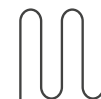


# RC102P, RC122P RC151P, RC165P



Radiant  
Systems

## Plastic “push-fittings”

Datasheet  
0974EN 01/2023



RC102P002



RC102P109



RC122P109



RC151P153



RC151P163

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    | Ø 8 x 1 mm                             | Straight fitting                    |
| RC102P109    | Ø 20 x 2 mm                            |                                     |
| RC122P109    | Ø 20 x 2 mm                            | 90° elbow fitting                   |
| RC151P153    | Ø 20 x 2 mm<br>+ 1 outlet Ø 8 x 1 mm   | Tee fitting,<br>with single outlet  |
| RC151P163    | Ø 20 x 2 mm<br>+ 2 outlet s Ø 8 x 1 mm | Tee fitting,<br>with double outlets |

### Completion codes

| PRODUCT CODE                                                                                  | DESCRIPTION                       |
|-----------------------------------------------------------------------------------------------|-----------------------------------|
|  RC165P001 | Plug for push-fitting Ø 8 x 1 mm  |
|  RC165P004 | Plug for push-fitting Ø 20 x 2 mm |

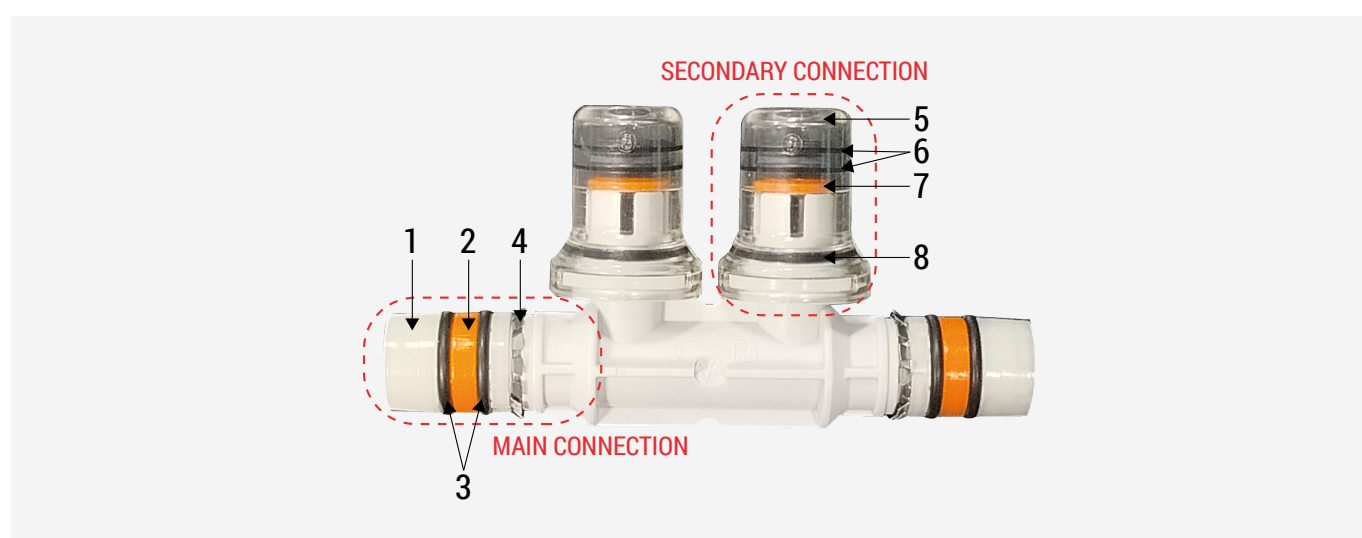
## ► Dati tecnici

- Main connections: multilayer pipe Ø 20 x 2 mm
- Secondary connections: plastic pipe Ø 8 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 Ø 20 x 2 mm

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

### SECONDARY CONNECTION - PIPE Ø 8 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 Ø 20 x 2 mm)

**⚠ WARNING.** Fittings must be disassembled for disconnection purposes only by trained personnel. The installation is irreversible.

**1)** Cut the multilayer pipe perpendicularly to its axis using a dedicated pipe cutter.



**2)** Process the pipe end, creating a double chamfer (inner and outer) and a non-oval internal diameter within tolerance using a calibration/flaring tool.



**3)** Insert the pipe up to the stop on the fitting.  
For Ø 20: insertion force = 6÷16 kg



**⚠ 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.

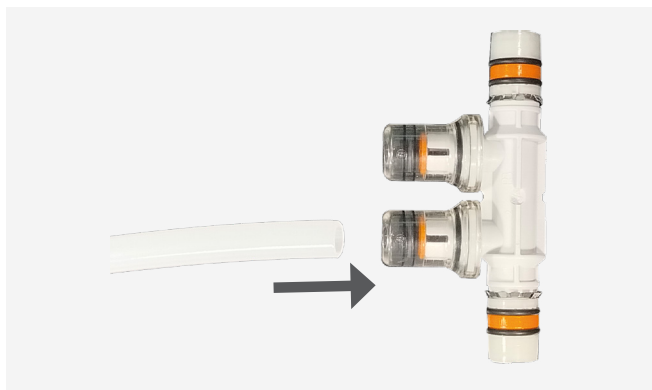
## ➤ Pipe installation on secondary connections (Ø 8 x 1 mm)

**⚠ WARNING.** Fittings must be disassembled for disconnection purposes only by trained personnel. The installation is irreversible.

**1)** Cut the multilayer pipe perpendicularly to its axis using a dedicated pipe cutter.



**2)** Insert the pipe up to the stop on the fitting.  
For Ø 8: insertion force = 4÷8 kg

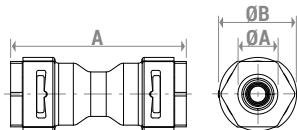


**⚠ WARNING.** Immediately stop installation if:

- 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

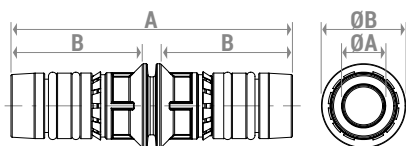
## ➤ Dimensions

### RC102P002



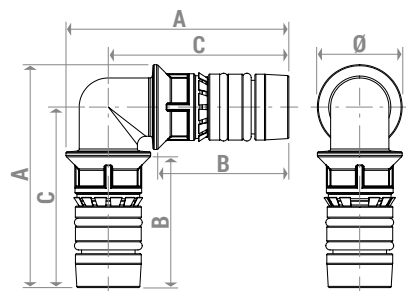
| PRODUCT CODE | A [mm] | ØA [mm] | ØB [mm] |
|--------------|--------|---------|---------|
| RC102P002    | 45     | 8       | 20      |

### RC102P109



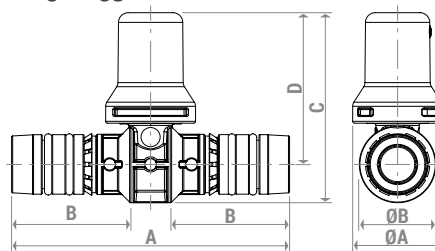
| PRODUCT CODE | A [mm] | B [mm]         | ØA [mm] | ØB [mm] |
|--------------|--------|----------------|---------|---------|
| RC102P109    | 67     | 31 (pipe stop) | 9,5     | 20      |

### RC122P109



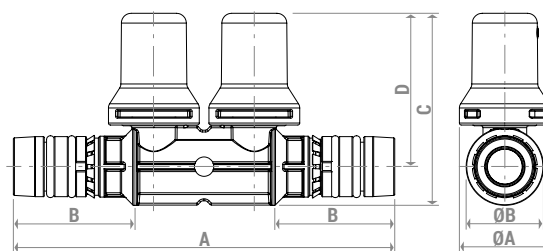
| PRODUCT CODE | A [mm] | B [mm]         | C [mm] | Ø [mm] |
|--------------|--------|----------------|--------|--------|
| RC122P109    | 52,5   | 31 (pipe stop) | 42,5   | 20     |

### RC151P153



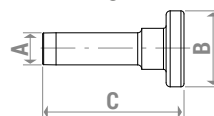
| PRODUCT CODE | A [mm] | B [mm]         | C [mm] | D [mm] | ØA [mm] | ØB [mm] |
|--------------|--------|----------------|--------|--------|---------|---------|
| RC151P153    | 73     | 31 (pipe stop) | 50     | 40     | 23,5    | 20      |

### RC151P163

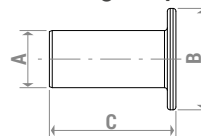


| PRODUCT CODE | A [mm] | B [mm]         | C [mm] | D [mm] | ØA [mm] | ØB [mm] |
|--------------|--------|----------------|--------|--------|---------|---------|
| RC151P163    | 99     | 31 (pipe stop) | 50     | 40     | 23,5    | 20      |

### 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 Ø 20 x 2 mm. Secondary connections (if any): pipe Ø 8 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.

**ℹ Additional information.** For more information, go to [giacomini.com](http://giacomini.com) or contact our technical assistance service. This document provides only general indications. Giacomini S.p.A. may change at any time, without notice and for technical or commercial reasons, the items included herewith. The information included in this technical sheet do not exempt the user from strictly complying with the rules and good practice standards in force.

**♻ 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.