

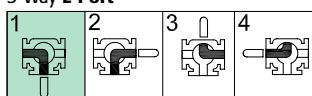


This investment cast 3-way valve can be an economical option for flow patterns that normally require multiple 2-way valves. Available in L or T port configurations, this valve is excellent for diverting flow within control loop processes. The ISO 5211 mounting pad optimizes quick & easy automation. Available only in 316 stainless steel with RTFE seat trim.

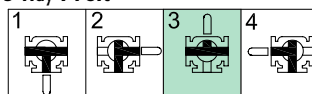
VALVE SIZE	VALVE Cv "L"	VALVE Cv "T"
1/4"	3	3.5
3/8"	3.5	4
1/2"	4.2	5
3/4"	7	8
1"	14	20
1-1/4"	19	30
1-1/2"	35	40
2"	45	60

FLOW PATTERNS

3-Way L-Port



3-Way T-Port



Shaded boxes indicate standard flow path from factory unless otherwise specified by customer. Automated assemblies rotate counter-clockwise standard from the factory when energized. For L-Ports that would be L1 to L2 and T3 to T4 for T-ports. By specifying FCCW or DAR actuators, multiple flow patterns can be achieved to meet process requirements.

Easy to Automate!

See automated data sheets for pre-sized assemblies



Pneumatic



Electric



Series 38
3-Way
Ball Valve
Threaded

Sizes 1/4" - 2"

1000 psig

EN 1.4408 SST

Regular Port Design

Threaded Ends

ISO 5211 Actuator Mounting Pad

Blowout Proof Stem

4 Seat Design (RTFE standard)

"L" or "T" Port Option

Lockable Manual Handle

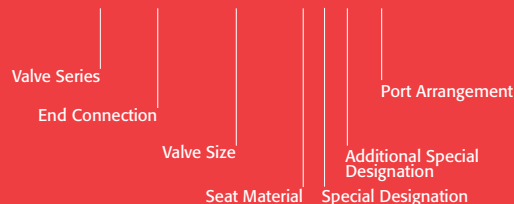
STANDARDS

Design	EN-1983, EN-12516-3
End Connections	ASME B1.20.1
Pressure Testing	EN-1226-1
Mounting	ISO 5211
Marking System for Valves	EN 19
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015

HOW TO ORDER
MANUAL VALVES

SAMPLE PART #

38-TH-0025-XXX-T



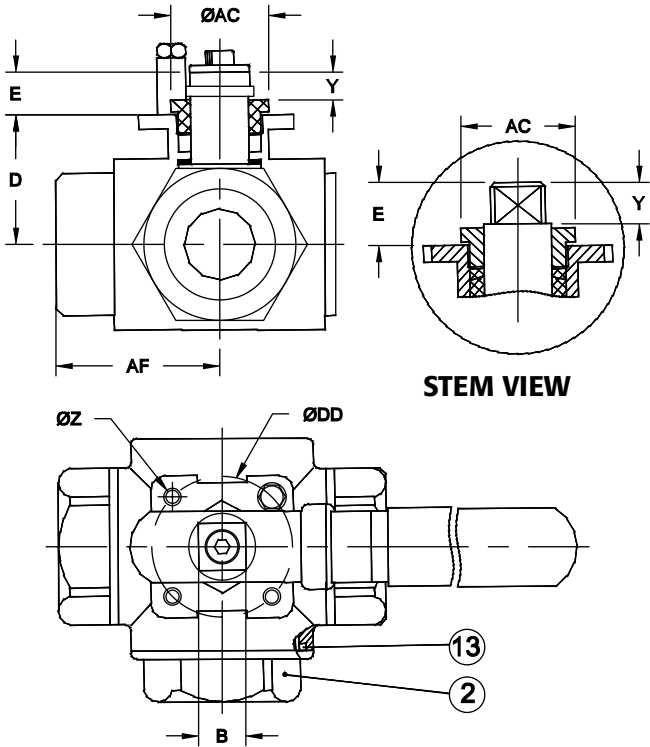
See part number matrix for itemized options



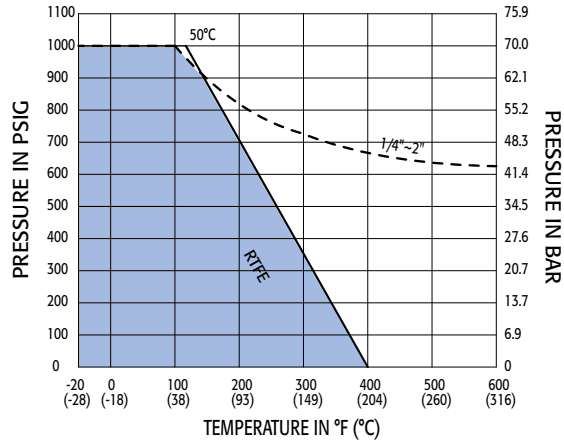
Series 38

Three-Way Threaded Ball Valve Regular Port, L or T Option

1000 psig
1/4" to 2"



Pressure vs. Temperature Chart for Valves 1/4" to 2"



Break Away Torque for RTFE Seats	
SIZE	IN-LBS.
1/4"	65
3/8"	65
1/2"	90
3/4"	118
1"	200
1-1/4"	315
1-1/2"	440
2"	528

NOTE: Dotted line shows the rating for valve body. Solid line shows the rating for valve seat. Both ratings need to be considered when determining the limitation of the valve for specific application.

MATERIAL LIST

NO.	PART NAME	QTY	MATERIAL	REPAIR KIT
1	BODY	1	ASTM A351 GRADE CF8M EN 1.4408 SST	
2	END CAP	3	ASTM A351 GRADE CF8M EN 1.4408 SST	
3	BALL	1	1/4" THRU 3/8" ASTM A276 SS316	
3	BALL	1	1/2" THRU 2" ASTM A351 GRADE CF8M	
4	STEM	1	ASTM A276 SS316	
5	STEM NUT	2	AISI 304	
6	STEM WASHER	1	AISI 304	
7	HANDLE	1	AISI 304	
8	SEAT	4	RTFE	✓
9	GLAND NUT	1	AISI 304	
10	GLAND PACKING	1	PTFE	✓
11	THRUST WASHER	1	RTFE	✓
12	STEM SPACER	1	AISI 304	
13	JOINT GASKET	3	PTFE	✓
14	SPACER	1	AISI 304	
15	HANDLE LOCK	1	AISI 304	
16	HANDLE SLEEVE	1	VINYL	

DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	L	Y	Z	AB	AC	AE	AF	DD	ISO 5211	LBS
1/4"	0.43	0.354	5.25	1.06	0.42	2.39	2.73	0.20	M5	1.37	0.87	0.61	1.37	1.654	F04	1.32
3/8"	0.43	0.354	5.25	1.06	0.42	2.39	2.73	0.20	M5	1.37	0.87	0.61	1.37	1.654	F04	1.32
1/2"	0.49	0.354	5.25	1.20	0.42	2.52	2.98	0.19	M5	1.49	0.87	0.68	1.49	1.654	F04	1.54
3/4"	0.63	0.433	7.03	1.45	0.55	3.24	3.41	0.28	M6	1.70	1.22	0.76	1.70	1.969	F05	2.42
1"	0.79	0.433	7.03	1.60	0.79	3.39	4.03	0.45	M6	2.02	1.22	0.85	2.02	1.969	F05	3.86
1-1/4"	0.98	0.433	8.26	1.85	0.94	3.60	4.65	0.63	M6	2.33	1.22	0.93	2.33	1.969	F05	5.33
1-1/2"	1.26	0.433	8.19	2.14	1.02	4.04	4.95	0.61	M8	2.48	1.22	0.92	2.48	2.756	F07	7.49
2"	1.50	0.551	9.05	2.48	1.00	4.36	5.87	0.61	M8	2.93	1.34	1.00	2.93	2.756	F07	12.00

Pneumatic Double Acting

Automated Ball Valve Package

Series 38 3-Way Ball Valve

Sizes 1/4" - 2"

1000 psig

EN 1.4408 SST

Regular Port Design

Threaded Ends

ISO 5211 Actuator Mounting Pad

Blowout Proof Stem

4 Seat Design (RTFE standard)

"L" or "T" Port Option

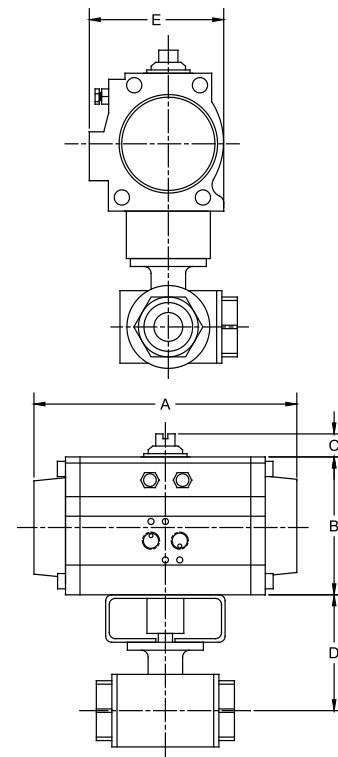
Lockable Manual Handle

STANDARDS

Design	EN-1983, EN-12516-3
End Connections	ASME B1.20.1
Pressure Testing	EN-1226-1
Mounting	ISO 5211
Marking System for Valves	EN 19
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015



Threaded 3-Way



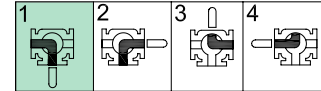
**SERIES 38
3-Way**

DIMENSIONS (IN)

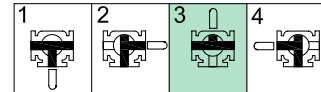
VALVE SIZE	A	B	C	D	E	VALVE Cv	
						T-PORT STRAIGHT THRU	L-PORT 90°
1/4"	6.50	2.84	0.787	3.62	2.82	3	3.5
3/8"	6.50	2.84	0.787	3.62	2.82	3.5	4
1/2"	6.50	2.84	0.787	3.62	2.82	4.2	5
3/4"	6.50	2.84	0.787	3.62	2.82	7	8
1"	7.60	3.47	0.787	4.25	3.35	14	20
1-1/4"	7.60	3.47	0.787	4.25	3.35	19	30
1-1/2"	9.29	4.30	0.787	5.09	4.18	35	40
2"	9.29	4.30	0.787	5.09	4.18	45	60

FLOW PATTERNS

3-Way L-Port



3-Way T-Port



DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/4"	38-TX-025/3RDD-XX
3/8"	38-TX-038/3RDD-XX
1/2"	38-TX-050/3RDD-XX
3/4"	38-TX-075/3RDD-XX
1"	38-TX-100/3RED-XX
1-1/4"	38-TX-125/3RED-XX
1-1/2"	38-TX-150/3RFD-XX
2"	38-TX-200/3RFD-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/4"	38-TX-025/3RDD-XX
3/8"	38-TX-038/3RDD-XX
1/2"	38-TX-050/3RDD-XX
3/4"	38-TX-075/3RDD-XX
1"	38-TX-100/3RED-XX
1-1/4"	38-TX-125/3RFD-XX
1-1/2"	38-TX-150/3RFD-XX
2"	38-TX-200/3RFD-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	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
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

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 #
38-TX-050/3RDD-XX

Valve Series	End Connection	Seat Material	Valve Size	TRIAC Actuator Series	Actuator Size	Double Acting	SUFFIX 1: Solenoids
							SUFFIX 2: Limit Switch

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

Pneumatic Spring Return

Automated Ball Valve Package

Series 38 3-Way Ball Valve

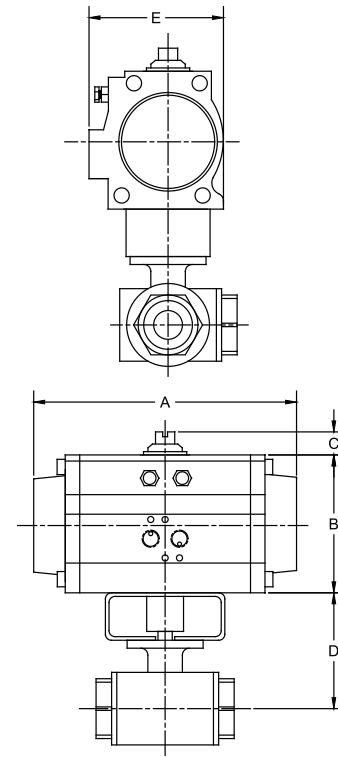
- Sizes 1/4" - 2"
- 1000 psig
- EN 1.4408 SST
- Regular Port Design
- Threaded Ends
- ISO 5211 Actuator Mounting Pad
- Blowout Proof Stem
- 4 Seat Design (RTFE standard)
- "L" or "T" Port Option
- Lockable Manual Handle

STANDARDS

Design	EN-1983, EN-12516-3
End Connections	ASME B1.20.1
Pressure Testing	EN-1226-1
Mounting	ISO 5211
Marking System for Valves	EN 19
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015



Threaded 3-Way



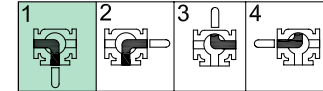
SERIES 38 3-Way

DIMENSIONS (IN)

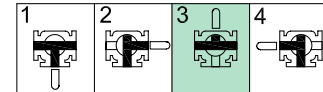
VALVE SIZE	A	B	C	D	E	VALVE Cv	
						T-PORT STRAIGHT THRU	L-PORT 90°
1/4"	6.50	2.84	0.787	2.62	2.82	3	3.5
3/8"	6.50	2.84	0.787	2.62	2.82	3.5	4
1/2"	7.60	3.47	0.787	2.76	3.35	4.2	5
3/4"	7.60	3.47	0.787	3.62	3.35	7	8
1"	9.29	4.30	0.787	3.17	4.18	14	20
1-1/4"	11.02	4.61	0.787	3.42	4.27	19	30
1-1/2"	11.50	5.28	0.787	4.11	5.78	35	40
2"	11.50	5.28	0.787	4.45	5.78	45	60

FLOW PATTERNS

3-Way L-Port



3-Way T-Port



DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/4"	38-TX-025/3RDS-XX
3/8"	38-TX-038/3RDS-XX
1/2"	38-TX-050/3RES-XX
3/4"	38-TX-075/3RES-XX
1"	38-TX-100/3RFS-XX
1-1/4"	38-TX-125/3RGS-XX
1-1/2"	38-TX-150/3RHS-XX
2"	38-TX-200/3RHS-XX

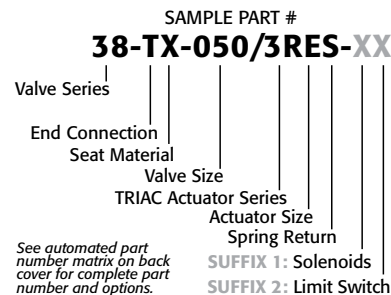
SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/4"	38-TX-025/3RE4-XX
3/8"	38-TX-038/3RE4-XX
1/2"	38-TX-050/3RE4-XX
3/4"	38-TX-075/3RF4-XX
1"	38-TX-100/3RF4-XX
1-1/4"	38-TX-125/3RG4-XX
1-1/2"	38-TX-150/3RH4-XX
2"	38-TX-200/3RJ4-XX

OPTIONS

SUFFIX 1	Accessories/Options	Model no.
X	No Specials	
A	TYPE 4 Solenoid 120VAC	TVCS-X411-4N-A120
B	TYPE 7 Solenoid 120VAC	TVCG-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	TVCG-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

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.



Electric

Automated Ball Valve Package

Series 38 3-Way Ball Valve

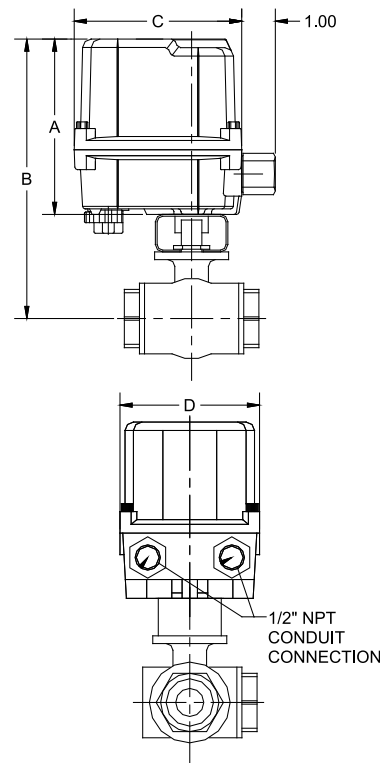
- Sizes 1/4" - 2"
- 1000 psig
- EN 1.4408 SST
- Regular Port Design
- Threaded Ends
- ISO 5211 Actuator Mounting Pad
- Blowout Proof Stem
- 4 Seat Design (RTFE standard)
- "L" or "T" Port Option
- Lockable Manual Handle

STANDARDS

Design	EN-1983, EN-12516-3
End Connections	ASME B1.20.1
Pressure Testing	EN-1226-1
Mounting	ISO 5211
Marking System for Valves	EN 19
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015



Threaded 3-Way



SERIES 38 3-Way

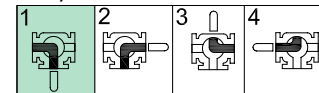
DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	E
1/4"	5.24	7.78	4.94	4.08	2.58
3/8"	5.24	7.78	4.94	4.08	2.58
1/2"	5.24	7.92	4.94	4.08	2.58
3/4"	5.24	8.26	4.94	4.08	2.58
1"	5.24	8.42	4.94	4.08	3.29
1-1/4"	5.24	8.66	4.94	4.08	4.41
1-1/2"	9.25	13.36	6.69	10.16	4.41
2"	9.25	13.70	6.69	10.16	4.41

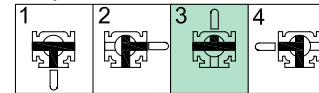
VALVE Cv	
T-PORT STRAIGHT THRU	L-PORT 90°
3	3.5
3.5	4
4.2	5
7	8
14	20
19	30
35	40
45	60

FLOW PATTERNS

3-Way L-Port



3-Way T-Port



ON-OFF	
SIZE	MODEL
1/4"	38-TX-025/WEA1-XX
3/8"	38-TX-038/WEA1-XX
1/2"	38-TX-050/WEA1-XX
3/4"	38-TX-075/WEA1-XX
1"	38-TX-100/WEA1-XX
1-1/4"	38-TX-125/WEA1-XX
1-1/2"	38-TX-150/WEB1-XX
2"	38-TX-200/WEB1-XX

MODULATING	
SIZE	MODEL
1/4"	38-TX-025/WEA2-XX
3/8"	38-TX-038/WEA2-XX
1/2"	38-TX-050/WEA2-XX
3/4"	38-TX-075/WEA2-XX
1"	38-TX-100/WEA2-XX
1-1/4"	38-TX-125/WEA2-XX
1-1/2"	38-TX-150/WEB2-XX
2"	38-TX-200/WEB2-XX

OPTIONS

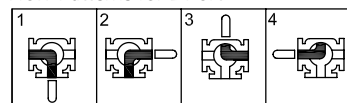
Suffix 1	Voltage / Accessory	Model No.
X	No Specials	
R	24VDC Electric Actuator	
S	220VAC Electric Actuator	
T	Other Voltage Electric Actuator	
W	12VDC Electric Actuator	
Y	24VAC Electric Actuator	

* No voltage specified on electric assemblies denotes 120VAC

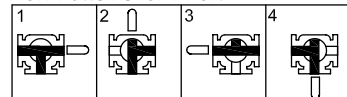
Suffix 2 Accessories	
X	No Specials
1	HS1 High Speed Electric
2	HS2 High Speed Electric

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.

Flow Patterns for L-Port



Flow Patterns for T-Port



SAMPLE PART #
38-TX-050/WEA1-XX

Valve Series | End Connection | Seat Material | Valve Size | TRIAC Actuator Series | Actuator Size | On-Off

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

SUFFIX 1: Voltage
SUFFIX 2: Options

Series 38

HOW TO ORDER: Manual Valves

2	Valve Series
38	3-Way NPT, Regular Port

3	Body/Ball/Stem Material
Blank	Valve Series Standard 1.4408 SST

4	End Connection
TH	NPT Ends

5	Valve Size	
0025	1/4"	0100 1"
0038	3/8"	0125 1-1/4"
0050	1/2"	0150 1-1/2"
0075	3/4"	0200 2"

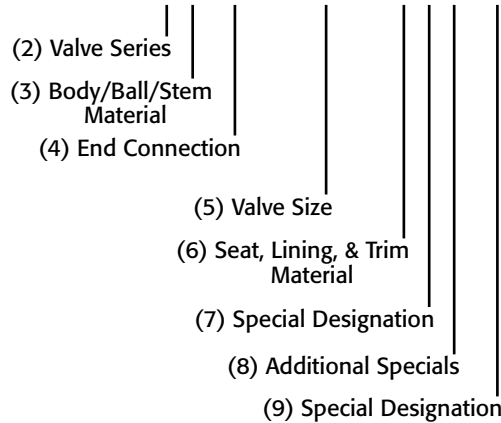


6	Seat, Lining & Trim Materials
X	Reinforced TFE Seats (RTFE)

7	Special Designation
X	No Specials/Series Standard
G	Gear Operator
H	Gear Operator with Lockout Plate
L	Lockable Handle
O	Oval Handle (<i>available in some</i>)
S	Spring Return Handle (<i>Direct Mount Only</i>)
4	4" Lockable Stem Extension

8	Additional Specials
X	No Specials, Series Standard
O	Oxygen Cleaned
V	Vented Ball
D	Degreased & Bagged
A	Vented Ball, Degreased & Bagged
B	Vented Ball, Oxygen Cleaned

MANUAL VALVE SAMPLE PART # **38-TH-0150-XXX-T**



9	Special Designation
L	L-Port 3-Way arrangement
T	T-Port 3-Way arrangement

HOW TO ORDER: Automated Valves

Series 38

2	Valve Series
38	3-Way NPT, Regular Port

3	Body/Ball/Stem Material
Blank	Valve Series Standard 1.4408 SST

4	End Connection
T	NPT Ends

5	Seat, Lining & Trim Materials
X	Reinforced TFE Seats (RTFE)

6	Valve Size	
025	1/4"	100 1"
038	3/8"	125 1-1/4"
050	1/2"	150 1-1/2"
075	3/4"	200 2"

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)**

*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	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
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

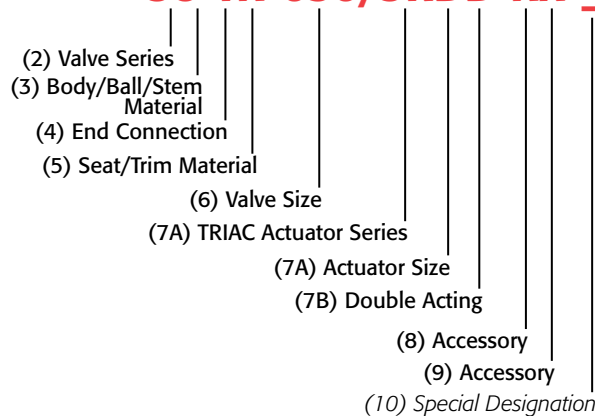
9	Accessories	Model no.
X	No Specials	
A	TYPE 4 Limit Switch	APL-210N
B	TYPE 7 Limit Switch	APL-510N
C	Intrinsically Safe Limit Switch	APL-218N
Q	TYPE 4 SST Limit Switch	APL-910N
Z	180° Operation	
M	TYPE 7 SST Limit Switch	APL-510S
1	HS1 High Speed Electric	
2	HS2 High Speed Electric	

10	Special Designation
L	L-Port 3-Way arrangement
T	T-Port 3-Way arrangement

AUTOMATED VALVE

SAMPLE PART #

38-TX-050/3RDD-XX-



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



Manual and automated valve assemblies for gas burner management applications and safety shutoff

Other Products

Special Seats

Balls and Seal Designs



Steam Jacketed Valves



Floor Mounted Damper Drives



Limit Switches

Mounted on Manual Valves



Fusible Link Assemblies



180° Actuators



Lockout Mounting Kits



Stem Extensions



Special Multi-Port Valves



Dual Valve Assemblies



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