



**BR 31a · Quarter-turn actuator Edition 2010**

Version SRP · Actuator with 180° Opening angle



**Applications**

Single-acting piston actuators for butterfly valves, ball valves and other final control elements with rotary closure members. Particularly suitable for high process requirements in chemical plants:

- **Opening angle 180°**
- **Temperatures -20°C to +80°C**



## General informations

Single acting 180° actuators provide a rotation of 180° and in case of air or electric failure the closing is provided by the spring return operation.

The external travel stop adjustments are available as a standard in fully OPEN position (180°) and in fully CLOSE position (0°), and they are easily and precisely adjustable by +/-5° in both directions.

## Applications

Fields of application: 3 or 4 way valves, special valves for sample taking and any application where a 180° rotation is required.

## Specification

Max. supply pressure:	8 bar
Operating pressure:	2.5 - 8 bar
Temperature:	-20°C to +80°C
Other Dimensions:	see standard data sheet
Operating media:	see manual instruction

## Dimensions of quarter-turn actuator

Table 1: Dimensions in mm

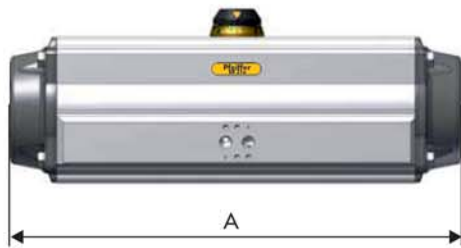
Actuator SRP <sup>2)</sup>	A	B	C	D	E	F	G	N	P <sup>3)</sup>	R	S	Z1	T-ISO 228	ISO Flange <sup>1)</sup>	Q	Q1	W	W1
15	258	69	71	M5x8	M5x8	80	30	11	20	32	24	42	1/8"	F04	42	-	M5	-
30	291	85	84,5	M5x8	M5x8	80	30	11	20	32	24	42	1/8"	F05 - F07	50	70	M6	M8
60	386	102	93	M5x8	M5x8	80	30	17	20	32	24	42	1/8"	F05 - F07	50	70	M6	M8
100	449	115	106	M5x8	M5x8	80	30	17	20	32	24	42	1/4"	F05 - F07	50	70	M6	M8
150	493	127	118,5	M5x8	M5x8	80	30	17	20	32	24	42	1/4"	F07 - F10	70	102	M8	M10
220	576	145	136	M5x8	M5x8	80	30	27	20	32	24	58	1/4"	F07 - F10	70	102	M8	M10
300	631	157	146,5	M5x8	M5x8	80	30	27	30	32	24	58	1/4"	F07 - F10	70	102	M8	M10
600	802	196	181	M5x8	M5x8	80	30	27	30	32	24	67,5	1/4"	F10 - F12	102	125	M10	M12
1200	1006	245	221,5	M5x8	M5x8	130	30	36	50	32	24	80	1/4"	F14	140	-	M16	-
2000	1142	298,5	262	M6x10	M5x8	130	30	36	50	45	40	115	3/8"	F16	165	-	M20	-



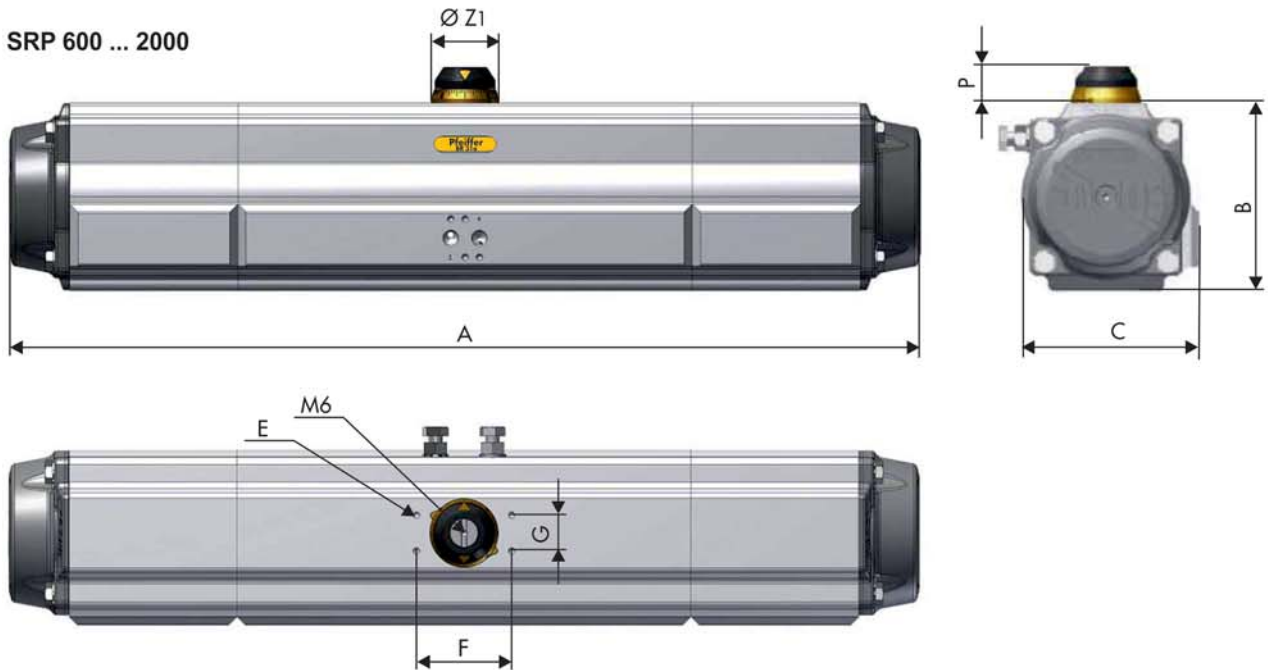
### Info:

- 1) Other connections available
- 2) Other models possible
- 3) For top square drive shaft see data sheet

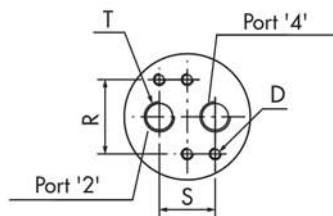
SRP 15 ... 300



SRP 600 ... 2000



Air connection VDI/VDE 3845



Bottom view ISO 5211

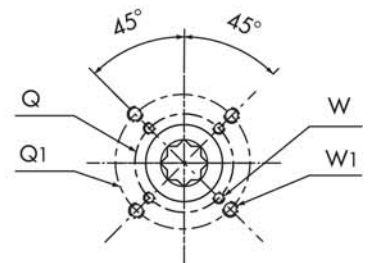


Fig. 1: Dimensional drawing

**Table 2: Spring return actuator output torque (Nm)**

Actuator SRP	Spring set	2.5 bar		3 bar		3.5 bar		4 bar		4.2 bar		4.5 bar		5 bar		5.5 bar		6 bar		7 bar		8 bar		Spring	
		0°	180°	0°	180°	0°	180°	0°	180°	0°	180°	0°	180°	0°	180°	0°	180°	0°	180°	0°	180°	0°	180°	180°	0°
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
15	1	4	1.9	6.0	3.6	7.7	5.3	9.3	6.9	10	7.6	11	8.6	12.7	10.2	14.3	11.9							6.4	4
	2					6.3	3	8.0	5	8.7	5.5	9.7	6.4	11.3	8.1	13	9.8	14.7	11.4	18	14.7			8.5	5.3
	3											8.4	4.3	10	6	11.7	7.6	13.3	9.3	16.7	12.6	20	16	10.6	6.6
	4															10.4	6	12	7.2	15.3	10.5	18.7	13.8	12.8	7.9
30	3	8	4.5	10.9	7.5	13.9	10.4	16.8	13.3	18	14.5	19.7	16.3	22.7	19.2	25.6	22.1							10.1	6.7
	4					11.6	7	14.6	10	15.7	11.1	17.5	12.9	20.4	15.8	23.4	18.7	26.3	21.7	32.2	27.5			13.5	8.9
	5											15.3	9.5	18.2	12.4	21.1	15.4	24.1	18.3	29.9	24.2	35.8	30	16.9	11.1
	6															18.9	12	21.9	14.9	27.7	20.8	33.6	26.7	20.2	13.3
60	3	15.8	8.3	21.6	14.1	27.5	19.9	33.3	25.8	35.6	28.1	39.1	31.6	44.9	37.4	50.7	43.2							21	13.3
	4					23	13	28.8	18.8	31.2	21.2	34.7	24.7	40.5	30.5	46.3	36.3	52.1	42.1	63.7	53.7			27.7	17.7
	5											30.2	17.7	36.1	23.6	41.9	29.4	47.7	35.2	59.3	46.8	71	58.5	34.6	22.1
	6															37.5	22.4	43.3	28.3	54.9	39.9	66.5	51.5	41.5	26.5
100	3	23.8	11.1	32.9	20.3	42.1	29.4	51.2	38.6	54.9	42.2	60.4	47.7	69.5	56.9	78.7	66							34.7	22
	4					34.7	17.9	43.9	27	47.5	30.7	53	36.2	62.2	45.3	71.3	54.5	80.5	63.6	98.8	81.9			46.2	29.3
	5											45.7	24.6	54.8	33.8	64	42.9	73.1	52.1	91.5	70.4	110	88.7	57.8	36.7
	6															56.7	31.4	65.8	40.5	84.1	58.8	102	77.1	69.3	44
150	3	36.1	19.2	49.4	32.5	62.7	45.8	76	59.1	81.3	64.4	89.3	72.4	103	85.7	116	99							47.3	30.4
	4					52.5	30	65.8	43.3	71.1	48.7	79.1	56.6	92.4	69.9	106	83.2	119	96.5	146	123			63	40.5
	5											69	40.9	82.3	54.2	95.6	67.5	109	80.8	135	107	162	134	78.8	50.7
	6															85.4	51.7	99	65	125	92	152	118	94.5	60.8
220	3	58.3	28.8	79.7	50.3	101	71.8	123	93.3	131	102	144	115	166	136	187	158							78.6	49.2
	4					84.8	45.6	106	67.1	115	75.7	128	88.6	149	110	171	132	192	153	235	196			105	65.6
	5											111	62.4	133	83.9	154	105	176	127	219	170	262	213	131	82
	6															138	79.2	159	101	202	144	245	187	157	98.4
300	3	75.5	39.6	103	67.3	131	95	159	123	170	134	186	150	214	178	242	206							98.9	63
	4					110	62	138	89.7	149	101	165	117	193	145	221	173	248	201	304	256			132	84
	5											144	84.5	172	112	200	140	227	168	283	223	338	278	165	105
	6															179	107	206	135	262	190	317	245	198	126
600	3	149	84	206	141	262	198	319	255	342	277	376	311	433	368	489	425							199	135
	4					218	131	274	188	297	211	331	245	388	302	444	358	501	415	615	528			266	180
	5											286	178	343	235	400	292	456	349	570	462	683	575	332	224
	6															355	225	411	282	525	396	638	509	399	269
1200	3	277	154	383	260	489	367	596	473	638	515	702	579	808	686	915	792							378	255
	4					404	241	511	347	553	390	617	453	723	560	830	666	936	772	1149	985			504	340
	5											532	327	638	434	745	540	851	646	1064	859	1277	1072	630	425
	6															660	414	766	520	979	733	1192	946	756	510
2000	3	461	268	640	447	818	625	997	804	1068	876	1176	983	1354	1162	1533	1340							625	433
	4					674	417	853	596	924	667	1032	774	1210	953	1389	1132	1568	1310	1925	1668			834	577
	5											887	566	1066	745	1245	923	1423	1102	1781	1459	2138	1817	1042	721
	6															1101	715	1279	894	1637	1251	1994	1608	1251	865