



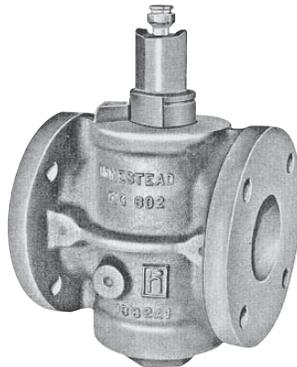
North American Supervising Gas Valves FM Approved

Sheet 1857

Ref: Dimensions & Instructions 1857-1



1857-01,-0,-1,-3, and -4



1857-5-F, -6-F, and -7-F
F = flanged--others threaded

Valve designation	Cv coefficients	scfh of 0.6 sp gr gas @ 1" w.c. ΔP
1857-01	19	1 100
1857-0	31	1 800
1857-1	48	2 780
1857-3	130	7 500
1857-4	220	12 700
1857-5-F	310	20 200
1857-6-F	510	32 300
1857-7-F	870	52 000

Cv valve coefficient is a valve's capacity, in gpm of 60°F water, for 1 psi pressure drop.

Explosions that occur in multi-burner gas fired industrial furnaces when they are being lighted are frequently the result of someone carelessly leaving a gas burner shutoff valve open after the previous shutdown. This can allow the furnace to be filled with unburned fuel as soon as the main valve is opened. Danger of such explosions is substantially reduced by using a Supervising Gas Valve at each burner.

A Supervising Gas Valve is drilled with a small secondary passage located so it is open only when the main passage is closed. A checking pressure line is connected through the secondary passage of each valve to a pressure switch at the end of that line. The switch cannot close a circuit to the solenoid shutoff valves unless all supervising valves are completely closed. If the solenoid shutoff valves cannot be opened, a supervising valve is probably open. It must be closed and the furnace purged before any pilots or burners are lighted.

Required equipment is simple to install and operate. It should be arranged to check pilots as well as main burners. Solenoid shutoff valves are wired to close off fuel supply in the event of air or fuel pressure failure.

In the interest of safety, Fives joins NFPA and insurance underwriters in urging the use of electronic flame supervision on most fuel burning applications. The decision whether or not to incorporate an 1857 Valve system rests with the owner and his insurance underwriter. If desired, Fives can provide information concerning standards as they apply to your application.

1857 Supervising Gas Valves cannot be used for oil.

The maximum working pressure is 50 psi.

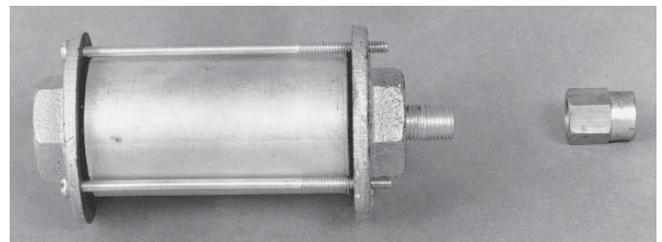
Auxiliary equipment required for complete Supervising Valve system:

Solenoid Shutoff Valves: Manual Reset such as North American's 1518.

Pressure Switches: From Bulletin 8757, select an approved normally open switch for the checking line. Also use normally open switches for low gas and low air protection; the high gas pressure switch is normally closed.

8647-01 Filter: Body is zinc plated steel. Replaceable filter cartridge (2-4920-1) is steel and cellulose, impregnated with phenolic resin. Maximum temperature 275°F.

8657-03 Bleed Orifice: Brass.



8647-01 Filter

8657-03
Bleed Orifice