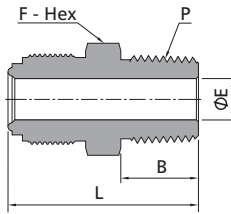
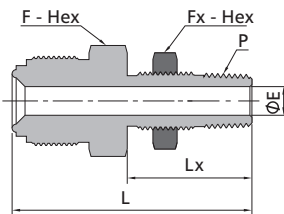


## Bodies

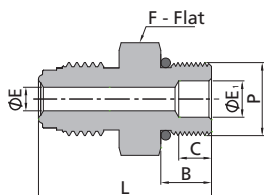


FR Body to Male NPT										
FR Size (in.)	P-NPT Size	Basic Ordering Number	Dimension, in. (mm)				Working Pressure, psig (bar)			
			L	B	E	F	6L	CU	NI	
1/8	1/16	-CM-FR2-NS1	1.07 (27.2)	0.38 (9.7)	0.09 (2.3)	3/8 (9.5)	9000 (620)	7200 (496)	9000 (620)	
1/8	1/8	-CM-FR2-NS2	1.07 (27.2)	0.38 (9.7)	0.09 (2.3)	7/16 (11.1)	9000 (620)	7200 (496)	9000 (620)	
1/4	1/8	-CM-FR4-NS2	1.31 (33.3)	0.38 (9.7)	0.18 (4.6)	5/8 (15.9)	10000 (690)	6400 (440)	8000 (551)	
1/4	1/4	-CM-FR4-NS4	1.49 (37.8)	0.56 (14.2)	0.18 (4.6)	5/8 (15.9)	10000 (690)	6400 (440)	8000 (551)	
1/2	1/4	-CM-FR8-NS4	1.65 (41.9)	0.56 (14.2)	0.28 (7.1)	15/16 (23.8)	4300 (296)	2800 (192)	3500 (241)	
1/2	3/8	-CM-FR8-NS6	1.65 (41.9)	0.56 (14.2)	0.38 (9.7)	15/16 (23.8)	4300 (296)	2800 (192)	3500 (241)	
1/2	1/2	-CM-FR8-NS8	1.84 (46.7)	0.75 (19.1)	0.40 (10.2)	15/16 (23.8)	4300 (296)	2800 (192)	3500 (241)	
3/4	3/4	-CM-FR12-NS12	2.19 (55.6)	0.75 (19.1)	0.62 (15.7)	1 15/16 (33.3)	3700 (254)	2400 (165)	3000 (206)	
1	1	-CM-FR16-NS16	2.47 (62.7)	0.94 (23.9)	0.87 (22.1)	1 5/8 (41.3)	3000 (206)	1900 (130)	3000 (206)	



FR Body to Bulkhead Male Connector												
FR Size (in.)	P-NPT Size	Basic Ordering Number	Dimension, in. (mm)					Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)	Working Pressure, psig (bar)		
			L	Lx	E	F	Fx			6L	CU	NI
1/4	1/4	-CMB-FR4-NS4	2.21 (56.1)	1.24 (31.5)	0.28 (7.1)	13/16 (20.6)	13/16 (20.6)	21/32 (16.7)	0.38 (9.7)	8000 (551)	6400 (440)	8000 (551)
1/2	1/4	-CMB-FR8-NS4	2.34 (59.4)	1.24 (31.5)	0.28 (7.1)	15/16 (23.8)	13/16 (20.6)	21/32 (16.7)	0.38 (9.7)	4370 (301)	2800 (192)	3500 (241)

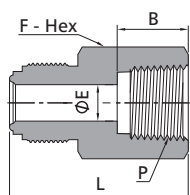
## 11 Face Seal Fittings



### FR Body to SAE/MS Thread

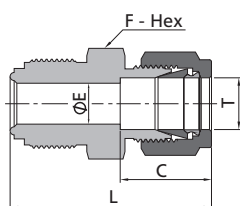
FR Size (in.)	P-SAE/MS Thread Size	Uniform O-ring <sup>①</sup> Size	Basic Ordering Number	Dimension, in. (mm)						Working Pressure, psig (bar)		
				L	B	C	E	E <sub>1</sub>	F	6L	CU	NI
1/4	9/16-18	906	-CM-FR4-ST9	1.33 (33.8)	0.39 (9.9)	0.25 (6.4)	0.18 (4.6)	0.28 (7.1)	3/4 (19.1)	4500 (310)	4500 (310)	4500 (310)
1/2	9/16-18	906	-CM-FR8-ST9	1.48 (37.6)	0.39 (9.9)	—	0.28 (7.1)	0.28 (7.1)	15/16 (23.8)	3500 (241)	2800 (192)	3500 (241)
1/2	7/8-14	910	-CM-FR8-ST14	1.66 (42.2)	0.50 (12.7)	0.40 (10.2)	0.28 (7.1)	0.59 (15.0)	1 (25.4)	3500 (241)	2800 (192)	3500 (241)

<sup>①</sup> Fluorocarbon FKM is standard, contact FITOK Group for other material.



### FR Body to Female NPT

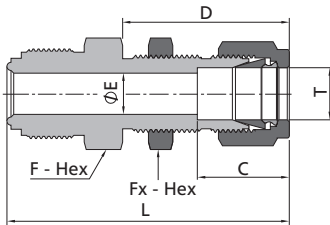
FR Size (in.)	P-NPT Size	Basic Ordering Number	Dimension, in. (mm)				Working Pressure, psig (bar)		
			L	B	E	F	6L	CU	NI
1/8	1/16	-CF-FR2-NS1	1.10 (27.9)	0.39 (9.9)	0.09 (2.3)	7/16 (11.1)	6700 (461)	6700 (461)	6700 (461)
1/8	1/8	-CF-FR2-NS2	1.19 (30.2)	0.41 (10.4)	0.09 (2.3)	9/16 (14.3)	6500 (447)	6500 (447)	6500 (447)
1/4	1/8	-CF-FR4-NS2	1.41 (35.8)	0.41 (10.4)	0.18 (4.6)	5/8 (15.9)	8000 (551)	6400 (440)	8000 (551)
1/4	1/4	-CF-FR4-NS4	1.54 (39.1)	0.59 (15.0)	0.18 (4.6)	3/4 (19.1)	6600 (454)	5200 (358)	6600 (454)
1/2	3/8	-CF-FR8-NS6	1.76 (44.7)	0.59 (15.0)	0.40 (10.2)	15/16 (23.8)	4300 (296)	2800 (192)	3500 (241)
1/2	1/2	-CF-FR8-NS8	1.99 (50.5)	0.78 (19.8)	0.40 (10.2)	1 1/16 (27.0)	4300 (296)	2800 (192)	3500 (241)
3/4	3/4	-CF-FR12-NS12	2.36 (59.9)	0.81 (20.6)	0.62 (15.7)	1 5/16 (33.3)	3700 (254)	2400 (165)	3000 (206)
1	1	-CF-FR16-NS16	2.51 (63.8)	1.00 (25.4)	0.87 (22.1)	1 5/8 (41.3)	3000 (206)	1900 (130)	2400 (165)



### FR Body to Tube Fitting

FR Size (in.)	T-Tube O.D. (in.)	Basic Ordering Number	Dimension, in. (mm)				Working Pressure, psig (bar)		
			L <sup>①</sup>	C	E	F	6L	CU	NI
1/4	1/8	-U-FR4-FL2	1.53 (38.9)	0.50 (12.7)	0.09 (2.3)	5/8 (15.9)	10000 (690)	6400 (440)	8000 (551)
1/4	1/4	-U-FR4-FL4	1.62 (41.1)	0.60 (15.2)	0.18 (4.6)	5/8 (15.9)	10000 (690)	6400 (440)	8000 (551)
1/2	3/8	-U-FR8-FL6	1.84 (46.7)	0.66 (16.8)	0.28 (7.1)	15/16 (23.8)	4300 (296)	2800 (192)	3500 (241)
1/2	1/2	-U-FR8-FL8	1.95 (49.5)	0.90 (22.9)	0.40 (10.2)	15/16 (23.8)	4300 (296)	2800 (192)	3500 (241)

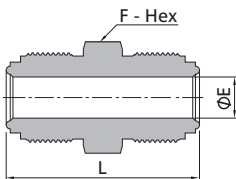
<sup>①</sup> Dimension L is with FITOK nuts finger-tight.



## FR Body to Bulkhead Tube Fitting Union

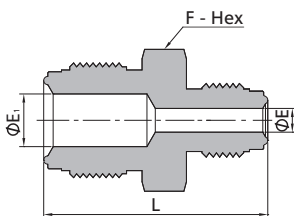
FR Size (in.)	T-Tube O.D. (in.)	Basic Ordering Number	Dimension, in. (mm)						Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)	Working Pressure, psig (bar)		
			L <sup>①</sup>	C	D	E	F	Fx			6L	CU	NI
1/4	1/4	-UB-FR4-FL4	2.25 (57.2)	0.60 (15.2)	1.32 (33.5)	0.18 (4.6)	5/8 (15.9)	5/8 (15.9)	15/32 (11.9)	0.40 (10.2)	10000 (690)	6400 (440)	8000 (551)
1/4	1/4	-UB-FR4-FL4-1.88	1.88 (47.8)	0.60 (15.2)	1.05 (26.7)	0.18 (4.6)	5/8 (15.9)	5/8 (15.9)	15/32 (11.9)	0.13 (3.3)	10000 (690)	6400 (440)	8000 (551)
1/2	3/8	-UB-FR8-FL6	2.54 (64.5)	0.66 (16.8)	1.45 (36.8)	0.28 (7.1)	15/16 (23.8)	3/4 (19.1)	19/32 (15.0)	0.44 (11.2)	4300 (296)	2800 (192)	3500 (241)
1/2	1/2	-UB-FR8-FL8	2.74 (69.6)	0.90 (22.9)	1.65 (41.9)	0.40 (10.2)	15/16 (23.8)	15/16 (23.8)	25/32 (19.8)	0.50 (12.7)	4300 (296)	2800 (192)	3500 (241)

① Dimension L is with FITOK nuts finger-tight.



## Union Body

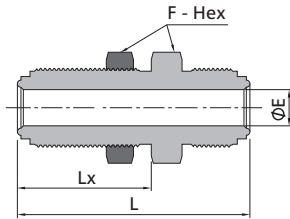
FR Size (in.)	FR Size (in.)	Basic Ordering Number	Dimension, in. (mm)			Working Pressure, psig (bar)		
			L	E	F	6L	CU	NI
1/8	1/8	-U-FR2	1.13 (28.7)	0.09 (2.3)	3/8 (9.5)	11200 (772)	7200 (496)	9000 (620)
1/4	1/4	-U-FR4	1.55 (39.4)	0.18 (4.6)	5/8 (15.9)	10000 (690)	6400 (440)	8000 (551)
1/2	1/2	-U-FR8	1.84 (46.7)	0.40 (10.2)	15/16 (23.8)	4300 (296)	2800 (192)	3500 (241)
3/4	3/4	-U-FR12	2.44 (62.0)	0.62 (15.7)	1 5/16 (33.3)	3700 (254)	2400 (165)	3000 (206)
1	1	-U-FR16	2.59 (65.8)	0.87 (22.1)	1 5/8 (41.3)	3000 (206)	1900 (130)	2400 (165)



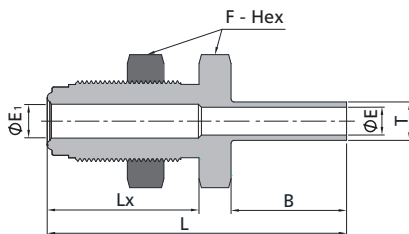
## Reducing Union

FR Size (in.)	FR Size (in.)	Basic Ordering Number	Dimension, in. (mm)				Working Pressure, psig (bar)		
			L	E	E <sub>1</sub>	F	6L	CU	NI
1/4	1/8	-U-FR4-FR2	1.37 (34.8)	0.09 (2.3)	0.18 (4.6)	5/8 (15.9)	10000 (690)	6400 (440)	8000 (551)
1/2	1/4	-U-FR8-FR4	1.71 (43.4)	0.18 (4.6)	0.40 (10.2)	5/16 (23.8)	4300 (296)	2800 (192)	3500 (241)

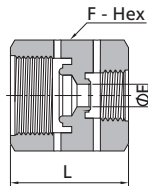
### 13 Face Seal Fittings



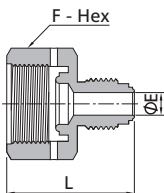
Bulkhead Union Body										
FR Size (in.)	Basic Ordering Number	Dimension, in. (mm)				Panel Hole Drill Size in. (mm)	Max. Panel Thickness in. (mm)	Working Pressure, psig (bar)		
		L	Lx	E	F			6L	CU	NI
1/4	-BU-FR4-1.82	1.82 (46.2)	0.99 (25.1)	0.18 (4.6)	3/4 (19.1)	19/32 (15.0)	0.13 (3.3)	10000 (690)	6400 (440)	8000 (551)
1/4	-BU-FR4	2.23 (56.6)	1.30 (33.3)	0.18 (4.6)	3/4 (19.1)	19/32 (15.0)	0.44 (11.2)	10000 (690)	6400 (440)	8000 (551)
1/2	-BU-FR8-2.14	2.14 (54.4)	1.11 (28.2)	0.40 (10.2)	1 1/16 (27.0)	29/32 (23.1)	0.13 (3.3)	4300 (296)	2800 (192)	3500 (241)
1/2	-BU-FR8	2.57 (65.3)	1.48 (37.6)	0.40 (10.2)	1 1/16 (27.0)	29/32 (23.1)	0.50 (12.7)	4300 (296)	2800 (192)	3500 (241)



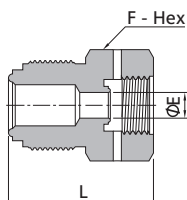
FR Bulkhead Body to Tube Butt Weld													
FR Size (in.)	T-Tube O.D. (in.)	Basic Ordering Number	Dimension, in. (mm)						Panel Hole Drill Size in. (mm)	Max. Panel Thickness in. (mm)	Working Pressure, psig (bar)		
			L	Lx	B	E	E <sub>1</sub>	F			6L	CU	NI
1/4	1/4	-BW-FR4-TB4-1.95	1.95 (49.5)	0.99 (25.1)	0.75 (19.1)	0.18 (4.6)	0.22 (5.6)	0.75 (19.1)	19/32 (15.1)	0.13 (3.3)	5100 (351)	5100 (351)	5100 (351)
1/4	1/4	-BW-FR4-TB4	2.36 (59.9)	1.30 (33.0)	0.75 (19.1)	0.18 (4.6)	0.22 (5.6)	0.75 (19.1)	19/32 (15.1)	0.44 (11.2)	5100 (351)	5100 (351)	5100 (351)



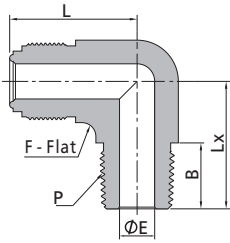
Female Reducing Union									
FR Size (in.)	FR Size (in.)	Basic Ordering Number	Dimension, in. (mm)				Working Pressure, psig (bar)		
			L	E	F	6L	CU	NI	
1/4	1/8	-RU-FR4-FR2	1.16 (29.5)	0.13 (3.3)	3/4 (19.1)	10000 (690)	6400 (440)	8000 (551)	
1/2	1/4	-RU-FR8-FR4	1.41 (35.8)	0.25 (6.4)	1 1/16 (27.0)	4300 (296)	2800 (192)	3500 (241)	



Reducing Adapter									
FR Size (in.)	FR Size (in.)	Basic Ordering Number	Dimension, in. (mm)			Working Pressure, psig (bar)			
			L	E	F	6L	CU	NI	
1/4	1/8	-RA-FR4-FR2	1.19 (30.2)	0.09 (2.3)	3/4 (19.1)	10000 (690)	6400 (440)	8000 (551)	
1/2	1/4	-RA-FR8-FR4	1.41 (35.8)	0.18 (4.6)	1 1/16 (27.0)	4300 (296)	2800 (192)	3500 (241)	

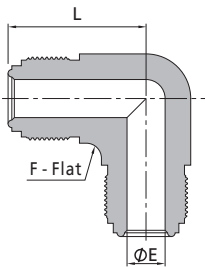


Reducing Bushing									
FR Size (in.)	FR Size (in.)	Basic Ordering Number	Dimension, in. (mm)			Working Pressure, psig (bar)			
			L	E	F	6L	CU	NI	
1/4	1/8	-RB-FR4-FR2	1.06 (26.9)	0.13 (3.3)	5/8 (15.9)	10000 (690)	6400 (440)	8000 (551)	
1/2	1/4	-RB-FR8-FR4	1.41 (35.8)	0.25 (6.4)	15/16 (23.8)	4300 (296)	2800 (192)	3500 (241)	



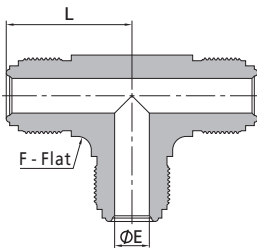
## FR Body to Male NPT Elbow

FR Size (in.)	P-NPT Size	Basic Ordering Number	Dimension, in. (mm)					Working Pressure, psig (bar)		
			L	Lx	B	E	F	6L	CU	NI
1/4	1/8	-LM-FR4-NS2	1.07 (27.2)	0.87 (22.1)	0.38 (9.6)	0.18 (4.6)	1/2 (12.7)	10000 (690)	6400 (440)	8000 (551)
1/4	1/4	-LM-FR4-NS4	1.07 (27.2)	1.05 (26.7)	0.56 (14.2)	0.18 (4.6)	1/2 (12.7)	8000 (551)	8000 (551)	8000 (551)
1/2	3/8	-LM-FR8-NS6	1.45 (36.8)	1.26 (32.0)	0.56 (14.2)	0.40 (10.2)	13/16 (20.6)	4300 (296)	2800 (192)	3500 (241)
1/2	1/2	-LM-FR8-NS8	1.45 (36.8)	1.45 (36.8)	0.75 (19.1)	0.40 (10.2)	13/16 (20.6)	4300 (296)	2800 (192)	3500 (241)



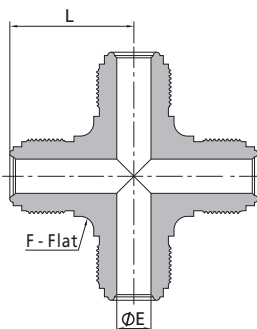
## FR Body Union Elbow

FR Size (in.)	Basic Ordering Number	Dimension, in. (mm)			Working Pressure, psig (bar)		
		L	E	F	6L	CU	NI
1/8	-LU-FR2	0.89 (22.6)	0.09 (2.3)	7/16 (11.1)	11200 (772)	7200 (496)	9000 (620)
1/4	-LU-FR4	1.07 (27.2)	0.18 (4.6)	1/2 (12.7)	10000 (690)	6400 (440)	8000 (551)
1/2	-LU-FR8	1.45 (36.8)	0.40 (10.2)	13/16 (20.6)	4300 (296)	2800 (192)	3500 (241)
3/4	-LU-FR12	1.92 (48.8)	0.62 (15.7)	1 1/4 (31.8)	3700 (254)	2400 (165)	3000 (206)
1	-LU-FR16	2.00 (50.8)	0.87 (22.1)	1 11/16 (42.9)	3000 (206)	1900 (130)	2400 (165)



## FR Body Union Tee

FR Size (in.)	Basic Ordering Number	Dimension, in. (mm)			Working Pressure, psig (bar)		
		L	E	F	6L	CU	NI
1/8	-TTT-FR2	0.89 (22.6)	0.09 (2.3)	7/16 (11.1)	11200 (772)	7200 (496)	9000 (620)
1/4	-TTT-FR4	1.07 (27.2)	0.18 (4.6)	1/2 (12.7)	10000 (690)	6400 (440)	8000 (551)
1/2	-TTT-FR8	1.45 (36.8)	0.40 (10.2)	13/16 (20.6)	4300 (296)	2800 (192)	3500 (241)
3/4	-TTT-FR12	1.92 (48.8)	0.62 (15.7)	1 1/4 (31.8)	3700 (254)	2400 (165)	3000 (206)
1	-TTT-FR16	2.00 (50.8)	0.87 (22.1)	1 11/16 (42.9)	3000 (206)	1900 (130)	2400 (165)



## FR Body Union Cross

FR Size (in.)	Basic Ordering Number	Dimension, in. (mm)			Working Pressure, psig (bar)		
		L	E	F	6L	CU	NI
1/8	-C-FR2	0.89 (22.6)	0.09 (2.3)	7/16 (11.1)	11200 (772)	7200 (496)	9000 (620)
1/4	-C-FR4	1.07 (27.2)	0.18 (4.6)	1/2 (12.7)	10000 (690)	6400 (440)	8000 (551)
1/2	-C-FR8	1.45 (36.8)	0.40 (10.2)	13/16 (20.6)	4300 (296)	2800 (192)	3500 (241)
3/4	-C-FR12	1.92 (48.8)	0.62 (15.7)	1 1/4 (31.8)	3700 (254)	2400 (165)	3000 (206)
1	-C-FR16	2.00 (50.8)	0.87 (22.1)	1 11/16 (42.9)	3000 (206)	1900 (130)	2400 (165)