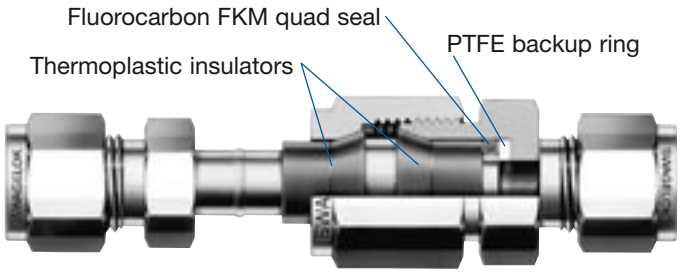
Dielectric Fittings

Dielectric fittings isolate monitoring instruments from the effects of electrical current. Installed on impulse lines ahead of monitoring stations in natural gas pipelines, the fittings interrupt cathodic current flow while permitting full fluid flow.

The fitting design is unique in that it separates the two primary functions of electrical insulation and fluid containment. Thermoplastic insulators provide high dielectric strength over a wide range of operating and climatic conditions. A fluorocarbon FKM quad seal contained in the fitting provides the primary fluid seal.



Features

- Metal components are machined from 316 stainless steel for use in rugged environments.
- Molded thermoplastic insulation with excellent electrical, chemical, and ultraviolet resistance and low water absorption maintains dielectric strength and integrity over a wide range of operating and climatic conditions.
- Gaugeable Swagelok® tube fitting or tapered pipe thread end connections (NPT/BSP) provide direct connection to tubing or piping system.

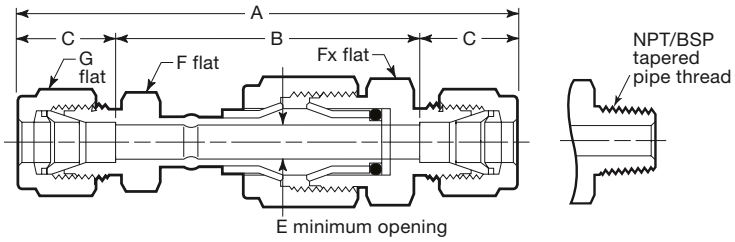
Materials

Body: 316 stainless steel
Insulators: Polyamide-imide
Quad Seal: 70 durometer fluorocarbon FKM
Backup Ring: Virgin PTFE

Technical Data

Electrical Resistance of Insulators at 70°F (20°C):
$10 \times 10^6\ \Omega$ at 10 V (dc)
Pressure Rating: 5000 psig (344 bar)
Temperature Rating: –40 to 200°F (–40 to 93°C)

Ordering Information and Dimensions



Caution: Do not disassemble the insulating connection. It must not be broken or used as a disconnection point.

End Connections			Ordering Number	Dimensions, in. (mm)						
Inlet/Outlet	Tube Size	Pipe Size		A	B	C	E	F	Fx	G
Swagelok tube fittings	1/4 in.	—	SS-4-DE-6	3.77 (95.8)	2.57 (65.3)	0.60 (15.2)	0.19 (4.8)	1/2	13/16	9/16
	3/8 in.	—	SS-6-DE-6	3.92 (99.6)	2.59 (65.8)	0.66 (16.8)	0.28 (7.1)	5/8		11/16
	1/2 in.	—	SS-8-DE-6	4.17 (106)	2.37 (60.2)	0.90 (22.9)		13/16		7/8
	12 mm	—	SS-12-MDE-6	4.23 (107)	2.43 (61.7)			22 mm		
Swagelok tube fitting/ male NPT	3/8 in.	1/4 in.	SS-6-DE-1-4	3.73 (94.7)	—	0.66 (16.8)		5/8	7/8	11/16

Dimensions shown with Swagelok nuts finger-tight. Dimensions are for reference only and are subject to change.

Safe Product Selection
When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

Caution: Do not mix or interchange parts with those of other manufacturers.

Warranty Information

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit swagelok.com or contact your authorized Swagelok representative.