Ø20 x 2 mm + 1 outlet Ø8 x 1 mm	Tee fitting, with single outlet
RC151P163	Ø20 x 2 mm + 2 outlet s Ø8 x 1 mm	Tee fitting, with double outlets

Completion codes

PRODUCT CODE	DESCRIPTION
RC165P001	Plug for push-fitting Ø8 x 1 mm
RC165P004	Plug for push-fitting Ø20 x 2 mm

Accessories

- R990: cutter for Ø8÷10 mm plastic pipes
- R990M: cutter for multilayer pipes up to Ø32 mm
- RP209-1: calibrator/deburring tool for multilayer pipes
- RC211P: template for Ø20-16-12-8 mm pipes

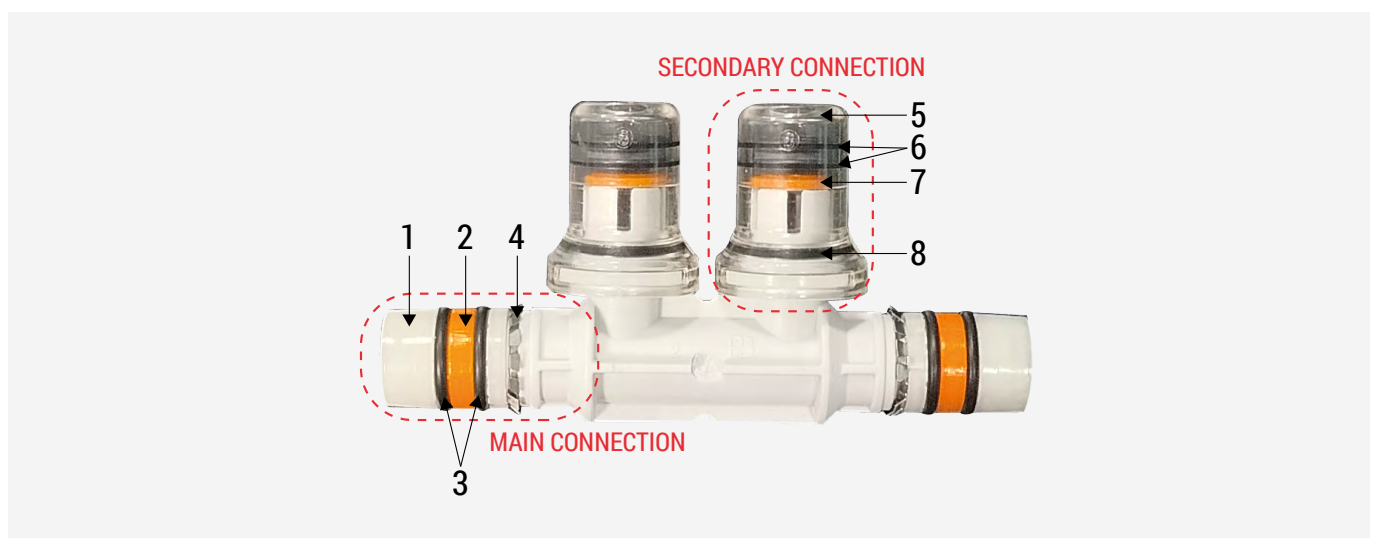
➤ Technical data

- Main connections: multilayer pipe Ø20 x 2 mm
- Secondary connections: plastic pipe Ø8 x 1 mm
- Transport and storage temperatures: -20+80 °C
- Temperature range: min. -15 °C for water/glycol mixtures
max. 80 °C for continuous 2 bar pressure
- Working pressures: min. 0 bar
max. 8 bar for room temperature
- Burst pressure: > 25 bar

Materials

- Fittings body: PA12 (polyamide 12) and PA 6.6 GF30 (30 % glass fiber reinforced polyamide)
- Clip: stainless steel
- O-Ring: EPDM peroxide

➤ Fitting features and components



MAIN CONNECTION - PIPE Ø20 x 2 mm

- | | |
|---|----------------------|
| 1 | Pipe sleeve |
| 2 | Spacer (orange ring) |
| 3 | Double O-Ring |
| 4 | Clip |

SECONDARY CONNECTION - PIPE Ø8 x 1 mm

- | | |
|---|-------------------------------|
| 5 | Sealing cap |
| 6 | Double O-Ring |
| 7 | Spacer (orange ring) and clip |
| 8 | Sealing O-Ring on cap |

➤ Pipe installation on main connections (multilayer Ø20 x 2 mm)

⚠ WARNING. The pipe must be connected to the fittings only by trained personnel. The installation is irreversible.

1) Cut the multilayer pipe perpendicular to its axis using a dedicated pipe cutter, taking care not to deform it.



2) Prepare the pipe end using a calibration/deburring tool, creating a double chamfer (internal and external) and restoring the internal diameter to the specified tolerance without ovalization. The formation of the curl shown in the figure indicates that the calibration and deburring operations have been performed correctly.



3) Insert the pipe on the fitting as far as it will go.
For Ø20: insertion force = 6÷16 kg



4) Ensure that the pipe section close the fitting does not put pressure on the joint.



⚠ WARNING. Immediately stop installation if:

- the pipe cannot be inserted without forcing it
- insertion forces are not those included in the given ranges
- the pipe cannot be inserted to the length required

Once installation has been completed, it is recommended to test the system as described in Giacomini datasheet 0415EN.

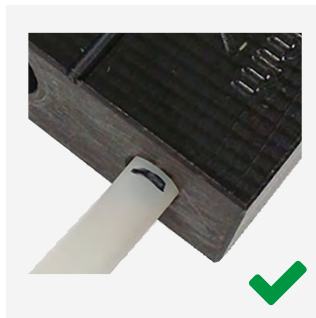
➤ Pipe installation on secondary connections (Ø8 x 1 mm)

⚠ WARNING. The pipe must be connected to the fittings only by trained personnel. The installation is irreversible.

1) Cut the plastic pipe perpendicular to its axis using a dedicated pipe cutter, taking care not to deform it.



2) Insert the pipe into the template as far as it will go, then mark the insertion depth with a marker.



3) Insert the pipe on the fitting as far as it will go.
For Ø8: insertion force = 4÷8 kg



4) Ensure that the pipe section close the fitting does not put pressure on the joint.

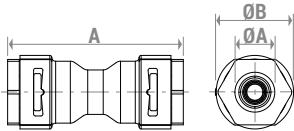


⚠ WARNING. Immediately stop installation if:

- the pipe cannot be inserted without forcing it
- insertion forces are not those included in the given ranges
- the pipe cannot be inserted to the length required

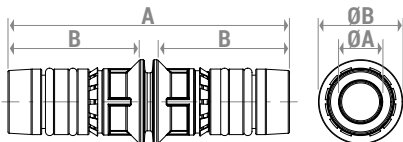
➤ Dimensions

RC102P002



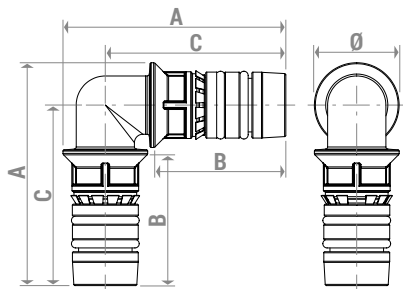
PRODUCT CODE	A [mm]	ØA [mm]	ØB [mm]
RC102P002	45	8	20

RC102P109



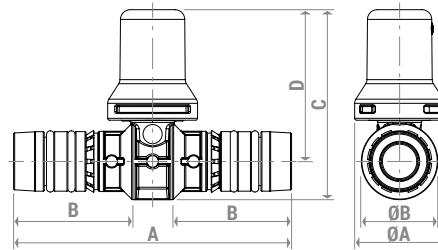
PRODUCT CODE	A [mm]	B [mm]	ØA [mm]	ØB [mm]
RC102P109	67	31 (pipe stop)	9,5	20

RC122P109



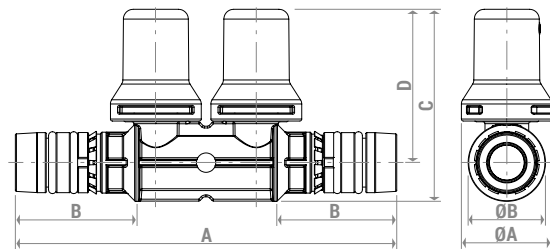
PRODUCT CODE	A [mm]	B [mm]	C [mm]	Ø[mm]
RC122P109	52,5	31 (pipe stop)	42,5	20

RC151P153



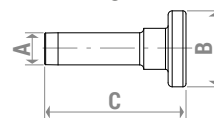
PRODUCT CODE	A [mm]	B [mm]	C [mm]	D [mm]	ØA [mm]	ØB [mm]
RC151P153	73	31 (pipe stop)	50	40	23,5	20

RC151P163

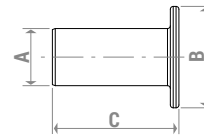


PRODUCT CODE	A [mm]	B [mm]	C [mm]	D [mm]	ØA [mm]	ØB [mm]
RC151P163	99	31 (pipe stop)	50	40	23,5	20

RC165P001



RC165P004



PRODUCT CODE	A [mm]	B [mm]	C [mm]
RC165P001	8	19	35
RC165P004	20	35,5	45

➤ Product specifications

RC-P fittings

Plastic push-fittings (straight, elbow 90°, Tee), with internal gaskets in the pipe with embedded internal sleeve for pipe support. PA12 (polyamide 12) and PA 6.6 GF30 (30 % glass fiber reinforced polyamide) body. Stainless steel clip. O-Ring in peroxide EPDM. Main connections: multilayer pipe Ø20 x 2 mm. Secondary connections (if any): pipe Ø8 x 1 mm. Temperature range: min -15 °C for water/glycol solutions; max 80 °C for continuous 2 bar pressure. Working pressures: min. 0 bar; max. 8 bar for room temperature. Burst pressure > 25 bar.

⚠ Safety Warning. Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

♻ Package Disposal. Carton boxes: paper recycling. Plastic bags and bubble wrap: plastic recycling.

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♻ Product Disposal. Do not dispose of product as municipal waste at the end of its life cycle. Dispose of product at a special recycling platform managed by local authorities or at retailers providing this type of service.