

# SAFETY VALVES

## ZBKk, ZBKP

Nominal diameter range: 10 to 65 mm.



ZBKk



ZBKP

Safety valves ZBKk and ZBKP are designed to protect tanks and other elements of installations from excessive pressure build-up. Their design complies with the requirements of the Office of Technical Inspection's provisions and is in accordance with Directive 2014/68/UE concerning pressure equipment and PN-EN ISO 4126-1.

We manufacture a series of type ZBKk safety valves in eight dimensions within the DN range of 10 – 65 mm, where DN stands for the nominal diameter of the valve seat. They are, in principle, constructed as flange angle valves - only ZBKk 10 can be equipped with a threaded outlet. The casing is made from welded high resistance P355 steel. The valve head, valve guide, the seat at the point of contact with the seal, as well as the spindle are made of stainless steel. The valve is sealed with a head gasket made of teflon (P.T.F.E.).

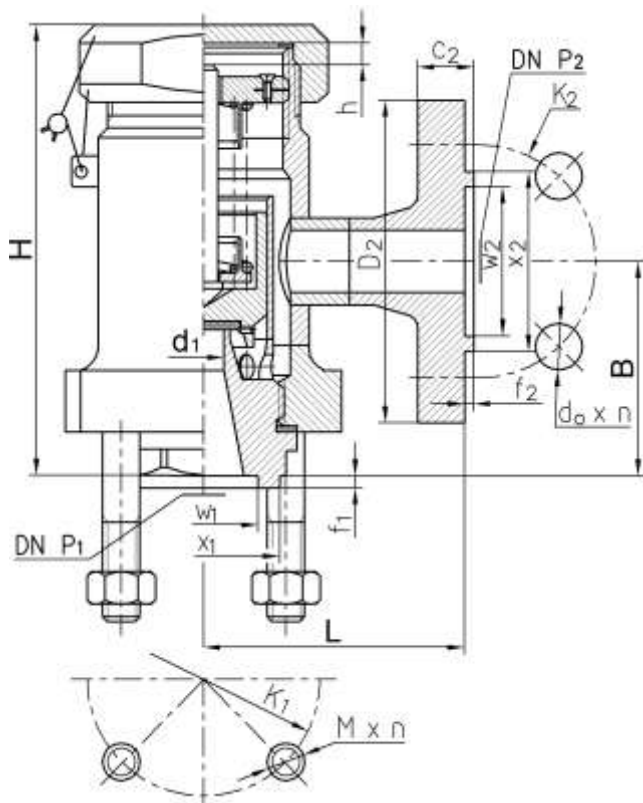
ZBKP valves are ZBKk valves with an additional control assembly allowing for cyclical manual checks of the valve's work.

Set pressure: 8 bar – 25 bar

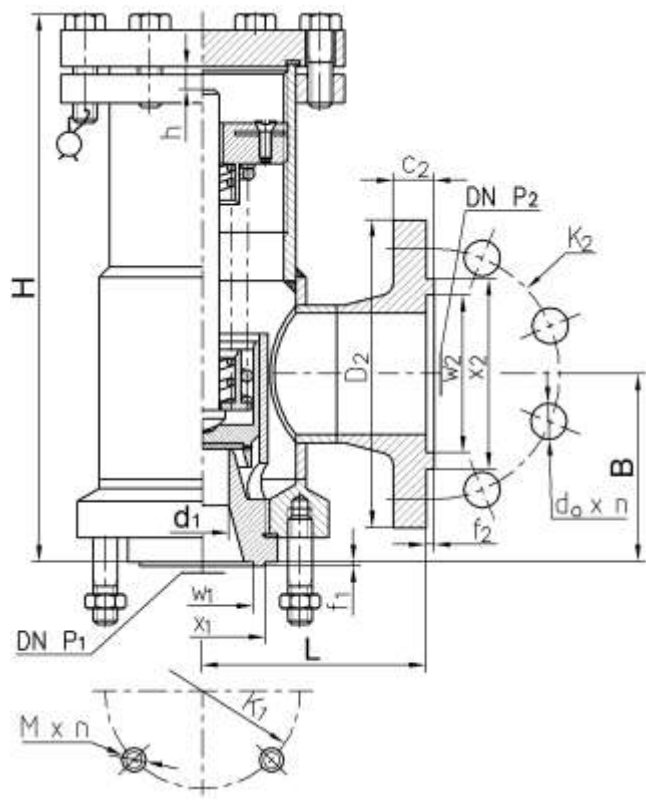
Temperature range: - 40°C / +150°C.

Working medium: ammonia, freons, LPG, air and other non-aggressive gases.

## SAFETY VALVES ZBKk



**ZBKk 10 - 15**



**ZBKk 20 – 65**

## SAFETY VALVES ZBKk – dimensions (mm)

Type and DN	L	H	h	B	d <sub>1</sub>	A [mm <sup>2</sup> ]	Discharge coefficient α	Weight [kg]
ZBKk 10	82	120	2,5	65	9	64	0,67	2,8
ZBKk 15	87	144	5,5	66	13	133	0,80	4,1
ZBKk 20	95	223	6,0	81	19	284	0,70	8,1
ZBKk 25	106	230	7,5	83	23	415	0,74	10,7
ZBKk 32	125	285	9,0	110	30	707	0,68	20,0
ZBKk 40	142	340	11,0	120	38	1134	0,61	25,8
ZBKk 50	170	425	13,5	140	48	1810	0,65	42,5
ZBKk 65	200	512	16,0	180	63	3117	0,68	55,3

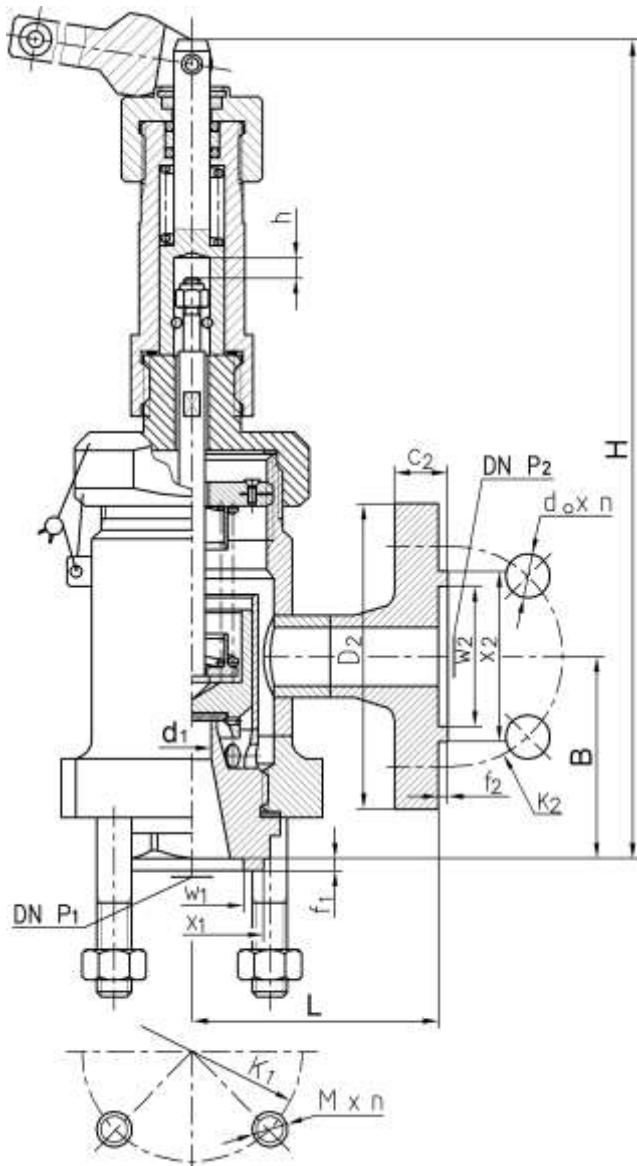
α – coefficient of discharge for steam and gases

A – cross-section surface of inlet channel of a safety valve

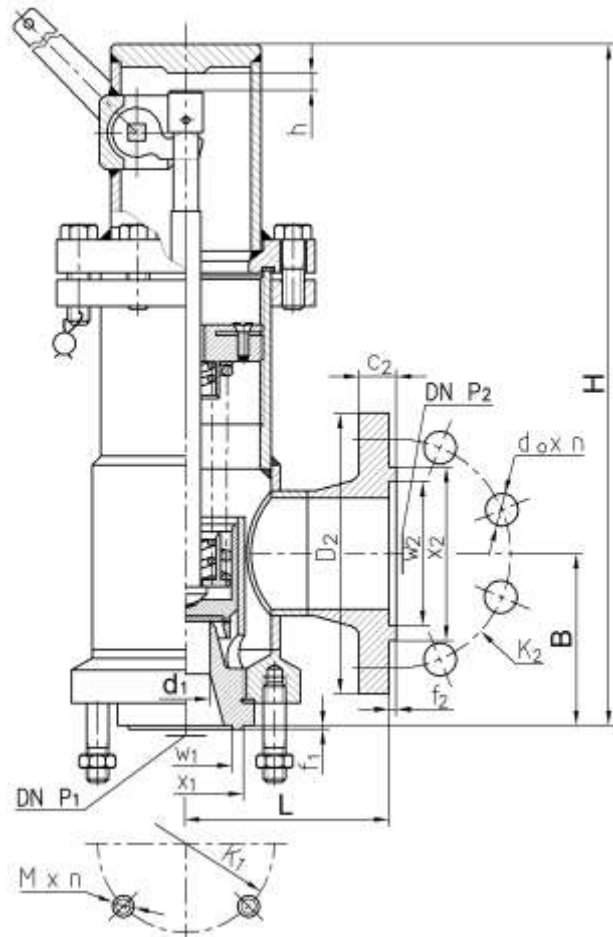
Valve terminal dimension (mm).

Type and DN	DN P <sub>1</sub>	K <sub>1</sub>	Mx n	w <sub>1</sub>	x <sub>1</sub>	f <sub>1</sub>	DN P <sub>2</sub>	D <sub>2</sub>	K <sub>2</sub>	d <sub>0</sub> x n	w <sub>2</sub>	x <sub>2</sub>	c <sub>2</sub>	f <sub>2</sub>
ZBKk 10	15	65	M12x4	29	39	4	20	105	75	14x4	36	50	18	4
ZBKk 15	20	75	M12x4	36	50	4	25	115	85	14x4	43	57	18	4
ZBKk 20	25	85	M12x4	43	57	4	40	150	110	18x4	61	75	18	4
ZBKk 25	32	100	M16x4	51	65	4	50	165	125	18x4	73	87	20	4
ZBKk 32	40	110	M16x4	61	75	4	65	185	145	18x8	95	109	22	4
ZBKk 40	50	125	M16x4	73	87	4	80	200	160	18x8	106	120	24	4
ZBKk 50	65	145	M16x8	95	109	4	100	235	190	22x8	129	149	24	4,5
ZBKk 65	80	160	M16x8	106	120	4	125	270	220	26x8	155	175	26	4,5

## SAFETY VALVES ZBKP



**ZBKP 10 - 15**



**ZBKP 20 - 65**

### SAFETY VALVES ZBKP – dimensions (mm)

Type and DN	H	Weight [kg]
ZBKP 10	225	3,2
ZBKP 15	250	4,6
ZBKP 20	290	9,3
ZBKP 25	300	11,6
ZBKP 32	373	22,2
ZBKP 40	428	29,9
ZBKP 50	520	45,9
ZBKP 65	602	58,5

Other dimensions are identical to the ZBKk valve type.