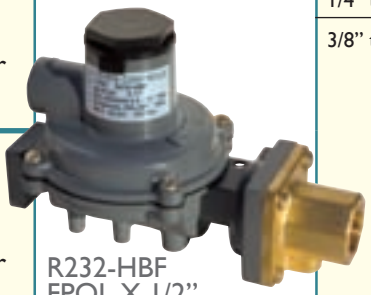


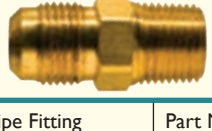
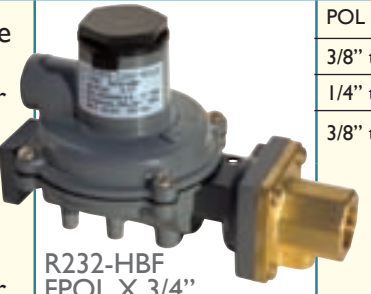
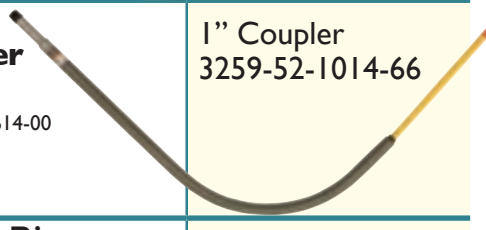


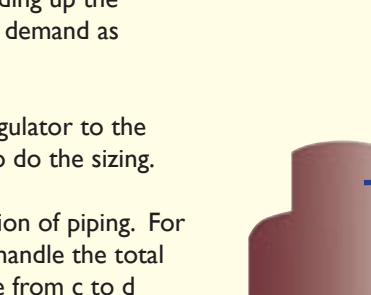

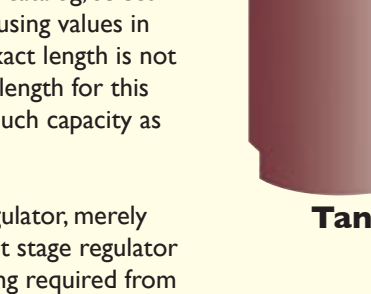

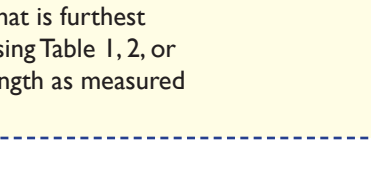


Twin Stage Regulator

Quick Reference Guide For Fisher Regulators
Free tech support call: 1 800 537 7518



Load Btu/hr.	Distance Maximum distance from regulator outlet to furthest appliance	Pipe to appliance	Fisher Regulator	Marshall Excelsior Pigtails		X-Risers			Fittings		
				POL x POL	Part No.	Length	Connection	Part No.	Flare x Fitting	Part No.	
100,000	10 feet	1/2" CTS Poly pipe or copper tubing @ 11" water column regulator set pressure	 R232-HBF FPOL X 1/2" or R232-BBF 1/4" X 1/2"	3/8" tube x 12"	MEI680-12	1/2" Flex Riser	36"	1/2 MPT	XRI08-36		1/2" x 1/2" 48FF
				1/4" tube x 12"	MEI664-12		36"	1/2 F Flare swivel	XRI08SN-36		
				3/8" tube x 6"	MEI680-06		72"	1/2 MPT	XRI08-72		
100,000	40 feet	5/8" copper tubing @ 11" water column regulator set pressure	 R232-HBF FPOL X 1/2" or R232-BBF 1/4" X 1/2"	3/8" tube x 12"	MEI689-12	3/4" Flex Riser	36"	3/4" MPT	XRI7C12-36		Flare x Fitting 5/8" x 1/2" 48IF
				1/4" tube x 12"	MEI669-12		72"	3/4" MPT	XRI7C12-72		
				1/4" tube x 6"	MEI669-06		96"	3/4" MPT	XRI7C12-96		
100,000	100 feet	3/4" IPS Poly pipe @ 11" water column regulator set pressure	 R232-HBF FPOL X 1/2" or R232-BBF 1/4" X 1/2"	3/8" tube x 12"	MEI680-12	1" Anodeless Service Line Riser				1" Coupler 3259-52-1014-66	
				1/4" tube x 12"	MEI664-12						
				3/8" tube x 6"	MEI680-06						
200,000	10 feet	5/8" copper tubing @ 11" water column regulator set pressure	 R232-HBF FPOL X 1/2" or R232-BBF 1/4" X 1/2"	3/8" tube x 12"	MEI689-12	3/4" Flex Riser	36"	3/4" MPT	XRI7C12-36		Flare x Fitting 5/8" x 1/2" 48IF
				1/4" tube x 12"	MEI669-12		72"	3/4" MPT	XRI7C12-72		
200,000	50 feet	3/4" IPS Poly pipe @ 11" water column regulator set pressure	 R232-HBF FPOL X 1/2" or R232-BBF 1/4" X 1/2"	1/4" tube x 6"	MEI669-06	1" Anodeless Service Line Riser				1" Coupler 3259-52-1014-66	
				3/8" tube x 12"	MEI680-12						
300,000	30 feet	3/4" IPS Poly pipe @ 11" water column regulator set pressure	 R232-HBF FPOL X 1/2" or R232-BBF 1/4" X 1/2"	3/8" tube x 12"	MEI680-12	3/4" Flex Riser	36"	3/4" MPT	XRI7C12-36		1/2" Close nipple 613060
				1/4" tube x 12"	MEI664-12		72"	3/4" MPT	XRI7C12-72		
300,000	70 feet	1" IPS Poly pipe @ 11" water column regulator set pressure	 R232-HBF FPOL X 3/4" or R232-BBF 1/4" X 1/2"	1/4" tube x 6"	MEI669-06	1" Anodeless Service Line Riser				1" Coupler 3259-52-1014-66	
				3/8" tube x 12"	MEI680-12						
400,000	20 feet	3/4" IPS Poly pipe @ 11" water column regulator set pressure	 R632-JFF FPOL X 3/4" or R632-CFF 1/4" X 3/4"	3/8" tube x 12"	MEI689-12	3/4" Flex Riser	36"	3/4" MPT	XRI7C12-36		1/2" Close nipple 613060
				1/4" tube x 12"	MEI669-12		72"	3/4" MPT	XRI7C12-72		
400,000	60 feet	1" IPS Poly pipe @ 11" water column regulator set pressure	 R632-JFF FPOL X 3/4" or R632-CFF 1/4" X 3/4"	1/4" tube x 6"	MEI669-06	1" Anodeless Service Line Riser				1" Coupler 3259-52-1014-66	
				3/8" tube x 12"	MEI680-12						

Instructions:

- Determine the total gas demand for the system by adding up the BTU/hr input from the appliance nameplates and adding demand as appropriate for future appliances.
- For second stage or integral twin stage piping:
 - Measure length of piping required from outlet of regulator to the appliance furthest away. No other length is necessary to do the sizing.
 - Make a simple sketch of the piping, as shown.
 - Determine the capacity to be handled by each section of piping. For example, the capacity of the line between a and b must handle the total demand of appliances A, B, and C; the capacity of the line from c to d must handle only appliance B, etc.
 - Using one of the pipe sizing tables in the Bergquist catalog, select proper size of tubing or pipe for each section of piping, using values in BTU/hr for the length determined from step #2-A. If exact length is not on chart, use next longer length. Do not use any other length for this purpose! Simply select the size that shows at least as much capacity as needed for each piping section.
- For piping between first and second stage regulators
 - For a simple system with only one second stage regulator, merely measure length of piping required between outlet of first stage regulator and inlet of second stage regulator. Select piping or tubing required from one of the Tables.
 - For systems with multiple second stage regulators, measure length of piping required to reach the second stage regulator that is furthest away. Make a simple sketch, and size each leg of piping using Table 1, 2, or 3 using values shown in column corresponding to the length as measured above, same as when handling second stage piping.

