

PVC & PP-BUTTERFLY VALVE WITH PP PRISMA ACTUATOR

FEATURES

The PL1 butterfly-valves are wafer-style valves intended for current valve applications. This PN10 butterfly-valve of reinforced polypropylene is used to isolate low-pressure water, acid or alkaline* fluid networks. The materials used are anti-UV coated. The valve has an ISO 5211 mounting pad for mounting an actuator. The pneumatic motorisation is available in double- and spring-return with numerous options.

(*Cf. Sectoriel's table of resistance of materials)



AVAILABLE VERSIONS

PVC-U or PP body, PP-GF butterfly, EPDM or FPM sleeve.

DN40 to DN350 diameters.

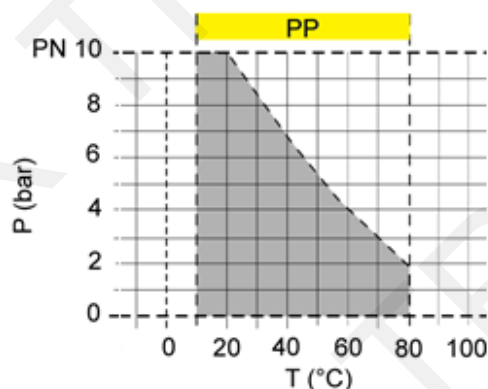
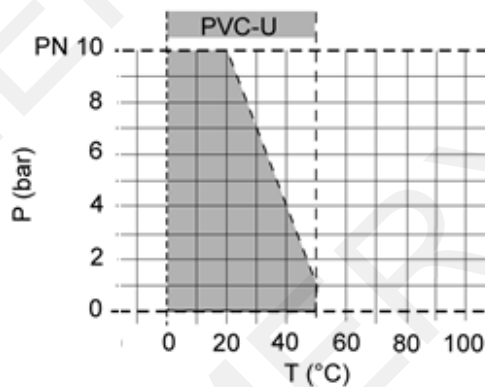
Connection between EN1092-1 PN10 flanges.

PP double-effect actuator or PPS spring-return actuator.



LIMITS OF USE

Fluid pressure: WP	10 bar
Fluid temperature: WT°	See curves
Ambient temperature	0°C to +60°C
Motor compressed air	minimum 3 bar / maximum 8 bar

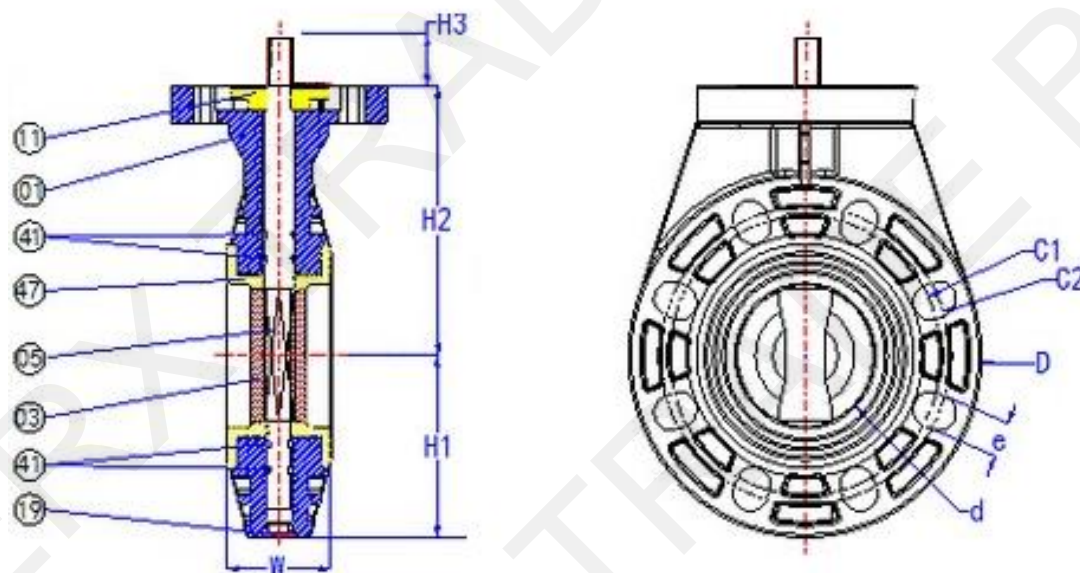


DIRECTIVES AND MANUFACTURING STANDARDS

	Standard		Standard
Pressure Equipment Directive 97/23/EC	DN40 to 350	Category I	Actuator
Connection between flanges	EN 1092-1		Connection Motorisation
Final test	EN 12266		Actuator pilot connection
			Switch box connection
			EN 15714-3
			ISO 5211:
			NAMUR
			VDI/VDE 3845

DIMENSIONS (mm)

DN	d	C1	C2	H1	H2	H3	D	W	e
40	40	98	110	74	114	15	148	34	19
50	52	120	1250	81	124	15	162	44	19
65	66	140	145	89.5	129	19	179	46	19
80	78.5	150	160	97.5	145	18	195	57	19
100	104	175.5	190.5	112.5	160	19	225	60	19
125	127	210	216	127.5	175	16	255	66	23
150	151	240	241	140	190	20	280	72	23
200	200	290	298	172.5	219.5	25	340	82	23



CONSTRUCTION

N°	Item	PL1 PVC-U	PL1 PP
01	Body	PVC-u	PP
03	Butterfly	PP-GF	PP-GF
05	Stem	1.4301 SS	1.4301 SS
11	Stem ring	PVC-u	PP
19	Plug	PP	PP
41	O-ring	EPDM / FPM	EPDM / FPM
47	Liner	EPDM / FPM	EPDM / FPM

FLOW-RATE COEFFICIENT Kv (m³/h)

DN	40	50	65	80	100	125	150	200
Kv	70	87.6	123	201	372	663.6	939	2349

PP PNEUMATIC MOTORISATION

The PRISMA motorisation proposed as standard is meant for:

- safety coefficient of 1.3 minimum compared to the nominal torque of the valve,
- 6 bar air non-lubricated dry motor
- upstream / downstream pressure difference $\Delta P=10$ bar max.

The actuator mount is direct, with POM spacer.

DN	Double-effect	V (litres)	Time (s)*	Spring-return	V (litres)	Time (s)*
40	PP 00	0.18	0.15	PP 10S	0.35	0.3
50	PP 00	0.18	0.15	PP 10S	0.35	0.3
65	PP 00	0.18	0.15	PP 10S	0.35	0.3
80	PP 10	0.35	0.25	PP 10S	0.35	0.3
100	PP 10	0.35	0.25	PP 20S	0.8	0.5
125	PP 20	0.8	0.4	PP 20S	0.8	0.5
150	PP 20	0.8	0.4	-	-	-
200	PP 20	0.8	0.4	-	-	-

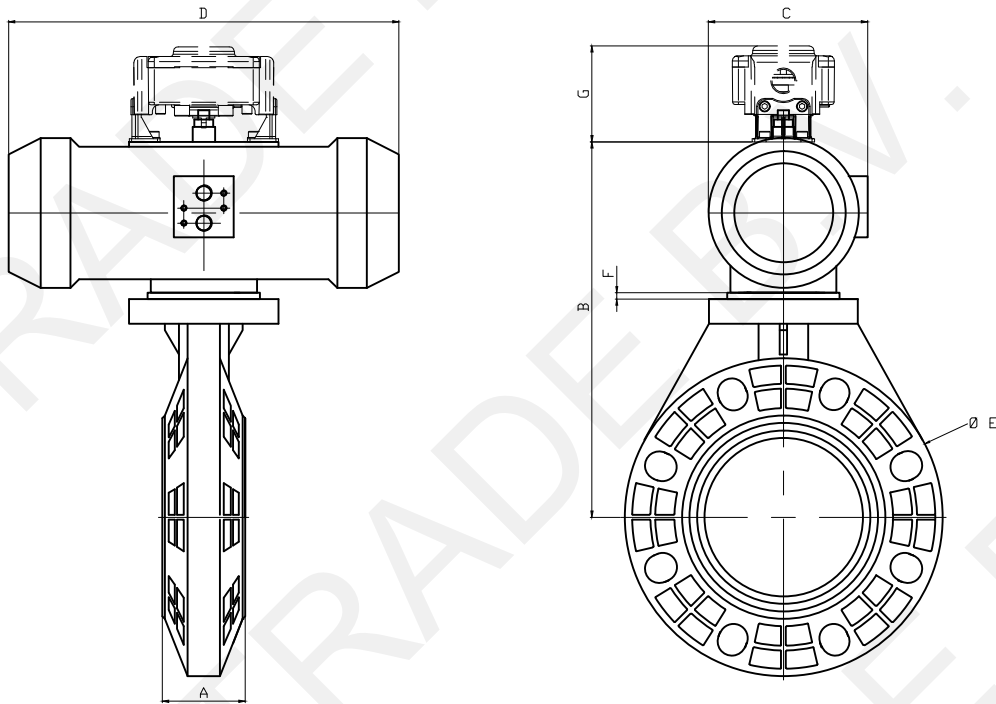
For any other operating conditions, please contact us.

* indicative time for actuator running empty

OPTIONS

There are many options for which you are invited to contact our sales service:

1	actuators dimensioned for a compressed air pressure of 3, 4 or 5 bar
2	actuator dimensioned for an upstream / downstream pressure difference ΔP greater than 10 bar
3	actuator with special coating, stainless steel actuator
4	manual override with declutchable gear box
5	compressed air filter regulator
6	all type pilot solenoid valves
7	all type switch boxes
8	All type positioner
9	quick exhaust
10	flow-rate limiters
11	air lock



DN	40		50		65		80		100		125	
PRISMA	PP00	PP10S	PP00	PP10S	PP00	PP10S	PP10	PP10S	PP10	PP20S	PP20	PP20S
A	34		44		46		57		60		66	
B	200.4	222	210.4	232	215.4	237	253	253	270	295	285	310
C	77.6	97.1	77.6	97.1	77.6	97.1	97.1	97.1	97.1	120.6	120.6	120.6
D	158	230	158	230	158	230	230	230	268	291.4	306.4	306.4
ØE	148		162		179		195		225		255	
F	5		5		5		5		5		5	
G	77		77		77		77		77		77	
KG	1.75	2.96	1.75	2.96	2.25	3.43	3.28	3.66	3.58	6.15	6.95	7.95

DN	150		200	
PRISMA	PP20	ALPHAIR 115 SE	PP20	ALPHAIR 115 SE
A	72		82	
B	321.4	337	350.9	366.5
C	120.6	134	120.6	134
D	313	310	313	310
ØE	280		340	
F	5		5	
G	77	145	77	145
KG	7.45	14.53	10.45	17.53

PRISMA PNEUMATIC ACTUATOR

FEATURES

The Prisma actuator is a standardised 90° pneumatic actuator intended for Spring return and double-effect motorisation for ¼ turn valves. The actuator is operated using a rack and pinion technology. The body and flanges are light, made of glass-fibre-reinforced polyamide with excellent resistance to corrosion. Very reliable, this actuator can be used for hundreds of thousands of manoeuvres without servicing. Standard position indicator.

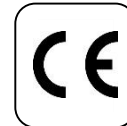
Greased at assembly, the actuator has to be fed with filtered dry air, whether lubricated or not.

AVAILABLE MODELS

PP: double-effect actuator up to 165 Nm

PPS: spring return actuator up to 100 Nm

(Value for a feed pressure of 6 bar)



LIMITS OF USE

Feed pressure	3 to 8 bar
Ambient temperature	-32°C
Maximum exterior temperature	+90°C



DIRECTIVES AND MANUFACTURING STANDARDS

	Standard		Standard
Pressure Equipment Directive 97/23/EC		Switch box connection	VDI/VDE 3845
Directive ATEX 94/9-CE	II2G/D T6 zone 1,2,21 and 22	Connection Pilot	NAMUR
Motorisation connection	ISO 5211 / DIN 3337	SIL3 level	EN 61508

CONSTRUCTION

Body	Glass-fibre-reinforced polyamide
Flanges	Glass-fibre-reinforced polyamide
Piston	Polyamirilamide (PPA)
Pinion (only for the PP10/PP20 models)	Aluminium alloy
Stem	AISI 303 stainless steel
Gaskets	NBR

OPTION

Mechanical, inductive, and pneumatic limit switch boxes

NAMUR solenoid valves

Pneumatic, electro-pneumatic, HART, etc. positioner

Flow-rate limiter, exhaust brake

PRISMA PNEUMATIC ACTUATOR

PP DOUBLE EFFECT ACTUATOR TORQUE (Nm)

Type\PreSSION (bar)	3	4	5	5,5	6	7	8
PPW	7,9	11,3	14,1	15,6	17	19,8	22,9
PP00	13,3	18,3	23,4	26	28,5	33,6	38,7
PP10	32,9	45,6	58,,3	65	71	83,7	96,4
PP20	77,7	107	136,3	150,9	165,4	194,8	224

PPS SPRING RETURN ACTUATOR TORQUE (Nm)

Type	Spring force		Number of spring	3		4		5		5,5		6		7		8	
	90°	0°		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
PPWS	10,4	6,5	4*					7,5	3,6	9,1	5,2	10,6	6,7	13,6	9,7	16,4	12,5
	9,3	5,8	3			5,2	1,8	8,2	4,8	9,8	6,3	11,3	7,8	14,3	10,9	17,1	13,7
	6,5	4,3	2	3,7	1,4	6,7	4,5	9,7	7,5	11,3	9,1	12,8	10,6	15,8	13,6		
	4,5	3	1	5	3,5	8	6,5	11,1	9,6	12,6	11,1	14,1	12,6				
PP00S	18,8	12,7	6*					10,7	4,6	13,3	7,2	15,8	9,7	20,9	14,8	26	19,9
	15,8	10,7	5			7,6	2,5	12,7	7,6	15,3	10,2	17,8	12,7	22,9	17,8	28	22,9
	12,6	8,7	4			9,6	5,7	14,7	10,8	17,3	13,4	19,8	15,9	24,9	21	30	26,1
	9,7	6,6	3	6,7	3,6	11,7	8,6	16,8	13,7	19,4	16,3	21,9	18,8	27	23,9	32,1	29
PP10S	45,6	30,8	6*					27,5	12,7	34,2	19,4	40,2	25,4	52,9	38,1	65,6	50,8
	38	25,7	5			19,9	7,6	32,6	20,3	39,3	27	45,3	33	58	45,7	70,7	58,4
	30,4	20,5	4	12,4	2,5	25,1	15,2	37,8	27,9	44,5	34,6	50,5	40,6	63,2	53,3	75,9	66
	22,8	15,4	3	17,5	10,1	30,2	22,8	42,9	35,5	49,6	42,2	55,6	48,2	68,3	60,9		
PP20S	104,7	65,8	6*					70,5	31,6	85	46,3	99,7	60,8	129	90,1	158,2	119,3
	87,2	54,8	5			52,2	19,8	81,5	49,1	96,2	63,8	110,7	78,3	140	107,6	169,2	136,8
	69,8	43,9	4	33,8	8	63,1	37,2	92,4	66,5	107,1	81,2	121,6	95,7	150,9	125	180,1	154,2
	52,3	32,9	3	44,8	25,4	74,1	54,7	103,4	84	118,1	98,7	132,6	113,2	161,9	142,5		
	34,9	21,9	2	55,8	42,8	85,1	72,1	114,4	101,4	129,1	116,1	143,6	130,6				

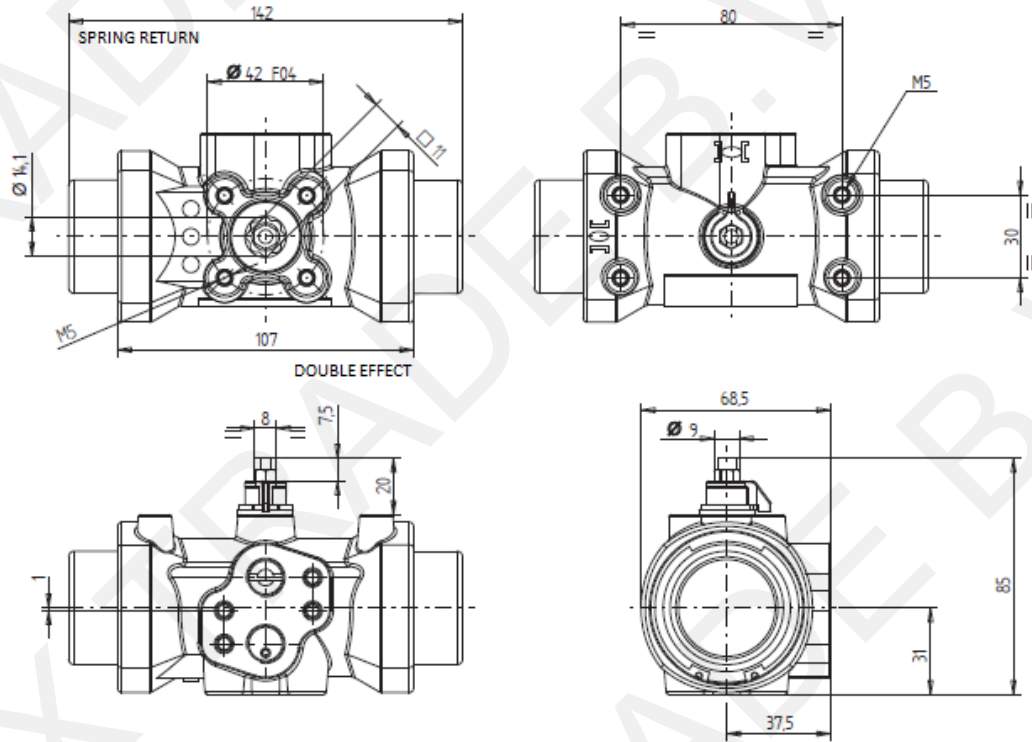
*Standard number of springs

TECHNICAL DATA

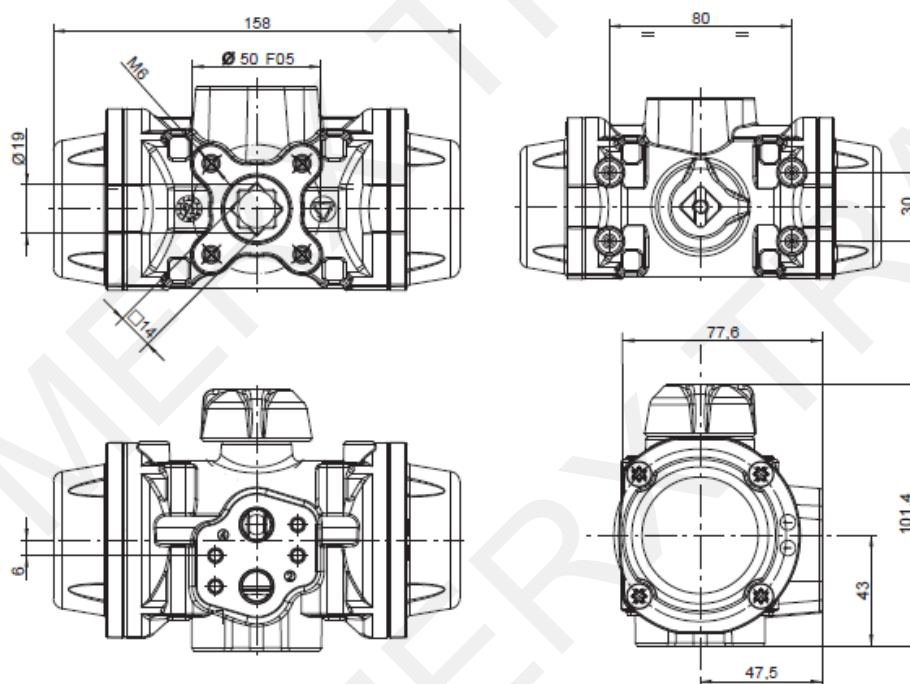
Type	Operating time (Sec.)		Weight (Kg)	Air's volume (litre)	
	open	close		open	close
PPW	0,1	0,1	0,33	0,075	0,05
PPWS	0,15	0,15	0,47	0,075	
PP00	0,15	0,15	0,83	0,15	0,18
PP00S	0,2	0,2	1	0,15	
PP10	0,25	0,25	1,65	0,35	0,45
PP10S	0,3	0,3	2,03	0,35	
PP20	0,4	0,4	3,22	0,8	1,15
PP20S	0,5	0,5	4,22	0,8	

PRISMA PNEUMATIC ACTUATOR

DIMENSIONS PPW/PPWS (mm)

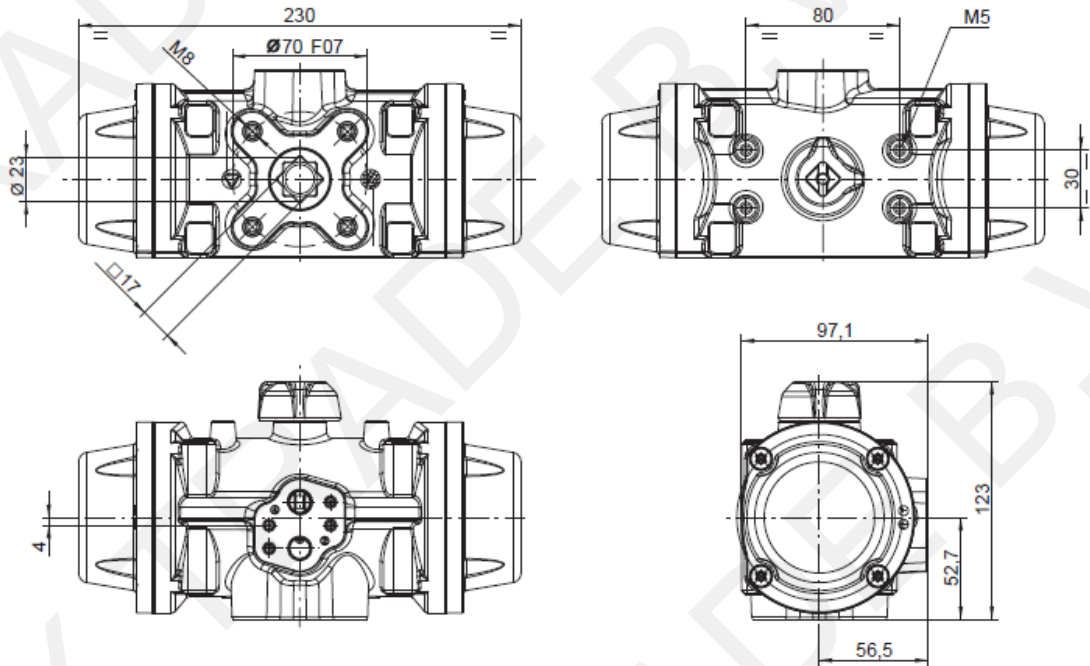


DIMENSIONS PP00/PP00S (mm)



PRISMA PNEUMATIC ACTUATOR

DIMENSIONS PP10/PP10S (mm)



DIMENSIONS PP20/PP20S (mm)

