Calibration Fittings and Hoses

QH, QT, HQH and HQT Series

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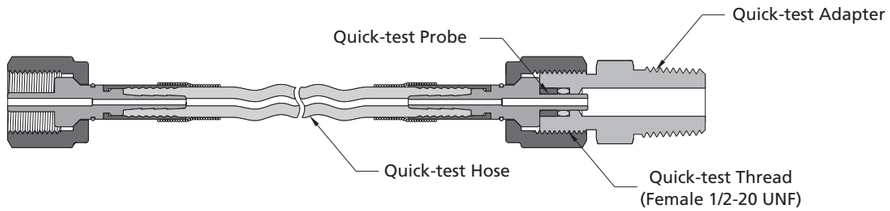
FI28040813

FITOK
Valves and Fittings

Calibration Fittings and Hoses

Features

- No wrench or thread sealant required for assembly and disassembly.
- Flexible hoses with small inside diameter and low internal volume.
- Variety of adapters to connect with wide range of calibration devices.
- Interchangeable with those of other manufacturers.
- Every assembly is factory tested with pure water at 1.5 times the maximum working pressure.

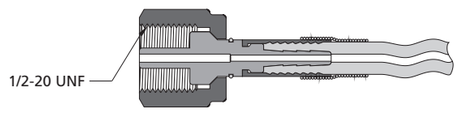
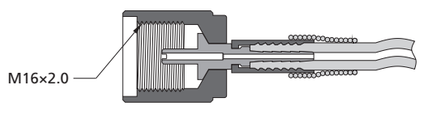
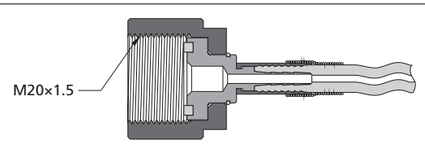


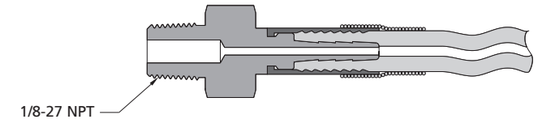
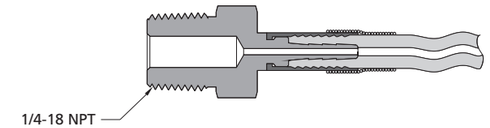
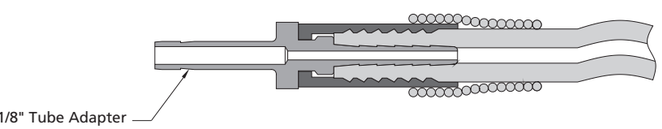
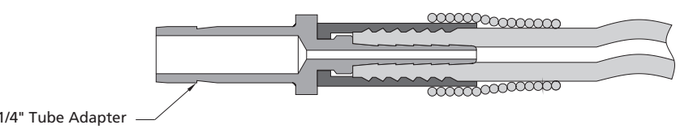
Quick-test Hoses
QH Series

Features

- Maximum working pressure: 6900 psig (476 bar)
- Working temperature: -10°F to 140°F (-23°C to 60°C)
- Outer diameter of hose: 0.2" (5 mm)
- Inner diameter of hose: 0.08" (2 mm)
- Hose end materials: 316 SS, 304 SS
- Fluid media: water, petroleum based oils, air, inert gas, compressed natural gas

Hose Ends

FST End	
SMS16×2 End	
SMS20 End	

NS2 End	
NS4 End	
FT2 End	
FT4 End	

Types listed are standard. Other types are available upon request.

Part Number Description

SS – QH – SMS20 – FST – F36

End connection Material

SS	316 SS
S4	304 SS

Series

QH

End 1 Connection Type and Size

FST	1/2" Female UNF Swivel
NS2	1/8 Male NPT
NS4	1/4 Male NPT
FT2	1/8" Tube Adapter
FT4	1/4" Tube Adapter
SMS16×2	M16 × 2.0 Female Swivel
SMS20	M20 × 1.5 Female Swivel

End 2 Connection Type and Size

	Same as End 1

Specify in the same way as the end 1 connection type and size

Overall Length

FXX	XX in.
MXX	XX mm

End 1 and end 2 follow the orders and regulations below:

1. *Metric Double Ferrules - Fractional Double Ferrules - Metric Tube Adapters - Fractional Tube Adapter - NPT Threads - BSPT Threads - BSPP Threads - SAE/MS Parallel Threads - 37° Flare - Others*
2. *Put the sizes from the biggest down to the smallest if they are of the same type.*
3. *Put the female before male if they are of the same type and size.*

Note: "Part Number Description" is used for composition rules of FITOK product model, Not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK company or authorized agents.

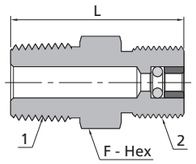
Quick-test Adapters and Fittings
QT Series

Features

- Maximum working pressures:
  Without valve: 5000 psig (345 bar)
  With valve: 3000 psig (207 bar)
- Materials: 316 SS, 304 SS
- Working temperatures:
  -10°F to 400°F (-23°C to 204°C)
  -10°F to 250°F (-23°C to 121°C)
- Optional check valve and protective cap availble

Dimensions

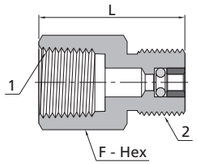
Male NPT Adapters



Connect to Female NPT to FST End

End 1	End 2	Basic Ordering Number	Dimension		Option
Male NPT Size	SAE/MS Thread Size		F	L	
			in.	in. (mm)	
1/8	ST	QT-NS2-ST	9/16	1.11 (28.3)	1.Check Valve 2.Protective Cap
1/4	ST	QT-NS4-ST	9/16	1.29 (32.8)	
3/8	ST	QT-NS6-ST	3/4	1.29 (32.8)	
1/2	ST	QT-NS8-ST	7/8	1.54 (39.1)	
3/4	ST	QT-NS12-ST	1 1/16	1.54 (39.1)	

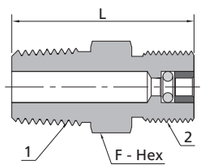
Female NPT Adapters



Connect to Male NPT to FST End

End 1	End 2	Basic Ordering Number	Dimension		Option
Female NPT Size	SAE/MS Thread Size		F	L	
			in.	in. (mm)	
1/8	ST	-QT-FNS2-ST	5/8	0.98 (24.9)	Protective Cap
1/4	ST	-QT-FNS4-ST	3/4	1.16 (29.5)	
3/8	ST	-QT-FNS6-ST	7/8	1.23 (31.2)	
1/2	ST	-QT-FNS8-ST	1 1/16	1.41 (35.8)	
3/4	ST	-QT-FNS12-ST	1 5/16	1.56 (39.6)	

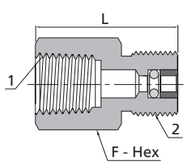
Male BSPT Adapters



Connect to Female BSPT to FST End

End 1	End 2	Basic Ordering Number	Dimension		Option
Male BSPT Size	SAE/MS Thread Size		F	L	
			in.	in. (mm)	
1/8	ST	-QT-RT2-ST	9/16	1.11 (28.3)	1.Check Valve 2.Protective Cap
1/4	ST	-QT-RT4-ST	9/16	1.29 (32.8)	

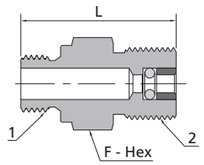
Female BSPT Adapters



Connect to Male BSPT to FST End

End 1	End 2	Basic Ordering Number	Dimension		Option
Female BSPT Size	SAE/MS Thread Size		F	L	
			in.	in. (mm)	
1/8	ST	-QT-FRT2-ST	5/8	0.98 (24.9)	Protective Cap
1/4	ST	-QT-FRT4-ST	3/4	1.16 (29.5)	

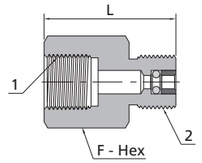
Male BSPP Adapters



Connect to Female BSPP to FST Ends

End 1	End 2	Basic Ordering Number	Dimension		Option
Male BSPP Size	SAE/MS Thread Size		F	L	
			in.	in. (mm)	
1/8	ST	-QT-RS2-ST	9/16	1.09 (27.7)	1.Check Valve 2.Protective Cap
1/4	ST	-QT-RS4-ST	3/4	1.24 (31.5)	
3/8	ST	-QT-RS6-ST	7/8	1.29 (32.8)	

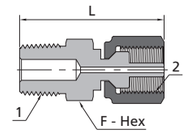
Female BSPP Adapters



Connect to Male BSPP to FST Ends

End 1	End 2	Basic Ordering Number	Dimension		Option
Female BSPP Size	SAE/MS Thread Size		F	L	
			in.	in. (mm)	
1/8	ST	-QT-RG2-ST	9/16	0.97 (24.6)	Protective Cap
1/4	ST	-QT-RG4-ST	3/4	1.16 (29.5)	
3/8	ST	-QT-RG6-ST	7/8	1.23 (31.2)	
1/2	ST	-QT-RG8-ST	1 1/16	1.41 (35.8)	

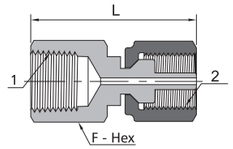
Male NPT Quick-test Gauge Adapters



Connect to Female NPT to ST Adapter

End 1	End 2	Basic Ordering Number	Dimension	
Male NPT Size	SAE/MS Thread Size		F	L
			in.	in. (mm)
1/8	FST	-QT-NS2-FST	9/16	1.42 (36.1)
1/4	FST	-QT-NS4-FST	9/16	1.60 (40.6)

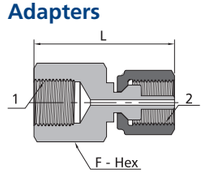
Female NPT Quick-test Gauge Adapters



Connect to Male NPT to ST Adapter

End 1	End 2	Basic Ordering Number	Dimension	
Female NPT Size	SAE/MS Thread Size		F	L
			in.	in. (mm)
1/8	FST	-QT-FNS2-FST	5/8	1.32 (33.5)
1/4	FST	-QT-FNS4-FST	3/4	1.50 (38.1)

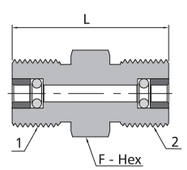
Female BSPP Quick-test Gauge Adapters



Connect to Male BSPP to ST Adapter

End 1	End 2	Basic Ordering Number	Dimension	
Female BSPP Size	SAE/MS Thread Size		F	L
			in.	in. (mm)
1/4	FST	-QT-RG4-FST	3/4	1.50 (38.1)
3/8	FST	-QT-RG6-FST	7/8	1.57 (39.9)
1/2	FST	-QT-RG8-FST	1 1/16	1.76 (44.7)

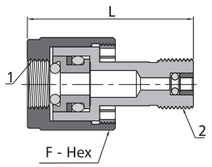
Quick-test Hose Unions



Connect to two FXT Ends

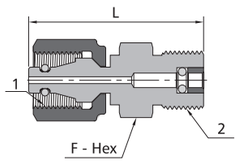
End 1	End 2	Basic Ordering Number	Dimension		Option
SAE/MS Thread Size	SAE/MS Thread Size		F	L	
			in.	in. (mm)	
ST	ST	-QT-ST-ST	9/16	1.17 (29.7)	Protective Cap

Hand Tight Female NPT Quick-test Gauge Adapters



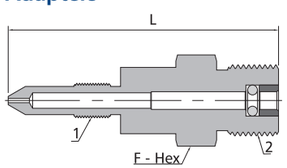
Connect to Male NPT to FST Ends					
End 1	End 2	Basic Ordering Number	Dimension		Option
			F	L	
Female NPT Size	SAE/MS Thread Size		in. (mm)	in. (mm)	
1/8	ST	-QT-QNS2-ST	0.78 (19.8)	1.52 (38.7)	Protective Cap
1/4	ST	-QT-QNS4-ST	0.94 (23.8)	1.65 (41.9)	
3/8	ST	-QT-QNS6-ST	1.06 (26.9)	1.69 (42.9)	

Quick-test Tube Adapters



Connect to Tube Fitting Thread to FST Ends					
End 1	End 2	Basic Ordering Number	Dimension		Option
			F	L	
SAE/MS Thread Size	SAE/MS Thread Size		in. (mm)	in. (mm)	
1/4 Tube Fitting	ST	-QT-QL4-ST	0.56 (14.2)	1.39 (35.3)	Protective Cap
3/8 Tube Fitting	ST	-QT-QL6-ST	0.56 (14.2)	1.45 (36.8)	
1/2 Tube Fitting	ST	-QT-QL8-ST	0.75 (19.1)	1.58 (40.1)	

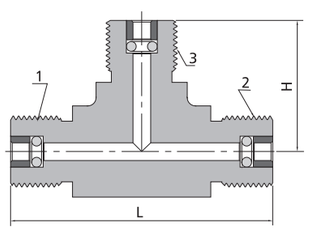
DP Transmitter Calibration Adapters



Connect to Foxboro, Rosemount, Yokogawa and Honewell Bleed Ports to FST Ends					
End 1	End 2	Basic Ordering Number	Dimension		Option
			F	L	
SAE/MS Thread Size	SAE/MS Thread Size		in. (mm)	in. (mm)	
1/4-28 UNF	ST	-QT-CH-ST	0.56 (14.2)	1.93 (49.0)	Protective Cap
5/16-24 UNF	ST	-QT-CR-ST	0.56 (14.2)	1.73 (43.9)	

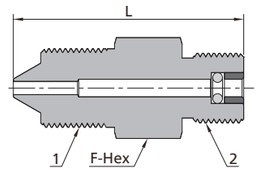
1/4-28 UNF end is applicable to Foxboro, Rosemount and Yokagawa pressure transmitters; 5/16-24 UNF end is applicable to Honeywell.

Quick-test Tees



Connect to three FXT Ends						
End 1	End 2	End 3	Basic Ordering Number	Dimension		Option
				H	L	
SAE/MS Thread Size	SAE/MS Thread Size	SAE/MS Thread Size		in. (mm)	in. (mm)	
ST	ST	ST	-QT-ST-ST-ST	0.93 (23.6)	1.88 (47.8)	Protective Cap

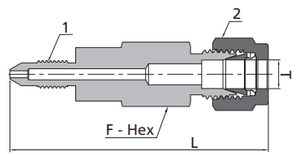
Male High Pressure Adapters



Connect to a Female High Pressure 60 degree coned and threaded fittings and ST/FST Ends					
End 1	End 2	Basic Ordering Number	Dimension		Option
			F	L	
SAE/MS Thread Size	SAE/MS Thread Size		in.	in. (mm)	
9/16-18 UNF	ST	-QT-60HP-ST	5/8	1.31 (33.3)	Protective Cap
9/16-18 UNF	FST	-QT-60HP-FST	5/8	1.29 (32.8)	

9/16-18 UNF end is used for connecting to Gigabar, Autoclave Engineers®, Butech®, HiP® (High Pressure Equipment), Parker® or equivalent high pressure coned and threaded connections, valves, tees and unions.

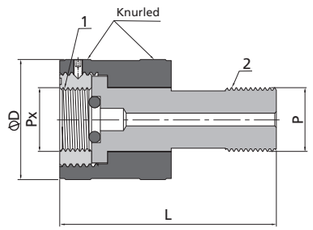
DP Transmitter Calibration Adapters



Connect to Foxboro, Rosemount, Yokogawa and Honewell outlet and 1/4" Tube Adapter Ends					
End 1	End 2	Basic Ordering Number	Dimension		Option
			F	L	
SAE/MS Thread Size	T-Tube O.D. (in.)		in.	in. (mm)	
1/4-28 UNF	1/4	-QT-CH-FL4	1/2	1.69 (42.9)	
5/16-24 UNF	1/4	-QT-CR-FL4	1/2	2.32 (58.9)	

1. *1/4-18 UNF end is used for connecting to Foxboro, Rosemount, Yokogawa's pressure transmitters. 5/16-24 UNF is used for connecting to Honeywell's pressure transmitters.*
2. *Please refer to FITOK detailed catalog "Tube Fittings, Tubes and Pipes "-" Calibration Fittings" for the parts drawings of this assembly.*

Hand Tight Adapters



Connect to M14X1.5, M20X1.5, M22X1.5 male thread Ends and SMS20 Ends					
End 1	End 2	Basic Ordering Number	Dimension		Option
			D	L	
Px-SAE/MS Thread Size	P-MS Thread Size		in.	in. (mm)	
M14X1.5	M20X1.5	-QT-MS20-MS14	32	2.68 (68)	
M20X1.5	M20X1.5	-QT-MS20	37.5	2.68 (68)	
M22X1.5	M20X1.5	-QT-MS20-MS22	37.5	2.68 (68)	

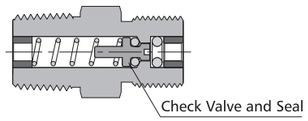
Connect to ISO pipe parallel thread and SMS20 Ends					
End 1	End 2	Basic Ordering Number	Dimension		Option
			D	L	
Px-ISO Pipe Parallel Thread Size	P-MS Thread Size		in.	in. (mm)	
1/4	M20X1.5	-QT-MS20-RG4	32	2.68 (68)	
3/8	M20X1.5	-QT-MS20-RG6	32	2.68 (68)	
1/2	M20X1.5	-QT-MS20-RG8	37	2.68 (68)	

Please refer to FITOK detailed catalog "Pipe Fittings "-" Hand Tight Adapter Fittings" for the parts drawings of this assembly.

Options

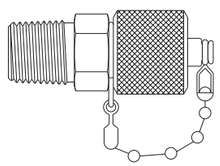
1. Check Valve

Adapter with check valve seals via the o-ring and probe.
When the hose probe is pushed into the o-ring,
the probe in the adapter opens the check valve and allows flow.



2. Protective Cap

Protective cap guards against damage and contaminants when adapters are uncoupled.
Protective caps are not pressure containing devices.



Ordering Information

Add the material designator as a prefix to the basic ordering number. To get a valve or/and protective cap, add **-V** or **-PC/-V-PC** as a suffix to the basic ordering number.
Example: 1/4 Male NPT as end 1, 1/2" Male UNF as end 2, 304 stainless steel, a valve and a protective cap added, the complete ordering number is: **S4-QT-NS4-ST-V-PC.**

1. XT means 1/2-20 UNF Male thread, FXT means UNF Female thread UNC thread.
2. Sizes and types listed are standard, other sizes and types are available upon request.
3. Dimensions are for reference only and are subject to change.

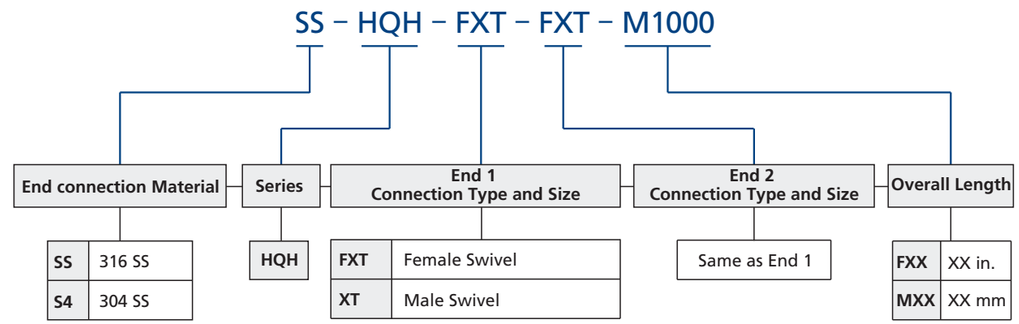
High Pressure Quick-test Hose Assemblies

HQH Series

Features

- Maximum working pressure: 689 bar (10000 psig)
- Working temperature: -40°F to 140°F (-40°C to 60°C)
- Outer diameter of hose: 0.24" (6 mm)
- Inner diameter of hose: 0.08" (2 mm)
- Hose end materials: 316 SS or 304 SS
- Fluid media: water, petroleum based oils, air, inert gas

Part Number Description



Note: "Part Number Description" is used for composition rules of FITOK product model, Not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK company or authorized agents.

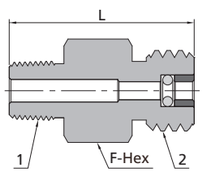
High Pressure Quick-test Fittings

HQT Series

Features

- Maximum working pressure: 689 bar (10000 psig)
- Working temperature:
  FKM Seal: -10°F to 400°F (-23°C to 204°C)
  NBR Seal: -10°F to 250°F (-23°C to 121°C)
- Hose end materials: 316 SS or 304 SS
- Convenient connection: No wrench or thread sealant required for assembly or disassembly.
- Not applicable to use with FITOK QH series Quick-test Hose, please use with FITOK HQH series Quick-test Hose.

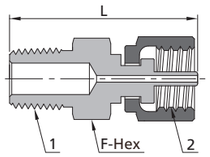
Male NPT Adapter



Connect to female NPT and FXT fittings

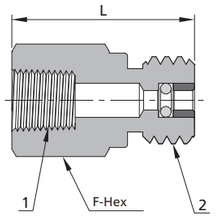
End 1	End 2	Basic Ordering Number	Material	Working Pressure Range	Dimension		Option
Male NPT Size	SAE/MS Thread Size				F	L	
					in.	in. (mm)	
1/8	XT	-HQT-NS2-XT	Stainless Steel	0~10000 psig (0~689 bar)	5/8	1.31 (33.3)	Protective Cap
1/4	XT	-HQT-NS4-XT	Stainless Steel	0~10000 psig (0~689 bar)	5/8	1.29 (32.8)	

Male NPT Quick-test Gauge Adapters



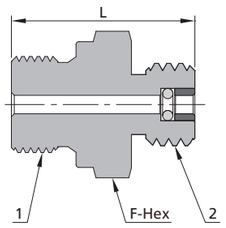
Connect to female NPT and XT fittings							
End 1	End 2	Basic Ordering Number	Material	Working Pressure Range	Dimension		Option
					F	L	
Male NPT Size	SAE/MS Thread Size				in.	in. (mm)	
1/8	FXT	-HQT-NS2-FXT	Stainless Steel	0~10000 psig (0~689 bar)	9/16	1.44(36.6)	
1/4	FXT	-HQT-NS4-FXT	Stainless Steel	0~10000 psig (0~689 bar)	9/16	1.67(42.4)	

Female NPT Adapters



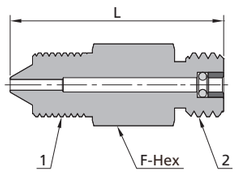
Connect to male NPT and FXT fittings							
End 1	End 2	Basic Ordering Number	Material	Working Pressure Range	Dimension		Option
					F	L	
Female NPT Size	SAE/MS Thread Size				in.	in. (mm)	
1/8	XT	-HQT-FNS2-XT	Stainless Steel	0~10000 psig (0~689 bar)	5/8	1.38(35.1)	Protective Cap
1/4	XT	-HQT-FNS4-XT	Stainless Steel	0~10000 psig (0~689 bar)	3/4	1.56(39.6)	

Male BSPP Adapters



Connect to female BSPP and FXT fittings							
End 1	End 2	Basic Ordering Number	Material	Working Pressure Range	Dimension		Option
					F	L	
Male NPT Size	SAE/MS Thread Size				in.	in. (mm)	
1/4	XT	-HQT-RS4-XT	Stainless Steel	0~10000 psig (0~689 bar)	3/4	1.27 (32.3)	Protective Cap
3/8	XT	-HQT-RS6-XT	Stainless Steel	0~10000 psig (0~689 bar)	7/8	1.25 (31.8)	

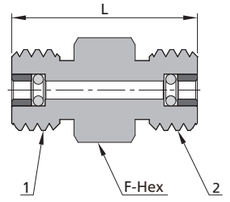
High Pressure Male Adapters



Connect to Female High Pressure 60 degree coned and threaded fittings and FXT Ends							
End 1	End 2	Basic Ordering Number	Material	Working Pressure Range	Dimension		Option
					F	L	
SAE/MS Thread Size	SAE/MS Thread Size				in.	in. (mm)	
9/16-18 UNF	XT	-HQT-60HP-XT	Stainless Steel	0~10000 psig (0~689 bar)	5/8	1.88 (47.8)	Protective Cap

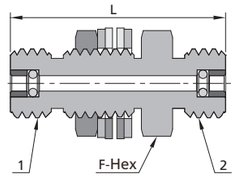
9/16-18 UNF end is used for connecting to Gigabar, Autoclave Engineers®, Butech®, HiP®, (High Pressure Equipment), Parker® or equivalent high pressure coned and threaded connections, valves, tees and unions.

Quick-test Unions



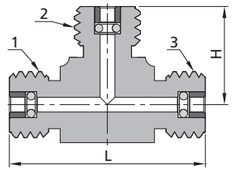
Connect to two FXT Ends							
End 1	End 2	Basic Ordering Number	Material	Working Pressure Range	Dimension		Option
					F	L	
SAE/MS Thread Size	SAE/MS Thread Size				in.	in. (mm)	
XT	XT	-HQT-XT-XT	Stainless Steel	0~10000 psig (0~689 bar)	5/8	1.29 (32.8)	Protective Cap

Quick-test Bulkhead Unions



Connect to two FXT Ends							
End 1	End 2	Basic Ordering Number	Material	Working Pressure Range	Dimension		Option
					F	L	
SAE/MS Thread Size	SAE/MS Thread Size				in.	in. (mm)	
XT	TXT	-HQT-XT-TXT	Stainless Steel	0~10000 psig (0~689 bar)	3/4	1.76 (44.7)	Protective Cap

Quick-test Tees



Connect to three FXT Ends								
End 1	End 2	End 2	Basic Ordering Number	Material	Working Pressure Range	Dimension		Option
						H	L	
SAE/MS Thread Size	SAE/MS Thread Size	SAE/MS Thread Size				in. (mm)	in. (mm)	
XT	XT	XT	-HQT-XT-XT-XT	Stainless Steel	0~10000 psig (0~689 bar)	0.95 (24.15)	1.9 (48.3)	Protective Cap

Ordering Information

Add the material designator as a prefix to the basic ordering number. To get a protective cap, add -PC as a suffix to the basic ordering number. Example: 1/4 male NPT as end 1, XT as end 2, 316 stainlesssteel, a protective cap added, the complete ordering number is **SS-HQT-NS4-XT-PC**.

1. XT means 9/16-12 UNC Male thread, FXT means 9/16-12 UNC Female thread.
2. Sizes and types listed are standard, other sizes and types are available upon request.
3. Dimensions are for reference only and are subject to change.

Options

◎ **Protective Cap**

Protective cap guards against damage and contaminants when adapters are uncoupled.
Protective caps are not pressure containing devices.