

31D Series

Brass 3-way Standard Port Ball Valve



The 31D is a 3-way, brass 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.

FEATURES

- Standard port.
- Blow-out proof stem.
- Integrated mounting pad for actuators.
- Compact assembly.
- Complete line of accessories.

ACTUATOR CONFIGURATIONS

- Electric.
- Pneumatic (spring return).
- Pneumatic (double acting).
- Manual handle.

PRESSURE RANGE

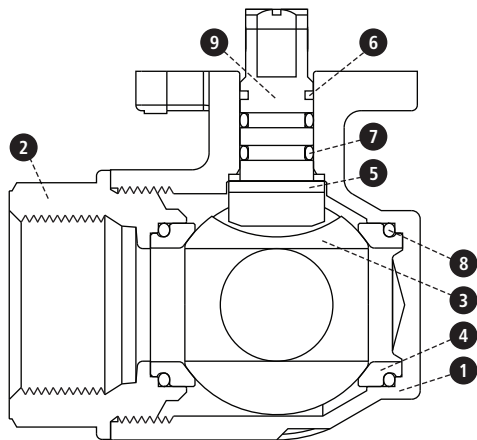
29 inHg vacuum to 400 PSI

TEMPERATURE RANGE

-30°F to 320°F

TYPICAL APPLICATIONS

- Air drying equipment.
- Pollution control equipment.
- Process control applications.
- Laundry equipment.
- Textile dyeing and drying.
- Bottling and dispensing.



PORT ARRANGEMENTS

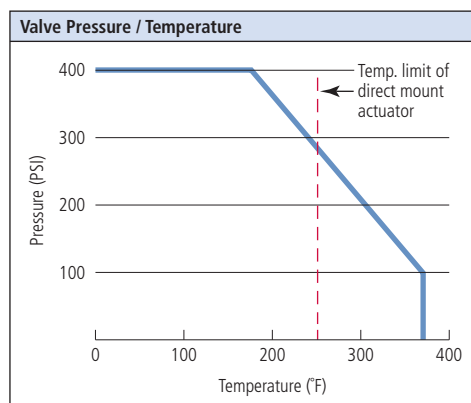
L Port		T Port			
Flow Plan A	Flow Plan D	Flow Plan E	Flow Plan F	Flow Plan G	
Pos1 Pos2	Pos1 Pos2	Pos1 Pos2	Pos1 Pos2	Pos1 Pos2	

MATERIALS OF CONSTRUCTION

Part	Qty.	Description	Standard Material
1	1	Body	Brass CW 617 NUNI EN 12165
2	3	End Cap	Brass CW 617 NUNI EN 12165
3	1	Ball	Brass CW 617 NUNI EN 12165
4	4	Seat	PTFE
5	1	Thrust Washer	PTFE
6	1	Stem Seal	PTFE
7	2	Stem O-Ring	FKM (Viton®)
8	4	Body O-Ring	FKM (Viton®)
9	1	Stem	Brass CW 614 NUNI EN 12164

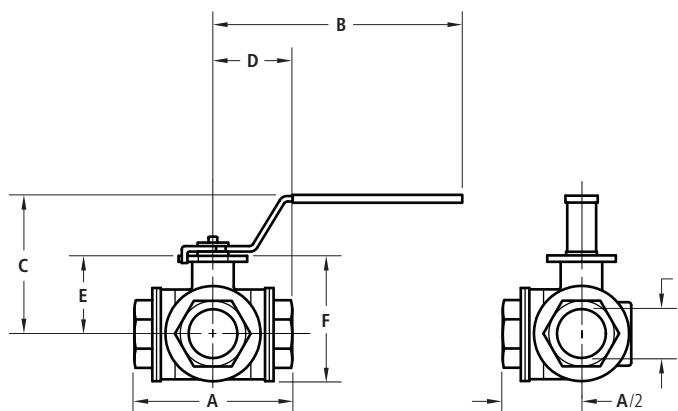
CV FACTORS

Size	CV
1/4"	3.5
3/8"	4.0
1/2"	5.0
3/4"	7.7
1"	14
1-1/4"	19
1-1/2"	31
2"	44



31DXM Series

Brass 3-way standard port ball valve with manual handle
 (Threaded end connection)



DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	I	Wt. (lbs.)	Model No.
1/4"	2.64	4.72	2.44	1.32	1.20	1.98	.39	1.2	A31DØXM
3/8"	2.64	4.72	2.44	1.32	1.20	2.04	.43	1.2	B31DØXM
1/2"	2.87	4.72	2.44	1.43	1.20	2.15	.43	1.2	C31DØXM
3/4"	3.19	4.72	2.52	1.59	1.29	2.64	.59	1.4	D31DØXM
1"	3.74	6.69	2.95	1.87	1.63	2.80	.79	2.8	E31DØXM
1-1/4"	4.39	6.69	3.17	2.19	1.85	3.35	.98	4.2	F31DØXM
1-1/2"	4.86	6.69	3.56	2.43	2.34	3.95	1.26	8.0	G31DØXM
2"	5.73	9.05	4.43	2.86	2.90	4.65	1.57	9.1	H31DØXM
2-1/2"	6.93	9.05	4.86	3.46	3.35	5.54	1.95	16.3	I31DØXM
3"	7.08	9.05	4.86	3.54	3.35	5.58	1.95	19.6	J31DØXM

© Flow Plan: A, D, E, F, G (see Port Arrangements diagram).

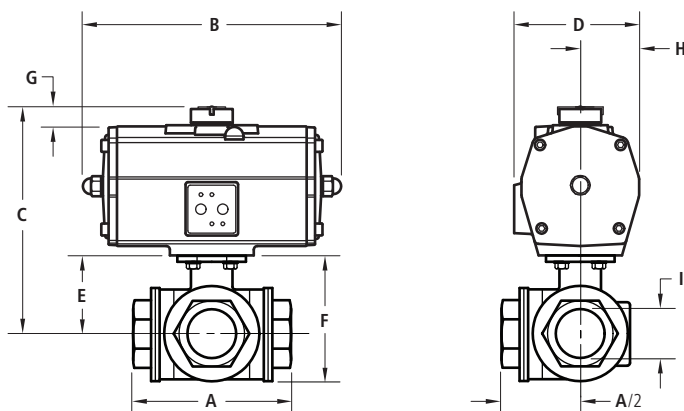
31D VALVE FEATURES

- Standard port brass body, ball and blow out proof stem.
- 3-way valve with forged body and NPT threaded end connection.
- Mounting pad for direct mount.
- PTFE seats and seals.
- Temperature range: -30°F to 320°F.
- Pressure range: 29 inHg vacuum to 400 PSI.

31DXEDA Series

Brass 3-way standard port ball valve with double acting pneumatic actuator

(Threaded end connection, actuators are sized for 400 PSI pressure differential)



DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	Actuator	Wt. (lbs.)	Model No.
80 PSI Minimum Actuator Air Supply = 8D												
1/4"	2.64	6.26	5.14	3.26	1.20	1.98	.79	1.46	.39	ED25	4.1	A31D○XE8D
3/8"	2.64	6.26	5.14	3.26	1.20	2.04	.79	1.46	.43	ED25	4.1	B31D○XE8D
1/2"	2.87	6.26	5.14	3.26	1.20	2.15	.79	1.46	.43	ED25	4.1	C31D○XE8D
3/4"	3.19	6.26	5.23	3.26	1.29	2.64	.79	1.46	.59	ED25	4.3	D31D○XE8D
1"	3.74	6.26	5.57	3.26	1.63	2.80	.79	1.46	.79	ED25	5.5	E31D○XE8D
1-1/4"	4.39	6.26	5.79	3.26	1.85	3.35	.79	1.46	.98	ED25	7.1	F31D○XE8D
1-1/2"	4.86	7.09	6.79	3.78	2.34	3.95	.79	1.70	1.26	ED40	10.0	G31D○XE8D
2"	5.73	7.83	7.82	4.19	2.90	4.65	.79	1.93	1.57	ED65	14.4	H31D○XE8D
2-1/2"	6.93	7.83	8.27	4.19	3.35	5.54	.79	1.93	1.95	ED65	21.6	I31D○XE8D
3"	7.08	7.83	8.27	4.19	3.35	5.58	.79	1.93	1.95	ED65	24.9	J31D○XE8D
60 PSI Minimum Actuator Air Supply = 6D												
1/4"	2.64	6.26	5.14	3.26	1.20	1.98	.79	1.46	.39	ED25	4.1	A31D○XE6D
3/8"	2.64	6.26	5.14	3.26	1.20	2.04	.79	1.46	.43	ED25	4.1	B31D○XE6D
1/2"	2.87	6.26	5.14	3.26	1.20	2.15	.79	1.46	.43	ED25	4.1	C31D○XE6D
3/4"	3.19	6.26	5.23	3.26	1.29	2.64	.79	1.46	.59	ED25	4.3	D31D○XE6D
1"	3.74	7.09	6.08	3.78	1.63	2.80	.79	1.70	.79	ED40	6.6	E31D○XE6D
1-1/4"	4.39	7.09	6.30	3.78	1.85	3.35	.79	1.70	.98	ED40	8.2	F31D○XE6D
1-1/2"	4.86	7.09	6.79	3.78	2.34	3.95	.79	1.70	1.26	ED40	10.0	G31D○XE6D
2"	5.73	7.83	7.82	4.19	2.90	4.65	.79	1.93	1.57	ED65	14.4	H31D○XE6D
2-1/2"	6.93	8.70	8.79	4.60	3.35	5.54	.79	2.12	1.95	ED100	23.1	I31D○XE6D
3"	7.08	8.70	8.79	4.60	3.35	5.58	.79	2.12	1.95	ED100	26.4	J31D○XE6D

© Flow Plan: A, D, E, F, G (see Port Arrangements diagram).

31D VALVE FEATURES

- Standard port brass body, ball and blow out proof stem.
- 3-way valve with forged body and NPT threaded end connection.
- Mounting pad for direct mount.
- PTFE seats and seals.
- Temperature range: -30°F to 320°F.
- Pressure range: 29 inHg vacuum to 400 PSI.

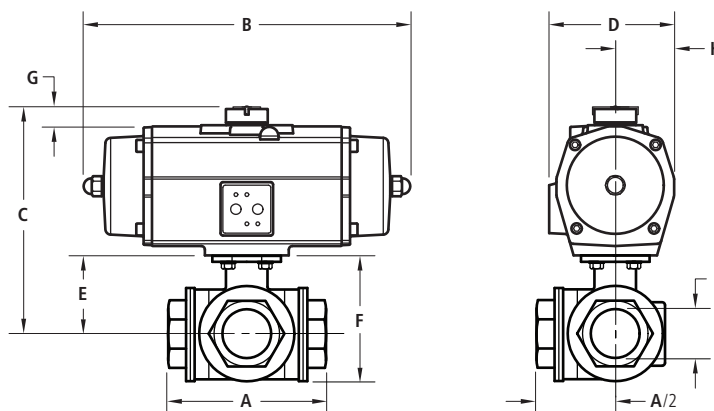
PNEUMATIC ACTUATOR FEATURES

- E Series double acting rack and pinion actuator.
- Corrosion resistant coating.
- NAMUR solenoid mounting pad, ISO 5211 mounting standard.
- Visual position indicators.
- High duty cycle, permanent lubrication.
- Temperature range: -4°F to 175°F.

31DXESR Series

Brass 3-way standard port ball valve with spring return pneumatic actuator

(Threaded end connection, actuators are sized for 400 PSI pressure differential)



DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	Actuator	Wt. (lbs.)	Model No.
80 PSI Minimum Actuator Air Supply = 85												
1/4"	2.64	6.77	5.14	3.26	1.20	1.98	.79	1.46	.39	ES25	4.9	A31D○XE8S
3/8"	2.64	6.77	5.14	3.26	1.20	2.04	.79	1.46	.43	ES25	4.9	B31D○XE8S
1/2"	2.87	6.77	5.14	3.26	1.20	2.15	.79	1.46	.43	ES25	4.9	C31D○XE8S
3/4"	3.19	9.80	6.21	4.19	1.29	2.64	.79	1.93	.59	ES65	9.3	D31D○XE8S
1"	3.74	9.80	6.55	4.19	1.63	2.80	.79	1.93	.79	ES65	10.5	E31D○XE8S
1-1/4"	4.39	9.80	6.77	4.19	1.85	3.35	.79	1.93	.98	ES65	12.1	F31D○XE8S
1-1/2"	4.86	10.51	7.78	4.60	2.34	3.95	.79	2.12	1.26	ES100	16.1	G31D○XE8S
2"	5.73	10.51	8.34	4.60	2.90	4.65	.79	2.12	1.57	ES100	19.2	H31D○XE8S
2-1/2"	6.93	14.17	9.77	5.39	3.35	5.54	.79	2.52	1.95	ES200	36.4	I31D○XE8S
3"	7.08	14.17	9.77	5.39	3.35	5.58	.79	2.52	1.95	ES200	39.7	J31D○XE8S
60 PSI Minimum Actuator Air Supply = 65												
1/4"	2.64	6.77	5.14	3.26	1.20	1.98	.79	1.46	.39	ES25-3	4.9	A31D○XE6S
3/8"	2.64	6.77	5.14	3.26	1.20	2.04	.79	1.46	.43	ES25-3	4.9	B31D○XE6S
1/2"	2.87	6.77	5.14	3.26	1.20	2.15	.79	1.46	.43	ES25-3	4.9	C31D○XE6S
3/4"	3.19	9.80	6.21	4.19	1.29	2.64	.79	1.93	.59	ES65-3	9.3	D31D○XE6S
1"	3.74	9.80	6.55	4.19	1.63	2.80	.79	1.93	.79	ES65-3	10.5	E31D○XE6S
1-1/4"	4.39	9.80	6.77	4.19	1.85	3.35	.79	1.93	.98	ES65-3	12.1	F31D○XE6S
1-1/2"	4.86	14.17	8.76	5.39	2.34	3.95	.79	2.52	1.26	ES200-3	26.1	G31D○XE6S
2"	5.73	14.17	9.32	5.39	2.90	4.65	.79	2.52	1.57	ES200-3	29.2	H31D○XE6S
2-1/2"	6.93	14.17	9.77	5.39	3.35	5.54	.79	2.52	1.95	ES200-3	36.4	I31D○XE6S
3"	7.08	14.17	9.77	5.39	3.35	5.58	.79	2.52	1.95	ES200-3	39.7	J31D○XE6S

© Flow Plan: A, D, E, F, G (see Port Arrangements diagram).

31D VALVE FEATURES

- Standard port brass body, ball and blow out proof stem.
- 3-way valve with forged body and NPT threaded end connection.
- Mounting pad for direct mount.
- PTFE seats and seals.
- Temperature range: -30°F to 320°F.
- Pressure range: 29 inHg vacuum to 400 PSI.

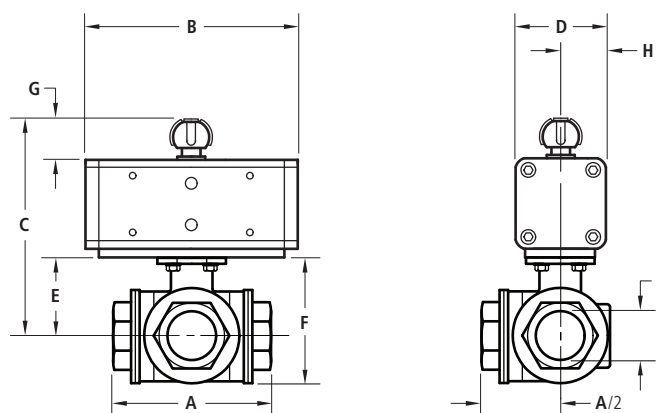
PNEUMATIC ACTUATOR FEATURES

- E Series spring return rack and pinion actuator.
- Corrosion resistant coating.
- NAMUR solenoid mounting pad, ISO 5211 mounting standard.
- Visual position indicators.
- High duty cycle, permanent lubrication.
- Temperature range: -4°F to 175°F.

31DXODA Series

Brass 3-way standard port ball valve with double acting pneumatic actuator

(Threaded end connection, actuators are sized for 400 PSI pressure differential)



DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	Actuator	Wt. (lbs.)	Model No.
80 PSI Minimum Actuator Air Supply = 8D												
1/4"	2.64	2.76	3.47	1.70	1.20	1.98	.59	.85	.39	PD008	1.9	A31D○X08D
3/8"	2.64	2.76	3.47	1.70	1.20	2.04	.59	.85	.43	PD008	1.9	B31D○X08D
1/2"	2.87	2.76	3.47	1.70	1.20	2.15	.59	.85	.43	PD008	1.9	C31D○X08D
3/4"	3.19	5.12	4.44	2.16	1.29	2.64	.79	1.05	.59	PD030	3.6	D31D○X08D
1"	3.74	5.98	5.17	2.56	1.63	2.80	.79	1.28	.79	PD060	6.0	E31D○X08D
1-1/4"	4.39	5.98	5.39	2.56	1.85	3.35	.79	1.28	.98	PD060	7.6	F31D○X08D
1-1/2"	4.86	5.98	5.88	2.56	2.34	3.95	.79	1.28	1.26	PD060	9.4	G31D○X08D
2"	5.73	6.65	6.74	2.83	2.90	4.65	.79	1.41	1.57	PD090	13.2	H31D○X08D
2-1/2"	6.93	6.65	7.19	2.83	3.35	5.54	.79	1.41	1.95	PD090	20.4	I31D○X08D
3"	7.08	6.65	7.19	2.83	3.35	5.58	.79	1.41	1.95	PD090	23.7	J31D○X08D
60 PSI Minimum Actuator Air Supply = 6D												
1/4"	2.64	2.76	3.47	1.70	1.20	1.98	.59	.85	.39	PD008	1.9	A31D○X06D
3/8"	2.64	2.76	3.47	1.70	1.20	2.04	.59	.85	.43	PD008	1.9	B31D○X06D
1/2"	2.87	2.76	3.47	1.70	1.20	2.15	.59	.85	.43	PD008	1.9	C31D○X06D
3/4"	3.19	5.12	4.44	2.16	1.29	2.64	.79	1.05	.59	PD030	3.6	D31D○X06D
1"	3.74	5.98	5.17	2.56	1.63	2.80	.79	1.28	.79	PD060	6.0	E31D○X06D
1-1/4"	4.39	5.98	5.39	2.56	1.85	3.35	.79	1.28	.98	PD060	7.6	F31D○X06D
1-1/2"	4.86	5.98	5.88	2.56	2.34	3.95	.79	1.28	1.26	PD060	9.4	G31D○X06D
2"	5.73	6.65	6.74	2.83	2.90	4.65	.79	1.41	1.57	PD090	13.2	H31D○X06D
2-1/2"	6.93	7.24	7.19	3.15	3.35	5.54	1.18	1.57	1.95	PD120	22.5	I31D○X06D
3"	7.08	7.24	7.19	3.15	3.35	5.58	1.18	1.57	1.95	PD120	25.8	J31D○X06D

© Flow Plan: A, D, E, F, G (see Port Arrangements diagram).

31D VALVE FEATURES

- Standard port brass body, ball and blow out proof stem.
- 3-way valve with forged body and NPT threaded end connection.
- Mounting pad for direct mount.
- PTFE seats and seals.
- Temperature range: -30°F to 320°F.
- Pressure range: 29 inHg vacuum to 400 PSI.

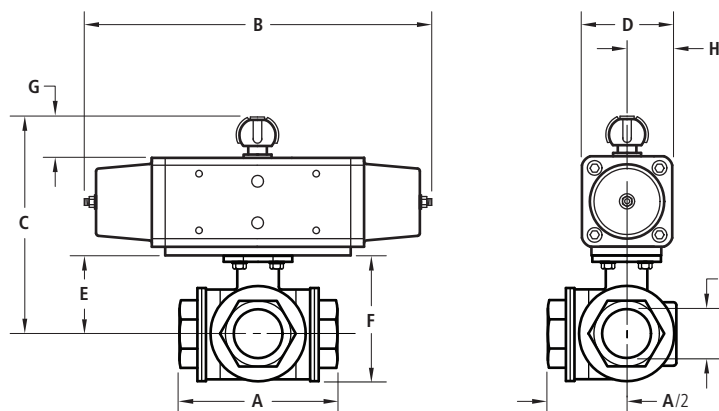
PNEUMATIC ACTUATOR FEATURES

- O Series double acting pneumatic actuator.
- Corrosion resistant coating.
- NAMUR solenoid mounting pad, ISO 5211 mounting standard.
- Visual position indicators.
- High duty cycle, permanent lubrication.
- Temperature range: -4°F to 175°F.

31DXOSR Series

Brass 3-way standard port ball valve with spring return pneumatic actuator

(Threaded end connection, actuators are sized for 400 PSI pressure differential)



DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	Actuator	Wt. (lbs.)	Model No.
80 PSI Minimum Actuator Air Supply = 85												
1/4"	2.64	8.71	4.43	2.17	1.20	1.98	.79	1.08	.39	PS015	4.1	A31D○X08S
3/8"	2.64	8.71	4.43	2.17	1.20	2.04	.79	1.08	.43	PS015	4.1	B31D○X08S
1/2"	2.87	8.71	4.43	2.17	1.20	2.15	.79	1.08	.43	PS015	4.1	C31D○X08S
3/4"	3.19	9.45	4.83	2.56	1.29	2.64	.79	1.28	.59	PS030	5.8	D31D○X08S
1"	3.74	11.58	5.47	2.83	1.63	2.80	.79	1.41	.79	PS045	7.9	E31D○X08S
1-1/4"	4.39	11.58	5.69	2.83	1.85	3.35	.79	1.41	.98	PS045	9.5	F31D○X08S
1-1/2"	4.86	12.60	6.90	3.15	2.34	3.95	1.18	1.57	1.26	PS060	13.7	G31D○X08S
2"	5.73	14.06	7.86	3.54	2.90	4.65	1.18	1.77	1.57	PS090	19.2	H31D○X08S
2-1/2"	6.93	14.06	8.31	3.54	3.35	5.54	1.18	1.77	1.95	PS090	26.4	I31D○X08S
3"	7.08	14.65	8.70	3.94	3.35	5.58	1.18	1.97	1.95	PS120	34.3	J31D○X08S
60 PSI Minimum Actuator Air Supply = 65												
1/4"	2.64	8.71	4.43	2.17	1.20	1.98	.79	1.08	.39	PS015	4.1	A31D○X06S
3/8"	2.64	8.71	4.43	2.17	1.20	2.04	.79	1.08	.43	PS015	4.1	B31D○X06S
1/2"	2.87	8.71	4.43	2.17	1.20	2.15	.79	1.08	.43	PS015	4.1	C31D○X06S
3/4"	3.19	9.45	4.83	2.56	1.29	2.64	.79	1.28	.59	PS030	5.8	D31D○X06S
1"	3.74	11.58	5.47	2.83	1.63	2.80	.79	1.41	.79	PS045	7.9	E31D○X06S
1-1/4"	4.39	11.58	5.69	2.83	1.85	3.35	.79	1.41	.98	PS045	9.5	F31D○X06S
1-1/2"	4.86	12.60	6.90	3.15	2.34	3.95	1.18	1.57	1.26	PS060	13.7	G31D○X06S
2"	5.73	14.06	7.86	3.54	2.90	4.65	1.18	1.77	1.57	PS090	19.2	H31D○X06S
2-1/2"	6.93	14.65	8.70	3.94	3.35	5.54	1.18	1.97	1.95	PS120	31.0	I31D○X06S
3"	7.08	14.65	8.70	3.94	3.35	5.58	1.18	1.97	1.95	PS120	34.3	J31D○X06S

© Flow Plan: A, D, E, F, G (see Port Arrangements diagram).

31D VALVE FEATURES

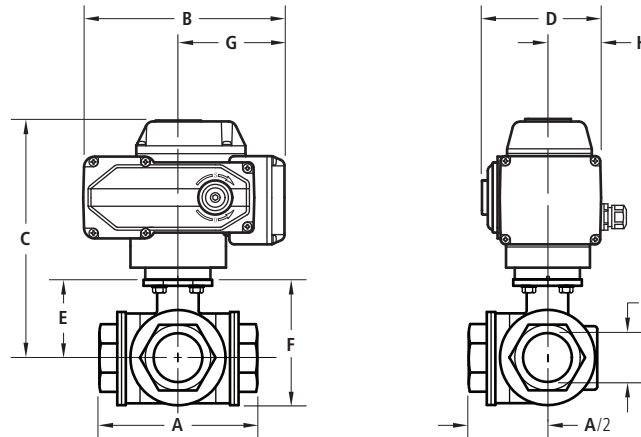
- Standard port brass body, ball and blow out proof stem.
- 3-way valve with forged body and NPT threaded end connection.
- Mounting pad for direct mount.
- PTFE seats and seals.
- Temperature range: -30°F to 320°F.
- Pressure range: 29 inHg vacuum to 400 PSI.

PNEUMATIC ACTUATOR FEATURES

- O Series spring return pneumatic actuator.
- Corrosion resistant coating.
- NAMUR solenoid mounting pad, ISO 5211 mounting standard.
- Visual position indicators.
- High duty cycle, permanent lubrication.
- Temperature range: -4°F to 175°F.

31DXK4 Series

Brass 3-way standard port ball valve with electric actuator, NEMA 4, 4X
 (Threaded end connection, actuators are sized for 400 PSI pressure differential)



DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	Actuator	Wt. (lbs.)	Model No.
1"	3.74	8.17	8.07	4.82	1.63	2.80	4.43	2.14	.79	KOUNIC10A-ISO	12.6	E31DØXK4A
1-1/4"	4.39	8.17	8.29	4.82	1.85	3.35	4.43	2.14	.98	KOUNIC10A-ISO	14.2	F31DØXK4A
1-1/2"	4.86	8.17	8.78	4.82	2.34	3.95	4.43	2.14	1.26	KOUNIC10A-ISO	16.0	G31DØXK4A
2"	5.73	8.17	9.34	4.82	2.90	4.65	4.43	2.14	1.57	KOUNIC10A-ISO	19.1	H31DØXK4A
2-1/2"	6.93	8.17	9.79	4.82	3.35	5.54	4.43	2.14	1.95	KOUNIC10A-ISO	26.3	I31DØXK4A
3"	7.08	8.17	9.79	4.82	3.35	5.58	4.43	2.14	1.95	KOUNIC10A-ISO	29.6	J31DØXK4A

© Flow Plan: **A, D, E, F, G** (see Port Arrangements diagram).

31D VALVE FEATURES

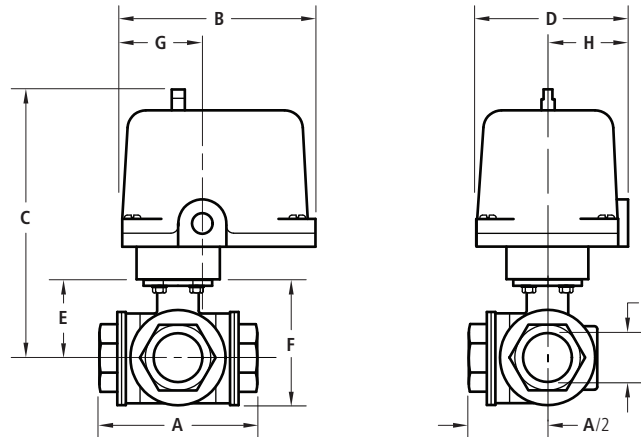
- Standard port brass body, ball and blow out proof stem.
- 3-way valve with forged body and NPT threaded end connection.
- Mounting pad for direct mount.
- PTFE seats and seals.
- Temperature range: -30°F to 320°F.
- Pressure range: 29 inHg vacuum to 400 PSI.

ELECTRIC ACTUATOR FEATURES

- K Series electric actuator.
- Most voltages available.
- Quarter turn: 0-90° rotation.
- NEMA 4/4X certified by UL labs.
- ISO 5211 mounting standard.
- Visual position indicators.
- Self-locking drive train.
- Mounts in any direction.
- 1/2" NPT conduit connection.
- CSA-NRTL/C and CE certified.
- Temperature range: 0°F to 160°F.

31DXR4 Series

Brass 3-way standard port ball valve with electric actuator, NEMA 4, 4X
 (Threaded end connection, actuators are sized for 400 PSI pressure differential)



DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	Actuator	Wt. (lbs.)	Model No.
1/4"	2.64	5.95	7.25	4.40	1.20	1.98	2.48	2.20	.39	R150 (5 sec.)	5.2	A31D⊙XR4⊙
3/8"	2.64	5.95	7.25	4.40	1.20	2.04	2.48	2.20	.43	R150 (5 sec.)	5.2	B31D⊙XR4⊙
1/2"	2.87	5.95	7.25	4.40	1.20	2.15	2.48	2.20	.43	R150 (5 sec.)	5.2	C31D⊙XR4⊙
3/4"	3.19	5.95	7.34	4.40	1.29	2.64	2.48	2.20	.59	R300 (9 sec.)	7.4	D31D⊙XR4⊙
1"	3.74	5.95	7.68	4.40	1.63	2.80	2.48	2.20	.79	R300 (9 sec.)	8.6	E31D⊙XR4⊙
1-1/4"	4.39	5.95	7.90	4.40	1.85	3.35	2.48	2.20	.98	R300 (9 sec.)	10.2	F31D⊙XR4⊙
1-1/2"	4.86	5.95	8.39	4.40	2.34	3.95	2.48	2.20	1.26	R600 (16 sec.)	12.0	G31D⊙XR4⊙
2"	5.73	5.95	8.95	4.40	2.90	4.65	2.48	2.20	1.57	R600 (16 sec.)	15.1	H31D⊙XR4⊙
2-1/2"	6.93	5.95	9.40	4.40	3.35	5.54	2.48	2.20	1.95	R600 (16 sec.)	22.3	I31D⊙XR4⊙
3"	7.08	5.95	9.40	4.40	3.35	5.58	2.48	2.20	1.95	R600 (16 sec.)	25.6	J31D⊙XR4⊙

⊙ Flow Plan: A, D, E, F, G (see Port Arrangements diagram). ⊙ Voltage: A = 120 VAC; B = 24 VDC; E = 24 VAC; F = 12 VDC.

31D VALVE FEATURES

- Standard port brass body, ball and blow out proof stem.
- 3-way valve with forged body and NPT threaded end connection.
- Mounting pad for direct mount.
- PTFE seats and seals.
- Temperature range: -30°F to 320°F.
- Pressure range: 29 inHg vacuum to 400 PSI.

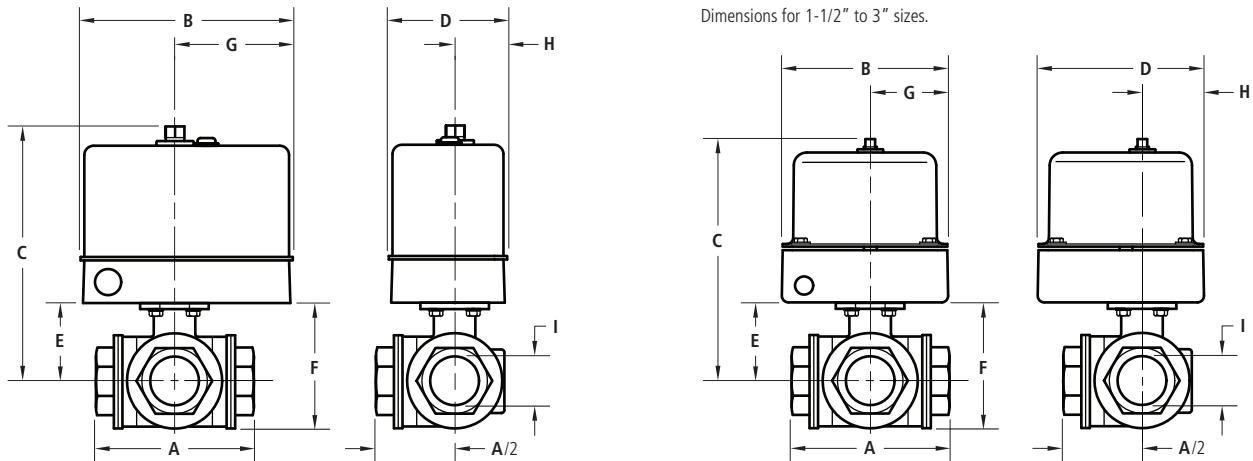
ELECTRIC ACTUATOR FEATURES

- R Series electric actuator.
- NEMA 4, 4X.
- Voltages available: 120 VAC, 12 VDC, 24 VDC.
- Duty cycle: 25% at 120 VAC, 100% at DC units.
- ISO 5211 universal mounting.
- Manual override.
- Permanent lubrication.
- Visual position indicator.
- Temperature range: 0°F to 150°F.

31DXV4 Series

Brass 3-way standard port ball valve with electric actuator, NEMA 4, 4X

(Threaded end connection, actuators are sized for 400 PSI pressure differential)



DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	Actuator	Wt. (lbs.)	Model No.
1/4"	2.64	5.50	5.43	3.00	1.20	1.98	3.06	1.38	.39	EV1S1V1	6.2	A31D○XV4○
3/8"	2.64	5.50	5.43	3.00	1.20	2.04	3.06	1.38	.43	EV1S1V1	6.2	B31D○XV4○
1/2"	2.87	5.50	5.43	3.00	1.20	2.15	3.06	1.38	.43	EV1S1V1	6.2	C31D○XV4○
3/4"	3.19	5.50	5.52	3.00	1.29	2.64	3.06	1.38	.59	EV1S1V1	6.4	D31D○XV4○
1"	3.74	5.50	5.86	3.00	1.63	2.80	3.06	1.38	.79	EV3S2V1	7.6	E31D○XV4○
1-1/4"	4.39	5.50	6.08	3.00	1.85	3.35	3.06	1.38	.98	EV3S2V1	9.2	F31D○XV4○
1-1/2"	4.86	6.43	8.66	6.43	2.34	3.95	3.01	2.63	1.26	NV6S2V1	17.0	G31D○XV4○
2"	5.73	6.43	9.22	6.43	2.90	4.65	3.01	2.63	1.57	NV6S2V1	20.1	H31D○XV4○
2-1/2"	6.93	6.43	9.67	6.43	3.35	5.54	3.01	2.63	1.95	NV6S2V1	27.3	I31D○XV4○
3"	7.08	6.43	9.67	6.43	3.35	5.58	3.01	2.63	1.95	NV6S2V1	30.6	J31D○XV4○

○ Flow Plan: **A, D, E, F, G** (see Port Arrangements diagram). ○ Voltage: **A** = 120 VAC; **B** = 24 VDC; **C** = 220 VAC; **E** = 24 VAC; **F** = 12 VDC.

31D VALVE FEATURES

- Standard port brass body, ball and blow out proof stem.
- 3-way valve with forged body and NPT threaded end connection.
- Mounting pad for direct mount.
- PTFE seats and seals.
- Temperature range: -30°F to 320°F.
- Pressure range: 29 inHg vacuum to 400 PSI.

ELECTRIC ACTUATOR FEATURES

- V Series electric actuator.
- NEMA 4, 4X.
- Voltages available: 120 VAC, 220 VAC, 24 VAC, 12 VDC, 24 VDC.
- Duty cycle: 25% at 120 VAC (EV1), 75% at 120 VAC (EV3, NV6), 100% at DC units.
- ISO 5211 universal mounting.
- Manual override.
- Permanent lubrication.
- Visual position indicator.
- Temperature range: 0°F to 160°F.