

## B-FLAP I (PRO) - EXPLOSION ISOLATION FLAP



Explosion isolation flap B-FLAP I (PRO) is a protective system which prevents propagation of dust explosion through the connecting pipeline into subsequent parts of the protected technology.

Installation of flap B-FLAP I (PRO) is possible regardless of flow direction in the pipeline. Arisen explosion pressure wave closes the B-FLAP I (PRO) so the technology is separated from its connected parts and propagation of flame front, and explosion pressure is stopped. B-FLAP I (PRO) is locked in a closed position if an explosion occurs.

Explosion isolation flap B-FLAP I (PRO) is designed in accordance with European norm 2014/34/EU and certified in accordance with EN 16647, EN 15089, and EN ISO 80079-36. Explosion isolation flap B-FLAP I (PRO) belongs to equipment group II of explosion protection devices for hazardous areas inside flap as Zone 20 and 1 and outside flap as Zone 21 and 1.

### MATERIAL

Welded body	Structural steel (Stainless Steel optional).
Coating	Powder coating RAL 3000 (different colour optional).
Flange gasket	EPDM supplied with B-FLAP I (PRO).
Fasteners	Supplied with B-FLAP I (PRO).
Flange	In accordance with DIN EN 12 220 - R1 (DN 100 ÷ DN 500), R2 (DN 560 ÷ DN 800).

### OPTIONAL ACCESSORIES

Position indicator	Indicates position of B-FLAP I (PRO) (open/closed), indicator is connected to intrinsically safe relay. Certified in accordance with ATEX.
Dust sensor	Indicates dust pollution inside welded body of B-FLAP I (PRO), sensor is connected to intrinsically safe relay.
Intrinsically safe relay	Creates an interface between a safe and a dangerous zone.
Special flange gasket	Gasket seal in accordance to customer's need.
B-FLAP I (PRO) abrasion-resistant finish	Protects the flap against abrasion.
Operating temperature	Possibility to increase operating temperature to 150 °C (DN 100 ÷ DN 630).

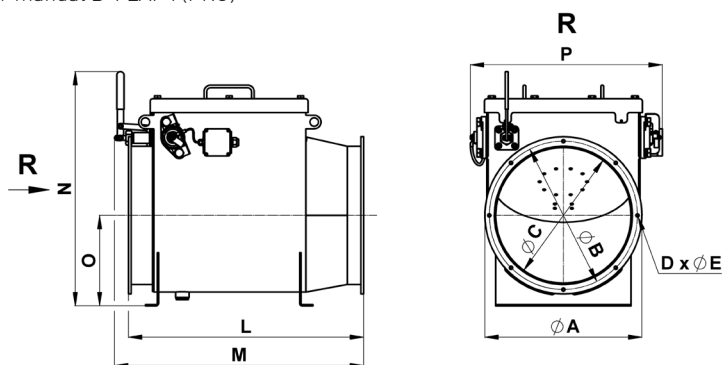
### TEMPERATURE SPECIFICATIONS

Ambient temperature	-40 °C to 80 °C
Operating temperature	-40 °C to 80 °C
Storage temperature	-10 °C to 40 °C

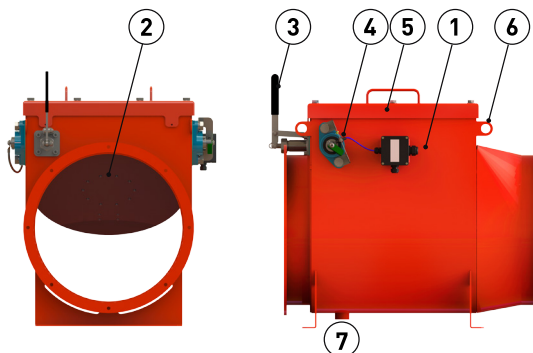
Type	Part Number	Explosive class	ØA [mm] [in]	ØB [mm] [in]	ØC [mm] [in]	D x ØE [n x mm]	L [mm] [in]	N [mm] [in]	P [mm] [in]	Weight [kg]	$p_{red,max}$ [bar]	Installation distance [m]	Pressure resistance [bar]	Pressure loss at 20 m/s St1 with RPD [Pa]	Pressure loss at 20 m/s St3 with RPD [Pa]
DN 100	P-ZKL-100-ST1	St1	152 [6]	132 [5.2]	100 [3.9]	4 x 9.5	280 [11]	303 [11.9]	244 [9.6]	9	0.60	3.0-15.0	5.0	190	300
	P-ZKL-100-ST3	St3									0.85	2.5-15.0			
DN 125	P-ZKL-125-ST1	St1	177 [7]	157 [6.2]	125 [4.9]	4 x 9.5	305 [12]	327 [12.9]	269 [10.6]	11	0.60	3.0-15.0	5.0	200	330
	P-ZKL-125-ST3	St3													
DN 150	P-ZKL-150-ST1	St1	202 [8]	182 [7.2]	150 [5.9]	6 x 9.5	330 [13]	353 [13.9]	294 [11.6]	13	0.60	3.0-15.0	5.0	200	370
	P-ZKL-150-ST3	St3													
DN 200	P-ZKL-200-ST1	St1	253 [10]	233 [9.2]	200 [7.9]	6 x 9.5	390 [15.4]	403 [15.9]	344 [13.5]	18	0.60	3.0-15.0	5.0	200	400
	P-ZKL-200-ST3	St3													
DN 250	P-ZKL-250-ST1	St1	303 [11.9]	283 [11.1]	250 [9.8]	6 x 9.5	510 [20.1]	541 [21.3]	417 [16.4]	41	0.45	4.0-15.0	1.8	210	420
	P-ZKL-250-ST3	St3								0.70					
DN 280	P-ZKL-280-ST1	St1	343 [13.5]	317 [12.5]	280 [11]	8 x 9.5	560 [22]	576 [22.7]	447 [17.6]	48	0.45	4.0-15.0	1.8	220	440
	P-ZKL-280-ST3	St3								0.70					
DN 300	P-ZKL-300-ST1	St1	363 [14.3]	337 [13.3]	300 [11.8]	8 x 9.5	580 [22.8]	591 [23.3]	467 [18.4]	51	0.45	4.0-15.0	1.8	220	450
	P-ZKL-300-ST3	St3								0.70					
DN 315	P-ZKL-315-ST1	St1	378 [14.9]	352 [13.9]	315 [12.4]	8 x 9.5	600 [23.6]	606 [23.9]	482 [19]	54	0.45	4.0-15.0	1.8	230	470
	P-ZKL-315-ST3	St3								0.70					
DN 355	P-ZKL-355-ST1	St1	418 [16.5]	392 [15.4]	355 [14]	8 x 9.5	630 [24.8]	646 [25.4]	522 [20.6]	62	0.45	4.0-15.0	1.8	240	510
	P-ZKL-355-ST3	St3								0.70					
DN 400	P-ZKL-400-ST1	St1	464 [18.3]	438 [17.2]	400 [15.7]	8 x 9.5	695 [27.4]	692 [27.2]	567 [22.4]	72	0.45	4.0-15.0	1.8	245	550
	P-ZKL-400-ST3	St3								0.70					
DN 450	K-ZKL-450-ST1	St1	514 [20.2]	488 [19.2]	450 [17.7]	8 x 9.5	750 [29.5]	742 [29.2]	619 [24.4]	88	0.35	4.0-8.0	0.8	450	450
	P-ZKL-450-ST3	St3								0.97	4.5-13.5	1.9			
DN 500	K-ZKL-500-ST1	St1	564 [22.2]	538 [21.2]	500 [19.7]	8 x 9.5	800 [31.5]	792 [31.2]	669 [26.3]	101	0.35	4.0-8.0	0.8	500	500
	P-ZKL-500-ST3	St3								0.97	4.5-13.5	1.9			
DN 560	K-ZKL-560-ST1	St1	664 [26.1]	629 [24.8]	560 [22]	16 x 14	930 [36.6]	876 [34.5]	745 [29.3]	157	0.45	4.0-8.0	0.8	500	500
	P-ZKL-560-ST3	St3								0.97	4.5-13.5	1.9			
DN 630	K-ZKL-630-ST1	St1	734 [28.9]	698 [27.5]	630 [24.8]	16 x 14	1005 [39.6]	946 [37.2]	815 [32.1]	180	0.45	4.0-8.0	0.8	550	550
	P-ZKL-630-ST3	St3								0.97	4.5-13.5	1.9			
DN 710	K-ZKL-710-ST1	St1	814 [32]	775 [30.5]	710 [28]	16 x 14	1156 [45.5]	1102 [43.4]	967 [38.1]	305	0.45	3.0-8.0	0.7	500	-
DN 800	K-ZKL-800-ST1	St1	904 [35.6]	861 [33.9]	800 [31.5]	24 x 14	1246 [49]	1193 [47]	1057 [41.6]	351	0.45	3.0-8.0	0.7	500	-

More detailed information in user manual B-FLAP I (PRO)

## DIMENSIONS SCHEME



## ESSENTIAL PARTS



1. Welded body
2. Sealing part
3. Locking mechanism
4. Position indicator
5. Welded lid
6. Lifting bolts
7. Dust sensor socket