



A-T Controls' Series LB 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.

VALVE SIZE	VALVE Cv
1/2"	20
3/4"	20
1"	55
1-1/2"	210
2"	310
2-1/2"	210
3"	684
4"	1,546
6"	3,262
8"	4,565

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

Featuring **TRIAO**[®]
Controls & Accessories

Series LB

PFA Lined Split Body Flanged Ball Valve

Available in 316SST or WCB

Sizes 1/2"-8"

Flanged Ends • ANSI Class 150

Full Port Design

Superior Packing System

PTFE Seats Standard

Lockable Manual Handle

Spark Test Standard (20 kV)

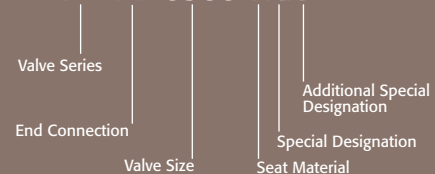
STANDARDS

Design & Manufactured	API 608
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 #

LB-F1-0300-LXX



See part number matrix for itemized options

AT A-T Controls, Inc.

9955 International Blvd.
Cincinnati, Ohio 45246
www.atcontrols.com

PHONE (513) 247-5465
FAX (513) 247-5462
sales@atcontrols.com

Series LB

High Performance, Full Port PFA Lined, Split Body Ball Valve ANSI Class 150 Flanged Ends

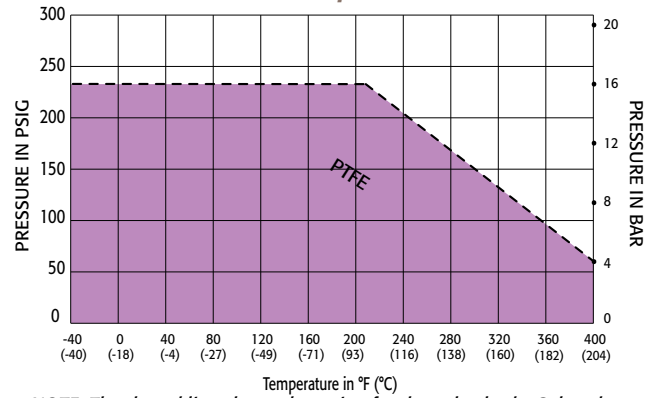
MATERIALS LIST

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	1	ASTM A351 GRADE CF8M/PFA	ASTM A351 GRADE CF8/PFA
4	Seat	2	PTFE	PTFE
5	Body Studs	*	ASTM A193 GRADE B8	ASTM A193 GRADE B8
6	Body Nut	*	ASTM A194 GRADE 8	ASTM A194 GRADE 8
7	Packing	1	PTFE	PTFE
8	Packing Bushing	1	AISI 304	AISI 304
9	Packing Gland	1	ASTM A351 GRADE CF8	ASTM A351 GRADE CF8
10	Anti-Static Spring	1	AISI 321	AISI 321
11	Gland Stud	2	AISI 304	AISI 304
12	Gland Flat Washer	2	AISI 321	AISI 321
13	Gland Split Washer	2	AISI 321	AISI 321
14	Gland Nut	2	AISI 304	AISI 304
15	Handle	1	ASTM A351 GRADE CF8	ASTM A351 GRADE CF8
16	Handle Washer	1	AISI 321	AISI 321
17	Handle Bolt	1	AISI 304	AISI 304
18	Handle Stop	1	AISI 304	AISI 304
19	Handle Lock	1	AISI 321	AISI 321
20	Handle Lock Bolt	1	AISI 304	AISI 304

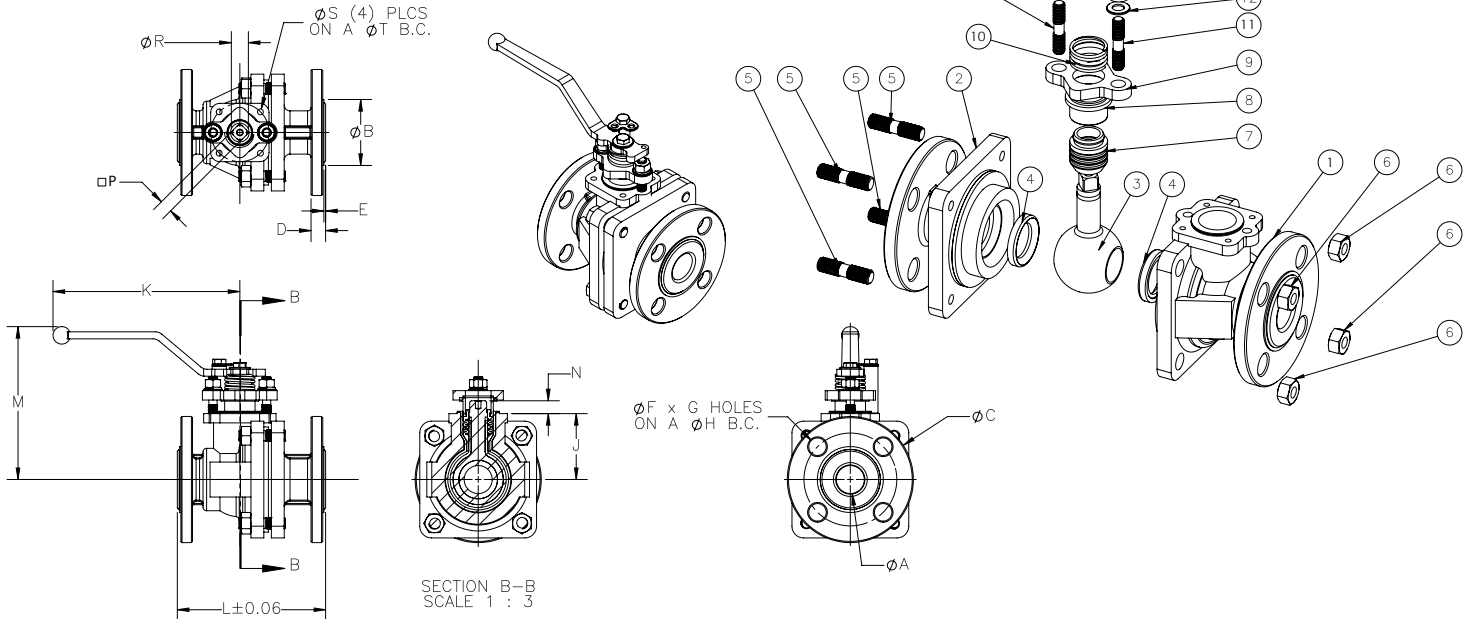
* 1/2" THRU 2-1/2" - QTY 4
* 3" THRU 4" - QTY 6

* 6" - QTY 8
* 8" - QTY 10

Pressure vs. Temperature Chart



NOTE: The dotted line shows the rating for the valve body. Colored area shows the rating for valve seat. Both ratings need to be considered when determining the limitation of the valve for specific application.
LBC Series is rated to -20° F, LB Series rated to -40° F.



Break Away Torque for PTFE Seats

SIZE	IN.-LBS.
1/2"	80
3/4"	80
1"	100
1-1/2"	185
2"	250
2-1/2"	285
3"	475
4"	805
6"	1,300
8"	3,300

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	0.44	0.06	0.63	4	2.38	2.03	6.30	4.25	5.04	0.16	0.354	0.46	1/4"-20	1.969	F05	7.72
3/4"	0.79	1.69	3.88	0.44	0.06	0.63	4	2.74	2.03	6.30	4.62	5.04	0.16	0.354	0.46	1/4"-20	1.969	F05	10.14
1"	0.98	2.00	4.25	0.44	0.06	0.63	4	3.12	2.22	6.30	5.00	5.24	0.16	0.433	0.57	1/4"-20	1.969	F05	11.02
1-1/2"	1.50	2.88	5.00	0.56	0.06	0.63	4	3.88	2.76	7.87	6.50	6.30	0.61	0.551	0.75	5/16"-18	2.756	F07	24.25
2"	1.87	3.62	6.00	0.63	0.06	0.75	4	4.75	3.21	7.87	7.00	6.69	0.53	0.551	0.75	5/16"-18	2.756	F07	30.86
2-1/2"	2.56	4.12	7.00	0.69	0.06	0.75	4	5.50	3.21	7.87	7.50	6.69	0.53	0.748	0.75	5/16"-18	2.756	F07	41.89
3"	3.15	5.00	7.50	0.75	0.06	0.75	4	6.00	4.45	10.24	8.00	9.05	0.75	0.748	1.02	5/16"-18	2.756	F07	63.49
4"	3.86	6.19	9.00	0.94	0.06	0.75	8	7.50	5.31	12.32	9.00	10.43	0.91	0.748	1.02	3/8"-16	4.016	F10	98.77
6"	5.75	8.50	11.00	1.00	0.06	0.87	8	8.50	7.26	21.06	10.50	14.45	1.20	1.063	1.46	7/16"-14	4.921	F12	212.08
8"	7.80	11.75	13.50	1.12	0.06	0.87	8	11.75	8.96	-	11.50	-	1.36	1.417	1.97	9/16"-12	5.512	F14	260.15

NOTE: For other seat material, consult factory

A-T Controls reserves the right to change product designs and technical/dimensional specifications without notice.



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Pneumatic Double Acting

Automated Ball Valve Package

Series LB
ANSI Class 150
Flanged PFA Lined Ball Valve

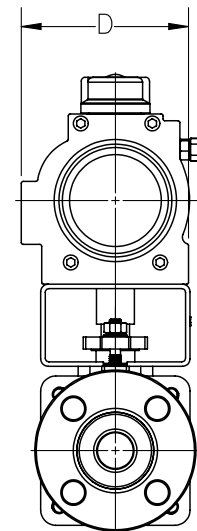
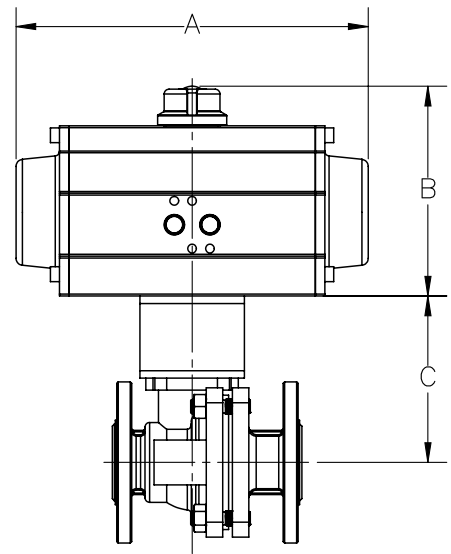
Available in 316SST or WCB
Sizes 1/2"-8"
Flanged Ends • ANSI Class 150
Full Port Design
Superior Packing System
PTFE Seats Standard
Spark Test Standard (20 kV)

STANDARDS

Design & Manufactured	API 608
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



ANSI Class 150 Flanged PFA Lined Ball Valve



Double Acting Assembly DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	VALVE Cv
1/2"	5.98	3.55	4.20	2.50	20
3/4"	5.98	3.55	4.20	2.50	20
1"	5.98	3.55	4.39	2.50	55
1-1/2"	7.95	4.22	5.38	3.21	210
2"	7.95	4.22	5.83	3.21	310
2-1/2"	7.95	4.22	5.83	3.21	210
3"	9.29	5.28	7.07	4.17	684
4"	10.87	5.67	8.31	4.83	1,546
6"	11.46	6.07	10.26	5.19	3,262
8"	15.16	8.11	11.96	6.69	4,565

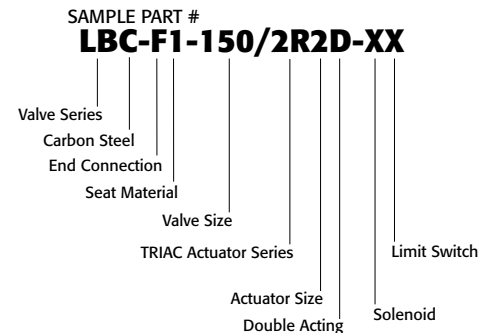
DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SERIES LB PFA Lined Ball Valve

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	LB-F1-050/TR1D-XX
3/4"	LB-F1-075/TR1D-XX
1"	LB-F1-100/TR1D-XX
1-1/2"	LB-F1-150/2R2D-XX
2"	LB-F1-200/2R2D-XX
2-1/2"	LB-F1-250/2R2D-XX
3"	LB-F1-300/2R3D-XX
4"	LB-F1-400/2R4D-XX
6"	LB-F1-600/2R5D-XX
8"	LB-F1-800/2R7D-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	LB-F1-050/TR1D-XX
3/4"	LB-F1-075/TR1D-XX
1"	LB-F1-100/TR1D-XX
1-1/2"	LB-F1-150/2R2D-XX
2"	LB-F1-200/2R3D-XX
2-1/2"	LB-F1-250/2R3D-XX
3"	LB-F1-300/2R3D-XX
4"	LB-F1-400/2R5D-XX
6"	LB-F1-600/2R6D-XX
8"	LB-F1-800/2R8D-XX

Actuators are sized based on clean/clear fluid at 80 psi.



See valve part number matrix for complete part number and options.

OPTIONS

DESCRIPTION	PART NO. SUFFIX	DESCRIPTION	PART NO. SUFFIX
Type 4 Solenoid	(A)	Type 4 Limit Switch (2) spdt	(A)
Type 7 Solenoid	(B)	Type 7 Limit Switch (2) spdt	(B)
Intrinsically Safe Solenoid	(C)	Intrinsically Safe Limit Switch	(C)

Other options available - call for details.

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Pneumatic Spring Return

Automated Ball Valve Package

Series LB
ANSI Class 150
Flanged PFA Lined Ball Valve

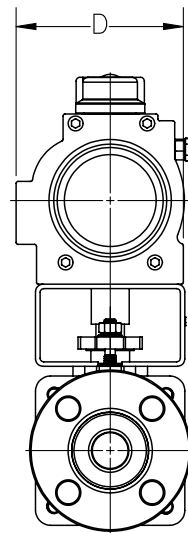
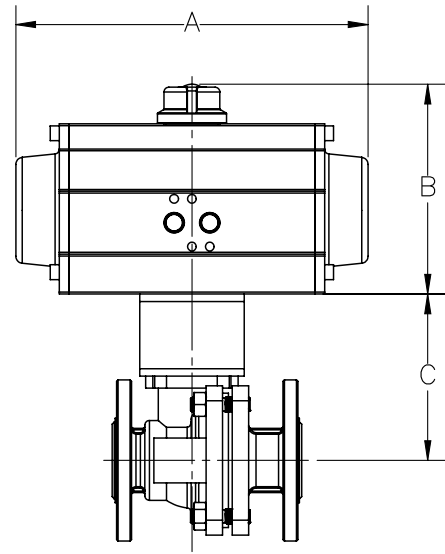
Available in 316SST or WCB
Sizes 1/2"-8"
Flanged Ends • ANSI Class 150
Full Port Design
Superior Packing System
PTFE Seats Standard
Spark Test Standard (20 kV)

STANDARDS

Design & Manufactured	API 608
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



ANSI Class 150 Flanged PFA Lined Ball Valve



Spring Return Assembly DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	VALVE Cv
1/2"	7.95	4.22	4.20	3.21	20
3/4"	7.95	4.22	4.20	3.21	20
1"	9.29	5.28	4.39	4.17	55
1-1/2"	9.29	5.28	5.38	4.17	210
2"	10.87	5.67	5.83	4.83	310
2-1/2"	10.87	5.67	5.83	4.83	210
3"	13.90	6.97	7.07	6.05	684
4"	13.90	6.97	8.31	6.05	1,546
6"	15.16	8.11	10.26	6.69	3,262
8"	24.37	11.30	11.96	9.29	4,565

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SERIES LB PFA Lined Ball Valve

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	LB-F1-050/2R2S-XX
3/4"	LB-F1-075/2R2S-XX
1"	LB-F1-100/2R3S-XX
1-1/2"	LB-F1-150/2R3S-XX
2"	LB-F1-200/2R4S-XX
2-1/2"	LB-F1-250/2R4S-XX
3"	LB-F1-300/2R6S-XX
4"	LB-F1-400/2R6S-XX
6"	LB-F1-600/2R7S-XX
8"	LB-F1-800/2R0S-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	LB-F1-050/2R3S4-XX
3/4"	LB-F1-075/2R3S4-XX
1"	LB-F1-100/2R3S4-XX
1-1/2"	LB-F1-150/2R4S4-XX
2"	LB-F1-200/2R5S4-XX
2-1/2"	LB-F1-250/2R5S4-XX
3"	LB-F1-300/2R6S4-XX
4"	LB-F1-400/2R7S4-XX
6"	LB-F1-600/2R8S4-XX
8"	LB-F1-800/2RAS*-XX

Actuators are sized based on clean/clear fluid at 80 psi.

*60 PSI SPRING

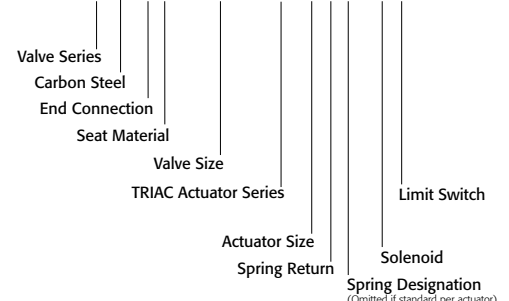
OPTIONS

DESCRIPTION	PART NO. SUFFIX	DESCRIPTION	PART NO. SUFFIX
Type 4 Solenoid	(A)	Type 4 Limit Switch (2) spdt	(A)
Type 7 Solenoid	(B)	Type 7 Limit Switch (2) spdt	(B)
Intrinsically Safe Solenoid	(C)	Intrinsically Safe Limit Switch	(C)

Other options available - call for details.

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SAMPLE PART # LBC-F1-150/2R4S4-XX



See valve part number matrix for complete part number and options.



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Electric

Automated Ball Valve Package

Series LB
ANSI Class 150
Flanged PFA Lined Ball Valve

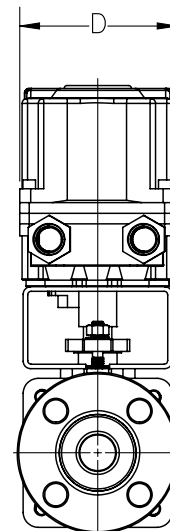
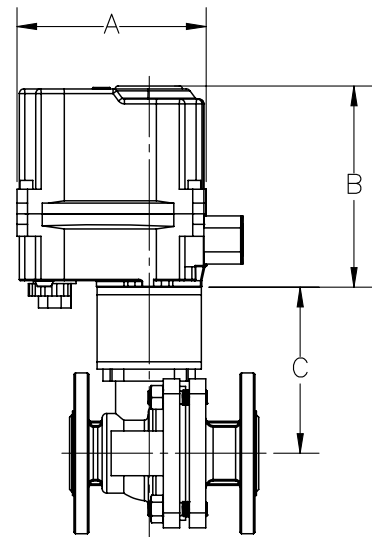
Available in 316SST or WCB
Sizes 1/2"-8"
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Full Port Design
Superior Packing System
PTFE Seats Standard
Spark Test Standard (20 kV)

STANDARDS

Design & Manufactured	API 608
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



ANSI Class 150 Flanged PFA Lined Ball Valve



Electric Assembly DIMENSIONS (IN)

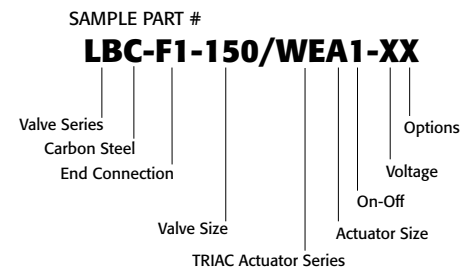
VALVE SIZE	A	B	C	D	VALVE Cv
1/2"	4.95	5.32	4.20	4.09	20
3/4"	4.95	5.32	4.20	4.09	20
1"	4.95	5.32	4.39	4.09	55
1-1/2"	4.95	5.32	5.38	4.09	210
2"	4.95	5.32	5.83	4.09	310
2-1/2"	4.95	5.32	5.83	4.09	210
3"	10.16	9.25	7.07	6.70	684
4"	13.31	10.55	8.31	9.02	1,546
6"	13.31	10.55	10.26	9.02	3,262
8"	14.49	11.97	11.96	10.20	4,565

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SERIES LB PFA Lined Ball Valve

ON-OFF	
SIZE	MODEL
1/2"	LB-F1-050/WEA1-XX
3/4"	LB-F1-075/WEA1-XX
1"	LB-F1-100/WEA1-XX
1-1/2"	LB-F1-150/WEA1-XX
2"	LB-F1-200/WEA1-XX
2-1/2"	LB-F1-250/WEA1-XX
3"	LB-F1-300/WEB1-XX
4"	LB-F1-400/WEC1-XX
6"	LB-F1-600/WED1-XX
8"	LB-F1-800/WEF1-XX

MODULATING	
SIZE	MODEL
1/2"	LB-F1-050/WEA2-XX
3/4"	LB-F1-075/WEA2-XX
1"	LB-F1-100/WEA2-XX
1-1/2"	LB-F1-150/WEA2-XX
2"	LB-F1-200/WEA2-XX
2-1/2"	LB-F1-250/WEA2-XX
3"	LB-F1-300/WEB2-XX
4"	LB-F1-400/WEC2-XX
6"	LB-F1-600/WED2-XX
8"	LB-F1-800/WEF2-XX



See valve part number matrix for complete part number and options.

Actuators are sized based on clean/clear fluid, in on/off applications.

OPTIONS

DESCRIPTION

24 VAC/24 VDC/220VAC

Feedback potentiometer

NOTE: Heater and thermostat standard
(2) auxiliary switches standard
Other options available - call for details.

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Valve Options

Various Seat Materials

PTFE, RTFE, 50/50 STFE, 25% CTFE, Delrin, PEEK, UHMWPE, TFM-1600

Operator Options

Quarter-turn Gear Operators
Spring Return "Deadman" Handles
Oval handles, TEE Handles

Specials and Solutions

Steam Jackets
Stem Extensions
V-ported Control Valves
Multi-port Valve Solutions
Fugitive Emissions Bonnets (TSM's)
Oxygen Cleaning
Lockout Brackets
Vented Balls
"No Play" Mounting Kits

• FM Approved Valves and Assemblies



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Special Multi-Port Valves



Steam Jacketed Valves



Limit Switches Mounted on Manual Valves



180° Actuators



Stem Extensions



Dual Valve Assemblies

