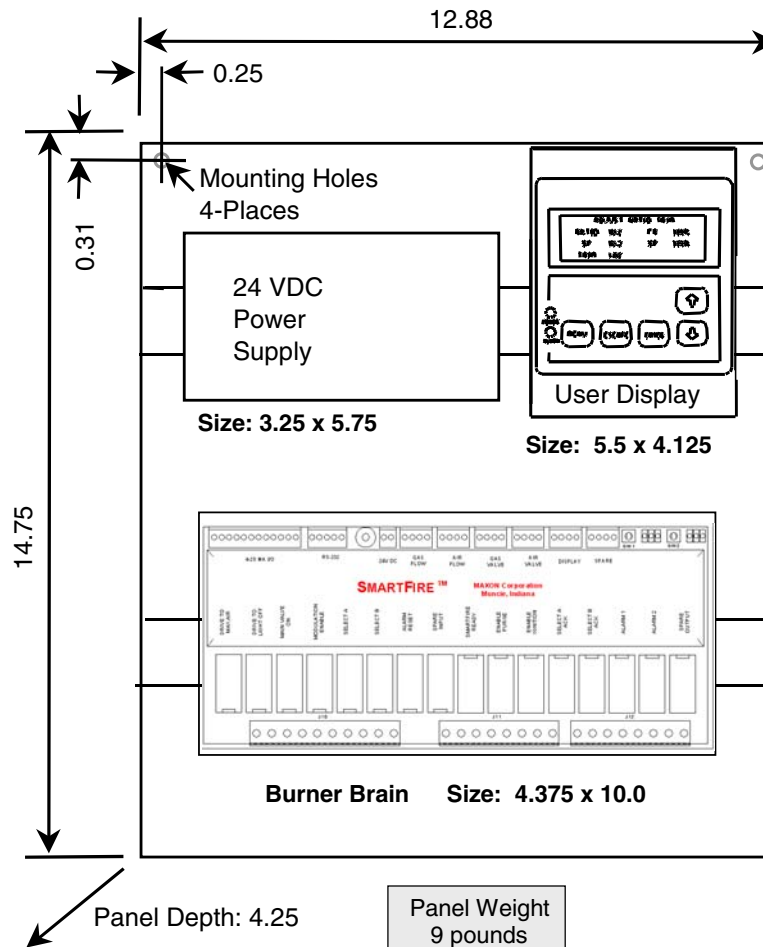


Electrical Specifications

Valve Position Control	0.1 angular degree resolution
Flow Control	± 1% of flow reading over a turndown of 20:1
Air/Fuel Ratio Control	± 2% with turndown of 20:1
Power Supply Input	100-120 VAC @ 2.5 Amps max, 50-60 Hz 200-240 VAC @ 1.5 Amps max, 50-60 Hz
Approvals	FM & CSA (CE approval pending)
Ambient Temperature	-20°F to 122°F (-29°C to 50°C)
4-20 mA I/O	Output: 350 Ohms max user load resistance
	Input: 20 mA max current, 250 Ohm input resistance
Control Relays	Input Coil: 120 VAC @ 7.5 mA 240 VAC @ 3.8 mA
	Output Contacts: 250 VAC @ 10 Amps, 30 VDC @ 10 Amps

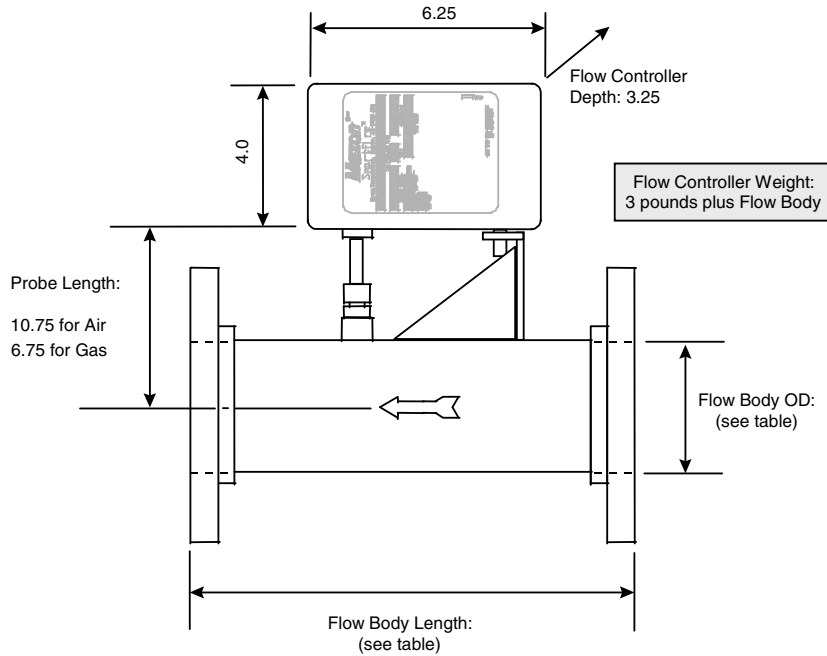
Dimensions (inches)

Interface Panel



Dimensions (inches)

Flow Controllers / Flow Bodies

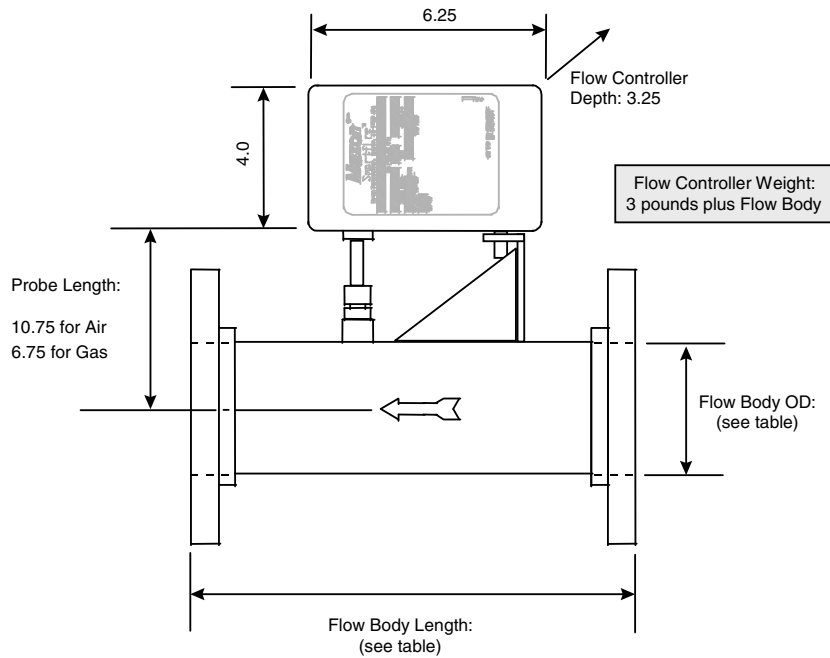


Air Flow Body Dimensions (Inches)							Low Range		High Range		Max High Range Pressure Drop ("wc)
							Min Flow	Max Flow	Min Flow	Max Flow	
Size	O.D.	Length	No. of Pcs.	Weight (lbs.)	Flanges		1000's scfh	1000's scfh	1000's scfh	1000's scfh	
					Type	Weight					
8	8.63	34	1	50	Rolled Angle	12	2.8	50	3.8	75	4.7
12	12.75	50	1	68	Rolled Angle	13	6.2	111	8.3	167	4.7
16	16.0	64	2	110	Rolled Angle	21	9.8	176	13.2	263	4.7
20	20.0	80	2	220	Rolled Angle	25	15.3	276	20.7	414	4.7
24	24.0	96	2	250	Rolled Angle	32	22.2	399	29.9	599	4.7
28	28.0	96	2	275	Rolled Angle	43	30.3	546	40.9	818	4.7

Removable Screen Air Flow Body Dimensions (Inches)						Low Range		High Range		Max High Range Pressure Drop ("wc)			
						Min Flow	Max Flow	Min Flow	Max Flow				
Size	O.D.	Length	No. of Pcs.	Weight (lbs.)		Flanges		1000's scfh	1000's scfh	1000's scfh	1000's scfh		
						Type	Weight						
				C.S.	S.S.		C.S.					S.S.	
12	12.75	50	1	109	109	Rolled Angle	13	13	6.2	111	8.3	167	4.7
16	16.0	64	2	192	196	Rolled Angle	21	21	9.8	176	13.2	263	4.7
20	20.0	86	2	286	292	Rolled Angle	25	26	15.3	276	20.7	414	4.7
24	24.0	102	2	384	393	Rolled Angle	32	33	22.2	399	29.9	599	4.7
28	28.0	102	2	456	467	Rolled Angle	43	44	30.3	546	40.9	818	4.7

Dimensions (inches)

Flow Controllers / Flow Bodies



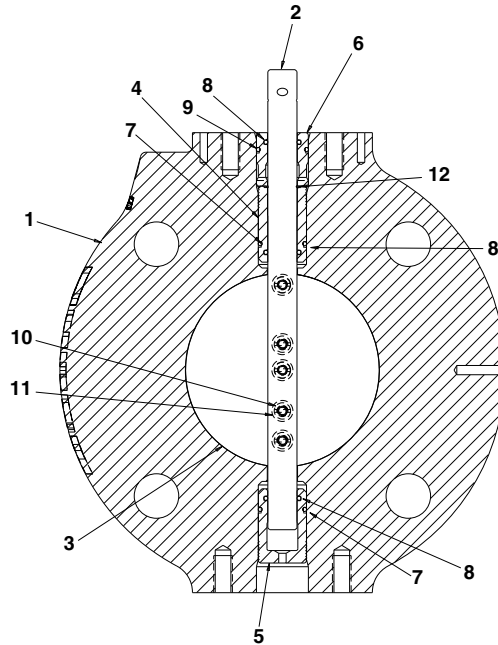
Gas Flow Body Dimensions (Inches)							Low Range		High Range		Max High Range Pressure Drop ("wc)
Size	O.D.	Length	No. of Pcs.	Weight (lbs.)	Flanges		Min Flow	Max Flow	Min Flow	Max Flow	
					Type	Weight	1000's scfh	1000's scfh	1000's scfh	1000's scfh	
2	2.38	8	1	13	ANSI*	15	0.15	2.70	0.30	5.40	4.2
3	3.5	12	1	28	ANSI*	20	0.45	8.10	0.63	11.25	3.6
4	4.5	16	1	45	ANSI*	28	0.63	11.25	1.25	22.50	4.5
6	6.63	24	1	70	ANSI*	32	1.25	22.50	2.50	45.00	3.6
6HC	6.63	24	1	70	ANSI*	32	3.75	67.50	5.00	90.00	14.3

*150 lb. rating

Oxygen (or Air) Stainless Steel Flow Body Dimensions (Inches)							Low Range		High Range		Max High Range Pressure Drop ("wc)
Size	O.D.	Length	No. of Pcs.	Weight (lbs.)	Flanges		Min Flow	Max Flow	Min Flow	Max Flow	
					Type	Weight	1000's scfh	1000's scfh	1000's scfh	1000's scfh	
2	2.38	8	1	13	ANSI*	15	0.2	2.7	0.3	5.4	8.3
3	3.5	12	1	28	ANSI*	20	0.5	8.1	0.6	11.3	7.1
4	4.5	16	1	45	ANSI*	28	0.6	11.3	1.3	22.5	9.0
6	6.63	24	1	70	ANSI*	32	1.3	22.5	2.5	45	7.1

*150 lb. rating

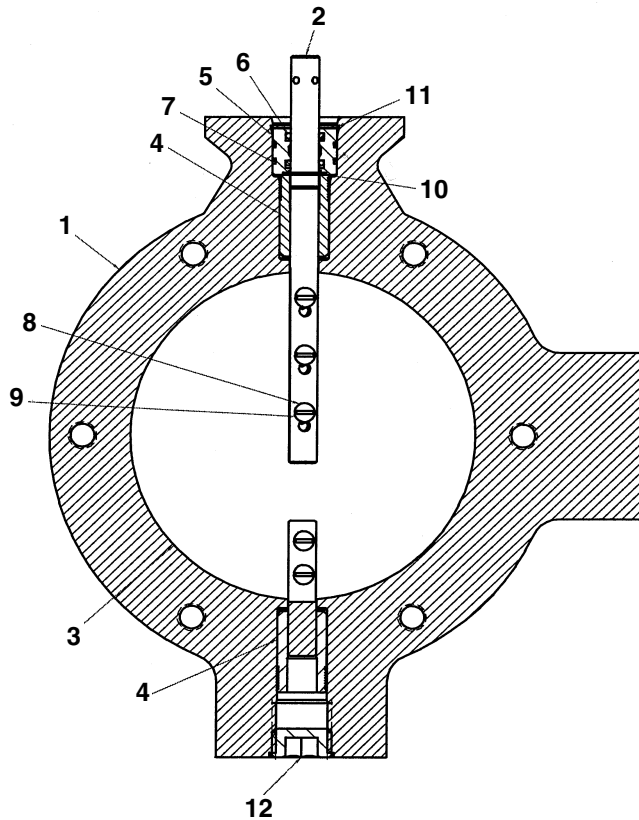
Valve Body Specifications



Valve Body Material Specifications - 1" thru 4"

Item No.	Description	Valve Body Assembly		
		GP Flat Faced	GP Raised Faced	Oxy Flat Faced
1	Valve Body	Gray Iron ASTM A157 GR, G3000	Carbon Steel ASTM A216 GR, WCB	Brass ASTM B62 UNS No. C83600
2	Valve Stem	303 Stainless Steel - ASTM A157 GR, G3000		
3	Butterfly Disc	304 Stainless Steel - ASTM A240 Type 304 UNS No. S30400		
4	Top Bushing	Bronze - ASTM B271, B505 and B584 UNS No. C93200		
5	Bottom Bushing			
6	Top Shim Bushing			
7	O-Ring	Buna-N		Viton
8	O-Ring			
9	O-Ring			
10	Screw	18-8 Stainless Steel		
11	Washer	304 Stainless Steel		
12	Retaining Ring	316 Stainless Steel		

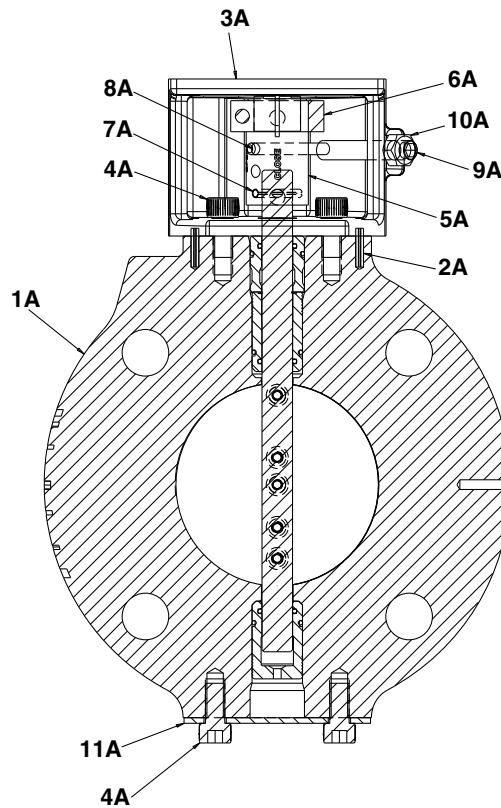
Valve Body Specifications



Valve Body Material Specifications - 6" thru 16"

Item No.	Description	Valve Size	
		6" & 8"	10" - 16"
1	Valve Body	Gray Iron - ASTM A157 GR, G3000	
2	Valve Stem	316 Stainless Steel - ASTM A276	
3	Butterfly Disc	304 Stainless Steel - ASTM A167 UNS No. S30400	Carbon Steel - ASTM A108 UNS No. G10180
4	Top & Bottom Bushing	Bronze - ASTM B271, B505 and B584 UNS No. C93200	
5	Shim Bushing		
6	O-Ring	Buna-N	
7	O-Ring		
8	Screw	304 Stainless Steel	Zinc Plated Carbon Steel
9	Hex Nut	316 Stainless Steel	Zinc Plated Carbon Steel
10	Retaining Ring	Carbon Steel - SAE 1060-1090 UNS No. G10600-G10900	
11	Retaining Ring		
12	Pipe Plug	Alloy Steel - ASTM A322 UNS G40370	

Valve Body Specifications



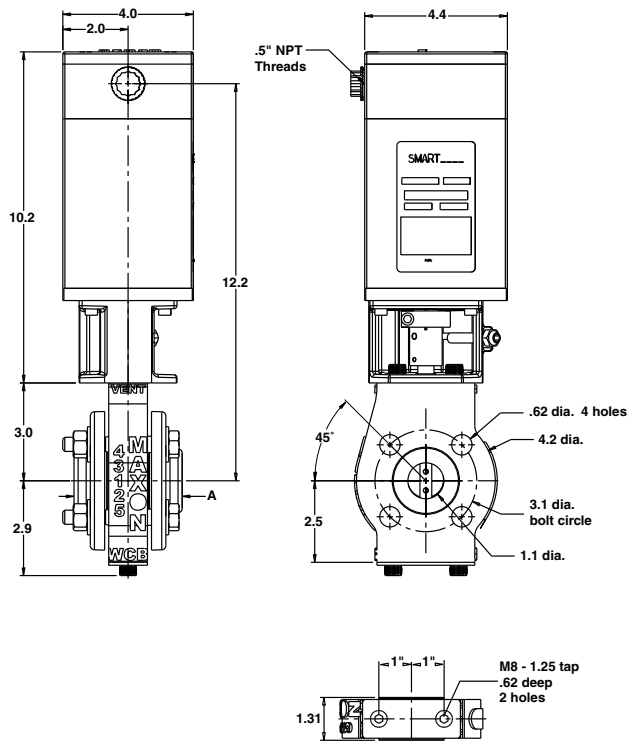
SMARTFIRE Valve Body Assembly Material Specifications

Item No.	Description	SMARTFIRE Component Material Specifications
1A	Valve Body Sub-assembly	Assembly per pages 7205 & 7206
2A	Locating Spring Pin	Zinc Plated Carbon Steel
3A	Adapter Bracket	ASTM B179 T6 Aluminum
4A †	Socket Head Cap Screw	Zinc Plated Carbon Steel
5A	Coupling	ASTM A582 Type 303 Stainless Steel
6A	Locking Collar	Zinc Plated Alloy Steel
7A	Spring Pin	Zinc Plated Carbon Steel
8A	Dowel Pin	303 Stainless Steel
9A	Hard Stop Screw	18-8 Stainless Steel
10A	Hard Stop Nut	Stainless Steel
11A †	Cover Plate	Aluminum

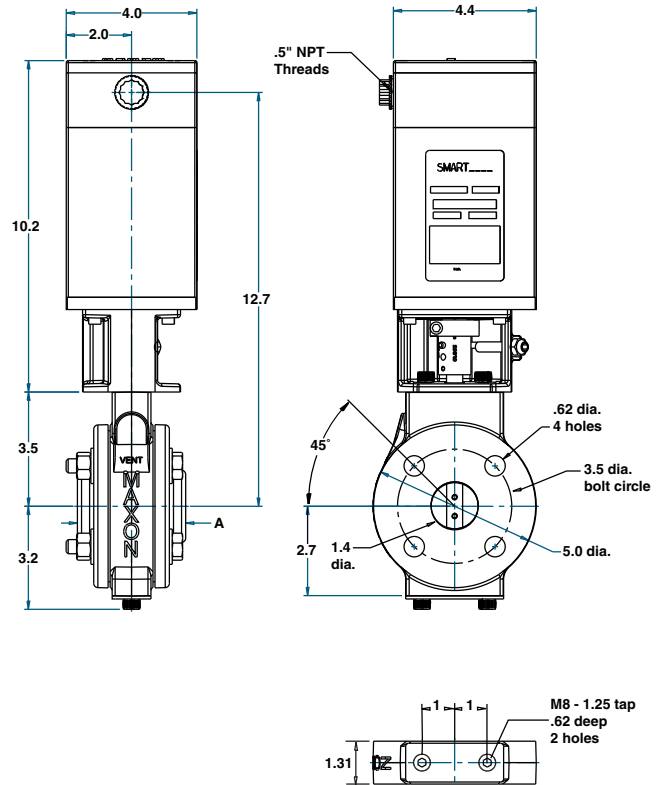
† - These items used only on sizes 1" thru 4"

Dimensions (in inches)

1" SMARTFIRE™ Valve Actuator



1.25" SMARTFIRE™ Valve Actuator



Flange Dimension "A"

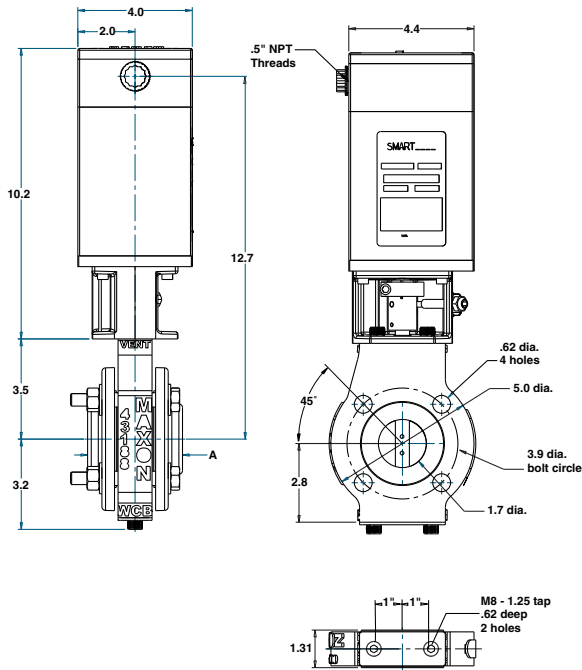
Iron	Threaded	2.87
	Socket Welded	2.84
Steel	Threaded	3.15
	Socket Welded	2.84
Brass	Threaded	2.81
	Solder Cup	3.51

Flange Dimension "A"

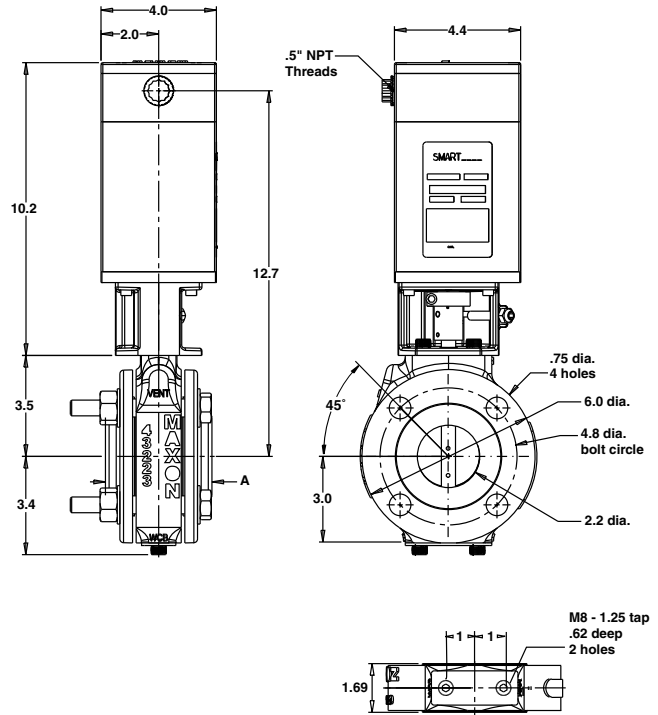
Iron	Threaded	3.05
	Socket Welded	3.05
Steel	Threaded	3.12
	Socket Welded	3.05
Brass	Threaded	3.05
	Solder Cup	3.63

Dimensions (inches)

1.5" SMARTFIRE™ Valve Actuator



2" SMARTFIRE™ Valve Actuator



Flange Dimension "A"

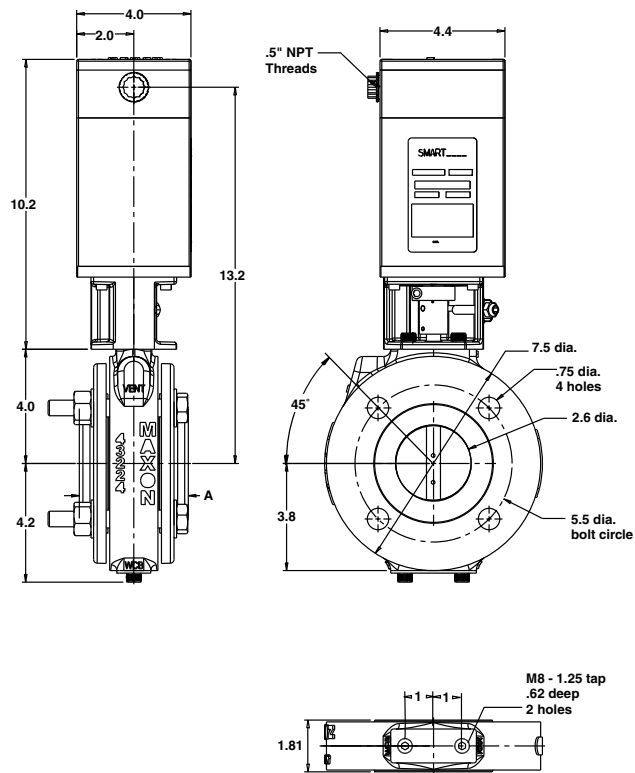
Iron	Threaded	3.27
	Socket Welded	3.24
Steel	Threaded	3.23
	Socket Welded	3.24
Brass	Threaded	3.15
	Solder Cup	3.88

Flange Dimension "A"

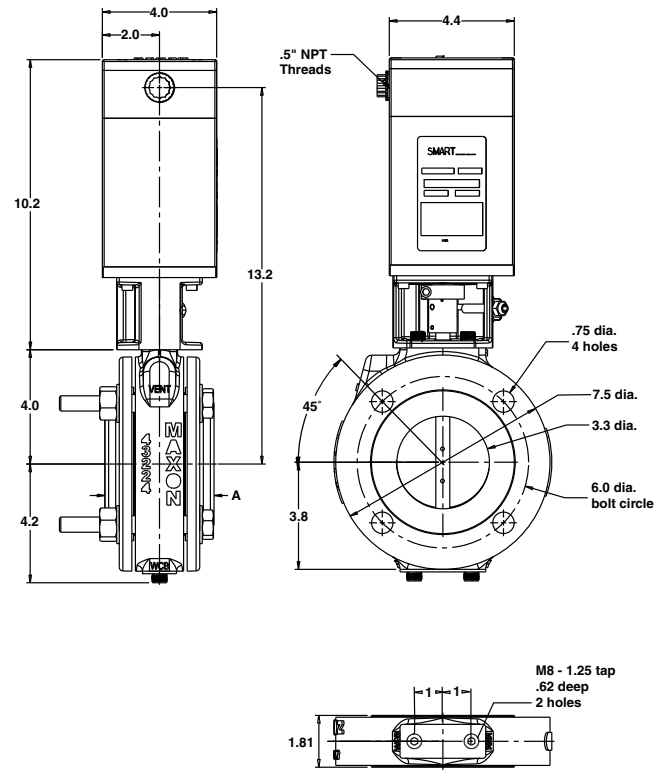
Iron	Threaded	3.43
	Socket Welded	3.51
Steel	Threaded	3.56
	Socket Welded	3.51
Brass	Threaded	3.72
	Solder Cup	4.62

Dimensions (in inches)

2.5" SMARTFIRE™ Valve Actuator



3" SMARTFIRE™ Valve Actuator



Flange Dimension "A"

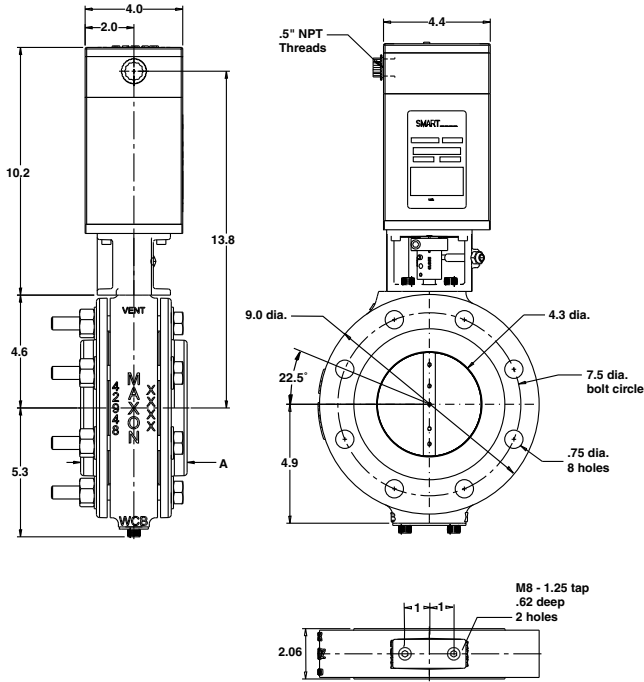
Iron	Threaded	3.72
Steel	Threaded	3.67
	Socket Welded	3.79
Brass	Threaded	3.80
	Solder Cup	5.27

Flange Dimension "A"

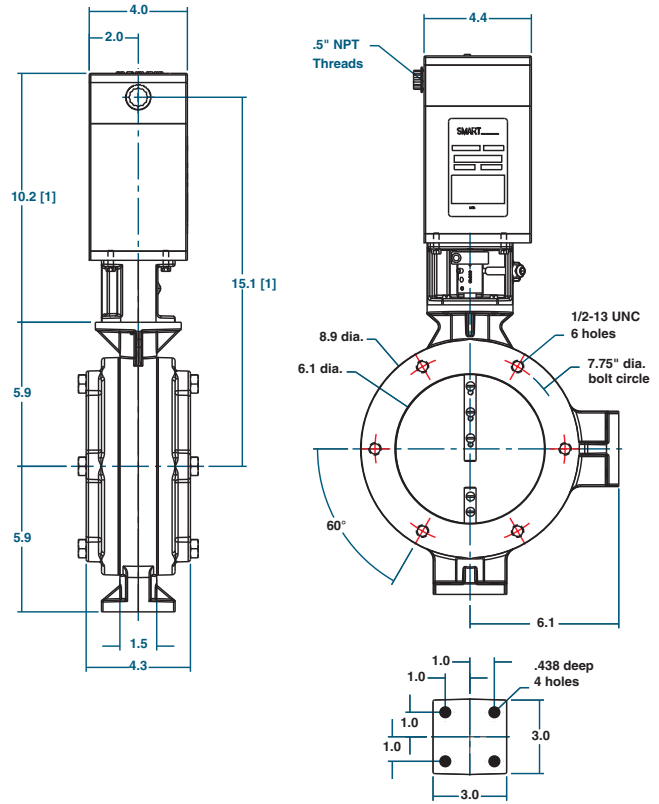
Iron	Threaded	3.83
Steel	Threaded	4.13
	Socket Welded	4.03
Brass	Threaded	4.02
	Solder Cup	5.09

Dimensions (in inches)

4" SMARTFIRE™ Valve Actuator



6" SMARTFIRE™ Valve Actuator

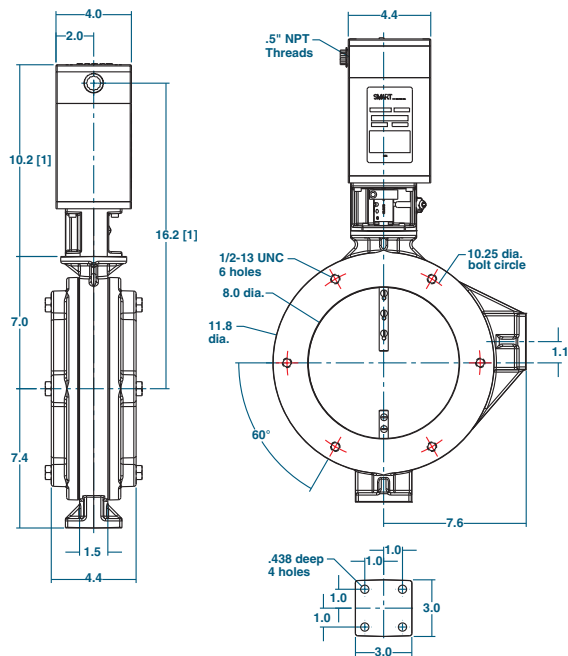


Flange Dimension "A"

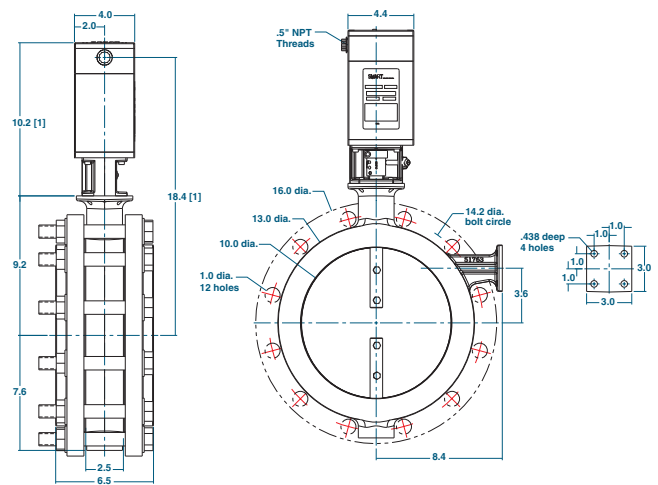
Iron	Threaded	4.13
Steel	Threaded	4.06
	Socket Welded	4.06

Dimensions (in inches)

8" SMARTFIRE™ Valve Actuator



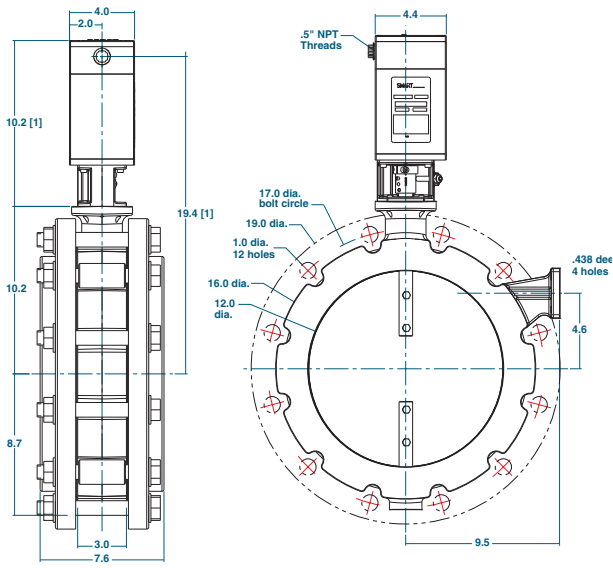
10" SMARTFIRE™ Valve Actuator



Note: Flanges are shipped loose.

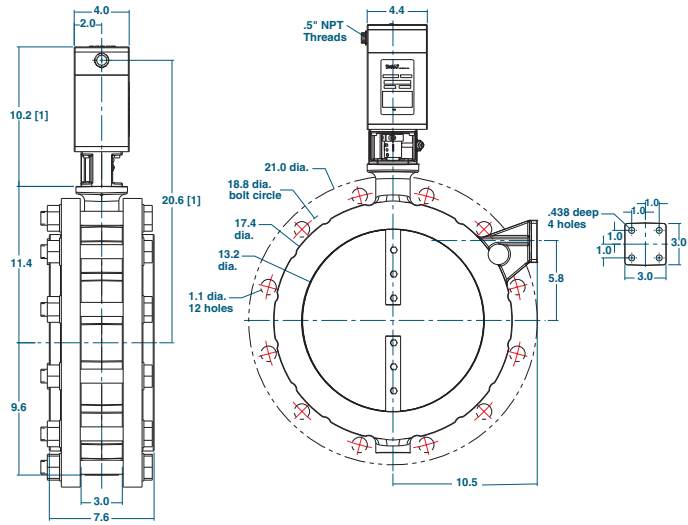
Dimensions (in inches)

12" SMARTFIRE™ Valve Actuator



Note: Flanges are shipped loose.

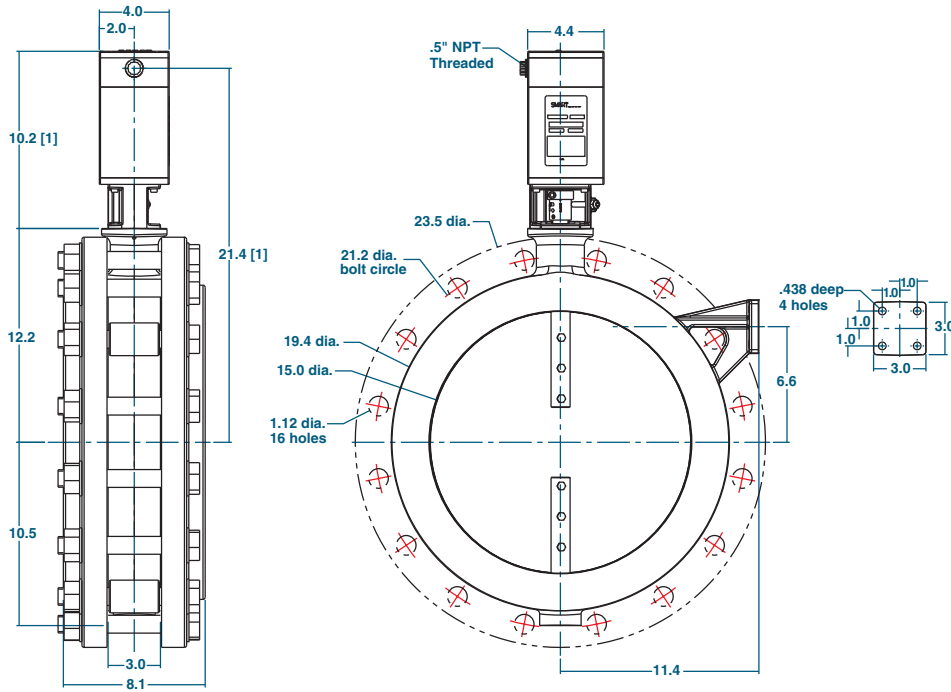
14" SMARTFIRE™ Valve Actuator



Note: Flanges are shipped loose.

Dimensions (in inches)

16" SMARTFIRE™ Valve Actuator



Note: Flanges are shipped loose.