EXPLOSION ISOLATION FLAP B-FLAP I

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

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

Explosion isolation flap B-FLAP I 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 belongs to equipment group II of explosion protection devices for hazardous areas inside flap as Zone 20 and 2 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.
Fasteners	Supplied with B-FLAP I.
Flange	In accordance with DIN EN 12 220 - R1 (DN 100 to DN 500), R2 (DN 560 to DN 800).

OPTIONAL ACCESSORIES

Position indicator	Indicates position of B-FLAP I (open/closed), indicator is connected to intrisically safe relay. Certified in accordance with ATEX.
Dust sensor	Indicates dust pollution inside welded body of B-FLAP I, sensor is connected to intrisically safe relay.
Intrisically safe relay	Creates an interface between a safe and a dangerous zone.
Special flange gasket	Gasket seal in accordance to customer's need.
Anti-abrasion coating	Protective coat againts abrasion.
Operating temperature	Possibility to increase operating tempreture to 150 °C (DN 100 to DN 630).

TEMPERATURE SPECIFICATIONS

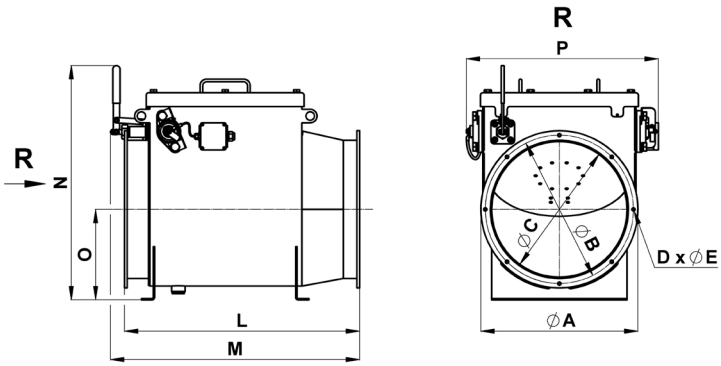
Ambient temperature	-40 °C to 80 °C
Operating temperature	-40 °C to 80 °C
Storage temperature	-10 °C to 40 °C

RSBP spol. s r.o., Pikartská 1337/7, 716 00 Ostrava, Czech Republic
Phone: +420 596 252 170, e-mail: rsbp@rsbp.cz, **www.rsbp.cz/en**
VAT: CZ45196508

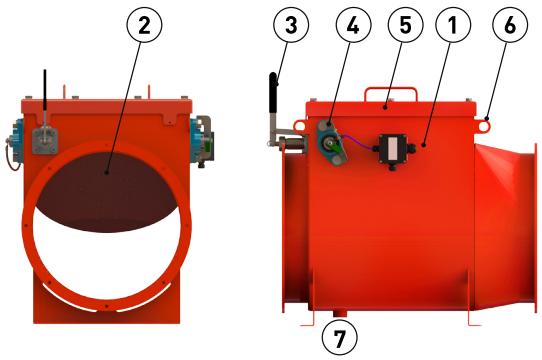
Type	Part Number	ØA [mm] [in]	ØB [mm] [in]	ØC [mm] [in]	D x ØE	L [mm] [in]	N [mm] [in]	P [mm] [in]	Weight [kg]	$p_{red,max}$ [bar]	Explosive class	Instal-lation distance	Pressure resistance p_{max} [bar]	Pressure loss at 20 m/s [Pa]
DN 100	K-ZKL-100-ST1 K-ZKL-100-ST3	152 (6)	132 (5,2)	100 (3,9)	4 x 9,5	280 (11)	303 (11,9)	244 (9,6)	9	0,85	St1, St3	2,5-15	3,2	190
DN 125	K-ZKL-125-ST1 K-ZKL-125-ST3	177 (7)	157 (6,2)	125 (4,9)	4 x 9,5	305 (12)	327 (12,9)	269 (10,6)	11	0,6	St1, St3	3,2-15	5	200
DN 150	K-ZKL-150-ST1 K-ZKL-150-ST3	202 (8)	182 (7,2)	150 (5,9)	6 x 9,5	330 (13)	353 (13,9)	294 (11,6)	13	0,6	St1, St3	3,2-15	5	200
DN 200	K-ZKL-200-ST1 K-ZKL-200-ST3	253 (10)	233 (9,2)	200 (7,9)	6 x 9,5	390 (15,4)	403 (15,9)	344 (13,5)	18	0,6	St1, St3	3,2-15	5	200
DN 250	K-ZKL-250-ST1 K-ZKL-250-ST3	303 (11,9)	283 (11,1)	250 (9,8)	6 x 9,5	510 (20,1)	541 (21,3)	417 (16,4)	41	0,7	St1, St3	4-15	1,8	210
DN 280	K-ZKL-280-ST1 K-ZKL-280-ST3	343 (13,5)	317 (12,5)	280 (11)	8 x 9,5	560 (22)	576 (22,7)	447 (17,6)	48	0,7	St1, St3	4-15	1,8	220
DN 300	K-ZKL-300-ST1 K-ZKL-300-ST3	363 (14,3)	337 (13,3)	300 (11,8)	8 x 9,5	580 (22,8)	591 (23,3)	467 (18,4)	51	0,7	St1, St3	4-15	1,8	220
DN 315	K-ZKL-315-ST1 K-ZKL-315-ST3	378 (14,9)	352 (13,9)	315 (12,4)	8 x 9,5	600 (23,6)	606 (23,9)	482 (19)	54	0,7	St1, St3	4-15	1,8	230
DN 355	K-ZKL-355-ST1 K-ZKL-355-ST3	418 (16,5)	392 (15,4)	355 (14)	8 x 9,5	630 (24,8)	646 (25,4)	522 (20,6)	62	0,7	St1, St3	4-15	1,8	240
DN 400	K-ZKL-400-ST1 K-ZKL-400-ST3	464 (18,3)	438 (17,2)	400 (15,7)	8 x 9,5	695 (27,4)	692 (27,2)	568 (22,4)	73	0,7	St1, St3	4-15	1,8	245
DN 450	K-ZKL-450-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	St1	4-8	0,8	450
DN 500	K-ZKL-500-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	St1	4-8	0,8	500
DN 560	K-ZKL-560-ST1	664 (26,1)	629 (24,8)	560 (22)	16 x 14	930 (36,6)	876 (34,5)	745 (29,3)	157	0,45	St1	4-8	0,8	500
DN 630	K-ZKL-630-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	St1	4-8	0,8	550
DN 710	K-ZKL-710-ST1	814 (32)	775 (30,5)	710 (28)	16 x 14	1156 (45,5)	1102 (43,4)	967 (38,a1)	305	0,45	St1	3 - 8	0,7	500
DN 800	K-ZKL-800-ST1	904 (35,6)	861 (33,9)	800 (31,5)	24 x 14	1246 (49)	1193 (47)	1057 (41,6)	351	0,45	St1	3 - 8	0,7	500

* More detailed information in UM

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

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