



BR 31a · Quarter-turn actuator Edition 2010

Version DAP · Actuator with 120°, 135° and 180° Operating angle



Applications

Double-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 120°, 135° and 180°**
- **Temperatures -20°C to +80°C**



Specification

Max. supply pressure: 10 bar
Operating pressure: 2,5 - 8 bar
Other dimensions: see standard data sheet

Torque

With the same operating pressure the torque is equivalent to the standard actuator.
See data sheet of standard actuator.

Working Medium

Refer to manual instruction.

Details

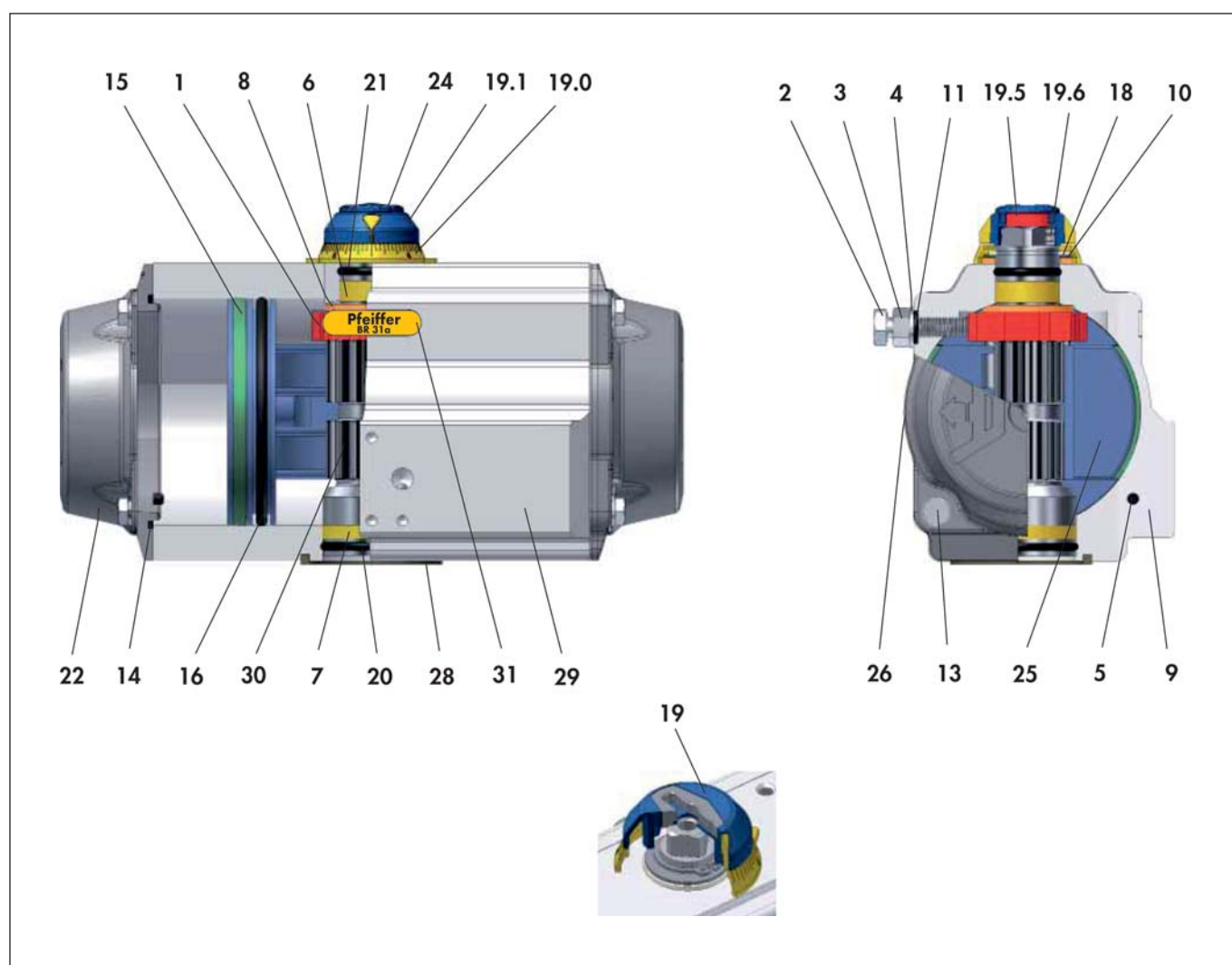


Fig. 1: Quarter-turn Actuator

Table 1: Parts list and Spare parts

No	Qty. / Note	Description	Standard Material ^{3) 4)}
1	1	Octi-Cam (Stop arrangement)	Carbon Steel, zinc coated
2	2	Stop Cap Screw	Stainless Steel
3	2	Nut (Stop screw)	Stainless Steel
4	2	Washer	Stainless Steel
5 ¹⁾	2	Bearing (Piston back)	PA46
6 ¹⁾	1	Bearing (Pinion top)	High-grade polymers
7 ¹⁾	1	Bearing (Pinion bottom)	High-grade polymers
8 ¹⁾	2 (3 for size DAP 600)	Thrust Bearing (Pinion)	PA46
9 ^{1) 2)}	2	Plug	Silicone
10	1	Thrust Washer (Pinion)	Stainless Steel
11 ^{1) 2)}	2	O-Ring (Stop screw)	M-NBR
13	8	Cap Screw (End cap)	Stainless Steel
14 ^{1) 2)}	2	O-Ring (End cap)	M-NBR
15 ¹⁾	2	Bearing (Piston head)	POM
16 ^{1) 2)}	2	O-Ring (Piston)	M-NBR
18	1	Spring Clip (Pinion)	Spring Steel, ENP
19	1 (for size DAP 15 - DAP 30)	Position Indicator	PA66+GF+(CB)
19.0	1	Graduated Ring	PA66+GF+CB
19.1	1 (for size DAP 60 - DAP 4000)	Position Indicator	PA66+GF+(CB)
19.5	1	Top Adaptor	Extruded Aluminium alloy, anodized
19.6	2	Screw (Top Adaptor)	Stainless Steel
20 ^{1) 2)}	1	O-Ring (Pinion bottom)	M-NBR
21 ^{1) 2)}	1	O-Ring (Pinion top)	M-NBR
22	2	End Cap	Pressure Die Cast Aluminium alloy, anod. a. coated
24	1	Screw (Indicator)	PA66+GF+CB
25	2	Piston	Pressure Die Cast Aluminium alloy, anodized
26	1	identification Label	Polyester-Silver
28	1	Spigot (only on request)	Extruded Aluminium alloy, anodized
29	1	Body	Extruded Aluminium alloy, coated
30	1	Drive Shaft	Steel, ENP
31	1	Plastic Insert	Modified PA66

¹⁾ included in spare part kit

²⁾ included in O-ring spare part kit



Info:

3) For detail of material end coating specifications refer to the catalogue.

4) For different soft parts material depending on operation temperature range refer to the catalogue.

Dimensions of quarter-turn actuator

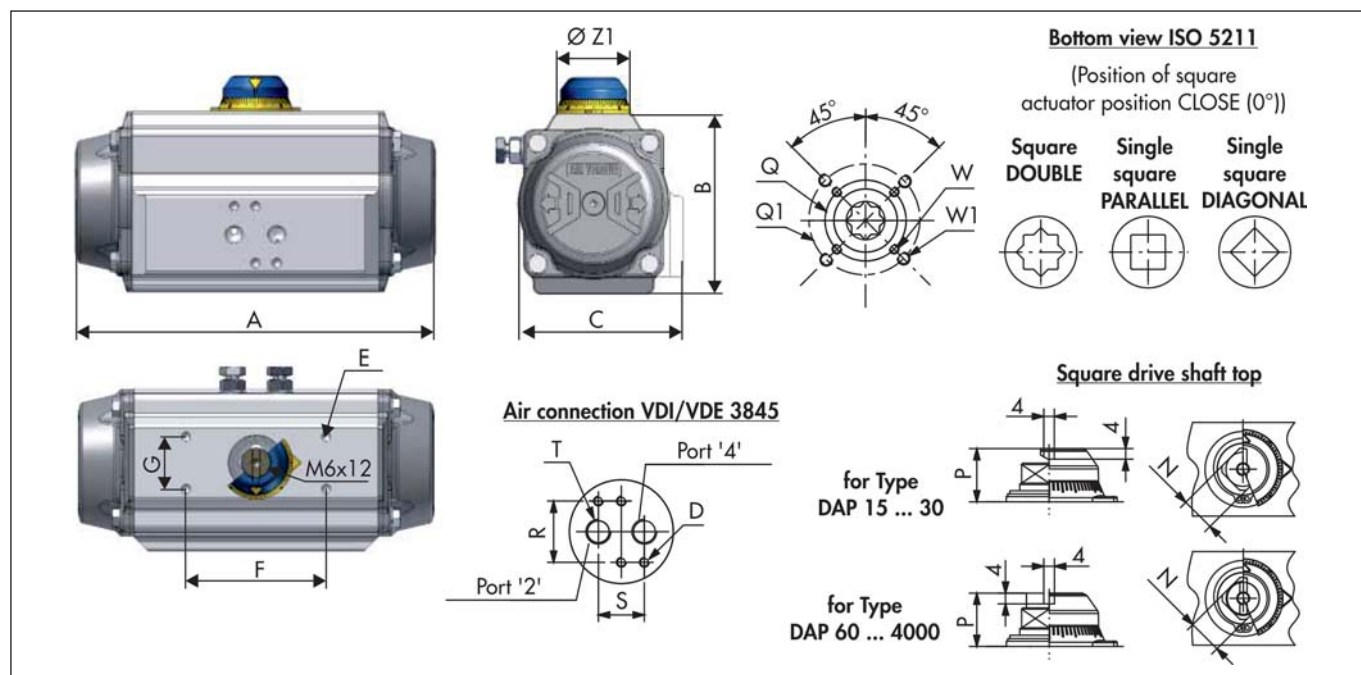


Fig. 2: Dimensional drawing

Table 2: Dimensions mm and Weights in kg

Actuator DAP	Type	A	B	C	D	F	G	N	P	R	S	T-ISO 228	Z1	Q	Q1	W	W1	ISO Flange	VKT	ca. Weight
15	120°	153	69	72	M5x8	80	30	11	20	32	24	1/8"	42	42	-	M5	-	F04	11	1.24
	135°	165																		1.4
	180°	192																		1.57
30	120°	172	85	84.5	M5x8	80	30	11	20	32	24	1/8"	42	50	70	M6	M8	F05+F07	14	2.03
	135°	185																		2.26
	180°	216																		2.52
60	120°	229	102	93	M5x8	80	30	17	20	32	24	1/8"	42	50	70	M6	M8	F05+F07	14	3.29
	135°	247																		3.82
	180°	291																		4.28
100	120°	264	115	106	M5x8	80	30	17	20	32	24	1/8"	42	50	70	M6	M8	F05+F07	17	4.55
	180°	335																		5.93
	120°	292																		6.31
150	120°	292	127	118.5	M5x8	80	30	17	20	32	24	1/4"	42	70	102	M8	M10	F07+F10	17	7.05
	135°	316																		7.75
	180°	372																		10.1
220	120°	345	145	136	M5x8	80	30	27	30	32	24	1/4"	58	70	102	M8	M10	F07+F10	22	11.4
	135°	374																		12.6
	180°	443																		12.1
300	120°	377	157	146.5	M5x8	80	30	27	30	32	24	1/4"	58	70	102	M8	M10	F07+F10	22	13.6
	135°	408																		15.2
	180°	783																		23.8
600	120°	478	196	181	M5x8	80	30	27	30	32	24	1/4"	67.5	102	125	M10	M12	F10+F12	27	26.7
	135°	517																		29.1
	180°	611																		43.5
1200	120°	594	245	221.5	M5x8	130	30	36	50	32	24	1/4"	80	140	-	M16	-	F14	36	48.2
	135°	641																		52.6
	180°	754																		/
2000	120°	/	298.5	262	M6x10	130	30	36	50	45	40	3/8"	115	165	-	M20	-	F16	46	/
	180°	867																		106
3000	120°	/	330	330	M6x10	130	30	36	50	45	40	1/2"	115	165	-	M20	-	F16	46	/
	180°	1023																		127