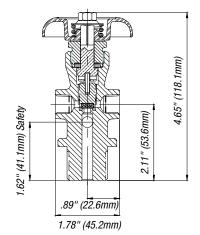
### **Alternative Energy Valves**

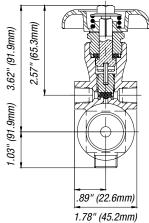
# **DF Series Alternative Fuel Valves**





DFN11650-XX





DFN1550-XX



#### **Key Features & Benefits**

- · Dual outlet valves for fuel gas manifold use
- · Dual outlet design allows for manifolding without use of adapters or tees, eliminating multiple joints
- · Location of outlets above valve seat enables individual cylinder isolation without shutting off manifold
- Designed for direct manifold connections, reducing components and leak points
- Crimped seat feature prevents seat extrusion and cold flow of the polymer seat
- Available in multiple seat material configurations to accommodate all high-purity gas applications
- Increased flow (Cv) to aid in reducing vent and purge times
- · Low operating torque design to ensure ease of operation during filling and use
- Available with unitized Pressure Relief Device having fuse-metal backed or unbacked burst disc
- · Available with standard CGA connections as well as international inlets and outlets

Design Specifications					
	English	Metric			
<b>Maximum Working Pressure</b>	6250 PSI	431 Bar			
<b>Burst Pressure</b>	20,000 PSI	1379 Bar			
Storage Temperature Range	-65° F → +155° F	-54° C → +68° C			
Operating Temperature Range	-50° F → +120° F	-46° C → +49° C			
Minimum Cycle Life	5000 Cycles				
Operating Torque	15–25 inlbs.	1.7–2.8 N-m			
Closing Torque	25–35 inlbs.	2.8–3.9 N-m			
<b>Bonnet Installation Torque</b>	45–55 ftlbs	61–74.5 N-m			
Pressure Relief Device Installation Torque	30–40 ftlbs.	40.7–54 N-m			
Stem Nut Installation Torque	Nut Flush with Top of Stem				



### **Alternative Energy Valves**

### **DF Series**

# **Alternative Fuel Valves**

Materials of Construction					
Sherwood Part Number	Part Description	Materials of Construction			
N/A	Body	Brass C37700			
1250-2	Bonnet	Brass C36000			
1401	Handwheel	Aluminum per ASTM SC84B			
47-1003	Handwheel Nut	ANSI 1010 Steel, Plated with Organic Zinc Chromate			
	Washer	Polypropylene			
	Plug & Seat Assembly				
1250-40KV	Plug	PTFE Coated Brass C48500			
	Seat	PCTFE			
1250-6	Packing	PTFE			
	Pressure Relief Device Assembly				
650-19SBF9-XX	Body	Brass C36000 (212° F or 165° F for backed devices)			
	Disc	Nickel Alloy 201			
	Gasket	Copper, Dead Soft			
45-1012	Spring	Zinc Plated, Steel Spring Wire, Hard Drawn			
	Stem & Tang Assembly				
1250-30	Tang	Type 303 or 304 Stainless Steel, Passivated			
	Stem	Brass C36000			
	Pin	Type 18-8 or 302 Stainless Steel, Passivated			

Standards Conformance			
CGA V-9	Standard for Gas Cylinder Valves		
CGA S-1.1	Standard for Pressure Relief Devices		
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Connections		
A-A-59860	U.S. General Services Administration Standards for Gas Cylinder Valves		

Inlet O-Ring for Straight Threaded DF Valves				
Sherwood Part Number Material		Size		
G216B	Buna-N 70 Durometer	1.125 UNF		

For further ordering information, refer to the Valve Part Numbering Matrix on page 71.

Ordering Information					
Sherwood Part Number	Gas Service	Number of Outlets	Outlet Orientation	Outlet Thread Size	Inlet Thread Size
DF11551-XXHFKF DF11651-XXFKF	Air/Oxygen, Inert Gas	Two 180° Apart	Horizontal Vertical	1/4"-18 NPT Female	1.125 UNF-2A Straight
DF11561-XXHFKF DF11661-XXFKF	Air/Oxygen, Inert Gas	Two 180° Apart	Horizontal Vertical	1/4"-18 NPT Female	¾"-14 NGT Tapered
DFN11555-XXHFKF DF11655-XXFKF	CNG/Hydrogen, Methane	Two 180° Apart	Horizontal Vertical	1⁄4"-18 NPT Female	1.125 UNF-2A Straight
DF11565-XXHFKF DF11665-XXFKF	CNG/Hydrogen, Methane	Two 180° Apart	Horizontal Vertical	1⁄4"-18 NPT Female	¾"-14 NGT Tapered
DFN16550-XXHFKP	Air/Oxygen, Inert Gas, CNG/Hydrogen, Methane	Two 180° Apart	Horizontal	.4375–20 UNF-2B Straight	1.125 UNF-2A Straight
DFN11550-XXHFKP	Air/Oxygen, Inert Gas, CNG/Hydrogen, Methane	Two 180° Apart	Horizontal	1⁄4"–18 NPT Female	1.125 UNF-2A Straight
DFN11650-XXKP	Air/Oxygen, Inert Gas, CNG/Hydrogen, Methane	Two 180° Apart	Vertical	1⁄4"-18 NPT Female	1.125 UNF-2A Straight

PLEASE NOTE: Part numbers beginning with "DFN" represent Electroless Nickel Plated valves.

For Product Markings Reference, see (F) on page 66.



