

# 4100 Series Standard Port

## Class 150 & 300 ANSI Unibody Ball Valve, 1/2" to 1" Sizes



### FEATURES

- Fully compliant to ASME B16.34 and API 608.
- Fire safe to API 607 4th Edition and ISO 10497.
- ISO 5211 actuator mounting pads.
- NACE MR01-75 Revision 2003 compliant.
- Standard 304SS latch lock handles.
- "Extended" packing nuts for easy access when automated.
- Electrically grounded ball and stem.
- TFM seats provide superior high temperature performance and chemical resistance.
- Tailpiece gasket positioned to isolate threads from line fluid.
- Tailpiece-to-body connection complies with API 608 and ISO 17292.

### 4100 SERIES

#### MODEL NUMBERING

Model Number: \_\_\_\_\_ **41** X X

Body and Trim Material: \_\_\_\_\_

- 1** = Carbon steel body, stainless steel trim
- 6** = Stainless steel body and trim

Class: \_\_\_\_\_

- 1** = 150 lb ANSI flanged
- 3** = 300 lb ANSI flanged

#### PRESSURE RANGE

##### Class 150:

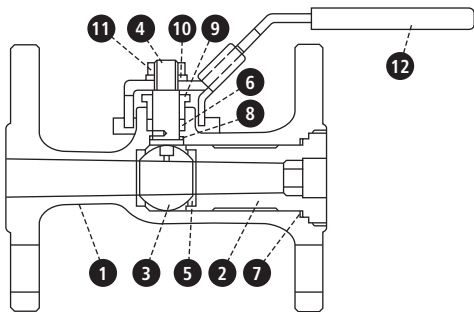
WCB: 29 inHg vacuum to 285 PSI  
CF8M: 29 inHg vacuum to 275 PSI

##### Class 300:

WCB: 29 inHg vacuum to 740 PSI  
CF8M: 29 inHg vacuum to 720 PSI

All TFM Seated Valves:

250 PSI Saturated Steam Rating

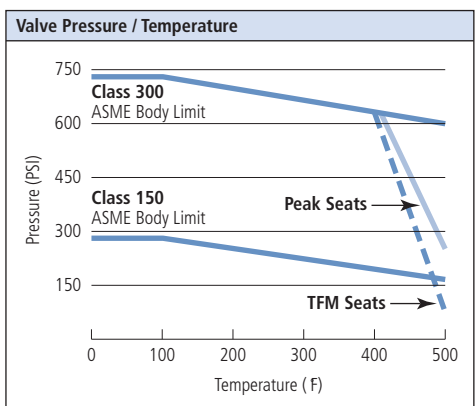


### MATERIALS OF CONSTRUCTION (STD)

Part	Qty.	Description	Standard Material
1	1	Body	ASTM A216 GR WCB or A351 GR CF8M
2	1	Insert	ASTM A216 GR WCB or A351 GR CF8M
3	1	Ball	ASTM A276 GR 316SS / A351 GR CF8M
4	1	Stem	ASTM A276 GR 316 Stainless Steel
5	2	Seat	TFM (RPTFE)
6	1	Thrust Washer	TFM (RPTFE)
7	1	Body Seal	Graphite
8	2	Stem Packing	Graphite
9	1	Packing Nut	ASTM A276 GR 316 Stainless Steel
10	1	Lock Washer	304 Stainless Steel
11	1	Handle Nut	304 Stainless Steel
12	1	Handle Assembly	304 Stainless Steel - Vinyl Coated
not shown	2	Grounding Spring	304 Stainless Steel
not shown	2	Grounding Ball	304 Stainless Steel

### CV FACTORS & MAX. OPERATING TORQUES

Size	ISO Pattern	CV	Torque (in/lb) TFM Seats
<b>Class 150:</b>			
1/2"	F03	16	100
3/4"	F04	27	130
1"	F04	42	150
<b>Class 300:</b>			
1/2"	F03	16	100
3/4"	F04	27	130
1"	F04	42	150



# 4100 Series Standard Port

## Class 150 & 300 ANSI Unibody Ball Valve, 1-1/2" to 6" Sizes



### FEATURES

- Fully compliant to ASME B16.34 and API 608.
- Fire safe to API 607 4th Edition and ISO 10497.
- ISO 5211 actuator mounting pads and patented "Square Drive" stem design allow direct mounting of ISO operators without brackets and/or adaptors.
- NACE MR01-75 Revision 2003 compliant.
- Standard stainless locking handles, 1-1/2" to 3"; locking handles, 4" and 6".
- "Submerged" packing adjustment allows packing to be adjusted when mounted with ISO-compliant gear operators and actuators.
- Electrically grounded ball and stem.
- TFM seats provide superior high temperature performance and chemical resistance.
- Tailpiece gasket positioned to isolate threads from line fluid.
- Tailpiece-to-body connection complies with API 608 and ISO 17292.

### 4100 SERIES MODEL NUMBERING

Model Number: \_\_\_\_\_ **41 X X**

Body and Trim Material: \_\_\_\_\_

**1** = Carbon steel body, stainless steel trim

**6** = Stainless steel body and trim

Class: \_\_\_\_\_

**1** = 150 lb ANSI flanged

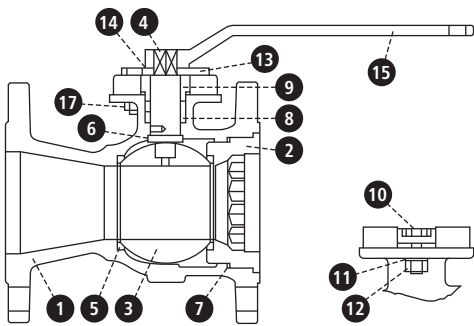
**3** = 300 lb ANSI flanged

### PRESSURE RANGE

**Class 150:**  
WCB: 29 inHg vacuum to 285 PSI  
CF8M: 29 inHg vacuum to 275 PSI

**Class 300:**  
WCB: 29 inHg vacuum to 740 PSI  
CF8M: 29 inHg vacuum to 720 PSI

All TFM Seated Valves:  
250 PSI Saturated Steam Rating

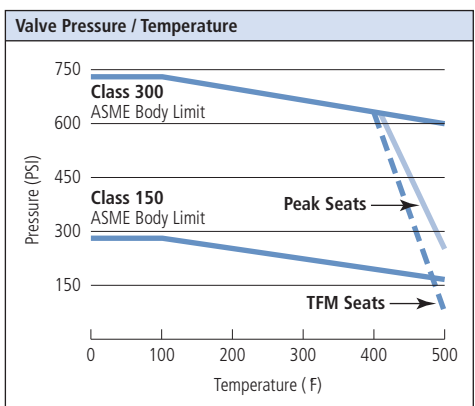


### MATERIALS OF CONSTRUCTION (STD)

Part	Qty.	Description	Standard Material
1	1	Body	ASTM A216 GR WCB or A351 GR CF8M
2	1	Insert	ASTM A216 GR WCB or A351 GR CF8M
3	1	Ball	ASTM A276 GR 316SS / A351 GR CF8M
4	1	Stem	ASTM A276 GR 316 Stainless Steel
5	2	Seat	TFM (RPTFE)
6	1	Thrust Washer	TFM (RPTFE)
7	1	Body Seal	Graphite
8	2	Stem Packing	Graphite
9	1	Packing Plate	ASTM A351 GR CF8M
10	2	Packing Bolt	ASTM A193 GR B8
11	4	Belleville Washer	300 Series Stainless Steel
12	2	Packing Nut	ASTM A194 GR 8
13	1	Stop Plate	304 Stainless Steel
14	1	Snap Ring	300 Series Stainless Steel
15	1	Handle Assembly	ASTM A351 GR CF8M (w/ CS Pipe; 4", 6")
16	1	Stop Pin	304 Stainless Steel
17	1	Stop Pin Nut	304 Stainless Steel
not shown	1	Handle Bolt	304 Stainless Steel
	2	Grounding Spring	304 Stainless Steel
	2	Grounding Ball	304 Stainless Steel

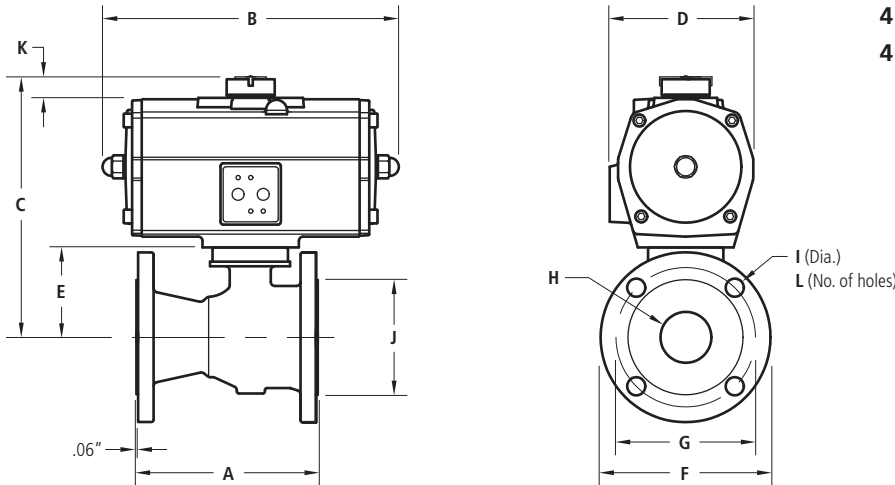
### CV FACTORS & MAX. OPERATING TORQUES

Size	ISO Pattern	CV	Torque (in/lb) TFM Seats
<b>Class 150:</b>			
1-1/2"	F07	100	250
2"	F07	145	400
2-1/2"	F07	280	475
3"	F07	420	550
4"	F10	605	1000
6"	F10, F12	900	1600
<b>Class 300:</b>			
1-1/2"	F07	100	250
2"	F07	145	400
3"	F07	420	550
4"	F10	605	1000
6"	F10, F12	900	1600



# 4111/4161EDA Series

Standard port ball valve with double acting pneumatic actuator  
(150 lb. flanged end connection, 1 piece body)



**4111:** Carbon steel body & 316SS ball/trim  
**4161:** 316SS body & ball/trim

## DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	J	K	L	Actuator	Wt. (lbs.)	Model No.	
<b>80 psig Minimum Actuator Air Supply = 8D</b>																
1/2"	4.25	6.26	6.72	3.26	2.78	3.50	2.38	.43	.62	1.38	.79	4	ED25	7.6	C4111E8D	C4161E8D
3/4"	4.62	6.26	6.97	3.26	3.03	3.88	2.75	.59	.62	1.69	.79	4	ED25	9.2	D4111E8D	D4161E8D
1"	5.00	6.26	7.27	3.26	3.33	4.25	3.12	.81	.62	2.00	.79	4	ED25	10.6	E4111E8D	E4161E8D
1-1/2"	6.50	7.09	7.00	3.78	2.55	5.00	3.88	1.25	.62	2.88	.79	4	ED40	16.5	G4111E8D	G4161E8D
2"	7.00	7.83	7.99	4.19	3.07	6.00	4.75	1.50	.75	3.62	.79	4	ED65	23.8	H4111E8D	H4161E8D
2-1/2"	7.50	7.83	8.52	4.19	3.60	7.00	5.50	2.00	.75	4.12	.79	4	ED65	34.3	I4111E8D	I4161E8D
3"	8.00	8.70	9.60	4.60	4.16	7.50	6.00	2.31	.75	5.00	.79	4	ED100	39.8	J4111E8D	J4161E8D
4"	9.00	12.01	12.79	7.12	4.87	9.00	7.50	3.00	.75	6.19	.79	8	ED350	83.9	K4111E8D	K4161E8D
<b>60 psig Minimum Actuator Air Supply = 6D</b>																
1/2"	4.25	6.26	6.72	3.26	2.78	3.50	2.38	.43	.62	1.38	.79	4	ED25	7.6	C4111E6D	C4161E6D
3/4"	4.62	6.26	6.97	3.26	3.03	3.88	2.75	.59	.62	1.69	.79	4	ED25	9.2	D4111E6D	D4161E6D
1"	5.00	7.09	7.78	3.78	3.33	4.25	3.12	.81	.62	2.00	.79	4	ED40	11.7	E4111E6D	E4161E6D
1-1/2"	6.50	7.09	7.00	3.78	2.55	5.00	3.88	1.25	.62	2.88	.79	4	ED40	16.5	G4111E6D	G4161E6D
2"	7.00	8.70	8.51	4.60	3.07	6.00	4.75	1.50	.75	3.62	.79	4	ED100	25.3	H4111E6D	H4161E6D
2-1/2"	7.50	8.70	9.04	4.60	3.60	7.00	5.50	2.00	.75	4.12	.79	4	ED100	35.8	I4111E6D	I4161E6D
3"	8.00	8.70	9.60	4.60	4.16	7.50	6.00	2.31	.75	5.00	.79	4	ED100	39.8	J4111E6D	J4161E6D
4"	9.00	12.01	12.79	7.12	4.87	9.00	7.50	3.00	.75	6.19	.79	8	ED350	83.9	K4111E6D	K4161E6D

\* 4111: Carbon steel body, stainless steel trim; 4161: Stainless steel body and trim.

## 4111 & 4161 VALVE FEATURES

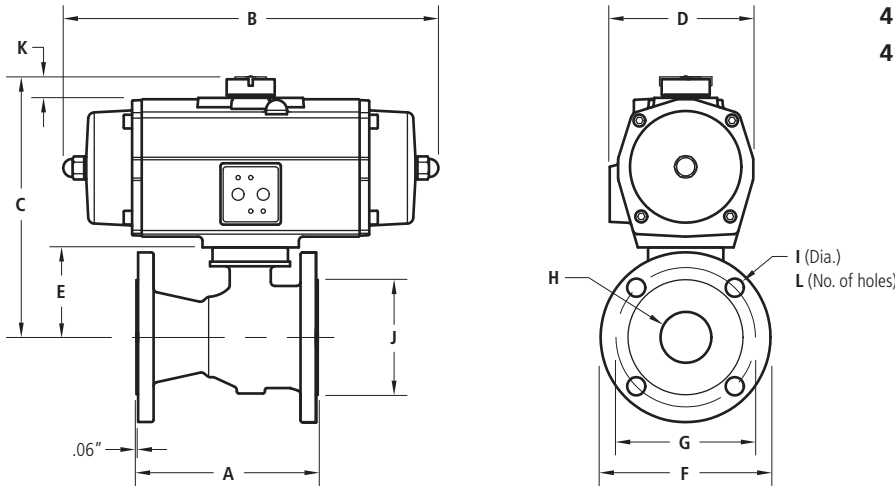
- Blow out proof stem.
- Anti-static device and investment cast body.
- TFM seats.
- 150 lb. RF flanged end connections.
- ANSI 16.10 face to face dimensions.
- ANSI 16.50 flange dimensions.
- Fire tested to API 607 4th edition.
- NACE MR01-75 Revision 2003 compliant.
- Mounting pad for direct mount actuator.

## 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.

# 4111/4161ESR Series

Standard port ball valve with spring return pneumatic actuator  
(150 lb. flanged end connection, 1 piece body)



**4111:** Carbon steel body & 316SS ball/trim  
**4161:** 316SS body & ball/trim

## DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	J	K	L	Actuator	Wt. (lbs.)	Model No.	
<b>80 psig Minimum Actuator Air Supply = 85</b>																
1/2"	4.25	8.03	7.23	3.78	2.78	3.50	2.38	.43	.62	1.38	.79	4	ES40-4	8.4	C4111E8S	C4161E8S
3/4"	4.62	8.03	7.48	3.78	3.03	3.88	2.75	.59	.62	1.69	.79	4	ES40-4	11.6	D4111E8S	D4161E8S
1"	5.00	9.80	7.78	4.19	3.33	4.25	3.12	.81	.62	2.00	.79	4	ES65-4	13.0	E4111E8S	E4161E8S
1-1/2"	6.50	10.51	7.99	4.60	2.55	5.00	3.88	1.25	.62	2.88	.79	4	ES100-4	20.4	G4111E8S	G4161E8S
2"	7.00	14.17	9.49	5.39	3.07	6.00	4.75	1.50	.75	3.62	.79	4	ES200-4	28.6	H4111E8S	H4161E8S
2-1/2"	7.50	14.17	10.02	5.39	3.60	7.00	5.50	2.00	.75	4.12	.79	4	ES200-4	49.1	I4111E8S	I4161E8S
3"	8.00	14.17	10.58	5.39	4.16	7.50	6.00	2.31	.75	5.00	.79	4	ES200-4	53.1	J4111E8S	J4161E8S
4"	9.00	15.24	13.18	7.12	4.87	9.00	7.50	3.00	.75	6.19	.79	8	ES350-4	98.2	K4111E8S	K4161E8S
<b>60 psig Minimum Actuator Air Supply = 65</b>																
1/2"	4.25	8.03	7.23	3.78	2.78	3.50	2.38	.43	.62	1.38	.79	4	ES40-3	10.0	C4111E6S	C4161E6S
3/4"	4.62	8.03	7.48	3.78	3.03	3.88	2.75	.59	.62	1.69	.79	4	ES40-3	11.6	D4111E6S	D4161E6S
1"	5.00	9.80	7.78	4.19	3.33	4.25	3.12	.81	.62	2.00	.79	4	ES65-3	13.0	E4111E6S	E4161E6S
1-1/2"	6.50	14.17	8.97	5.39	2.55	5.00	3.88	1.25	.62	2.88	.79	4	ES200-3	22.6	G4111E6S	G4161E6S
2"	7.00	14.17	9.49	5.39	3.07	6.00	4.75	1.50	.75	3.62	.79	4	ES200-3	38.6	H4111E6S	H4161E6S
2-1/2"	7.50	14.17	10.02	5.39	3.60	7.00	5.50	2.00	.75	4.12	.79	4	ES200-3	49.0	I4111E6S	I4161E6S
3"	8.00	15.24	12.08	7.12	4.16	7.50	6.00	2.31	.75	5.00	.79	4	ES350-3	53.1	J4111E6S	J4161E6S
4"	9.00	18.78	14.71	8.53	4.87	9.00	7.50	3.00	.75	6.19	1.18	8	ES600-3	121.8	K4111E6S	K4161E6S

\* 4111: Carbon steel body, stainless steel trim; 4161: Stainless steel body and trim.

## 4111 & 4161 VALVE FEATURES

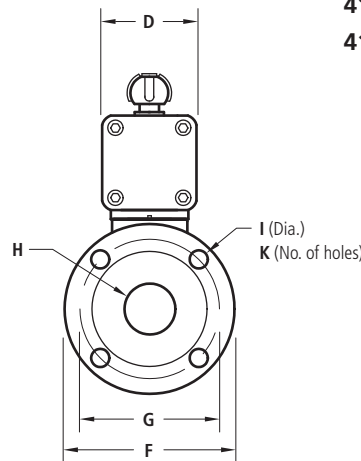
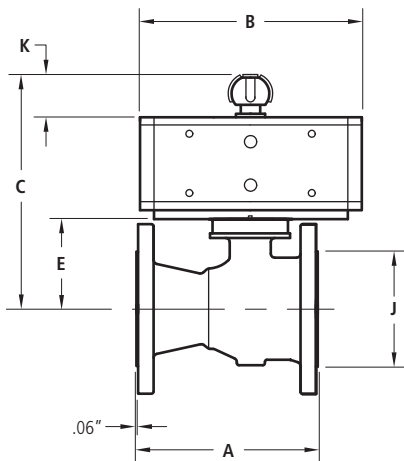
- Blow out proof stem.
- Anti-static device and investment cast body.
- TFM seats.
- 150 lb. RF flanged end connections.
- ANSI 16.10 face to face dimensions.
- ANSI 16.50 flange dimensions.
- Fire tested to API 607 4th edition.
- NACE MR01-75 Revision 2003 compliant.
- Mounting pad for direct mount actuator.

## PNEUMATIC ACTUATOR FEATURES

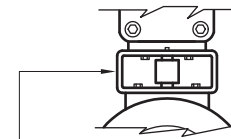
- E Series double acting rack and pinion actuator.
- Corrosion resistant coating.
- NAMUR solenoid mounting pad.
- ISO 5211 mounting standard.
- Visual position indicators.
- High duty cycle.
- Permanent lubrication.
- Temperature range: -4°F to 175°F.

# 4111/4161 ODA Series

Standard port ball valve with double acting pneumatic actuator  
(150 lb. flanged end connection, 1 piece body)



**4111:** Carbon steel body & 316SS ball/trim  
**4161:** 316SS body & ball/trim



NOTE: If mounting bracket is required for valve sizes 1-1/2" thru 4" add 3" to "C" & "E" dimensions. Dimensions "C" & "E" include 2" high mounting bracket for valve sizes 1/2" thru 1" only.

## DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	J	K	L	Actuator	Wt. (lbs.)	Model No.	
<b>80 psig Minimum Actuator Air Supply = 8D</b>																
1/2"	4.25	5.12	5.93	2.16	2.78	3.50	2.38	.43	.62	1.38	.79	4	PD030	6.9	C411108D	C416108D
3/4"	4.62	5.12	6.18	2.16	3.03	3.88	2.75	.59	.62	1.69	.79	4	PD030	8.5	D411108D	D416108D
1"	5.00	5.98	6.78	2.56	3.33	4.25	3.12	.81	.62	2.00	.79	4	PD060	11.8	E411108D	E416108D
1-1/2"	6.50	6.65	6.39	2.83	2.55	5.00	3.88	1.25	.62	2.88	.79	4	PD090	16.6	G411108D	G416108D
2"	7.00	6.65	6.91	4.60	3.07	6.00	4.75	1.50	.75	3.62	.79	4	PD090	22.6	H411108D	H416108D
2-1/2"	7.50	7.24	8.08	3.15	3.60	7.00	5.50	2.00	.75	4.12	1.18	4	PD120	36.5	I411108D	I416108D
3"	8.00	8.35	9.12	3.54	4.16	7.50	6.00	2.31	.75	5.00	1.18	4	PD180	40.5	J411108D	J416108D
4"	9.00	9.53	10.21	3.94	4.87	9.00	7.50	3.00	.75	6.19	1.18	8	PD240	76.8	K411108D	K416108D
<b>60 psig Minimum Actuator Air Supply = 6D</b>																
1/2"	4.25	5.12	5.93	2.16	2.78	3.50	2.38	.43	.62	1.38	.79	4	PD030	6.9	C411106D	C416106D
3/4"	4.62	5.67	6.41	2.36	3.03	3.88	2.75	.59	.62	1.69	.79	4	PD045	8.5	D411106D	D416106D
1"	5.00	5.98	7.46	2.56	3.33	4.25	3.12	.81	.62	2.00	.79	4	PD060	11.8	E411106D	E416106D
1-1/2"	6.50	6.65	6.39	2.83	2.55	5.00	3.88	1.25	.62	2.88	.79	4	PD090	16.6	G411106D	G416106D
2"	7.00	7.24	7.25	3.15	3.07	6.00	4.75	1.50	.75	3.62	.79	4	PD120	22.6	H411106D	H416106D
2-1/2"	7.50	8.35	8.56	3.54	3.60	7.00	5.50	2.00	.75	4.12	1.18	4	PD180	36.5	I411106D	I416106D
3"	8.00	8.35	9.12	3.54	4.16	7.50	6.00	2.31	.75	5.00	1.18	4	PD180	40.5	J411106D	J416106D
4"	9.00	10.40	10.69	4.41	4.87	9.00	7.50	3.00	.75	6.19	1.18	8	PD360	76.8	K411106D	K416106D

\* 4111: Carbon steel body, stainless steel trim; 4161: Stainless steel body and trim.

## 4111 & 4161 VALVE FEATURES

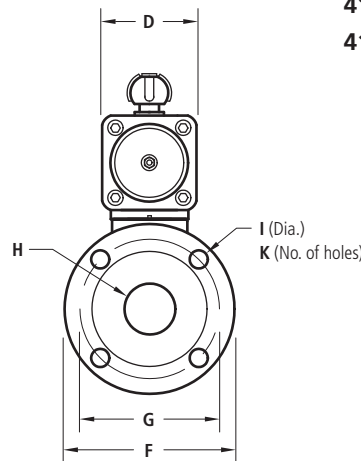
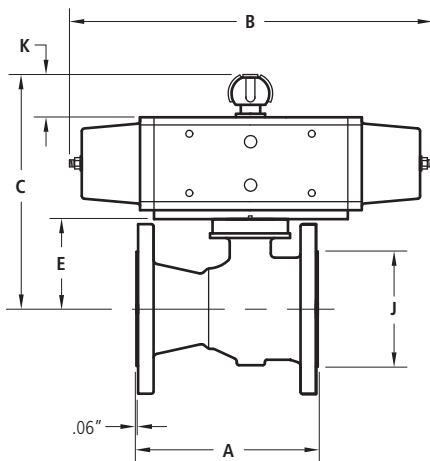
- Blow out proof stem.
- Anti-static device and investment cast body.
- TFM seats.
- 150 lb. RF flanged end connections.
- ANSI 16.10 face to face dimensions.
- ANSI 16.50 flange dimensions.
- Fire tested to API 607 4th edition.
- NACE MR01-75 Revision 2003 compliant.
- Mounting pad for direct mount actuator.

## PNEUMATIC ACTUATOR FEATURES

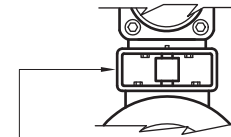
- O Series double acting pneumatic actuator.
- Corrosion resistant coating.
- NAMUR solenoid mounting pad.
- ISO 5211 mounting standard.
- Visual position indicators.
- High duty cycle.
- Permanent lubrication.
- Temperature range: -4°F to 175°F.

## 4111/4161OSR Series

Standard port ball valve with spring return pneumatic actuator  
(150 lb. flanged end connection, 1 piece body)



**4111:** Carbon steel body & 316SS ball/trim  
**4161:** 316SS body & ball/trim



NOTE: If mounting bracket is required for valve sizes 1-1/2" thru 4" add 3" to "C" & "E" dimensions. Dimensions "C" & "E" include 2" high mounting bracket for valve sizes 1/2" thru 1" only.

### DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	J	K	L	Actuator	Wt. (lbs.)	Model No.	
<b>80 psig Minimum Actuator Air Supply = 85</b>																
1/2"	4.25	9.45	6.32	2.56	2.78	3.50	2.38	.43	.62	1.38	.79	4	PS030	9.1	C411108S	C416108S
3/4"	4.62	9.45	6.57	2.56	3.03	3.88	2.75	.59	.62	1.69	.79	4	PS030	10.7	D411108S	D416108S
1"	5.00	11.58	7.56	2.83	3.33	4.25	3.12	.81	.62	2.00	.79	4	PS045	13.0	E411108S	E416108S
1-1/2"	6.50	12.60	7.51	3.15	2.55	5.00	3.88	1.25	.62	2.88	1.18	4	PS060	17.8	G411108S	G416108S
2"	7.00	14.06	8.02	3.54	3.07	6.00	4.75	1.50	.75	3.62	1.18	4	PS090	26.2	H411108S	H416108S
2-1/2"	7.50	14.65	8.95	3.94	3.60	7.00	5.50	2.00	.75	4.12	1.18	4	PS120	39.1	I411108S	I416108S
3"	8.00	14.65	9.51	3.94	4.16	7.50	6.00	2.31	.75	5.00	1.18	4	PS120	43.1	J411108S	J416108S
4"	9.00	18.12	11.17	4.91	4.87	9.00	7.50	3.00	.75	6.19	1.18	8	PS240	85.2	K411108S	K416108S
<b>60 psig Minimum Actuator Air Supply = 65</b>																
1/2"	4.25	9.45	6.32	2.56	2.78	3.50	2.38	.43	.62	1.38	.79	4	PS030-60	9.1	C411106S	C416106S
3/4"	4.62	11.58	6.91	3.15	3.03	3.88	2.75	.59	.62	1.69	.79	4	PS045-60	10.7	D411106S	D416106S
1"	5.00	12.60	7.89	3.15	3.33	4.25	3.12	.81	.62	2.00	1.18	4	PS060-60	15.4	E411106S	E416106S
1-1/2"	6.50	14.06	7.50	3.54	2.55	5.00	3.88	1.25	.62	2.88	1.18	4	PS090-60	20.2	G411106S	G416106S
2"	7.00	14.65	8.42	3.94	3.07	6.00	4.75	1.50	.75	3.62	1.18	4	PS120-60	28.6	H411106S	H416106S
2-1/2"	7.50	17.17	9.82	4.41	3.60	7.00	5.50	2.00	.75	4.12	1.18	4	PS180-60	43.7	I411106S	I416106S
3"	8.00	17.17	10.38	4.41	4.16	7.50	6.00	2.31	.75	5.00	1.18	4	PS180-60	47.7	J411106S	J416106S
4"	9.00	18.12	11.17	4.91	4.87	9.00	7.50	3.00	.75	6.19	1.18	8	PS240-60	85.2	K411106S	K416106S

\* 4111: Carbon steel body, stainless steel trim; 4161: Stainless steel body and trim.

### 4111 & 4161 VALVE FEATURES

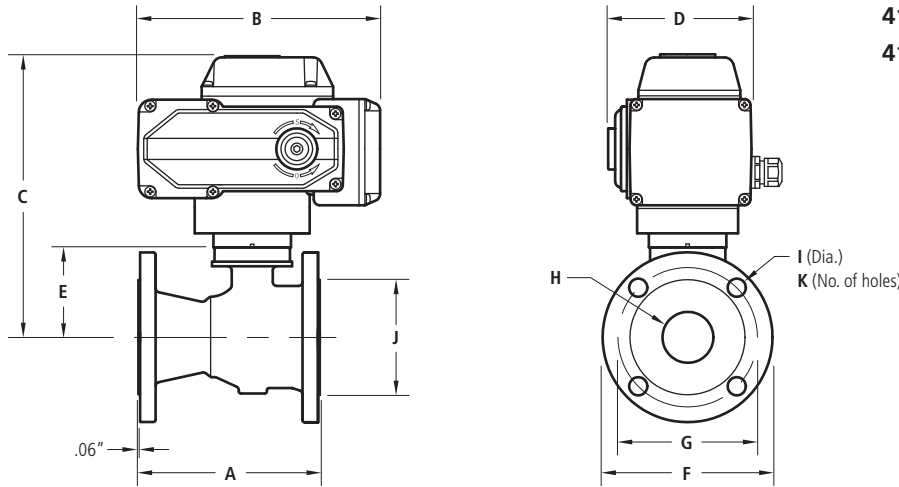
- Blow out proof stem.
- Anti-static device and investment cast body.
- TFM seats.
- 150 lb. RF flanged end connections.
- ANSI 16.10 face to face dimensions.
- ANSI 16.50 flange dimensions.
- Fire tested to API 607 4th edition.
- NACE MR01-75 Revision 2003 compliant.
- Mounting pad for direct mount actuator.

### 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.

# 4111/4161K4 Series

Standard port ball valve with electric actuator  
(150 lb. flanged end connection, 1 piece body)



**4111:** Carbon steel body & 316SS ball/trim  
**4161:** 316SS body & ball/trim

NOTE: If mounting bracket is required for valve sizes 1-1/2" thru 4" add 3" to "C" & "E" dimensions. Dimensions "C" & "E" include 2" high mounting bracket for valve sizes 1/2" thru 1" only.

## DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	J	K	Actuator	Wt. (lbs.)	Model No.	
														4111*	4161*
1/2"	4.25	8.17	9.22	4.82	2.78	3.50	2.38	.43	.62	1.38	4	UNIC10	13.6	C4111K4	C4161K4
3/4"	4.62	8.17	9.47	4.82	3.03	3.88	2.75	.59	.62	1.69	4	UNIC10	15.2	D4111K4	D4161K4
1"	5.00	8.17	9.77	4.82	3.33	4.25	3.12	.81	.62	2.00	4	UNIC10	16.6	E4111K4	E4161K4
1-1/2"	6.50	8.17	9.00	4.82	2.55	5.00	3.88	1.25	.62	2.88	4	UNIC10	22.4	G4111K4	G4161K4
2"	7.00	8.17	9.51	4.82	3.07	6.00	4.75	1.50	.75	3.62	4	UNIC10	28.4	H4111K4	H4161K4
2-1/2"	7.50	8.17	10.04	4.82	3.60	7.00	5.50	2.00	.75	4.12	4	UNIC10	38.9	I4111K4	I4161K4
3"	8.00	8.17	10.60	4.82	4.16	7.50	6.00	2.31	.75	5.00	4	UNIC20	42.9	J4111K4	J4161K4
4"	9.00	10.10	12.15	6.16	4.87	9.00	7.50	3.00	.75	6.19	8	UNIC20	79.0	K4111K4	K4161K4

\* 4111: Carbon steel body, stainless steel trim; 4161: Stainless steel body and trim.

### 4111 & 4161 VALVE FEATURES

- Blow out proof stem.
- Anti-static device.
- Investment cast body.
- TFM seats.
- 150 lb. RF flanged end connections.
- ANSI 16.10 face to face dimensions.
- ANSI 16.50 flange dimensions.
- Fire tested to API 607 4th edition.
- NACE MR01-75 Revision 2003 compliant.
- Mounting pad for direct mount actuator.

### 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.



# 4200 Series Full Port

## Class 150 & 300 ANSI Two-Piece Ball Valve, 1" to 10" Sizes



### FEATURES

- Full port.
- Fully compliant to ASME B16.34 and API 608.
- Fire safe to API 607 4th Edition and ISO 10497.
- ISO 5211 mounting pads and patented "Square Drive" stem design allow direct mounting of ISO operators without brackets or adaptors.
- NACE MR01-75 Revision 2003 compliant.
- Standard locking handles.
- "Submerged" packing adjustment allows packing adjustment with operators and actuators mounted.
- Electrically grounded ball and stem.
- TFM seats (2nd generation PTFE) provide superior high temp performance and chemical resistance.
- "Closed" body joint allows sandblasting and coating of complete valve.
- Investment cast body and tailpiece through 6" size.
- Standard 316 stainless steel ball, stem and packing system.

### 4200 SERIES MODEL NUMBERING

Model Number: \_\_\_\_\_ **42 X X**

Body and Trim Material: \_\_\_\_\_

**1** = Carbon steel body, stainless steel trim

**6** = Stainless steel body and trim

Class: \_\_\_\_\_

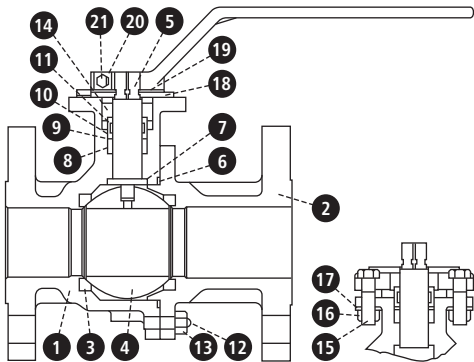
**1** = 150 lb ANSI flanged

**3** = 300 lb ANSI flanged

### PRESSURE RANGE

**Class 150:**  
WCB: 29 inHg vacuum to 285 PSI  
CF8M: 29 inHg vacuum to 275 PSI  
TFM Seat Class 150:  
200 PSI Saturated Steam Rating

**Class 300:**  
WCB: 29 inHg vacuum to 740 PSI  
CF8M: 29 inHg vacuum to 720 PSI  
TFM Seat Class 300:  
250 PSI Saturated Steam Rating

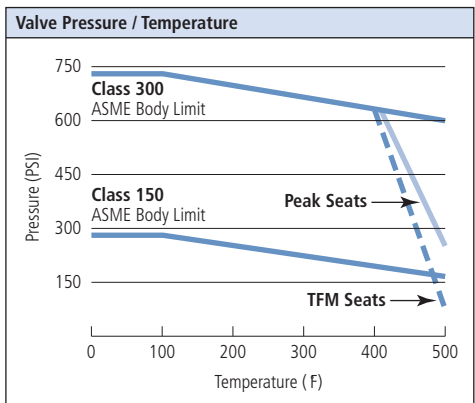


### MATERIALS OF CONSTRUCTION (STD)

Part	Qty.	Description	Standard Material
1	1	Body	ASTM A216 GR WCB or A351 GR CF8M
2	1	Adaptor	ASTM A216 GR WCB or A351 GR CF8M
3	2	Seat	TFM (RPTFE)
4	1	Ball	ASTM A351 GR CF8M / 316SS
5	1	Stem	ASTM A351 GR CF8M / 316SS
6	1	Body Seal	Spiral Wound SS / Graphite
7	1	Thrust Washer	RPTFE
8	1	Packing Set	PTFE
9	1	Packing Washer	Graphite
10	1	Stem Bushing	PTFE
11	1	Gland	ASTM A351 GR CF8M
12	varies	Stud Bolt	ASTM A193 GR B7 or A193 GR B8
13	varies	Nut	ASTM A194 GR 2H or A193 GR 8
14	1	Gland Flange	ASTM A351 GR CF8M
15	2	Packing Bolt	ASTM A193 GR B8
16	2	Packing Nut	ASTM A194 GR 8
17	4	Belleville Washer	Stainless Steel
18	1	Lock Plate	304 Stainless Steel
19	1	Retaining Ring	Stainless Steel
20	1	Handle	Ductile Iron
21	1	Lock Bolt	304 Stainless Steel
not shown	1	Stop Bolt	304 Stainless Steel
not shown	1	Ground Pin Assy.	300 Series Stainless Steel

### CV FACTORS & MAX. OPERATING TORQUES

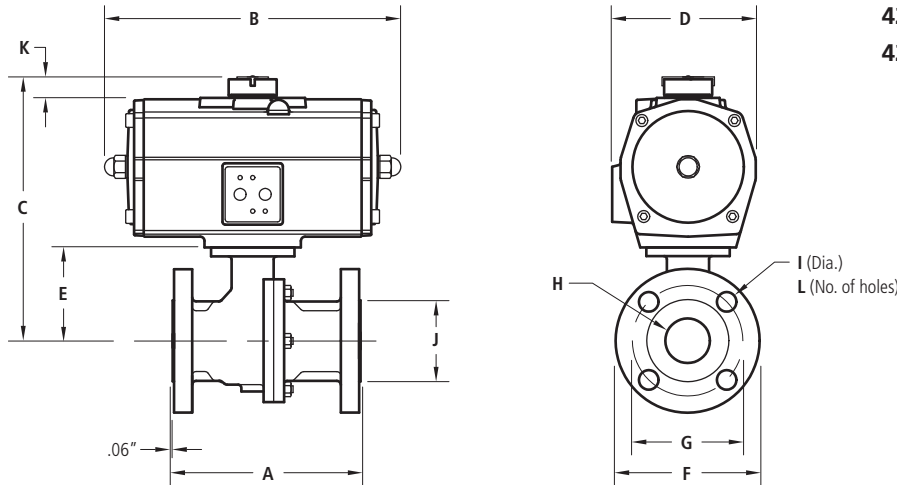
Size	ISO Pattern	CV	Torque (in/lb) TFM Seats
<b>Class 150:</b>			
1"	F05	95	160
1-1/2"	F07	280	300
2"	F07	490	450
2-1/2"	F07	545	600
3"	F10, F12	1275	1000
4"	F10, F12	2500	1600
6"	F12	5200	5000
8"	F14	10,100	11,000
10"	F16	17,500	25,000
<b>Class 300:</b>			
1"	F05	95	160
1-1/2"	F07	280	300
2"	F07	490	450
3"	F10, F12	1275	1000
4"	F10, F12	2500	2250
6"	F12	5200	7500
8"	F16	10,100	20,000





# 4211/4261EDA Series

Full port ball valve with double acting pneumatic actuator  
(150 lb. flanged end connection, 2 piece body)



**4211:** Carbon steel body & 316SS ball/trim  
**4261:** 316SS body & ball/trim

## DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	J	K	L	Actuator	Wt. (lbs.)	Model No.	
<b>80 psig Minimum Actuator Air Supply = 8D</b>																
1"	5.00	7.09	6.78	3.78	2.33	4.25	3.12	1.00	.62	2.00	.79	4	ED40	13.0	E4211E8D	E4261E8D
1-1/2"	6.50	7.09	7.90	3.78	3.45	5.00	3.88	1.50	.62	2.88	.79	4	ED40	21.5	G4211E8D	G4261E8D
2"	7.00	7.83	8.72	4.19	3.80	6.00	4.75	2.00	.75	3.62	.79	4	ED65	30.8	H4211E8D	H4261E8D
2-1/2"	7.50	8.70	9.63	4.60	4.19	7.00	5.50	2.50	.75	4.12	.79	4	ED100	42.3	I4211E8D	I4261E8D
3"	8.00	11.14	11.45	5.39	5.03	7.50	6.00	3.00	.75	5.00	.79	4	ED200	62.8	J4211E8D	J4261E8D
4"	9.00	12.01	13.90	7.12	5.98	9.00	7.50	4.00	.75	6.19	.79	8	ED350	105.9	K4211E8D	K4261E8D
<b>60 psig Minimum Actuator Air Supply = 6D</b>																
1"	5.00	7.09	6.78	3.78	2.33	4.25	3.12	1.00	.62	2.00	.79	4	ED40	13.0	E4211E6D	E4261E6D
1-1/2"	6.50	7.83	8.37	4.019	3.45	5.00	3.88	1.50	.62	2.88	.79	4	ED65	22.8	G4211E6D	G4261E6D
2"	7.00	8.70	9.24	4.60	3.80	6.00	4.75	2.00	.75	3.62	.79	4	ED100	32.3	H4211E6D	H4261E6D
2-1/2"	7.50	11.14	10.61	5.39	4.19	7.00	5.50	2.50	.75	4.12	.79	4	ED200	48.3	I4211E6D	I4261E6D
3"	8.00	11.14	11.45	5.39	5.03	7.50	6.00	3.00	.75	5.00	.79	4	ED200	62.8	J4211E6D	J4261E6D
4"	9.00	12.01	15.82	7.12	5.98	9.00	7.50	4.00	.75	6.19	1.18	8	ED600	125.8	K4211E6D	K4261E6D

\* 4211: Carbon steel body, stainless steel trim; 4261: Stainless steel body and trim.

## 4211 & 4261 VALVE FEATURES

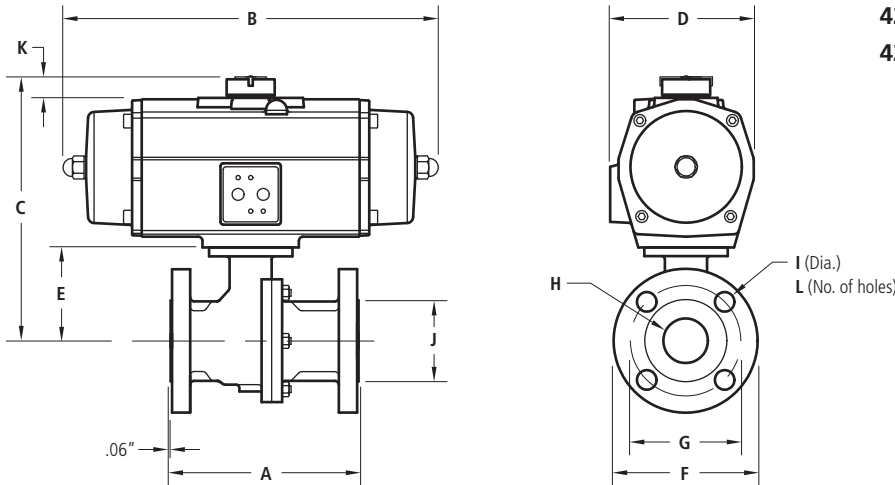
- Blow out proof stem.
- Anti-static device.
- Investment cast body.
- TFM seats.
- 150 lb. RF flanged end connections.
- ANSI 16.10 face to face dimensions.
- ANSI 16.50 flange dimensions.
- Fire tested to API 607 4th edition.
- NACE MR01-75 Revision 2003 compliant.
- Mounting pad for direct mount actuator.

## 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.

## 4211/4261ESR Series

Full port ball valve with spring return pneumatic actuator  
(150 lb. flanged end connection, 2 piece body)



**4211:** Carbon steel body & 316SS ball/trim  
**4261:** 316SS body & ball/trim

### DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	J	K	L	Actuator	Wt. (lbs.)	Model No.	
<b>80 psig Minimum Actuator Air Supply = 85</b>																
1"	5.00	9.80	7.25	4.19	2.33	4.25	3.12	1.00	.62	2.00	.79	4	ES65-4	14.3	E4211E8S	E4261E8S
1-1/2"	6.50	10.51	8.89	4.60	3.45	5.00	3.88	1.50	.62	2.88	.79	4	ES100-4	25.4	G4211E8S	G4261E8S
2"	7.00	14.17	10.22	5.39	3.80	6.00	4.75	2.00	.75	3.62	.79	4	ES200-4	45.6	H4211E8S	H4261E8S
2-1/2"	7.50	14.17	10.61	5.39	4.19	7.00	5.50	2.50	.75	4.12	.79	4	ES200-4	55.6	I4211E8S	I4261E8S
3"	8.00	15.24	12.95	7.12	5.03	7.50	6.00	3.00	.75	5.00	.79	4	ES350-4	87.3	J4211E8S	J4261E8S
4"	9.00	18.78	15.82	8.52	5.98	9.00	7.50	4.00	.75	6.19	1.18	8	ES600-4	143.8	K4211E8S	K4261E8S
<b>60 psig Minimum Actuator Air Supply = 65</b>																
1"	5.00	8.03	7.25	3.74	2.33	4.25	3.12	1.00	.62	2.00	.79	4	ES65-3	16.9	E4211E6S	E4261E6S
1-1/2"	6.50	14.17	9.87	5.39	3.45	5.00	3.88	1.50	.62	2.88	.79	4	ES200-3	27.6	G4211E6S	G4261E6S
2"	7.00	14.17	10.22	5.39	3.80	6.00	4.75	2.00	.75	3.62	.79	4	ES200-3	45.6	H4211E6S	H4261E6S
2-1/2"	7.50	15.24	12.11	7.12	4.19	7.00	5.50	2.50	.75	4.12	.79	4	ES350-3	55.6	I4211E6S	I4261E6S
3"	8.00	15.24	12.95	7.12	5.03	7.50	6.00	3.00	.75	5.00	.79	4	ES350-3	87.3	J4211E6S	J4261E6S
4"	9.00	20.35	17.36	9.51	5.98	9.00	7.50	4.00	.75	6.19	1.18	8	ES950-3	168.1	K4211E6S	K4261E6S

\* 4211: Carbon steel body, stainless steel trim; 4261: Stainless steel body and trim.

### 4211 & 4261 VALVE FEATURES

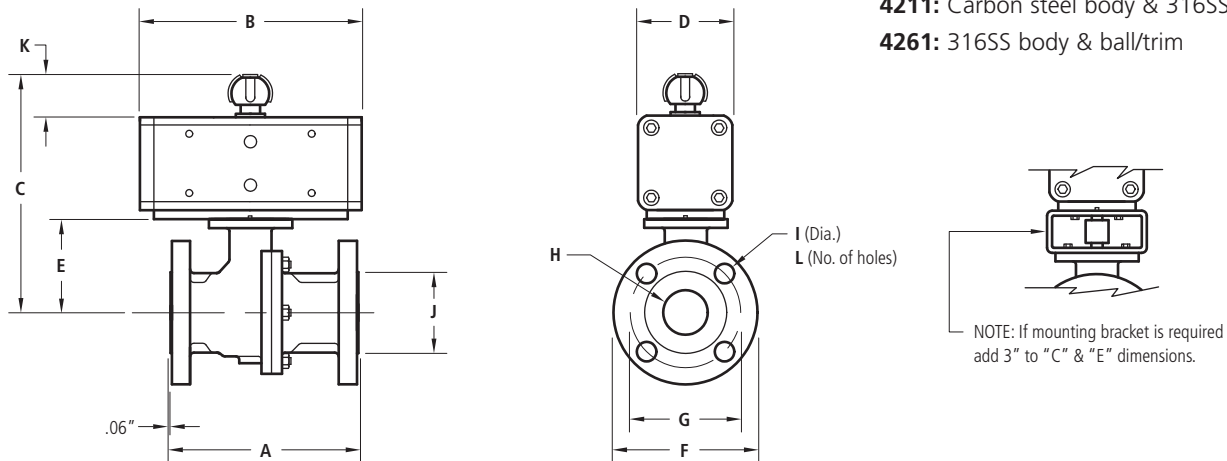
- Blow out proof stem.
- Anti-static device.
- Investment cast body.
- TFM seats.
- 150 lb. RF flanged end connections.
- ANSI 16.10 face to face dimensions.
- ANSI 16.50 flange dimensions.
- Fire tested to API 607 4th edition.
- NACE MR01-75 Revision 2003 compliant.
- Mounting pad for direct mount actuator.

### 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.

# 4211/4261ODA Series

Full port ball valve with double acting pneumatic actuator  
(150 lb. flanged end connection, 2 piece body)



## DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	J	K	L	Actuator	Wt. (lbs.)	Model No.	
<b>80 psig Minimum Actuator Air Supply = 8D</b>																
1"	5.00	6.65	6.17	2.84	2.33	4.25	3.12	1.00	.62	2.00	.79	4	PD090	13.1	E421108D	E426108D
1-1/2"	6.50	6.65	7.29	2.84	3.45	5.00	3.88	1.50	.62	2.88	.79	4	PD090	21.6	G421108D	G426108D
2"	7.00	7.24	7.98	3.15	3.80	6.00	4.75	2.00	.75	3.62	1.18	4	PD120	29.6	H421108D	H426108D
2-1/2"	7.50	8.35	9.15	3.55	4.19	7.00	5.50	2.50	.75	4.12	1.18	4	PD180	43.0	I421108D	I426108D
3"	8.00	10.40	10.85	4.41	5.03	7.50	6.00	3.00	.75	5.00	1.18	4	PD360	65.9	J421108D	J426108D
4"	9.00	11.62	12.28	4.91	5.98	9.00	7.50	4.00	.75	6.19	1.18	8	PD480	101.5	K421108D	K426108D
<b>60 psig Minimum Actuator Air Supply = 6D</b>																
1"	5.00	6.65	6.17	2.84	2.33	4.25	3.12	1.00	.62	2.00	.79	4	PD090	13.1	E421106D	E426106D
1-1/2"	6.50	6.65	7.29	2.84	3.45	5.00	3.88	1.50	.62	2.88	.79	4	PD090	21.6	G421106D	G426106D
2"	7.00	7.24	7.98	3.15	3.80	6.00	4.75	2.00	.75	3.62	.79	4	PD120	29.6	H421106D	H426106D
2-1/2"	7.50	8.35	9.15	3.55	4.19	7.00	5.50	2.50	.75	4.12	1.18	4	PD180	43.0	I421106D	I426106D
3"	8.00	10.40	10.85	4.41	5.03	7.50	6.00	3.00	.75	5.00	1.18	4	PD360	65.9	J421106D	J426106D
4"	9.00	11.62	12.28	4.91	5.98	9.00	7.50	4.00	.75	6.19	1.18	8	PD480	101.5	K421106D	K426106D

\* 4211: Carbon steel body, stainless steel trim; 4261: Stainless steel body and trim.

## 4211 & 4261 VALVE FEATURES

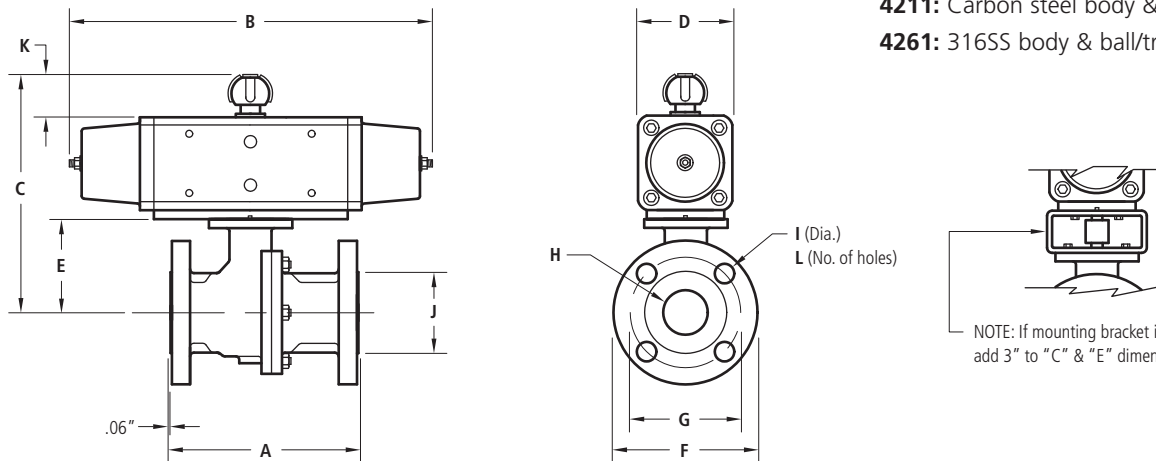
- Blow out proof stem.
- Anti-static device.
- Investment cast body.
- TFM seats.
- 150 lb. RF flanged end connections.
- ANSI 16.10 face to face dimensions.
- ANSI 16.50 flange dimensions.
- Fire tested to API 607 4th edition.
- NACE MR01-75 Revision 2003 compliant.
- Mounting pad for direct mount actuator.

## 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.

# 4211/4261OSR Series

Full port ball valve with spring return pneumatic actuator  
(150 lb. flanged end connection, 2 piece body)



**4211:** Carbon steel body & 316SS ball/trim  
**4261:** 316SS body & ball/trim

## DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	J	K	L	Actuator	Wt. (lbs.)	Model No.	
<b>80 psig Minimum Actuator Air Supply = 85</b>																
1"	5.00	11.57	6.17	2.84	2.33	4.25	3.12	1.00	.62	2.00	.79	4	PS045	14.3	E421108S	E426108S
1-1/2"	6.50	12.60	7.63	3.15	3.45	5.00	3.88	1.50	.62	2.88	1.18	4	PS060	22.8	G421108S	G426108S
2"	7.00	14.65	9.15	3.94	3.80	6.00	4.75	2.00	.75	3.62	1.18	4	PS120	35.6	H421108S	H426108S
2-1/2"	7.50	17.17	10.06	4.41	4.19	7.00	5.50	2.50	.75	4.12	1.18	4	PS180	50.2	I421108S	I426108S
3"	8.00	18.12	12.04	4.91	5.03	7.50	6.00	3.00	.75	5.00	1.18	4	PS240	70.7	J421108S	J426108S
4"	9.00	20.05	13.00	5.38	5.98	9.00	7.50	4.00	.75	6.19	1.18	8	PS360	118.0	K421108S	K426108S
<b>60 psig Minimum Actuator Air Supply = 65</b>																
1"	5.00	11.57	6.17	2.84	2.33	4.25	3.12	1.00	.62	2.00	.79	4	PS045-60	14.3	E421106S	E426106S
1-1/2"	6.50	14.06	9.05	3.55	3.45	5.00	3.88	1.50	.62	2.88	1.18	4	PS090-60	25.2	G421106S	G426106S
2"	7.00	17.17	9.63	4.41	3.80	6.00	4.75	2.00	.75	3.62	1.18	4	PS180-60	35.6	H421106S	H426106S
2-1/2"	7.50	18.12	10.43	4.91	4.19	7.00	5.50	2.50	.75	4.12	1.18	4	PS240-60	59.7	I421106S	I426106S
3"	8.00	18.12	11.33	4.91	5.03	7.50	6.00	3.00	.75	5.00	1.18	4	PS240-60	74.2	J421106S	J426106S
4"	9.00	24.00	13.20	5.71	5.98	9.00	7.50	4.00	.75	6.19	1.18	8	PS480-60	125.3	K421106S	K426106S

\* 4211: Carbon steel body, stainless steel trim; 4261: Stainless steel body and trim.

## 4211 & 4261 VALVE FEATURES

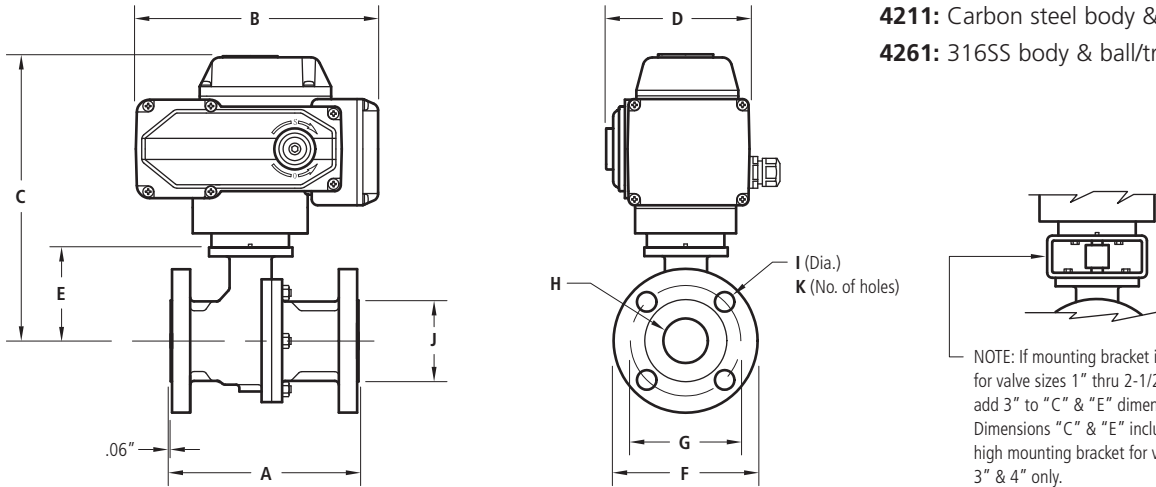
- Blow out proof stem.
- Anti-static device.
- Investment cast body.
- TFM seats.
- 150 lb. RF flanged end connections.
- ANSI 16.10 face to face dimensions.
- ANSI 16.50 flange dimensions.
- Fire tested to API 607 4th edition.
- NACE MR01-75 Revision 2003 compliant.
- Mounting pad for direct mount actuator.

## 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.

# 4211/4261K4 Series

Full port ball valve with electric actuator  
(150 lb. flanged end connection, 2 piece body)



## DIMENSIONS, WEIGHTS & SPECIFICATIONS

Size	A	B	C	D	E	F	G	H	I	J	K	Actuator	Wt. (lbs.)	Model No.	
														4211*	4261*
1"	5.00	8.75	8.77	4.82	2.33	4.25	3.12	1.00	.62	2.00	4	UNIC10	18.9	E4211K4	E4261K4
1-1/2"	6.50	8.75	9.89	4.82	3.45	5.00	3.88	1.50	.62	2.88	4	UNIC10	27.4	G4211K4	G4261K4
2"	7.00	8.75	10.24	4.82	3.80	6.00	4.75	2.00	.75	3.62	4	UNIC10	35.4	H4211K4	H4261K4
2-1/2"	7.50	8.75	10.63	4.82	4.19	7.00	5.50	2.50	.75	4.12	4	UNIC10	45.4	I4211K4	I4261K4
3"	8.00	10.10	18.31	6.16	8.03	7.50	6.00	3.00	.75	5.00	4	UNIC20	71.0	J4211K4	J4261K4
4"	9.00	15.00	21.20	9.53	8.98	9.00	7.50	4.00	.75	6.19	8	UNIC60	132.3	K4211K4	K4261K4

\* 4211: Carbon steel body, stainless steel trim; 4261: Stainless steel body and trim.

## 4211 & 4261 VALVE FEATURES

- Blow out proof stem.
- Anti-static device.
- Investment cast body.
- TFM seats.
- 150 lb. RF flanged end connections.
- ANSI 16.10 face to face dimensions.
- ANSI 16.50 flange dimensions.
- Fire tested to API 607 4th edition.
- NACE MR01-75 Revision 2003 compliant.
- Mounting pad for direct mount actuator.

## 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.