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410 Series

Three-Way, Two Position, High Pressure, Balanced Valve

Application:

This valve is used for diverting, blending, or metering of water, oil and gas where large differential pressures are involved. Use on high pressure well test manifolds and salt water disposal systems is ideal. Also available in a 316L stainless steel body.

Operation:

When supply pressure is applied to the diaphragm, the plug moves from the upper to the lower seat to divert the flow between the two ports. The piston is sized to balance the valve even with high differential pressures. This reduces the force required to switch the valve from one port to the other.

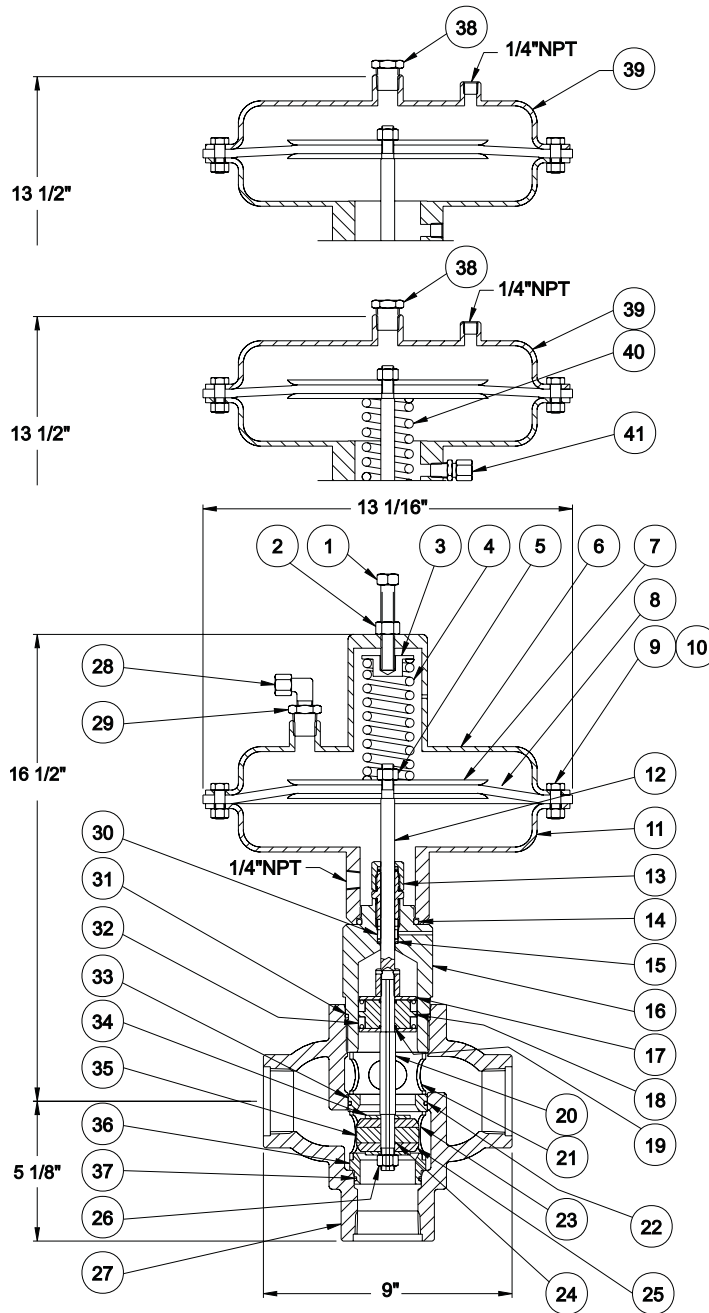
Features:

- High pressure differential may be operated with 30 psig supply.
- All internal parts can be removed without taking the valve body from the line.
- Stainless steel seats and stem provide long product life.
- Available in 316L stainless steel body to CF8M specification.
- Soft trim for bubble tight shut off.



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410 - 211 - 121 SHOWN

Body Chart

Part #	Part #	Description
40119.....	40119.....	NPT Threaded
40062.....	40062.....	Beveled for weld
40463.....	40463.....	Flanged, 150# RF
40114.....	40114.....	Flanged, 300# RF
40115.....	40115.....	Flanged, 600# RF
40117.....	40117.....	Flanged, 600# RTJ
40116.....	40116.....	Flanged, 1500# RF
40118.....	40118.....	Flanged, 1500# RTJ

Other Flange Options Available, Contact Pathway

Flanged Models

Flange	Face to Face	CL to Face	W.P. @100°F
2" 150# RF or RTJ.....	9 5/8"	5 5/8"	275 psig
2" 300# RF or RTJ.....	10 1/4"	5 5/8"	720 psig
2" 600# RF or RTJ.....	10 3/8"	5 1/2"	1440 psig
2" 900# RF or RTJ.....	12"	6 3/4"	2160 psig
2" 1500# RF or RTJ.....	12"	6 3/4"	3000 psig

Special Face to Face available on flanged and beveled for weld connections.

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Model 1500 psi		3000 psi		Description	Material	Qty
Item	Part #	Part #	Part #			
1.....	10213	10213	10213	Adjustment Screw.....	Plated.....	1
2.....	10182	10182	10182	Jam Nut.....	Plated.....	1
3.....	20602	20602	20602	Spring Retainer.....	Carbon Steel.....	1
4.....	10061	10061	10061	Spring.....	Oil Tempered Steel.....	1
5.....	10180	10180	10180	Lock Nut.....	Plated.....	1
6.....	30051	30051	30051	Upper Diaphragm Housing.....	Fabricated Carbon Steel.....	1
7.....	30071	20465	20465	Diaphragm Plate.....	Cold Rolled Carbon Steel Plate.....	2
8.....	10097	10097	10097	Diaphragm.....	Nylon Reinforced Nitrile.....	1
9.....	10207	10207	10207	Cap Screw.....	Plated.....	16
10.....	10175	10175	10175	Hex Nut.....	Plated.....	16
11.....	30052	30052	30052	Lower Diaphragm Housing.....	Fabricated Carbon Steel.....	1
12.....	30067	30069	30069	Upper Stem.....	303 ss.....	1
13.....	21902	21902	21902	Packing Gland Assembly.....	Brass/Nitrile.....	1
14.....	10149	10149	10149	O-Ring.....	Nitrile.....	1
15.....	10157	10157	10157	Packing.....	Molythane.....	1
16.....	40066	40067	40067	Piston Block.....	303 ss.....	1
17.....	20368	20375	20375	Packing Retainer.....	303 ss.....	2
18.....	20369	20376	20376	Piston.....	Brass.....	1
19.....	10114	10115	10115	O-Ring.....	Nitrile.....	2
20.....	20370	20377	20377	Lower Stem.....	303 ss.....	2
21.....	20383	20383	20383	Upper Cage.....	303 ss.....	1
22.....	10139	10139	10139	O-Ring.....	Nitrile.....	1
23.....	20614	20614	20614	Lower Cage.....	304 ss.....	2
24.....	10114	10115	10115	O-Ring.....	Nitrile.....	2
25A.....	21187	21601	21601	Plug.....	Polyurethane.....	2
25B.....	20372	20380	20380	Plug.....	Acetal.....	2
25C.....	23981			Plug.....	Glass filled TFE.....	2
26.....	10184	10185	10185	Lock Nut.....	18-8 ss.....	1
27.....	See Body Chart			Body.....	Cast Steel.....	1
28.....	23339	23339	23339	Vent Assembly.....	Plated.....	1
29.....	10748	10748	10748	Bushing.....	Plated.....	1
30.....	20367	20367	20367	Packing Retainer.....	Brass.....	1
31.....	10140	10140	10140	O-Ring.....	Nitrile.....	1
32.....	10163	10162	10162	Packing.....	Molythane.....	2
33.....	20374	20378	20378	Upper Seat.....	303 ss.....	1
34.....	20373	20379	20379	Plug Retainer.....	303 ss.....	2
35.....	20371	20381	20381	Plug Spacer.....	303 ss.....	1
36.....	20619	20382	20382	Lower Seat.....	303 ss.....	1
37.....	10131	10131	10131	O-Ring.....	Nitrile.....	1
38.....	10346	10346	10346	Plug.....	Plated.....	1
39.....	30101	30101	30101	Upper Diaphragm Housing.....	Fabricated Carbon Steel.....	1
40.....	10045	10045	10045	Spring.....	Oil Tempered Steel.....	1
41.....	23338	23338	23338	Vent Assembly.....	Plated.....	1
.....	10016	10016	10016	Name Plate (<i>not shown</i>).....	18-8 ss.....	1
.....	10324	10324	10324	Drive Screw (<i>not shown</i>).....	18-8 ss.....	2

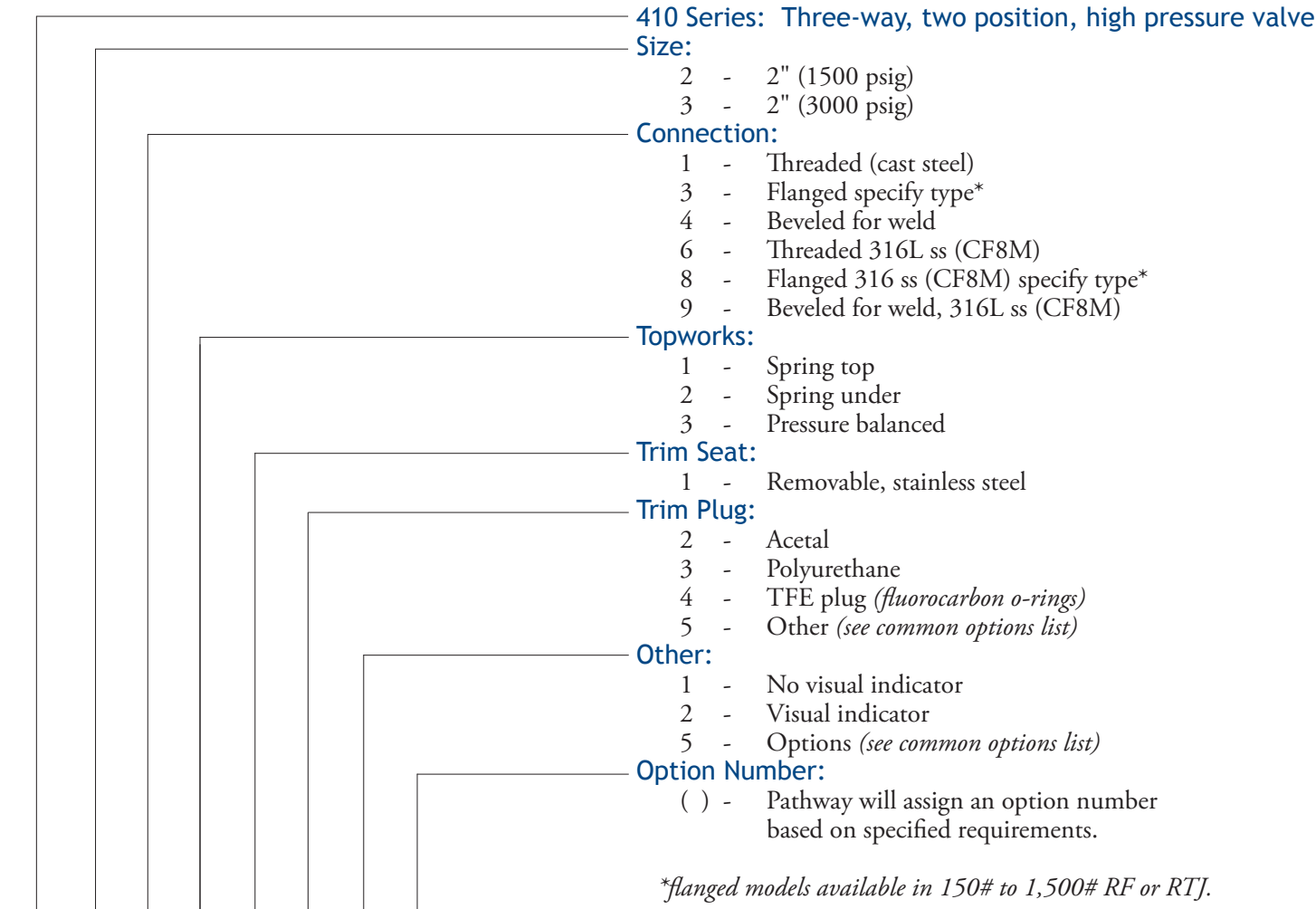
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Specifications:

Size:	2"
Working Pressure:	1500 psig standard, available to 3000 psig
Temperature:	-20°F to +180°F; available to +240°F
Topworks:	Pressed steel with nylon reinforced nitrile diaphragm. 50 psig maximum supply pressure.
Effective Area:	62 sq. in.
C_v Factor:	C to U=48 C to L=70
Trim:	
Seat:	Stainless steel, removable.
Plug:	Fabricated acetal, polyurethane or TFE inserts.
Material:	
Body:	Cast steel standard, available in 316L stainless steel
Stem:	Stainless steel
Packing:	Poly Pak

Ordering Chart:



410- ()
 Example: 410-211-121

**flanged models available in 150# to 1,500# RF or RTJ.*