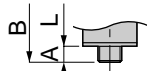
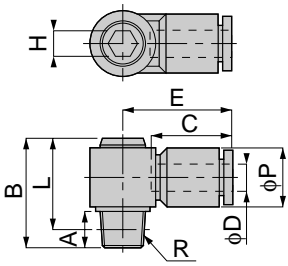




Hex. Holed Universal Elbow



Metric thread type

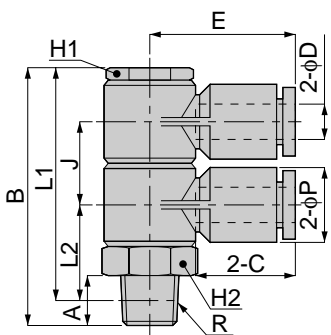
unit:mm

| Model | Tube dia. ϕD | R | A | B | L | ϕP | C | E | H | Mass (g) | Orifice (ϕmm) | Eff. a. (mm^2) |
|-----------|--------------------|--------|----|------|------|----------|------|------|----|----------|-----------------------|--------------------|
| POL 4-M5 | 4 | M5x0.8 | 3 | 17.5 | 14.5 | 10 | 15 | 20 | 4 | 6.5 | 1.8 | 2.1 |
| POL 6-01 | 6 | R1/8 | 8 | 24 | 20 | 13 | 17 | 24 | 5 | 15 | 4 | 7 |
| POL 6-02 | | R1/4 | 11 | 27 | 21 | | | | | 21.5 | | 7.4 |
| POL 8-01 | 8 | R1/8 | 8 | 27 | 23 | 14 | 18 | 27 | 8 | 22 | 6 | 14 |
| POL 8-02 | | R1/4 | 11 | 30 | 24 | | | | | 28 | | 12.4 |
| POL 8-03 | | R3/8 | 12 | 31 | 24.5 | | | | | 36.5 | | 13.6 |
| POL 10-02 | 10 | R1/4 | 11 | 34 | 28 | 18 | 20 | 31 | 10 | 41 | 7.5 | 22.9 |
| POL 10-03 | | R3/8 | 12 | 35 | 28.5 | | | | | 49.5 | | 22.6 |
| POL 12-03 | 12 | R3/8 | 12 | 39 | 32.5 | 21 | 23.5 | 36.5 | 12 | 68 | 9.5 | 37.3 |
| POL 12-04 | | R1/2 | 15 | 42 | 34 | | | | | 83 | | 32.4 |



PHW

Double Universal Elbow



unit:mm

| Model | Tube dia. ϕD | R | A | B | L1 | L2 | ϕP | C | J | E | H1 | H2 | Mass (g) | Orifice (ϕmm) | Eff. a. (mm^2) |
|-------------|--------------------|------|----|------|------|------|----------|------|----|------|----|------|----------|-----------------------|--------------------|
| PHW 4-01 | 4 | R1/8 | 8 | 43 | 39 | 16 | 10 | 15 | 14 | 22.5 | 14 | 14 | 28.5 | 3 | 5.1 |
| PHW 4-02 | | R1/4 | 11 | 46 | 40 | 17 | | | | | | 31 | 4.4 | | |
| PHW 4-03 | | R3/8 | 12 | 48 | 41.5 | 18.5 | | | | | | 17 | 41.5 | | 4.5 |
| PHW 6-01 | 6 | R1/8 | 8 | 43 | 39 | 16 | 12.5 | 17 | 14 | 24.5 | 14 | 14 | 30.5 | 4.6 | 9.3 |
| PHW 6-02 | | R1/4 | 11 | 46 | 40 | 17 | | | | | | 33 | 9.5 | | |
| PHW 6-03 | | R1/8 | 12 | 48 | 41.5 | 18.5 | | | | | | 17 | 43.5 | | 9.5 |
| PHW 8-01 | 8 | R1/8 | 8 | 46 | 42 | 17.5 | 14.5 | 18.5 | 15 | 28.5 | 17 | 17 | 44.5 | 5.1 | 14.2 |
| PHW 8-02 | | R1/4 | 11 | 49 | 43 | 18.5 | | | | | | 47.5 | 15.3 | | |
| PHW 8-03 | | R3/8 | 12 | 50 | 43.5 | 19 | | | | | | 52.5 | 15 | | |
| PHW 8-04 | | R1/2 | 15 | 55 | 47 | 22.5 | | | | | | 75.5 | 15.1 | | |
| PHW 10-02 | 10 | R1/4 | 11 | 57.5 | 51.5 | 22 | 18 | 20.5 | 18 | 33 | 22 | 22 | 85 | 6.5 | 21.6 |
| PHW 10-03 | | R3/8 | 12 | 58.5 | 52 | 22.5 | | | | | | 91 | 23.2 | | |
| PHW 10-04 | | R1/2 | 15 | 61.5 | 53.5 | 24 | | | | | | 99 | 23.3 | | |
| PHW 12-02 | 12 | R1/4 | 11 | 67 | 61 | 26.5 | 21 | 23.5 | 21 | 38.5 | 27 | 27 | 146 | 7.7 | 30 |
| PHW 12-03 | | R3/8 | 12 | 68 | 61.5 | 27 | | | | | | 152 | 31.4 | | |
| PHW 12-04 | | R1/2 | 15 | 71 | 63 | 28.5 | | | | | | 159 | 30.8 | | |
| PHW 1/4-01 | 1/4 | R1/8 | 8 | 43 | 39 | 16 | 12.5 | 17 | 14 | 24.5 | 14 | 14 | 30.5 | 4.6 | 15.3 |
| PHW 1/4-02 | | R1/4 | 11 | 46 | 40 | 17 | | | | | | 33 | 15 | | |
| PHW 1/4-03 | | R3/8 | 12 | 48 | 41.5 | 18.5 | | | | | | 17 | 43.5 | | 15.1 |
| PHW 5/16-02 | 5/16 | R1/4 | 11 | 49 | 43 | 18.5 | 14.5 | 18.5 | 15 | 28.5 | 17 | 17 | 47.5 | 5.1 | 10.1 |
| PHW 5/16-03 | | R3/8 | 12 | 50 | 43.5 | 19 | | | | | | 52.5 | 9.9 | | |
| PHW 5/16-04 | | R1/2 | 15 | 55 | 47 | 22.5 | | | | | | 75.5 | 10.2 | | |
| PHW 3/8-02 | 3/8 | R1/4 | 11 | 57.5 | 51.5 | 22 | 18 | 20.5 | 18 | 33 | 22 | 22 | 85.5 | 6.5 | 21.4 |
| PHW 3/8-03 | | R3/8 | 12 | 58.5 | 52 | 22.5 | | | | | | 91 | 21.7 | | |
| PHW 3/8-04 | | R1/2 | 15 | 61.5 | 53.5 | 24 | | | | | | 99 | 22.6 | | |

unit:inch

| MODEL | Tube dia. ϕD | NPT | A | B | L | ϕP | C | J | E | H1 | H2 | Weight (g) | Orifice ϕMM | Eff.a. mm^2 | Cv |
|--------------|--------------------|-----|------|------|------|----------|------|------|------|------|-------|------------|-------------------|---------------|------|
| PHW 5/32-N1U | 5/32 | 1/8 | 0.31 | 1.69 | 1.54 | 0.39 | 0.59 | 0.55 | 0.89 | 0.55 | 9/16 | 28.5 | 3.0 | 5.1 | 0.28 |
| PHW 5/32-N2U | 5/32 | 1/4 | 0.43 | 1.81 | 1.57 | 0.39 | 0.59 | 0.55 | 0.89 | 0.55 | 9/16 | 31.4 | 3.0 | 4.4 | 0.24 |
| PHW 1/4-N1U | 1/4 | 1/8 | 0.31 | 1.69 | 1.54 | 0.49 | 0.67 | 0.55 | 0.96 | 0.55 | 9/16 | 30.2 | 4.6 | 10.0 | 0.54 |
| PHW 1/4-N2U | 1/4 | 1/4 | 0.43 | 1.81 | 1.57 | 0.49 | 0.67 | 0.55 | 0.96 | 0.55 | 9/16 | 33.1 | 4.6 | 9.7 | 0.53 |
| PHW 1/4-N3U | 1/4 | 3/8 | 0.47 | 1.89 | 1.63 | 0.49 | 0.67 | 0.55 | 0.96 | 0.55 | 11/16 | 43.7 | 4.6 | 9.9 | 0.54 |
| PHW 5/16-N2U | 5/16 | 1/4 | 0.43 | 1.93 | 1.69 | 0.57 | 0.71 | 0.59 | 1.12 | 0.67 | 11/16 | 48.2 | 6.0 | 14.2 | 0.77 |
| PHW 5/16-N3U | 5/16 | 3/8 | 0.47 | 1.97 | 1.71 | 0.57 | 0.71 | 0.59 | 1.12 | 0.67 | 11/16 | 53.6 | 6.0 | 14.6 | 0.79 |
| PHW 5/16-N4U | 5/16 | 1/2 | 0.59 | 2.17 | 1.85 | 0.57 | 0.71 | 0.59 | 1.12 | 0.67 | 7/8 | 75.4 | 6.0 | 14.3 | 0.78 |
| PHW 3/8-N2U | 3/8 | 1/4 | 0.43 | 2.26 | 2.03 | 0.71 | 0.79 | 0.71 | 1.30 | 0.87 | 7/8 | 84.8 | 7.5 | 21.6 | 1.17 |
| PHW 3/8-N3U | 3/8 | 3/8 | 0.47 | 2.30 | 2.05 | 0.71 | 0.79 | 0.71 | 1.30 | 0.87 | 7/8 | 90.9 | 7.5 | 21.7 | 1.18 |
| PHW 3/8-N4U | 3/8 | 1/2 | 0.59 | 2.42 | 2.11 | 0.71 | 0.79 | 0.71 | 1.30 | 0.87 | 7/8 | 98.1 | 7.5 | 22.6 | 1.22 |