



101 Series

Nickel Plated Brass 2-way Full Port Ball Valve



The Assured Automation 101 is a full port, brass, NPT threaded end actuated ball valve. It can be equipped with a manual handle or with direct mount pneumatic or electric actuators. The direct mount actuators eliminate the valve-actuator mounting kit, which adds unnecessary height and expense. A full range of accessory items are available including limit switches, solenoid valves, positioners and manual override devices.

END CONNECTIONS

NPT Threaded: 3/8" to 3"

PRESSURE RANGE

3/8" to 1/2": 925 PSIG

3/4" to 1": 725 PSIG

1 1/4" to 1 1/2": 580 PSIG

2": 485 PSIG

2 1/2" to 3": 365 PSIG

[see Pressure/Temperature Curve](#)

TEMPERATURE RANGE

-4°F to 300°F

[see Pressure/Temperature Curve](#)

MATERIALS

Body: Nickel Plated Brass

Seats: PTFE

Seals: PTFE

Ball: Brass

Stem: Brass

FEATURES

- Actuated electrically, pneumatically, or manually
- Full Port for unobstructed flow
- 2-piece body
- Integrated mounting pad for actuators
- Compact assembly
- Complete line of accessories

[see page 2 for feature details](#)

TYPICAL APPLICATIONS

- Air Drying Equipment
- Pollution Control Equipment
- Process Control Applications
- Laundry Equipment
- Textile Dyeing & Drying
- Bottling & Dispensing Equipment

ACTUATORS

Pneumatic

- Spring return
- Double Acting

Electric

- various IP ratings and voltages
- modulating or on/off

Manual handle lever

- Manual Basic Lever

[see page 3 for accessory details](#)

CUSTOM ACTUATED BALL VALVE ASSEMBLY



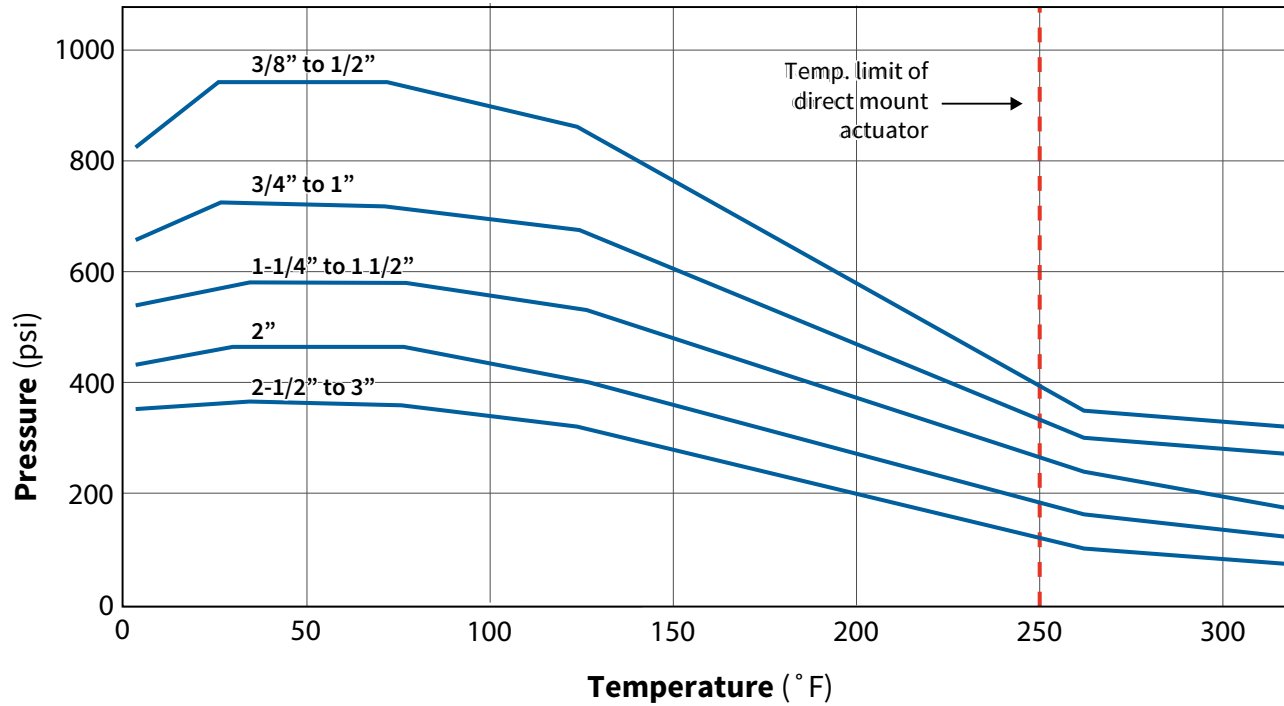


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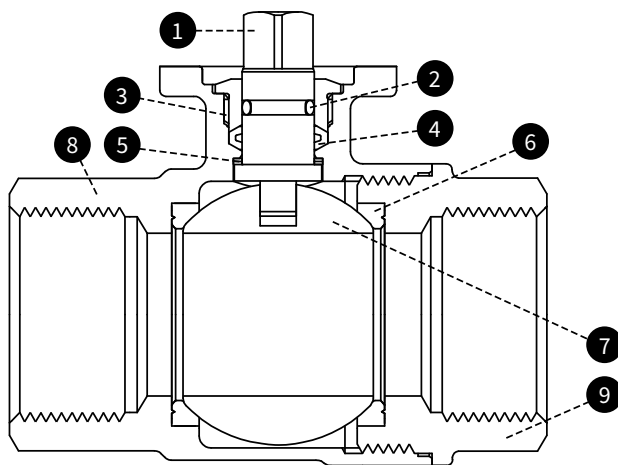


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PRESSURE/TEMPERATURE CURVE



MATERIALS OF CONSTRUCTION



Item	Name	Material
1	Shaft	Brass
2	O-Ring	FKM
3	Gland Nut	Brass
4	Shaft Seal	PTFE
5	Antifriction Rings	PTFE
6	Seals	PTFE
7	Ball	Chromium Plated Brass
8	Body	Nickel Plated Brass
9	End Cap	Nickel Plated Brass

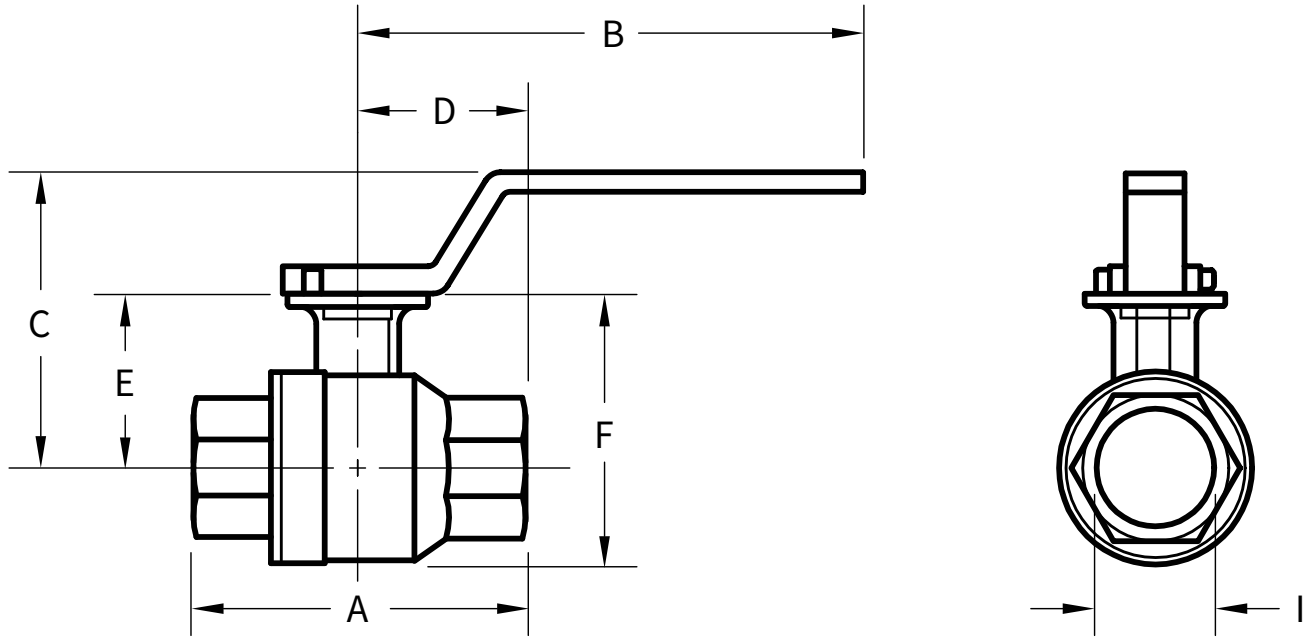


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DIMENSIONS



Size	A	B	C	D	E	F	I	Cv	Weight
3/8"	2.45	3.71	2.51	1.22	1.20	1.81	0.375	13	1.2
1/2"	2.45	3.71	2.66	1.22	1.20	1.81	0.500	23	1.2
3/4"	2.69	5.07	3.09	1.34	1.43	2.20	0.750	70	1.4
1"	3.14	5.07	3.28	1.57	1.59	2.50	1.00	117	2.8
1 1/4"	3.63	5.07	3.78	1.82	2.03	3.18	1.25	152	3.7
1 1/2"	4.03	5.07	4.10	2.02	2.29	3.63	1.50	199	5.8
2"	4.58	5.07	4.45	2.29	2.58	4.24	2.00	328	8.8
3"	6.64	9.50	5.72	3.32	3.73	6.14	3.00	901	12.5

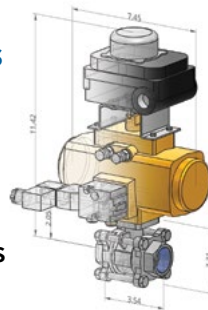
CAD FILES AND ASSEMBLY SPECIFIC DATASHEETS



Complete Valve Assembly
CAD Models & Datasheets
ON DEMAND!



- Complete Specs for Each Component in **ONE Document**
- Dimension Drawings of Exact Assembly



ASSURED AUTOMATION
We Make Valve Automation Easy



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ACTUATORS AVAILABLE

A full range of actuators are available to choose from. All sizing is done by Assured Automation to make selecting your assembly easy. Any accessories ordered with the actuator will be installed and tested by our ISO certified facility.

Pneumatic

P Series Dual Scotch Yoke



Spring Return
fail position 1 or 2

[\(see P series web page\)](#)



Double Acting
fail last place

F Series Rack and Pinion



Spring Return
fail position 1 or 2

[\(see P series web page\)](#)



Double Acting
fail position 1 or 2

Accessories

- NAMUR direct mount solenoid valves
- Variety of limit switches
- Modulating positioners
- 1/4" NPT x 1/4" tube push fittings
- 1/4" NPT x 1/4" compression fittings
- SS and poly tubing

Electric

Weatherproof

V4 Series



- 12 to 120 VAC/VDC**
- Manual override
 - NEMA-4/4X housing
 - External wire leads
 - High Strength Gears

[\(see V4 series web page\)](#)

R4 Series



- 12 to 120 VAC/VDC**
- Compact Design
 - Thermally protected motor
 - Spur Gear Drive

[\(see R4 series web page\)](#)

S4 Series



- 12 to 240 VAC/VDC**
- Isolated end of travel limit switches
 - Manual override
 - Electronic torque limiter

[\(see S4 series web page\)](#)

K4 Series



- 12 to 120 VAC/VDC**
- Built-in thermal protector
 - Worm-gear drive
 - Manual override

[\(see K4 series web page\)](#)

Explosion Proof

B7 Series



- 24 VDC and 120 VAC**
- NEMA 4/4X/7 enclosure
 - Heater and thermostat installed in all actuators
 - Manual override on all units

[\(see B7 series web page\)](#)

Manual

Manual Lever



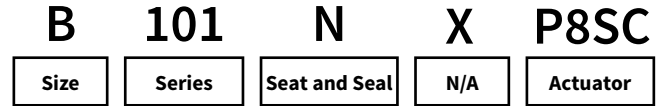


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ORDERING INFORMATION



VALVE BODY

Size: _____

- | | |
|-----------------|-------------------|
| B = 3/8" | F = 1 1/4" |
| C = 1/2" | G = 1 1/2" |
| D = 3/4" | H = 2" |
| E = 1" | I = 3" |

Seat and Seal: _____

- N** = PTFE

Note: only one actuator may be chosen

ACTUATOR

Pneumatic Actuators

Series: _____

- P** = P Series Dual Scotch Yoke
F = F Series Dual Rack & Pinion

Supply Air Pressure: _____

- 6** = 60psi **8** = 80psi

Function: _____

- S** = Spring return **D** = Double acting

Fail Safe Position: _____

- C** = Fail to CLOSED **O** = Fail to OPEN
D = Fails to Last Position

Electric Actuators

Series: _____

- V4** = Weatherproof
R4 = Weatherproof
S4 = Weatherproof
K4 = Weatherproof (only sizes 1 1/4" and larger)
B7 = Explosion Proof

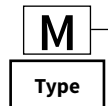
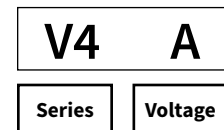
Voltage: _____

- A** = 120VAC **B** = 24VDC **F** = 12VDC

Manual Operators

Type: _____

- M** = Basic Manual Lever



Code continues to specify additional accessories and options



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ACCESSORIES

Solenoid Valves

NAMUR solenoid valves for direct mount to the actuator. Various coil and connector options are available including weatherproof, explosion proof, corded, NPT conduit, and cable gland.

3-way
for spring return models



3/4-way for
for double acting models



[Solenoid valve web page](#)

Limit Switches (valve position indicators)

Used to communicate the position of the valve to a PLC, HMI, or simple remote indicator lamp. Various switch technologies are available. All include a local visual indicator as well.

UA/UB Series

2x Solid state proximity switches; 1 for Open, 1 for Closed



YF Series

2x SPDT mechanical switches; 1 for Open, 1 for Closed



YE, YH, YO Series

2x Solid State Proximity Sensors or SPDT mechanical switches



Other limit switches are available [Limit switch web page](#)

Modulating Positioners

Add modulating control to either of our pneumatic actuator series. These positioners mount to the top of the actuator using the NAMUR standard mounting hole and stem pattern.

Pneumatic

0-15 psi control signal



Electro-pneumatic

4-20mA or 0-10VDC control signal



With feedback unit

4-20mA or 0-10VDC feedback signal



[Positioner web page](#)