

NHRL Rotary Elbow Push-to-Connect Pneumatic Fitting

Rotary 90-degree connector for flexible compressed-air routing in moving systems



Product Overview

The HOMIPNEU NHRL fitting combines a 90-degree push-to-connect elbow with a freely rotating swivel joint. It changes airflow direction while allowing the connected tube to rotate, reducing twisting, mechanical stress and wear in dynamic pneumatic applications. The nickel-plated brass body supports durable industrial use, and the push-in tube interface provides fast installation without special tools.

Item	Specification	Item	Specification
Structure	90-degree elbow with swivel joint	Operating Fluid	Air
Tube O.D.	4-12 mm	Material	Nickel-plated brass
Thread Options	M5, R1/8, R1/4, R3/8, R1/2	Working Pressure	0-0.9 MPa
Applicable Tube	PU tube	Temperature	0-60 C

Key Features

- 90-degree elbow with 360-degree swivel rotation.
- Reduces tube twisting, mechanical stress and premature wear.
- Push-to-connect interface for fast, tool-free tube installation.
- Nickel-plated brass body for durability and corrosion resistance.

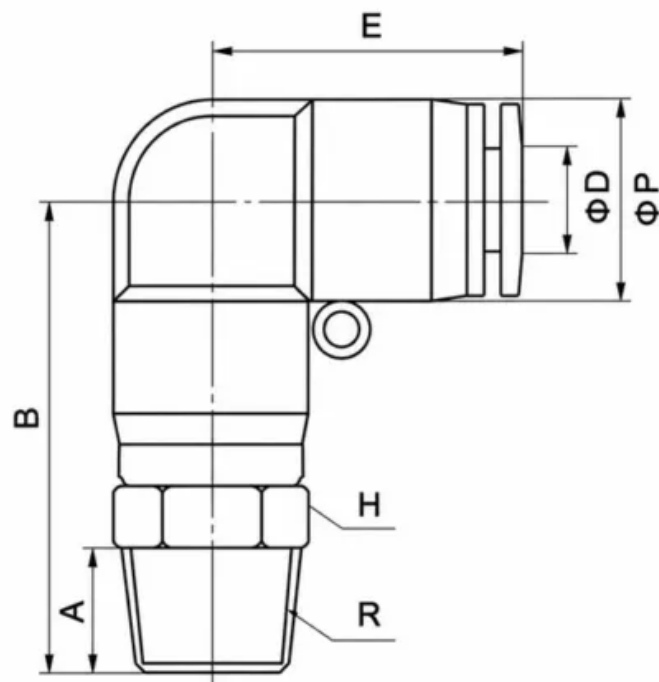
Typical Applications

- Automation equipment with moving or rotating components.
- Robotic systems requiring flexible pneumatic tube routing.
- Pneumatic control systems exposed to repeated movement.
- Rotating machinery and dynamic industrial equipment.

Technical Specifications

Parameter	Specification
Product Type	Pneumatic fitting
Structure	Rotary elbow: 90-degree direction change plus 360-degree swivel
Connection	Push-to-connect tube port to male thread
Installation	Push-to-connect
Material	Nickel-plated brass
Operating Fluid	Air
Working Pressure	0-0.9 MPa
Temperature Range	0-60 C
Applicable Tubing	PU tube

Dimension Drawing



Symbols: D = tube outside diameter; B = overall height; E = elbow length; R = male thread; A = thread length; P = tube-port body diameter; H = hex width.

Rotary Function

The swivel mechanism allows the elbow orientation to rotate after installation. This helps the tube follow moving components and reduces torsional loading compared with a fixed elbow fitting.

Model Selection and Dimensions

Model	D	B	E	R	A	P	H
NHRL4-M5	4	29.5	19.5	M5	4	13	8
NHRL4-01	4	33	19.5	R1/8	7.5	13	12
NHRL4-02	4	35.5	19.5	R1/4	10	13	14
NHRL6-M5	6	29.5	20	M5	4	13	8
NHRL6-01	6	33	20	R1/8	7.5	13	12
NHRL6-02	6	35.5	20	R1/4	10	13	14
NHRL6-03	6	38.5	21.5	R3/8	10.5	15	17
NHRL6-04	6	40	21.5	R1/2	12	15	21
NHRL8-01	8	35.5	22	R1/8	7.5	15	14
NHRL8-02	8	38	22	R1/4	10	15	14
NHRL8-03	8	38.5	22	R3/8	10.5	15	17
NHRL8-04	8	40	22	R1/2	12	15	21
NHRL10-01	10	39	26	R1/8	7.5	18.5	17
NHRL10-02	10	41.5	26	R1/4	10	18.5	17
NHRL10-03	10	42	26	R3/8	10.5	18.5	17
NHRL10-04	10	43.5	26	R1/2	12	18.5	21
NHRL12-01	12	41	28	R1/8	7.5	21	17
NHRL12-02	12	43.5	28	R1/4	10	21	17
NHRL12-03	12	44	28	R3/8	10.5	21	17
NHRL12-04	12	45.5	28	R1/2	12	21	21

All dimensional values are in millimetres unless otherwise stated.

Size Range

Available tube outside diameters: 4 mm, 6 mm, 8 mm, 10 mm and 12 mm. Standard male thread selections shown in the table include M5, R1/8, R1/4, R3/8 and R1/2.

Installation and Operating Guidance

- Confirm that tube outside diameter and male thread match the selected NHRL model.
- Cut PU tubing squarely and remove burrs, dust and surface damage before insertion.
- Push the tube fully into the release ring until it reaches the internal stop.
- Apply suitable thread sealant when required, keeping sealant out of the airflow passage.
- Tighten using the hex section and avoid applying excessive torque to the plastic elbow body.
- After installation, rotate the elbow through the required movement range and check for interference.
- Pressurize gradually and inspect the tube connection, thread and swivel joint for leakage.

Ordering Information

Specify the NHRL model, tube outside diameter, male thread, preferred release-ring color and quantity. OEM and ODM options for thread standards, tube sizes, materials, packaging and branding are available subject to production confirmation.

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

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