

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.

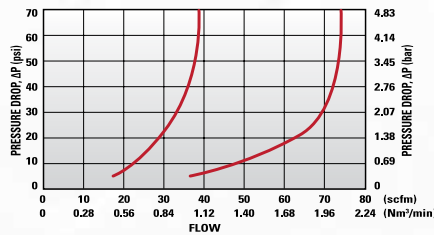
Performance Ratings:

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

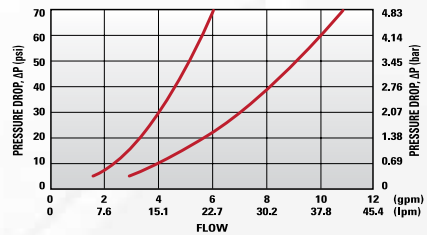
Materials & Construction:

- 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

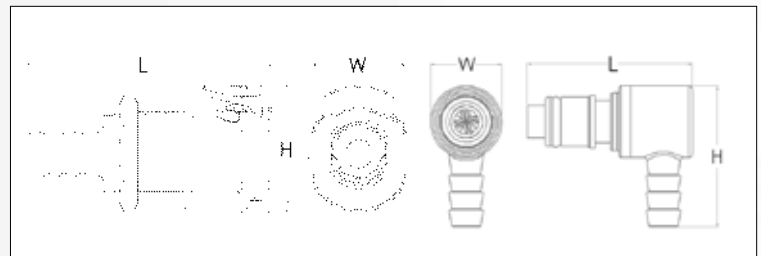
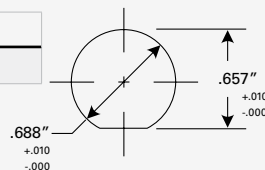
Specific coupling combination flow rates can be determined by using this formula:

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

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

Accessories



EXTERNAL PLUG O-RINGS

Coupling Series	Buna-N Part No.	EPDM Part No.	Viton Part No.
20 SERIES	C115	1-00823711	1-0089746
40 SERIES	C116	1-01123711	1-0119746
50 SERIES	C116	1-01123711	1-0119746



PANEL MOUNT SEALING GASKET

Coupling Series	Buna-N Part No.	EPDM Part No.
20 SERIES	C11040	C11105
40 SERIES	C11027	C11073
50 SERIES	C11027	C11073
50PP SERIES	N/A	C11376
60 SERIES	N/A	C11416



PLASTIC PANEL MOUNT NUTS

Coupling Series	Material	Part No.
40/50 SERIES	Acetal	C11252
60PP SERIES	Polypropylene	C11372
60PS SERIES	Polysulfone	C11398



PANEL MOUNT NUTS

Coupling Series	Plated Brass Part No.	316 Stainless Steel Part No.
20 SERIES	C377	C11085
40 SERIES	C131	C11044
50 SERIES	C131	C11044



PLATED BRASS PTF NUTS (FERRULELESS POLYTUBE FITTING)

Tube Size	Metric Tube Size	Part No.
5/32" OD	4.0mm OD	C11031
1/4" OD	6.4mm OD	C176
3/8" OD	9.5mm OD	C187



PUSH-IN COLLET CLIP

Coupling Series	Description	Part No.
40AC & 50AC SERIES	Red Collet Clip	PIL250R



PUSH-IN COLLET COVERS

Coupling Series	Description	Part No.
40AC & 50AC SERIES	Red Collet Cover	PIC250R
40AC & 50AC SERIES	Black Collet Cover	PIC250BL
40AC & 50AC SERIES	Yellow Collet Cover	PIC250Y
40AC & 50AC SERIES	Blue Collet Cover	PIC250B
40AC & 50AC SERIES	Grey Collet Cover	PIC250GRY
40AC & 50AC SERIES	Green Collet Cover	PIC250GN

LinkTech is committed to our customers and helps them by offering custom designed and manufactured couplings. LinkTech has developed hundreds of custom connection solutions for challenging applications. Our engineering staff is ready to work with your designers to solve application problems beyond the scope of our standard product offering. Whether it is a simple o-ring, color change, or a completely new and unique design, LinkTech offers its customers the best possible solution at the lowest possible cost.

LinkTech Custom Designs Include:

- Non-standard coupling materials
- Multi-port couplings
- Custom end terminations
- Application specific O-rings
- Molded color couplings
- Unique packaging



Molded & Dyed color couplings available upon request



PART NUMBER GUIDE

Flow Size / Latch Type	Material	Valve	Config.	O-ring (std Buna-N)	Type	Connection Size	Part Options
10 = 1/16" Flow (Twist Lock)	AC = Acetal AL = Aluminum	V = Valved (default is non-valved)	S = Socket	B = Buna-N (NSF/Food Grade)	1 = In Line MNPT 2 = In Line Hose Barb	01 = 1/16" 02 = 1/8"	NL = No Latch NN = No Nuts
20 = 1/8" Flow (Metal Latch)	CB = Chrome Plated Brass NB = Nickel Plated Brass	X = No Valve (in Valved Body)	P = Plug	V = Viton	3 = Panel Mount H.B. 4 = Elbow H.B.	03 = 3/16" 04 = 1/4"	NLN = No Latch/Nuts XL = No O-ring Lube
40 = 1/4" Flow (Metal Latch)	RB = Raw Brass GP = Glass Filled Polypro.			E = Peroxide Cured EPDM	5 = Single Barb H.B. 6 = End Stop	05 = 5/16" 06 = 3/8"	XX = No End Termination
42 = 3/32" Flow (Dual Tube Metal Latch)	PP = Polypropylene AB = ABS			F = Food Grade EPDM	7 = Elbow, Single H.B. 8 = Panel Mount PTF	08 = 1/2" 10 = 5/8"	
50 = 1/4" Flow (Plastic Latch)	PS = Polysulfone RD = Radel			S = Silicone K = Kalrez	9 = In Line PTF 10 = Elbow PTF	12 = 3/4" 16 = 1"	
50B = 1/4" Flow (Breakaway Latch)					12 = Panel Mount Male Thread 13 = In Line Female Thread		
60 = 3/8" Flow (Plastic Latch)					16 = Elbow MNPT 17 = Push In Term In-line		
65 = 1/2" Free Flow (Plastic Latch)					18 = Push In Term Panel Mt. 19 = Panel Mount Female Thread		
					20 = Anti Rotate PM Plug H.B. 21 = Anti Rotate PM Plug PTF 22 = Panel Mount H.B. Elbow		

STERILIZATION & DISINFECTANT COMPATIBILITY

Material	Formalin	Isopropyl Alcohol	Ethyl Alcohol	Ethylene Oxide	Autoclave	E-Beam (50 Kilograys)	Gamma 5 (50 Kilograys)	Dry Heat (250°F)
Acetal	Y	Y	Y	Y	Y	N	N	N
ABS	N	N/A	Y	Y	N	Y	Y	N
Polypropylene	Y	Y	Y	Y	N	Y	Y	N
Polysulfone	Y	Y	Y	Y	Y	Y	Y	Y
Glass Filled Polypro.	Y	Y	Y	Y	N	N	N	N
Chrome/Brass	N	Y	Y	Y	Y	Y	Y	Y
Buna-N/Nitrile	Y	Y	Y	N	N	Y	Y	Y
EPR/EPDM	Y	Y	Y	Y	Y	Y	Y	Y
Viton/FKM	Y	Y	Y	N	N	N	N	Y
Silicon	Y	Y	Y	Y	Y	Y	Y	Y
Kalrez	Y	Y	Y	Y	Y	N	N	Y

Key: Y = Excellent, recommended, N = Not recommended, N/A = Not applicable

Sterilization Methods:

Disinfectants: Sterilized coupled or uncoupled at 70°F (20°C)

Ethylene Oxide, EtO: Sterilized coupled or uncoupled, up to 5 repetitions, four hours max, 100% EtO at 110°F (43°C)

Autoclave: Sterilize uncoupled only, 30 min. max, 10 repetitions max, 250°F (121°C) max.

Electron Beam (E-Beam): Sterilize coupled or uncoupled, 50 kilograys max cumulative exposure.

GAMMA: Sterilize coupled or uncoupled, 50 kilograys max cumulative exposure.

Dry Heat: Sterilize uncoupled only, 250°F (121°C) 12 hours max.

Regulatory Approvals

The FDA publishes, through the Code of Federal Regulations, standardized criteria which govern the acceptability of materials used in food contact. The U.S. Department of Agriculture publishes similar standards that mirror FDA criteria. Neither agency approves or disapproves products.

With the exception of the 50GP and 65GP Series products, most LinkTech couplings comply with applicable FDA and U.S.D.A.

NSF Compliance

NSF International develops and publishes consensual criteria that govern the acceptability of materials and equipment used in food and beverage processing.

With the exception of the 50GP and 65GP Series products, most LinkTech couplings are produced from materials that comply with most NSF standards for potable water and food contact applications.

Questions?

If you have any questions at all concerning our products, compliance and specs, please feel free to call us at 805-339-0055 or visit our website.

Solid model files available for easy download.



CHEMICAL COMPATIBILITY

Chemical	Polymers				Metals		Elastomers				
	Acetal	ABS	Polypropylene	Polysulfone	Chrome Plated Brass	Aluminum	Buna-N (Nitril)	EPR/EPDM	Fluorocarbon (Viton)	Silicon	KALREZ
Acetic Acid	D	C	B	A	D	B	D	A	D	B	A
Acetone	A	D	A	A	A	A	D	A	D	C	A
Air	A	A	A	A	A	A	A	A	A	A	A
Ammonia Anhydrous	D	B	A	C	A	A	B	A	D	C	A
Benzene	A	D	D	D	N/A	B	D	D	A	D	A
Carbon Dioxide	A	B	A	N/A	A	B	A	B	B	B	A
Chlorine Water	D	A	D	D	D	D	D	C	A	D	N/A
Ethanol (Ethyl Alcohol)	A	A	A	A	A	B	A	A	A	A	A
Ethylene Glycol	B	A	A	A	A	A	A	A	A	A	A
Gasoline, Unleaded	A	D	C	A	A	A	B	D	A	D	A
Hydrochloric Acid	C	C	B	A	D	D	D	C	A	D	A
Hydrofluoric Acid	D	C	C	A	D	D	D	D	B	D	A
Isopropyl Alcohol	A	A	A	A	B	B	B	B	B	A	A
Methyl Ethyl Ketone (MEK)	C	D	B	D	A	B	D	A	D	D	A
Methanol	A	D	A	A	A	A	A	A	D	A	A
Oxygen	A	B	A	A	A	A	B	A	A	A	A
Ozone	C	B	B	A	N/A	B	D	A	A	A	A
Sodium Hypochlorite	D	N/A	B	A	D	D	C	B	A	B	A
Steam	C	N/A	N/A	N/A	A	B				C	A
Sulfuric Acid, Air Free	N/A	B	C	B	C	D	D	D	A	D	A
Toluene	C	D	C	C	A	A	D	D	C	D	A
Trichloroethylene	D	D	C	C	B	D	D	D	A	D	B
Water, Fresh	A	A	A	A	C	B	A	A	B	A	A

Key: A = Excellent - no effect, B = Good - little or no effect, C = Fair - some effect, D = Not recommended, N/A = Not available.

Chemical Compatibility

Chemicals can affect the strength, appearance, color, dimensions, and weight of plastics. Because many factors affect the chemical resistance of a given material it is the customer's responsibility to test LinkTech's couplings in their own application conditions. Please Contact LinkTech for further assistance with your application needs.

COUPLING PERFORMANCE RATINGS

Series	Coupling Material	O-ring Material	Pressure Rating	Temp. Rating
10AC 1/16" Flow	Acetal	Buna-N	Vacuum to 100psi	-40°F to 180°F
10PP 1/16" Flow	Polypropylene	EPDM	Vacuum to 100psi	32°F to 180°F
20AC 1/8" Flow	Acetal	Buna-N	Vacuum to 120psi	-40°F to 180°F
20PP 1/8" Flow	Polypropylene	EPDM	Vacuum to 120psi	32°F to 160°F
20CB 1/8" Flow	Chrome/Brass	Buna-N	Vacuum to 250psi	-40°F to 180°F
40AC 1/4" Flow	Acetal	Buna-N	Vacuum to 120psi	-40°F to 180°F
40PP 1/4" Flow	Polypropylene	EPDM	Vacuum to 120psi	32°F to 160°F
40CB 1/4" Flow	Chrome/Brass	Buna-N	Vacuum to 250psi	-40°F to 180°F
42AB 3/32" Flow	ABS	Buna-N	Vacuum to 120psi	-40°F to 180°F
50AC 1/4" Flow	Acetal	Buna-N	Vacuum to 120psi	-40°F to 180°F
50PP 1/4" Flow	Polypropylene	EPDM	Vacuum to 100psi	32°F to 160°F
50BAC 1/4" Flow	Acetal	Buna-N	0psi to 20psi	-40°F to 180°F
50GP 1/4" Flow	Glass Filled Polypropylene	EPDM	Vacuum to 120psi	32°F to 180°F
60PP 3/8" Flow	Polypropylene	EPDM	Vacuum to 60psi	32°F to 160°F
60PS 3/8" Flow	Polysulfone	EPDM	Vacuum to 125psi	-40°F to 280°F
65GP 1/2" Flow	Glass Filled Polypropylene	EPDM	Vacuum to 120psi	32°F to 180°F

For our latest products visit www.LinkTechCouplings.com

	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.*

