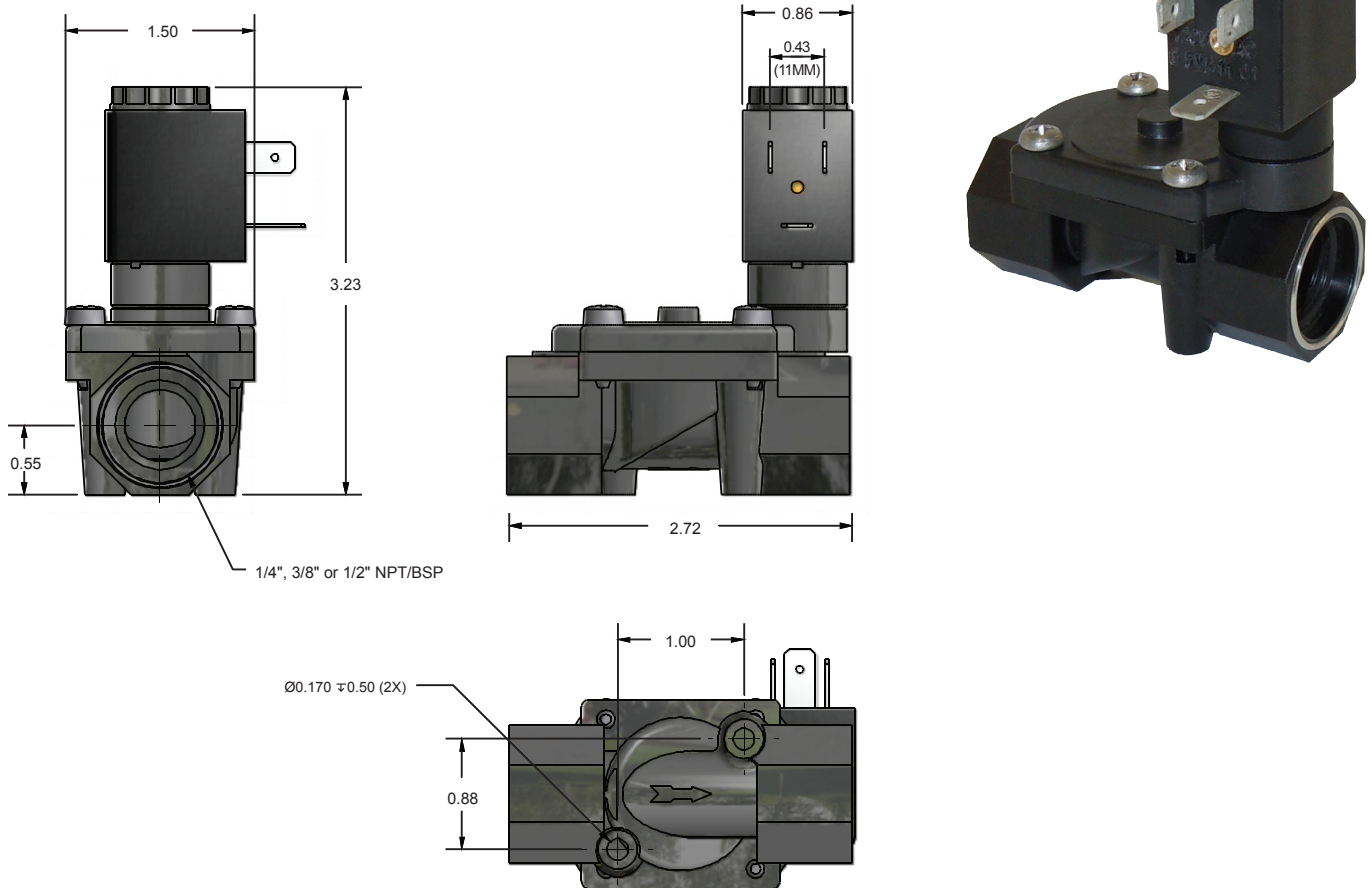




The Spartan Scientific 3580 is an engineered composite 2 way, 2 position solenoid/air operated valve designed for the control of liquid media and inert gas. The valve exhibits a large 1/2" orifice and three port sizes standard, 1/4", 3/8" and 1/2" NPT. The normally open version of the 3580 has a unique operator that allows for function without the use of a bypass tube as with the 3510 and has a push non-locking and a turn-lock manual override. There is no override available on the normally closed version of this valve. The valve's compact design utilizes the latest in material sciences with the use of composite materials in the valve body. The solenoid pilot is power saving low wattage, made of stainless steel working components and is miniaturized to fit in tight places. Standard elastomers available are Viton, Nitrile, and EPDM. The fully encapsulated coils are available in all standard voltages and with spaded, flying leads or with a connector attached. Typical applications are for installations where there is a need to control inert fluids and gases, condensate drainage, hot water plumbing and sprinkler systems.

## Dimensional Data

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED



## Technical Data

<b>Function:</b>	2-way, 2-position normally open, or normally closed, internal pilot diaphragm, solenoid operated	<b>Materials:</b>	Operator: 400 and 300 Series Stainless Steel or Brass Valve Body - Dupont Zytel® 77G33 Glass Filled Nylon NSF approved, PPS Seals: Viton, Nitrile, EPDM Shading Ring - Copper Particulate Screen - 50 Mesh Stainless Steel
<b>Port Sizes:</b>	1/4", 3/8", 1/2" NPT or 1/2" BSPT on request	<b>Media:</b>	Air, oil, water, inert gas
<b>Orifice Sizes:</b>	1/2" (12.5mm)	<b>Coil Data:</b>	Glass filled nylon encapsulation (Class F, continuous duty) 6.5W VDC, 8.5VA VAC Volts: 6, 12, 24 VDC 24, 120, 220, 240 VAC 50/60 Hz Voltage tolerance: +/- 10%
<b>Pressure Range:</b>	7 - 150 psi (requires minimum sealing pressure)		
<b>Flow Factors:</b>	1/4" NPT 1.55 Cv 3/8" NPT 1.95 Cv 1/2" NPT 2.45 Cv		
<b>Temperature Range:</b>	(Fluid max. +90°C) Ambient -10° to +50°C		
<b>Response Time:</b>	20 to 80 MS Complete cycle		



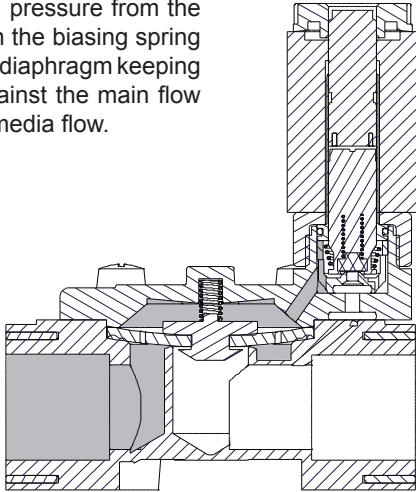
# Series 3580

Air-Sol 2-Way  
Process Solenoid Valves

## Principle of Operation

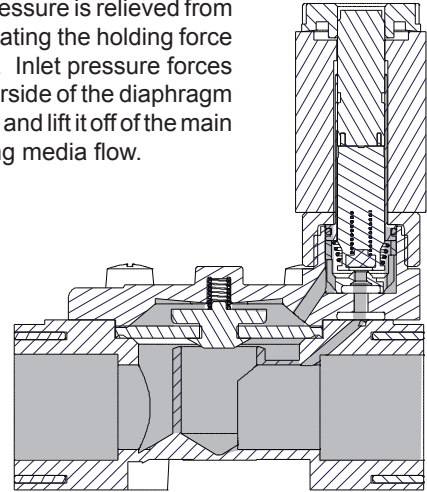
### Closed Position

Pilot de-energized, pressure from the inlet combined with the biasing spring applies force to the diaphragm keeping it closed tightly against the main flow orifice preventing media flow.



### Open Position

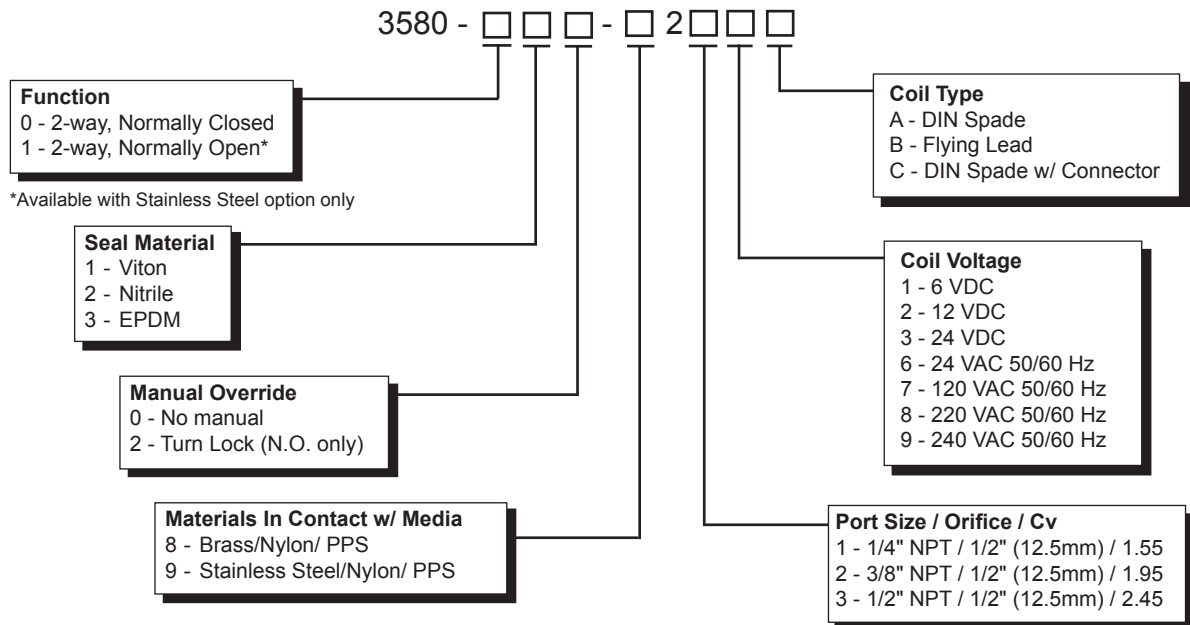
Pilot energized, pressure is relieved from pilot bonnet eliminating the holding force on the diaphragm. Inlet pressure forces the diaphragm to flex the diaphragm and lift it off of the main flow orifice allowing media flow.



Note: Normally Closed Version Shown



## How To Order



Order Example: 3580-010-8211A  
Series 3580, 2-way, Normally Closed, Viton, No Manual,  
Brass / Nylon / PPS, 1/4" NPT, 6 VDC, DIN Spade