

PV Push-to-Connect Elbow Union Pneumatic Fitting

90-degree tube-to-tube connector for compact pneumatic air-line routing.



PV pneumatic elbow union fittings are push-to-connect air connectors designed to join two pneumatic tubes of equal diameter while changing the piping direction by 90 degrees. The compact one-touch structure supports quick installation, secure tube retention and efficient routing in compressed-air systems.

Key Features

Feature	Description
90-degree elbow union	Connects two equal-size tubes and changes airflow direction.
One-touch installation	Push-in tube connection allows rapid assembly without tools.
Leak-proof sealing	Internal O-ring structure supports stable sealing performance.
Compact routing	Space-saving elbow body simplifies dense pneumatic layouts.
OEM and ODM support	Customization available for size, material, color and branding.

The PV series is suitable for pneumatic systems that require reliable tube-to-tube connection, direction change and efficient use of installation space.

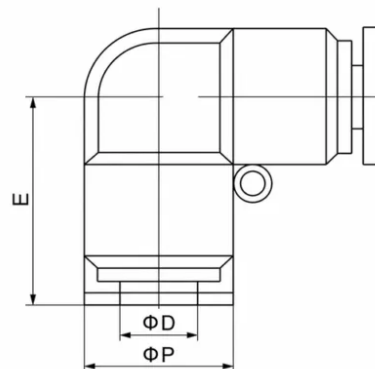
Technical Specifications

Item	Specification
Operating Fluid	Air
Type	Push-to-connect pneumatic fitting
Proof Pressure	1.32 MPa (13.5 kgf/cm ²)
Max. Operating Pressure	0-0.9 MPa (0-9.2 kgf/cm ²)
Ambient and Fluid Temperature	0-60 deg C
Applicable Tubing	PU tube and nylon tube

Connection and Size Summary

Item	Details
Connection Type	Equal tube-to-tube 90-degree elbow union
Tube O.D. Range	4, 6, 8, 10, 12, 14 and 16 mm
Model Range	PV-4, PV-6, PV-8, PV-10, PV-12, PV-14 and PV-16
Typical Use	Compressed-air distribution, automation and compact machine piping

Dimension Drawing



Dimension symbols: D = tube outside diameter; E = overall elbow height; P = body diameter. All dimensions are in mm unless otherwise specified.

Model Selection and Dimensions

Model	D	E	P
PV-4	4	18	11
PV-6	6	20	13
PV-8	8	22	15
PV-10	10	26	18.5
PV-12	12	28	21
PV-14	14	30.5	23
PV-16	16	33	25.5

Selection note: choose the model according to the tube outside diameter and available installation space. Confirm the working fluid, pressure and temperature before use. Final production dimensions should be confirmed before ordering.

Product Structure and Function

Structure	Function
Union structure	Equal tube size on both connection ends
Elbow angle	90-degree direction change
Tube retention	Internal gripping mechanism secures the inserted tube
Sealing	O-ring provides airtight connection under normal operating conditions
Release operation	Press the release ring evenly before withdrawing the tube

Color Options



Installation and Operating Guidance

- Confirm that the selected PV model matches the tube outside diameter.
- Cut tubing squarely and remove burrs, dust, scratches and deformation from the insertion end.
- Push each tube fully into the release ring until it reaches the internal stop, then pull gently to confirm retention.
- Route tubing without excessive bending, tension or side load near the fitting.
- Pressurize the system gradually and inspect both tube connections for leakage.
- Depressurize the system before removal; press the release ring evenly and pull the tube straight out.

Applications

- Pneumatic automation systems and compressed-air circuits.
- Air compressors, industrial machinery and control panels.
- Robotics, assembly lines and packaging equipment.
- Compact tube routing where a 90-degree direction change is required.



Ordering Information

Ordering Item	Information to Confirm
Model	Complete PV series model code
Tube Size	Tube outside diameter in millimetres
Color	Standard blue ring, all-black or white version
Application	Working fluid, pressure and temperature
Customization	Tube size, material, sealing structure, packaging and branding

Source note: Product images, specifications, model data and the dimension drawing are based on the HOMIPNEU PV product page. The information is provided as a general technical reference. Final dimensions, materials and production details should be confirmed before ordering.

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