PCF Pneumatic Female Straight Fitting

Female-thread push-to-connect connector for reliable tube-to-port connections

Product Overview

The HOMIPNEU PCF fitting is a straight push-to-connect connector that joins pneumatic tubing to a female threaded port. Its one-touch tube connection reduces installation time, while the internal lock claw and sealing structure maintain a secure connection. The female thread configuration is useful where equipment, manifolds or other components provide a matching male threaded interface. Available combinations cover tube outside diameters from 4 mm to 12 mm and common metric and tapered pipe thread sizes.

Item	Specification	Item	Specification
Connection	Tube to female thread	Body Material	Brass
Tube O.D.	4, 6, 8, 10 and 12 mm	Proof Pressure	1.32 MPa
Thread Options	M5, R1/8, R1/4, R3/8, R1/2	Operating Pressure	0-0.9 MPa
Applicable Tube	PU tube, nylon tube	Temperature	0-60 C

Key Features

- One-touch tube insertion supports fast, tool-free installation.
- Female threaded connection suits equipment and ports requiring internal-thread integration.
- Internal stainless-steel lock claw and O-ring structure provide secure gripping and sealing.
- Reusable release ring allows convenient tube disconnection during maintenance.

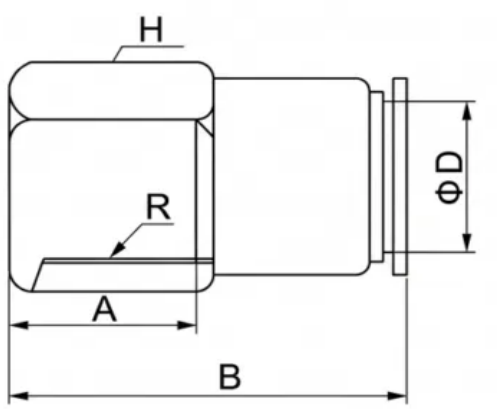
Typical Applications

- Pneumatic automation systems and compressed-air circuits.
- Air compressors, industrial machinery and control panels.
- Robotics, assembly lines and packaging equipment.
- Tube-to-port connections where a female threaded interface is required.

Technical Specifications

Parameter	Specification
Operating Fluid	Air, vacuum and water (non-freezing)
Body Material	Brass
Type	Female-thread straight push-to-connect pneumatic fitting
Proof Pressure	1.32 MPa (13.5 kgf/cm2)
Maximum Operating Pressure	0-0.9 MPa (0-9.2 kgf/cm2)
Ambient and Fluid Temperature	0-60 C
Lock Claw	Stainless steel (SUS)
Applicable Tubing	PU tube and nylon tube

Dimension Drawing



Symbols: D = tube outside diameter; R = female thread; A = thread engagement length; B = overall length; H = hex width.

Model Selection and Dimensions

Model	D	R	A	B	H
PCF4-M5	4	M5	5.5	19.5	10
PCF4-01	4	R1/8	8	22	12
PCF4-02	4	R1/4	9.5	23.5	15
PCF6-M5	6	M5	5.5	20.5	12
PCF6-01	6	R1/8	8	23.5	12
PCF6-02	6	R1/4	9.5	25	15
PCF6-03	6	R3/8	10.5	26	19
PCF6-04	6	R1/2	11.5	27	24
PCF8-01	8	R1/8	8	24	14
PCF8-02	8	R1/4	9.5	25.5	15

All dimensional values are in millimetres unless otherwise stated. Model table continues on Page 3.

Model Selection and Dimensions - Continued

Model	D	R	A	B	H
PCF8-03	8	R3/8	10.5	26.5	10
PCF8-04	8	R1/2	11.5	27.5	24
PCF10-01	10	R1/8	8	25	17
PCF10-02	10	R1/4	9.5	27	17
PCF10-03	10	R3/8	10.5	28	19
PCF10-04	10	R1/2	11.5	29	24
PCF12-01	12	R1/8	8	27	19
PCF12-02	12	R1/4	9.5	28.5	19
PCF12-03	12	R3/8	10.5	30	19
PCF12-04	12	R1/2	10.5	31	24

Product Structure and Selection

PCF is a straight connector for tube-to-female-thread service. The release ring accepts the tube, the stainless-steel lock claw holds it in position, and the internal sealing element provides the pressure seal. Select the model by matching both the tube outside diameter D and the female thread R. Available tube sizes are 4, 6, 8, 10 and 12 mm, with M5 and R-series thread options depending on size.

Installation and Operating Guidance

- Confirm the tube outside diameter and female thread size match the selected PCF model.
- Cut the tube squarely and remove burrs, dust, scratches or deformation from the insertion end.
- Push the tube fully into the release ring until it reaches the internal stop.
- Use a compatible male-thread component and suitable sealing method for the fluid and pressure conditions.
- Tighten through the hexagonal body section; avoid excessive torque that may damage the fitting or mating component.
- After assembly, pressurize gradually and inspect the tube and threaded connection for leakage.
- To remove the tube, depress the release ring evenly and pull the tube straight out without twisting excessively.

Ordering and Maintenance Notes

Order by the complete model number, which identifies tube outside diameter and female thread size. Confirm the required thread standard before purchase, especially when integrating with imported equipment. OEM and ODM options may include alternative thread standards, tube sizes, sealing materials, packaging and branding, subject to production confirmation.

- Use only clean tubing with a smooth outside surface in the sealing area.
- Keep the fitting and tubing free from metal chips, dust, adhesive and excess thread sealant.
- Do not exceed the specified pressure and temperature limits.
- Replace the fitting if the release ring, lock claw, thread or sealing surfaces are damaged.

Common Questions

What is the difference between PC and PCF fittings?
PC fittings use male threads, while PCF fittings use female threads.

How is the tube secured?
The tube is held by internal locking teeth and sealed by an O-ring structure.

Can the tube be removed and reinstalled?
Yes. Depress the release ring evenly, remove the tube, inspect it and reinstall only if the sealing surface remains undamaged.

Product image, specifications, model data and the dimension drawing are based on the HOMIPNEU PCF product page. The information is provided as a general technical reference. Final dimensions, thread standards, sealing materials and production details should be confirmed before ordering.

Contact Information

Wenzhou Hongmi Pneumatic Co., Ltd.
Address: Room 501, Xingnan Village, Hongqiao Town, Yueqing City, Zhejiang, China
Email: vivilian@homipneu.com
Phone / WhatsApp: +86 136 0580 6063
Website: https://homipneu.com