

# Humphrey Cartridge Insert Valves

Humphrey cartridge insert valves are 2-way or 3-way valves specifically designed for incorporation into OEM products to become a proprietary and unrecognizable component of these products. Cartridge insert valves are available in 0.125-inch, 0.250-inch, and 0.500-inch orifice sizes for manual, mechanical, or air pilot actuation, and for normally closed or normally open functions in pressure ranges from 0-125 psig (W Series: 0-150 psig). Both piston poppet and diaphragm poppet models are available. Various 125 Series actuators are shown in the manual/mechanical and air-piloted valve sections of this catalog.



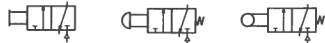
**J125IN J250IN**  
Model J125IN is a full 0.125-inch orifice, 2-way, normally closed valve which, because of its small size, is an ideal on-off control for a wide range of 2-way functions. Actuation is typically manual or mechanical.

Model J250IN is identical to the J125IN valve but has a full 0.250-inch orifice.



**W125IN W250IN**  
Model W125IN is a full 0.125-inch orifice, 3-way, normally closed valve with a built-in exhaust and for use in a wide range of 3-way functions. Actuation is typically manual or mechanical.

Model W250IN is identical to the W125IN valve but has a full 0.250-inch orifice.

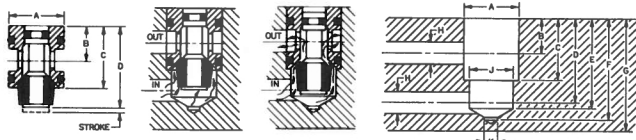


**Y125IN**  
Model Y125IN is a full 0.125-inch orifice, 3-way, normally closed or normally open valve with captured exhaust. Normally closed or normally open functions are determined by selection of IN and EXHAUST manifold connections. Actuation is typically air pilot, manual, or mechanical.

**Y250IN Y500IN**  
Models Y250IN and Y500IN are identical to the Y125IN valve but have full 0.250-inch and 0.500-inch orifices respectively.



## J SERIES



### J Series Valve Dimensions

MODEL	STROKE	A	B	C	D	ORIFICE
J125IN	.031	.375	.328	.563	.875	.125
J250IN	.063	.625	.375	.688	.922	.250

Caution: Maximum overstroke is 0.031"

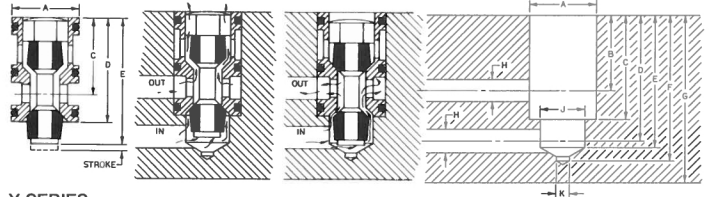
### J Series Cavity Dimensions

MODEL	A	B	C†	D	E	F	G	H	J	K
J125IN	.375/.378	.328	.562	.718	.781	1.000	1.125	.125	.312	.187
J250IN	.625/.628	.375	.687	.937	1.000	1.156	1.375	.250	.500	.156

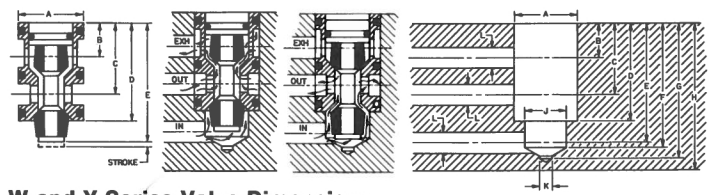
NOTE: Ports (letter "H") do not require same vertical plane, as shown, but may be rotated axially about valve cavity (letter "A") in horizontal plane as dimensioned.

†Add 0.010" to insure valve's complete insertion into cavity.

## W SERIES



## Y SERIES



### W and Y Series Valve Dimensions

MODEL	STROKE	A	B	C	D	E	ORIFICE
W/Y125IN	.031	.500	.328	.703	1.000	1.125	.125
W/Y250IN	.063	.750	.406	.844	1.156	1.375	.250
Y500IN	.125	1.375	.625	1.406	1.906	1.875	.500

### W and Y Series Cavity Dimensions

MODEL	A	B*	C	D†	E	F	G	H	J	K	L
W/Y125IN	.500/.503	.328	.703	1.000	1.156	1.187	1.296	1.500	.375	.187	.125
W/Y250IN	.750/.753	.406	.843	1.156	1.406	1.437	1.625	1.875	.625	.156	.250
Y500IN	1.375/1.378	.625	1.406	1.906	2.343	2.437	3.187	3.500	1.000	.406	.500

NOTE: Ports (letter "L") do not require same vertical plan, as shown, but may be rotated axially about valve cavity (letter "A") in horizontal plane as dimensioned.

†Add 0.010" to insure valve's complete insertion into cavity.

\*Omit on "W" Series. For Overtravel, add 0.030" to dimension "D".