



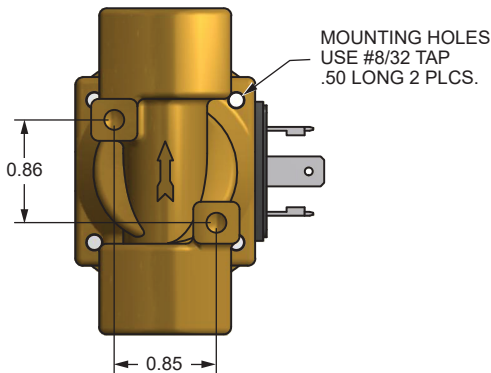
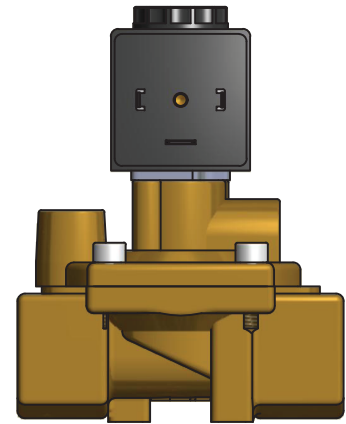
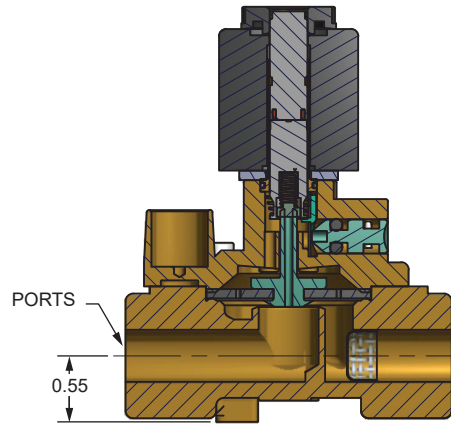
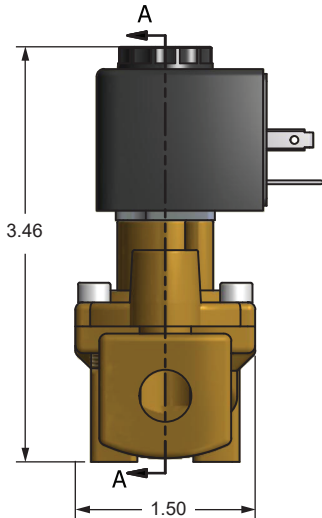
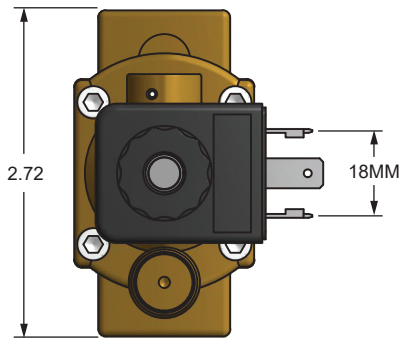
Series 3505

Diaphragm Process
Air-Sol 2-Way

The Spartan Scientific Series 3505 is a 2-Way, 2-Position, internally piloted solenoid valve for the control of air, emulsion, inert gases and water. The valve features an all brass body and a full flow 1/2" orifice while maintaining a 1.5 minimum pressure differential. The design allows for a tight seal on the orifice at 0 psi. Available in 1/4", 3/8" and 1/2" NPT, the 3505 can handle pressures to 230 psi. The encapsulated coil construction ensures that the valve functions well under long periods of activation (100% duty), as well as providing a high degree of environmental protection (NEMA 4). The inner valve functions as a direct assist using a flat diaphragm and orifice plate. Pressure differentials shift the valve to full open or full closed. A push, non-locking manual override is standard.

Dimensional Data

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED



FLOW DATA	
PORT SIZE	FLOW RATE
1/4"	8.2 gpm
3/8"	9.3 gpm
1/2"	11.2 gpm
120 psi Δ p 25 psi	

DIAPHRAGM
PROCESS



Series 3505

Diaphragm Process
Air-Sol 2-Way

Technical Data

Function: 2-Way, 2-Position; Inlet Pilot 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 / 2.45 Cv

Pressure Range: 0 to 230 psi (depending on orifice size and function)
Note: Valve Requires 1.5 psi differential to fully open

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

Response Time: 20 to 80ms Complete Cycle

Media: Air, emulsion, inert gases, water

Manual Override: Push non-locking

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

Mounting: Use #8 x 0.50" long self-tapping screws (2)

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

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: Accordance with DIN Style "A" EN175301-803
Flying Lead: PVC 22 AWG, Multi-Strand Copper Wire,
300V, 12" minimum length

Packaged Weight: 1.20 lbs.

FUNCTION

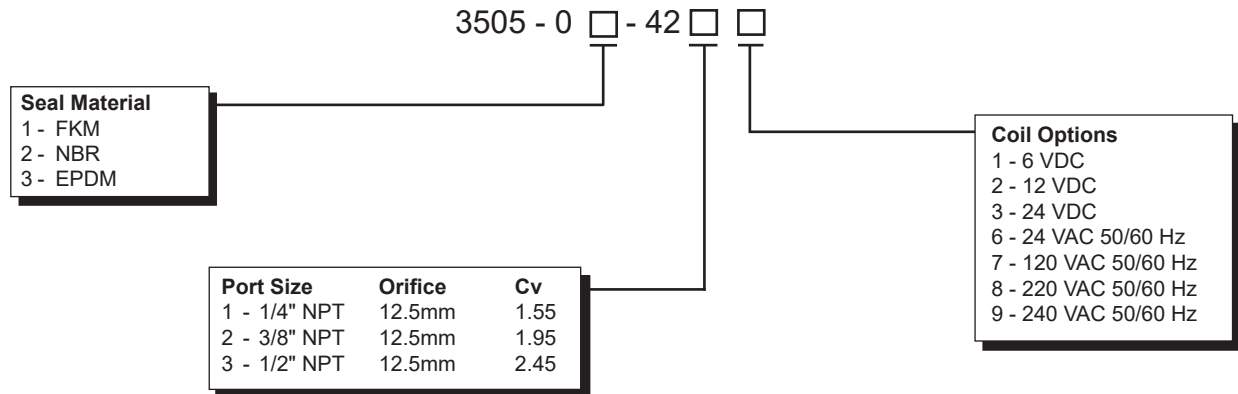
VOLTAGE

	AC	DC
2/2 NC	230	180

MAX. PRESSURE RANGE (psi)

DIAPHRAGM
PROCESS

How To Order



Replacement Diaphragm Kits		
Kit includes: Diaphragm and Orifice insert		
Specify Part Number		
FKM	3500-01-0001	Normally
NBR	3500-B1-0001	Closed
EPDM	3500-E1-0001	

Order Example: 3505-01-4237
2-Way, N.C., FKM, 1/2" NPT,
120 VAC 50/60 Hz