

50AC Series Couplings

Tubing Size 1/4" - 3/8"
1/4" Flow Acetal (POM)



These 1/4" flow size couplings are produced in a durable natural Acetal (POM) thermoplastic. They feature a more cost efficient plastic thumb-latch design. They are available in both valved and non-valved configurations. All 50AC couplings interconnect with all other 50PP and 50GP couplings as well as other similar industry thumb-latch type couplings.

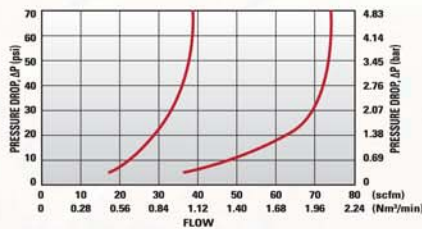
Performance Ratings:

- Operating Pressure: Vacuum to 120psi; (8.3bar)
- Temperature: -40°F to 180°F; (-40°C to 82°C)
- Flow Capacity: 1/4" Size

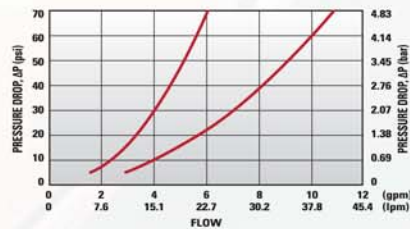
Materials & Construction:

- Bodies & Terminations: Acetal (POM)
- Internal Valves: Acetal (POM)
- Internal Valve Springs: 316 Stainless Steel
- O-rings: FDA & NSF Grade Buna-N (others available)
- Thumb-latch: Acetal (POM)

50AC Series Air Flow



50AC Series Water Flow



FLOW RATES

The data below shows liquid flow rates for LinkTech couplings. Each coupling combination was tested at 70°F (21°C).

C_v Values for 50AC Series Couplings

| SOCKETS | 50ACV-PB2-04 | 50AC-PB2-04 | 50ACV-PB2-06 | 50AC-PB2-06 | 50ACV-PB9-04 | 50AC-PB9-04 | 50ACV-PB9-06 | 50AC-PB9-06 | 50ACV-PB1-04 | 50AC-PB1-04 | 50ACV-PB1-06 | 50AC-PB1-06 |
|--------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|
| 50ACV-SB2-04 | 0.42 | 0.58 | 0.45 | 0.78 | 0.31 | 0.38 | 0.45 | 0.6 | 0.43 | 0.79 | 0.45 | 0.75 |
| 50AC-S2-04 | 0.52 | 0.95 | 0.7 | 1 | 0.38 | 0.39 | 0.55 | 0.87 | 0.65 | 0.95 | 0.65 | 1 |
| 50ACV-SB2-06 | 0.43 | 0.63 | 0.5 | 0.89 | 0.33 | 0.39 | 0.62 | 0.5 | 0.45 | 0.95 | 0.5 | 0.92 |
| 50AC-S2-06 | 0.53 | 0.95 | 0.8 | 1.4 | 0.38 | 0.39 | 0.57 | 1 | 0.7 | 1.4 | 0.73 | 1.4 |
| 50ACV-SB3-04 | 0.42 | 0.58 | 0.45 | 0.78 | 0.31 | 0.38 | 0.45 | 0.6 | 0.43 | 0.79 | 0.45 | 0.75 |
| 50AC-S3-04 | 0.52 | 0.95 | 0.7 | 1 | 0.38 | 0.39 | 0.55 | 0.87 | 0.65 | 0.95 | 0.65 | 1 |
| 50ACV-SB3-06 | 0.43 | 0.63 | 0.5 | 0.89 | 0.33 | 0.39 | 0.62 | 0.5 | 0.45 | 0.95 | 0.5 | 0.92 |
| 50AC-S3-06 | 0.53 | 0.95 | 0.8 | 1.4 | 0.38 | 0.39 | 0.57 | 1 | 0.7 | 1.4 | 0.73 | 1.4 |
| 50ACV-SB1-04 | 0.41 | 0.65 | 0.5 | 0.81 | 0.31 | 0.35 | 0.48 | 0.74 | 0.45 | 0.8 | 0.45 | 0.8 |
| 50AC-S1-04 | 0.56 | 0.84 | 0.83 | 1.4 | 0.35 | 0.4 | 0.58 | 1.04 | 0.75 | 1.4 | 0.78 | 1.4 |
| 50ACV-SB1-06 | 0.43 | 0.7 | 0.5 | 1.03 | 0.3 | 0.36 | 0.7 | 0.48 | 0.45 | 0.97 | 0.48 | 1 |
| 50AC-S1-06 | 0.57 | 0.84 | 0.82 | 1.4 | 0.35 | 0.4 | 0.6 | 1.05 | 0.75 | 1.4 | 0.75 | 1.4 |

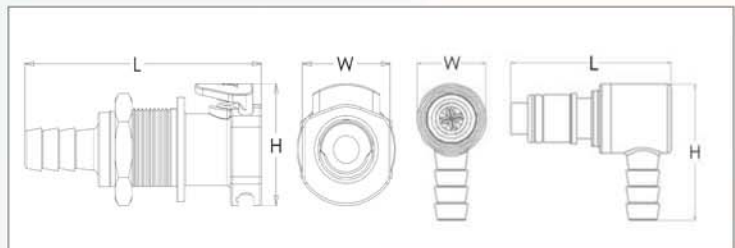
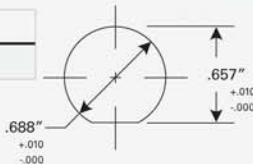
Specific coupling combination flow rates can be determined by using this formula:

$$Q = C_v \sqrt{\frac{\Delta P}{S}}$$

Q = Flow rate in gallons per minute
 C_v = Average flow rates (see chart)
 ΔP = Pressure drop across coupling (psi)
 S = Specific gravity of liquid.

| | PANEL OPENING | MAX PANEL THICKNESS | MIN PANEL THICKNESS |
|---------|---------------|---------------------|---------------------|
| SOCKETS | See Drawing | 0.5" | 0.05" |
| PLUGS | 0.688" | 0.3" | 0.05" |

| PANEL NUT HEX SIZE | PANEL NUT THREAD |
|--------------------|------------------|
| 13/16" | 11/16" - 24 UNS |



Reference Dimensions: L = Length, W = Width, H = Height

Tubing Size 1/4" - 3/8"
1/4" Flow Acetal (POM)

50AC Series Sockets

|  | MALE THREAD SOCKET | | | | | | |
|---|---------------------------|--------------|-------------|--------|-------|--------|--|
| | Non-Valved | Valved | Thread Size | Length | Width | Height | |
| | 50AC-S1-04 | 50ACV-SB1-04 | 1/4" NPT | 1.40" | .75" | .94" | |
| | 50AC-S1-06 | 50ACV-SB1-06 | 3/8" NPT | 1.40" | .75" | .94" | |

|  | MALE THREAD SOCKET, WITH LATCH GUARD | | | | | | |
|---|---|--------------|-------------|--------|-------|--------|--|
| | Non-Valved | Valved | Thread Size | Length | Width | Height | |
| | 50AC-S35107 | 50ACV-S35107 | 1/4" NPT | 1.40" | .75" | .94" | |

|  | IN-LINE HOSE BARB SOCKET, SHORT BODY | | | | | | |
|---|---|-----------|-------------|--------|-------|--------|--|
| | Non-Valved | Tube Size | Metric Tube | Length | Width | Height | |
| | 50AC-S2-04 | 1/4" ID | 6.4mm ID | 1.35" | .75" | .94" | |
| | 50AC-S2-06 | 3/8" ID | 9.5mm ID | 1.35" | .75" | .94" | |

|  | IN-LINE HOSE BARB SOCKET, LONG BODY | | | | | | |
|---|--|--------------|-----------|-------------|--------|-------|--------|
| | Non-Valved | Valved | Tube Size | Metric Tube | Length | Width | Height |
| | 50AC-S2-04LB | 50ACV-SB2-04 | 1/4" ID | 6.4mm ID | 2.02" | .75" | .94" |
| | 50AC-S2-05LB | 50ACV-SB2-05 | 5/16" ID | 7.9mm ID | 2.02" | .75" | .94" |
| | 50AC-S2-06LB | 50ACV-SB2-06 | 3/8" ID | 9.5mm ID | 2.02" | .75" | .94" |

|  | IN-LINE PTF SOCKET, LONG BODY | | | | | | |
|--|--------------------------------------|--------------|------------------|--------------------|--------|-------|--------|
| | Non-Valved | Valved | Tube Size | Metric Tube | Length | Width | Height |
| | 50AC-S9-04LB | 50ACV-SB9-04 | 1/4" OD, .17" ID | 6.4mm OD, 4.3mm ID | 1.95" | .75" | .93" |
| | 50AC-S9-06LB | 50ACV-SB9-06 | 3/8" OD, .25" ID | 9.5mm OD, 6.4mm ID | 2.05" | .75" | .93" |

|  | PANEL MOUNT HOSE BARB SOCKET | | | | | | |
|---|-------------------------------------|--------------|-----------|-------------|--------|-------|--------|
| | Non-Valved | Valved | Tube Size | Metric Tube | Length | Width | Height |
| | 50AC-S3-04 | 50ACV-SB3-04 | 1/4" ID | 6.4mm ID | 2.10" | .90" | 1.05" |
| | 50AC-S3-05 | 50ACV-SB3-05 | 5/16" ID | 7.9mm ID | 2.10" | .90" | 1.05" |
| | 50AC-S3-06 | 50ACV-SB3-06 | 3/8" ID | 9.5mm ID | 2.10" | .90" | 1.05" |

|  | PANEL MOUNT PTF SOCKET | | | | | | |
|---|-------------------------------|--------------|------------------|--------------------|--------|-------|--------|
| | Non-Valved | Valved | Tube Size | Metric Tube | Length | Width | Height |
| | 50AC-S8-04 | 50ACV-SB8-04 | 1/4" OD, .17" ID | 6.4mm OD, 4.3mm ID | 1.97" | .90" | 1.05" |
| | 50AC-S8-06 | 50ACV-SB8-06 | 3/8" OD, .25" ID | 9.5mm OD, 6.4mm ID | 2.10" | .90" | 1.05" |

|  | IN-LINE PUSH-IN SOCKET | | | | | | |
|---|-------------------------------|---------------|-----------|-------------|--------|-------|--------|
| | Non-Valved | Valved | Tube Size | Metric Tube | Length | Width | Height |
| | 50AC-S17-04 | 50ACV-SB17-04 | 1/4" OD | 6.4mm OD | 2.06" | .76" | .94" |

|  | PANEL MOUNT PUSH-IN SOCKET | | | | | | |
|---|-----------------------------------|---------------|-----------|-------------|--------|-------|--------|
| | Non-Valved | Valved | Tube Size | Metric Tube | Length | Width | Height |
| | 50AC-S18-04 | 50ACV-SB18-04 | 1/4" OD | 6.4mm OD | 2.09" | .87" | 1.05" |

*See Accessories for Push-In fittings on page 44.



50AC Series Plugs

Tubing Size 1/4" - 3/8"
1/4" Flow Acetal (POM)



MALE THREAD PLUG

| Non-Valved | Valved | Thread Size | L(nv/v) | Width | Height |
|-------------|--------------|-------------|-------------|-------|--------|
| 50AC-PB1-04 | 50ACV-PB1-04 | 1/4" NPT | 1.40"/1.75" | .55" | .55" |
| 50AC-PB1-06 | 50ACV-PB1-06 | 3/8" NPT | 1.40"/1.60" | .75" | .75" |



IN-LINE HOSE BARB PLUG

| Non-Valved | Valved | Tube Size | Metric Tube | L(nv/v) | Width | Height |
|-------------|--------------|-----------|-------------|-------------|-------|--------|
| 50AC-PB2-04 | 50ACV-PB2-04 | 1/4" ID | 6.4mm ID | 1.35"/2.05" | .70" | .70" |
| 50AC-PB2-05 | 50ACV-PB2-05 | 5/16" ID | 7.9mm ID | 1.93"/2.03" | .70" | .70" |
| 50AC-PB2-06 | 50ACV-PB2-06 | 3/8" ID | 9.5mm ID | 1.35"/1.90" | .70" | .70" |



IN-LINE PTF PLUG

| Non-Valved | Valved | Tube Size | Metric Tube | L(nv/v) | Width | Height |
|-------------|--------------|------------------|--------------------|-------------|-------|--------|
| 50AC-PB9-04 | 50ACV-PB9-04 | 1/4" OD, .17" ID | 6.4mm OD, 4.3mm ID | 1.80"/1.96" | .63" | .63" |
| 50AC-PB9-06 | 50ACV-PB9-06 | 3/8" OD, .25" ID | 9.5mm OD, 6.4mm ID | 1.74"/1.89" | .63" | .63" |



ELBOW HOSE BARB PLUG

| Non-Valved | Valved | Tube Size | Metric Tube | L(nv/v) | Width | Height |
|-------------|--------------|-----------|-------------|-------------|-------|--------|
| 50AC-PB4-04 | 50ACV-PB4-04 | 1/4" ID | 6.4mm ID | 1.20"/1.45" | .63" | 1.28" |
| 50AC-PB4-06 | 50ACV-PB4-06 | 3/8" ID | 9.5mm ID | 1.20"/1.48" | .63" | 1.28" |



ELBOW PTF PLUG

| Non-Valved | Valved | Tube Size | Metric Tube | L(nv/v) | Width | Height |
|---------------|---------------|------------------|--------------------|-------------|-------|--------|
| 50ACX-PB10-04 | 50ACV-PB10-04 | 1/4" OD, .17" ID | 6.4mm OD, 4.3mm ID | 1.33"/1.48" | .63" | 1.15" |
| 50AC-PB10-06 | 50ACV-PB10-06 | 3/8" OD, .25" ID | 9.5mm OD, 6.4mm ID | 1.34"/1.50" | .63" | 1.30" |



ELBOW MALE THREAD PLUG

| Non-Valved | Valved | Thread Size | L (nv/v) | Width | Height |
|--------------|---------------|-------------|-------------|-------|--------|
| 50AC-PB16-04 | 50ACV-PB16-04 | 1/4" NPT | 1.29"/1.45" | .70" | 1.47" |



IN LINE PUSH-IN PLUG

| Non-Valved | Valved | Tube Size | Metric Tube | L (nv/v) | Width | Height |
|--------------|---------------|-----------|-------------|-------------|-------|--------|
| 50AC-PB17-04 | 50ACV-PB17-04 | 1/4" OD | 6.4mm OD | 1.91"/2.08" | .70" | .70" |

*See Accessories for Push-In fittings on page 44.

