



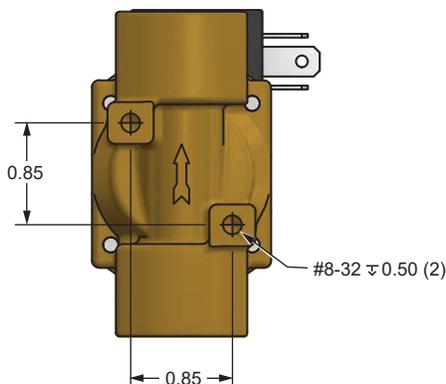
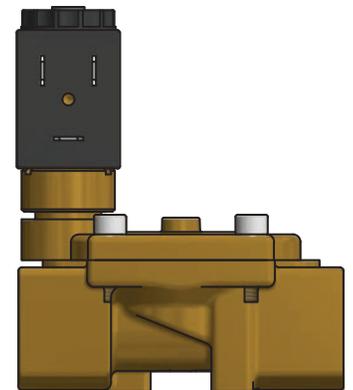
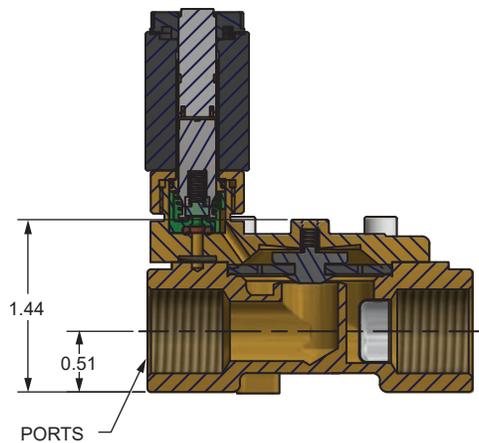
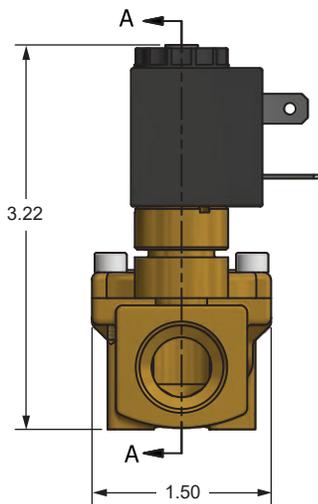
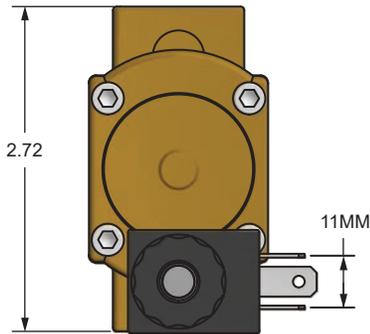
# Series 3581

Diaphragm Process  
Air-Sol 2-Way

The Spartan Scientific Series 3581 is an engineered brass bodied 2-Way, 2-Position solenoid/air operated valve designed for the control of liquid media, water 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 valve's compact is made from rugged brass and features high pressure differential. 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 FKM, NBR, 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





# Series 3581

Diaphragm Process  
Air-Sol 2-Way

## Technical Data

**Function:** 2-Way, 2-Position; Piloted Diaphragm;  
Normally Closed

**Port Size /  
Flow Factor:** 1/4" NPT / 1.55 Cv  
3/8" NPT / 1.95 Cv  
1/2" NPT / 2.45 Cv

**Orifice Sizes:** 12.7mm

**Pressure Range:** 7 to 180 psi (depending on orifice size and function)

**Temp. Range:** Fluid Max.: +60°C  
Dry Range: Ambient +10° to +50°C

**Response Time:** 20 to 80ms Complete Cycle

**Media:** Air, water (contact factory for compatibilities)

**Environment  
Protection:** IP65 (IEC 144), NEMA 4  
Dust-tight and water resistant (with electrical connector)

**Wetted Materials:** Elastomers: EPDM, FKM, NBR  
Orifice Basket: Acetal POM  
Operator: 300 and 400 Series Stainless Steel, or Brass  
Shading Ring: Copper (AC Only)  
Springs: 300 Series Stainless Steel  
Valve Body: Brass

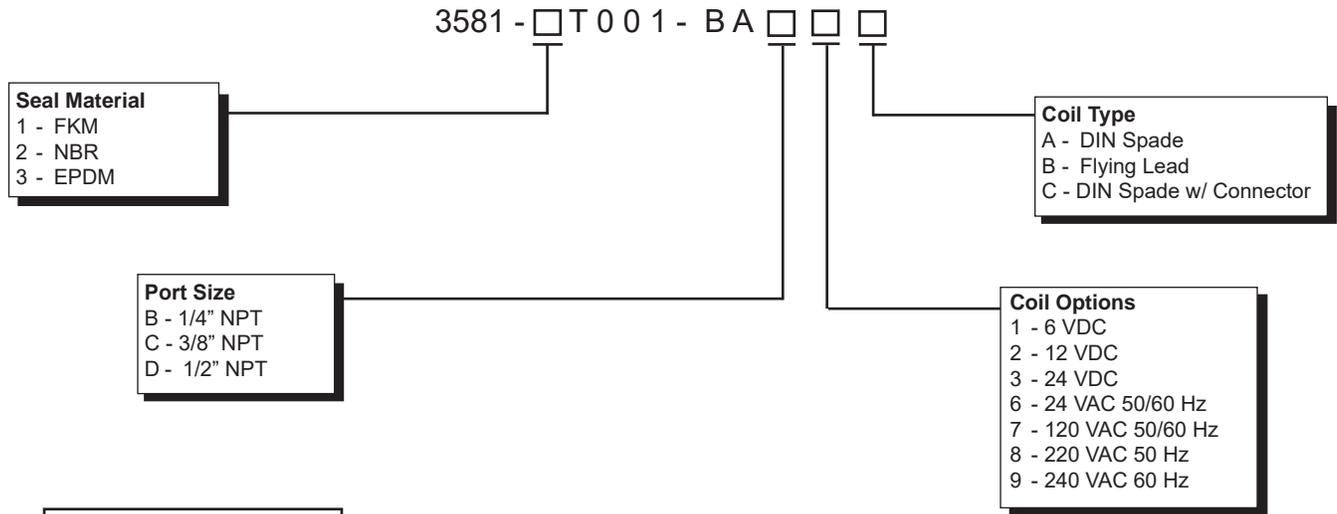
**Mounting:** Use #8 x 0.50" long self-tapping screws (2)  
(not provided)

**Coil Data:** Duty Cycle: Continuous (within specifications)  
Encapsulation: Glass-Filled Nylon  
Insulation: Class F  
Power Rating: 6.5 Watt VDC, 8.5 VA VAC  
(others available on request)  
Voltage: 6, 12, 24 VDC  
24, 120, 220, 240 VAC 50/60 Hz  
Voltage Tolerance: +/- 10% Nominal  
Winding: Class H

**Connections:** Spades: Terminals AMP 6.3x0.8 width 11mm  
Flying Lead: PVC, 18 AWG or 22 AWG, Multi-Strand  
Copper Wire,  
300V, 12" minimum length

**Packaged Weight:** 1.1 lbs.

## How To Order



Repair Kits	
Specify Part Number	
FKM	3580-01-0001
NBR	3580-B1-0001
EPDM	3580-E1-0001

Order Example: 3581-1T001-BAB1A  
FKM, 1/4" NPT, 6 VDC, DIN Spade

DIAPHRAGM  
PROCESS



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