



Factory Test, Cleaning and Packaging

Using cleaned and passivated parts, the hoses and end connection are welded. Every hose assembly of MFH, FH & PFH Series is factory tested using nitrogen or clean air @1000 psig (68 bar) at the room temperature, and individually packed in a plastic sealing bag with an external label. The hydrostatic test of 1.1 times the working pressure or helium leak test is optional.

High-Pressure - MFH Series

Pressure Rating up to 3,600psig (248bar)



Materials of Construction

1. Wire braid	ASTM A313 Type316L
2. Core Bellows Tube	ASTM A240 Type 316L
3. End Connection	ASTM A479 or A276 Type 316

Features

- High Pressure Application Up to 3600 psig with 316 Stainless Steel Construction.
- High Temperature Application up to 850°F (454°C).
- Wide Choices of End Connections of DK-Lok Tube Port, DK-Lok Tube Stub Adapter, Swivel 37 degree Female, Male and Female NPT/ISO Tapered thread.
- Products Type Approved by DNV : Certificate No. P-12877

Applications

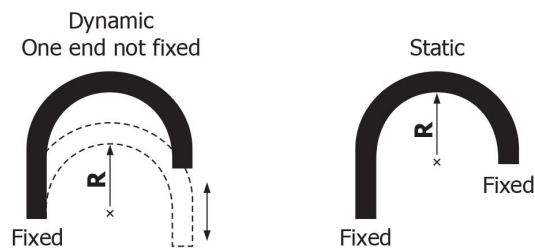
- Air, Gas, Steam, Vacuum and Water line.

IDK-LOK® High Pressure - MFH Series

Table 1. Working and Burst Pressure at Temperature

Nominal Hose Size, in. (mm)	MFH Series Designator	Temperature Range	Working Pressure psig (bar)	Burst Pressure Minimum psig (bar)	Bending Radius (1) Minimum in (mm)	
			@ -325 to 100°F (-200 to 37°C)	@ 70°F(20°C)	Static	Dynamic
1/4 (6.35)	MFH4	-325 to 850°F (-200 to 454°C)	3600 (248)	14400(992)	2.25 (57.2)	10.0 (254.0)
3/8 (9.52)	MFH6		2500 (172)	10000(689)	3.00 (76.2)	12.0 (305.0)
1/2 (12.70)	MFH8		2200 (151)	8800(606)	4.50 (114.3)	16.0 (406.4)

(1) Radius measured to inside of bend



Pressure Temperature Ratings

To determine an allowable pressure at a specific temperature, multiply the working pressure on table 1 by an applicable factor shown on table 2. Example: MFH6 Series at 500°F(260°C). 2500 psig x 0.65 = 1,625psig

Table 2. Temperature De-rating Factors

Temperature, °F	-325	100	200	300	400	500	600	700	800	850
Temperature, °C	-200	37	93	148	204	260	315	371	426	454
Factors	1.00	1.00	0.84	0.76	0.70	0.65	0.62	0.59	0.57	0.56

Ordering Information and Table of Dimensions

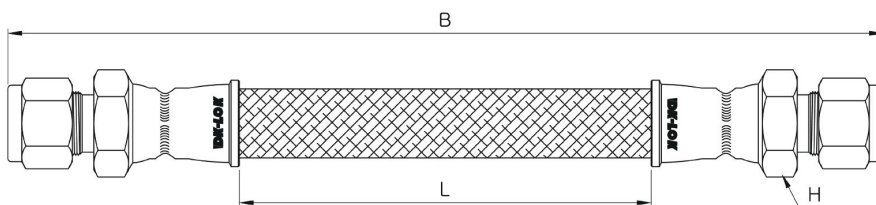


Table 3. Hose Assembly of DK-Lok Tube Fittings at both Ends.

Ordering Number	END Connections DK-Lok Tube Fittings	Overall Length B	Live Length L	Min. I.D. in. (mm)	Hex. Flat H in.
		in. (cm)	in. (cm)		
MFH4-	DL4DL4-12-S	12.0 (30.5)	8.12 (20.6)	0.19 (4.8)	13/16
	DL4DL4-36-S	36.0 (91.4)	32.1 (81.5)		
	DL4DL4-48-S	48.0 (122)	44.1 (112)		
MFH6-	DL6DL6-18-S	18.0 (45.7)	14.0 (35.6)	0.28 (7.1)	15/16
	DL6DL6-36-S	36.0 (91.4)	32.0 (81.3)		
	DL6DL6-48-S	48.0 (122)	44.1 (112)		
MFH8-	DL8DL8-18-S	18.0 (45.7)	13.5 (34.3)	0.40 (10.2)	1 1/16
	DL8DL8-48-S	48.0 (122)	43.5 (110)		

IDK-LOK® High Pressure - MFH Series

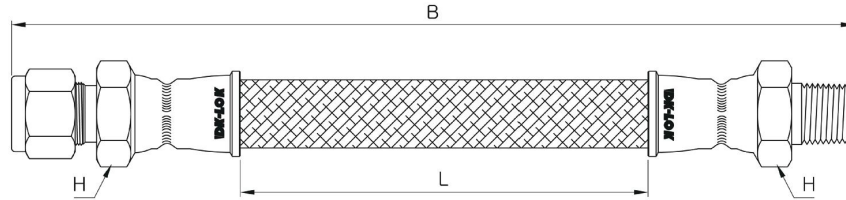


Table 4. Hose Assembly of DK-Lok Tube Fitting end to Male NPT end

Ordering Number	END Connections		Overall Length B in. (cm)	Live Length L in. (cm)	Min. I.D. in. (mm)	Hex. Flat H in.	
	DK-Lok Tube Fittings	NPT Thread					
MFH4-	DL4M4N-12-S	1/4	1/4	12.0 (30.5)	8.26 (21.0)	0.19 (4.8)	13/16
	DL4M4N-36-S			36.0 (91.4)	32.3 (82.0)		
	DL4M4N-48-S			48.0 (122)	44.3 (112.5)		
MFH6-	DL6M6N-18-S	3/8	3/8	18.0 (45.7)	14.2 (36.1)	0.28 (7.1)	15/16
	DL6M6N-36-S			36.0 (91.4)	32.2 (81.8)		
	DL6M6N-48-S			48.0 (122)	44.2 (112.3)		
MFH8-	DL8M8N-18-S	1/2	1/2	18.0 (45.7)	13.6 (34.5)	0.40 (10.2)	1 1/16
	DL8M8N-48-S			48.0 (122)	43.6 (111.0)		

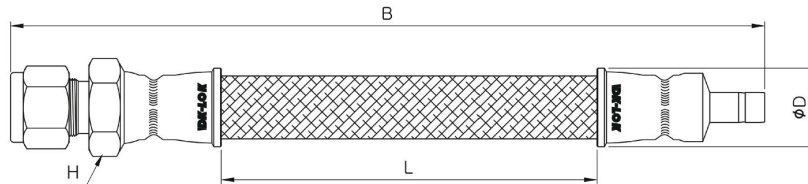


Table 5. Hose Assembly of DK-Lok Tube Fitting end to Tube Stub Adapter end

Ordering Number	END Connections		Overall Length B in. (cm)	Live Length L in. (cm)	Min. I.D. in. (mm)	Hex. Flat H in.	O.D. D in. (mm)	
	DK-Lok Tube Fittings	Tube Stub Adapter						
MFH4-	DL4TA4-12-S	1/4	1/4	12.0 (30.5)	8.26 (21.0)	0.16 (4.1)	13/16	19.0 (0.75)
	DL4TA4-24-S			24.0 (61.0)	20.3 (51.5)			
	DL4TA4-36-S			36.0 (91.4)	32.3 (82.0)			
	DL4TA4-48-S			48.0 (122)	44.3 (112.5)			
MFH8-	DL8TA8-12-S	1/2	1/2	12.0 (30.5)	7.5 (19.0)	0.37 (9.40)	1 1/16	26.7 (1.05)
	DL8TA8-24-S			24.0 (61.0)	19.5 (49.0)			
	DL8TA8-36-S			36.0 (91.4)	31.5 (80.0)			
	DL8TA8-48-S			48.0 (122)	43.5 (110)			

End Connections

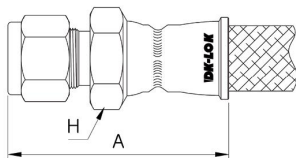


Table 6. DK-Lok Tube Fitting Ends

Applicable Hose Series	Designator	DK-LOK Tube Fittings	Dimensions, in. (mm)		
			Length A	Hex. Flat H	Min. I.D.
MFH4-	DL4	1/4	1.94 (49.3)	13/16 in.	0.19 (4.8)
MFH6-	DL6	3/8	2.02 (51.3)	15/16 in.	0.28 (7.1)
MFH8-	DL8	1/2	2.24 (56.9)	1 1/16 in.	0.41 (10.4)
MFH4-	DM6M	6M	2.45 (62.2)	13/16 in.	0.19 (4.8)
MFH6-	DM8M	8M	2.49 (63.2)	15/16 in.	0.25 (6.4)
MFH6-	DM10M	10M	2.03 (51.6)	15/16 in.	0.31 (7.9)
MFH8-	DM12M	12M	2.24 (56.9)	1 1/16 in.	0.38 (9.7)

End Connections

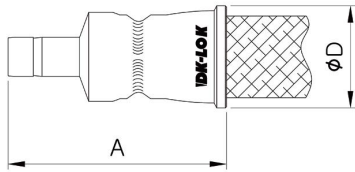


Table 7. Tube Stub Adapter Ends

Applicable Hose Series	Designator	Tube OD Size	Dimensions, in. (mm)		
			Length A	O.D. D	Min. I.D.
Fractional					
MFH4	TA4	1/4	1.76 (44.7)	19.0 (0.75)	0.16 (4.1)
MFH6	TA6	3/8	1.82 (46.2)	23.6 (0.93)	0.27 (6.9)
MFH8	TA8	1/2	2.22 (56.4)	26.7 (1.05)	0.37 (9.4)
Metric					
MFH4	TM6	6M	1.75 (44.4)	19.0 (0.75)	0.16 (4.1)
MFH6	TM10	10M	1.85 (47.0)	23.6 (0.93)	0.28 (7.1)
MFH8	TM12	12M	2.25 (57.2)	26.7 (1.05)	0.35 (8.9)

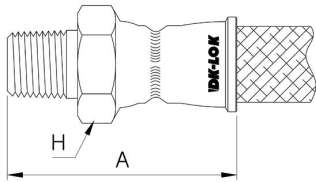


Table 8. Male Pipe Ends

Applicable Hose Series	Designator	Pipe Size	Dimensions, in. (mm)		
			Length A	Hex. Flat H	Min. I.D.
NPT Threads					
MFH4	M4N	1/4	1.80 (45.7)	13/16 in.	0.19 (4.8)
MFH6			1.81 (46.0)	15/16 in.	
MFH6	M6N	3/8	1.81 (46.0)	15/16 in.	0.38 (9.7)
MFH8	M8N	1/2	2.15 (54.5)	1 1/16 in.	0.47 (11.9)
BSP/ISO Threads					
MFH4	M4R	1/4	1.80 (45.7)	13/16 in.	0.28 (7.1)
MFH8	M8R	1/2	2.16 (54.9)	1 1/16 in.	0.47 (11.9)

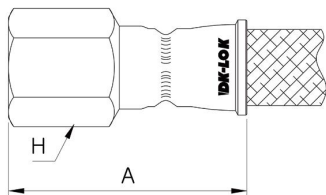


Table 9. Female Pipe Ends

Applicable Hose Series	Designator	NPT Thread Size	Dimensions, in. (mm)		
			Length A	Hex. Flat H	Min. I.D.
MFH4	F4N	1/4	1.81 (46.0)	13/16 in.	0.28 (7.1)
MFH6	F6N	3/8	1.85 (47.0)	15/16 in.	0.38 (9.7)
MFH8	F8N	1/2	2.18 (55.5)	1 1/16 in.	0.47 (11.9)

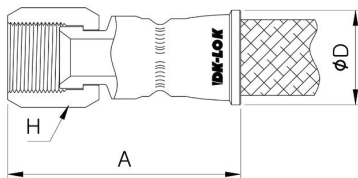


Table 10. SAE J514, 37 degree Swivel Ends

Applicable Hose Series	Designator	Female Size	Dimensions, in. (mm)		
			Length A	O.D. D	Min. I.D.
MFH4	KS4	1/4	1.87 (47.5)	19.0 (0.75)	0.17 (4.3)
MFH6	KS6	3/8	1.97 (50.0)	23.6 (0.93)	0.28 (7.1)
MFH8	KS8	1/2	2.15 (54.6)	26.7 (1.05)	0.42 (10.7)

Medium-Pressure - FH Series

Pressure Rating up to 1,600psig (110bar)

Features

- Designed for general purpose including positive pressure and vacuum service.
- Stainless steel construction of core bellows tube, wire braid, and end connection.
- Single braid layer for pressure containment.
- Custom length available.

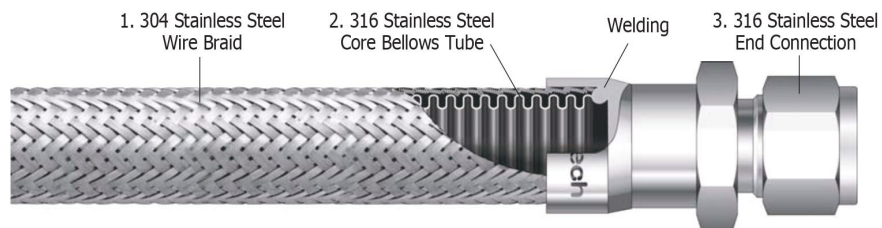


Table 11. **Working / Burst Pressure and Temperature**

Nominal Hose Size, in. (mm)	FH Series	Temperature Range	Working Pressure psig (bar)	Burst Pressure psig (bar)	Minimum Bending Radius in (mm)	
			@ -325 to 300°F (-200 to 148°C)	@ 70°F (20°C)	Static	Dynamic
3/4 (19.05)	FH12	-325 to 800°F (-200 to 426°C)	860 (59.2)	3500 (241)	1.61 (40.9)	8.86 (225)
1 (25.4)	FH16		680 (46.8)	2680 (184)	1.89 (48.0)	10.2 (259)
1 1/4 (31.75)	FH20		680 (46.8)	2600 (179)	2.16 (54.9)	11.8 (300)
1 1/2 (38.10)	FH24		520 (35.8)	2200 (151)	2.33 (59.2)	13.4 (340)
2 (50.80)	FH32		450 (31.0)	1800 (124)	3.10 (78.7)	15.4 (391)

* For 1/4", 3/8" and 1/2" of FH Series Medium Pressure Metal Flexible Hoses, They are no longer available but they can be replaced with MFH Series High Pressure Metal Flexible Hoses.

Table 12. **Temperature De-rating Factors**

To determine an allowable pressure at a specific temperature, multiply the working pressure on table 11 by an applicable factor shown on table 12.

Example : FH12 Series at 750°F(398°C). 860 psig x 0.75 = 645psig

Temperature, °F	-325 to 300	400	500	600	700	750	800
Temperature, °C	-200 to 148	204	260	315	371	398	426
Factors	1.00	0.93	0.86	0.81	0.77	0.75	0.74

Ordering Information and Table of Dimensions

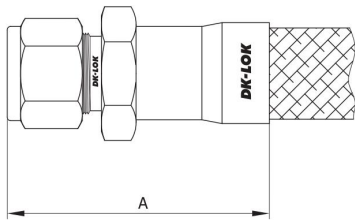


Table 13. Hose Assembly of DK-LOK Tube Fittings at both Ends.

Ordering Number	Ordering Number	End Connections		Overall Length in. (cm)	A in. (mm)
		DK-LOK Tube Fittings			
FH12-	DL12DL12-48-S	3/4	3/4	48.0 (122)	2.62 (66.6)
FH16-	DL16DL16-12-S	1	1	12.0 (30.5)	3.20 (81.3)
FH20-	DL20DL20-18-S	1 1/4	1 1/4	18.0 (45.7)	3.79 (96.3)
FH24-	DL24DL24-36-S	1 1/2	1 1/2	36.0 (91.4)	4.25 (108)
FH32-	DL32-DL32-48-S	2	2	48.0 (122)	5.22 (133)

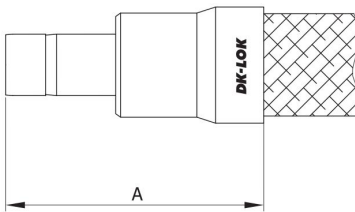


Table 14. Hose Assembly of DK-LOK Tube Stub Adapter at both Ends.

Ordering Number	Ordering Number	End Connections		Overall Length in. (cm)	A in. (mm)
		Tube Adapter			
FH12-	TA12TA12-48-S	3/4	3/4	48.0 (122)	2.50 (63.5)
FH16-	TA16TA16-12-S	1	1	12.0 (30.5)	2.99 (75.9)
FH20-	TA20TA20-18-S	1 1/4	1 1/4	18.0 (45.7)	3.91 (99.3)
FH24-	TA24TA24-36-S	1 1/2	1 1/2	36.0 (91.4)	4.47 (114)
FH32-	TA32TA32-48-S	2	2	48.0 (122)	5.45 (138)

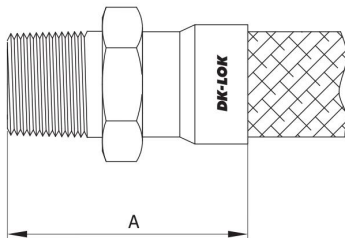


Table 15. Hose Assembly of Male Pipe at both Ends.

Ordering Number	Ordering Number	End Connections		Overall Length in. (cm)	A in. (mm)
		Male NPT			
FH12-	M12NM12N-48-S	3/4	3/4	48.0 (122)	2.45 (62.2)
FH16-	M16NM16N-12-S	1	1	12.0 (30.5)	3.05 (77.5)
FH20-	M20NM20N-18-S	1 1/4	1 1/4	18.0 (45.7)	3.14 (79.8)
FH24-	M24NM24N-36-S	1 1/2	1 1/2	36.0 (91.4)	3.38 (85.9)
FH32-	M32NM32N-48-S	2	2	48.0 (122)	3.63 (92.2)

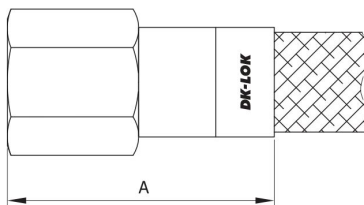
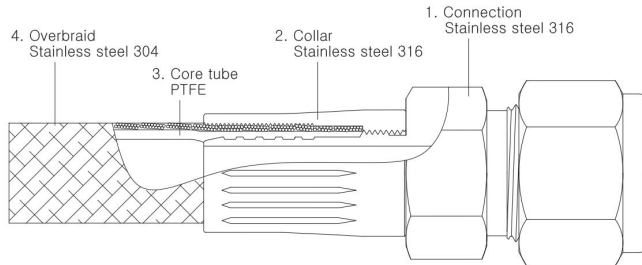


Table 16. Hose Assembly of Male Pipe end to Female Pipe end

Ordering Number	Ordering Number	End Connections		Overall Length in. (cm)	A in. (cm)
		Male NPT	Female NPT		
FH12-	M12NF12N-48-S	3/4	3/4	48.0 (122)	2.62 (66.6)
FH16-	M12NF12N-12-S	1	1	12.0 (30.5)	3.20 (81.3)
FH20-	M20NF20N-18-S	1 1/4	1 1/4	18.0 (45.7)	3.79 (96.3)
FH24-	M24NF24N-36-S	1 1/2	1 1/2	36.0 (91.4)	4.25 (108)
FH32-	M32NF32N-48-S	2	2	48.0 (122)	5.22 (133)

DK-LOK® PFH Series PTFE Flexible Metal Hose

PFH Series PTFE Flexible Metal Hose



Features

- High pressure application up to 3,000 psig (206 bar)
- PTFE hose material has improve permeation resistant
- Applied with stainless steel 304 wire braid, its improve the internal pressure and protect the wear.
- Variable end connection available

Table 17. Working / Burst Pressure at Temperature

Nominal Hose Size, in. (mm)	PFH Series Designator	Temperature Range	Working Pressure psig (bar) @70°F (20°C)	Burst Pressure Minimum psig (bar) @ 70°F (20°C)	Bending Radius Minimum in. (cm)	
					Static	Dynamic
1/4 (6.35)	PFH4	-65 to 450°F (-53 to 230°C)	3000 (206)	12000 (826)	1.5 (3.8)	2.0 (5.1)
3/8 (9.52)	PFH6		2500 (172)	10000 (689)	3.5 (8.9)	5.0 (12.7)

Table 18. Pressure-Temperature Ratings

Temperature, °F	-65	0	100	200	300	400	450
Temperature, °C	-53	-17	37	93	148	204	230
Factors	0.75	1	1	0.58	0.52	0.48	0.46

Ordering Information and Table of Dimensions

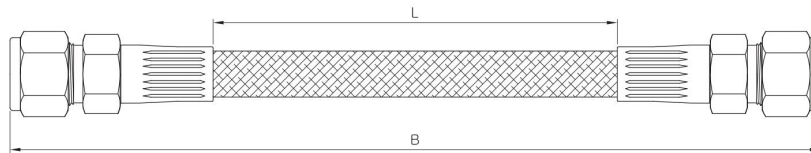


Table 19. Hose Assembly of DK-LOK Tube Fittings at Both Ends

Ordering Number	END Connections DK-Lok Tube Fittings	Overall Length B in. (cm)	Live Length L in. (cm)	Hose I.D Minimum in. (cm)	Hex. Flat Max. O.D on the assembly
	DL4DL4-12	14.0 (35.6)	12.0 (30.5)		
	DL4DL4-18	20.0 (50.8)	18.0 (45.7)		
	DL4DL4-24	26.0 (66.0)	24.0 (61.0)		
	DL4DL4-36	38.0 (96.5)	36.0 (91.4)		
	DL4DL4-48	50.0 (127.0)	48.0 (122.0)		
	DL4DL4-60	62.0 (157.0)	60.0 (152.0)		
	DL4DL4-72	74.0 (188.0)	72.0 (183.0)		
	DL4DL4-120	122.0 (310.0)	120.0 (305.0)		
PFH6-	DL6DL6-12	14.0 (35.6)	11.8 (30.0)	0.27 (6.9)	13/16 (20.64)
	DL6DL6-18	20.0 (50.8)	17.8 (45.2)		
	DL6DL6-24	26.0 (66.0)	23.8 (60.5)		
	DL6DL6-36	38.0 (96.5)	35.8 (90.9)		
	DL6DL6-48	50.0 (127.0)	47.8 (121.0)		
	DL6DL6-60	62.0 (157.0)	59.8 (152.0)		
	DL6DL6-72	74.0 (188.0)	71.8 (182.0)		
	DL6DL6-96	98.0 (249.0)	95.8 (243.0)		
	DL6DL6-120	122.0 (310.0)	120.0 (305.0)		

IDK-LOK® PFH Series PTFE Flexible Metal Hose

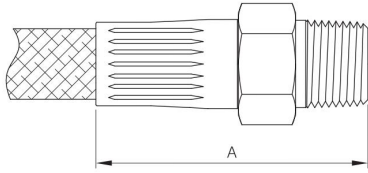


Table 20. Male Pipe Ends

Applicable Hose Series	Male Pipe End Connection				
	Designator	Pipe Size	Length A in. (mm)	Hex. Flat as a max. O.D	I.D Minimum in. (mm)
PFH4	M4N	1/4"	1.88 (47.8)	13/16"	0.16 (4.1)
PFH6	M6N	3/8"	1.98 (50.3)	15/16"	0.27 (6.9)

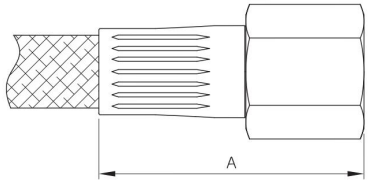


Table 21. Female Pipe Ends

Applicable Hose Series	Female Pipe End Connection				
	Designator	Pipe Size	Length A in. (mm)	Hex. Flat as a max. O.D	I.D Minimum in. (mm)
PFH4	F4N	1/4"	1.88 (47.8)	13/16"	0.16 (4.1)
PFH6	F6N	3/8"	2.02 (51.3)	15/16"	0.27 (6.9)

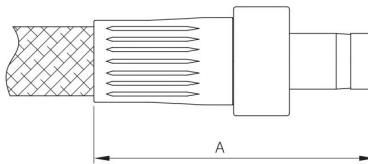


Table 22. Tube Stub Adapter Ends

Applicable Hose Series	Tube Stub Adapter End Connection				
	Designator	Pipe Size	Length A in. (mm)	Hex. Flat as a max. O.D	I.D Minimum in. (mm)
PFH4	TA4	1/4"	1.64 (41.7)	13/16"	0.16 (4.1)
PFH6	TA6	3/8"	1.81 (46.0)	15/16"	0.27 (6.9)

Ordering Information for MFH & FH Series

Hose Series	End Connection and Overall Length			Material Designator
MFH4- MFH6- MFH8-	Standard End Connections and Standard Overall Length	Custom End Connections	Custom Overall Length	- S: 5S316
FH12- FH16- FH20- FH24- FH32-	Select the applicable order number from the hose assembly Table 3 to 5 for MFH Series and Table 13 to 16 for FH Series and Table 19 to 22 for PFH Series.	Select the designators of your hose assembly's both end connections from Table 6 to 10 for MFH Series and Table 13 to 16 for FH Series and Table 19 to 22 PFH Series Insert them into your order No. For MFH Series, i.e., MFH4-KS4F4N-12- For FH Series, i.e., FH12-DL12DL12-12	When order in cm, use the unit of "CM", when order in inch, do not use "inch" on your order No. Examples: For 100cm overall length, MFH4-DL4DL4-100CM- For 10 inch overall length, MFH4-DL4DL4-10-	
PFH4- PFH6-		For PFH Series, i.e., PFH4-DL4M4N-12-		

All dimensions shown in this catalog are for reference only and are subject to change. We reserve the right to change specifications stated in this catalog for our continuing program of product improvement.

Safe Component Selection

The Selection of component for any applications or system design must be considered to ensure safe performance. Component function, material compatibility, component ratings, proper installation, operation and maintenance remain the sole responsibility of the system designer and the user. DK-Lok accepts no liability for any improper selection, installation, operation or maintenance.

IDK-LOK®
Fittings & Valves
www.dklok.com

IDK-LOK Corporation

Mailing Address
7, Golden root-ro 129beon-gil, Juchon-myeon,
Gimhae-si, Gyeongsangnam-do, South Korea 621-842

DK-Lok contact information

Tel. (82) 55-338-0114

Fax. (82) 55-901-0143

E-mail : sales@dklok.com

For International customers

Tel. (82) 55-338-0031/2

Fax. (82) 55-901-0142

E-mail : dklok@dklok.com