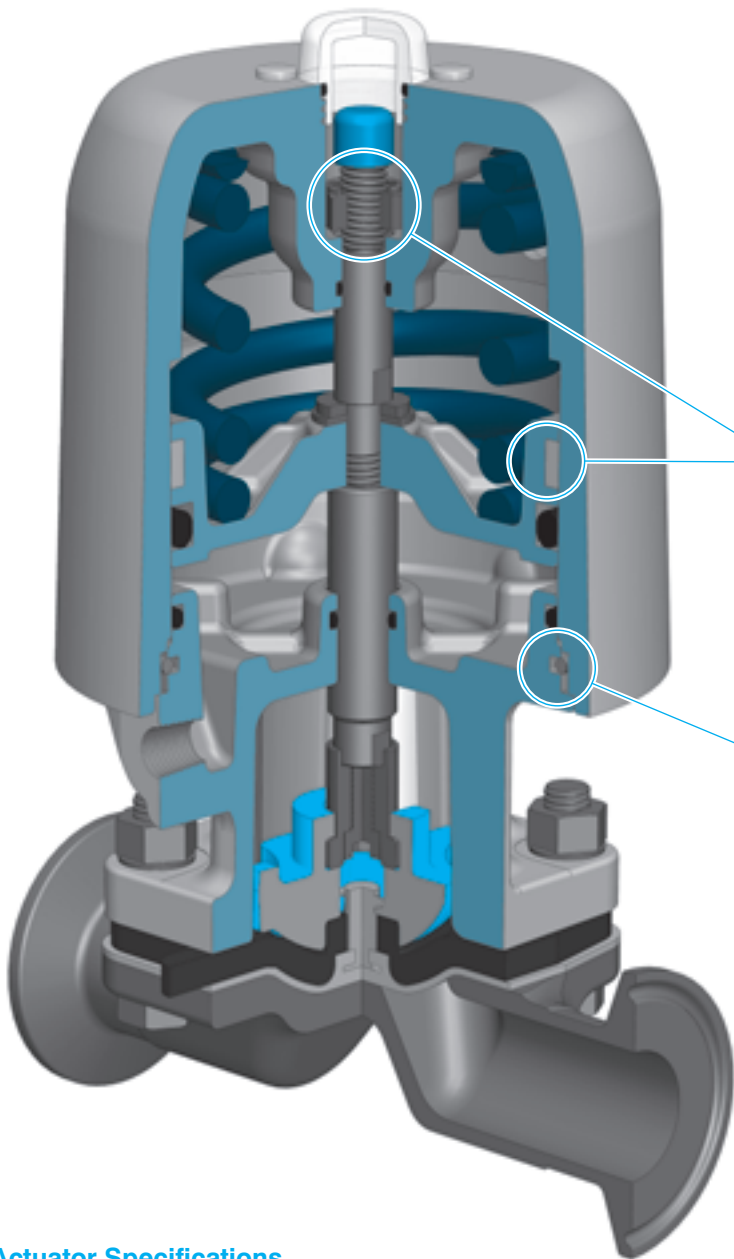


1-4. Pneumatically Operated ON-OFF Valves (Standard): BPO1400NB (N)

1 Features of Actuator (BPO1400NB)



Significantly Light Weight, Compactness

- Comparison with our conventional product (BPO1400N)
- Mass: Max. weight reduction of approx. 13%!
- Height: Max. compactification of 22%!
- Outer Diameter: Max. compactification of 18%!
- Air Consumption: Max. air saving of 20%!

Significantly Improved Smoothness of Action and Durability

- The adopted outer wear ring for the piston provides the smoothness of action to significantly enhance the durability.
- The adopted stopper nut prevents the excessive loading on diaphragm

Excellent External Shape for Cleaning

- The adopted retaining ring for fixing the bonnet and cylinder and the built-in exhausting plug improve the cleanability owing to the extreme reduction of surface roughness of actuator.

Eco-Friendly Paint

- Eco-friendly paint is adopted for the white baked finishing for the actuator surface. (The corrosion proof performance of this paint was confirmed through the dip tests performed using various CIP liquid and washing agents.)

Bio-Clean Diaphragm Valves
Pneumatically Operated ON-OFF Valves

Products for Dead Spaces

Special Valves · Related Products

Sanitary Valves · Clean Room Related Products

Technical Materials

Safety Instructions

Actuator Specifications

Types	BPO (BPC, BPN) 1400NB (N)*
Actuator Code	07, 09, 12, 16, 16B, 20B, 25B*
Types of Operation	Single Acting: Reverse Acting BPO (Air to Open / Spring to Close) Direct Acting BPC (Air to Close / Spring to Open) Double Acting: BPN (Air to Open / Air to Close)
Nominal Size (DN)	15–100*
Actuator Materials	Cylinder: ADC12 Bonnet: ADC12 (SCS13A for BPO1400N) Standard Painting: White thermal curing acrylic resin paint (eco-friendly) baked finish
Operating Pressure	0.4 ^{+0.1} MPa • Option: 0.3 ^{+0.1} MPa**
Max. Shutoff Differential Pressure	1.0MPa
Lubricants	Cassida Grease HDS2 (Standards regarding food additives: FDA21CFR178.3570. Lubricants with permission of incidental contact with food: NSF Class H1 conforming product)
Options***	Opening limit device, Special limit switch box (Eco-friendly type, white baked finish)

* DN65–100 are equipped with BPO1400N-16B-25B. The basic specifications, such as action performance with wear ring, corresponding options are the same.
** The 0.3 MPa actuator is equipped with BPO1400N. Please refer to page 44 for the actuator selection table.
*** The commercially-supplied accessories may be attached as requested. Please contact our sales dept. or local representative for the details.

2 Actuator Selection Table

Reverse Acting: BPO1400NB (N)

		New PTFE Diaphragm									
Nominal Size (DN)	Actuator	Working Pressure (MPa)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
15	07										(*1)
20	09										
25	09										(*1)
40	12										
50	16										
65	Right Table**				16B					20B	
80	Right Table**									25B	
100	Right Table**	20B				25B					

* Option, ** BPO1400N

Direct Acting: BPC1400NB (N)

		New PTFE Diaphragm									
Nominal Size (DN)	Actuator	Working Pressure (MPa)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
15	07										
20	09										
25	09										
40	12										
50	16										
65	Right Table**						16B				20B
80	Right Table**										25B
100	Right Table**	20B							25B		

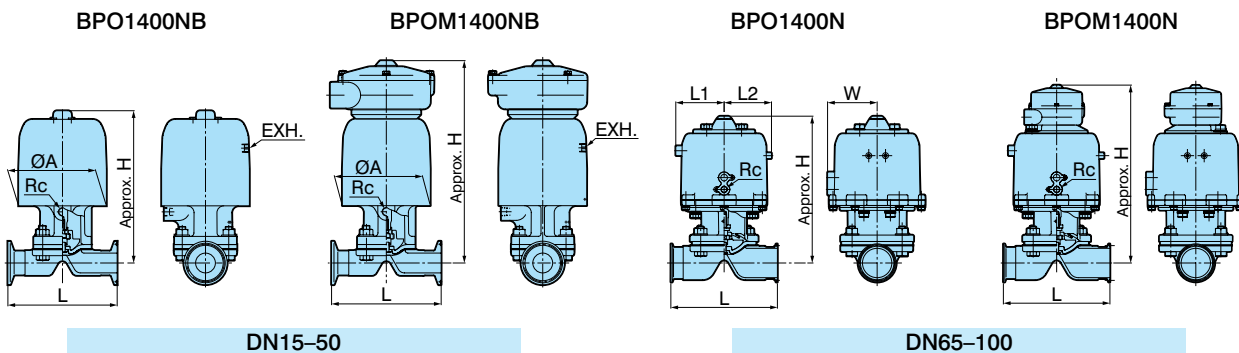
* BPC1400N

Double Acting: BPN1400NB (N)

		New PTFE Diaphragm									
Nominal Size (DN)	Actuator	Working Pressure (MPa)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
15	07										
20	09										
25	09										
40	12										
50	16										
65	16B										
80	20B										
100	Right Table**			20B						25B	

* BPN1400N

3 Major Dimensions



Unit: mm

Nominal Size	Actuator	L	Approx. H		Rc	ØA	L1	L2	W	Mass (Approx. kg)		
			BPO BPC BPN	BPOM BPCM BPNM						BPO	Added Mass of Special Limit Switches BPOM	
DN	S											
15	—	07	102	145	202	1/8	87	—	—	—	1.4	+1.0
20	—	09	118	164	221		102	—	—	—	2.1	
25	1	09	127	177	234		102	—	—	—	2.3	
40	1.5	12	159	196	253		138	—	—	—	4.6	
50	2	16	191	237	295		183	—	—	—	8.7	
65	2.5	16B*	216	297	360	1/4	—	98	96	101	12.5	+1.5
		20B*		348	411		—	119	117	122	18.5	
80	3	20B*	254	368	431	—	119	117	122	22.7	+1.5	
		25B*		406	469	—	143	143	147	36.1		
100	4	20B*	305	386	449	—	119	117	122	29.9	+1.0	
		25B*		425	487	—	143	143	147	43.3	+1.5	

* BPO1400N

• The above table is based on Ferrule main body made of SUS316L. Contact us for detailed dimensions for each valve.