

Elite Valve

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Customized
valve solutions
for the toughest
applications



Rack & Pinion Pneumatic Actuator

Valves | Strainers | Actuators | Accessories

Offering both standard and custom-engineered solutions, Elite Valve can meet all your process requirements.





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Design and Construction



Elite Valve's new series of rack and pinion pneumatic actuators feature many design enhancements over the previous model. It is Elite Valve's mission to offer innovative products by combining the long field experience with the latest production and materials technology available in the market today. Utilizing new machining tools and procedures, Elite Valve's series of pneumatic actuators offer the following improved characteristics: Long-term reliability, high performance, full compliance with all the latest international standards, extensive product range, innovations and patented solutions for a universal drive shaft, enhanced multifunction position indicator, compact and light.

Range of Options

- Stainless steel (304 or 316) drive shafts are available upon request for all sizes, no matter the type of corrosion protection selected.
- For extremely high or low temperature applications, all models may be equipped with FPM or Silicon O-rings along with an Elite Valve tested and certified suitable lubricant.
- Other than the standard double square bottom drive shaft connection, we can supply a keyed drive connection, a flat head connection or a special personalized drive connection.

Quality Management

- Production conforms to ISO9001.
- Each individual actuator has been factory inspected and tested and given a serial number for full traceability.
- Each individual actuator is individually packed in a special cardboard carton for protection, with a product description label for easy identification and includes installation, operation and maintenance instructions.

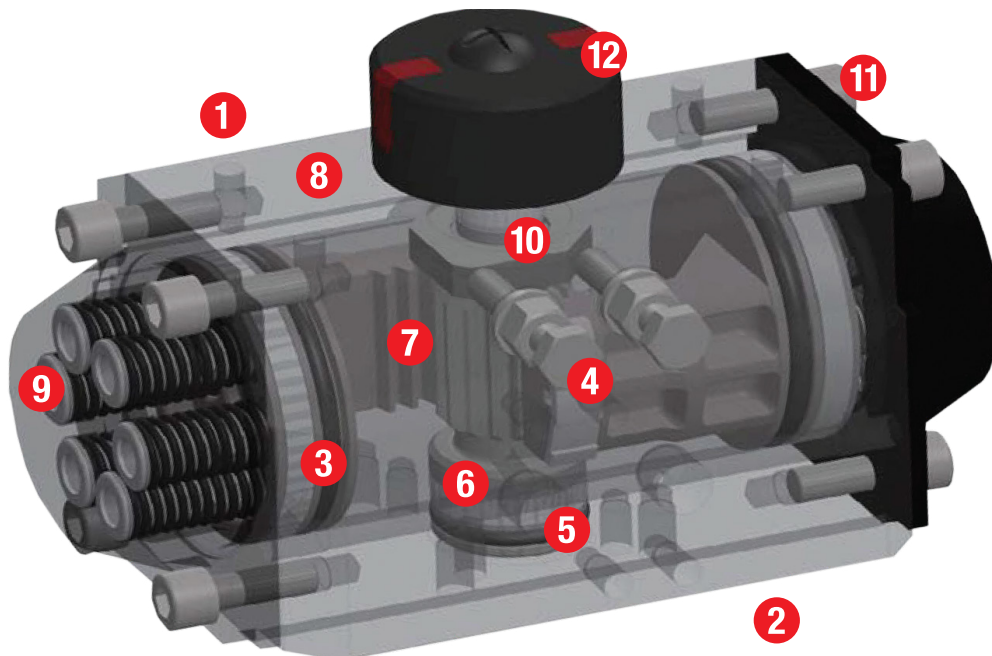
Accessories Available

- Air filter regulator
- Mounting brackets
- Couplings
- Solenoid valves
- Switch boxes
- Proximity switches
- Gear boxes
- Positioners

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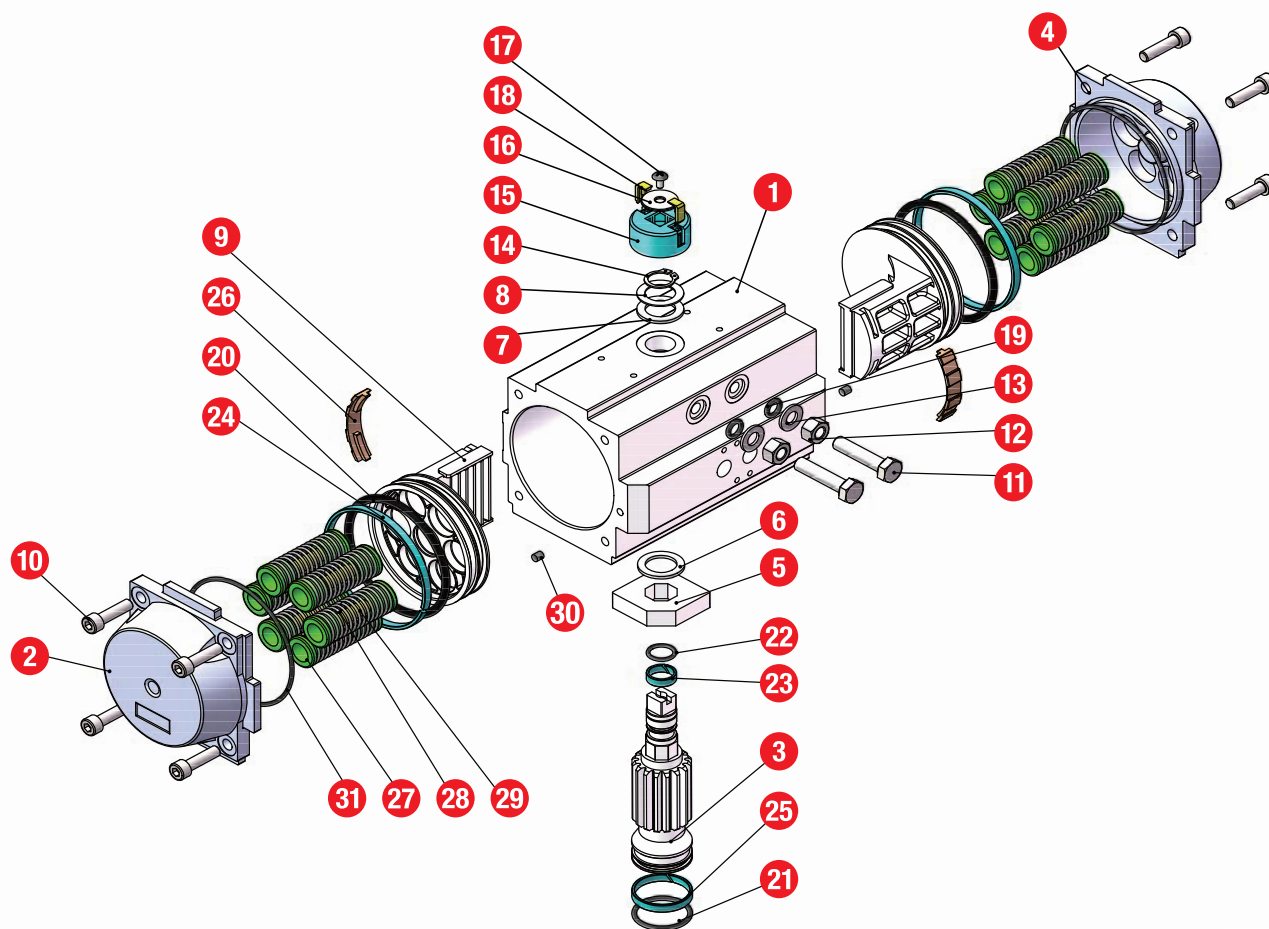
Design and Construction

- 1** A single compact design utilizing identical body and end caps for both double acting and spring return models. This feature reduces inventory and allows field conversion, by adding or removing modular spring cartridges.
- 2** Full conformance to following specifications: ISO 5211, DIN 3337, and VDI/VDE 3845 allow for product interchangeability and easy mounting of solenoids, limit switches and other accessories.
- 3** Elite Valve's rack and pinion design features compact construction, symmetric mounting position, high-cycle life, and fast operation. Reverse rotation can be accomplished in the field by simply inverting the pistons.
- 4** Two independent external travel stop adjustments permit easy and precise adjustment of $\pm 5^\circ$ in both directions. This adjustment may be made in either the open or closed position and provides for accurate valve alignment.
- 5** Multiple bearings and guides on pistons and racks for precise operation, low friction, high cycle life and a blowout proof pinion shaft.
- 6** Electroless nickel-plated blowout resistant, bearing guided, one-piece pinion shaft for improved safety and maximum cycle life.
- 7** High precision teeth on piston racks and pinion shaft for accurate positioning, low backlash, and maximum engagement resulting in overall efficient operation.
- 8** Extruded aluminum body with both internal and external corrosion protections. A honed cylinder surface for longer life and a lower coefficient of friction.
- 9** Modular preloaded spring cartridges designed with coated springs for simple range versatility, greater safety, and corrosion resistance.
- 10** Selected high quality bearings and seals that provide a wide operating temperature range, low friction, and high cycle life.
- 11** Internal and external stainless steel fasteners for long term corrosion resistance.
- 12** Multifunctional position indicator for visual position indication, and a direct, easy, economical way to mount popular sensors.



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Parts and Materials



#	Part	Material	Qty
1	Body	Aluminium alloy	1
2	Left End cap	Aluminium alloy	1
3	Drive shaft	Alloy Steel	1
4	Right end cap	Aluminium alloy	1 lot
5	OCTI-CAM	Alloy Steel	1 lot
6	Thrust bearing (pinion top)	POM+PTFE	2
7	Thrust bearing	POM+PTFE	2
8	Thrust washer	Stainless steel	1
9	Piston	Aluminium alloy	2
10	Cap screw (end cap)	Stainless steel	2
11	Stop top screw	Stainless steel	1
12	Nut (stop screw)	Stainless steel	2
13	Washer (stop screw)	Stainless steel	2
14	Spring clip	Spring steel	1
15	Position indicator	Nylon	1
16	Indicator thrust bearing	Stainless steel	1

#	Part	Material	Qty
17	Cap screw	Stainless steel	1
18	Color code	Nylon	2
19	"o" ring(stop screw)	NBR	2
20	"o" ring(piston)	NBR	2
21	"o" ring (pinion bottom)	NBR	1
22	"o" ring (pinion top)	NBR	1
23	Bearing (pinion top)	POM+PTFE	1
24	Bearing (pinion head)	POM+PTFE	2
25	Bearing (pinion bottom)	POM+PTFE	1
26	Wear band	Nylon	2
27	Spring seat	Nylon	24
28	Spring	High-carbon steel	12
29	Straining beam	Copper pipe	12
30	Plug	NBR	2
31	"o" ring (end cap)	NBR	2

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Dimensions

Model Type A	OPRP032		OPRP050		OPRP065		OPRP075		OPRP085		OPRP095		OPRP110		OPRP125		OPRP140	
	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S
Diameter (mm)	32	32	50	50	65	65	75	75	85	85	95	95	110	110	125	125	140	140
Air Volume Opening (L)	0.03	0.03	0.09	0.09	0.19	0.19	0.30	0.30	0.44	0.44	0.88	0.88	0.83	0.83	1.41	1.41	1.76	1.76
Air Volume Closing (L)	0.04	0.04	0.15	0.15	0.32	0.32	0.50	0.50	0.66	0.66	1.17	1.17	1.27	1.27	2.13	2.13	2.72	2.72
Opening Time (sec)	0.3	0.3	0.3	0.9	0.4	0.9	0.4	0.9	0.9	1.0	0.9	1.4	0.9	1.4	1.3	2.4	1.3	2.8
Closing Time (sec)	0.4	0.4	0.4	0.7	0.4	0.8	0.4	0.9	0.9	1.2	1.0	1.4	1.0	1.6	1.4	2.4	1.4	3.0
Weight (Kg)	0.47	0.59	1.13	1.25	1.97	2.21	2.93	3.29	3.78	4.26	5.14	5.86	6.09	7.17	10.86	12.54	13.77	15.93

Model Type A	OPRP160		OPRP190		OPRP210		OPRP240		OPRP270		OPRP300		OPRP350		OPRP400	
	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S
Diameter (mm)	160	160	190	190	210	210	240	240	270	270	300	300	350	350	400	400
Air Volume Opening (L)	2.85	2.85	4.75	4.75	6.60	6.60	11.40	11.40	15.80	15.80	19.09	19.09	27.65	27.65	42.81	42.81
Air Volume Closing (L)	4.08	4.08	7.20	7.20	10.29	10.29	15.10	15.10	18.80	18.80	28.23	28.23	44.10	44.10	62.05	62.05
Opening Time (sec)	2.0	4.8	2.2	2.4	2.9	3.4	3.2	3.8	4.4	5.0	5.0	6.0	6.2	7.4	7.5	9.6
Closing Time (sec)	2.4	4.9	2.6	3.0	3.8	4.1	3.7	4.0	4.9	5.5	6.0	6.8	7.2	8.4	8.5	10.6
Weight (Kg)	20.15	23.75	28.41	33.81	40.03	48.43	52.6	77.76	73.64	90.6	108	135.6	146.7	188.1	220.5	283.5

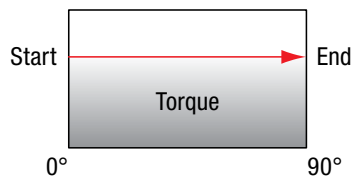
- For models 32-160: (1) Room temperature, (2) Actuator stroke 90°, (3) Solenoid valve with orifice of 4 mm and a flow capacity Qn400L/min, (4) Inside pipe diameter 6 mm, (5) Medium clean air, (6) Air supply pressure 5.5 bar, (7) Actuator without external resistance load.
- For model 190-400: (1) Room temperature (2) Actuator stroke 90°, (3) Solenoid valve with orifice of 12 mm and a flow capacity Qn5100L/min, (4) Inside pipe diameter 8 mm, (5) Medium clean air, (6) Air supply pressure 5.5 bar, (7) Actuator without external resistance load.

Cautions: Field applications when one or more of the above parameter are different will affect the closing time.
Air consumption dependent on air supply, air volume, and cycle times. Expressions:

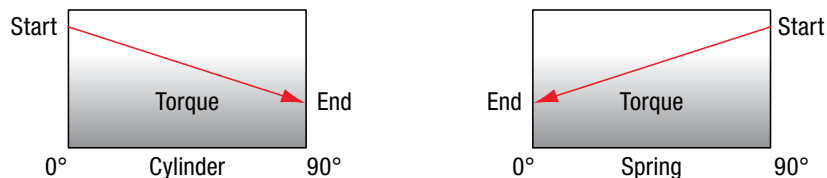
$$L/min = \frac{\text{Air volume (opening air volume + closing air volume)} \times [\frac{\text{Air Supply(Kpa)} + 101.3}{101.3}] \times \text{Action times(/min)}}{101.3}$$

Torque Ratings

**Torque Diagram
Double Acting Actuators**



**Torque Diagram
Single Acting Actuators**



Double Acting Torque Ratings (IBF-IN)

Model	Supply Pressure (Unit: psig)									
	35	40	50	55	60	70	80	90	100	110
OPRP032	26	30	35	41	47	52	58	63	73	84
OPRP050	76	92	109	126	142	158	175	191	225	258
OPRP065	154	188	221	254	288	321	355	389	455	522
OPRP075	239	291	343	396	447	499	551	604	707	812
OPRP085	351	428	504	581	657	733	809	886	1038	1191
OPRP095	493	601	708	815	922	1030	1137	1244	1459	1674
OPRP110	637	790	929	1067	1206	1345	1483	1622	1899	2176
OPRP125	1139	1412	1660	1907	2154	2402	2650	2898	3393	3888
OPRP140	1735	2098	2461	2823	3186	3549	3912	4275	5001	5727
OPRP160	2332	2891	3398	3905	4412	4919	5427	5934	6948	7963
OPRP190	3793	4585	5375	6166	6956	7747	8538	9328	10909	12490
OPRP210	5295	6401	7505	8608	9712	10816	11919	13022	15230	17437
OPRP240	8216	9931	11639	13347	15064	16773	18490	20198	23623	27049
OPRP270	11551	13958	16365	18773	21180	23588	25995	28403	33218	38033
OPRP300	14857	17962	21059	24156	27253	30350	33447	36544	42737	48931
OPRP350	22061	26657	31254	35850	40446	45042	49638	54235	63426	72619
OPRP400	33617	40621	47625	54628	61632	68637	75639	82643	96650	110657

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Torque Ratings

Single Acting Torque Ratings (IBF-IN)

Model	Supply Pressure (Unit: psig)																				Spring Stroke	
	35		40		50		55		60		70		80		90		100		110			
	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
OPRP050-S05	45	30	61	47	78	64	95	80	111	96	127	113	144	129	160	146	194	179	227	212	46	31
OPRP050-S06	39	21	55	38	72	54	89	71	104	88	121	104	138	120	154	137	188	170	220	203	55	37
OPRP050-S07	—	—	49	28	65	45	82	62	98	78	115	95	132	112	148	127	181	161	214	194	63	43
OPRP050-S08	—	—	—	—	59	36	76	52	92	69	109	86	126	102	142	119	175	151	208	185	73	50
OPRP050-S09	—	—	—	—	—	—	70	43	86	60	103	76	119	93	135	110	169	143	202	175	82	56
OPRP050-S10	—	—	—	—	—	—	—	—	80	50	96	67	113	84	129	100	163	134	196	166	91	62
OPRP050-S11	—	—	—	—	—	—	—	—	—	—	90	58	107	74	123	91	157	124	189	158	100	68
OPRP050-S12	—	—	—	—	—	—	—	—	—	—	—	—	101	65	117	82	150	115	183	148	110	74
OPRP065-S05	77	38	111	72	144	105	177	138	211	172	244	205	278	239	312	273	378	339	445	406	116	77
OPRP065-S06	62	15	95	49	128	81	162	115	196	149	229	182	263	263	296	250	363	316	430	383	139	92
OPRP065-S07	—	—	80	25	113	58	147	92	181	126	213	159	247	247	281	226	348	293	414	360	162	108
OPRP065-S08	—	—	—	—	97	35	131	69	165	103	198	136	232	232	266	203	332	270	399	337	186	123
OPRP065-S09	—	—	—	—	—	—	116	46	150	80	183	112	216	216	250	180	317	247	384	313	209	139
OPRP065-S10	—	—	—	—	—	—	—	—	134	56	167	89	201	201	235	157	301	223	368	290	232	154
OPRP065-S11	—	—	—	—	—	—	—	—	—	—	152	66	186	186	219	134	286	200	353	267	255	169
OPRP065-S12	—	—	—	—	—	—	—	—	—	—	—	—	170	170	204	110	271	177	337	244	278	185
OPRP075-S05	144	90	196	142	249	194	301	246	352	298	404	350	457	402	509	454	612	558	717	662	150	95
OPRP075-S06	126	60	178	112	229	165	281	216	334	268	386	320	437	373	489	424	594	528	697	632	179	113
OPRP075-S07	—	—	158	82	211	135	263	187	315	238	366	290	419	343	471	395	574	498	679	603	289	133
OPRP075-S08	—	—	—	—	192	104	243	157	296	209	348	260	400	312	451	365	556	469	659	573	239	151
OPRP075-S09	—	—	—	—	—	—	225	127	243	179	328	231	381	283	433	335	537	439	641	543	268	171
OPRP075-S10	—	—	—	—	—	—	—	—	225	149	310	201	362	253	414	305	518	409	622	513	298	189
OPRP075-S11	—	—	—	—	—	—	—	—	—	—	291	171	343	223	395	275	499	379	603	483	328	208
OPRP075-S12	—	—	—	—	—	—	—	—	—	—	—	—	324	193	376	245	480	350	584	453	358	227
OPRP085-S05	205	121	281	197	358	273	434	350	510	426	587	503	663	571	739	655	892	808	1044	960	231	147
OPRP085-S06	175	74	251	150	328	227	404	304	481	380	557	456	634	533	710	609	862	761	1015	914	277	176
OPRP085-S07	—	—	222	104	299	299	375	258	451	334	528	410	605	487	681	563	833	715	986	868	323	205
OPRP085-S08	—	—	—	—	269	269	346	212	422	288	498	364	574	440	651	517	804	669	957	822	369	235
OPRP085-S09	—	—	—	—	—	—	317	166	393	242	469	318	545	394	622	471	774	623	928	776	415	264
OPRP085-S10	—	—	—	—	—	—	—	—	364	196	440	272	516	348	593	425	745	577	898	730	461	293
OPRP085-S11	—	—	—	—	—	—	—	—	—	—	411	226	487	302	563	378	716	531	868	683	507	322
OPRP085-S12	—	—	—	—	—	—	—	—	—	—	—	—	458	256	534	332	687	485	839	630	553	351
OPRP095-S05	297	185	405	292	512	399	620	507	727	614	835	721	942	828	1049	936	1236	1151	1478	1365	309	196
OPRP095-S06	258	123	366	231	474	338	581	445	688	552	796	659	903	767	1010	874	1224	1089	1439	1304	370	235
OPRP095-S07	—	—	327	169	435	276	542	383	649	490	756	598	863	705	971	813	1185	1028	1399	1242	432	273
OPRP095-S08	—	—	—	—	395	214	503	322	610	429	717	536	824	643	931	751	1146	966	1360	1180	494	313
OPRP095-S09	—	—	—	—	—	—	463	260	571	367	678	474	785	582	892	689	1107	904	1321	1119	555	352
OPRP095-S10	—	—	—	—	—	—	—	—	531	305	639	413	746	520	853	628	1067	842	1283	1057	617	391
OPRP095-S11	—	—	—	—	—	—	—	—	—	—	599	351	707	458	814	566	1028	781	1244	995	679	420
OPRP095-S12	—	—	—	—	—	—	—	—	—	—	—	—	667	397	775	505	990	790	1204	933	740	469
OPRP110-S05	384	232	537	384	676	523	814	662	953	800	1092	939	1230	1078	1369	1216	1646	1494	1923	1771	406	253
OPRP110-S06	334	150	487	304	625	443	764	580	903	720	1041	858	1180	997	1319	1136	1596	1413	1873	1690	487	304
OPRP110-S07	—	—	436	222	574	361	713	499	851	638	990	777	1129	915	1267	1054	1545	1331	1822	1609	568	354
OPRP110-S08	—	—	—	—	524	280	663	419	801	557	940	696	1079	835	1217	973	1495	1251	1772	1528	650	405
OPRP110-S09	—	—	—	—	—	—	612	337	751	476	890	614	1028	753	1167	892	1444	1169	1722	1446	730	456
OPRP110-S10	—	—	—	—	—	—	—	—	700	395	839	534	977	672	1116	811	1393	1088	1670	1365	812	506
OPRP110-S11	—	—	—	—	—	—	—	—	—	—	788	452	927	590	1066	729	1343	1006	1620	1284	893	557
OPRP110-S12	—	—	—	—	—	—	—	—	—	—	—	—	876	510	1014	648	1292	926	1569	1203	974	607

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Torque Ratings

Single Acting Torque Ratings (IBF-IN) Continued

Model	Supply Pressure (Unit: psig)																				Spring Stroke	
	35		40		50		55		60		70		80		90		100		110			
	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
OPRP125-S05	688	427	960	698	1208	946	1455	1194	1703	1442	1951	1690	2199	1937	2446	2184	2941	2680	3437	3175	713	451
OPRP125-S06	597	283	870	556	1118	804	1365	1051	1613	1299	1860	1546	2108	1794	2356	2042	2851	2538	3327	3032	856	542
OPRP125-S07	–	–	780	413	1028	661	1275	909	1522	1157	1770	1404	2018	1652	2266	1899	2761	2395	3256	2890	998	632
OPRP125-S08	–	–	–	–	937	519	1184	766	1432	1013	1680	1261	1928	1509	2176	1757	2670	2252	3166	2747	1141	722
OPRP125-S09	–	–	–	–	–	–	1094	642	1342	871	1590	1119	1837	1367	2085	1614	2580	2109	3076	2605	1283	813
OPRP125-S10	–	–	–	–	–	–	–	–	1252	728	1499	976	1747	1224	1995	1472	2490	1967	2985	2462	1426	903
OPRP125-S11	–	–	–	–	–	–	–	–	–	–	1409	834	1657	1082	1905	1329	2400	1824	2895	2320	1568	993
OPRP125-S12	–	–	–	–	–	–	–	–	–	–	–	–	1567	939	1814	1186	2309	1682	2805	3062	1711	1083
OPRP140-S05	1011	656	1373	1018	1743	1381	2098	1743	2460	2105	2822	2467	–	–	–	–	–	–	–	–	1083	728
OPRP140-S06	865	439	1228	802	1590	1164	1952	1526	2315	1888	2677	2251	3090	2613	–	–	–	–	–	–	1299	874
OPRP140-S07	–	–	1082	585	1444	947	1806	1309	2168	1672	2531	2034	2893	2396	3255	2758	–	–	–	–	1516	1020
OPRP140-S08	–	–	–	–	1298	730	1660	1093	2023	1455	2385	1817	2747	2179	3109	2542	3834	3266	–	–	1733	1165
OPRP140-S09	–	–	–	–	–	–	1515	876	1877	1238	2239	1601	2602	1963	2964	2325	3688	3050	4413	3774	1949	1311
OPRP140-S10	–	–	–	–	–	–	–	–	1732	1022	2094	1384	2456	1746	2818	2108	3543	2833	4267	3557	2166	1456
OPRP140-S11	–	–	–	–	–	–	–	–	–	–	1948	1167	2311	1529	2673	1892	3397	2616	4122	3341	2383	1602
OPRP140-S12	–	–	–	–	–	–	–	–	–	–	–	–	2165	1313	2527	1675	3252	2400	3976	3124	2599	1747
OPRP160-S05	1359	897	1917	1455	2424	1962	2931	2469	3439	2977	3946	3484	4453	3991	4960	4498	5974	5512	6990	6527	1437	975
OPRP160-S06	1164	609	1722	1167	2230	1675	2737	2182	3244	2689	3751	3196	4258	3703	4765	4210	5780	5225	6795	6240	1723	1168
OPRP160-S07	–	–	1528	881	2035	1388	2542	1895	3049	2402	3556	2909	4063	3416	4571	3924	5426	4938	6600	5952	2011	1363
OPRP160-S08	–	–	–	–	1840	1100	2347	1607	2854	2116	3363	2622	3869	3129	4376	3636	5390	4650	6405	5666	2298	1558
OPRP160-S09	–	–	–	–	–	–	2153	1321	2660	1828	3167	2335	3674	2842	4181	3349	5196	4364	6211	5378	2585	1752
OPRP160-S10	–	–	–	–	–	–	–	–	2465	1540	2972	2047	3479	2554	3986	3062	5001	4076	6016	5091	2872	1947
OPRP160-S11	–	–	–	–	–	–	–	–	–	–	2777	1760	3285	2268	3792	2775	4806	3789	5821	4903	3160	2142
OPRP160-S12	–	–	–	–	–	–	–	–	–	–	–	–	3090	1980	3597	2487	4611	3501	5627	4517	3447	2337
OPRP190-S05	–	–	–	–	–	–	–	–	28155	12754	35156	19755	42157	17906	49167	33767	63170	47769	77181	61780	48755	33474
OPRP190-S06	2184	1482	2977	2274	3767	3064	4557	3855	5348	4645	6138	5435	–	–	–	–	–	–	–	–	2312	1609
OPRP190-S07	1862	1019	2654	1811	3445	2601	4235	3393	5026	4183	5817	4973	6607	5764	–	–	–	–	–	–	2774	1930
OPRP190-S08	–	–	2094	1349	3124	2139	3914	2930	4704	3720	5495	4510	6285	5302	7075	6092	–	–	–	–	3236	2253
OPRP190-S09	–	–	–	–	2801	1757	3592	2467	4382	3258	5173	4048	5964	4839	6899	5629	8335	7221	–	–	3698	2574
OPRP190-S10	–	–	–	–	–	–	3270	2002	4061	2796	4851	3586	5642	4377	6595	5167	8013	6748	9594	8330	4161	2896
OPRP190-S11	–	–	–	–	–	–	–	–	3739	2333	4530	3124	5320	3915	6292	4767	7692	6286	9272	7867	4623	3217
OPRP190-S12	–	–	–	–	–	–	–	–	–	–	4208	2661	4998	3452	5989	4242	7369	5824	8951	7405	5085	3540
OPRP210-S05	–	–	–	–	–	–	–	–	–	–	–	–	4677	2990	5685	3780	7048	5361	8629	6943	5566	3866
OPRP210-S06	3123	2116	4229	3223	5333	4326	6436	5430	7540	6543	8644	7638	9747	8740	10850	9844	13058	12050	15265	14259	3178	2172
OPRP210-S07	2688	1481	3794	2587	4898	3691	6003	4795	7106	5898	8209	7001	9313	8105	10417	9209	12623	11416	14831	13623	3814	2607
OPRP210-S08	–	–	3360	1952	4464	3055	5567	4158	6671	5263	7775	6366	8878	7469	9982	8573	12190	10781	14396	14396	4449	3041
OPRP210-S09	–	–	–	–	4030	2419	5133	3523	6236	4626	7340	5730	8444	6834	9548	7938	11755	10145	13962	13962	5086	3475
OPRP210-S10	–	–	–	–	–	–	4699	2887	5803	3991	6906	5095	8328	6198	9113	7302	11320	9509	13528	13528	5721	3909
OPRP210-S11	–	–	–	–	–	–	–	–	5368	3355	6472	4459	7575	5562	8578	6666	10886	8873	13093	13093	6357	4344
OPRP210-S12	–	–	–	–	–	–	–	–	–	–	6037	3823	7141	4926	8245	6030	10451	8238	12659	12659	6992	4779

Torque Ratings

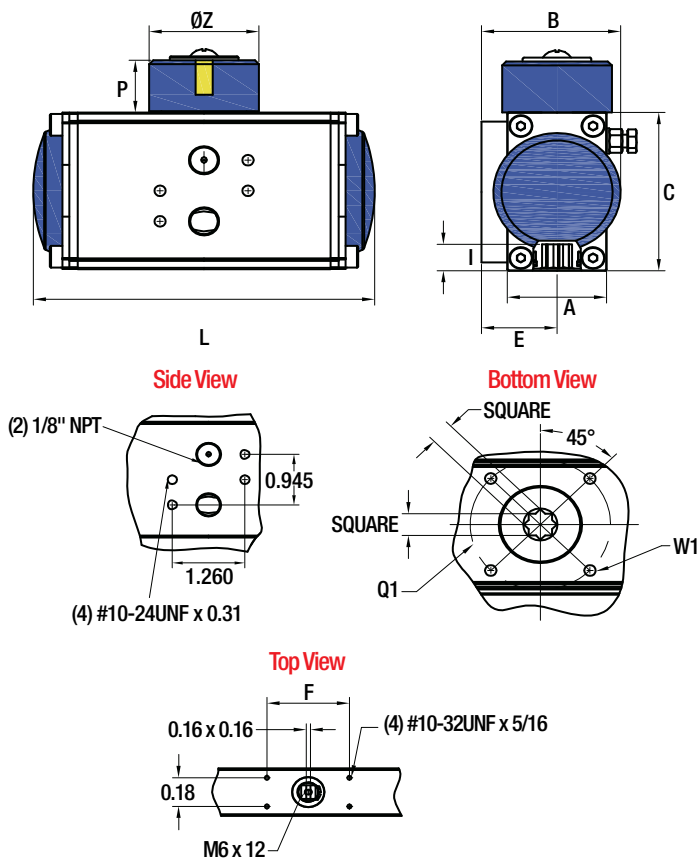
Single Acting Torque Ratings (IBF-IN) Continued

Model	Supply Pressure (Unit: psig)																				Spring Stroke	
	35		40		50		55		60		70		80		90		100		110			
	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
OPRP240-S05	—	—	—	—	—	—	—	—	—	—	—	—	6706	4291	7810	5395	10018	7602	12224	12224	7628	5213
OPRP240-S06	4583	3313	6295	5025	8007	6736	9718	8447	11430	10160	13142	11872	—	—	—	—	—	—	—	—	4903	3633
OPRP240-S07	3856	2332	5568	4044	7280	5756	8992	7468	10704	9179	12415	10891	14127	12603	—	—	—	—	—	—	5884	4360
OPRP240-S08	—	—	4841	3063	6553	4775	8265	6487	9977	8199	11689	9910	13400	11622	15112	13334	—	—	—	—	6865	5087
OPRP240-S09	—	—	—	—	5827	3794	7538	5506	9250	7218	10962	8930	12674	10642	14386	12353	17809	15777	—	—	7846	5813
OPRP240-S10	—	—	—	—	—	—	6812	4526	8524	6237	10235	7949	11947	9661	13659	11373	17082	14796	20506	18220	8826	6540
OPRP240-S11	—	—	—	—	—	—	—	—	7797	5257	9509	6968	11220	8680	12932	10392	16356	13816	19779	17239	9807	7267
OPRP240-S12	—	—	—	—	—	—	—	—	—	—	8782	5988	10494	7699	12206	9411	15629	12835	19053	16258	10779	7993
OPRP270-S05	—	—	—	—	—	—	—	—	—	—	—	—	9767	6719	11479	8431	14902	11854	18326	15278	11768	8720
OPRP270-S06	6602	4597	9009	7005	11417	9412	13823	11819	16231	14226	18638	16633	—	—	—	—	—	—	—	—	6957	4952
OPRP270-S07	5612	3206	8019	5613	10426	8021	12833	10427	15241	12437	17647	15241	19975	17649	—	—	—	—	—	—	8348	5943
OPRP270-S08	—	—	7029	4222	10321	6629	11743	9036	14250	11443	16657	13850	19064	16258	21472	18665	—	—	—	—	9740	6933
OPRP270-S09	—	—	—	—	8446	5238	10852	7645	13260	10052	15666	12459	18074	14866	20481	17274	25295	22088	—	—	11131	7923
OPRP270-S10	—	—	—	—	—	—	9862	6253	12269	8661	14676	11067	17083	13475	19491	15882	24305	20696	29119	25510	12522	8914
OPRP270-S11	—	—	—	—	—	—	—	—	11279	7269	13685	9676	16093	12083	18500	14491	23314	19305	28128	24119	13914	9904
OPRP270-S12	—	—	—	—	—	—	—	—	—	—	12695	8285	15102	10692	17510	13099	22324	17914	27138	22728	15305	10895
OPRP300-S05	—	—	—	—	—	—	—	—	—	—	—	—	14112	9301	16520	11708	26148	16522	26418	21336	16697	11885
OPRP300-S06	8740	5724	11845	8829	14942	11926	18039	15023	21136	18120	24233	21217	27330	24314	30427	27411	36620	33604	42814	39798	9133	6117
OPRP300-S07	7517	3897	10622	7002	13719	10099	16816	13196	19913	16293	23009	19390	26106	22487	29203	25584	35397	31778	41591	37972	10960	7340
OPRP300-S08	—	—	9399	5175	12495	8272	15592	11369	18689	14466	23379	17563	24885	20660	27980	23757	34174	29951	40368	36145	12787	8563
OPRP300-S09	—	—	—	—	—	—	14369	9542	17466	12639	20563	15736	2366-	18833	26757	21930	32951	28124	39144	34318	14613	9787
OPRP300-S10	—	—	—	—	—	—	13146	7716	16242	10813	19339	13909	22410	17006	25533	20103	31727	26297	37921	32491	16440	11011
OPRP300-S11	—	—	—	—	—	—	—	—	15019	8986	18116	12083	21213	15180	24310	18277	30503	24470	36697	30664	18267	12234
OPRP300-S12	—	—	—	—	—	—	—	—	—	—	16892	10257	19989	13354	23086	16450	29280	22644	35474	28838	20094	13457
OPRP350-S05	—	—	—	—	—	—	—	—	—	—	—	—	18766	11527	21863	14624	28057	20818	32658	27011	21920	14680
OPRP350-S06	13261	9002	17857	13599	22453	18194	27050	22790	31645	27210	36241	31983	40838	36579	45434	41175	54626	52757	63818	59559	13060	8801
OPRP350-S07	—	—	16096	10987	20693	15582	25289	20179	29885	24775	34482	29371	39077	33967	43673	38563	52866	47756	62058	56947	15671	10561
OPRP350-S08	—	—	14337	8375	18933	12971	23529	17567	28125	22163	32721	26759	37318	31356	41914	35951	51106	45144	60298	54336	18283	12321
OPRP350-S09	—	—	—	—	17173	10359	21769	14955	26365	19551	30961	24147	35557	28744	40153	33340	49345	42532	58538	51724	20895	14081
OPRP350-S10	—	—	—	—	15412	7747	20009	12344	24605	16939	29201	21535	33798	26132	38393	30728	47586	39920	56777	49112	23506	15841
OPRP350-S11	—	—	—	—	—	—	18249	9732	22844	14327	27441	18923	32037	23520	36633	28116	45825	37308	55018	46500	26118	17601
OPRP350-S12	—	—	—	—	—	—	16489	7120	21085	11716	25681	16312	30277	20908	34873	25504	44066	34696	53257	43889	28730	19362
OPRP400-S05	—	—	—	—	—	—	—	—	19324	9104	23921	13700	28517	18296	33113	22892	42305	32084	51498	41277	31342	21121
OPRP400-S06	19667	13250	26668	20251	33678	27261	40679	33784	47680	41263	54690	48273	—	—	—	—	—	—	—	—	20366	13949
OPRP400-S07	—	—	23880	16180	30890	23190	37891	30191	44892	37192	51893	44193	58903	51203	—	—	—	—	—	—	24438	16737
OPRP400-S08	—	—	21092	12108	28093	19428	35103	26191	42104	33120	49105	40122	56106	47123	63116	54133	—	—	—	—	28509	19525
OPRP400-S09	—	—	—	—	25305	15038	32306	22039	39316	29049	46317	36050	53318	43051	60346	50061	74331	64064	—	—	32589	22322
OPRP400-S10	—	—	—	—	22517	10966	29518	17968	36519	24969	43529	31979	50530	38980	57532	45981	71543	59992	85545	73994	36661	25110
OPRP400-S11	—	—	—	—	—	—	26730	13896	33731	20897	40741	27907	47742	34908	54743	41909	68755	55921	82757	69923	40732	27898
OPRP400-S12	—	—	—	—	—	—	23942	9825	30943	16826	37944	23827	44954	30837	51955	37838	65958	51840	79969	65851	44804	30686

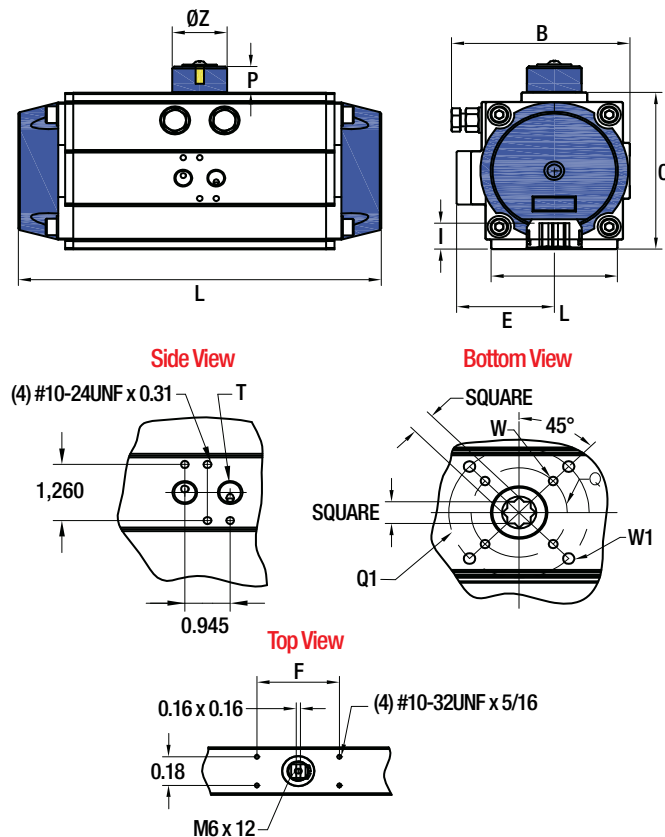
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Installation

OPRP032



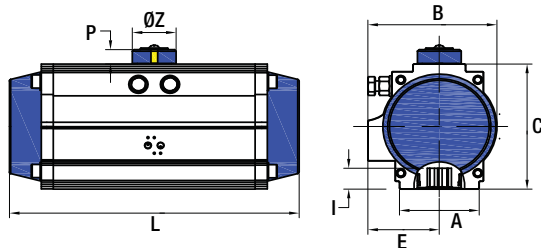
OPRP050-OPRP160



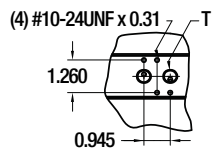
Model	A	B	C	E	F	P	ØZ	L	I	Flange	Q	Q1	W	W1	Square	T
	in	in	in	in	in	in	in	in	in	ISO 5211	in	in	UNC	UNC	in	in
OPRP032	1.46	1.85	1.97	1.06	1.97	0.79	1.57	4.33	0.39	F03	—	1.42	—	#10-24UNC x 0.35	0.354 x 0.354	1/8" NPT
OPRP050	1.77	2.78	2.76	1.63	3.15	0.79	1.57	6.06	0.47	F03/05	1.42	1.97	#10-24UNC x 0.29	1/4"-20UNC x 0.35	0.433 x 0.433	1/4" NPT
OPRP065	2.44	3.52	3.50	2.03	3.15	0.79	1.57	7.44	0.63	F05/07	1.97	2.76	1/4"-20UNC x 0.35	5/16"-18UNC x 0.47	0.551 x 0.551	1/4" NPT
OPRP075	2.68	4.04	3.94	2.32	3.15	0.79	1.57	8.27	0.63	F05/07	1.97	2.76	1/4"-20UNC x 0.35	5/16"-18UNC x 0.47	0.551 x 0.551	1/4" NPT
OPRP085	2.68	4.43	4.45	2.50	3.15	0.79	1.57	9.02	0.75	F05/07	1.97	2.76	1/4"-20UNC x 0.35	5/16"-18UNC x 0.47	0.669 x 0.669	1/4" NPT
OPRP095	3.62	4.96	4.84	2.80	3.15	0.79	1.57	10.39	0.75	F07	1.97	2.76	1/4"-20UNC x 0.35	5/16"-18UNC x 0.47	0.669 x 0.669	1/4" NPT
OPRP110	3.66	5.45	5.35	3.01	3.15	0.79	1.57	10.47	0.75	F07/10	2.76	4.02	5/16"-16UNC x 0.59	3/8"-16UNC x 0.59	0.669 x 0.669	1/4" NPT
OPRP125	3.78	6.18	6.34	3.35	3.15	1.18	2.20	13.27	0.98	F07/10	2.76	4.02	5/16"-16UNC x 0.59	3/8"-16UNC x 0.59	0.866 x 0.866	1/4" NPT
OPRP140	4.33	7.01	7.01	3.82	3.15	1.18	2.20	14.84	1.22	F10/12	4.02	4.92	3/8"-16UNC x 0.59	1/2"-13UNC x 0.71	1.063 x 1.063	1/4" NPT
OPRP160	4.41	7.72	7.87	4.17	5.12	1.18	2.20	16.22	1.22	F10/12	4.02	4.92	3/8"-16UNC x 0.59	1/2"-13UNC x 0.71	1.063 x 1.063	1/4" NPT

Installation

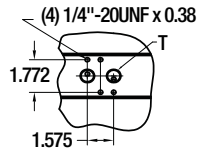
OPRP190-OPRP350



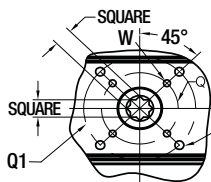
Side View (OPRP190 – OPRP210)



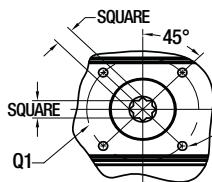
(OPRP240 – OPRP350)



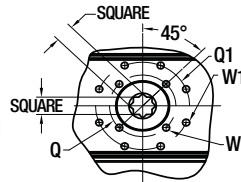
Bottom View (OPRP190)



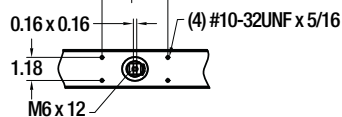
(OPRP210 – OPRP300)



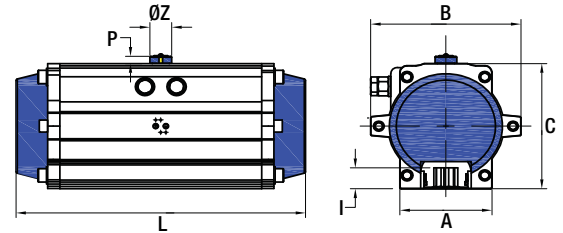
(OPRP350)



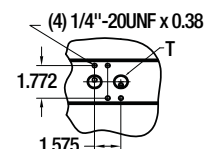
Top View



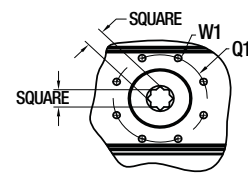
OPRP400



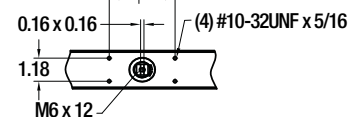
Side View



Bottom View



Top View



Model	A	B	C	E	F	P	ØZ	L	I	Flange	Q	Q1	W	W1	Square	T
	in	in	in	in	in	in	in	in	in	ISO 5211	in	in	UNC	UNC	in	in
OPRP190	5.35	8.52	9.13	4.41	5.12	1.18	2.20	19.21	1.61	F10/12	4.02	5.51	4-3/8"-16UNC x 0.59	4-5/8"-11UNC x 0.94	1.417 x 1.417	1/4" NPT
OPRP210	5.51	9.27	10.04	4.72	5.12	1.18	3.15	21.65	1.57	F10/16	–	5.51	–	4-5/8"-11UNC x 0.94	1.417 x 1.417	1/4" NPT
OPRP240	6.26	10.31	11.50	5.16	5.12	1.18	3.15	23.70	1.97	F16	–	6.50	–	4-3/4"-10UNC x 1.10	1.811 X 1.811	1/2" NPT
OPRP270	6.26	11.61	13.03	5.81	5.12	1.18	3.15	26.46	1.97	F16	–	6.50	–	4-3/4"-10UNC x 1.10	1.811 X 1.811	1/2" NPT
OPRP300	7.09	13.19	13.94	6.81	5.12	1.18	3.15	30.87	1.97	F16	–	6.50	–	4-3/4"-10UNC x 1.10	1.811 X 1.811	1/2" NPT
OPRP350	10.63	15.16	16.14	7.68	5.12	1.18	3.15	33.27	1.97	F16/25	6.50	10.00	4-3/4"-10UNC x 1.10	8-5/8"-11UNC x 1.19	1.811 X 1.811	1/2" NPT
OPRP400	11.42	20.47	18.35	10.24	5.12	1.18	3.15	37.64	2.36	F16/25	–	10.00	–	8-5/8"-11UNC x 1.19	2.165 X 2.165	1/2" NPT

Model Selection

Model	Type	Spring Qty	Flange	Square (mm ²)	Body	Seals
OPRP032-	DA = DOUBLE ACTING S = SPRING RETURN	SPRING RETURN ONLY 4 5 6 7 8 9 10 11 12	F03	9 X 9	SANDBLASTED + HARD ANODIZED (COLOUR: DARK GREY)	STANDARD VITON -15°C--+80°C HT FLUORORUBBER (FOR HIGH TEMPERATURE) -15°C--+150°C LT SILASTIC (FOR LOW TEMPERATURE) -40°C--+80°C
OPRP050-			F03/F05	11 X 11		
OPRP065-			F05/F07	14 X 14		
OPRP075-			F05/F07	14 X 14		
OPRP085-			F05/F07	17 X 17		
OPRP095-			F05/F07	17 X 17		
OPRP110-			F07/F10	17 X 17		
OPRP125-			F07/F10	22 X 22		
OPRP140-			F10/F12	27 X 27		
OPRP160-			F10/F12	27 X 27		
OPRP190-			F10/F14	36 X 36		
OPRP210-			F14	36 X 36		
OPRP240-			F16	46 X 46		
OPRP270-			F16	46 X 46		
OPRP300-			F16	46 X 46		
OPRP350-			F16/F25	46 X 46		
OPRP400			F25	55 X 55		

1. The standard rotation of double acting and spring return is clockwise to close (for double acting when port 4 is pressurized).
2. Customization for special requirements is available. Please contact sales to request additional information.
3. Customization including but not limited to the items below:
 - a. The standard rotation of double acting and spring return is clockwise to close (for double acting when port 4 is pressurized).
 - b. Customization for special requirements is available. Please contact sales to request additional information.
 - c. Customization for special requirements is available. Please contact sales to request additional information.

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