

RSKE / RSKM

Multi-purpose fire safety smoke dampers

Use

- The dampers are intended for integration into smoke control systems of buildings and structures of various purpose and designed for extraction of combustion products from the spaces of floor corridors, hallways, air locks etc.
- The dampers can be used as smoke dampers in emergency smoke exhaust ventilation systems in the event of a fire to support evacuation of people from the building at the initial phase of the fire occurring in any of the building spaces.
- The RSKE/RSKM multi-purpose fire safety smoke dampers are rated to resist fire for 180 minutes (E 180) at the temperature of 600 °C.



Fire resistance rating:
600 °C
within 180 min



Normally closed single louver fire safety dampers **RSKE**



Normally closed multiple-louver fire safety dampers **RSKM**

Design

- The damper casing is made of galvanised steel 1.5 mm thick.
- The dampers are available in the wall-mounted or duct-mounted variant which have either one or two attachment flanges.

Control and modifications

- The units are available in two control options (with an electric magnet and with an electric actuator in different configurations):

THE DAMPER WITH AN ELECTRIC MAGNET (220 OR 24 V)

- The damper opens via a spring when the electric magnet is energized. When the damper reaches the end position, a limit switch opens the circuit disconnecting the electric magnet from the power mains. The electric magnet must not remain energized for more than 2 seconds. The damper is reset to the safety (closed) position manually by means of a handle. The damper equipped with an electric magnet has a special button for testing the unit performance.

THE DAMPER WITH A 230 OR 24 V ELECTRIC ACTUATOR AND A RETURN SPRING

- The flaps are automatically set to the normal (closed) position when applying voltage to the electric actuator. On a fire alarm signal the electric actuator is de-energized causing its return spring to set the damper to an open position. The electric actuator is equipped with a contact group to signal its end positions. The damper can also be controlled manually and fixed in any position. The unit can be unlocked either manually using a hex wrench or automatically upon power-up.

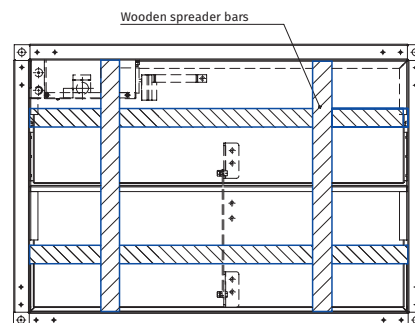
THE DAMPER WITH WITH A 230 OR 24 V ELECTRIC ACTUATOR AND TWO-WIRE CONTROL

- The damper flap is set from the "Open" to the "Closed" position by an external command sending the voltage phase from one actuator contact to the other. The electric actuator is equipped with a contact group to signal its end positions. The damper can be controlled manually by means of a hex key.

Note. The **RSKM** dampers with a height of 300 and 350 mm have one louver. The main difference between the **RSKM** and the **RSKE** dampers with a similar height of 300 and 350 mm is that the method of fastening the flap, which ensures a smaller overhang of the flap beyond the **RSKM** valve.

Mounting

- The dampers are not intended for installation in air ducts and ducts of spaces with fire and explosion hazard categories A and in local exhaust systems designed for extraction of flammable and explosive mixtures as well as in systems containing environments more aggressive to plain carbon steels than air or those containing sticky and fibrous materials.
- Fire safety dampers are only intended for installation in systems subjected to regular cleaning to prevent formation of flammable deposits.
- The damper must be installed into the building envelope structure in accordance with the applicable standards and regulations. The seal fire resistance must be at least equal to that of the building envelope. When preparing for installation the damper casing should be fitted with wooden spreader bars to prevent deformation, torsional twisting or geometry perturbation of the casing which may result in louver jamming and, eventually, loss of the damper functionality.



- Upon completion of the damper brickwork envelope in the smoke shaft, fire division wall or flooring and complete cure (setting) of the sealing, remove the wooden spreader bars and check the louver for free and frictionless opening.
- Ground the damper, connect the electromagnet or electric actuator (depending on the modification) to the automatic fire-fighting system and test the damper actuation.

Designation key

RSKE/RSKM 30x30/1 PKP24 / O S

Damper series:
RSKE: single-louvre
RSKM: multi-louvre

Damper flow area width [cm]:
 30; 35; 40; 45; 50; 55; 60; 65; 70; 75; 80; 85; 90; 95; 100

Damper flow area height [cm]:
 30; 35; 40; 45; 50; 55; 60; 65; 70; 75; 80; 85; 90; 95; 100

Number of flanges:
1: one
2: two

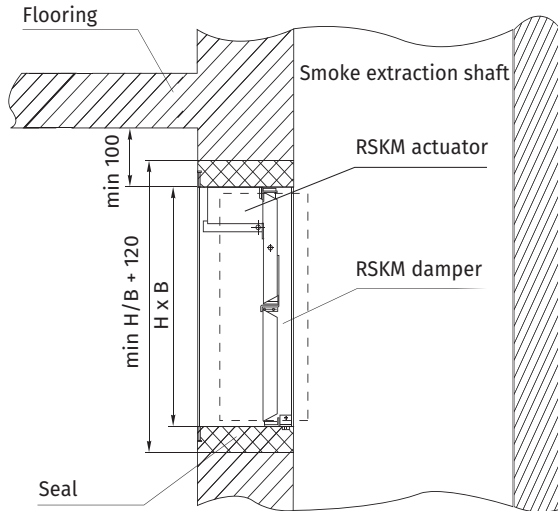
Actuator type:
EM220/24: 220/24 V electric magnet
PKP24: 24 V ZERN electric actuator with a return spring
PKP230: 230 V ZERN electric actuator with a return spring
PV24: 24 V BELIMO open/close electric actuator
PV230: 230 V BELIMO open/close electric actuator
PVP24: 24 V BELIMO electric actuator with a return spring
PVP230: 230 V BELIMO electric actuator with a return spring
PS24: 24 V SIEMENS open/close electric actuator
PS230: 230 V SIEMENS open/close electric actuator
PSP24: 24 V SIEMENS electric actuator with a return spring
PSP230: 230 V SIEMENS actuator with a return spring

Actuator location:
O: outside
I: inside

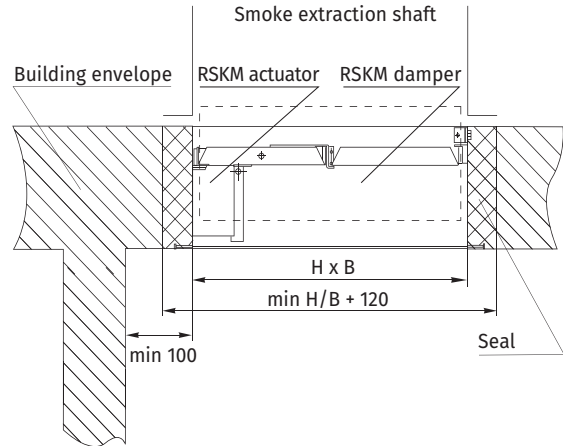
Protective grille:
S: vandal-proof mesh
R: decorative grille
O: no protective grille
RD or RD1: smoke exhaust grille

Installation recommendation for the RSKM damper with an internally connected actuator

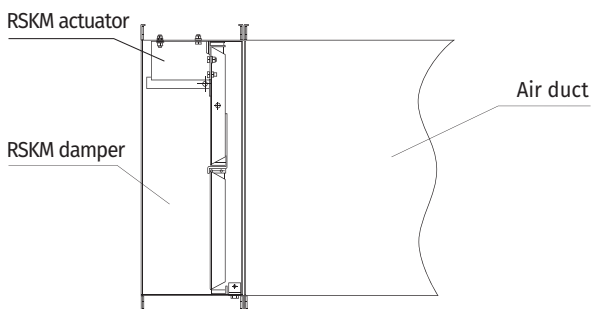
IN VERTICAL BUILDING STRUCTURES



IN HORIZONTAL BUILDING STRUCTURES

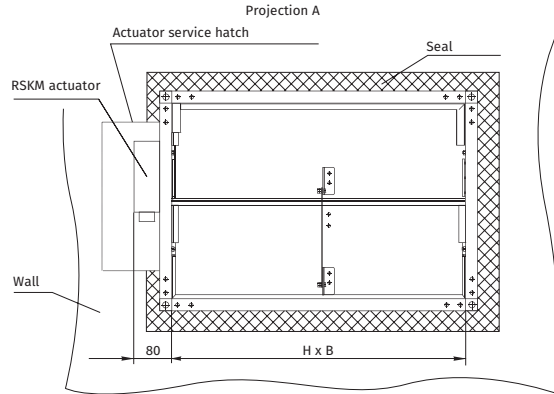
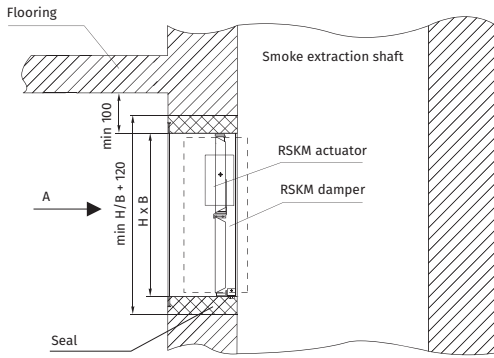


DUCT MODIFICATION WITH AN AIR DUCT

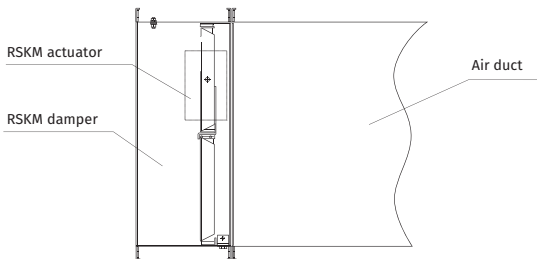


Installation recommendation for the RSKM damper with an externally located actuator

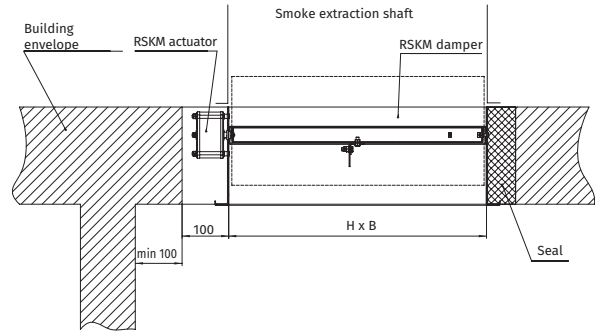
IN VERTICAL BUILDING STRUCTURES



DUCT MODIFICATION WITH AN AIR DUCT

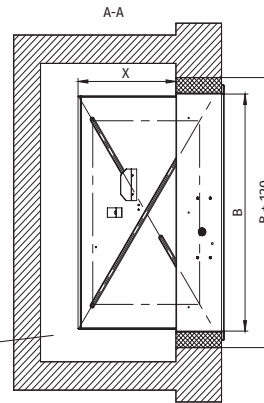
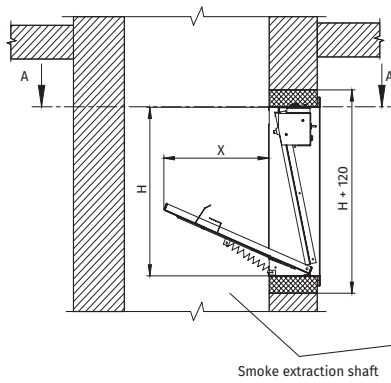


IN HORIZONTAL BUILDING STRUCTURES

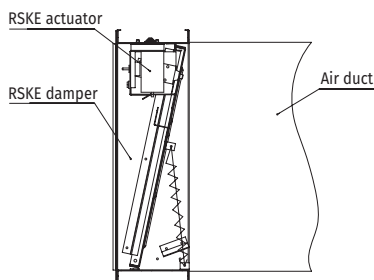


Installation recommendation for the RSKE damper with an internally connected actuator

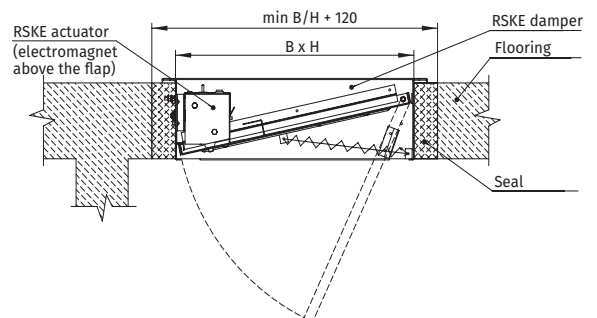
IN VERTICAL BUILDING STRUCTURES



DUCT MODIFICATION WITH AN AIR DUCT



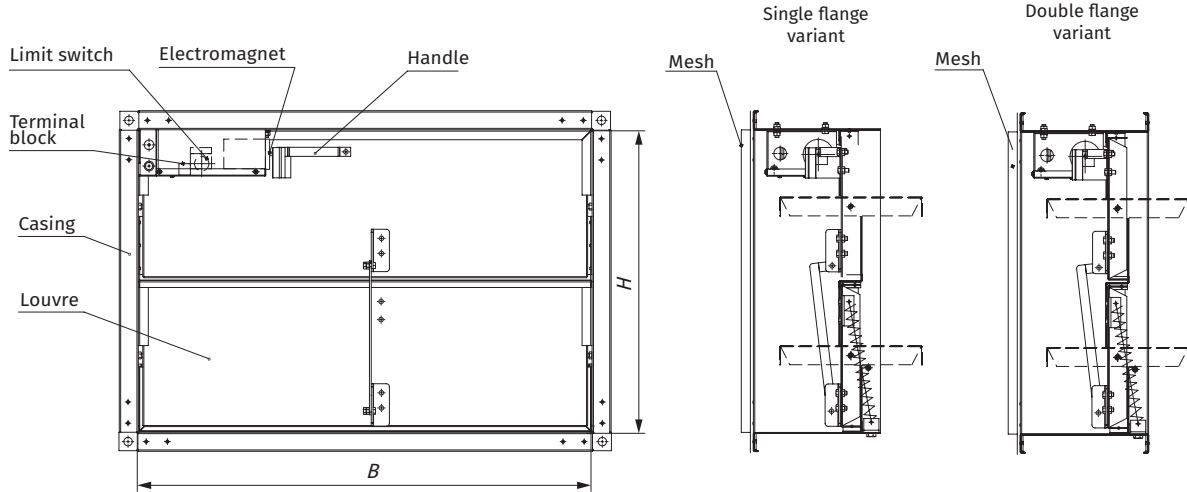
IN HORIZONTAL BUILDING STRUCTURES



Possible RSKM damper variants

THE RSKM DAMPER WITH AN INTERNALLY INSTALLED ELECTROMAGNET (220/24 V), SINGLE OR DOUBLE FLANGE

- o The single flange variant is intended for wall or ceiling mounting irrespective of the dimensional orientation. Upon the test or emergency damper actuation, the louvres can only be manually reset to the initial position.
- o The double flange variant is intended for duct installation irrespective of the dimensional orientation. Upon the test or emergency damper actuation the louvres can only be manually reset to the initial position.



FLOW AREA OF THE RSKM SMOKE EXHAUST DAMPER WITH AN ELECTROMAGNET [M²]

B/H [mm]	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
300	0.06														
350	0.08	0.10													
400	0.09	0.11	0.12												
450	0.10	0.13	0.14	0.16											
500	0.12	0.14	0.15	0.18	0.20										
550	0.13	0.16	0.17	0.20	0.23	0.25									
600	0.15	0.18	0.19	0.22	0.25	0.28	0.31								
650	0.16	0.19	0.20	0.24	0.27	0.30	0.33	0.37							
700	0.17	0.21	0.22	0.26	0.29	0.33	0.36	0.40	0.43						
750	0.19	0.22	0.24	0.28	0.31	0.35	0.39	0.43	0.46	0.48					
800	0.20	0.24	0.26	0.30	0.34	0.38	0.42	0.46	0.50	0.51	0.55				
850	0.21	0.26	0.27	0.31	0.36	0.40	0.44	0.48	0.53	0.54	0.59	0.63			
900	0.23	0.27	0.29	0.33	0.38	0.42	0.47	0.51	0.56	0.58	0.62	0.67	0.71		
950	0.24	0.29	0.31	0.35	0.40	0.45	0.50	0.54	0.59	0.61	0.66	0.71	0.75	0.80	
1000	0.25	0.30	0.32	0.37	0.42	0.47	0.52	0.57	0.62	0.64	0.69	0.74	0.79	0.84	0.89

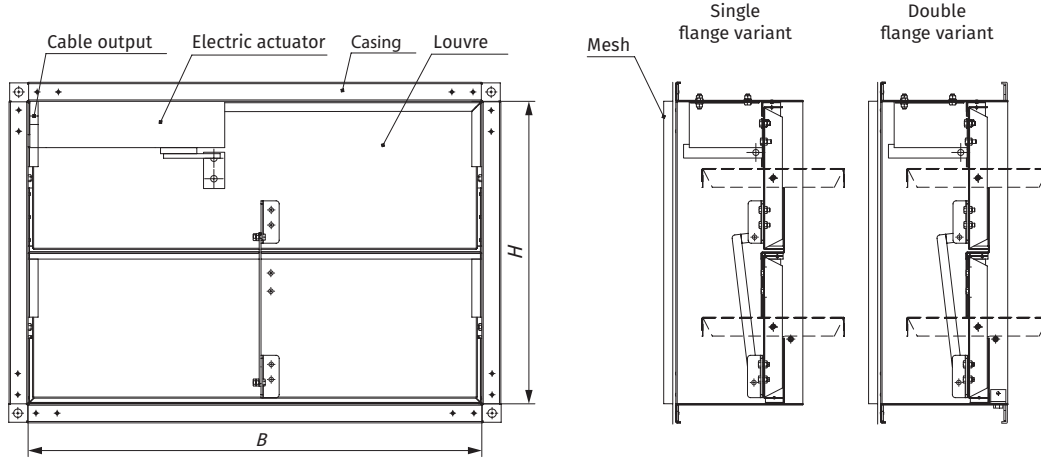
Note: Select the required BxH cross-section damper according to the completed table cells. Since the damper can be installed in any spatial position, a change of the height and width (B and H values) orientation may enable selection of a damper with the cross-section beyond the completed cell range.

For example, a 700x500 mm damper can be ordered as 500x700 mm.

THE RSKM DAMPER WITH AN ELECTRIC ACTUATOR (230 OR 24 V) INSTALLED INSIDE THE DAMPER, SINGLE OR DOUBLE FLANGE

- The single flange variant is intended for wall or ceiling mounting irrespective of the dimensional orientation.
- The double flange variant is intended for duct installation irrespective of the dimensional orientation. The louvres of dampers equipped with a two-

position electric actuator are set to the "open" or "closed" position by an external actuating signal. After a test or emergency actuation the louvres of dampers equipped with an electric actuator with a return spring can return to the initial position automatically upon feeding the supply voltage.



FLOW AREA OF THE RSKM SMOKE EXHAUST DAMPER WITH AN ELECTRIC ACTUATOR INSTALLED INSIDE THE DAMPER [M²]

B/H [mm]	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
300	0.06														
350	0.08	0.10													
400	0.09	0.11	0.12												
450	0.10	0.13	0.14	0.16											
500	0.12	0.14	0.15	0.18	0.20										
550	0.13	0.16	0.17	0.20	0.23	0.25									
600	0.15	0.18	0.19	0.22	0.25	0.28	0.31								
650	0.16	0.19	0.20	0.24	0.27	0.30	0.33	0.37							
700	0.17	0.21	0.22	0.26	0.29	0.33	0.36	0.40	0.43						
750	0.19	0.22	0.24	0.28	0.31	0.35	0.39	0.43	0.46	0.48					
800	0.20	0.24	0.26	0.30	0.34	0.38	0.42	0.46	0.50	0.51	0.55				
850	0.21	0.26	0.27	0.31	0.36	0.40	0.44	0.48	0.53	0.54	0.59	0.63			
900	0.23	0.27	0.29	0.33	0.38	0.42	0.47	0.51	0.56	0.58	0.62	0.67	0.71		
950	0.24	0.29	0.31	0.35	0.40	0.45	0.50	0.54	0.59	0.61	0.66	0.71	0.75	0.80	
1000	0.25	0.30	0.32	0.37	0.42	0.47	0.52	0.57	0.62	0.64	0.69	0.74	0.79	0.84	0.89

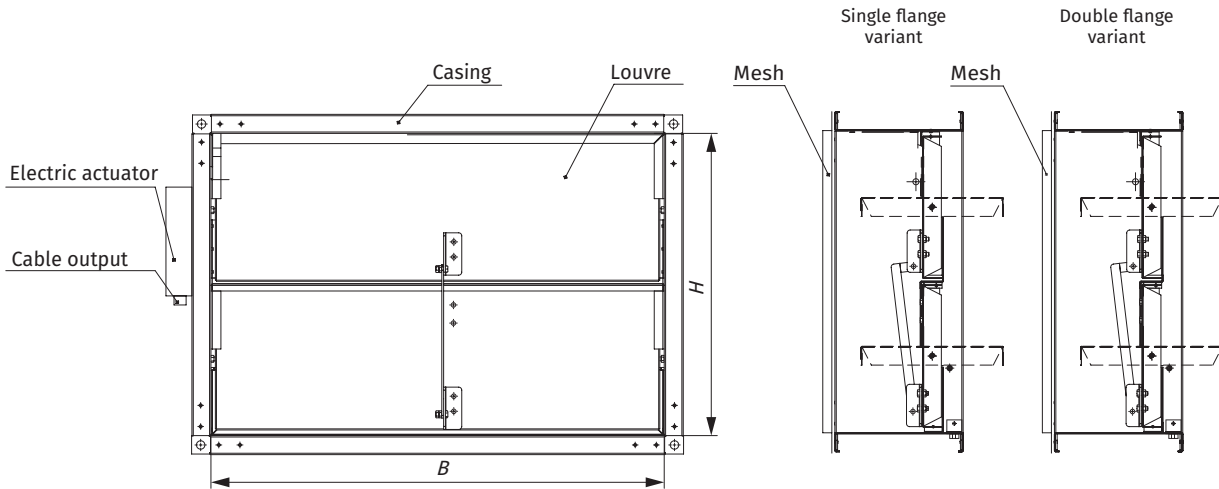
Note: Select the required BxH cross-section damper according to the completed table cells. Since the damper can be installed in any spatial position, a change of the height and width (B and H values) orientation may enable selection of a damper with the cross-section beyond the completed cell range.

For example, a 700x500 mm damper can be ordered as 500x700 mm.

THE RSKM DAMPER WITH AN ELECTRIC ACTUATOR (230 OR 24 V) INSTALLED OUTSIDE THE DAMPER, SINGLE OR DOUBLE FLANGE

- o The single flange variant is intended for wall or ceiling mounting irrespective of the dimensional orientation.
- o The double flange variant is intended for duct installation irrespective of the dimensional orientation. The louvres of dampers equipped with a two-position electric actuator are set to the "open" or "closed" position by an

external actuating signal. After a test or emergency actuation the louvres of dampers equipped with an electric actuator with a return spring can return to the initial position automatically upon feeding the supply voltage.



FLOW AREA OF THE RSKM SMOKE EXHAUST DAMPER WITH AN ELECTRIC ACTUATOR INSTALLED INSIDE THE DAMPER [M²]

B/H [mm]	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
300	0.07														
350	0.09	0.11													
400	0.10	0.12	0.13												
450	0.11	0.14	0.15	0.17											
500	0.13	0.15	0.16	0.19	0.21										
550	0.14	0.17	0.18	0.21	0.24	0.26									
600	0.16	0.18	0.20	0.23	0.26	0.29	0.32								
650	0.17	0.20	0.21	0.25	0.28	0.31	0.34	0.38							
700	0.18	0.22	0.23	0.27	0.30	0.34	0.37	0.41	0.44						
750	0.20	0.23	0.25	0.29	0.32	0.36	0.40	0.44	0.47	0.49					
800	0.21	0.25	0.27	0.31	0.35	0.39	0.43	0.47	0.51	0.52	0.56				
850	0.22	0.27	0.28	0.32	0.37	0.41	0.45	0.49	0.54	0.55	0.60	0.64			
900	0.24	0.28	0.30	0.34	0.39	0.43	0.48	0.52	0.57	0.59	0.63	0.68	0.72		
950	0.25	0.30	0.32	0.36	0.41	0.46	0.51	0.55	0.60	0.62	0.67	0.72	0.76	0.81	
1000	0.26	0.31	0.33	0.38	0.43	0.48	0.53	0.58	0.63	0.65	0.70	0.75	0.80	0.85	0.90

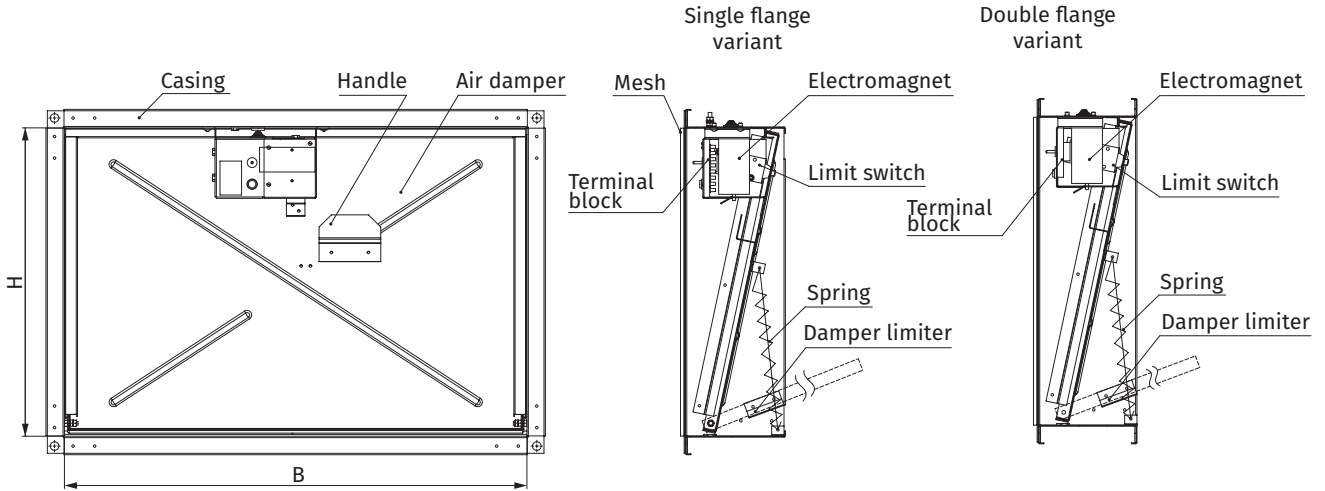
Note: Select the required BxH cross-section damper according to the completed table cells. Since the damper can be installed in any spatial position, a change of the height and width (B and H values) orientation may enable selection of a damper with the cross-section beyond the completed cell range.

For example, a 700x500 mm damper can be ordered as 500x700 mm.

Possible RSKE damper variants

THE RSKE DAMPER WITH AN INTERNALLY INSTALLED ELECTROMAGNET (220/24 V), SINGLE OR DOUBLE FLANGE

- The single flange variant is intended for wall or ceiling installation. The damper must be installed according to the installation guidelines for the RSKE damper with an internal actuator (see page 14). Upon the test or emergency damper actuation, the louvres can only be manually reset to initial position.
- The double flange variant is intended for duct installation. Upon the test or emergency damper actuation the louvres can only be manually reset to the initial position.



FLOW AREA OF THE RSKE SMOKE EXHAUST DAMPER WITH AN ELECTROMAGNET [M²]

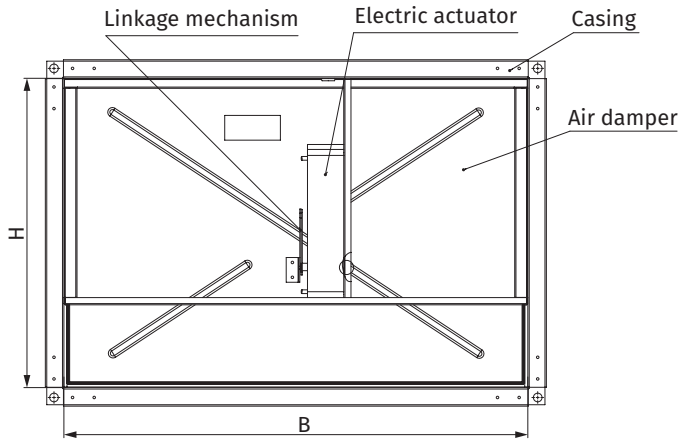
B/H [mm]	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
300	0.06														
350	0.08	0.10													
400	0.09	0.11	0.12												
450	0.10	0.13	0.14	0.16											
500	0.12	0.14	0.15	0.18	0.20										
550	0.13	0.16	0.17	0.20	0.23	0.25									
600	0.15	0.18	0.19	0.22	0.25	0.28	0.31								
650	0.16	0.19	0.20	0.24	0.27	0.30	0.33	0.37							
700	0.17	0.21	0.22	0.26	0.29	0.33	0.36	0.40	0.43						
750	0.19	0.22	0.24	0.28	0.31	0.35	0.39	0.43	0.46	0.48					
800	0.20	0.24	0.26	0.30	0.34	0.38	0.42	0.46	0.50	0.51	0.55				
850	0.21	0.26	0.27	0.31	0.36	0.40	0.44	0.48	0.53	0.54	0.59	0.63			
900	0.23	0.27	0.29	0.33	0.38	0.42	0.47	0.51	0.56	0.58	0.62	0.67	0.71		
950	0.24	0.29	0.31	0.35	0.40	0.45	0.50	0.54	0.59	0.61	0.66	0.71	0.75	0.80	
1000	0.25	0.30	0.32	0.37	0.42	0.47	0.52	0.57	0.62	0.64	0.69	0.74	0.79	0.84	0.89

Note: Select the required BxH cross-section damper according to the completed table cells.

THE RSKE DAMPER WITH AN ELECTRIC ACTUATOR (230 OR 24 V) INSTALLED INSIDE THE DAMPER, SINGLE OR DOUBLE FLANGE

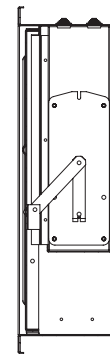
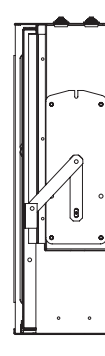
- o The single flange variant is intended for wall or ceiling mounting irrespective of the dimensional orientation.
- o The double flange variant is intended for duct installation irrespective of the dimensional orientation. The louvres of dampers equipped with a two-

position electric actuator are set to the "open" or "closed" position by an external actuating signal. After a test or emergency actuation the louvres of dampers equipped with an electric actuator with a return spring can return to the initial position automatically upon feeding the supply voltage.



Single flange variant

Double flange variant



FLOW AREA OF THE RSKE SMOKE EXHAUST DAMPER WITH AN ELECTRIC ACTUATOR INSTALLED INSIDE THE DAMPER [M²]

B/H [mm]	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
300	0.06														
350	0.08	0.10													
400	0.09	0.11	0.12												
450	0.10	0.13	0.14	0.16											
500	0.12	0.14	0.15	0.18	0.20										
550	0.13	0.16	0.17	0.20	0.23	0.25									
600	0.15	0.18	0.19	0.22	0.25	0.28	0.31								
650	0.16	0.19	0.20	0.24	0.27	0.30	0.33	0.37							
700	0.17	0.21	0.22	0.26	0.29	0.33	0.36	0.40	0.43						
750	0.19	0.22	0.24	0.28	0.31	0.35	0.39	0.43	0.46	0.48					
800	0.20	0.24	0.26	0.30	0.34	0.38	0.42	0.46	0.50	0.51	0.55				
850	0.21	0.26	0.27	0.31	0.36	0.40	0.44	0.48	0.53	0.54	0.59	0.63			
900	0.23	0.27	0.29	0.33	0.38	0.42	0.47	0.51	0.56	0.58	0.62	0.67	0.71		
950	0.24	0.29	0.31	0.35	0.40	0.45	0.50	0.54	0.59	0.61	0.66	0.71	0.75	0.80	
1000	0.25	0.30	0.32	0.37	0.42	0.47	0.52	0.57	0.62	0.64	0.69	0.74	0.79	0.84	0.89

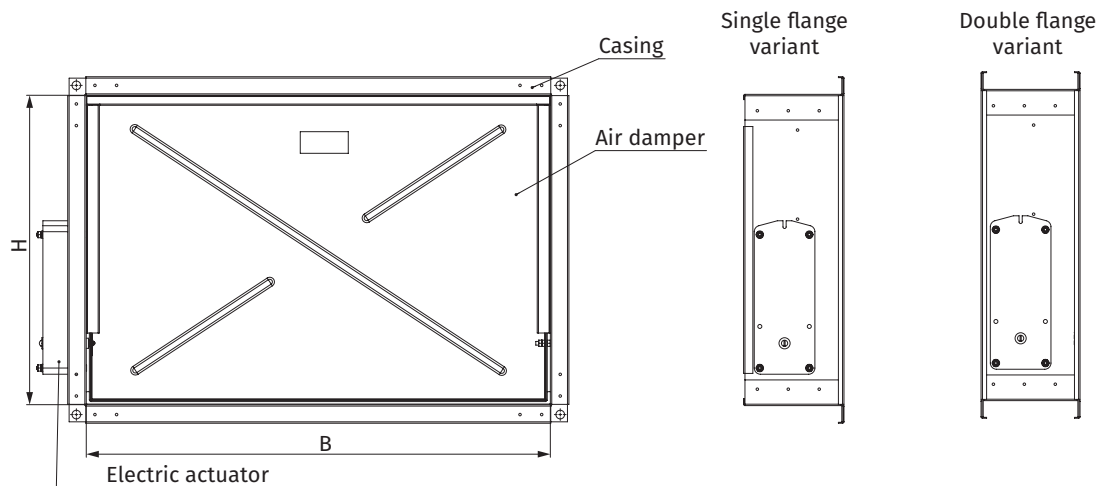
Note: Select the required BxH cross-section damper according to the completed table cells. Since the damper can be installed in any spatial position, a change of the height and width (B and H values) orientation may enable selection of a damper with the cross-section beyond the completed cell range.

For example, a 700x500 mm damper can be ordered as 500x700 mm.

THE RSKE DAMPER WITH AN ELECTRIC ACTUATOR (230 OR 24 V) INSTALLED OUTSIDE THE DAMPER, SINGLE OR DOUBLE FLANGE:

- The single flange variant is intended for wall or ceiling mounting irrespective of the dimensional orientation.
- The double flange variant is intended for duct installation irrespective of the dimensional orientation. The louvres of dampers equipped with a two-

position electric actuator are set to the "open" or "closed" position by an external actuating signal. After a test or emergency actuation the louvres of dampers equipped with an electric actuator with a return spring can return to the initial position automatically upon feeding the supply voltage.



FLOW AREA OF THE RSKE SMOKE EXHAUST DAMPER WITH AN ELECTRIC ACTUATOR INSTALLED OUTSIDE THE DAMPER [M²]

B/H [mm]	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
300	0.07														
350	0.09	0.11													
400	0.10	0.12	0.13												
450	0.11	0.14	0.15	0.17											
500	0.13	0.15	0.16	0.19	0.21										
550	0.14	0.17	0.18	0.21	0.24	0.26									
600	0.16	0.18	0.20	0.23	0.26	0.29	0.32								
650	0.17	0.20	0.21	0.25	0.28	0.31	0.34	0.38							
700	0.18	0.22	0.23	0.27	0.30	0.34	0.37	0.41	0.44						
750	0.20	0.23	0.25	0.29	0.32	0.36	0.40	0.44	0.47	0.49					
800	0.21	0.25	0.27	0.31	0.35	0.39	0.43	0.47	0.51	0.52	0.56				
850	0.22	0.27	0.28	0.32	0.37	0.41	0.45	0.49	0.54	0.55	0.60	0.64			
900	0.24	0.28	0.30	0.34	0.39	0.43	0.48	0.52	0.57	0.59	0.63	0.68	0.72		
950	0.25	0.30	0.32	0.36	0.41	0.46	0.51	0.55	0.60	0.62	0.67	0.72	0.76	0.81	
1000	0.26	0.31	0.33	0.38	0.43	0.48	0.53	0.58	0.63	0.65	0.70	0.75	0.80	0.85	0.90

Note: Select the required BxH cross-section damper according to the completed table cells. Since the damper can be installed in any spatial position, a change of the height and width (B and H values) orientation may enable selection of a damper with the cross-section beyond the completed cell range.

For example, a 700x500 mm damper can be ordered as 500x700 mm.

RSKE / RSKM

Technical data

ELECTROMAGNET

Parameters	Parameter value
Rated voltage [V]	220/24
Rated current at the ambient temperature of 25±10 °C [A]	0.6/5.5
Armature stroke [mm]	10±1
Armature release time [seconds]	2
Tractive force [N]	45
Maximum active power consumption at 220 V [W]	600
Maximum total power consumption at 220 V [W]	1200
Maximum total power consumption at 24 V [W]	60

BELIMO ELECTRIC ACTUATORS WITH A RETURN SPRING

Parameters	Basic models		Models with increased torque	
Rated voltage [V]	AC/DC 24	AC 230	AC/DC 24	AC 230
Rated voltage range [V]	AC 19.2...28.8 DC 21.6...28.8	AC 198...264	AC 19.2...28.8 DC 21.6...28.8	AC 198...264
Rated voltage frequency AC [Hz]	50/60		50/60	
Power consumption in rest position [W]	1.4	2.0	2	3
Power consumption in operation [W]	4.0	4.5	7	8.5
Maximum design capacity [VA]	6	9.0	10	11
Motor torque [Nm]	9		18	
Spring torque [Nm]	7		12	
SEC class	III	II	III	II
Ingress protection rating	IP54	IP54	IP54	IP54
Auxiliary switches	2 pcs., single-pole, reversible, 1 mA...3(0.5)A, AC 250 V		2 pcs., single-pole, reversible, 1 mA...6(3)A, AC 250 V	
Electric motor connection cable	1 m, 2 x 0.75 mm ² (halogen-free)			
Auxiliary switch connection cable	1 m, 6 x 0.75 mm ² (halogen-free)			
Running time spring	20 seconds at -10...+55 °C < 60 seconds at -30...-10 °C		16 seconds at +20 °C	
Running time motor	< 60 s/90°		< 120 s/90°	
Service life	Min. 60 000 emergency positions			
Technical maintenance	Not required			

BELIMO TWO-POSITION ELECTRIC ACTUATORS

Parameters	Basic models		Models with increased torque	
Rated voltage [V]	AC/DC 24	AC 230	AC/DC 24	AC 230
Rated voltage range [V]	AC 19.2...28.8 DC 21.6...28.8	AC 198...264	AC 19.2...28.8 DC 21.6...28.8	AC 198...264
Rated voltage frequency AC [Hz]	50/60		50/60	
Power consumption in rest position [W]	<0.5	<1	0.5	0.5
Power consumption in operation [W]	7,5	5	12	8
Maximum design capacity [VA]	9	12	18	15
Motor torque [Nm]	15		40	
Spring torque [Nm]	20		50	
SEC class	III	II	III	II
Ingress protection rating	IP54	IP54	IP54	IP54
Auxiliary switches	2 pcs., single-pole, reversible, 1 mA...3(0.5)A, AC 250 B			
Electric motor connection cable	1 m, 3 x 0.75 mm ² (halogen-free)			
Auxiliary switch connection cable	1 m, 6 x 0.75 mm ² (halogen-free)			
Running time	< 30 s/90°		< 60 s/90°	
Service life	Min. 10 000 emergency positions			
Technical maintenance	Not required			

ZERN ELECTRIC ACTUATORS WITH A RETURN SPRING

Parameters	Basic models		Models with increased torque	
Rated voltage [V]	AC/DC 24	AC 100-240	AC/DC 24	AC 100-240
Rated voltage range [V]	AC/DC 19.2...28.8	AC 85...265	AC/DC 19.2...28.8	AC 85...265
Rated voltage frequency AC [Hz]	50/60		50/60	
Power consumption in rest position [W]	3		3	
Power consumption in operation [W]	5		5	
Motor torque [Nm]	5		8	
Spring torque [Nm]	5		8	
SEC class	III	II	III	II
Ingress protection rating	IP54	IP54	IP54	IP54
Auxiliary switches	2 pcs., single-pole, reversible, 1 mA...3(0.5)A, AC 220 B1 mA...3(0.5)A, AC 220 V			
Electric motor connection cable	1 m, 2 x 0.5 mm ² (halogen-free)			
Auxiliary switch connection cable	1 m, 6 x 0.5 mm ² (halogen-free)			
Running time spring	<20 seconds < 60 seconds at -30...-10 °C		<25 seconds < 60 seconds at -30...-10 °C	
Running time motor	< 70 s/95°		< 100 s/95°	

SIEMENS ELECTRIC ACTUATORS WITH A RETURN SPRING

Parameters	Basic models		Models with increased torque	
Rated voltage [V]	AC 24 / DC 24...48	AC 230	AC 24 / DC 24...48	AC 230
Rated voltage range [V]	AC/DC ±20 %	AC ±15 %	AC/DC ±20 %	AC ±15 %
Rated voltage frequency AC [Hz]	50/60		50/60	
Power consumption in rest position [W]	2	3.5	3	4
Power consumption in operation [W]	3.5	4.5	5	6
Maximum design capacity [VA]	5	7	7	8
Motor torque [Nm]	9		18	
Spring torque [Nm]	7		18	
SEC class	III	II	III	II
Ingress protection rating	IP54	IP54	IP54	IP54
Auxiliary switches	2 pcs., single-pole, reversible, 6(2)A, AC 24...250 V			
Electric motor connection cable	0.9 m, 2 x 0.75 mm ² (halogen-free)			
Auxiliary switch connection cable	0.9 m, 6 x 0.75 mm ² (halogen-free)			
Running time spring	15 seconds < 60 seconds at -30...-10 °C			
Running time motor	90 s/90°		90 s/90°	
Service life	10 000 emergency positions			
Technical maintenance	Not required			

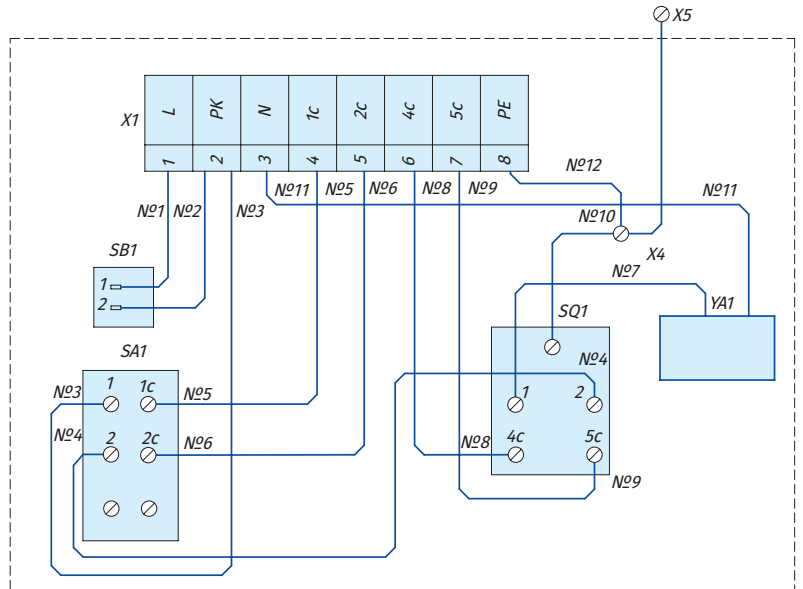
Note: The table "Main technical specifications of Siemens two-position electric actuators" is in development. This information is available upon request.

Electrical connection diagrams of RSKE/RSKM dampers

RSKE/RSKM DAMPER EQUIPPED WITH AN ELECTROMAGNET

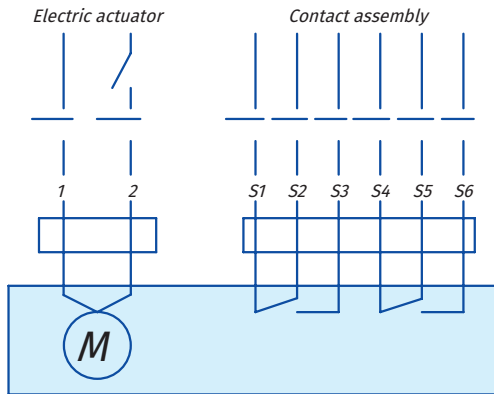
- SQ1:** end switch
- YA1:** electromagnet
- SB1:** damper louvre opening button
- PK:** contact of automatic fire suppression block
- SA1:** power supply circuit disconnection switch of the electromagnetic latch
- X1:** terminal block

- 1:** supply voltage phase
- 2:** contact of automatic fire suppression block
- 3:** supply voltage neutral
- 4, 5:** command circuit control
- 6, 7:** louvre position control
- 8:** grounding bus



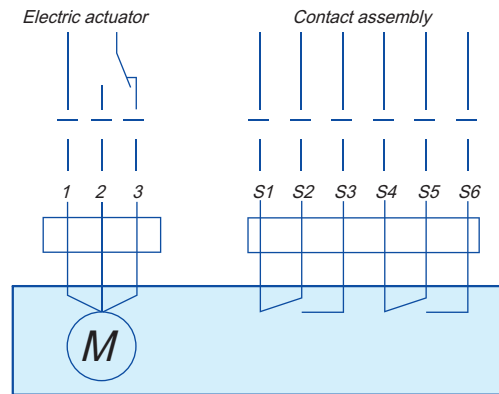
RSKE/RSKM DAMPER EQUIPPED WITH AN ELECTRIC ACTUATOR

Electric actuator with a return spring



- 1:** "Neutral" contact of supply voltage
- 2:** "Line" contact of supply voltage – closing the damper louvres
- S1...S6:** fixed microswitch contacts for signalling end positions

Two-position electric actuator

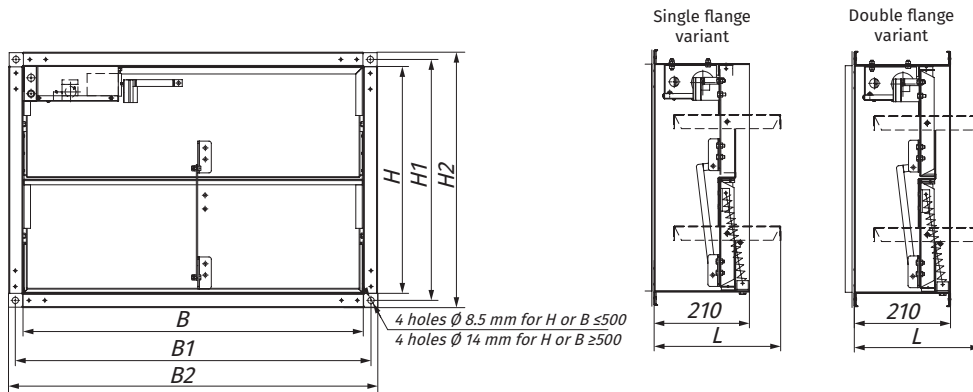


- 1:** "Neutral" contact of supply voltage
- 2, 3:** "Line" contact of supply voltage damper louvre closing or opening
- S1...S6:** fixed microswitch contacts for signalling end positions

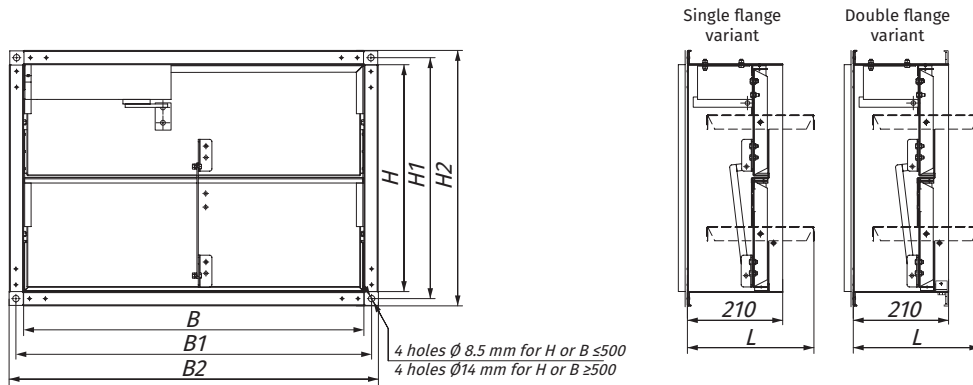
Overall and connecting dimensions of RSKM multi-louvre dampers

Standard damper size [cm]	Minimum flow area [m ²]	Size [mm]							Maximum RSKM weight [kg]
		H	H1	H2	B	B1	B2	L	
40x40	0.12	400	420	440	400	420	440	298	9.5
50x50	0.2	500	520	540	500	520	540	297	12.1
60x60	0.31	600	630	660	600	630	660	348	17
70x70	0.43	700	730	760	700	730	760	398	20.3
80x80	0.55	800	830	860	800	830	860	448	24.1
90x90	0.71	900	930	960	900	930	960	498	27.4
100x100	0.9	1000	1030	1060	1000	1030	1060	548	31.7

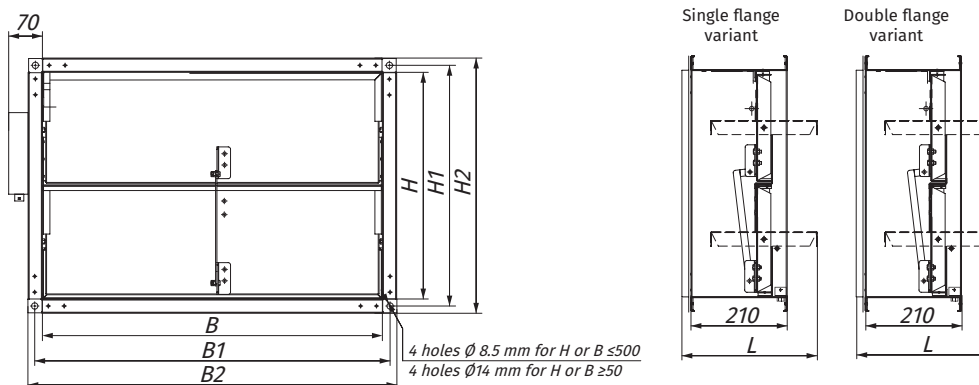
- The **RSKM** damper with an internally installed electromagnet (220/24 V), single or double flange.



- The **RSKM** damper with an electric actuator (230 or 24 V) installed inside the damper, single or double flange.



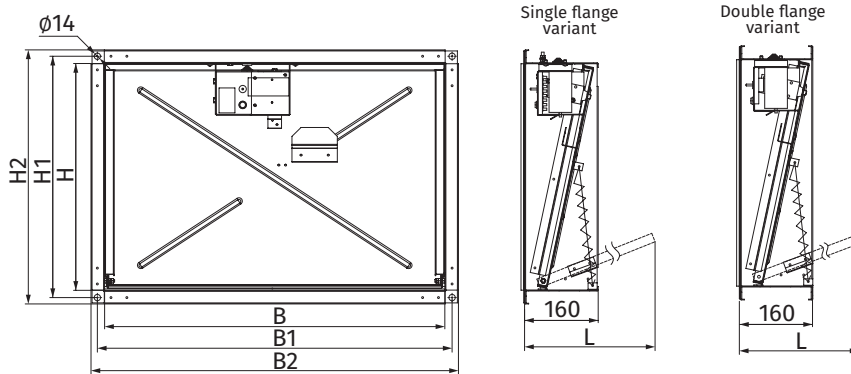
- The **RSKM** damper with an electric actuator (230 or 24 V) installed outside the damper, single or double flange.



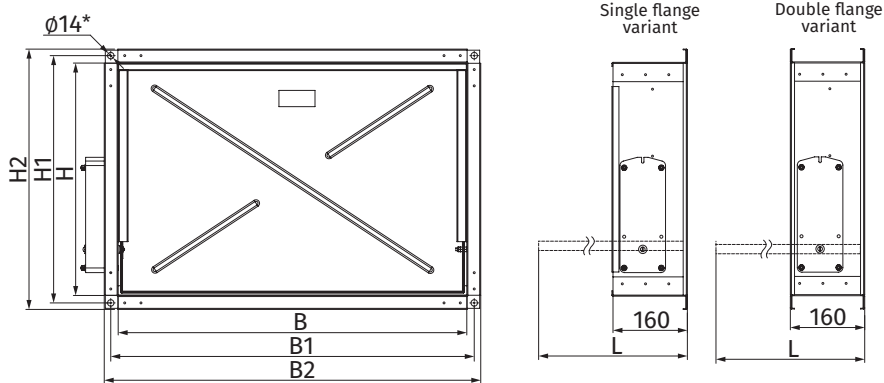
Overall and connecting dimensions of the RSKE single-louvre damper

Standard damper size [cm]	Minimum flow area [m²]	Size [mm]							Maximum RSKE weight [kg]
		H	H1	H2	B	B1	B2	L	
40x40	0.12	400	430	460	400	430	460	470	8.2
50x50	0.2	500	530	560	500	530	560	570	10.6
60x60	0.31	600	630	660	600	630	660	670	13.2
70x70	0.43	700	730	760	700	730	760	770	16
80x80	0.55	800	830	860	800	830	860	870	19
90x90	0.71	900	930	960	900	930	960	970	22.2
100 x100	0.9	1000	1030	1060	1000	1030	1060	1070	25.6

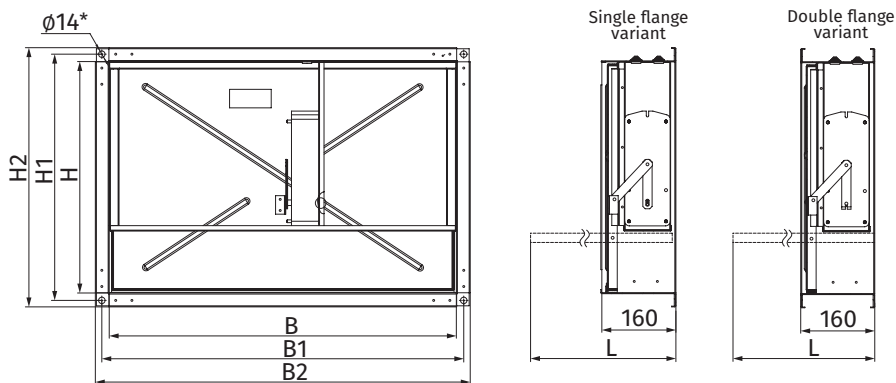
- The **RSKE** damper with an internally installed electromagnet (220/24 V), single or double flange.



- The **RSKE** damper with an electric actuator (230 or 24 V) installed outside the damper, single or double flange.



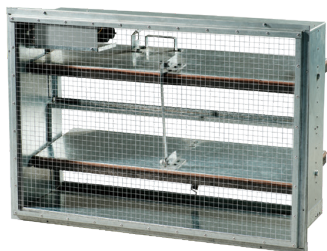
- The **RSKE** damper with an electric actuator (230 or 24 V) installed inside the damper, single or double flange.



RSKE / RSKM

Accessories

VANDAL-PROOF MESH



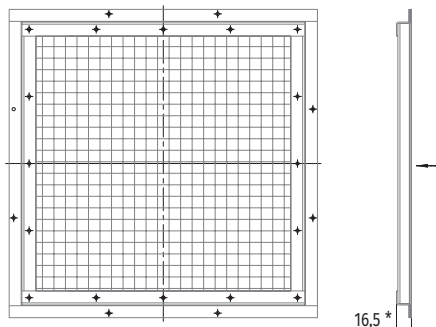
- The **RSKE/RSKM** dampers can be equipped with a vandal-proof mesh.



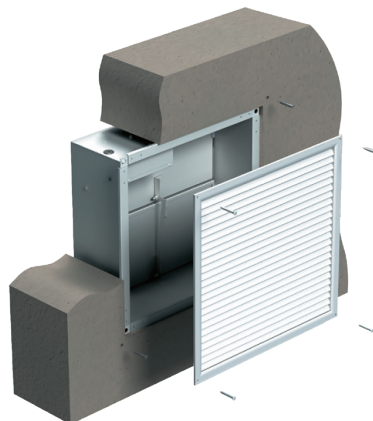
ALUMINIUM DECORATIVE GRILLE

- The unit can be equipped with a decorative grille made of aluminium for a more aesthetic appearance.

VANDAL-PROOF MESH



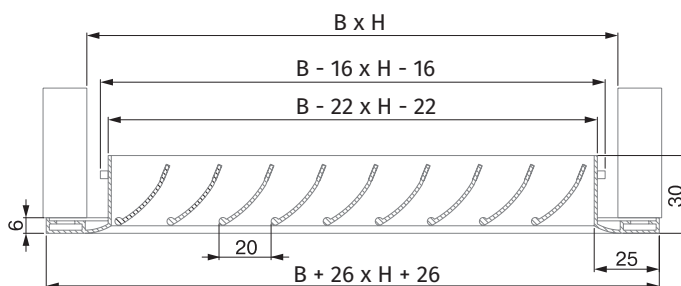
- The grille has a single horizontal row of non-adjustable air flow guides fixed at 45 degrees. The grille is polymer coated and anodised for extra protection against the weather elements. To enable the decorative grille installation, the damper must be embedded at least 40 mm deep into the wall as measured from the wall face to the damper flange.



NOTE:

While selecting the aluminium decorative grille mind the wall opening dimensions.

ALUMINIUM DECORATIVE GRILLE

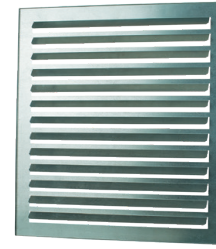


CROSS-SECTION DIMENSIONS AND AREA [M²]

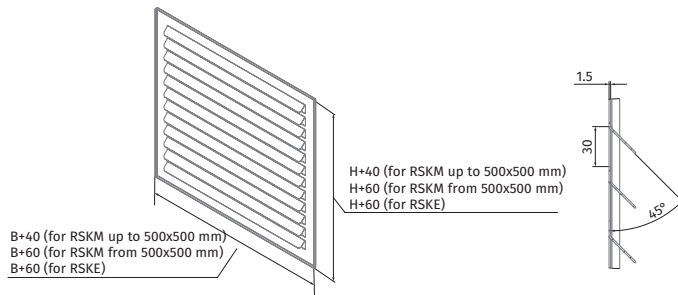
B/H [mm]	100	150	200	250	300	350	400	450	500	600	700	800	900	1000
100	0.004	0.007	0.010	0.012	0.015	0.018	0.021	0.024	0.027	0.033	0.039	0.045	0.051	0.057
150	0.070	0.010	0.015	0.018	0.023	0.027	0.031	0.035	0.039	0.047	0.055	0.064	0.072	0.080
200	0.010	0.015	0.021	0.026	0.033	0.038	0.045	0.051	0.058	0.070	0.081	0.093	0.105	0.115
250	0.012	0.018	0.026	0.032	0.041	0.047	0.055	0.062	0.070	0.084	0.098	0.106	0.113	0.128
300	0.015	0.023	0.033	0.041	0.051	0.059	0.069	0.077	0.086	0.096	0.115	0.132	0.149	0.168
350	0.017	0.026	0.038	0.047	0.059	0.068	0.080	0.090	0.099	0.111	0.132	0.151	0.170	0.193
400	0.020	0.030	0.044	0.054	0.069	0.079	0.093	0.103	0.117	0.142	0.166	0.189	0.212	0.237
450	0.023	0.035	0.051	0.062	0.080	0.090	0.107	0.117	0.131	0.160	0.186	0.214	0.239	0.265
500	0.026	0.039	0.056	0.070	0.089	0.100	0.119	0.130	0.145	0.178	0.206	0.238	0.265	0.293
600	0.031	0.047	0.067	0.084	0.105	0.121	0.142	0.158	0.173	0.214	0.246	0.287	0.318	0.349
700	0.036	0.055	0.078	0.094	0.124	0.145	0.170	0.184	0.203	0.251	0.288	0.336	0.372	0.408
800	0.042	0.063	0.090	0.112	0.141	0.163	0.190	0.211	0.232	0.288	0.330	0.385	0.426	0.467
900	0.048	0.072	0.103	0.129	0.160	0.185	0.228	0.238	0.262	0.325	0.372	0.435	0.481	0.527
1000	0.053	0.079	0.113	0.141	0.177	0.204	0.239	0.266	0.292	0.361	0.414	0.484	0.536	0.587

RD, RD1 smoke exhaust grilles

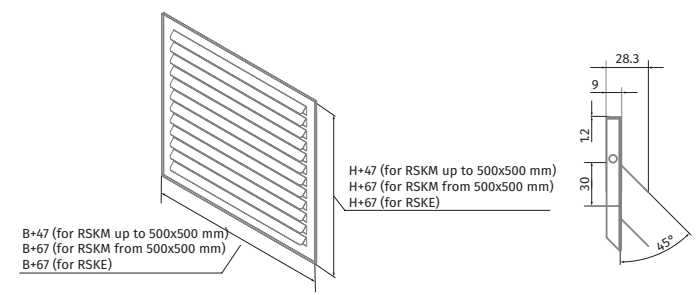
The **RSKE/RSKM** dampers can be additionally equipped with a smoke exhaust grille. The smoke exhaust grille is used when it is necessary to entirely hide the damper internals from view and if there are no strict requirements to external design. The smoke exhaust grille also doubles as unauthorized access protection for the damper and its actuator. The grille has a single horizontal row of non-adjustable air flow guides fixed at 45 degrees. The grille can be made of galvanized steel (Ts), carbon steel with a special coating (M), stainless steel (N) or aluminium (A). The grille is attached directly to the damper flange by means of self-tapping screws with the flaps facing outward and does not require any additional recessing of the damper.



RD SMOKE EXHAUST GRILLE



RD1 SMOKE EXHAUST GRILLE



CROSS-SECTION DIMENSIONS AND AREA [M²]

B/H [mm]	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
300	0.059														
350	0.069	0.079													
400	0.080	0.091	0.114												
450	0.090	0.103	0.129	0.142											
500	0.101	0.115	0.144	0.158	0.173										
550	0.111	0.127	0.159	0.175	0.191	0.207									
600	0.122	0.139	0.174	0.191	0.209	0.226	0.244								
650	0.132	0.151	0.189	0.208	0.227	0.246	0.265	0.284							
700	0.143	0.163	0.204	0.224	0.245	0.265	0.286	0.306	0.347						
750	0.153	0.175	0.219	0.241	0.263	0.285	0.307	0.329	0.372	0.394					
800	0.164	0.187	0.234	0.257	0.281	0.304	0.328	0.351	0.398	0.421	0.445				
850	0.174	0.199	0.249	0.274	0.299	0.324	0.349	0.374	0.423	0.448	0.473	0.498			
900	0.185	0.211	0.264	0.290	0.317	0.343	0.370	0.396	0.449	0.475	0.502	0.528	0.554		
950	0.195	0.223	0.279	0.307	0.335	0.363	0.391	0.419	0.474	0.502	0.530	0.558	0.586	0.614	
1000	0.206	0.235	0.294	0.323	0.353	0.382	0.412	0.441	0.500	0.529	0.559	0.588	0.617	0.647	0.676

Designation key

Smoke exhaust grille:

Material:
Zn: galvanized steel
M: carbon steel with special coating
N: stainless steel
A: aluminium

Damper type:
 RSKM, RSKE

Effective damper cross-section:
BxH (B – width [mm], H – height [mm])

RD/RD1 X - X - X

RSKE / RSKM