



Triac Series 55 Ball Valves feature a high quality investment cast body and ends. They are available 1/4"– 4" with threaded, socket weld and butt weld ends. Superior leak protection is accomplished by using a live-loaded packing system including Belleville washers and double "V" ring packing.

VALVE SIZE	VALVE Cv
1/4"	7
3/8"	8
1/2"	15
3/4"	40
1"	70
1-1/4"	110
1-1/2"	250
2"	400
2-1/2"	600
3"	1100
4"	2000

Easy to Automate!

See automated data sheets for pre-sized assemblies



Pneumatic



Electric



Series 55 3-Piece Design

Sizes 1/4" - 4"

Full Port Design

Pressure Rating by size

1000 psi (1/4"-1 1/2")

800 psi (2"-2 1/2")

600 psi (3"-4")

Economical 3-pc design

Available in 316SST or WCB

Threaded, Socket Weld, or Butt Weld Ends

Live Loaded Packing System

ISO 5211 Actuator Mounting Pad

Blowout Proof Stem

RTFE Seats Standard

Lockable Manual Handle

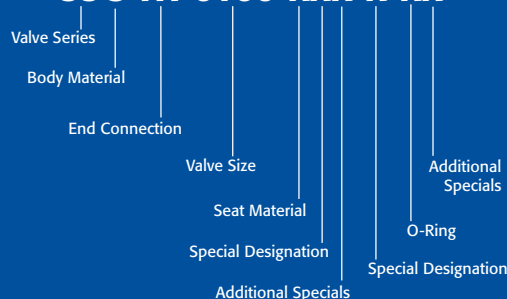
STANDARDS

Design	ASME B16.34 (fully conforms)
End Connections	ASME B1.20.1, B16.11, B16.25
Pressure Testing	API 598
Mounting	ISO 5211
CE Approval	2014/68/EU Module H
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015

HOW TO ORDER MANUAL VALVES

SAMPLE PART #

55C-TH-0100-XXX-X-XX



See part number matrix for itemized options



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Series 55

Economical Full Port 3-Piece Ball Valve

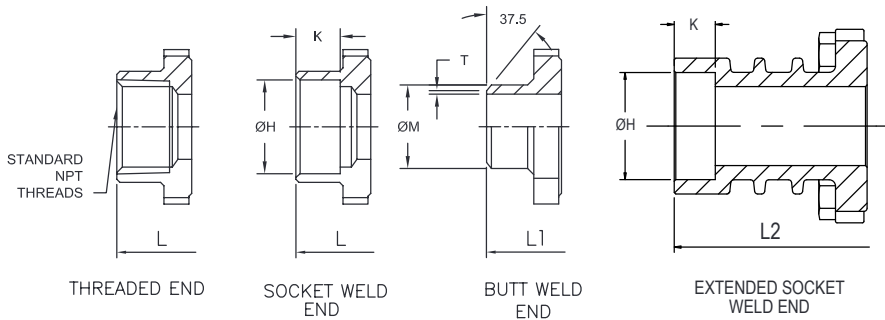
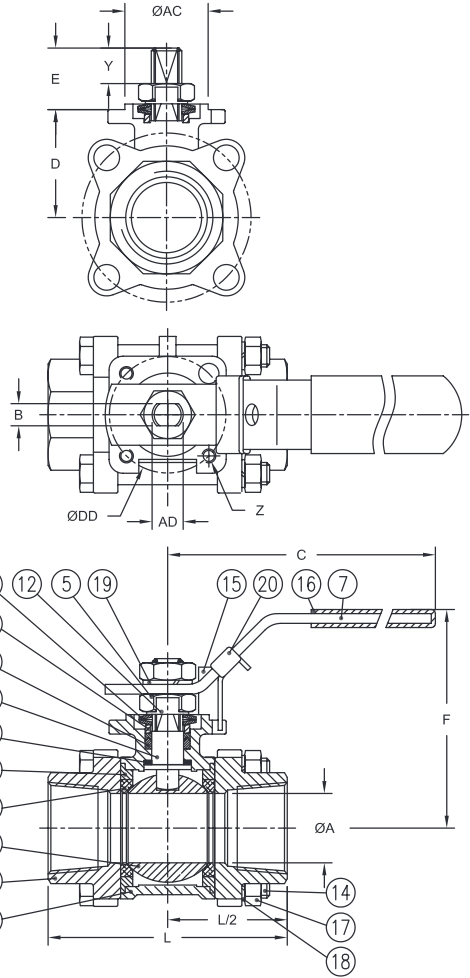
ISO 5211 Mounting Pad 600-1000 psi (by size) 1/4" to 4"

MATERIALS LIST

NO.	PART NAME	QTY.	STAINLESS STEEL	CARBON STEEL	REPAIR KIT
1	BODY	1	ASTM A351 GRADE CF8M	ASTM A216 GRADE WCB	
2	TH END CAP	2	ASTM A351 GRADE CF8M	ASTM A216 GRADE WCB	
2	BW/SW END CAP	2	ASTM A351 GRADE CF8M	ASTM A216 GRADE WCB	
3	BALL	1	1/4" THRU 3/8" ASTM A276 SS316	1/4" THRU 3/8" ASTM A276 SS316	
3	BALL	1	1/2" THRU 4" ASTM A351 GR CF8M	1/2" THRU 4" ASTM A351 GR CF8M	
4	STEM	1	ASTM A276 SS316	ASTM A276 SS316	
5	STEM NUT	2	AISI 304	AISI 304	
6	BELLEVILLE WASHER	2	AISI 301	AISI 301	
7	HANDLE	1	AISI 304	AISI 304	
8	SEAT	2	RTFE	RTFE	✓
9	GLAND BUSHING	1	AISI 304	AISI 304	
10	GLAND PACKING	1 [^]	PTFE	PTFE	✓
11	THRUST WASHER	1	RTFE	RTFE	✓
12	LOCK SADDLE	1	AISI 304	AISI 304	
13	JOINT GASKET	2	PTFE	PTFE	✓
14	BODY BOLT/STUD	*	ASTM A193 GRADE B8	**	
15	STOP BOLT	1	AISI 304	AISI 304	
16	HANDLE SLEEVE	1	VINYL	VINYL	
17	BODY NUT	#	ASTM A194 GRADE 8	##	
18	LOCK WASHER	#	AISI 304	AISI 304	
19	STEM WASHER	1	AISI 304	AISI 304	
20	HANDLE LOCK	1	AISI 304	AISI 304	

[^] PACKING SET
 * 1/4" THRU 3" QTY = 4 PCS
 * 4" QTY = 6 PCS
 # 1/4" THRU 2" QTY = 4 PCS
 #2-1/2" THRU 3" QTY = 8 PCS
 # 4" QTY = 12 PCS

** 1/4" THRU 1-1/2" ASTM A193 GRADE B8
 ** 2" THRU 4" ASTM A193 GRADE B7
 ## 1/4" THRU 1-1/2" ASTM A194 GRADE 8
 ## 2" THRU 4" ASTM A194 GRADE 2H



DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	H	K	L	L1	L2	M	T	Y	Z	AC	AD	DD	ISO 5211	LBS
1/4"	0.46	0.256	5.12	1.15	0.78	2.95	0.56	0.39	2.51	2.47	5.43	0.64	0.06	0.29	M5	0.98	0.374	1.417	F03	1.4
3/8"	0.50	0.256	5.12	1.15	0.78	2.95	0.69	0.39	2.51	2.47	5.43	0.69	0.06	0.29	M5	0.98	0.374	1.417	F03	1.4
1/2"	0.59	0.256	5.12	1.15	0.71	2.95	0.86	0.39	2.59	2.59	5.43	0.89	0.06	0.25	M5	0.98	0.374	1.417	F03	1.4
3/4"	0.79	0.256	5.12	1.28	0.80	3.03	1.07	0.51	3.00	3.00	5.94	1.08	0.06	0.32	M5	0.98	0.374	1.417	F03	1.7
1"	0.98	0.315	6.30	1.53	0.81	3.35	1.33	0.51	3.39	3.39	6.46	1.34	0.06	0.48	M5	1.18	0.433	1.654	F04	2.4
1-1/4"	1.26	0.315	6.30	1.59	0.98	3.62	1.69	0.51	4.05	4.05	6.77	1.68	0.06	0.45	M5	1.18	0.433	1.654	F04	3.7
1-1/2"	1.50	0.382	7.28	1.82	1.22	4.02	1.93	0.51	4.70	4.70	6.97	1.91	0.06	0.54	M6	1.38	0.551	1.969	F05	5.5
2"	1.97	0.382	7.28	2.15	1.22	4.33	2.41	0.63	5.17	5.17	7.87	2.38	0.06	0.54	M6	1.38	0.551	1.969	F05	8.0
2-1/2"	2.56	0.472	10.24	2.81	1.68	5.91	2.91	0.63	6.46	6.46	8.86	3.00	0.08	0.91	M8	2.17	0.748	2.756	F07	16.2
3"	3.15	0.472	10.24	3.33	1.55	6.38	3.54	0.63	7.19	7.19	9.33	3.54	0.08	0.74	M10	2.76	0.748	4.016	F10	23.5
4"	3.94	0.591	11.42	4.19	2.06	7.48	4.55	0.79	9.28	9.30	10.94	4.57	0.14	1.35	M10	2.76	0.945	4.016	F10	43.7

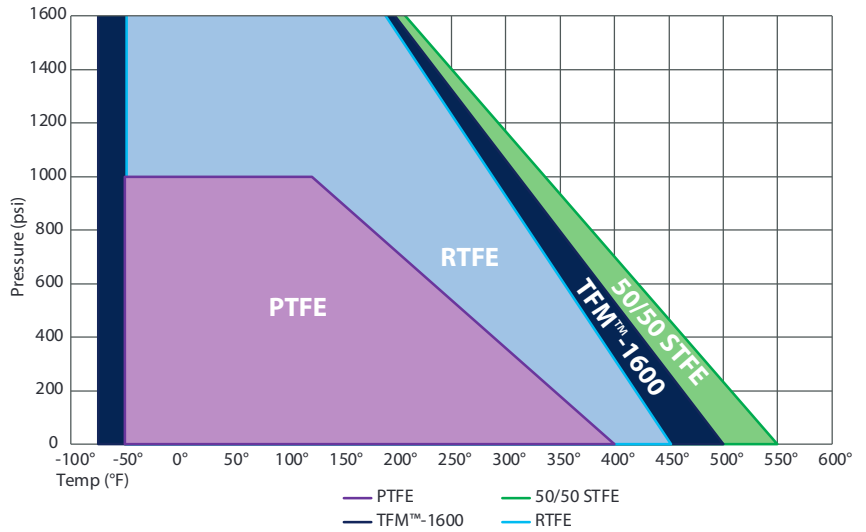
**Economical
Full Port
3-Piece Ball Valve**

**ISO 5211 Mounting Pad
600-1000 psi (by size)
1/4" to 4"**

Series 55

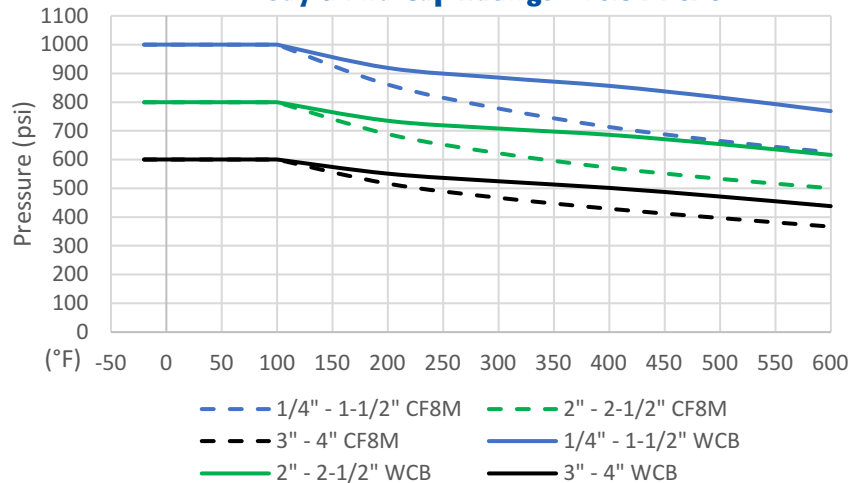
Temp	Pressure - Seat Material			
	RTFE	STFE	PTFE	TFM-1600
-75°				2000
-50°	2000	2000	1000	2000
100°	2000	2000	1000	2000
122°	2000	2000	1000	2000
150°	1829	1869	899	1852
200°	1524	1636	719	1587
250°	1220	1402	540	1323
300°	915	1168	360	1058
350°	610	935	180	794
400°	305	701	0	529
450°	0	467		265
500°		234		0
550°		0		

PRESSURE VS. TEMPERATURE | SERIES 55 Seat Pressure Ratings



SERIES 55/55C PRESSURE CLASS ASME B16.34-2020			
SIZE	SERIES 55	SERIES 55C	PRESSURE RATING (psi)
1/4"	416	405	1000
3/8"	416	405	1000
1/2"	416	405	1000
3/4"	416	405	1000
1"	416	405	1000
1-1/4"	416	405	1000
1-1/2"	416	405	1000
2"	333	324	800
2-1/2"	333	324	800
3"	260	254	600
4"	260	254	600

PRESSURE VS. TEMPERATURE | SERIES 55 Body & End Cap Ratings B16.34-2020



Component Temperature Ratings		
Component	Material	Temperature
Stem Packing	PTFE	-50°F to 400°F
Stem Seal	RTFE	-50°F to 450°F
Gaskets	PTFE	-50°F to 400°F
Seats (Other Materials Available)	PTFE	-50°F to 400°F
	RTFE	-50°F to 450°F
	TFM™-1600	-75°F to 500°F
	50/50 STFE	-50°F to 550°F

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.

Break Away Torque for RTFE Seats

SIZE	IN-LBS.
1/4"	37
3/8"	37
1/2"	37
3/4"	54
1"	90
1-1/4"	117
1-1/2"	174
2"	296
2-1/2"	612
3"	679
4"	1500

Published torques are based on full differential pressure with clean water. Consult the Application Sizing Guide for assistance with sizing actuators.

Electric

Automated Ball Valve Package

Series 55 3-Piece Ball Valve

Sizes 1/4" - 4"

Full Port Design

Available in 316SST or WCB

TH, SW, or BW Ends

600 - 1000 psi (by size)

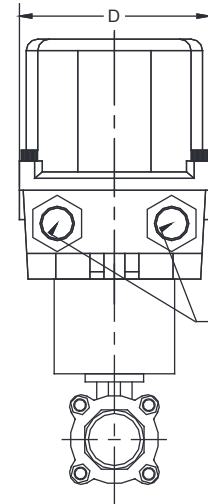
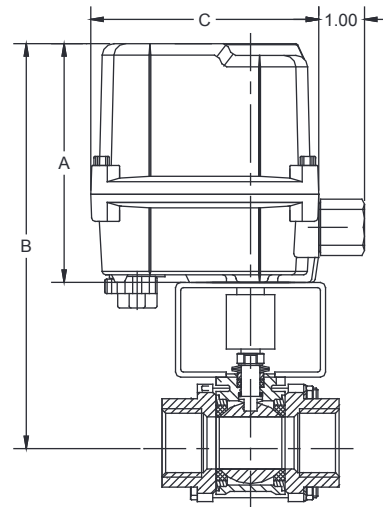
Live Loaded Packing System

Blowout Proof Stem

RTFE Seats Standard

STANDARDS

Design	ASME B16.34 (fully conforms)
End Connections	ASME B1.20.1, B16.11, B16.25
Pressure Testing	API 598
Mounting	ISO 5211
CE Approval	2014/68/EU Module H
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015



SERIES 55 3-piece

DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	VALVE Cv
1/4"	5.24	7.87	4.94	4.08	7
3/8"	5.24	7.87	4.94	4.08	8
1/2"	5.24	7.87	4.94	4.08	15
3/4"	5.24	8.00	4.94	4.08	40
1"	5.24	8.33	4.94	4.08	70
1-1/4"	5.24	8.38	4.94	4.08	110
1-1/2"	5.24	8.63	4.94	4.08	250
2"	5.24	8.96	4.94	4.08	400
2-1/2"	9.25	14.68	6.69	10.16	600
3"	10.55	16.5	9.02	13.31	1,100
4"	10.55	17.36	9.02	13.31	2,000

ON-OFF	
SIZE	MODEL
1/4"	55-TX-025/WEA1-XX
3/8"	55-TX-038/WEA1-XX
1/2"	55-TX-050/WEA1-XX
3/4"	55-TX-075/WEA1-XX
1"	55-TX-100/WEA1-XX
1-1/4"	55-TX-125/WEA1-XX
1-1/2"	55-TX-150/WEA1-XX
2"	55-TX-200/WEA1-XX
2-1/2"	55-TX-250/WEB1-XX
3"	55-TX-300/WEC1-XX
4"	55-TX-400/WED1-XX

MODULATING	
SIZE	MODEL
1/4"	55-TX-025/WEA2-XX
3/8"	55-TX-038/WEA2-XX
1/2"	55-TX-050/WEA2-XX
3/4"	55-TX-075/WEA2-XX
1"	55-TX-100/WEA2-XX
1-1/4"	55-TX-125/WEA2-XX
1-1/2"	55-TX-150/WEA2-XX
2"	55-TX-200/WEA2-XX
2-1/2"	55-TX-250/WEC2-XX
3"	55-TX-300/WEC2-XX
4"	55-TX-400/WED2-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	

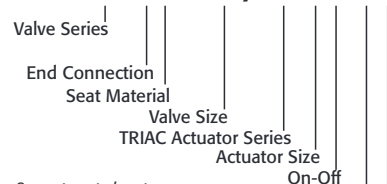
* No voltage specified on electric assemblies denotes 120VAC

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.

SAMPLE PART #

55-TX-100/WEA1-XX



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

SUFFIX 1: Voltage
SUFFIX 2: Options

HOW TO ORDER: Manual Valves

Series 55

2	Valve Series
55	3pc. 1000 psi max, Full Port

3	Body/Ball/Stem Material
Blank	Valve Series Standard (316 SST)
C	Carbon Steel Body

HOW TO ORDER MANUAL VALVES														
2	3	-	4	-	5	-	6	7	8	-	9	-	10	11
↓	↓		↓		↓		↓	↓	↓	↓		↓	↓	
55	C		TH		0100		X	X	X					

4	End Connection
TH	NPT Ends
SW	Socket Weld Ends
BW	Butt Weld Ends
EW	4" Long, Sch. 80, Extended Butt Weld Ends
ES	Extended Socket Weld Ends (55, CF8M Only)
TE	NPT x 4" Long, Sch. 80, Extended Butt Weld Ends
TS	NPT x Socket Weld
TB	NPT x Butt Weld
NE	No Ends (3pc. Valves)

5	Valve Size	
0025	1/4"	0125 1-1/4"
0038	3/8"	0150 1-1/2"
0050	1/2"	0200 2"
0075	3/4"	0250 2-1/2"
0100	1"	0300 3"
		0400 4"

6	Seat, Lining & Trim Materials
X	Reinforced TFE Seats (RTFE)
P	Virgin TFE Seats (PTFE)
U	UHMWPE Seats
S	50/50 STFE Seats
C	25% CS Powder/75% TFE Seats (CTFE)
T	TFM™-1600 Seats
E	All TFM™-1600 Seats, Seals, & Packing
M	MG1241 Seats

TFM™ is a trademark of Dyneon™, a 3M Company.

7	Special Designation
X	No Specials/Series Standard
G	Gear Operator
H	Gear Operator with Lockout Plate
O	Oval Handle (available in some)
4	4" Lockable Stem Extension

8	Additional Specials
X	No Specials, Series Standard
V	Vented Ball
E	Bonnet Extension Lockable Handle
F	Fugitive Emissions Bonnet
D	Degreased & Bagged
A	Vented Ball, Degreased & Bagged

OPTIONS:

9	Special Designation
Blank	No Designation, Valve Series Standard
X	Multiple Option Designation
H	Hard Coated (HMF) Ball

10	O-Ring
Blank	No Designation, Valve Series Standard
X	Multiple Option Designation

11	Additional Specials
E	CE/PED Certified

HOW TO ORDER: Automated Valves w/ Options

2	Valve Series
55	3pc. 1000 psi max, Full Port

3	Body/Ball/Stem Material
Blank	Valve Series Standard (316 SST)
C	Carbon Steel Body

4	End Connection
T	NPT Ends
S	Socket Weld Ends
B	Butt Weld Ends
E	4" Long, Sch. 80, Extended Butt Weld Ends
W	Extended Socket Weld Ends (55, CF8M Only)
M	NPT x Socket Weld
P	NPT x Butt Weld

5	Seat, Lining & Trim Materials
X	Reinforced TFE Seats (RTFE)
P	Virgin TFE Seats (PTFE)
U	UHMWPE Seats
S	50/50 STFE Seats
C	25% CS Powder/75% TFE Seats (CTFE)
T	TFM™-1600 Seats
E	All TFM™-1600 Seats, Seals, & Packing
M	MG1241 Seats

6	Valve Size
025	1/4"
038	3/8"
050	1/2"
075	3/4"
100	1"
	125
	150
	200
	250
	300
	400

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		

OPTIONS:

8	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
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
1	HS1 High Speed Electric	
2	HS2 High Speed Electric	

10	Special Designation
Blank	No Designation, SST Stem
E	CE/PED Certified
F	Viton® Seal for Pneumatic Actuators (0°F to 300°F)

TFM™ is a trademark of Dyneon™, a 3M Company.
Viton® is a registered trademark of E. I. DuPont de Nemours.

AUTOMATED VALVE

SAMPLE PART #

55-TX-100/3RDD-XX-

