

ATKOMATIC

 **CIRCLE SEAL CONTROLS, INC.**
A division of CIRCOR International, Inc.

16,000 Series

Stainless Steel, Semi-Direct Lift, 0 to 6000 PSIG
High Pressure Valve Configurable for Variety of Fluid Applications

Features

- Direct acting valve
- Pressure to 6000 psig depending on coil type, fluid and orifice size
- Available in normally open and normally closed versions
- Stainless steel construction on all wetted parts – 316 for machined parts and CF8M for cast parts.
- Plunger material is 416 stainless that is treated for increased corrosion resistance
- Will handle fluids with viscosity up to 200 SUS
- Media temperature from -423° F to +500° F
- Suitable for use with wide variety of fluid including: air, gasses, liquids, hydraulic fluids, steam, cryogenic fluids, and corrosive fluids
- Optional seat materials of Teflon®, Kel-F, Buna-N, Viton®, EPR, or 316 stainless steel depending on fluid type and pressure
- Body seal materials of Teflon®, Viton®, Buna-N, or EPR.
- Pipe sizes from 1/4" through 1" NPT (British BSBT ports available)
- Flow orifices of 1/16", 3/32", 1/8", or 3/16"
- C_v from .093 to .72
- Class H coils standard
- Can use a class H double wound coil (requires use with a relay to drop put primary coil winding after valve actuation) depending on pressure
- Coils housings available in NEMA 1 (standard), NEMA 4 (waterproof), NEMA 7 (explosion-proof for hazardous locations), and combination NEMA 4 and 7

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16,000 Series

Operational Pressures (No minimum pressure differential)

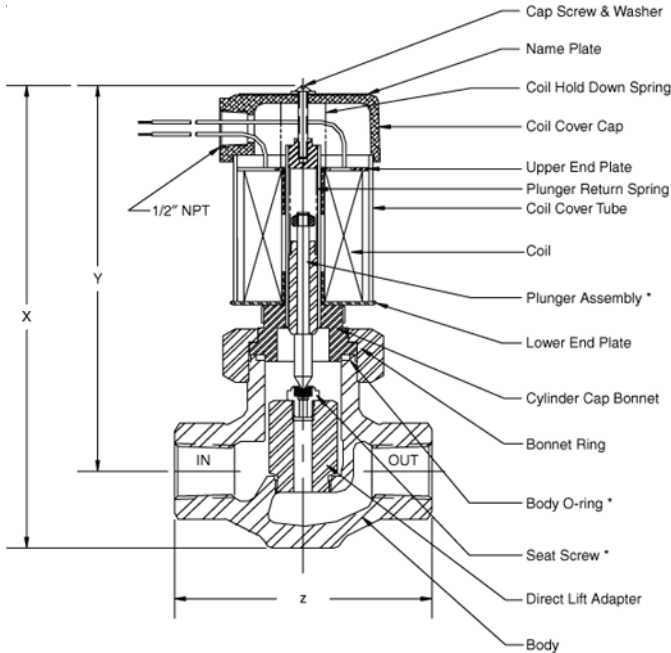
Orifice Size	Gases		Liquids to 40 SUS		Liquids over 40 SUS		Steam	
	A.C.	D.C.	A.C.	D.C.	A.C.	D.C.	A.C.	D.C.
Single wound coils, Metal seats, Normally Closed 16000-16400								
1/16"	2500	1500	1800	1000	1500	500	300	300
3/32"	1000	500	800	350	500	170	300	300
1/8"	500	200	400	125	250	60	300	125
3/16"	175	55	125	35	125	17	125	35
Single wound coils, Soft seats, Normally Closed 16000-16400								
1/16"	2500	1275	1500	850	1500	425	300	300
3/32"	1000	425	675	300	425	150	300	300
1/8"	425	170	350	100	210	50	300	100
3/16"	150	40	100	30	100	15	100	30
Double wound coil, 16004-16404, Metal Seats								
1/16"	6000	4000	6000	3500	5000	2500	300	300
3/32"	3500	2000	3000	1500	3000	1000	300	300
1/8"	2000	800	1500	600	1200	400	300	300
3/16"	700	250	600	200	500	175	300	200
Double wound coil, 16004-16404, Soft Seats								
1/16"	6000	4000	5500	3000	4250	2100	300	300
3/32"	3000	1700	2600	1300	2250	850	300	300
1/8"	1700	680	1275	500	1000	425	300	300
3/16"	600	200	500	170	425	150	300	170
Single wound coils, 16001-16401, Metal Seats, Normally Open								
1/16"	1800	800	1000	350	700	300	300	300
3/32"	500	250	300	150	275	90	300	150
1/8"	250	100	200	50	125	35	200	50
3/16"	65	25	40	15	25	10	40	15
Single wound coils, Soft Seats, Normally Open 16001-16401								
1/16"	1500	680	850	300	600	250	300	300
3/32"	425	200	250	130	230	75	300	130
1/8"	200	85	170	40	100	30	170	40
3/16"	55	20	85	12	20	8	85	12

NOTE: Normally open valves are rated for intermittent duty only on 16,000 Series valves.

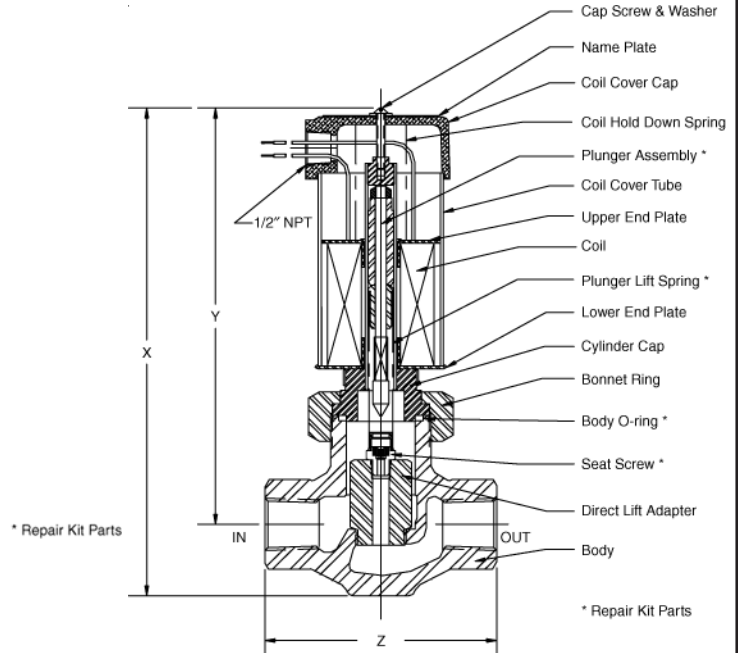
NOTE: Rubber seats are limited to 500 psi.

16,000 Series

Dimensions and Shipping Weights



Normally Closed 16200 1/2" Valve – (shown with a NEMA 1 coil housing and a soft seat)



Normally Open 16201 1/2" Valve –(shown with a NEMA 1 coil housing and a soft seat)

16,000 Series Normally Closed, Single and Double Wound Coils

Catalog Num. Perfix		Pipe Size	X	Y	Z	Shipping Weight (lbs.)
Single Wound Coil	Double Wound Coil					
16000	16004	1/4"	7"	6 1/8"	3"	6
16100	16104	3/8"	7"	6 1/8"	3"	6
16200	16204	1/2"	8 1/2"	7 3/8"	4 5/8"	9
16300	16304	3/4"	8 1/2"	7 3/8"	4 5/8"	9
16400	16404	1"	9 3/16"	7 11/16"	5 1/4"	14

16,000 Series Normally Open, Single Wound Coils Only

Catalog Num. Prefix	Pipe Size	X	Y	Z	Shipping Weight (lbs.)
16001	1/4"	8 1/8"	7 5/16"	3"	6
16101	3/8"	8 1/8"	7 5/16"	3"	6
16201	1/2"	9 5/8"	8 1/2"	4 5/8"	9
16301	3/4"	9 5/8"	8 1/2"	4 5/8"	9
16401	1"	10 5/16"	8 13/16"	5 1/4"	14

Cv Flow Factors

Orifice	CV
1/16"	.093
3/32"	.22
1/8"	.44
3/16"	.72

16,000 Series

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CONNECTION SIZE

- 0 1/4"
- 1 3/8"
- 2 1/2"
- 3 3/4"
- 4 1"

COIL TYPE & NORMAL (DE-ENERGIZED) VALVE POSITION

- 0 Single wound Class H molded coil & Normally Closed
- 4 Double wound Class H fiberglass coil & Normally Closed
- 1 Single wound Class H molded coil & Normally Open

VOLTAGE AC/60 Hz

- 0 AC/50 Hz or DC Voltage
- 1 24 VAC 4 200 VAC
- 2 100 VAC 5 230 VAC
- 3 115 VAC 6 460 VAC

VOLTAGE AC/50 Hz

- 0 AC/60 Hz or DC Voltage
- 1 24 VAC 3 220 VAC
- 2 110 VAC 4 380 VAC

VOLTAGE DC

- 0 AC Voltage
- 1 12 VDC 4 72 VDC
- 2 24 VDC 5 125 VDC
- 3 32 VDC 6 250 VDC

COIL HOUSING

- E Explosion-proof
- S Standard
- W Waterproof
- C Combined Water- & Explosion-proof

FLUID MEDIA TYPE

- 1 Gas
- 2 Liquid up to 40 SUS
- 3 Liquid from 41 SUS to 200 SUS
- 4 Steam
- 5 Cryogenic

SEAL MATERIAL

- A Teflon®
- B Buna-N
- C Viton®
- D EPR

SEAT MATERIAL

- A Teflon®
- B Buna-N
- C Viton®
- D EPR
- E Kel-F
- F Metal 316

ORIFICE SIZE

- 1 1/16"
- 2 3/32"
- 3 1/8"
- 4 3/16"

CONNECTION TYPE

- P NPT
- J British Pipe Thread