

5801R-xxx-CS Series Reduced Port Valve

5801R-xxx-S6 Series Reduced Port Valve

Quick Spec	
Product Scope	
Size Range	CL 150: 1" – 8" Reduced Port
Body Type	2-pc, Split Body
Port Rating	ASME Class 150, Flanged Ends
Temperature Range / WSP	-20°F thru 400°F / 150 psi Steam -29C thru 204°C / 10,3 bar Steam
Body	Stainless or Carbon Steel
Ball & Stem	Stainless Steel, Anti-Static Design
Ball Seats	RPTFE standard
Stem Packing	Adjustable, Live Loaded Graphite
Body Seal / Thrust Washer	Graphite / PTFE
Operator / Mounting Pad	Manual Locking Lever / ISO 5211
Design Standards	
Design	ASME B16.34
Face to Face	ASME B16.10
Flange Dimensions	ASME B16.5
NACE MR0175	Standard
API SPEC 6D	API Monogram Optional
Testing Standards	
Pressure Testing	API 598
Approvals	
Fire Testing API 607 5th Edition	
CRN: 0C5539.5	

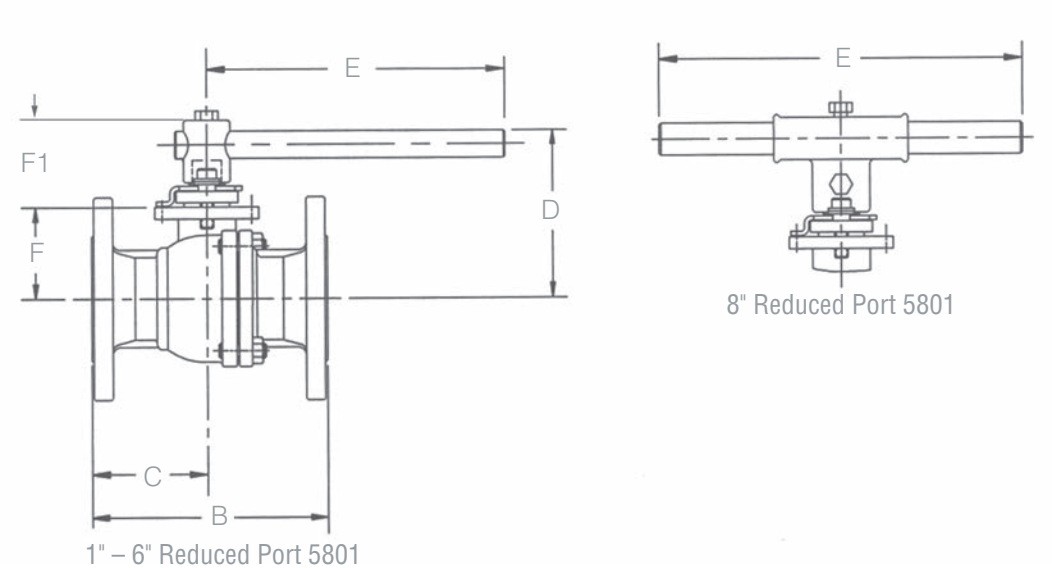
Features

- Investment cast 2-piece bolted body construction
- Blow-out proof stem
- Adjustable, live-loaded graphite packing
- API 598 inspection and testing
- API 607 5th Edition fire tested
- Locking handle

Technical Specifications		
Valve Size Inches	Operating Torque, in-lb @ 285 psig	Flow Coefficient, Cv
1"	92	30
1-1/2"	178	87
2"	219	125
3"	460	350
4"	776	575
6"	2760	1275
8"	4600	1800

Technical Specifications, metric		
Valve Size NPS	Operating Torque, N.m @ 19,6 bar	Flow Coefficient, Kv
DN25	10,4	26
DN40	20,1	75
DN50	24,7	105
DN80	52	300
DN100	87,7	495
DN150	312	1100
DN200	520	1550

Materials of Construction		
Part	Carbon Steel	Stainless Steel
Body	WCB	CF8M
End Cap	WCB	CF8M
Seat	RPTFE	RPTFE
Ball	CF8M	CF8M
Stem	316 SST	316 SST
Seal, Body	Graphite	Graphite
Thrust Washer	PTFE	PTFE
Packing	Grafoil	Grafoil
Gland Bushing	PTFE	PTFE
Gland Flange	CF8	CF8
Gland Bolt	304 SST	304 SST
Stop Plate	304 SST	304 SST
Handle (1/2" - 4")	Ductile Iron	Ductile Iron
Pipe, T-Handle (6" - 8")	Steel	Steel
Coupler, T-Handle (6"-8")	Ductile Iron	Ductile Iron
Snap Ring	STL	STL
Bolt, Body (1/2" - 4")	A193-B7M	A193-B8
Stud, Body (6" - 8")	A193-B7M	A193-B8M
Gland Bolt	304 SST	304 SST
Flat Washer	STL	STL
Bolt, Handle	STL	STL
Static Pin	304 SST	304 SST
Static Spring	304 SST	304 SST
Nut, Body (6" - 8")	A194-2HM	A194-8M
Tag	304 SST	304 SST
Screw, Handle	STL	STL



MD05064

1" – 6" Reduced Port 5801

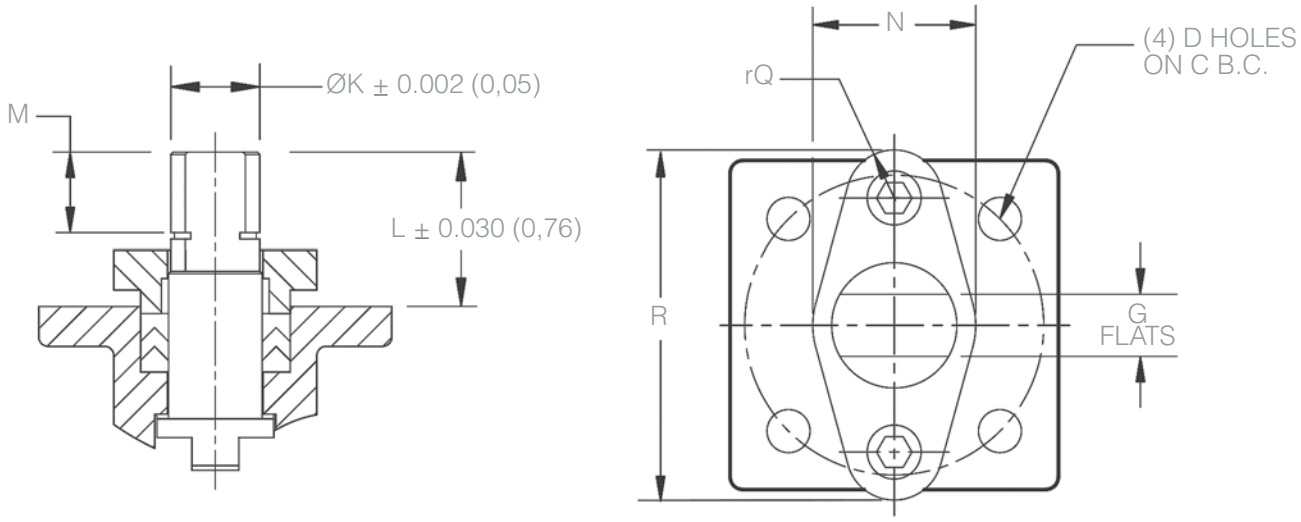
8" Reduced Port 5801

Dimensions, Inches

Valve Size	5801 - 150 Series							
Inches	Port	B	C	D	E	F	F1	Weight, lbs
1"	0.79	5.00	2.50	3.4	5.31	1.53	2.0	5.6
1-1/2"	1.26	6.50	3.25	4.0	6.30	1.99	2.1	9.2
2"	1.50	7.00	3.50	4.8	9.06	2.43	2.6	16.5
3"	2.56	7.99	4.00	6.5	13.78	3.35	3.5	32.4
4"	3.15	9.02	4.51	7.3	13.78	4.22	3.7	56.4
6"	5.00	10.51	5.26	9.2	15.75	5.91	3.6	113
8"	5.98	11.50	5.75	11.3	31.50	7.24	4.5	198

Dimensions, mm

Valve Size	5801 - 150 Series							
NPS	Port	B	C	D	E	F	F1	Weight, kgs
DN25	20	127	63,5	87	135	38,9	50	2,5
DN40	32	152	82,6	102	160	50,5	54	4,2
DN50	38	178	88,9	122	230	61,7	66	7,5
DN80	65	203	101,6	166	350	85,1	88	14,7
DN100	80	229	114,5	186	350	107	94	26
DN150	127	267	133,6	234	400	152	91	51
DN200	152	292	146	287	800	184	113	90

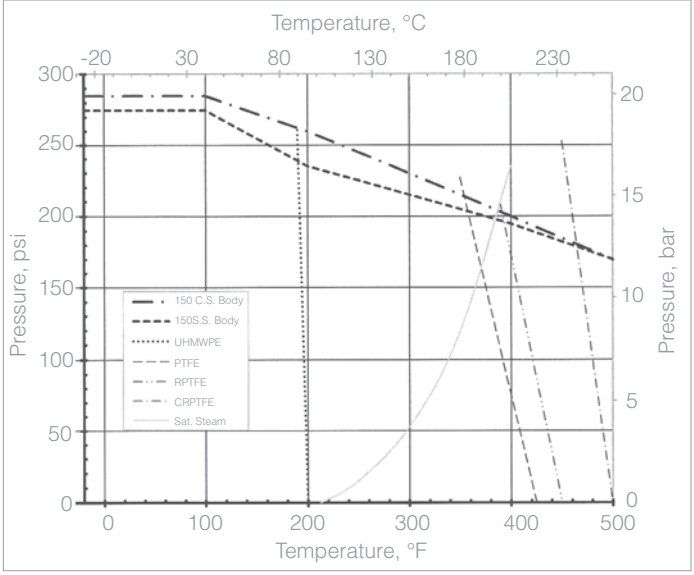


ART1261

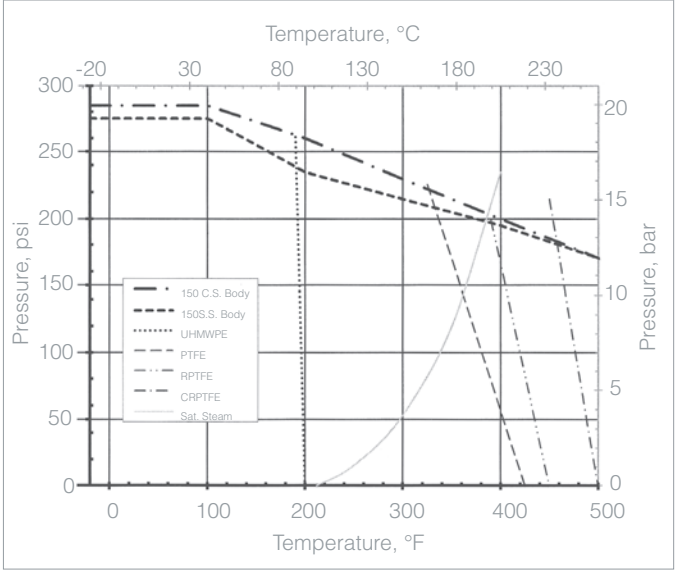
Top Mounting Dimensions, Inches										
Inches	C (B.C.)	D (THRD)	MTG	G FLATS	ØK	L	M	N	R	rQ
1"	Ø1.97	M6X1	F05	0.315/0.313	0.47	0.76	0.30	1.10	2.00	0.39
1-1/2"	Ø1.97	M6X1	F05	0.394/0.392	0.59	1.07	0.52	1.35	2.44	0.47
2"	Ø2.76	M8X1.25	F07	0.551/0.549	0.75	1.31	0.70	1.71	2.97	0.55
3"	Ø4.02	M10X1.5	F10	0.630/0.628	0.95	1.75	0.96	2.09	3.75	0.55
4"	Ø4.02	M10X1.5	F10	0.630/0.628	0.95	1.75	0.96	2.09	3.75	0.71
6"	Ø4.02	M10X1.5	F10	0.787/0.785	1.18	1.86	0.96	2.31	4.33	0.95
8"	Ø4.92	M12X1.75	F12	1.024/1.022	1.50	2.48	1.28	2.82	5.08	0.95

Top Mounting Dimensions, mm										
NPS	C (B.C.)	D (THRD)	MTG	G FLATS	ØK	L	M	N	R	rQ
DN25	Ø50,0	M6X1	F05	8,0/7,95	11,9	19,3	7,6	27,9	50,8	9,9
DN40	Ø50,0	M6X1	F05	10,0/9,96	15,0	27,2	13,2	34,3	62,0	11,9
DN50	Ø70,1	M8X1.25	F07	14,0/13,94	19,1	33,3	17,8	43,4	75,4	14,0
DN80	Ø102,1	M10X1.5	F10	16,0/15,95	24,1	44,5	24,4	53,1	95,3	14,0
DN100	Ø102,1	M10X1.5	F10	16,0/15,95	24,1	44,5	24,4	53,1	95,3	18,0
DN150	Ø102,1	M10X1.5	F10	20,0/19,94	30,0	47,2	24,4	58,7	110,0	24,1
DN200	Ø125,0	M12X1.75	F12	26,0/25,96	38,1	63,0	32,5	71,6	129,0	24,1

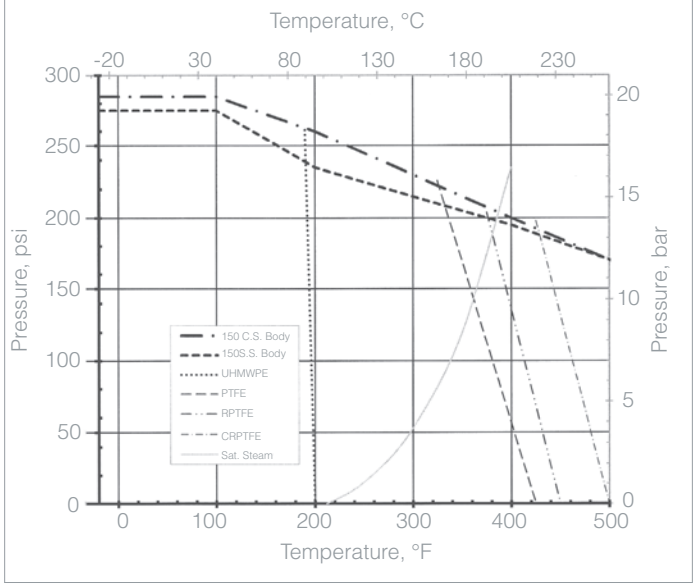
Pressure-Temperature Curves 1" to 2-1/2"



Pressure-Temperature Curves 3" to 6"



Pressure-Temperature Curves 8"



Model		Size		Body Mat'l		1	2	3	4	5	6	7	8	9	10	11	12
	—		—														

Model Number	
5801R	2 Piece Ball Valve

Size			
050	1/2"	250	2-1/2"
075	3/4"	300	3"
100	1"	400	4"
150	1-1/2"	600	6"
200	2"	800	8"

Body Material	
CS	Carbon Steel
S6	Stainless Steel

1	Packing / Seat
F	Grafoil/RPTFE (Standard)
S	Grafoil / 50% SS PTFE
B	PTFE/RPTFE
C	PTFE/CRPTFE
D	PTFE/UHMWPE
G	Grafoil/CRPTFE
H	Grafoil/UHMWPE
J	UHMWPE/UHMWPE

2	Ends
F	Class 150 FE

3&4	Operation		
HL	Lever		
NN	None		
P1	UT-0A-DA STD	S7	UT-4-SR STD
P2	UT-0-DA STD	SF	UT-4.5-SR STD
P3	UT-1-DA STD	S8	UT-5-SR STD
P4	UT-2-DA STD	S9	UT-6-SR STD
P5	UT-2.5-DA STD	SA	UT-7-SR STD
P6	UT-3-DA STD	M1	ER-1-2.5-4 110 VAC
P7	UT-3.5-DA STD	M2	ER-2-5-4 110 VAC
P8	UT-4-DA STD	M3	ER-3-5-4 110 VAC
PF	UT-4.5-DA STD	M8	ER-4-10-4 110 VAC
P9	UT-5-DA STD	M4	ER-6-15-4 110 VAC
S1	UT-0-SR STD	M5	ER-10-15-4 110 VAC
S2	UT-1-SR STD	M9	ER-15-30-4 110 VAC
S3	UT-2-SR STD	MA	ER-20-12-4 110 VAC
S4	UT-2.5-SR STD	M7	ER-38-14-4 110 VAC
S5	UT-3-SR-STD	MC	ER-50-68-4 110 VAC
S6	UT-3.5SR STD		
ZZ	Non-Standard		

5&6	Actuator Pressure
60	60 psi
80	80 psi
NN	N/A (no pneumatic actuator)
ZZ	Non-Standard

7&8	Solenoid Feature	Act. Type
00	None	
3A	3W 8551-120VAC N4 UT-0/5	SR
3C	3W EF8551-120VAc N7 UT-0/5	SR
3J	3W 8317G35-120VAC N4 UT-0/2.5	SR
3M	3W 8321G1-120VAC N4 UT-3/5	SR
3Q	3W EF8317G35-120VAC N7 UT-0/2.5	SR
3R	3W EF8321G1-120VAC N7 UT-3/5	SR
4A	4W 8551-120VAC N4 UT-0A	DA
4B	4W 8551-120VAC N4 UT-0/5	DA
4D	4W EF8551-120VAC N7 UT-0A	DA
4E	4W EF8551-120VAC N7 UT0/5	DA
ZZ	Non-Standard	

9&10	Limit Switch
00	None
AA	LS FMYB-5120-N4 to UT-0/3
AB	LS FMYB-5120-N4 to UT-3.5/7
AC	LS AMYB-5120-N7 to UT-0/3
AD	LS AMYB-5120-N7 to UT-3.5/7
ZZ	Non-Standard

11&12	Fail Position
NN	Fail Position N/A (No "SR" Actuator)
01	Fail Closed
02	Fail Open