# Ceram™ Valves, ISO 5599-1 Sizes 1-4

Internal to external pilot field conversion, Sizes 3 and 4



## Internal to External Pilot Conversion, Size III & IV

# GASKET ORIENTATION INFORMATION FOR REPAIR OR EXTERNAL PILOT CONVERSION

#### CAUTION: Air supply should be removed before modification.

EXTERNALLY PILOTED VALVES ARE AVAILABLE DIRECTLY FROM THE FACTORY. See model explanation on page2.14as well as individual notes on pages 2.5 - 2.12 under standard valve models for ordering instructions.

The following procedure should be used to convert a solenoid valve from internal pilot to external pilot pressure operation. All valves come from the factory internally piloted. External pilot function is required if the supply pressure is below the minimum pilot pressure of 29 psi (2-position valves; 44 psi for 3-position models) or if the customer is using vacuum for supply pressure.

Reorient the gaskets located underneath the blue saddle cover. Pneumatic symbols are stamped on the cover of the valve to indicate which function has been chosen. The black corner tab of each gasket is visible through a hole (in the cover) located by the symbol of the operator chosen. As you can see by the diagram below, each outside operator gasket can be rotated in one of four positions (details A, B,C, or D).

Also shown is the common pilot gasket which can be rotated in two positions (details E & F). This gasket should always be in the "E" position except for double solenoid (external pilot) with a common pilot. Ports 12 or 14 must be used for the common pilot, but the other unused port must be blocked. For separate pilot pressures, continue to use position E.



Common
Pilot Gasket
Position F

\*(For Use When
You Need Common
Pilot Signals To

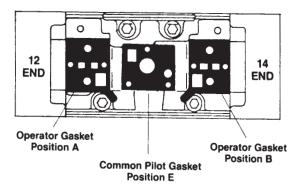
Ports 12 & 14)



Operator Gasket Position C



Operator Gasket Position D



### **GASKET POSITION CHART**

OPERATOR COMBINATION DESIRED	12 END	COMMON PILOT GASKET	14 END
Single Solenoid (internal pilot)/metal spring return	С	E	В
Single Solenoid (internal pilot)/air spring return (internal)	В	E	В
Single Solenoid (internal pilot)/air spring return (external)	D	E	В
Single Solenoid (external pilot)/metal spring return	С	E	D
Single Solenoid (external pilot)/air spring return (internal)	В	E	D
Single Solenoid (external pilot)/air spring return (external)	D	E	D
Double Solenoid (internal pilot) 2 & 3 position	A	E	В
*Double Solenoid (external pilot) 2 & 3 position	С	F	D
Air Pilot/Metal Spring	С	E	С
Air Pilot/Air Spring (internal)	В	Ε	C
Air Pilot/Air Spring (external)	D	E	Č
Double Air Pilot 2 & 3 positions	D	E	С

<sup>\*</sup>NOTE: Position "F" for double solenoid external pilot supply only. All other valve models use position "E."