



A-T Controls' Series L2 ball valves feature the latest technology in PFA. These fully lined ball valves are available with stainless steel or epoxy coated carbon steel body. The superior PFA lining is able to withstand temperatures up to 400°F and demonstrates greater durability than PTFE. This high purity PFA has extremely low gas permeability and outperforms other materials in critical services.

These split body valves feature adjustable packing. The lining thickness is at least 3mm. throughout the body and ball. One-piece ball and stem design reduces side loading and extends stem and packing life.

Additionally, we offer v-ball options for fluid control. The "V" notch options come in 30°, 60°, 90°. For more information on the Cv values for the different v-balls, please review our V-series control valves.

Excellent for:

- Pharmaceutical
- Food and Beverage
- Paints and Solvents
- Caustics and Acids
- Deionized Water and Semiconductor

Easy to Automate!

See automated data sheets for pre-sized assemblies



Pneumatic



Electric



Series L2

PFA Locked Liner Split Body Flanged Ball Valve

Available in 316SST (CF8M)
or Carbon Steel (WCB)

Sizes 1/2"-8"

Flanged Ends - ASME Class 150

Full Port Design

Superior Packing System

PTFE Seats Standard

Lockable Manual Handle

Spark Test Standard (20 kV)

STANDARDS

Design & Manufactured	ASME B16.34
Face to Face Dimensions	ASME B16.10
Flange End Connections	ASME B16.5
Pressure Testing	API 598
Material Certification	EN 10204-3.1
Quality Assurance	ISO 9001:2015

HOW TO ORDER MANUAL VALVES

SAMPLE PART #

L2-F1-0300-LXX



See part number matrix for itemized options

SERIES L2 PFA Locked Liner Split Body Flanged Ball Valve



Series L2

High Performance, Full Port PFA Locked Liner, Split Body Ball Valve ASME Class 150 Flanged Ends

MATERIALS LIST: 1/2" - 4"

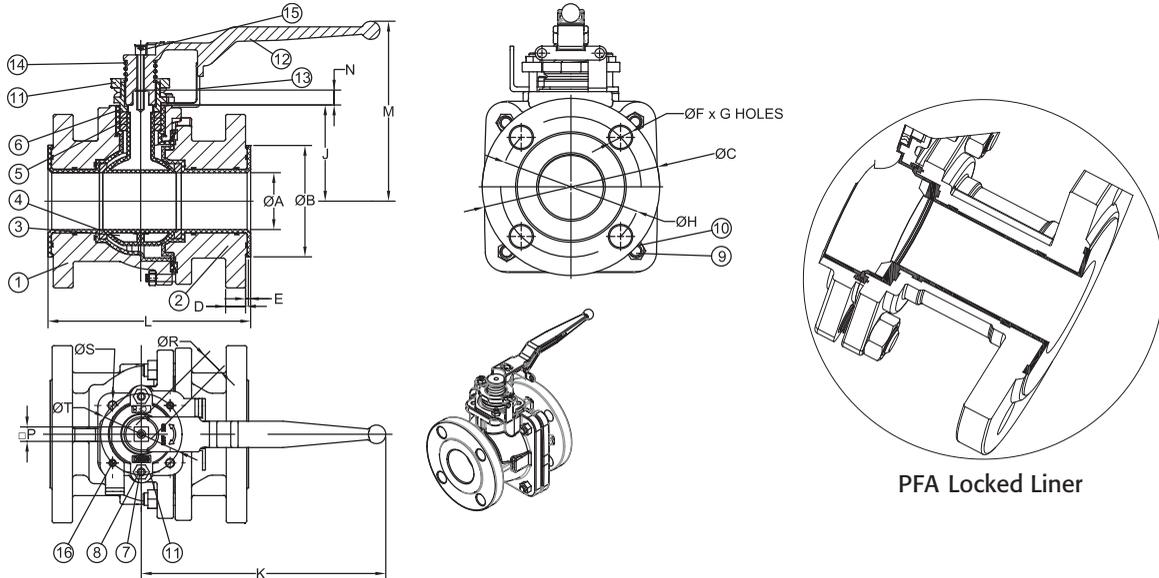
NO.	PART NAME	QTY	STAINLESS STEEL	CARBON STEEL
1	Body	1	ASTM A351 GRADE CF8M + PFA	ASTM A216 GRADE WCB + PFA
2	End Cap	1	ASTM A351 GRADE CF8M + PFA	ASTM A216 GRADE WCB + PFA
3	Ball/Stem	1	ASTM A351 GRADE CF8M/XM-19	ASTM A351 GRADE CF8/XM-19
4	Seat	2	PTFE	PTFE
5	Packing	1 Set	PTFE	PTFE
6	Gland Bushing	1	304SST	304SST
7	Packing Gland Bolt	2	ASTM A193 GRADE B8	ASTM A193 GRADE B8
8	Packing Gland Nut	2	ASTM A193 GRADE 8	ASTM A193 GRADE 8
9	Body Stud	*	ASTM A193 GRADE B8	ASTM A193 GRADE B8
10	Body Stud Nut	*	ASTM A193 GRADE 8	ASTM A193 GRADE 8
11	Packing Gland	1	304SST	304SST
12	Handle	1	304SST	304SST
13	Locking Plate	1	304SST	304SST
14	Anti-Static Spring	1	304SST	304SST
15	Handle Screw	1	304SST	304SST
16	Locking Plate Bolt	2	304SST	304SST

* 1/2" THRU 2" - QTY 4

* 2-1/2" THRU 4" - QTY 6



Example of our lined V-ball.
Please reference our V-series
catalog for more information.



PFA Locked Liner

SIZE	VALVE DIMENSIONS											ACTUATOR MOUNTING DIMENSIONS							
	ØA	ØB	ØC	D	E	ØF	G	H	J	K	L	M	N	□P	ØR	ØS	T	ISO 5211	(LBS)
1/2"	0.59	1.38	3.50	0.38	0.06	0.63	4	2.38	2.01	6.79	4.25	4.47	0.37	0.433	0.612	M6	1.969	F05	7.3
3/4"	0.79	1.69	3.90	0.44	0.06	0.63	4	2.75	2.01	6.79	4.61	4.47	0.37	0.433	0.612	M6	1.969	F05	7.9
1"	0.98	2.00	4.25	0.50	0.06	0.63	4	3.12	2.01	6.79	5.00	4.47	0.37	0.433	0.612	M6	1.969	F05	8.8
1-1/2"	1.50	2.87	5.00	0.63	0.06	0.63	4	3.88	2.93	8.27	6.50	6.05	0.59	0.551	0.779	M8	2.756	F07	20.9
2"	1.97	3.62	5.98	0.68	0.06	0.75	4	4.75	3.23	8.27	7.01	6.05	0.59	0.551	0.779	M8	2.756	F07	23.6
2-1/2"	2.50	4.12	7.01	0.81	0.06	0.75	4	5.50	4.76	12.6	7.48	8.02	0.80	0.748	1.058	M10	4.016	F10	39.7
3"	2.99	5.00	7.48	0.88	0.06	0.75	4	6.00	4.76	12.6	7.99	8.02	0.80	0.866	1.225	M10	4.016	F10	50.7
4"	3.90	6.19	9.02	0.88	0.06	0.75	8	7.50	5.37	20.00	9.02	8.57	0.74	0.866	1.225	M10	4.016	F10	85.8

Series L2

High Performance, Full Port PFA Locked Liner, Split Body Ball Valve ASME Class 150 Flanged Ends

MATERIALS LIST: 6" - 8"

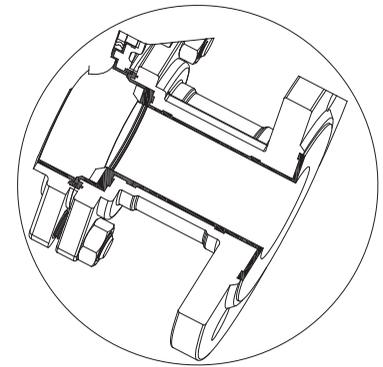
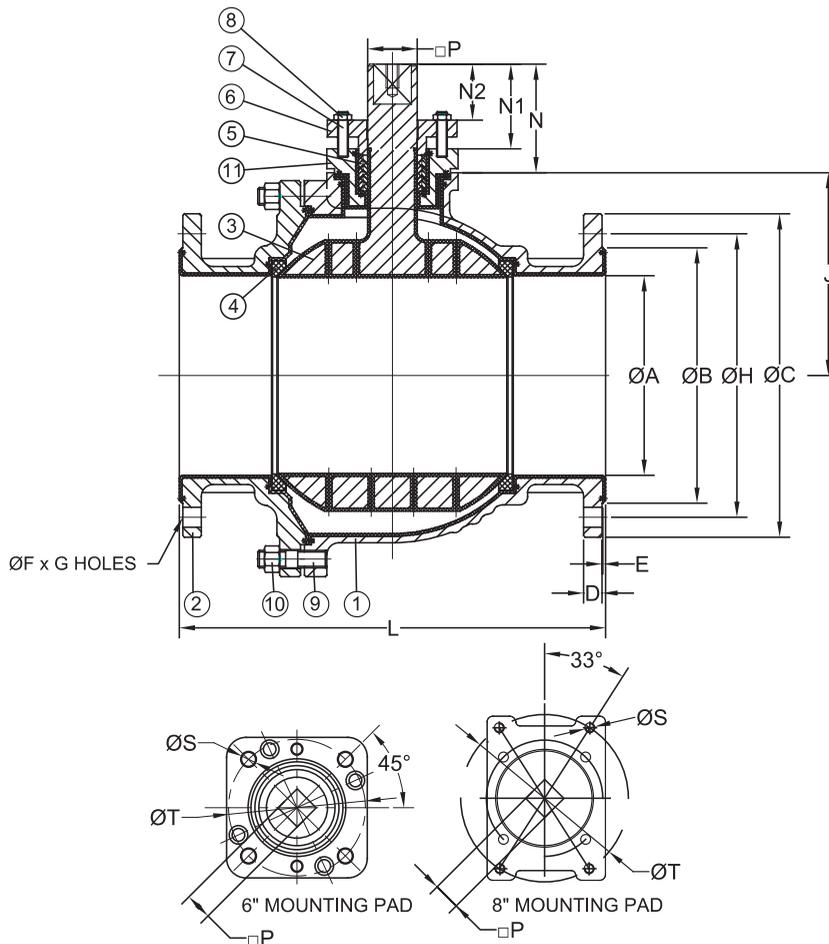
NO.	PART NAME	QTY	STAINLESS STEEL	CARBON STEEL
1	Body	1	ASTM A351 GRADE CF8M + PFA	ASTM A216 GRADE WCB + PFA
2	End Cap	1	ASTM A351 GRADE CF8M + PFA	ASTM A216 GRADE WCB + PFA
3	Ball/Stem	1	ASTM A351 GRADE CF8M/XM-19 + PFA	ASTM A351 GRADE CF8/XM-19 + PFA
4	Seat	2	PTFE	PTFE
5	Packing	1 Set	PTFE	PTFE
6	Packing Gland	1	304SST	ASTM A216 GRADE WCB
7	Packing Gland Bolt	2	ASTM A193 GRADE B8	ASTM A193 GRADE B8
8	Packing Gland Nut	2	ASTM A193 GRADE 8	ASTM A193 GRADE 8
9	Body Stud	*	ASTM A193 GRADE B8	ASTM A193 GRADE B8
10	Body Stud Nut	*	ASTM A193 GRADE 8	ASTM A193 GRADE 8
11	Gland	1	304SST	ASTM A216 GRADE WCB

* 6" - QTY 10

* 8" - QTY 12



Example of our lined V-ball.
Please reference our V-series
catalog for more information.



PFA Locked Liner

SIZE	VALVE DIMENSIONS										ACTUATOR MOUNTING DIMENSIONS							
	ØA	ØB	ØC	D	E	ØF	G	H	J	L	N	N1	N2	□P	ØS	T	ISO 5211	(LBS)
6"	5.89	8.50	10.98	0.94	0.06	0.88	8	9.50	6.73	15.51	3.23	2.54	1.57	1.417	M16	5.512	F14	194
8"	7.87	10.62	13.50	1.06	0.06	0.88	8	11.75	8.71	17.99	4.00	3.01	1.57	1.417	M16	9.380	N/A	299.8

Series L2

Break Away Torques

SIZE	IN-LBS.
1/2"	89
3/4"	89
1"	133
1-1/2"	248
2"	407
2-1/2"	611
3"	797
4"	1,195
6"	2,655
8"	5,311

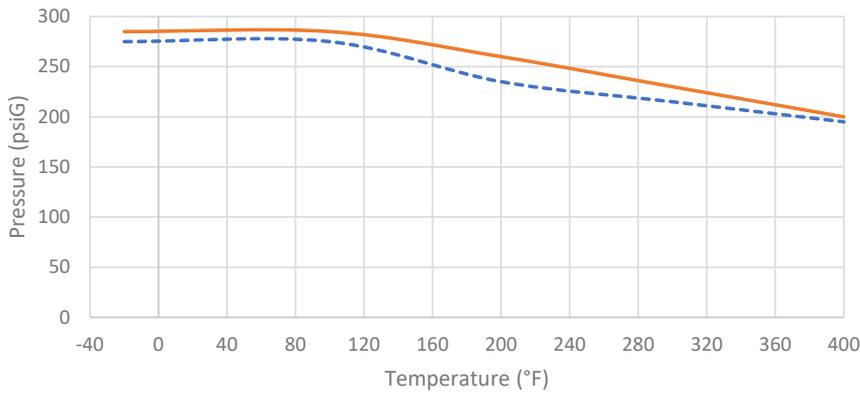
Component Temperature Ratings

Component	Material	Temperature
Stem Packing	PTFE	-50°F to 400°F

Cv Values

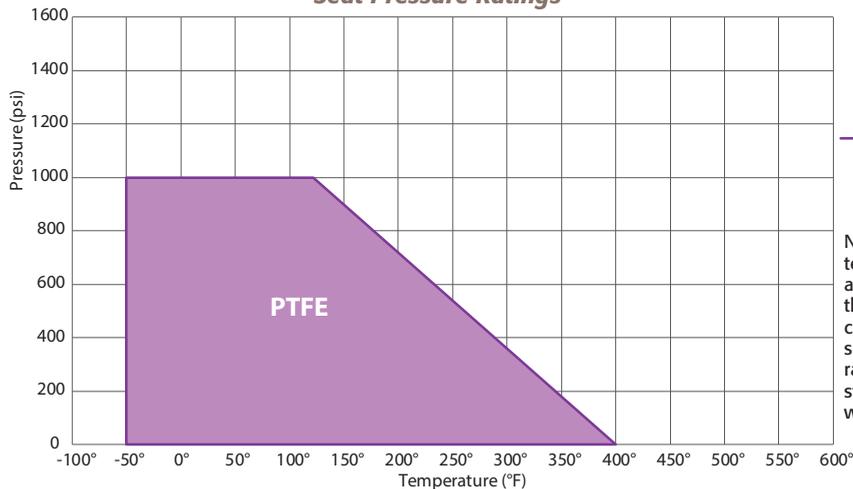
SIZE	C _v
1/2"	24
3/4"	45
1"	73
1-1/2"	178
2"	315
2-1/2"	519
3"	765
4"	1,365
6"	4,880
8"	9,045

Body & End Cap Ratings - ASME B16.34



Temp (°F)	CF8M (psig)	WCB (psig)
-20	275	285
100	275	285
200	235	260
300	215	230
400	195	200

Pressure vs. Temperature Seat Pressure Ratings



NOTE: At temperature, valves are limited by either the valve body/end cap pressure ratings, seat pressure ratings, or packing/stem seal/gaskets; whichever is lower.

Temp (°F)	Pressure (psig)
-50	1000
100	1000
122	1000
150	899
200	719
250	540
300	360
350	180
400	60

A-T Controls, Inc.

Pneumatic Double Acting

Automated Ball Valve Package

Series L2
ASME Class 150
PFA Locked Liner
Split Body Ball Valve

Available in 316SST or WCB
Sizes 1/2"-8"

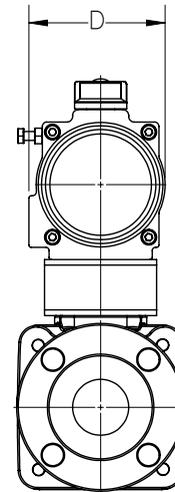
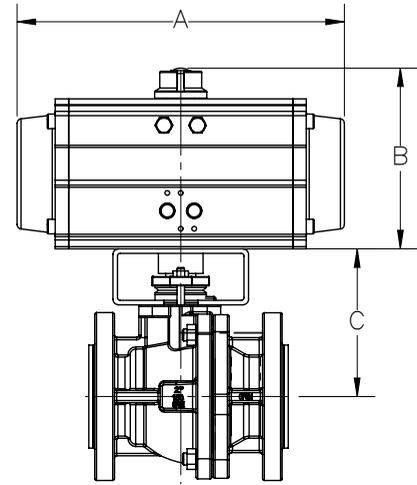
Flanged Ends • ASME Class 150
Full Port Design
Superior Packing System
PTFE Seats Standard
Spark Test Standard (20 kV)

STANDARDS

Design & Manufactured	ASME B16.34
Face to Face Dimensions	ASME B16.10
Flange End Connections	ASME B16.5
Pressure Testing	API 598
Material Certification	EN 10204-3.1
Quality Assurance	ISO 9001:2015



ASME Class 150 Flanged
PFA Lined Ball Valve



Double Acting Assembly DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	VALVE Cv
1/2"	6.50	3.63	4.01	2.81	24
3/4"	6.50	3.63	4.01	2.81	45
1"	6.50	3.63	4.01	2.81	73
1-1/2"	7.60	4.26	4.90	3.35	178
2"	9.29	5.09	5.20	4.18	315
2-1/2"	9.29	5.09	7.38	4.18	519
3"	11.02	5.40	7.38	4.27	765
4"	11.50	6.07	7.99	4.78	1,365
6"	15.35	7.99	13.98	5.98	4,880
8"	19.37	8.99	18.70	6.86	9,045

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	L2-F1-050/3RDD-XX
3/4"	L2-F1-075/3RDD-XX
1"	L2-F1-100/3RDD-XX
1-1/2"	L2-F1-150/3RED-XX
2"	L2-F1-200/3RFD-XX
2-1/2"	L2-F1-250/3RFD-XX
3"	L2-F1-300/3RGD-XX
4"	L2-F1-400/3RHD-XX
6"	L2-F1-600/3RKD-XX
8"	L2-F1-800/3RMD-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	L2-F1-050/3RDD-XX
3/4"	L2-F1-075/3RDD-XX
1"	L2-F1-100/3RED-XX
1-1/2"	L2-F1-150/3RFD-XX
2"	L2-F1-200/3RFD-XX
2-1/2"	L2-F1-250/3RGD-XX
3"	L2-F1-300/3RHD-XX
4"	L2-F1-400/3RJD-XX
6"	L2-F1-600/3RKD-XX
8"	L2-F1-800/3RMD-XX

OPTIONS

SUFFIX 1	Accessories/Options	Model no.
X	No Specials	
A	TYPE 4 Solenoid 120VAC	TVCS-X411-4N-A120
B	TYPE 7 Solenoid 120VAC	TVCS-X411-7N-A120
C	Intrinsically Safe Solenoid	TVIS-X411-4N-D24
D	TYPE 4 Solenoid 24VDC	TVCS-X411-4N-D24
F	TYPE 7 Solenoid 24VDC	TVCS-X411-7N-D24
Q	TYPE 4 SST Solenoid 120VAC	TVSS-X411-4N-A120
M	TYPE 7 SST Solenoid 120VAC	TVSS-X411-7N-A120
L	TYPE 4 SST Solenoid 24VDC	TVSS-X411-4N-D24
N	TYPE 7 SST Solenoid 24VDC	TVSS-X411-7N-D24
P	Pneumatic Positioner	PPR-1200
E	Electro-Pneumatic Positioner	EPR-1000

SUFFIX 2	Accessories	Model no.
X	No Specials	
A	TYPE 4 Limit Switch	APL-210N
B	TYPE 7 Limit Switch	APL-510N
C	Intrinsically Safe Limit Switch	APL-218N
Q	TYPE 4 SST Limit Switch	APL-910N
M	TYPE 7 SST Limit Switch	APL-510S
H	NEMA 4 Std. Enc.	APL-310N

Other options available - call for details
Actuators are sized based on full differential pressure with clean water. Consult the Application Sizing Guide for assistance with sizing actuators.

SAMPLE PART # L2C-F1-150/3RED-XX

Valve Series | Carbon Steel | End Connection | Seat Material | Valve Size | TRIAC Actuator Series | Actuator Size | Double Acting

See automated part number matrix on back cover for complete part number and options.

SUFFIX 1: Voltage
SUFFIX 2: Accessories

SERIES L2 PFA Locked Liner Split Body Flanged Ball Valve

A-T Controls, Inc.

Pneumatic Spring Return Automated Ball Valve Package

Series L2
ASME Class 150
PFA Lined Liner
Split Body Ball Valve

Available in 316SST or WCB
Sizes 1/2"-8"

Flanged Ends • ASME Class 150
Full Port Design

Superior Packing System

PTFE Seats Standard

Spark Test Standard (20 kV)

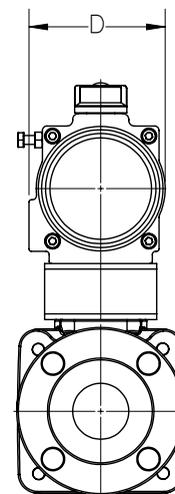
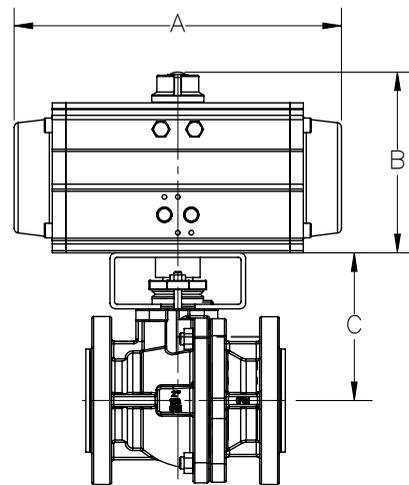
STANDARDS

Design & Manufactured
Face to Face Dimensions
Flange End Connections
Pressure Testing
Material Certification
Quality Assurance

ASME B16.34
ASME B16.10
ASME B16.5
API 598
EN 10204-3.1
ISO 9001:2015



ASME Class 150 Flanged PFA Lined Ball Valve



Spring Return Assembly DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	VALVE Cv
1/2"	7.60	4.26	4.01	3.35	24
3/4"	7.60	4.26	4.01	3.35	45
1"	9.29	5.09	4.01	4.18	73
1-1/2"	9.29	5.09	4.90	4.18	178
2"	11.50	6.07	5.20	4.78	315
2-1/2"	13.39	6.93	7.38	5.59	519
3"	13.39	6.93	7.38	5.59	765
4"	15.35	7.99	7.99	5.98	1,365
6"	22.36	10.24	13.98	8.12	4,880
8"	24.80	12.64	18.70	10.24	9,045

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SERIES L2 PFA Lined Liner Split Body Flanged Ball Valve

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	L2-F1-050/3RES-XX
3/4"	L2-F1-075/3RES-XX
1"	L2-F1-100/3RFS-XX
1-1/2"	L2-F1-150/3RFS-XX
2"	L2-F1-200/3RHS-XX
2-1/2"	L2-F1-250/3RJS-XX
3"	L2-F1-300/3RJS-XX
4"	L2-F1-400/3RKS-XX
6"	L2-F1-600/3RPS-XX
8"	L2-F1-800/3RSS-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	L2-F1-050/3RF4-XX
3/4"	L2-F1-075/3RF4-XX
1"	L2-F1-100/3RF4-XX
1-1/2"	L2-F1-150/3RG4-XX
2"	L2-F1-200/3RJ4-XX
2-1/2"	L2-F1-250/3RJ4-XX
3"	L2-F1-300/3RK4-XX
4"	L2-F1-400/3RL4-XX
6"	L2-F1-600/3RR4-XX
8"	L2-F1-800/3RU4-XX

OPTIONS

SUFFIX 1	Accessories/Options	Model no.
X	No Specials	
A	TYPE 4 Solenoid 120VAC	TVCS-X411-4N-A120
B	TYPE 7 Solenoid 120VAC	TVCS-X411-7N-A120
C	Intrinsically Safe Solenoid	TVIS-X411-4N-D24
D	TYPE 4 Solenoid 24VDC	TVCS-X411-4N-D24
F	TYPE 7 Solenoid 24VDC	TVCS-X411-7N-D24
Q	TYPE 4 SST Solenoid 120VAC	TVSS-X411-4N-A120
M	TYPE 7 SST Solenoid 120VAC	TVSS-X411-7N-A120
L	TYPE 4 SST Solenoid 24VDC	TVSS-X411-4N-D24
N	TYPE 7 SST Solenoid 24VDC	TVSS-X411-7N-D24
P	Pneumatic Positioner	PPR-1200
E	Electro-Pneumatic Positioner	EPR-1000

SUFFIX 2	Accessories	Model no.
X	No Specials	
A	TYPE 4 Limit Switch	APL-210N
B	TYPE 7 Limit Switch	APL-510N
C	Intrinsically Safe Limit Switch	APL-218N
Q	TYPE 4 SST Limit Switch	APL-910N
M	TYPE 7 SST Limit Switch	APL-510S
H	NEMA 4 Std. Enc.	APL-310N

Other options available - call for details
Actuators are sized based on full differential pressure with clean water. Consult the Application Sizing Guide for assistance with sizing actuators.

SAMPLE PART #
L2C-F1-150/3RFS-XX

Valve Series | Carbon Steel
End Connection |
Seat Material |
Valve Size |
TRIAC Actuator Series |
Actuator Size |
Spring Return |

SUFFIX 1: Voltage
SUFFIX 2: Accessories

See automated part number matrix on back cover for complete part number and options.

Series L2

HOW TO ORDER: Manual Valves

2	Valve Series
L2	PFA Locked Liner Split Body Flanged Ball Valve

3	Body/Ball/Stem Material
Blank	Valve Series Standard (CF8M)
C	Carbon Steel Body

4	End Connection
F1	150# Flanged Ends

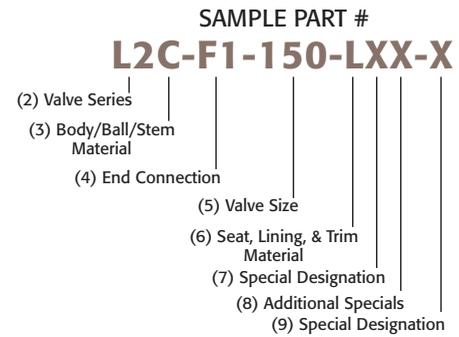
5	Valve Size	
0050	1/2"	0250 2-1/2"
0075	3/4"	0300 3"
0100	1"	0400 4"
0150	1-1/2"	0600 6"
0200	2"	0800 8"

6	Seat, Lining & Trim Material
L	PFA Lined w/ PTFE Seats

7	Special Designation
X	No Specials/Series Standard Handle
G	Gear Operator
H	Gear Operator with Lockout Plate
4	4" Lockable Stem Extension

8	Additional Specials
X	No Specials/Series Standard
O	Oxygen Cleaned
D	Degreased & Bagged

9	Special Designation
Blank	No Designation, Valve Series Standard (XM-19)
X	Multiple Option Designation
3	30° V-Ball
6	60° V-Ball
9	90° V-Ball



HOW TO ORDER: Automated Valves

2	Valve Series
L2	PFA Locked Liner Split Body Flanged Ball Valve

3	Body/Ball/Stem Material
Blank	Valve Series Standard (CF8M)
C	Carbon Steel Body

4	End Connection
F	150# Flanged Ends

5	Seat, Lining & Trim Material
1	Valve Series Standard

6	Valve Size	
0050	1/2"	0250 2-1/2"
0075	3/4"	0300 3"
0100	1"	0400 4"
0150	1-1/2"	0600 6"
0200	2"	0800 8"

7 (A) Pneumatic Actuator - 3R, 3N, 3P Series
3RC 3R10 3RM 3R850
3RD 3R20 3RN 3R1000
3RE 3R40 3RP 3R1200
3RF 3R80 3RR 3R1750
3RG 3R130 3RS 3R2400
3RH 3R200 3RT 3R2500
3RJ 3R300 3RU 3R2700
3RK 3R500 3RV 3R3300
3RL 3R700 3RW 3R3500

3R=Standard, 3N=Electroless Nickel Plating, 3P=Teflon™ (PTFE) Coating

7 (A) Pneumatic Actuator - S2 Series
S2C S2-052 S2G S2-125
S2D S2-063 S2H S2-140
S2E S2-083 S2J S2-160
S2F S2-105 S2K S2-210

7 (B) Pneumatic Action
D Double Acting (DA)
S Spring CW (5 springs)*
O Spring CCW (5 springs)*
4 Spring CW (4 springs)**
F Spring CCW (4 springs)**
6 Spring CW (6 springs)
H Spring CCW (6 springs)

*2500 & 3500 80 psig spring
**2500 & 3500 60 psig spring

7 Actuator - Electric (On-Off)
WEX1 WE-350 WEG1 WE-5200
WEA1 WE-500 WEH1 WE-6900
WEB1 WE-690 WEJ1 WE-10500
WEC1 WE-1350 WEK1 WE-17500
WED1 WE-1700 WEL1 WE-25900
WEE1 WE-2640 WEM1 WE-53000
WEF1 WE-4400 WEN1 WE-80000

7 Actuator - Electric (Modulating)
WEA2 WEM-500 WEH2 WEM-6900
WEB2 WEM-690 WEJ2 WEM-10500
WEC2 WEM-1350 WEK2 WEM-17500
WED2 WEM-1700 WEL2 WEM-25900
WEE2 WEM-2640 WEM2 WEM-53000
WEF2 WEM-4400 WEN2 WEM-80000
WEG2 WEM-5200

8 Accessories/Options	Model no.
X	No Specials
A	TYPE 4 Solenoid 120VAC TVCS-X411-4N-A120
B	TYPE 7 Solenoid 120VAC TVC6-X411-7N-A120
C	Intrinsically Safe Solenoid TVIS-X411-4N-D24
D	TYPE 4 Solenoid 24VDC TVCS-X411-4N-D24
F	TYPE 7 Solenoid 24VDC TVC6-X411-7N-D24
Q	TYPE 4 SST Solenoid 120VAC TVSS-X411-4N-A120
M	TYPE 7 SST Solenoid 120VAC TVSS-X411-7N-A120
L	TYPE 4 SST Solenoid 24VDC TVSS-X411-4N-D24
N	TYPE 7 SST Solenoid 24VDC TVSS-X411-7N-D24
P	Pneumatic Positioner PPR-1200
E	Electro-Pneumatic Positioner EPR-1000
R	24VDC Electric Actuator
S	220VAC Electric Actuator
T	Other Voltage Electric Actuator
W	12VDC Electric Actuator
Y	24VAC Electric Actuator

* No voltage specified on electric assemblies denotes 120VAC

9 Accessories	Model no.
X	No Specials
A	TYPE 4 Limit Switch APL-210N
B	TYPE 7 Limit Switch APL-510N
C	Intrinsically Safe Limit Switch APL-218N
Q	TYPE 4 SST Limit Switch APL-910N
M	TYPE 7 SST Limit Switch APL-510S
H	NEMA 4 Std. Enc. APL-310N
Z	180° Operation
1	HS1 High Speed Electric
2	HS2 High Speed Electric

