Air Logic®

Pneumatic Components and Systems

Plastic Fittings

Introduction to Air Logic

Air Logic is a manufacturer of various pneumatic accessories, ideal for instrumentation, medical and industrial applications.

The Plastic Fittings include Bulkhead Connectors, Miniature Unions, Reducing Connectors, Barbed Fittings, Tees, Elbows, Crosses, 10-32 Plugs and Nipples, Straight Swivels, Swivel Elbows and Tees (Patent #4,946,204).

The Multiple Bulkhead Connectors are precision molded of polysulfone and are available in two models, the 10-tube and 32-tube connector. The 10-tube connector seals with a press fit and can be panel mounted. The 32-tube connector is joined together by two hex head screws and is panel mounted.

The Standard Bulkhead Connectors are precision molded of nylon or polypropylene. They are available in two models, the Reducing or Straight Bulkhead Connector. The connectors join 1/16",1/8" or .170 I.D. tubing and are panel mounted.

The Unions are precision molded of polysulfone or polypropylene, which join 1/16" I.D. or 1/8" I.D. flexible tubing.

The Reducing Connectors are precision molded of polysulfone; they join 1/16" I.D. to 1/8" or 1/16" I.D. to .170 I.D. flexible tubing.

The Swivel Fittings (Patent #4,946,204) are available in three models, the Straight Swivel, the Swivel Elbow and the Swivel Tee. The swivels are available with barbs for 1/16", 3/32", or 1/8" I.D. flexible tubing. The swivels are available with 10-32 UNF threads, 1/8-27 NPT or 1/4-18 NPT. The unique design (Patent #4, 946,204) allows the fitting to swivel 360°. The snap type fitting is sealed with a Buna-N o-ring. The Swivel fittings are precision molded of nylon.

The Multiple Barbed Fittings are precision molded of nylon or polypropylene.

The celcon Plastic Tee joins 1/16" I.D. flexible tubing together.

The 10-32 Plug and Nipple are precision molded of nylon or polypropylene.

The 10-32 Barbed Fittings are available with barbs for 1/16" I.D., 1/8" I.D. or .170 I.D. flexible tubing.

The unique design of the barbed fitting allows the 10-32 threads to seal without a gasket. The barbed fitting does not have a molded parting line on the first barb. This prevents the fitting from leaking. Air Logic fittings feature miniature size, low cost and precision molding.

Air Logic and A are trademarks of Air Logic registered in the United States Patent and Trademark Office.

INDEX

	Page
Standard Bulkhead Connectors	
Reducing Bulkhead	3
Straight Bulkhead	3
Multiple Bulkhead Connectors	
10-Tube Connector	4
32-Tube Connector	4
Plastic Fittings	
10-32 Plug and Nipple	4
Unions	4-5
Barbed Reducer	5
Barbed Fittings	5
Tees	5
Multiple Barbed Fittings	
Unions, Elbows, Tees and Crosses	6
Swivel Fittings	
10-32 Swivel Elbows and Tees	7
1/8-27 Swivel Elbows and Tees	8
1/4-18 Swivel Elbows and Tees	9
Swivel Fittings	
10-32 Straight Swivels	10
1/8-27 Straight Swivels	10
1/4-18 Straight Swivels	11

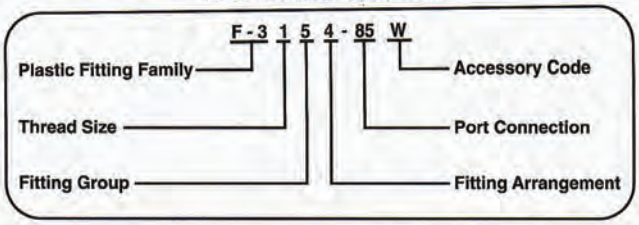
Fitting Selection Guide

Please order by Model Number. The numbers in the various positions determine Thread Size, Fitting Group, Port Connection, Fitting Arrangement, Color and Material.

Nylon Material: Black is the standard color for all nylon fittings. White, Blue and Red nylon are available in the Plug, Nipple and Barb Fittings. The Union, Elbow, Tee and Cross are available in White, or Black Nylon.

Polypropylene Material: gray is the standard color for all polypropylene fittings. An example of the fitting selection is shown below:

Model Number Selection

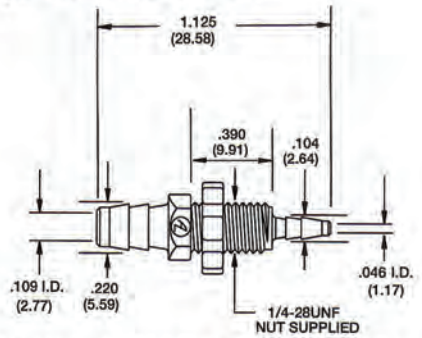


Model Number Selection by Position

Number Position	Accessory Number	Description
F-3154-85	F-3	Plastic Fitting Family
Thread Size F-3154-85	1	10-32 UNF Threads
	2	1/8-27 NPT Threads
	3	1/4-18 NPT Threads
Fitting Group F-3154-85	03	Multiple Bulkhead Connector
	00	Straight Bulkhead Connector
	20	Union, Reducers, Barb Fitting
	40	Barbed Unions, Elbows, Tees, & Crosses
	45	Straight Tee
	50	Straight Swivel
	54	Swivel Elbow
	55	Swivel Tee
Fitting Arrangement F-3154-85	4	Elbow
	5	Tee
	6	Cross
Port Connections F-3154-85	20	Plug
	25	Nipple
	41	Union - Straight Ports for 1/16" I.D. Tubing
	42	Union - Barbed Ports for 1/16" I.D. Tubing
	43	Union - Barbed Ports for 1/8" I.D. Tubing
	65	Tee - Straight Ports for 1/16" I.D. Tubing
	68	Reducer for .170 to 1/16" I.D. Tubing
	70	Reducer for 1/8" to 1/16" I.D. Tubing
	71	Reducer for .170 to 1/8" I.D. Tubing
	80	Barb for 1/16" I.D. Tubing
	83	Barb for 3/32" I.D. Tubing
	85	Barb for 1/8" I.D. Tubing
	86	Barb for .170 I.D. Tubing
Accessory Code F-3120-20-PP	W	White
	B	Blue
	R	Red
		Black - Standard Color
	PP	Polypropylene

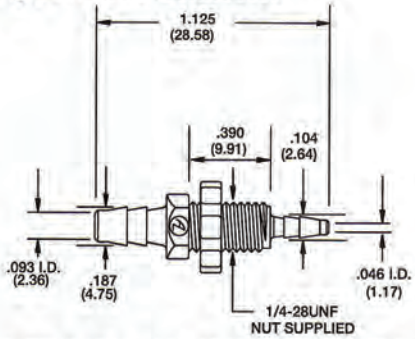
Standard Bulkhead Connectors

F-3100-68
Reducing Bulkhead Connector



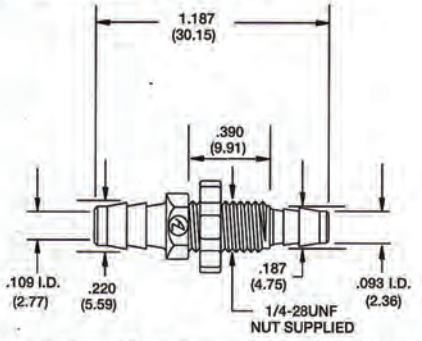
Barbed ports for .170 I.D. to 1/16" I.D. flexible tubing.
External ¼-28 UNF threads for panel mounting.
Material: Nylon - Black or White
Polypropylene - Gray

F-3100-70
Reducing Bulkhead Connector



Barbed ports for 1/8" I.D. to 1/16" I.D. flexible tubing.
External ¼-28 UNF threads for panel mounting.
Material: Nylon - Black or White
Polypropylene - Gray

F-3100-71
Reducing Bulkhead Connector

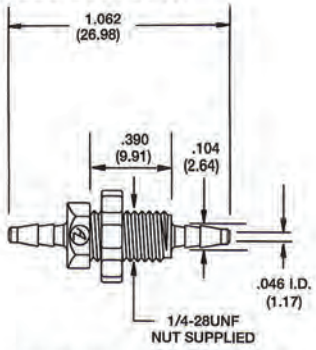


Barbed ports for .170 I.D. to 1/8" I.D. flexible tubing.
External ¼-28 UNF threads for panel mounting.
Material: Nylon - Black or White
Polypropylene - Gray

( ) = Metric Dimensions

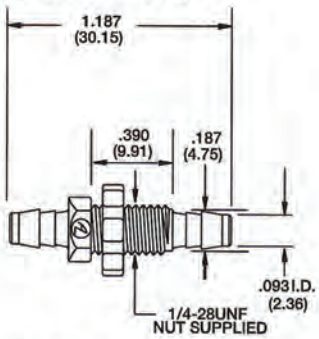
Please Read Warranty on Page 12.

F-3100-80
Straight Bulkhead Connector



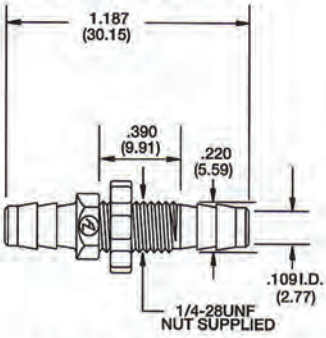
Barbed ports for 1/16" I.D. flexible tubing.
External ¼-28 UNF threads for panel mounting.
Material: Nylon - Black or White
Polypropylene - Gray

F-3100-85
Straight Bulkhead Connector



Barbed ports for 1/8" I.D. flexible tubing.
External ¼-28 UNF threads for panel mounting.
Material: Nylon - Black or White
Polypropylene - Gray

F-3100-86
Straight Bulkhead Connector



Barbed ports for .170 I.D. flexible tubing.
External ¼-28 UNF threads for panel mounting.
Material: Nylon - Black or White
Polypropylene - Gray

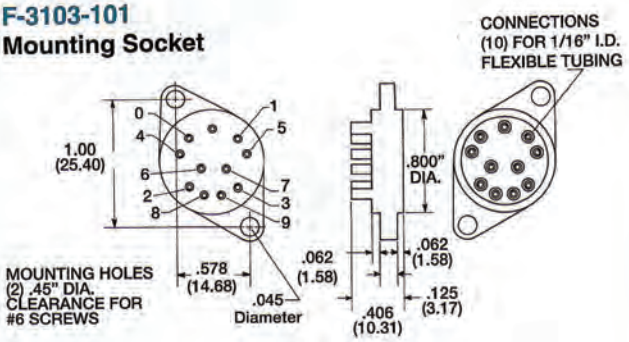
( ) = Metric Dimensions

Check Chemical Compatability of Polysulfone.

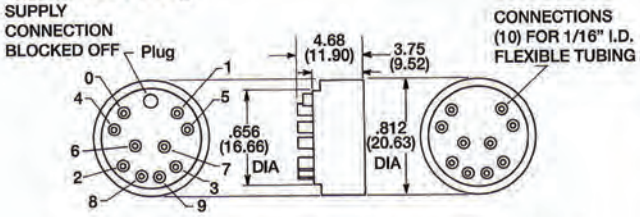
Standard Bulkhead Connectors

F-3103-Series
10 Tube Connector

F-3103-101
Mounting Socket

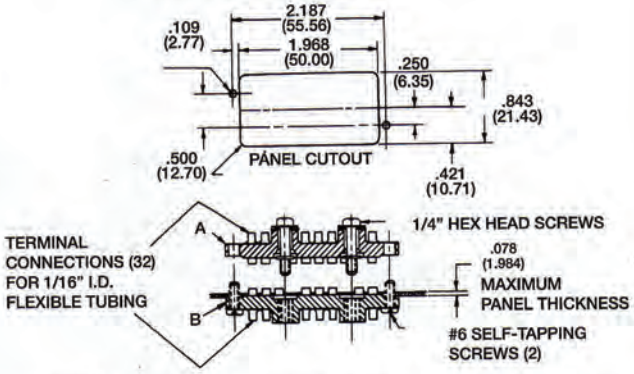


F-3103-102
Connector Plug



The F-3103-101 Mounting Socket and F-3103-102 Connector Plug form a ten tube connector when used together. The Mounting Socket may be panel or bulkhead mounted. Order each separately by model number.
Material: Polysulfone.

F-3103-320
32 Tube Connector



The Connector joins up to 32 tubes of 1/16" I.D. tubing. The connector is joined together by two hex head screws and can be panel mounted.
Material: Polysulfone.

( ) = Metric Dimensions

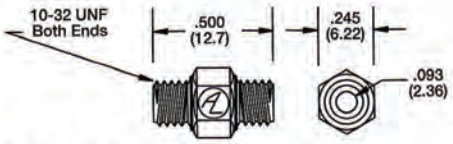
Please Read Warranty on Page 12.

Plastic Fittings

F-3120-20
Plug

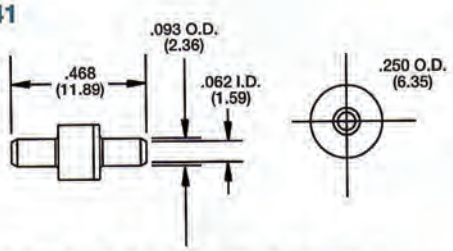
10-32 UNF hex head plug
Material: Nylon - Black, Red, White or Blue
Polypropylene - Gray

F-3120-25
Nipple



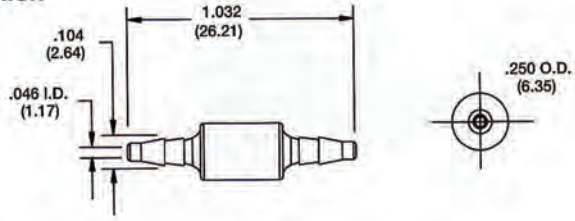
10-32 UNF hex head plug
Material: Nylon - Black, Red, White or Blue
Polypropylene - Gray

F-3120-41
Union



Straight ports for 1/16" I.D. flexible tubing.
Material: Polysulfone

F-3120-42
Union



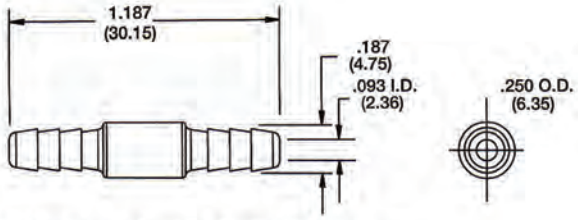
Barbed ports for 1/16" I.D. flexible tubing.
Material: Polysulfone

( ) = Metric Dimensions

Check Chemical Compatability of Polysulfone.

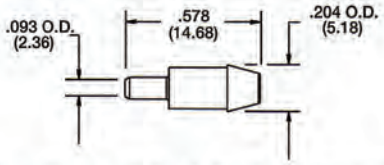
Plastic Fittings

F-3120-43
Union



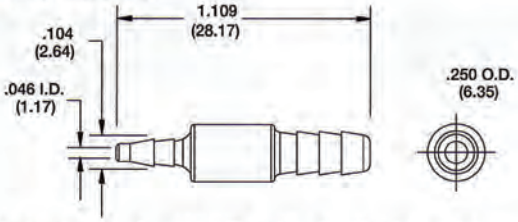
Barbed ports for ⅛" I.D. flexible tubing.
Material: Polysulfone.

F-3120-68
Barbed Reducer



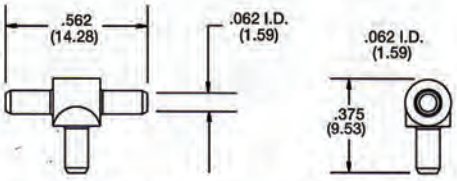
A straight port for 1/16" I.D. flexible tubing at one end and a barbed connection for ⅛" or .170 I.D. flexible tubing at the other end.
Material: Polysulfone.

F-3120-70
Barbed Reducer



Barbed ports for 1/16" I.D. x ⅛" I.D. flexible tubing.
Material: Polysulfone.

F-3145-65
Tee

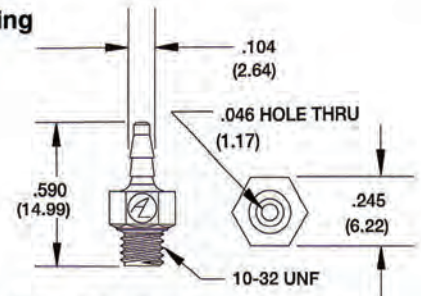


Straight ports for 1/16" I.D.flexible tubing.
Material: Celcon

( ) = Metric Dimensions

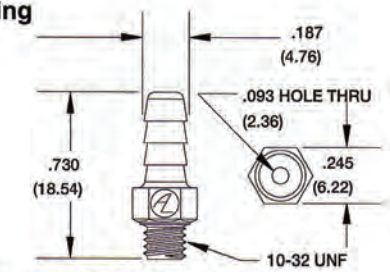
Please Read Warranty on Page 12.

F-3120-80
Barbed Fitting



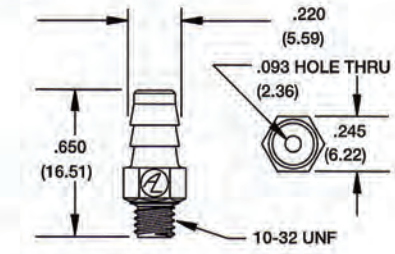
For 10-32 UNF x 1/16" I.D. flexible tubing
Material: Nylon - Black, Red, White or Blue
Polypropylene - Gray

F-3120-85
Barbed Fitting



For 10-32 UNF x ⅛" I.D. flexible tubing
Material: Nylon - Black, Red, White or Blue
Polypropylene - Gray

F-3120-86
Barbed Fitting



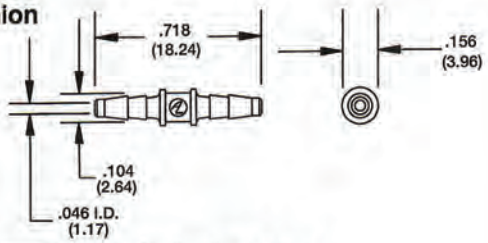
For 10-32 UNF x .170 I.D. flexible tubing
Material: Nylon - Black, Red, White or Blue
Polypropylene - Gray

( ) = Metric Dimensions

Check Chemical Compatability of Polysulfone.

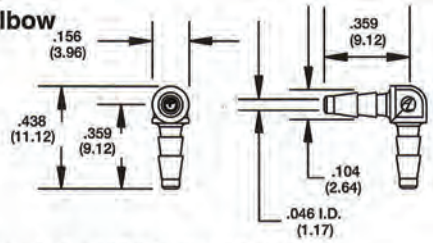
Plastic Fittings

F-3140-80
Barbed Union



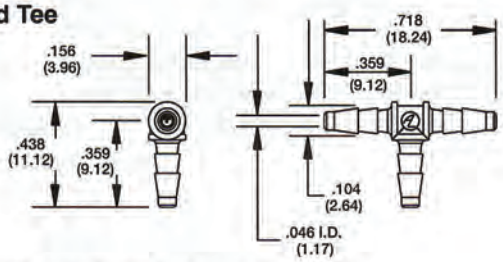
Barbed ports for 1/16" I.D. flexible tubing.
Material: Nylon - Black or White
Polypropylene - Gray

F-3144-80
Barbed Elbow



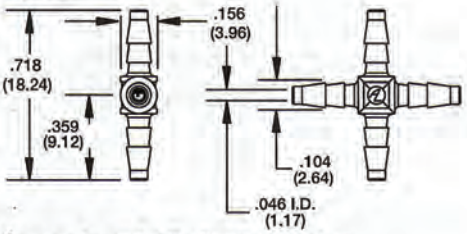
Barbed ports for 1/16" I.D. flexible tubing.
Material: Nylon - Black or White
Polypropylene - Gray

F-3145-80
Barbed Tee



Barbed ports for 1/16" I.D. flexible tubing.
Material: Nylon - Black or White
Polypropylene - Gray

F-3146-80
Barbed Cross

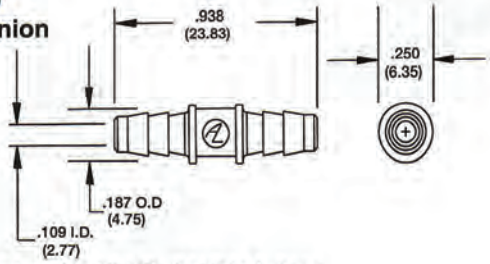


Barbed ports for 1/16" I.D. flexible tubing.
Material: Nylon - Black or White
Polypropylene - Gray

( ) = Metric Dimensions

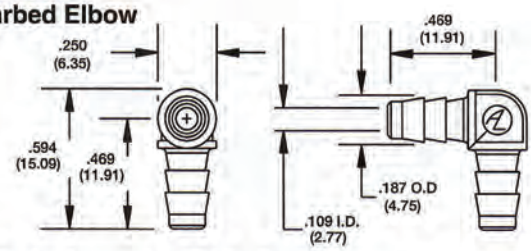
Please Read Warranty on Page 12.

F-3140-85
Barbed Union



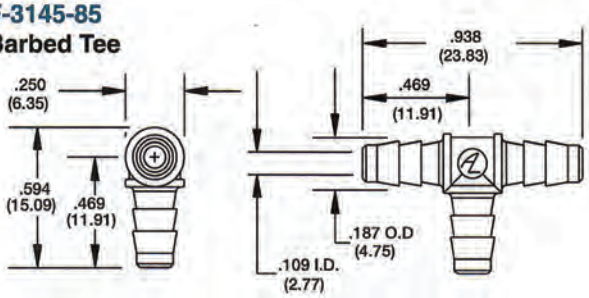
Barbed ports for 1/8" I.D. flexible tubing.
Material: Nylon - Black or White
Polypropylene - Gray

F-3144-85
Barbed Elbow



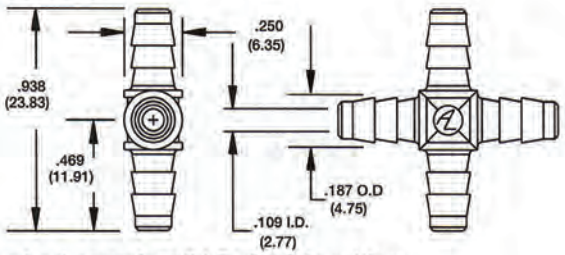
Barbed ports for 1/8" I.D. flexible tubing.
Material: Nylon - Black or White
Polypropylene - Gray

F-3145-85
Barbed Tee



Barbed ports for 1/8" I.D. flexible tubing.
Material: Nylon - Black or White
Polypropylene - Gray

F-3146-85
Barbed Cross



Barbed ports for 1/8" I.D. flexible tubing.
Material: Nylon - Black or White
Polypropylene - Gray

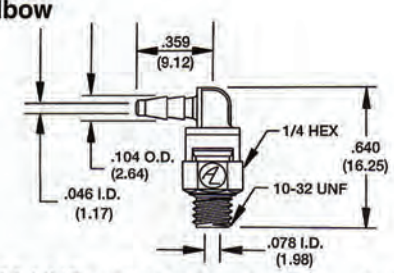
( ) = Metric Dimensions

Check Chemical Compatability of Polysulfone.

Swivel Elbow & Tee Fittings

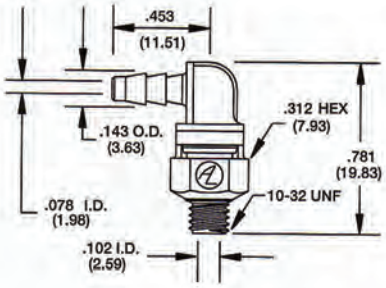
Patent #4,946,204

F-3154-80
Swivel Elbow



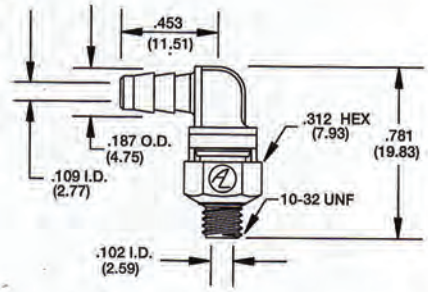
For 10-32 UNF x 1/16" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3154-83
Swivel Elbow



For 10-32 UNF x 3/32" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3154-85
Swivel Elbow

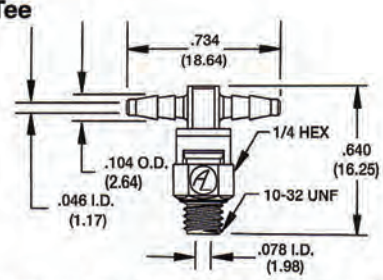


For 10-32 UNF x 1/8" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

( ) = Metric Dimensions

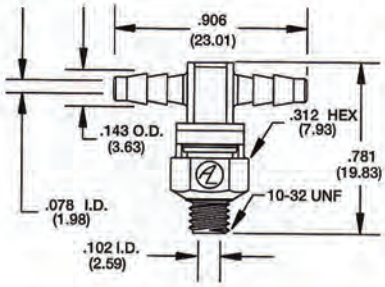
Please Read Warranty on Page 12.

F-3155-80
Swivel Tee



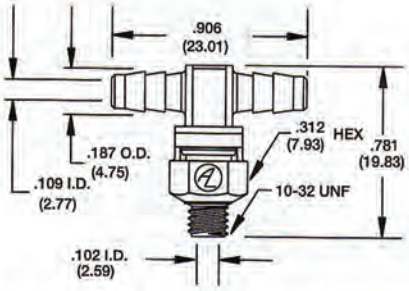
For 10-32 UNF x 1/16" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3155-83
Swivel Tee



For 10-32 UNF x 3/32" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3155-85
Swivel Tee



For 10-32 UNF x 1/8" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

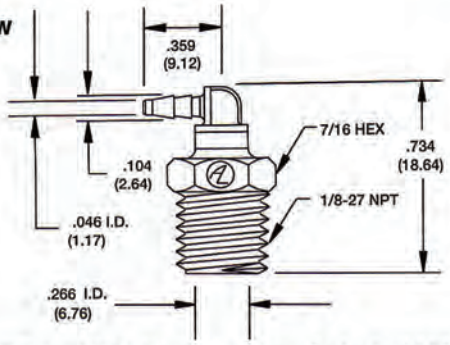
( ) = Metric Dimensions

Check Chemical Compatability of Polysulfone.

Swivel Elbow & Tee Fittings

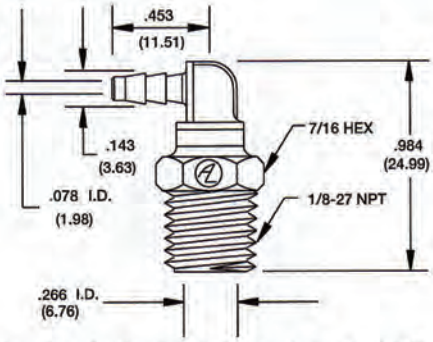
Patent #4,946,204

F-3254-80
Swivel Elbow



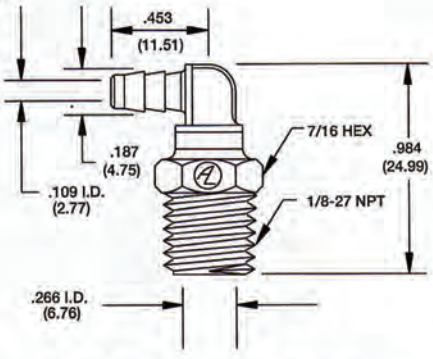
For ⅛-27 NPT x 1/16" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3254-83
Swivel Elbow



For ⅛-27 NPT x 3/32" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3254-85
Swivel Elbow

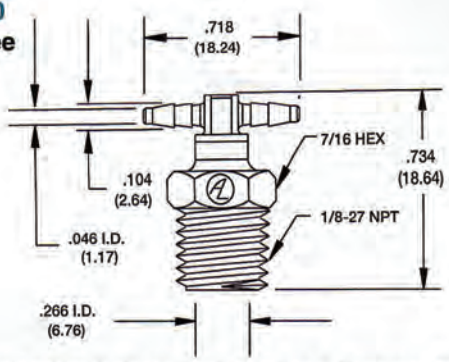


For ⅛-27 NPT x ⅛" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

( ) = Metric Dimensions

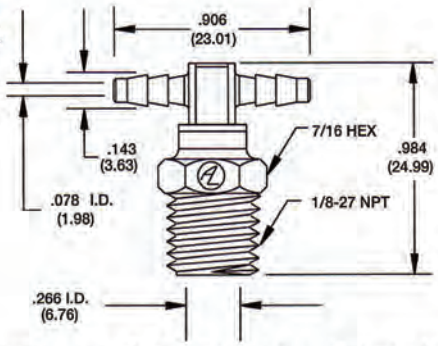
Please Read Warranty on Page 12.

F-3255-80
Swivel Tee



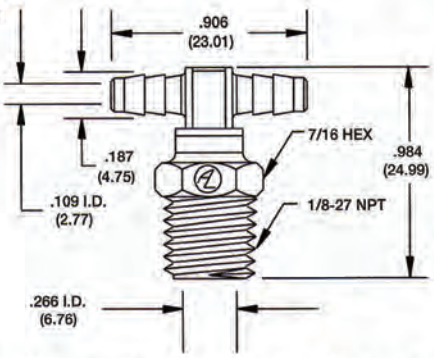
For ⅛-27 NPT x 1/16" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3255-83
Swivel Tee



For ⅛-27 NPT x 3/32" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3255-85
Swivel Tee



For ⅛-27 NPT x ⅛" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

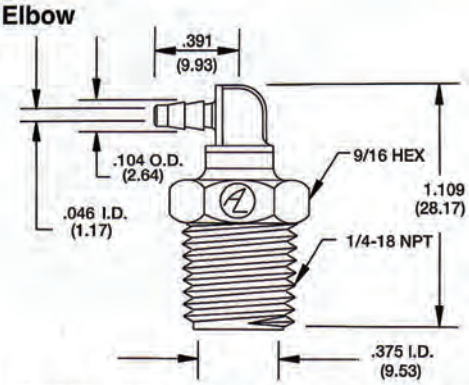
( ) = Metric Dimensions

Check Chemical Compatability of Polysulfone.

Swivel Elbow & Tee Fittings

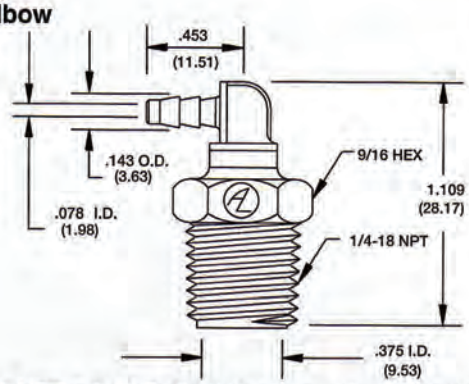
Patent #4,946,204

F-3354-80
Swivel Elbow



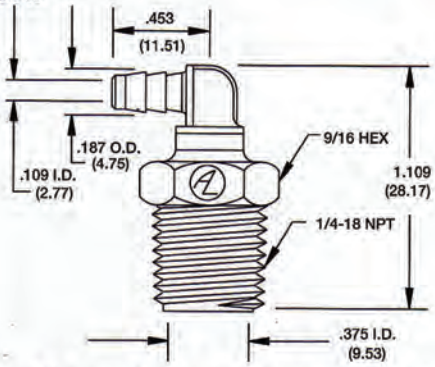
For ¼-18 NPT x 1/16" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3354-83
Swivel Elbow



For ¼-18 NPT x 3/32" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3354-85
Swivel Elbow

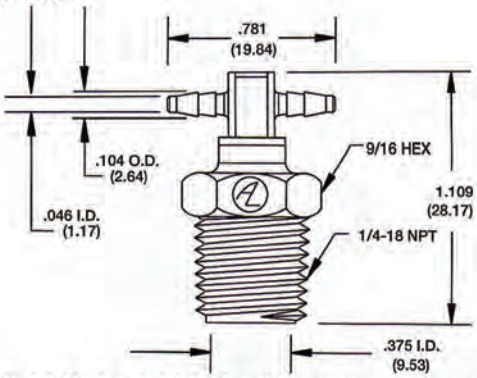


For ¼-18 NPT x ⅛" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

( ) = Metric Dimensions

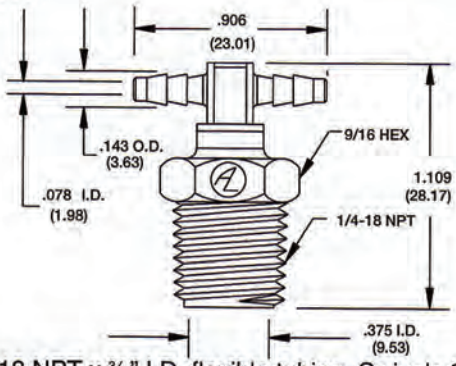
Please Read Warranty on Page 12.

F-3355-80
Swivel Tee



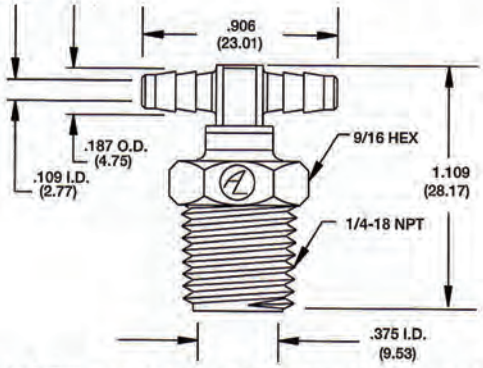
For ¼-18 NPT x 1/16" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3355-83
Swivel Tee



For ¼-18 NPT x 3/32" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3355-85
Swivel Tee



For ¼-18 NPT x ⅛" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

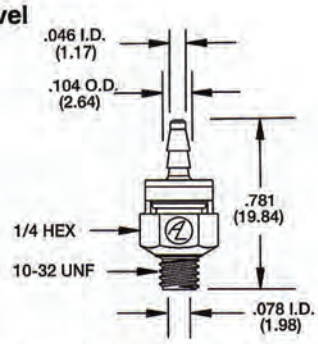
( ) = Metric Dimensions

Check Chemical Compatability of Polysulfone.

Straight Swivel Fittings

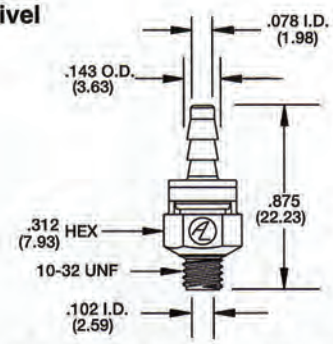
Patent #4,946,204

F-3150-80
Straight Swivel



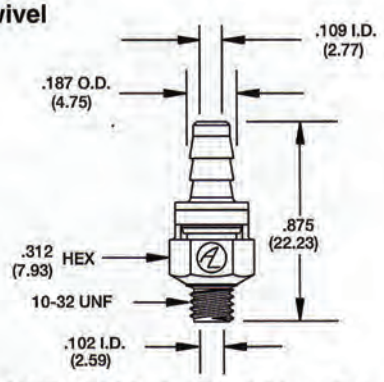
For 10-32 UNF x 1/16" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3150-83
Straight Swivel



For 10-32 UNF x 3/32" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3150-85
Straight Swivel

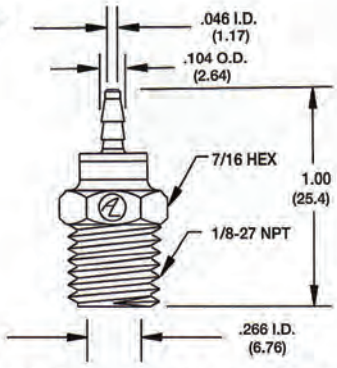


For 10-32 UNF x 1/8" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

( ) = Metric Dimensions

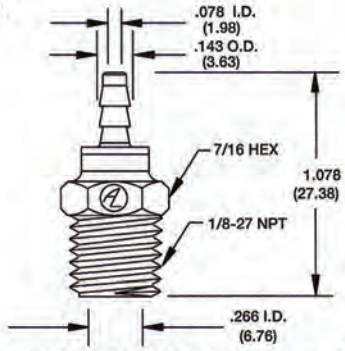
Please Read Warranty on Page 12.

F-3250-80
Straight Swivel



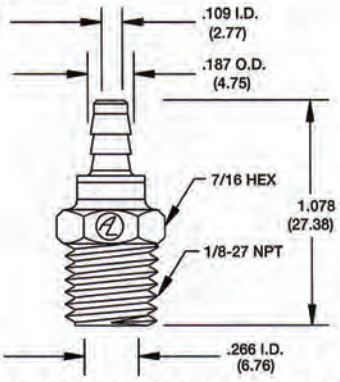
For 1/8-27 NPT x 1/16" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3250-83
Straight Swivel



For 1/8-27 NPT x 3/32" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3250-85
Straight Swivel



For 1/8-27 NPT x 1/8" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

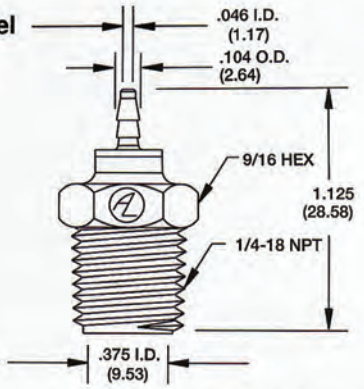
( ) = Metric Dimensions

Check Chemical Compatability of Polysulfone.

Straight Swivel Fittings

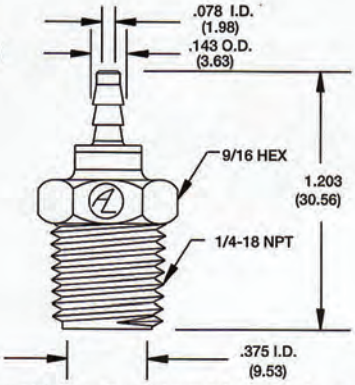
Patent #4,946,204

F-3350-80
Straight Swivel



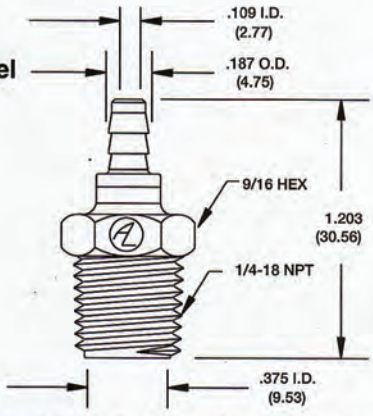
For ¼-18 NPT x 1/16 " I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3350-83
Straight Swivel



For ¼-18 NPT x 3/32" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

F-3350-85
Straight Swivel



For ¼-18 NPT x 1/8" I.D. flexible tubing. Swivels 360°.
Buna-N o-ring seal.
Material: Nylon.

( ) = Metric Dimensions

Please Read Warranty on Page 12.

( ) = Metric Dimensions

Check Chemical Compatability of Polysulfone.