

ASCO Scientific Series 388, 390, 397, and 401 are 2-way, normally closed, normally open and magnetic latching solenoid operated pinch valves designed to control the flow of corrosive or high purity fluids in medical equipment and analytical instruments. Pinch valves isolate the fluid from the valve components by locating soft tubing in a mechanism that "pinches" the tubing to block flow and releases to allow flow.

- Saves space in equipment with compact design
- Low power consumption to reduce power supply requirements
- Large range of tubing sizes available for various flow and pressure requirements
- Magnetic latching construction (Series 397) to maintain valve position with loss of power, eliminate coil heat rise, and extend battery life

Construction

Valve Parts in Contact with Fluids	
Recommended Tubing	Platinum cured silicone Durometer: 55 +/- 5 Shore A (12" tube supplied with each valve. Additional lengths available separately, see page 74).
Other Parts	
Body -390, 397 -388, 401	Glass filled acetal Nickel plated aluminum
Pinch Mechanism	POM
Internal Solenoid Parts	Stainless Steel
Coil Housing	Zinc coated steel

Electrical

Standard Voltage	6, 12, 24 VDC +10%, -5% 115 VAC, 50/60 Hz
Power Consumption -DC -AC -Latching	2.5, 3.2, 4.3, 4.5, 5.3, 10.0 Watts 4.0, 6.8, 12.0 Watts Pull in: 13 Watts momentary Release: 10 Watts momentary
Duty Cycle Rating	Continuous (Intermittent for latching)
Ambient Temperature	32°F to 77°F (0C to 25C)
Electrical Connection -390, 397 -388, 401	15", 26 gage 15", 22 gage



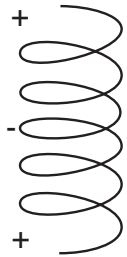
Series 397 Magnetic Latching Coil Schematic

Pull In

Red = 6 VDC
Orange = 12 VDC
Yellow = 24 VDC

Common Ground
(Black)

Release
(Brown)



Specifications

Tubing ID (Inches)	Tubing OD (Inches)	Tubing Wall (Inches)	Differential Pressure (psi)			Catalog Number	Constr. Ref. No.	Power (Watts)	Weight (oz.)
			Min.	Max. AC/DC					
				Gases	Liquids				
NORMALLY CLOSED									
1/32"	3/32"	1/32"	0	50	50	390NCxx150	1	2.5 (DC), 4.0 (AC)	2.5
1/32"	5/32"	1/16"	0	50	50	401NCxx250	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
1/16"	1/8"	1/32"	0	30	30	390NCxx330	1	2.5 (DC), 4.0 (AC)	2.5
1/16"	3/16"	1/16"	0	30	30	401NCxx430	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
3/32"	5/32"	1/32"	0	15	15	401NCxx515	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
3/32"	7/32"	1/16"	0	30	30	401NCxx630	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
1/8"	3/16"	1/32"	0	15	15	401NCxx715	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
1/8"	1/4"	1/16"	0	30	30	401NCxx830	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
3/16"	1/4"	1/32"	0	10	10	401NCxx1010	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
1/4"	5/16"	1/32"	0	10	10	388NCxx1110	3	10.0(DC), 12.0(AC)	16.0
1/4"	3/8"	1/16"	0	15	15	388NCxx1215	3	10.0(DC), 12.0(AC)	16.0
NORMALLY OPEN									
1/32"	3/32"	1/32"	0	50	50	390NOxx150	1	2.5 (DC), 4.0 (AC)	2.5
1/32"	5/32"	1/16"	0	50	50	401NOxx250	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
1/16"	1/8"	1/32"	0	30	30	390NOxx330	1	2.5 (DC), 4.0 (AC)	2.5
1/16"	3/16"	1/16"	0	30	30	401NOxx430	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
3/32"	5/32"	1/32"	0	15	15	401NOxx515	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
3/32"	7/32"	1/16"	0	30	30	401NOxx630	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
1/8"	3/16"	1/32"	0	15	15	401NOxx715	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
1/8"	1/4"	1/16"	0	30	30	401NOxx830	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
3/16"	1/4"	1/32"	0	10	10	401NOxx1010	2	4.5(12DC), 5.3(24DC), 6.8(AC)	4.0
1/4"	5/16"	1/32"	0	10	10	388NOxx1110	3	10.0(DC), 12.0(AC)	16.0
1/4"	3/8"	1/16"	0	15	15	388NOxx1215	3	10.0(DC), 12.0(AC)	16.0
MAGNETIC LATCHING SOLENOID									
1/32"	3/32"	1/32"	0	50	50	397xx150	1	13.0(Pull), 10.0(Release)	3.0
1/16"	1/8"	1/16"	0	30	30	397xx330	1	13.0(Pull), 10.0(Release)	3.0

To Construct Catalog Number

- Select base catalog number from specification table above.
- Insert desired voltage in place of "xx".

DC	6, 12, 24 (338 not available in 6DC)
AC	115 (397 not available in AC)

Examples

39706150 = 1/32" x 3/32" tubing, magnetic latching, 6DC, 50 psi

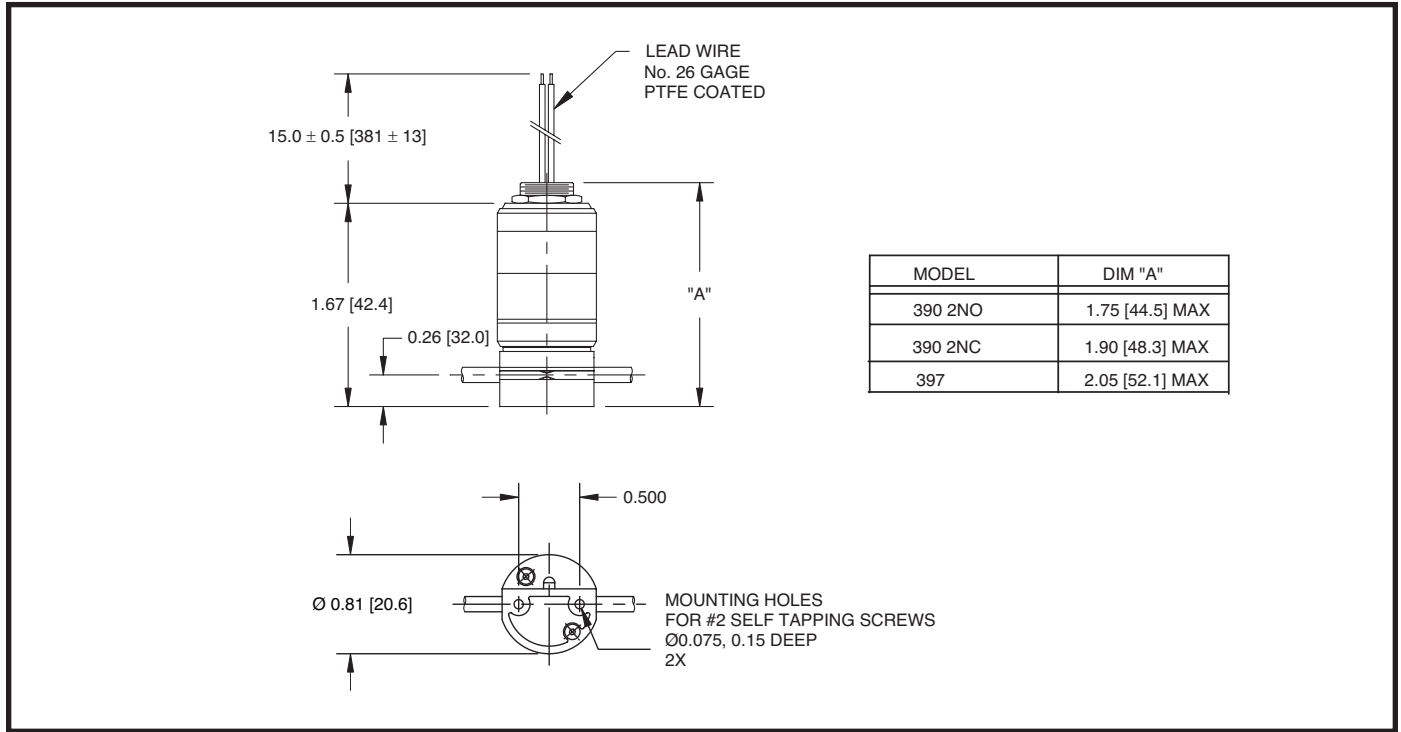
390NO12330 = 1/16" x 1/8" tubing, normally open, 12DC, 30 psi

401NC24830 = 1/8" x 1/4" tubing, normally closed, 24DC, 30 psi

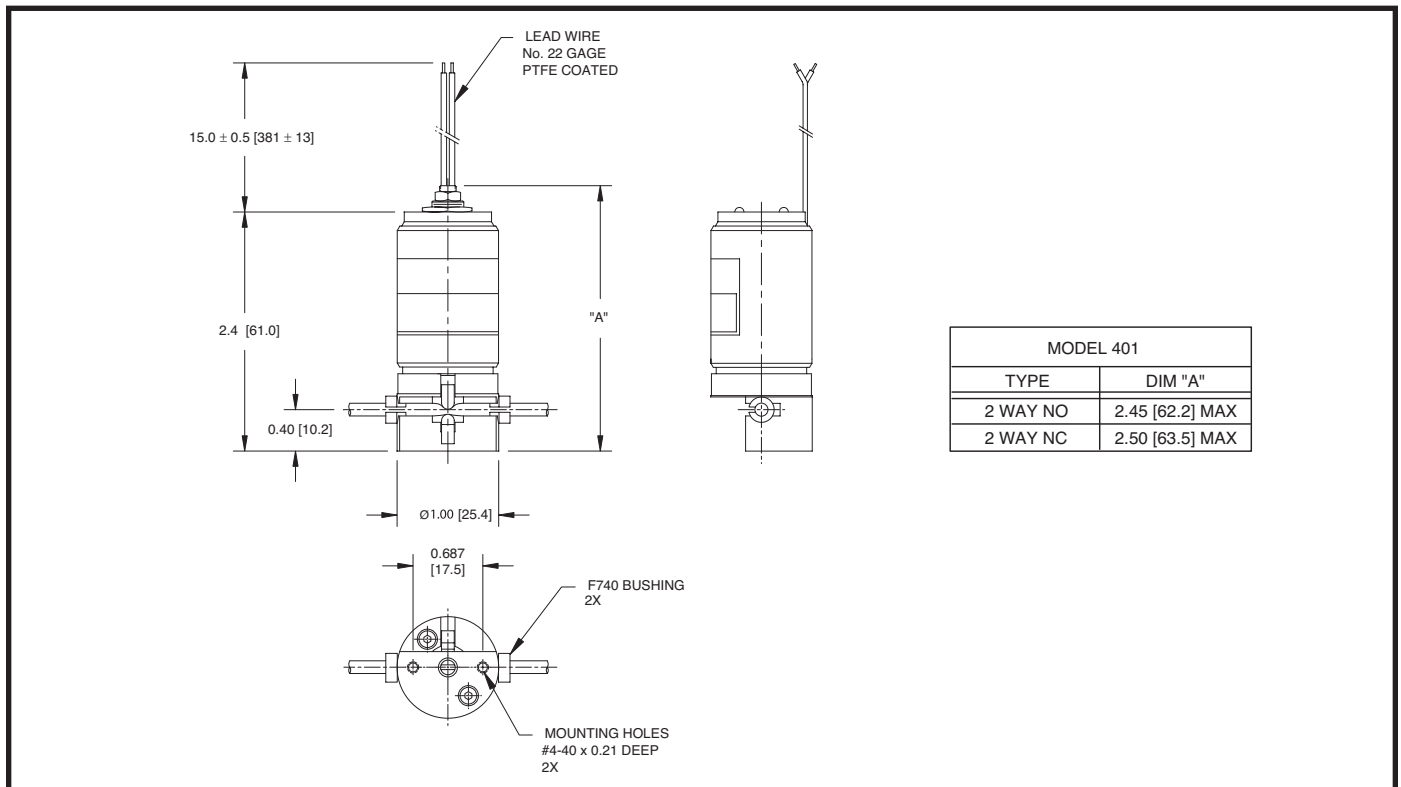
388NC1151215 = 1/4" x 3/8" tubing, normally closed, 115AC, 50/60 Hz, 15 psi

Dimensions: Inches [mm]

Constr. Ref. 1



Constr. Ref. 2



Dimensions: Inches [mm]

Constr. Ref. 3

MODEL 388	
TYPE	DIM "A"
2 WAY NO	3.56 [90.4] MAX
2 WAY NC	4.00 [101.6] MAX

