



» Technical Data

Double Acting Actuators (Metric Unit)

(Unit : N.m)

Actuator Model	Pneumatic Stroke Torque (N.m) at Operating Pressure (bar)								
	3	3.5	4	4.5	5	5.5	6	7	8
EPR 052-DA	11.5	13.4	15.3	17.2	19.1	21.1	23.0	26.8	30.6
EPR 063-DA	20.2	23.6	27.0	30.4	33.7	37.1	40.5	47.2	54.0
EPR 075-DA	33.5	39.0	44.6	50.2	55.8	61.3	66.9	78.1	89.2
EPR 083-DA	47.3	55.2	63.1	71.0	78.9	86.8	94.7	110.5	126.2
EPR 092-DA	64.7	75.5	86.3	97.1	107.9	118.7	129.5	151.0	172.6
EPR 105-DA	95	110	126	142	158	174	189	221	253
EPR 125-DA	163	190	217	244	271	298	326	380	434
EPR 140-DA	255	298	340	383	425	468	511	596	681
EPR 160-DA	404	472	539	606	674	741	809	943	1078
EPR 190-DA	647	755	862	970	1078	1186	1294	1509	1725
EPR 210-DA	790	922	1054	1185	1317	1449	1580	1844	2107

Double Acting Actuators (Imperial Unit)

(Unit : inch.pounds)

Actuator Model	Pneumatic Stroke Torque (in.lb) at Operating Pressure (psig)								
	40	60	65	70	80	90	100	116	
EPR 052-DA	99	148	160	172	197	222	246	286	
EPR 063-DA	174	260	282	304	347	391	434	503	
EPR 075-DA	287	431	466	502	574	646	718	832	
EPR 083-DA	402	603	653	703	803	904	1004	1165	
EPR 092-DA	555	833	902	972	1111	1249	1388	1610	
EPR 105-DA	804	1206	1306	1406	1607	1808	2009	2331	
EPR 125-DA	1367	2050	2221	2392	2734	3075	3417	3964	
EPR 140-DA	2143	3215	3483	3751	4286	4822	5358	6215	
EPR 160-DA	3359	5039	5458	5878	6718	7558	8398	9741	
EPR 190-DA	5263	7895	8553	9210	10526	11842	13158	15263	
EPR 210-DA	6429	9644	10448	11252	12859	14466	16074	18645	

Air Consumption (Air Volume Opening & Closing)

Actuator Model	Metric Unit (g)		Imperial Unit (Cu.in)	
	Opening	Closing	Opening	Closing
EPR 052	0.12	0.16	7.3	9.8
EPR 063	0.2	0.26	12.2	15.9
EPR 075	0.33	0.42	20.1	25.6
EPR 083	0.47	0.62	28.7	37.8
EPR 092	0.64	0.86	39.1	52.5
EPR 105	0.93	1.24	56.8	75.7
EPR 125	1.6	2.06	97.6	125.7
EPR 140	2.42	3.34	147.7	203.8
EPR 160	3.9	5.1	238.0	311.2
EPR 190	6.1	8.1	372.2	494.3
EPR 210	7.4	10.3	451.6	628.5

Air Consumption depends on Air Supply, Air volume and Action cycle times, the calculating as follows : $Q/Min = Air\ volume\ (Air\ volume\ Opening + Air\ volume\ closing) \times \left[\frac{Air\ Supply\ (Kpa) + 101.3}{101.3} \right] \times Action\ cycle\ times\ (/Min)$

Weights Table

Actuator Model	Metric Unit (kg)		Imperial Unit (pounds)	
	Double Acting	Spring Return	Double Acting	Spring Return
EPR 052	1.4	1.5	3.1	3.3
EPR 063	2.2	2.5	4.9	5.5
EPR 075	3	3.4	6.6	7.5
EPR 083	3.8	4.3	8.4	9.5
EPR 092	5.2	6	11.5	13.2
EPR 105	6.7	8	14.8	17.6
EPR 125	10.4	12.3	22.9	27.1
EPR 140	15.6	18.6	34.4	41.0
EPR 160	22.7	27.2	50.0	60.0
EPR 190	35.3	42.7	77.8	94.1
EPR 210	44.8	55.0	98.8	121.3

Operating Time

(Unit : sec)

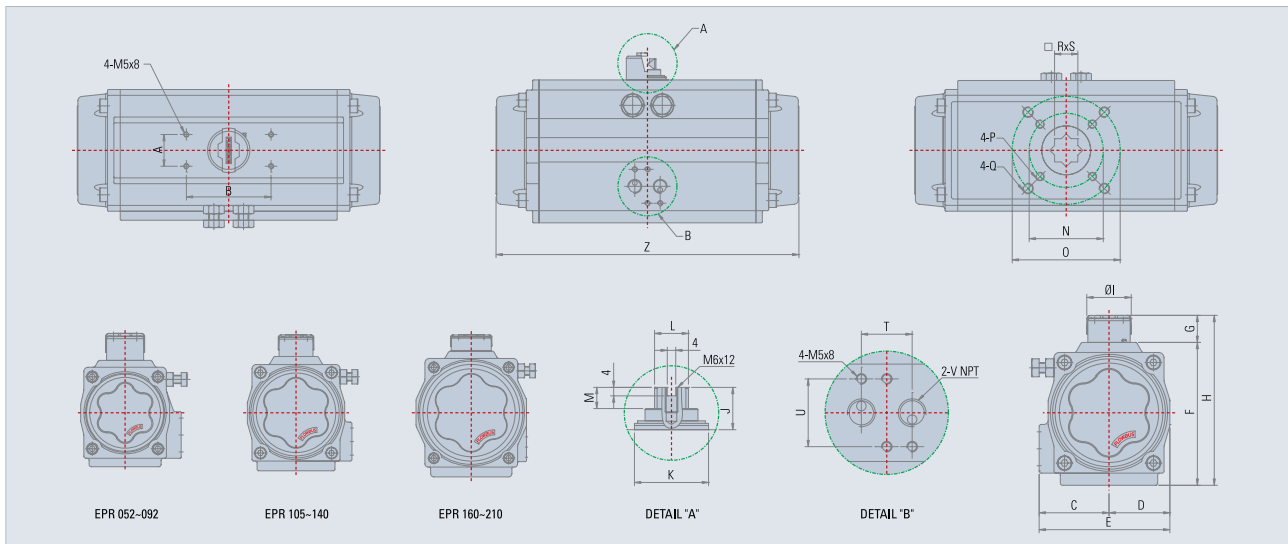
Actuator Model	Opening Time		Closing Time		Actuator Model	Opening Time		Closing Time	
	Double Acting	Spring Return	Double Acting	Spring Return		Double Acting	Spring Return	Double Acting	Spring Return
EPR 052	0.07	0.11	0.10	0.19	EPR 125	1.1	1.5	1.2	2.0
EPR 063	0.13	0.18	0.17	0.32	EPR 140	1.6	2.1	1.8	2.1
EPR 075	0.21	0.31	0.31	0.51	EPR 160	2.4	3.5	2.8	3.0
EPR 083	0.30	0.44	0.40	0.73	EPR 190	3.8	6.1	4.5	4.7
EPR 092	0.4	0.6	0.6	0.8	EPR 210	4.6	6.6	5.6	6.5
EPR 105	0.6	0.9	0.8	1.2					

The above indicated moving time of the actuator, are obtained in the following test conditions :

1.flow capacity Qn=800 Liter/min 2.solenoid valve with orifice of 5.7mm 3.inside pipe diameter 8mm 4.Air supply pressure 5.5bar (79.75psi) 5.Medium clean air 6.Temperature :ATM 7.Actuator without external resistance load.

Cautions :obviously on the field applications when one or more of the above parameter are different, the moving time will be different

Dimensions



Actuator Model	Metric Unit (mm)																						
	A	B	C	D	E	F	G	H	φI	J	φK	L	M	φN	φO	P	Q	R	S	T	U	V(ISO228)	Z
EPR 052	30	80	41.5	29.5	71	73	25.6	98.6	37	20	22	12	12	36	50		M6 ×10	11	14	24	32	1/4"NPT	150
EPR 063	30	80	47	35.5	82.5	88	25.6	113.6	37	20	26	12	12	50	70	M6 ×10	M8 ×13	14	16	24	32	1/4"NPT	177.4
EPR 075	30	80	53	42	95	100.5	25.6	126.1	37	20	30	12	12	50	70	M6 ×10	M8 ×13	14	17	24	32	1/4"NPT	200
EPR 083	30	80	57	46.5	103.5	109	25.6	134.6	37	20	30	12	12	50	70	M6 ×10	M8 ×13	17	21	24	32	1/4"NPT	234.2
EPR 092	30	80	61	51	112	119.5	25.5	145.0	42	20	35	16	12	70	102	M8 ×13	M10 ×16	17	21	24	32	1/4"NPT	262
EPR 105	30	80	66	57.5	123.5	135	25.5	160.5	42	20	35	16	12	70	102	M8 ×13	M10 ×16	22	26	24	32	1/4"NPT	286.2
EPR 125	30	80	74	68	142	157.5	25.8	183.3	65	20	48	22	12	70	102	M8 ×13	M10 ×16	22	26	24	32	1/4"NPT	336
EPR 140	30	80	81	75.5	156.5	175	25.8	200.8	65	20	53	22	12	102	125	M10 ×16	M12 ×20	27	31	24	32	1/4"NPT	417.4
EPR 160	30	80	87	87	174	198	25.8	223.8	65	20	58	22	12	102	125	M10 ×16	M12 ×20	27	31	24	32	1/4"NPT	494.2
EPR 190	30	130	103	103	206	234	35.8	269.8	83	30	64	32	18	125		M12 ×20		36	40	24	32	1/4"NPT	547.2
EPR 210	30	130	113	113	226	259	35.8	294.8	83	30	74	32	18	140		M16 ×25		36	40	24	32	1/4"NPT	566.6

Actuator Model	Imperial Unit (inches)																						
	A	B	C	D	E	F	G	H	φI	J	φK	L	M	φN	φO	P	Q	R	S	T	U	V(ISO228)	Z
EPR 052	1.18	3.15	1.63	1.16	2.80	2.87	1.01	3.88	1.46	0.79	0.87	0.47	0.47	1.42	1.97		M6 ×10	0.433	0.55	0.945	1.26	1/4"NPT	5.91
EPR 063	1.18	3.15	1.85	1.40	3.25	3.46	1.01	4.47	1.46	0.79	1.02	0.47	0.47	1.97	2.76	M6 ×10	M8 ×13	0.551	0.63	0.945	1.26	1/4"NPT	6.98
EPR 075	1.18	3.15	2.09	1.65	3.74	3.96	1.01	4.96	1.46	0.79	1.18	0.47	0.47	1.97	2.76	M6 ×10	M8 ×13	0.551	0.67	0.945	1.26	1/4"NPT	7.87
EPR 083	1.18	3.15	2.24	1.83	4.07	4.29	1.01	5.30	1.46	0.79	1.18	0.47	0.47	1.97	2.76	M6 ×10	M8 ×13	0.669	0.83	0.945	1.26	1/4"NPT	9.22
EPR 092	1.18	3.15	2.40	2.01	4.41	4.70	1.00	5.71	1.65	0.79	1.38	0.63	0.47	2.76	4.02	M8 ×13	M10 ×16	0.669	0.83	0.945	1.26	1/4"NPT	10.31
EPR 105	1.18	3.15	2.60	2.26	4.86	5.31	1.00	6.32	1.65	0.79	1.38	0.63	0.47	2.76	4.02	M8 ×13	M10 ×16	0.866	1.02	0.945	1.26	1/4"NPT	11.27
EPR 125	1.18	3.15	2.91	2.68	5.59	6.20	1.02	7.22	2.56	0.79	1.89	0.87	0.47	2.76	4.02	M8 ×13	M10 ×16	0.866	1.02	0.945	1.26	1/4"NPT	13.23
EPR 140	1.18	3.15	3.19	2.97	6.16	6.89	1.02	7.91	2.56	0.79	2.09	0.87	0.47	4.02	4.92	M10 ×16	M12 ×20	1.063	1.22	0.945	1.26	1/4"NPT	16.43
EPR 160	1.18	3.15	3.43	3.43	6.85	7.80	1.02	8.81	2.56	0.79	2.28	0.87	0.47	4.02	4.92	M10 ×16	M12 ×20	1.063	1.22	0.945	1.26	1/4"NPT	19.46
EPR 190	1.18	5.12	4.06	4.06	8.11	9.21	1.41	10.62	3.27	1.18	2.52	1.26	0.71	4.92		M12 ×20		1.417	1.57	0.945	1.26	1/4"NPT	21.54
EPR 210	1.18	5.12	4.45	4.45	8.90	10.20	1.41	11.61	3.27	1.18	2.91	1.26	0.71	5.51		M16 ×25		1.417	1.57	0.945	1.26	1/4"NPT	22.31



» Technical Data

Spring Return Output Torque (N.m)

(Unit : N.m)

Actuator Model	Spring Torque		Pneumatic Stroke Torque (N.m) at Operating Pressure (bar)							
	Position of stroke	Position of stroke	3	4	4.5	5	5.5	6	7	
EPRY160E-S1	Break	260	Start	305	461	539	617	695	773	
	Run	125	Run	88	151	182	214	245	277	
	End	184	Break	93	204	260	316	372	427	
EPRY160E-S2	Break	371	Start		391	469	548	626	704	860
	Run	178	Run		109	140	171	203	234	297
	End	262	Break		101	157	213	269	325	436
EPRY160-S1	Break	520	Start	609	922	1078	1234	1390	1546	
	Run	250	Run	177	302	365	428	490	553	
	End	368	Break	185	408	520	631	743	855	
EPRY160-S2	Break	741	Start		783	939	1095	1251	1407	1720
	Run	356	Run		217	280	343	406	468	594
	End	524	Break		203	314	426	538	649	872
EPRY190E-S1	Break	442	Start	513	777	909	1041	1173	1305	
	Run	216	Run	151	259	313	367	421	475	
	End	312	Break	154	342	437	531	625	719	
EPRY190E-S2	Break	641	Start		653	784	916	1048	1180	1444
	Run	313	Run		181	235	289	343	397	505
	End	452	Break		158	252	346	440	535	723
EPRY190-S1	Break	884	Start	1027	1554	1818	2082	2346	2609	
	Run	432	Run	302	518	626	734	842	950	
	End	624	Break	308	685	873	1061	1250	1438	
EPRY190-S2	Break	1281	Start		1305	1569	1833	2097	2360	2888
	Run	626	Run		363	471	579	687	795	1011
	End	904	Break		316	504	693	881	1069	1446
EPRY210E-S1	Break	591	Start	699	1056	1234	1413	1591	1769	
	Run	289	Run	201	345	417	489	561	633	
	End	416	Break	214	469	596	724	851	978	
EPRY210E-S2	Break	850	Start		894	1072	1250	1429	1607	1964
	Run	415	Run		244	316	388	460	532	676
	End	599	Break		228	355	483	610	738	992
EPRY210-S1	Break	1183	Start	1399	2112	2469	2825	3182	3538	
	Run	578	Run	402	690	834	978	1122	1266	
	End	833	Break	428	938	1193	1447	1702	1957	
EPRY210-S2	Break	1701	Start		1787	2144	2501	2857	3214	3927
	Run	831	Run		488	632	776	920	1064	1352
	End	1197	Break		456	711	966	1220	1475	1985

Double Acting Output Torque (N.m)

(Unit : N.m)

Actuator Model	Position of stroke	Pneumatic Stroke Torque (N.m) at Operating Pressure (bar)							
		3.0	4.0	4.5	5.0	5.5	6.0	7.0	8.0
EPRY160E-DA	Start	483	643	724	804	885	965	1126	1287
	Run	212	282	318	353	388	424	494	565
	Break	351	468	527	585	644	702	819	936
EPRY160-DA	Start	965	1287	1448	1609	1769	1930	2252	2574
	Run	424	565	635	706	777	847	988	1129
	Break	702	936	1053	1170	1287	1404	1638	1872
EPRY190E-DA	Start	815	1087	1223	1358	1494	1630	1902	2173
	Run	362	483	543	604	664	724	845	966
	Break	593	791	889	988	1087	1186	1383	1581
EPRY190-DA	Start	1630	2173	2445	2717	2988	3260	3803	4347
	Run	724	966	1087	1207	1328	1449	1690	1932
	Break	1186	1581	1779	1976	2174	2372	2767	3162
EPRY210E-DA	Start	1102	1469	1653	1837	2020	2204	2571	2939
	Run	490	653	735	816	898	979	1143	1306
	Break	802	1069	1202	1336	1470	1603	1871	2138
EPRY210-DA	Start	2204	2939	3306	3673	4041	4408	5142	5877
	Run	979	1306	1469	1632	1795	1959	2285	2612
	Break	1603	2138	2405	2672	2939	3207	3741	4276

* Imperial unit can be provided if required. Contact our sales division at sales@flowbus.com

Air Consumption (Air volume opening & closing)

(Unit: l)

Actuator Model	Opening	Closing
EPRY160E	5.1	3.2
EPRY160	5.8	6.4
EPRY190E	8.5	5.2
EPRY190	9.1	10.3
EPRY210E	10.6	7.2
EPRY210	10.8	14.3

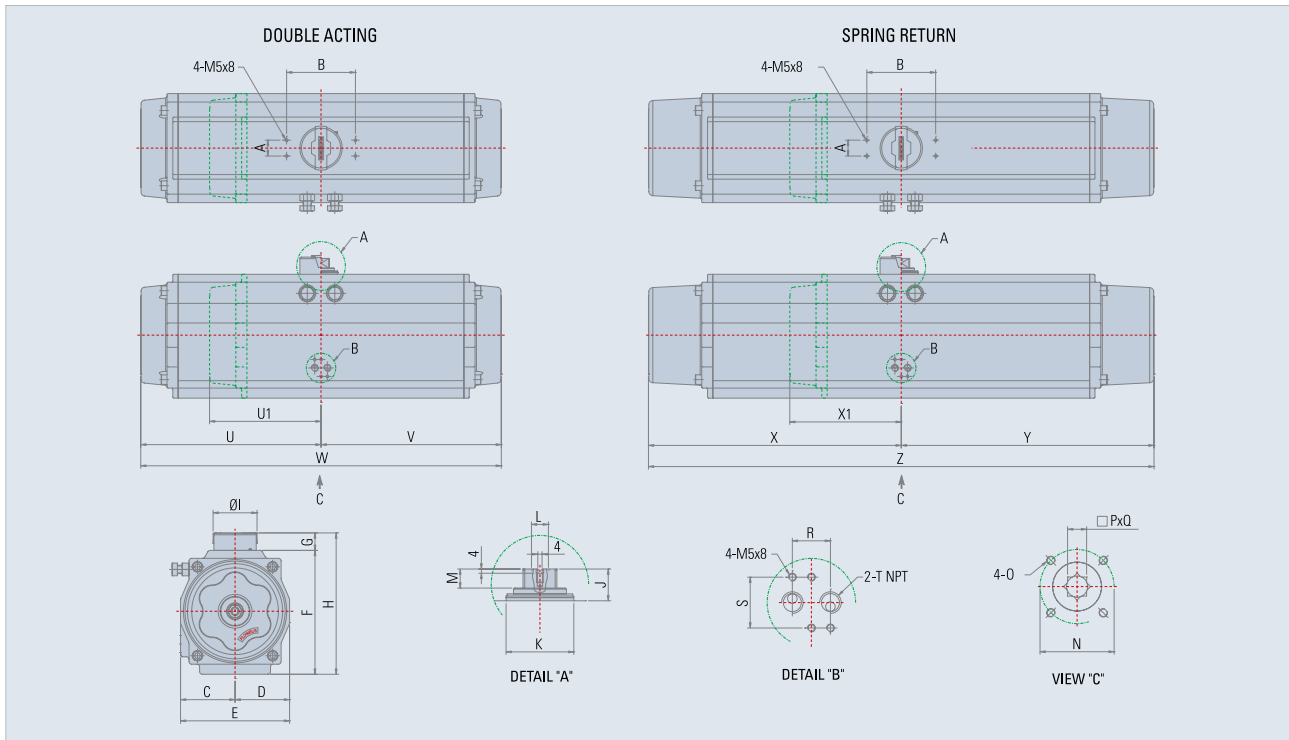
Air Consumption depends on Air Supply, Air volume and Action cycle times, the calculating as follows: $Q/Min = Air\ volume\ (Air\ volume\ Opening + Air\ volume\ closing) \times \left[\frac{Air\ Supply\ (Kpa) + 101.3}{101.3} \right] \times Action\ cycle\ times\ (/Min)$

Weight Table

(Unit: kg)

Actuator Model	Double Acting	Spring Return
EPRY160E	22.5	30.1
EPRY160	28	43.2
EPRY190E	35.2	50.1
EPRY190	43.8	74
EPRY210E	48.2	68.6
EPRY210	59.7	100.8

Dimensions



(Unit: mm)

Actuator Model	A	B	C	D	E	F	G	H	ØI	J	ØK	L	M	ØN	O	P	Q	R	S	T	U/U1	V	W	X/X1	Y	Z
EPRY160E	30	130	87	87	174	198	35.8	233.8	83	30	55	32	18	125	M12×20	36	40	24	32	1/4"NPT	188.1	298.1	486.2	188.1	404.6	592.7
EPRY160	30	130	87	87	174	198	35.8	233.8	83	30	55	32	18	125	M12×20	36	40	24	32	1/4"NPT	298.1	298.1	596.2	404.6	404.6	809.2
EPRY190E	30	130	103	103	206	234	35.8	269.8	83	30	64	32	18	140	M16×25	36	40	24	32	1/4"NPT	210.6	340.6	551.2	210.6	477.6	688.2
EPRY190	30	130	103	103	206	234	35.8	269.8	83	30	64	32	18	140	M16×25	36	40	24	32	1/4"NPT	340.6	340.6	681.2	477.6	477.6	955.2
EPRY210E	30	130	113	113	226	259	35.8	294.8	83	30	64	32	18	140	M20×30	46	51	24	32	1/4"NPT	227.8	374.8	602.6	227.8	526.3	754.1
EPRY210	30	130	113	113	226	259	35.8	294.8	83	30	64	32	18	165	M20×30	46	51	24	32	1/4"NPT	374.8	374.8	749.6	526.3	526.3	1052.6

* Imperial unit can be provided if required. Contact our sales division at sales@flowbus.com