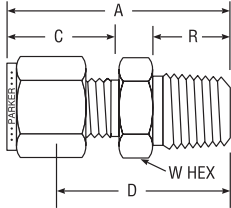
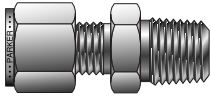


Tube to Male Pipe

NPT Male Connector For fractional tube



CPIT™ PART NO.	A-LOK® PART NO.	INTER-CHANG- ES WITH	INCHES						
			TUBE O.D.	NPT PIPE THREAD	A	C	D	R	W HEX
1-1 FBZ	1MSC1N	100-1-1	1/16	1/16	.93	.43	.78	.38	5/16
1-2 FBZ	1MSC2N	100-1-2	1/16	1/8	1.03	.43	.88	.38	7/16
1-4 FBZ	1MSC4N	100-1-4	1/16	1/4	1.23	.43	1.08	.56	9/16
2-1 FBZ	2MSC1N	200-1-1	1/8	1/16	1.17	.60	.91	.38	3/8
2-2 FBZ	2MSC2N	200-1-2	1/8	1/8	1.20	.60	.94	.38	7/16
2-4 FBZ	2MSC4N	200-1-4	1/8	1/4	1.40	.60	1.14	.56	9/16
2-6 FBZ	2MSC6N	200-1-6	1/8	3/8	1.42	.60	1.16	.56	11/16
2-8 FBZ	2MSC8N	200-1-8	1/8	1/2	1.67	.60	1.41	.75	7/8
3-1 FBZ	3MSC1N	300-1-1	3/16	1/16	1.23	.64	.97	.38	7/16
3-2 FBZ	3MSC2N	300-1-2	3/16	1/8	1.23	.64	.97	.38	7/16
3-4 FBZ	3MSC4N	300-1-4	3/16	1/4	1.43	.64	1.17	.56	9/16
4-1 FBZ	4MSC1N	400-1-1	1/4	1/16	1.29	.70	1.00	.38	1/2
4-2 FBZ	4MSC2N	400-1-2	1/4	1/8	1.29	.70	1.00	.38	1/2
4-4 FBZ	4MSC4N	400-1-4	1/4	1/4	1.49	.70	1.20	.56	9/16
4-6 FBZ	4MSC6N	400-1-6	1/4	3/8	1.51	.70	1.22	.56	11/16
4-8 FBZ	4MSC8N	400-1-8	1/4	1/2	1.76	.70	1.47	.75	7/8
4-12 FBZ	4MSC12N	400-1-12	1/4	3/4	1.82	.70	1.53	.75	1-1/16
5-2 FBZ	5MSC2N	500-1-2	5/16	1/8	1.34	.73	1.05	.38	9/16
5-4 FBZ	5MSC4N	500-1-4	5/16	1/4	1.52	.73	1.23	.56	9/16
5-6 FBZ	5MSC6N	500-1-6	5/16	3/8	1.55	.73	1.25	.56	11/16
5-8 FBZ	5MSC8N	500-1-8	5/16	1/2	1.79	.73	1.5	.75	7/8
6-2 FBZ	6MSC2N	600-1-2	3/8	1/8	1.38	.76	1.09	.38	5/8
6-4 FBZ	6MSC4N	600-1-4	3/8	1/4	1.57	.76	1.28	.56	5/8
6-6 FBZ	6MSC6N	600-1-6	3/8	3/8	1.57	.76	1.28	.56	11/16
6-8 FBZ	6MSC8N	600-1-8	3/8	1/2	1.82	.76	1.53	.75	7/8
6-12 FBZ	6MSC12N	600-1-12	3/8	3/4	1.88	.76	1.59	.75	1-1/16
8-2 FBZ	8MSC2N	810-1-2	1/2	1/8	1.53	.87	1.13	.38	13/16
8-4 FBZ	8MSC4N	810-1-4	1/2	1/4	1.71	.87	1.31	.56	13/16
8-6 FBZ	8MSC6N	810-1-6	1/2	3/8	1.71	.87	1.31	.56	13/16
8-8 FBZ	8MSC8N	810-1-8	1/2	1/2	1.93	.87	1.53	.75	7/8
8-12 FBZ	8MSC12N	810-1-12	1/2	3/4	1.99	.87	1.59	.75	1-1/16
8-16 FBZ	8MSC16N	810-1-16	1/2	1	2.28	.87	1.88	.94	1-3/8
10-6 FBZ	10MSC6N	1010-1-6	5/8	3/8	1.74	.87	1.34	.56	15/16
10-8 FBZ	10MSC8N	1010-1-8	5/8	1/2	1.93	.87	1.53	.75	15/16
10-12 FBZ	10MSC12N	1010-1-12	5/8	3/4	1.99	.87	1.59	.75	1-1/16
12-8 FBZ	12MSC8N	1210-1-8	3/4	1/2	1.99	.87	1.59	.75	1-1/16
12-12 FBZ	12MSC12N	1210-1-12	3/4	3/4	1.99	.87	1.59	.75	1-1/16
12-16 FBZ	12MSC16N	1210-1-16	3/4	1	2.28	.87	1.88	.94	1-3/8
14-12 FBZ	14MSC12N	1410-1-12	7/8	3/4	1.99	.87	1.59	.75	1-3/16
14-16 FBZ	14MSC16N	1410-1-16	7/8	1	2.28	.87	1.88	.94	1-3/8
16-8 FBZ	16MSC8N	1610-1-8	1	1/2	2.27	1.05	1.78	.75	1-3/8
16-12 FBZ	16MSC12N	1610-1-12	1	3/4	2.27	1.05	1.78	.75	1-3/8
16-16 FBZ	16MSC16N	1610-1-16	1	1	2.46	1.05	1.97	.94	1-3/8
20-20 FBZ	20MSC20N	2010-1-20	1-1/4	1-1/4	3.03	1.52	2.17	.97	1-3/4
24-24 FBZ	24MSC24N	2410-1-24	1-1/2	1-1/2	3.50	1.77	2.44	1.00	2-1/8
32-32 FBZ	32MSC32N	3210-1-32	2	2	4.47	2.47	3.00	1.04	2-3/4

NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.

Sizes 20, 24, 32 require additional lubrication prior to assembly.

Color Coding

For easy reference, table column headings are color indicated as follows:

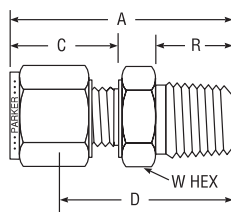
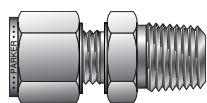
fractional

metric



Tube to Male Pipe

NPT Male Connector For metric tube



Single/Double Ferrule Instrument
Compression Fittings

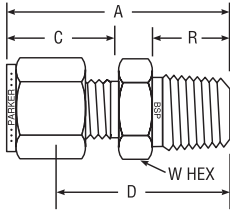
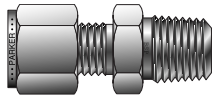
CPI™ PART NO.	A-LOK® PART NO.	INTER- CHANGES WITH	MILLIMETERS						
			TUBE O.D.	NPT PIPE THREAD	A	C	D	R	W HEX
FBZ 2-1/8	M2MSC1/8N	2MO-1-2	2	1/8	29,7	15,3	23,1	9,5	12,0
FBZ 3-1/8	M3MSC1/8N	3MO-1-2	3	1/8	29,7	15,3	23,1	9,5	12,0
FBZ 3-1/4	M3MSC1/4N	3MO-1-4	3	1/4	35,3	15,3	28,7	14,3	14,0
FBZ 4-1/8	M4MSC1/8N	4MO-1-2	4	1/8	31,2	16,1	24,6	9,5	12,0
FBZ 4-1/4	M4MSC1/4N	4MO-1-4	4	1/4	36,3	16,1	29,7	14,3	14,0
FBZ 6-1/8	M6MSC1/8N	6MO-1-2	6	1/8	32,9	17,7	25,4	9,5	14,0
FBZ 6-1/4	M6MSC1/4N	6MO-1-4	6	1/4	38,1	17,7	30,6	14,3	14,0
FBZ 6-3/8	M6MSC3/8N	6MO-1-6	6	3/8	38,5	17,7	31,0	14,3	18,0
FBZ 6-1/2	M6MSC1/2N	6MO-1-8	6	1/2	44,8	17,7	37,3	19,1	22,0
FBZ 8-1/8	M8MSC1/8N	8MO-1-2	8	1/8	34,2	18,6	26,7	9,5	15,0
FBZ 8-1/4	M8MSC1/4N	8MO-1-4	8	1/4	38,8	18,6	31,3	14,3	15,0
FBZ 8-3/8	M8MSC3/8N	8MO-1-6	8	3/8	39,3	18,6	31,8	14,3	18,0
FBZ 8-1/2	M8MSC1/2N	8MO-1-8	8	1/2	45,6	18,6	38,1	19,1	22,0
FBZ 10-1/8	M10MSC1/8N	10MO-1-2	10	1/8	36,1	19,5	28,6	9,5	18,0
FBZ 10-1/4	M10MSC1/4N	10MO-1-4	10	1/4	40,9	19,5	33,3	14,3	18,0
FBZ 10-3/8	M10MSC3/8N	10MO-1-6	10	3/8	40,9	19,5	33,3	14,3	18,0
FBZ 10-1/2	M10MSC1/2N	10MO-1-8	10	1/2	47,5	19,5	38,9	19,1	22,0
FBZ 10-3/4	M10MSC3/4N	10MO-1-12	10	3/4	46,4	19,5	38,9	19,1	27,0
FBZ 10-1	M10MSC1N	10MO-1-16	10	1	55,0	19,5	47,5	23,8	35,0
FBZ 12-1/4	M12MSC1/4N	12MO-1-4	12	1/4	43,4	22,0	33,3	14,3	22,0
FBZ 12-3/8	M12MSC3/8N	12MO-1-6	12	3/8	43,4	22,0	33,3	14,3	22,0
FBZ 12-1/2	M12MSC1/2N	12MO-1-8	12	1/2	49,0	22,0	38,9	19,1	22,0
FBZ 12-3/4	M12MSC3/4N	12MO-1-12	12	3/4	50,5	22,0	40,4	19,1	27,0
FBZ 14-1/4	M14MSC1/4N	14MO-1-4	14	1/4	44,2	22,0	34,1	14,3	24,0
FBZ 14-3/8	M14MSC3/8N	14MO-1-6	14	3/8	44,2	22,0	34,1	14,3	24,0
FBZ 14-1/2	M14MSC1/2N	14MO-1-8	14	1/2	49,0	22,0	38,9	19,1	24,0
FBZ 15-1/2	M15MSC1/2N	15MO-1-8	15	1/2	49,0	22,0	38,9	19,1	24,0
FBZ 16-3/8	M16MSC3/8N	16MO-1-6	16	3/8	44,1	22,0	34,01	14,3	24,0
FBZ 16-1/2	M16MSC1/2N	16MO-1-8	16	1/2	49,0	22,0	38,9	19,1	24,0
FBZ 16-3/4	M16MSC3/4N	16MO-1-12	16	3/4	50,5	22,0	40,5	19,1	27,0
FBZ 18-1/2	M18MSC1/2N	18MO-1-8	18	1/2	50,6	22,0	40,5	19,1	27,0
FBZ 18-3/4	M18MSC3/4N	18MO-1-12	18	3/4	50,6	22,0	40,5	19,1	27,0
FBZ 20-1/2	M20MSC1/2N	20MO-1-8	20	1/2	50,6	22,0	42,2	19,1	30,0
FBZ 20-3/4	M20MSC3/4N	20MO-1-12	20	3/4	52,3	22,0	42,2	19,1	30,0
FBZ 20-1	M20MSC1N	20MO-1-16	20	1	57,7	22,0	47,6	23,8	35,0
FBZ 22-3/4	M22MSC3/4N	22MO-1-12	22	3/4	52,3	22,0	42,2	19,1	35,0
FBZ 24-1/2	M25MSC1/2N	25MO-1-8	25	1/2	57,5	26,5	45,3	19,1	35,0
FBZ 25-3/4	M25MSC3/4N	25MO-1-12	25	3/4	57,5	26,5	45,2	19,1	35,0
FBZ 25-1	M25MSC1N	25MO-1-16	25	1	62,3	26,5	50,0	23,8	35,0

NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.

Tube to Male Pipe

BSP Taper Male Connector For fractional tube

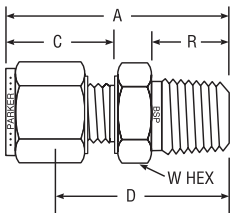
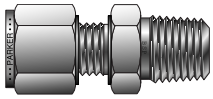


CPI™ PART NO.	A-LOK® PART NO.	INTER- CHANGES WITH	INCHES							
			TUBE O.D.	BSPT THREAD	A	C	D	R	W HEX	BORE
2-2K FBZ	2MSC2K	200-1-2RT	1/8	1/8	1.20	.60	0.94	.38	7/16	.19
2-4K FBZ	2MSC4K	200-1-4RT	1/8	1/4	1.40	.60	1.14	.56	9/16	.19
4-2K FBZ	4MSC2K	400-1-2RT	1/4	1/8	1.30	.70	1.00	.38	1/2	.19
4-4K FBZ	4MSC4K	400-1-4RT	1/4	1/4	1.50	.70	1.20	.56	9/16	.19
4-6K FBZ	4MSC6K	400-1-6RT	1/4	3/8	1.52	.70	1.22	.56	11/16	.19
4-8K FBZ	4MSC8K	400-1-8RT	1/4	1/2	1.77	.70	1.47	.75	7/8	.19
5-2K FBZ	5MSC2K	500-1-2RT	5/16	1/8	1.34	.73	1.05	.38	9/16	.19
5-4K FBZ	5MSC4K	500-1-4RT	5/16	1/4	1.52	.73	1.23	.56	9/16	.19
6-2K FBZ	6MSC2K	600-1-2RT	3/8	1/8	1.39	.76	1.09	.38	5/8	.19
6-4K FBZ	6MSC4K	600-1-4RT	3/8	1/4	1.57	.76	1.28	.56	5/8	.28
6-6K FBZ	6MSC6K	600-1-6RT	3/8	3/8	1.57	.76	1.28	.56	11/16	.28
6-8K FBZ	6MSC8K	600-1-8RT	3/8	1/2	1.82	.76	1.53	.75	7/8	.28
8-4K FBZ	8MSC4K	810-1-4RT	1/2	1/4	1.69	.86	1.31	.56	13/16	.28
8-6K FBZ	8MSC6K	810-1-6RT	1/2	3/8	1.69	.86	1.31	.56	13/16	.38
8-8K FBZ	8MSC8K	810-1-8RT	1/2	1/2	1.91	.66	1.53	.75	7/8	.41

NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.

BSP Taper Male Connector For metric tube



CPI™ PART NO.	A-LOK® PART NO.	INTER- CHANGES WITH	MILLIMETERS						
			TUBE O.D.	BSPT THREAD	A	C	D	R	W HEX
FBZ 2-1/8K	M2MSC1/8K	2MO-1-2RT	2	1/8	29,7	15,3	23,1	9,5	12,0
FBZ 3-1/8K	M3MSC1/8K	3MO-1-2RT	3	1/8	29,7	15,3	23,1	9,7	12,0
FBZ 3-1/4K	M3MSC1/4K	3MO-1-4RT	3	1/4	35,3	15,3	28,7	14,2	14,0
FBZ 4-1/8K	M4MSC1/8K	4MO-1-2RT	4	1/8	31,2	16,1	24,6	9,7	12,0
FBZ 4-1/4K	M4MSC1/4K	4MO-1-4RT	4	1/4	36,3	16,1	29,7	14,2	14,0
FBZ 6-1/8K	M6MSC1/8K	6MO-1-2RT	6	1/8	32,9	17,7	25,4	9,7	14,0
FBZ 6-1/4K	M6MSC1/4K	6MO-1-4RT	6	1/4	40,0	17,7	30,5	14,2	14,0
FBZ 6-3/8K	M6MSC3/8K	6MO-1-6RT	6	3/8	38,5	17,7	31,0	14,2	18,0
FBZ 6-1/2K	M6MSC1/2K	6MO-1-8RT	6	1/2	45,6	17,7	38,1	19,1	22,0
FBZ 8-1/8K	M8MSC1/8K	8MO-1-2RT	8	1/8	33,9	18,6	26,4	9,5	15,0
FBZ 8-1/4K	M8MSC1/4K	8MO-1-4RT	8	1/4	38,7	18,6	31,2	14,2	15,0
FBZ 8-3/8K	M8MSC3/8K	8MO-1-6RT	8	3/8	39,3	18,6	31,8	14,2	18,0
FBZ 8-1/2K	M8MSC1/2K	8MO-1-8RT	8	1/2	45,6	18,6	38,1	19,1	22,0
FBZ 10-1/8K	M10MSC1/8K	10MO-1-2RT	10	1/8	36,2	19,5	28,6	9,5	18,0
FBZ 10-1/4K	M10MSC1/4K	10MO-1-4RT	10	1/4	40,9	19,5	33,3	14,2	18,0
FBZ 10-3/8K	M10MSC3/8K	10MO-1-6RT	10	3/8	40,9	19,5	33,3	14,2	18,0
FBZ 10-1/2K	M10MSC1/2K	10MO-1-8RT	10	1/2	46,5	19,5	38,9	19,1	22,0
FBZ 12-1/4K	M12MSC1/4K	12MO-1-4RT	12	1/4	43,4	22,0	33,3	14,2	22,0
FBZ 12-3/8K	M12MSC3/8K	12MO-1-6RT	12	3/8	43,4	22,0	33,3	14,2	22,0
FBZ 12-1/2K	M12MSC1/2K	12MO-1-8RT	12	1/2	49,0	22,0	38,9	19,1	22,0
FBZ 12-3/4K	M12MSC3/4K	12MO-1-12RT	12	3/4	49,5	22,0	40,4	19,1	27,0
FBZ 15-1/2K	M15MSC1/2K	15MO-1-8RT	15	1/2	49,0	22,0	38,9	19,1	24,0
FBZ 16-3/8K	M16MSC3/8K	16MO-1-6RT	16	3/8	44,2	22,0	34,1	14,2	24,0
FBZ 16-1/2K	M16MSC1/2K	16MO-1-8RT	16	1/2	49,0	22,0	38,9	19,1	24,0
FBZ 16-3/4K	M16MSC3/4K	16MO-1-12RT	16	3/4	49,5	22,0	40,5	19,1	27,0
FBZ 18-1/2K	M18MSC1/2K	18MO-1-8RT	18	1/2	50,6	22,0	40,4	19,1	27,0
FBZ 18-3/4K	M18MSC3/4K	18MO-1-12RT	18	3/4	50,6	22,0	40,4	19,1	27,0
FBZ 20-1/2K	M20MSC1/2K	20MO-1-8RT	20	1/2	52,3	22,0	42,2	19,1	30,0
FBZ 20-3/4K	M20MSC3/4K	20MO-1-12RT	20	3/4	52,3	22,0	42,2	19,1	30,0
FBZ 22-3/4K	M22MSC3/4K	22MO-1-12RT	22	3/4	52,3	22,0	42,2	19,1	30,0
FBZ 25-3/4K	M25MSC3/4K	25MO-1-12RT	25	3/4	57,5	26,5	45,2	19,1	35,0
FBZ 25-1K	M25MSC1K	25MO-1-16RT	25	1	62,3	26,5	50,0	23,9	35,0

NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.

Color Coding

For easy reference, table column headings are color indicated as follows:

fractional

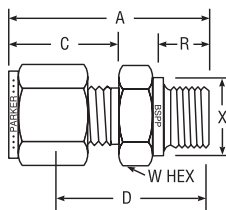
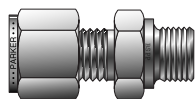


metric



Tube to Male Pipe

BSPF Male Connector For fractional tube



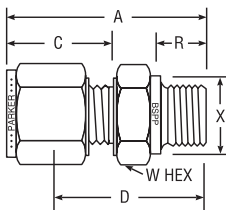
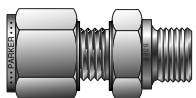
CPI™ PART NO.	A-LOK® PART NO.	INTER- CHANGES WITH	INCHES								
			TUBE O.D.	BSPF THREAD	A	C	D	R	X	W HEX	BORE
2-2R FBZ	2MSC2R	200-1-2RS	1/8	1/8	1.18	.60	0.92	.28	0.54	9/16	.16
2-4R FBZ	2MSC4R	200-1-4RS	1/8	1/4	1.27	.60	1.13	.44	0.70	3/4	.09
2-6R FBZ	2MSC6R	200-1-6RS	1/8	3/8	1.46	.60	1.17	.44	0.86	7/8	.28
4-2R FBZ	4MSC2R	400-1-2RS	1/4	1/8	1.28	.70	0.98	.28	0.54	9/16	.16
4-4R FBZ	4MSC4R	400-1-4RS	1/4	1/4	1.49	.70	1.19	.44	0.70	3/4	.19
4-6R FBZ	4MSC6R	400-1-6RS	1/4	3/8	1.55	.70	1.25	.44	0.86	7/8	.19
4-8R FBZ	4MSC8R	400-1-8RS	1/4	1/2	1.77	.70	1.47	.56	1.01	1-1/16	.19
6-2R FBZ	6MSC2R	600-1-2RS	3/8	1/8	1.35	.76	1.06	.28	0.54	5/8	.16
6-4R FBZ	6MSC4R	600-1-4RS	3/8	1/4	1.54	.76	1.25	.44	0.70	3/4	.25
6-6R FBZ	6MSC6R	600-1-6RS	3/8	3/8	1.57	.76	1.28	.44	0.86	7/8	.28
6-8R FBZ	6MSC8R	600-1-8RS	3/8	1/2	1.82	.76	1.53	.56	1.01	1-1/16	.28
8-4R FBZ	8MSC4R	810-1-4RS	1/2	1/4	1.66	.86	1.28	.44	0.70	13/16	.25
8-6R FBZ	8MSC6R	810-1-6RS	1/2	3/8	1.69	.86	1.31	.44	0.86	7/8	.31
8-8R FBZ	8MSC8R	810-1-8RS	1/2	1/2	1.91	.86	1.53	.56	1.01	1-1/16	.41
12-8R FBZ	12MSC8R	1210-1-8RS	3/4	1/2	1.93	.86	1.53	.56	1.01	1-1/16	.41
12-12R FBZ	12MSC12R	1210-1-12RS	3/4	3/4	2.07	.86	1.69	.63	1.25	1-3/8	.63
16-8R FBZ	16MSC8R	1610-1-8RS	1	1/2	2.21	1.04	1.72	.56	1.01	1-3/8	.41
16-16R FBZ	16MSC16R	1610-1-16RS	1	1	2.35	1.04	1.88	.72	1.52	1-5/8	.88

NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.

Sealing washer must be used with BSPF end shown ISO228/1 (Form A). See page 105.
For Form B undercut change part number and add B before R. e.g. M6MSC1/4BR.

BSPF Male Connector For metric tube



CPI™ PART NO.	A-LOK® PART NO.	INTER-CHANGES WITH	MILLIMETERS								
			TUBE O.D.	BSPF THREAD	A	C	D	R	X	W HEX	
FBZ 2-1/8R	M2MSC1/8R	2MO-1-2RS	2	1/8	28,4	15,3	21,8	7,1	14,0	13,7	
FBZ 3-1/8R	M3MSC1/8R	3MO-1-2RS	3	1/8	30,0	15,3	23,4	7,1	13,7	14,0	
FBZ 3-1/4R	M3MSC1/4R	3MO-1-4RS	3	1/4	35,3	15,3	28,7	11,2	17,8	19,0	
FBZ 6-1/8R	M6MSC1/8R	6MO-1-2RS	6	1/8	32,5	17,7	25,0	7,1	13,7	14,0	
FBZ 6-1/4R	M6MSC1/4R	6MO-1-4RS	6	1/4	37,7	17,7	30,2	11,2	17,8	19,0	
FBZ 6-3/8R	M6MSC3/8R	6MO-1-6RS	6	3/8	39,0	17,7	31,5	11,2	21,8	22,0	
FBZ 6-1/2R	M6MSC1/2R	6MO-1-8RS	6	1/2	45,6	17,7	38,1	14,2	25,7	27,0	
FBZ 8-1/8R	M8MSC1/8R	8MO-1-2RS	8	1/8	33,1	18,6	25,6	7,1	15,0	13,7	
FBZ 8-1/4R	M8MSC1/4R	8MO-1-4RS	8	1/4	38,5	18,6	31,0	11,2	17,8	19,0	
FBZ 8-3/8R	M8MSC3/8R	8MO-1-6RS	8	3/8	39,8	18,6	32,3	11,2	21,8	22,0	
FBZ 8-1/2R	M8MSC1/2R	8MO-1-8RS	8	1/2	45,6	18,6	38,1	14,2	25,7	27,0	
FBZ 10-1/4R	M10MSC1/4R	10MO-1-4RS	10	1/4	39,4	19,5	31,8	11,2	17,8	19,0	
FBZ 10-3/8R	M10MSC3/8R	10MO-1-6RS	10	3/8	40,6	19,5	33,0	11,2	21,8	22,0	
FBZ 10-1/2R	M10MSC1/2R	10MO-1-8RS	10	1/2	46,5	19,5	38,9	14,2	25,7	27,0	
FBZ 12-1/4R	M12MSC1/4R	12MO-1-4RS	12	1/4	42,6	22,0	32,5	11,2	17,8	22,0	
FBZ 12-3/8R	M12MSC3/8R	12MO-1-6RS	12	3/8	43,1	22,0	33,0	11,2	21,8	22,0	
FBZ 12-1/2R	M12MSC1/2R	12MO-1-8RS	12	1/2	49,0	22,0	38,9	14,2	25,7	27,0	
FBZ 12-3/4R	M12MSC3/4R	12MO-1-12RS	12	3/4	52,8	22,0	42,7	16,0	31,8	35,0	
FBZ 16-3/8R	M16MSC3/8R	16MO-1-6RS	16	3/8	43,5	22,0	33,4	11,2	22,0	21,8	
FBZ 16-1/2R	M16MSC1/2R	16MO-1-8RS	16	1/2	49,0	22,0	38,9	14,2	26,0	27,0	
FBZ 18-1/2R	M18MSC1/2R	18MO-1-8RS	18	1/2	49,0	22,0	38,9	14,2	26,0	27,0	
FBZ 18-3/4R	M18MSC3/4R	18MO-1-12RS	18	3/4	53,1	22,0	43,0	16,0	35,0	32,0	
FBZ 20-1/2R	M20MSC1/2R	20MO-1-8RS	20	1/2	50,5	22,0	40,4	14,2	30,0	25,7	
FBZ 20-3/4R	M20MSC3/4R	20MO-1-12RS	20	3/4	52,8	22,0	42,7	16,0	32,0	35,0	
FBZ 22-3/4R	M22MSC3/4R	22MO-1-12RS	22	3/4	52,8	22,0	42,7	16,0	32,0	35,0	
FBZ 25-3/4R	M25MSC3/4R	25MO-1-12RS	25	3/4	59,8	26,5	47,6	16,0	35,0	31,8	
FBZ 25-1R	M25MSC1R	25MO-1-16RS	25	1	60,1	26,5	47,8	18,3	39,0	41,0	

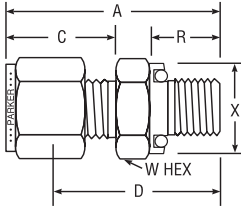
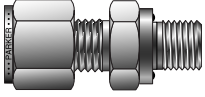
NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.

Sealing washer must be used with BSPF end shown ISO228/1 (Form A). See page 105.
For Form B undercut, add a "B" before the "R." e.g. M6MSC1/4BR.

Tube to Male Pipe

BSPP Male Connector with ED Seal For fractional tube



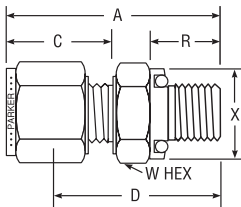
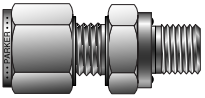
CPI™ PART NO.	A-LOK® PART NO.	INTER- CHANGES WITH	INCHES								
			TUBE O.D.	BSPP THREAD	A	C	D	R	X	W HEX	BORE
4-4R-ED FBZ	4MSC4R-ED	-	1/4	1/4	1.48	.70	1.19	.47	.74	3/4	.19
4-8R-ED FBZ	4MSC8R-ED	-	1/4	1/2	1.76	.70	1.38	.55	1.04	1-1/16	.19
6-6R-ED FBZ	6MSC6R-ED	-	3/8	3/8	1.60	.76	1.31	.47	.86	7/8	.28
8-4R-ED FBZ	8MSC4R-ED	-	1/2	1/4	1.69	.86	1.31	.47	.74	13/16	.25
8-6R-ED FBZ	8MSC6R-ED	-	1/2	3/8	1.69	.86	1.31	.47	.86	7/8	.31
8-8R-ED FBZ	8MSC8R-ED	-	1/2	1/2	1.85	.86	1.47	.55	1.04	1-1/16	.41
12-12R-ED FBZ	12MSC12R-ED	-	3/4	3/4	1.98	.86	1.59	.63	1.25	1-5/16	.63

NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.

ED fittings are supplied with sealing washers in nitrile as standard, suitable for temperatures of between -35°C and +100°C (-31°F to +212°F). Fluorocarbon seals are available upon request which are suitable for temperatures of between -25°C and +120°C (-13°F to +248°F).

Male Connector with ED Seal For metric tube



CPI™ PART NO.	A-LOK® PART NO.	INTER- CHANGES WITH	MILLIMETERS							
			TUBE O.D.	BSPP THREAD	A	C	D	R	X	W HEX
FBZ6-1/8R-ED	M6MSC1/8R-ED	-	6	1/8	32,5	17,7	25,0	7,9	13,7	14,0
FBZ6-1/4R-ED	M6MSC1/4R-ED	-	6	1/4	38,2	17,7	30,7	11,9	18,8	19,0
FBZ6-3/8R-ED	M6MSC3/8R-ED	-	6	3/8	39,5	17,7	32,0	11,9	21,8	22,0
FBZ6-1/2R-ED	M6MSC1/2R-ED	-	6	1/2	44,5	17,7	37,0	14,0	26,4	27,0
FBZ10-1/4R-ED	M10MSC1/4R-ED	-	10	1/4	40,0	19,5	32,3	11,9	18,8	19,0
FBZ10-3/8R-ED	M10MSC3/8R-ED	-	10	3/8	41,1	19,5	38,1	11,9	21,8	22,0
FBZ10-1/2R-ED	M10MSC1/2R-ED	-	10	1/2	46,0	19,5	38,4	14,0	26,4	27,0
FBZ12-1/4R-ED	M12MSC1/4R-ED	-	12	1/4	43,1	22,0	33,0	11,9	18,8	22,0
FBZ12-3/8R-ED	M12MSC3/8R-ED	-	12	3/8	43,6	22,0	33,5	11,9	21,8	22,0
FBZ12-1/2R-ED	M12MSC1/2R-ED	-	12	1/2	48,5	22,0	38,4	14,0	26,4	27,0

NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.

ED fittings are supplied with sealing washers in nitrile as standard, suitable for temperatures of between -35°C and +100°C (-31°F to +212°F). Fluorocarbon seals are available upon request which are suitable for temperatures of between -25°C and +120°C (-13°F to +248°F).

Color Coding

For easy reference, table column headings are color indicated as follows:

fractional

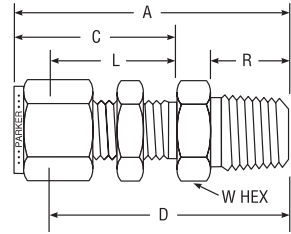
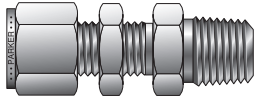


metric



Tube to Male Pipe

NPT Male Bulkhead Connector For fractional tube



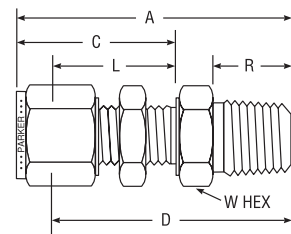
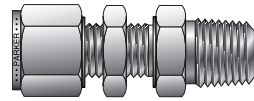
CPI™ PART NO.	A-LOK® PART NO.	INTER- CHANGES WITH	INCHES							
			TUBE O.D.	NPT PIPE THREAD	A	C	D	L	R	W HEX
1-1 FH2BZ	1MBC1N	100-11-1	1/16	1/16	1.19	0.68	1.038	.53	.38	5/16
1-2 FH2BZ	1MBC2N	100-11-2	1/16	1/8	1.27	0.68	1.116	.53	.38	7/16
2-2 FH2BZ	2MBC2N	200-11-2	1/8	1/8	1.83	1.23	1.571	.97	.38	1/2
3-2 FH2BZ	3MBC2N	300-11-2	3/16	1/8	1.89	1.26	1.634	1.00	.38	9/16
4-2 FH2BZ	4MBC2N	400-11-2	1/4	1/8	1.95	1.31	1.655	1.02	.38	5/8
4-4 FH2BZ	4MBC4N	400-11-4	1/4	1/4	2.132	1.31	1.842	1.02	.56	5/8
4-6 FH2BZ	4MBC6N	400-11-6	1/4	3/8	2.162	1.31	1.872	1.02	.56	11/16
4-8 FH2BZ	4MBC8N	400-11-8	1/4	1/2	2.374	1.31	2.084	1.02	.75	7/8
5-2 FH2BZ	5MBC2N	500-11-2	5/16	1/8	2.08	1.42	1.779	1.12	.38	11/16
5-4 FH2BZ	5MBC4N	500-11-4	5/16	1/4	2.27	1.42	1.966	1.12	.56	11/16
6-2 FH2BZ	6MBC2N	600-11-2	3/8	1/8	2.08	1.44	1.788	1.15	.38	3/4
6-4 FH2BZ	6MBC4N	600-11-4	3/8	1/4	2.265	1.44	1.975	1.15	.56	3/4
6-6 FH2BZ	6MBC6N	600-11-6	3/8	3/8	2.265	1.44	1.975	1.15	.56	3/4
6-8 FH2BZ	6MBC8N	600-11-8	3/8	1/2	2.48	1.44	2.219	1.15	.75	7/8
8-4 FH2BZ	8MBC4N	810-11-4	1/2	1/4	2.494	1.65	2.094	1.25	.56	15/16
8-6 FH2BZ	8MBC6N	810-11-6	1/2	3/8	2.494	1.65	2.094	1.25	.56	15/16
8-8 FH2BZ	8MBC8N	810-11-8	1/2	1/2	2.712	1.65	2.312	1.25	.75	15/16
8-12 FH2BZ	8MBC12N	810-11-12	1/2	3/4	2.722	1.65	2.322	1.25	.75	1-1/8
10-6 FH2BZ	10MBC6N	1010-11-6	5/8	3/8	2.628	1.68	2.228	1.28	.56	1-1/16
10-8 FH2BZ	10MBC8N	1010-11-8	5/8	1/2	2.816	1.68	2.416	1.28	.75	1-1/16
12-8 FH2BZ	12MBC8N	1210-11-8	3/4	1/2	3.00	1.87	2.601	1.47	.75	1-3/16
12-12 FH2BZ	12MBC12N	1210-11-12	3/4	3/4	3.00	1.87	2.601	1.47	.75	1-3/16
14-12 FH2BZ	14MBC12N	1410-11-12	7/8	3/4	3.31	2.09	2.913	1.69	.75	1-3/8
16-12 FH2BZ	16MBC12N	1610-11-12	1	3/4	3.54	2.27	3.006	1.78	.75	1-5/8
16-16 FH2BZ	16MBC16N	1610-11-16	1	1	3.72	2.27	3.194	1.78	.94	1-5/8

NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.

For bulkhead hole drill size and maximum bulkhead thickness, see page 61, Part BC.

NPT Male Bulkhead Connector For metric tube



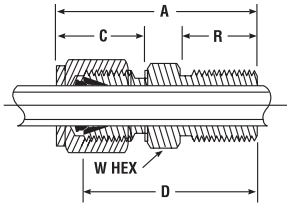
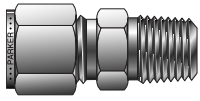
CPI™ PART NO.	A-LOK® PART NO.	INTER- CHANGES WITH	MILLIMETERS									
			TUBE O.D.	NPT THREAD	A	C	D	L	R	W HEX	B'HEAD HOLE DRILL SIZE	MAX. B'HEAD THICK.
FH2BZ 6-1/8	M6MBC1/8N	6MO-11-2	6	1/8	49,6	33,7	42,1	26,2	9,5	16,0	11,5	10,2
FH2BZ 6-1/4	M6MBC1/4N	6MO-11-4	6	1/4	53,5	33,7	46,0	26,2	14,3	16,0	11,5	10,2
FH2BZ 8-1/8	M8MBC1/8N	8MO-11-2	8	1/8	52,3	36,0	44,8	28,5	9,5	18,0	13,1	11,2
FH2BZ 8-1/4	M8MBC1/4N	8MO-11-4	8	1/4	57,5	36,0	50,0	28,5	14,3	18,0	13,1	11,2
FH2BZ 10-1/4	M10MBC1/4N	10MO-11-4	10	1/4	58,4	37,0	50,8	29,4	14,3	22,0	16,3	11,2
FH2BZ 10-3/8	M10MBC3/8N	10MO-11-6	10	3/8	58,4	37,0	50,8	29,4	14,3	22,0	16,3	11,2
FH2BZ 10-1/2	M10MBC1/2N	10MO-11-8	10	1/2	63,1	37,0	55,5	29,4	19,0	22,0	16,3	11,2
FH2BZ 12-1/4	M12MBC1/4N	12MO-11-4	12	1/4	63,3	10,1	53,2	31,8	14,3	24,0	19,5	12,7
FH2BZ 12-3/8	M12MBC3/8N	12MO-11-6	12	3/8	64,5	10,1	54,4	31,8	14,3	24,0	19,5	12,7
FH2BZ 12-1/2	M12MBC1/2N	12MO-11-8	12	1/2	67,5	10,1	57,4	31,8	19,0	24,0	19,5	12,7

NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.

Tube to Male Pipe

Thermocouple Connector For fractional tube

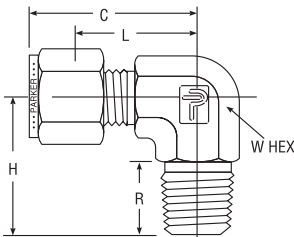
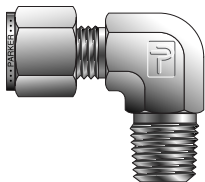


CPI™ PART NO.	A-LOK® PART NO.	INTER- CHANGES WITH	INCHES						
			TUBE O.D.	NPT PIPE THREAD	A	C	D	R	W HEX
1-1 FH4BZ	1MTC1N	100-1-1BT	1/16	1/16	0.93	.43	0.78	.38	5/16
1-2 FH4BZ	1MTC2N	100-1-2BT	1/16	1/8	1.03	.43	0.88	.38	7/16
1-4 FH4BZ	1MTC4N	100-1-4BT	1/16	1/4	1.23	.43	1.08	.56	9/16
2-1 FH4BZ	2MTC1N	200-1-1BT	1/8	1/16	1.17	.60	0.91	.38	3/8
2-2 FH4BZ	2MTC2N	200-1-2BT	1/8	1/8	1.20	.60	0.94	.38	7/16
2-4 FH4BZ	2MTC4N	200-1-4BT	1/8	1/4	1.40	.60	1.14	.56	9/16
3-2 FH4BZ	3MTC2N	300-1-2BT	3/16	1/8	1.23	.64	0.97	.38	7/16
3-4 FH4BZ	3MTC4N	300-1-4BT	3/16	1/4	1.43	.64	1.17	.56	9/16
4-2 FH4BZ	4MTC2N	400-1-2BT	1/4	1/8	1.29	.70	1.00	.38	1/2
4-4 FH4BZ	4MTC4N	400-1-4BT	1/4	1/4	1.49	.70	1.20	.56	9/16
4-6 FH4BZ	4MTC6N	400-1-6BT	1/4	3/8	1.60	.70	1.22	.56	11/16
4-8 FH4BZ	4MTC8N	400-1-8BT	1/4	1/2	1.87	.70	1.47	.75	7/8
5-4 FH4BZ	5MTC4N	500-1-4BT	5/16	1/4	1.52	.73	1.22	.56	9/16
6-4 FH4BZ	6MTC4N	600-1-4BT	3/8	1/4	1.57	.76	1.28	.56	5/8
6-6 FH4BZ	6MTC6N	600-1-6BT	3/8	3/8	1.57	.76	1.28	.56	11/16
6-8 FH4BZ	6MTC8N	600-1-8BT	3/8	1/2	1.82	.76	1.53	.75	7/8
6-12 FH4BZ	6MTC12N	600-1-12BT	3/8	3/4	1.88	.76	1.59	.75	1-1/16
8-8 FH4BZ	8MTC8N	810-1-8BT	1/2	1/2	1.93	.87	1.53	.76	7/8
8-12 FH4BZ	8MTC12N	810-1-12BT	1/2	3/4	1.99	.87	1.59	.75	1-1/16
10-12 FH4BZ	10MTC12N	1010-1-12BT	5/8	3/4	1.99	.87	1.59	.75	1-1/16
12-12 FH4BZ	12MTC12N	1210-1-12BT	3/4	3/4	1.99	.87	1.59	.75	1-1/16
16-16 FH4BZ	16MTC16N	1610-1-16BT	1	1	2.46	1.05	1.97	.94	1-3/8

NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.

NPT Male Elbow For fractional tube



CPI™ PART NO.	A-LOK® PART NO.	INTER- CHANGES WITH	INCHES						
			TUBE O.D.	NPT PIPE THREAD	C	H	L	R	W HEX
1-1 CBZ	1MSEL1N	100-2-1	1/16	1/16	.75	0.70	.60	.38	7/16
1-2 CBZ	1MSEL2N	100-2-2	1/16	1/8	.75	0.70	.60	.38	7/16
2-1 CBZ	2MSEL1N	200-2-1	1/8	1/16	.93	0.70	.67	.38	7/16
2-2 CBZ	2MSEL2N	200-2-2	1/8	1/8	.93	0.70	.67	.38	7/16
2-4 CBZ	2MSEL4N	200-2-4	1/8	1/4	.97	0.93	.72	.56	9/16
3-2 CBZ	3MSEL2N	300-2-2	3/16	1/8	1.00	0.74	.74	.38	1/2
3-4 CBZ	3MSEL4N	300-2-4	3/16	1/4	1.00	0.93	.74	.56	9/16
4-1 CBZ	4MSEL1N	400-2-1	1/4	1/16	1.06	0.74	.77	.38	1/2
4-2 CBZ	4MSEL2N	400-2-2	1/4	1/8	1.06	0.74	.77	.38	1/2
4-4 CBZ	4MSEL4N	400-2-4	1/4	1/4	1.06	0.93	.77	.56	9/16
4-6 CBZ	4MSEL6N	400-2-6	1/4	3/8	1.17	1.04	.88	.56	11/16
4-8 CBZ	4MSEL8N	400-2-8	1/4	1/2	1.25	1.31	.96	.75	13/16
5-2 CBZ	5MSEL2N	500-2-2	5/16	1/8	1.13	0.79	.84	.38	9/16
5-4 CBZ	5MSEL4N	500-2-4	5/16	1/4	1.13	0.97	.84	.56	9/16
6-2 CBZ	6MSEL2N	600-2-2	3/8	1/8	1.20	0.82	.91	.38	5/8
6-4 CBZ	6MSEL4N	600-2-4	3/8	1/4	1.20	1.01	.91	.56	5/8
6-6 CBZ	6MSEL6N	600-2-6	3/8	3/8	1.23	1.13	.97	.56	11/16
6-8 CBZ	6MSEL8N	600-2-8	3/8	1/2	1.31	1.31	1.02	.75	13/16
6-12 CBZ	6MSEL12N	600-2-12	3/8	3/4	1.46	1.46	1.17	.75	1-1/16
8-4 CBZ	8MSEL4N	810-2-4	1/2	1/4	1.42	1.12	1.02	.56	13/16
8-6 CBZ	8MSEL6N	810-2-6	1/2	3/8	1.42	1.12	1.02	.56	13/16
8-8 CBZ	8MSEL8N	810-2-8	1/2	1/2	1.42	1.31	1.02	.75	13/16
8-12 CBZ	8MSEL12N	810-2-12	1/2	3/4	1.57	1.46	1.17	.75	1-1/16
10-6 CBZ	10MSEL6N	1010-2-6	5/8	3/8	1.50	1.20	1.10	.56	15/16
10-8 CBZ	10MSEL8N	1010-2-8	5/8	1/2	1.50	1.39	1.10	.75	15/16
10-12 CBZ	10MSEL12N	1010-2-12	5/8	3/4	1.57	1.46	1.17	.75	1-1/16
12-8 CBZ	12MSEL8N	1210-2-8	3/4	1/2	1.57	1.46	1.17	.75	1-1/16
12-12 CBZ	12MSEL12N	1210-2-12	3/4	3/4	1.57	1.46	1.17	.75	1-1/16
14-12 CBZ	14MSEL12N	1410-2-12	7/8	3/4	1.76	1.65	1.36	.75	1-3/8
16-12 CBZ	16MSEL12N	1610-2-12	1	3/4	1.93	1.65	1.45	.75	1-3/8
16-16 CBZ	16MSEL16N	1610-2-16	1	1	1.93	1.84	1.45	.94	1-3/8
20-20 CBZ	20MSEL20N	2010-2-20	1-1/4	1-1/4	2.61	1.88	1.75	.97	1-5/8
24-24 CBZ	24MSEL24N	2410-2-24	1-1/2	1-1/2	3.06	2.38	2.00	1.00	1-7/8
32-32 CBZ	32MSEL32N	3200-2-32	2	2	4.22	2.79	2.75	1.04	2-13/16

NOTE: C dimension is typical finger-tight.

Dimensions for reference only, subject to change.

Sizes 20, 24 require additional lubrication prior to assembly.

Color Coding

For easy reference, table column headings are color indicated as follows:

fractional



metric

