

Safety Valve ZB-4

APPLICATION

The ZB-4 safety valves are designed for protection against too high water pressure on electrical water heaters.

CONSTRUCTION

The valve body and all other metallic parts are made of brass. The sealing gaskets are of rubber adequate to its working conditions. All springs are of stainless steel. These valves can release three primary functions.

A. The safety valve „A” opens the passage „1” for the outflow of water when the pressure in the tank increase over its permissible limit.

B. The check valve „B” for filling the heater with water. It also prevents the outflow of water from the tank back into the supply line in case of pressure failure.

C. The return valve „C” opens the outflow of water from the tank into the supply line in case of an excessive pressure rise in the tank exceeding supply line pressure. It makes possible to decrease the pressure in the tank without uptake of hot water from it.

The proper operating of the safety valve should be tested periodically as follow:

- turn the hood „2” clockwise or counter-clockwise up to top or move to top lever „3” position, - observe if water is flowing out of the passage „1”.

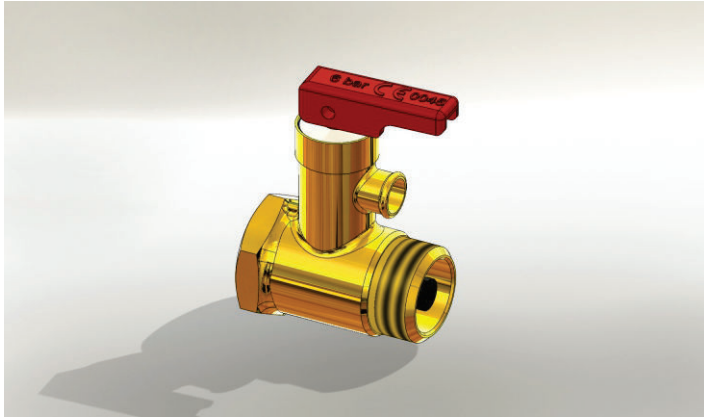
The water should flow,

- turn the hood „2” to its down position or move lever 3” to it's down position

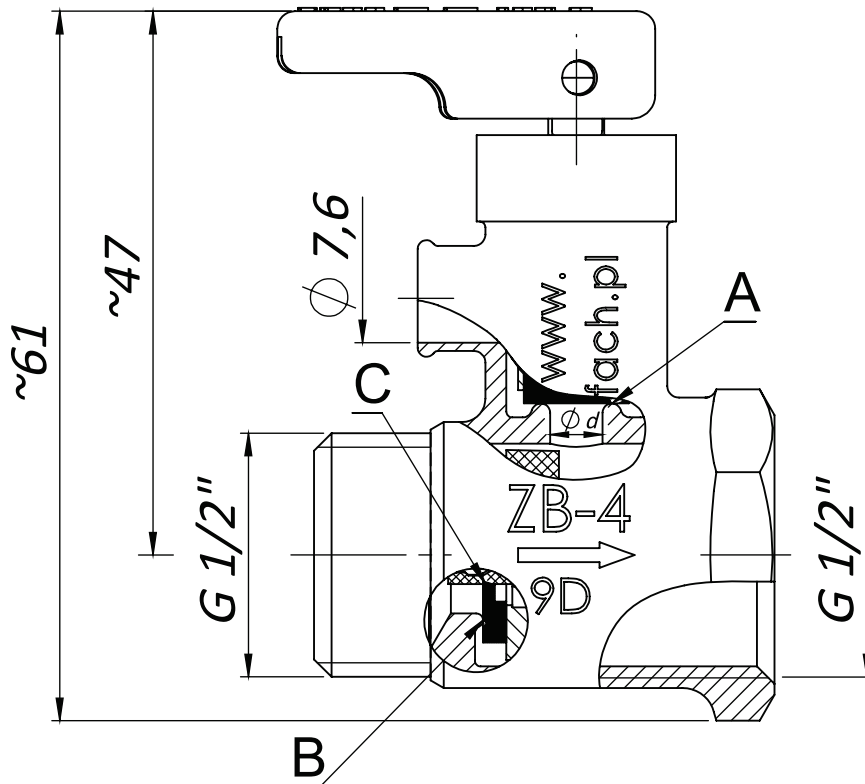
MOUNTING:

These valves should be installed in the water supply line of the heater. The direction of flow should be in accordance with the arrow marked on the valve body with the passage „1” downwards. The water supplying line should be stable to 90°C temperature at least 5m before heater. Max. length of engagement of a pipe into the valve is 9 mm. It is possible to connect the flexible pipe to passage „1” for discharge of flowing water. This pipe should have inside diameter 9 mm, max. length 1,2m and must be stable to 80°C temperature. After mounting the pipe, should be protected against choking. The water supplying pressure cannot exceed the nominal pressure to avoid discharge of water from the heater.

Heating



ZB-4 with LEVER



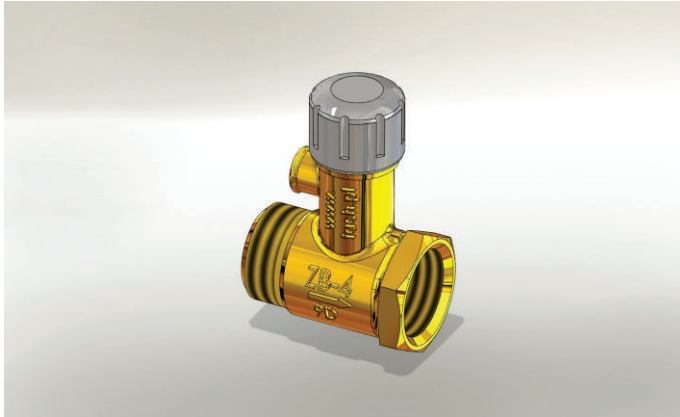
There is a possibility to order out of the box products, customized to the specific customer needs.

Please remember to indicate your preferences regarding packing, before making an order.

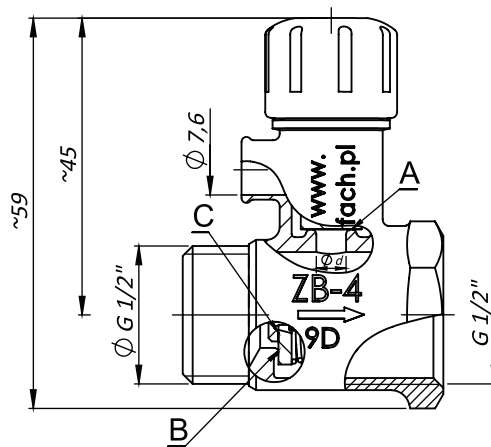
* Pressure of the installation being protected by safety valve.

BODY /surface/	-FACH code	Pressure signed on the valve [bar]*	Pressure for opening safety valve [MPa]			IN	OUT	T max. [°C]	socket d [mm]	Medium	Lever
			A	B	C						
Brass	0376-0199	6	0,67 ± 3%	max.0,025	0,08 ± 0,03	G 1/2"	G 1/2"	110	∅ 4,5	water	red
	0376-0596	9	0,97 ± 3%	max.0,025	0,08 ± 0,03	G 1/2"	G 1/2"	110	∅ 4,5		red
	0376-0593	9	0,97 ± 3%	max.0,025	0,08 ± 0,03	G 1/2"	G 1/2"	110	∅ 4,5		blue
Brass/Ni	0376-1199	6	0,67 ± 3%	max.0,025	0,08 ± 0,03	G 1/2"	G 1/2"	110	∅ 4,5		black
	0376-1596	9	0,97 ± 3%	max.0,025	0,08 ± 0,03	G 1/2"	G 1/2"	110	∅ 4,5		red
	0376-1593	9	0,97 ± 3%	max.0,025	0,08 ± 0,03	G 1/2"	G 1/2"	110	∅ 4,5		blue

Heating



ZB-4 with KNOB



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* Pressure of the installation being protected by safety valve.

BODY /surface/	-FACH code	Pressure signed on the valve [bar]*	Pressure for opening safety valve [MPa]			Construction of the valve B+C	IN	OUT	T max. [°C]	socket d [mm]	Medium
			A	B	C						
Brass	0371-0101	6	0,67`3%	0,03`0,02	0,09`0,04	with springs	G 1/2"	G 1/2"	110	n4,5	water
	0371-0135	6	0,67`3%	0,03`0,02	-	with rubber	G 1/2"	G 1/2"	110	n4,5	
	0371-0165	6	0,67`3%	0,03`0,02	0,11`0,05	with cut rubber	G 1/2"	G 1/2"	110	n4,5	
	0376-0105	6	0,67`3%	0,03`0,02	0,09`0,04	with springs	G 1/2"	G 1/2"	110	n4,5	
	0376-0135	6	0,67`3%	0,03`0,02	-	with rubber	G 1/2"	G 1/2"	110	n4,5	
	0376-0137	6	0,67`3%	0,03`0,02	-	with rubber	G 1/2"	G 1/2"	110	n4,5	
	0376-0165	6	0,67`3%	0,03`0,02	0,12`0,05	with cut rubber	G 1/2"	G 1/2"	110	n4,5	
	0376-0167	6	0,67`3%	0,03`0,02	0,11`0,05	with cut rubber	G 1/2"	G 1/2"	110	n4,5	
0376-0735	3	0,31`3%	0,03`0,02	-	with rubber	G 1/2"	G 1/2"	110	n4,5		
Brass/Ni	0371-1101	6	0,67`3%	0,03`0,02	0,09`0,04	with springs	G 1/2"	G 1/2"	110	n4,5	
	0371-1135	6	0,67`3%	0,03`0,02	-	with rubber	G 1/2"	G 1/2"	110	n4,5	
	0371-1165	6	0,67`3%	0,03`0,02	0,11`0,05	with cut rubber	G 1/2"	G 1/2"	110	n4,5	
	0376-1105	6	0,67`3%	0,03`0,02	0,09`0,04	with springs	G 1/2"	G 1/2"	110	n4,5	
	0376-1135	6	0,67`3%	0,03`0,02	-	with rubber	G 1/2"	G 1/2"	110	n4,5	
	0376-1137	6	0,67`3%	0,03`0,02	-	with rubber	G 1/2"	G 1/2"	110	n4,5	
	0376-1165	6	0,67`3%	0,03`0,02	0,12`0,05	with cut rubber	G 1/2"	G 1/2"	110	n4,5	
	0376-1167	6	0,67`3%	0,03`0,02	0,11`0,05	with cut rubber	G 1/2"	G 1/2"	110	n4,5	
0376-1735	3	0,31`3%	0,03`0,02	-	with rubber	G 1/2"	G 1/2"	110	n4,5		

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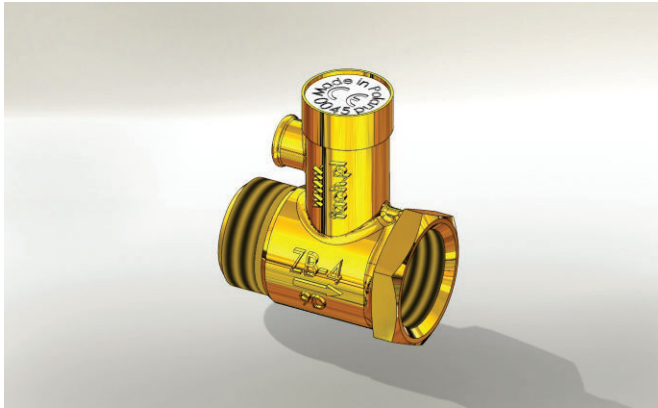
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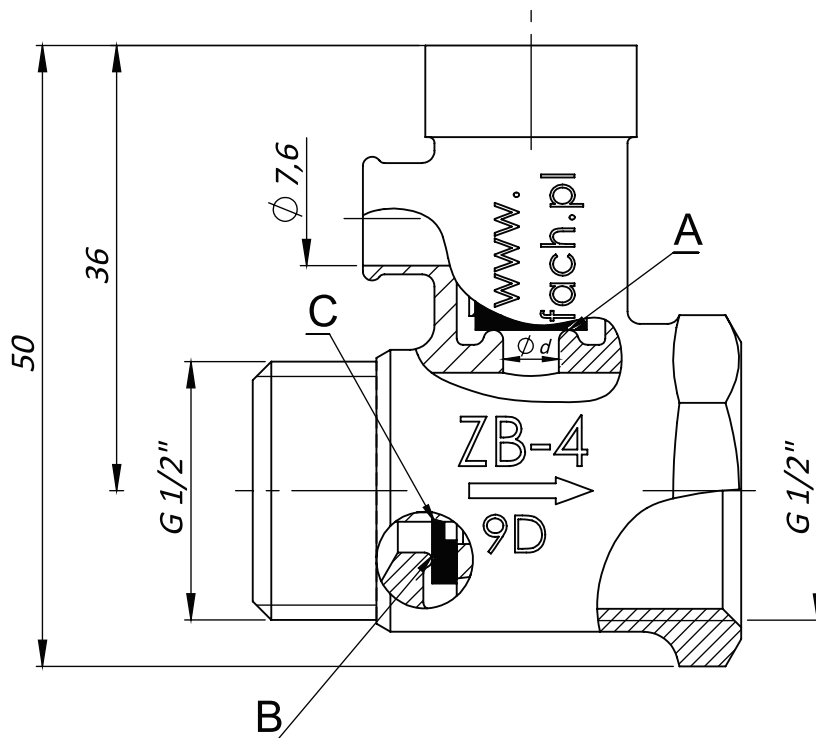
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Heating



ZB-4 without LEVER



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BODY /surface/	-FACH code	Pressure signed on the valve [bar]*	Pressure for opening safety valve [MPa]	Capacity / mass flow /	Opening valve [MPa]	Return valve [MPa]	Construction of the valve B+C	T max. [°C]	socket d [mm]	Medium
			A	Qm [kg/h]	B	C				
Brass	0376-0108	6	0,67± 3%	>20	±0,05	0,09± 0,04	with springs	110	∅ 4,5	water
	0376-0198	6	0,67± 3%	>20	±0,025	0,08± 0,03	with inserts	110	∅ 4,5	
	0376-0498	8	0,87± 3%	>20	±0,025	0,08± 0,03	with inserts	110	∅ 4,5	
Brass/Ni	0376-1108	6	0,67± 3%	>20	±0,05	0,09± 0,04	with springs	110	∅ 4,5	
	0376-1198	6	0,67± 3%	>20	±0,025	0,08± 0,03	with inserts	110	∅ 4,5	
	0376-1498	8	0,87± 3%	>20	±0,025	0,08± 0,03	with inserts	110	∅ 4,5	

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