Smoke control dampers

Fire /smoke control damper



KWP-P-E

AIR TECHNOLOGY

- VDI 6022 HYGIENIC STANDARD
- STABILISER BAR

Description

EI 120 S smoke control damper according to UNI EN 1366-2 (classifications) and UNI EN 1366-10 (tests for smoke control), UNI EN 13501-4 and UNI EN 12101-8 classification, certificate no. 1488-CPR-037/W CE marking - VDI 6022 hygienic certificate

- Special stabiliser bar to prevent vibrations and increase damper rigidity
- Construction: Z275 galvanised steel frame th. 15/10- 20/10 with flanges for connection to the ducting, intermediate thermal break, offset blade in calcium silicate mounted on steel shafts and brass bearings, intumescent gasket and perimeter gasket for tightness against cold
- Vertical and horizontal installation in multiple compartments
- Leakage class C of the frame according to EN 1751

Fitted with:

- with on-off actuator, dual microswitches both 24V and 230V
- Installation in walls with fire-resistance classes El 120/90/60
- Ceilings th. 150 mm
- Masonry walls th. 115 mm
- Vertical installation on ducts

KWP-P-E dimensions

El 120 (Vew - how i < -> o) S 1500 C 10'000 AA MULTI Construction in a single piece up to 1500x1000

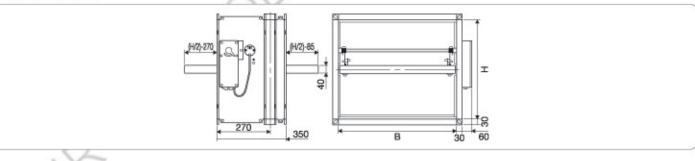
EI 120 (Ved - i - o) S 1000 C 10'000 AA MULTI

KWP-P-E24: smoke control damper with 24V on-off actuator and two micro limit switches

KWP-P-E230: smoke control damper with 230V on-off actuator and two micro limit switches

Special executions

- Execution in batteries
- Execution in AISI 304/316 stainless steel
- · Execution in galvanised steel coated according to the RAL table
- Blade treated with solvent-free, silicate-based impregnating agent, for acidic or very humid environments
- Additional communication systems (see page 10)



Smoke control dampers



Net air passage surface KWP-P-E

H/L	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	15
										_			Air pas	sage ar	rea (m²))											
200	0.028	0.035	0.042	0.049	0.056	0.063	0.070	0.077	0.084	0.091	0.098	0.105	0.112	0.119	0.126	0.133	0.140	0.147	0.154	0.161	0.168	0.175	0.182	0.189	0.196	0.203	0
250	0.038	0.048	0.057	0.067	0.076	0.086	0.095	0.105	0.114	0.124	0.133	0.143	0.152	0.162	0.171	0.181	0.190	0.200	0.209	0.219	0.228	0.238	0.247	0.257	0.266	0.276	0
300	0.048	0.060	0.072	0.084	0.096	0.108	0.120	0.132	0.144	0.156	0.168	0.180	0.192	0.204	0.216	0.228	0.240	0.252	0.264	0.276	0.288	0.300	0.312	0.324	0.336	0.348	
350	0.058	0.073	0.087	0.102	0.116	0.131	0.145	0.160	0.174	0.189	0.203	0.218	0.232	0.247	0.261	0.276	0.290	0.305	0.319	0.334	0.348	0.363	0.377	0.392	0.406	0.421	ŀ
400	0.068	0.085	0.102	0.119	0.136	0.153	0.170	0.187	0.204	0.221	0.238	0.255	0.272	0.289	0.306	0.323	0.340	0.357	0.374	0.391	0.408	0.425	0.442	0.459	0.476	0.493	
450	-	0.098	0.117	0.137	0.156	0.176	0.195	0.215	0.234	0.254	0.273	0.293	0.312	0.332	0.351	0.371	0.390	0.410	0.429	0.449	0.468	0.488	0.507	0.527	0.546	0.566	
500	-	0.110	0.132	0.154	0.176	0.198	0.220	0.242	0.264	0.286	0.308	0.330	0.352	0.374	0.396	0.418	0.440	0.462	0.484	0.506	0.528	0.550	0.572	0.594	0.616	0.638	
550	- /	0.123	0.147	0.172	0.196	0.221	0.245	0.270	0.294	0.319	0.343	0.368	0.392	0.417	0.441	0.466	0.490	0.515	0.539	0.564	0.588	0.613	0.637	0.662	0.686	0.711	
600	-	0.135	0.162	0.189	0.216	0.243	0.270	0.297	0.324	0.351	0.378	0.405	0.432	0.459	0.486	0.513	0.540	0.567	0.594	0.621	0.648	0.675	0.702	0.729	0.756	0.783	Ī
650	-	0.148	0.177	0.207	0.236	0.266	0.295	0.325	0.354	0.384	0.413	0.443	0.472	0.502	0.531	0.561	0.590	0.620	0.649	0.679	0.708	0.738	0.767	0.797	0.826	0.856	Ī
700	-	0.160	0.192	0.224	0.256	0.288	0.320	0.352	0.384	0.416	0.448	0.480	0.512	0.544	0.576	0.608	0.640	0.672	0.704	0.736	0.768	0.800	0.832	0.864	0.896	0.928	Ī
750	-	0.173	0.207	0.242	0.276	0.311	0.345	0.380	0.414	0.449	0.483	0.518	0.552	0.587	0.621	0.656	0.690	0.725	0.759	0.794	0.828	0.863	0.897	0.932	0.966	1.001	Ī
800	-	-	0.222	0.259	0.296	0.333	0.370	0.407	0.444	0.481	0.518	0.555	0.592	0.629	0.666	0.703	0.740	0.777	0.814	0.851	0.888	0.925	0.962	0.999	1.036	1.073	Ī
850	-	-	0.237	0.277	0.316	0.356	0.395	0.435	0.474	0.514	0.553	0.593	0.632	0.672	0.711	0.751	0.790	0.830	0.869	0.909	0.948	0.988	1.027	1.067	1.106	1.146	Ī
900	-		0.252	0.294	0.336	0.378	0.420	0.462	0.504	0.546	0.588	0.630	0.672	0.714	0.756	0.798	0.840	0.882	0.924	0.966	1.008	1.050	1.092	1.134	1.176	1.218	Ī
950	-	14		0.312	0.356	0.401	0.445	0.490	0.534	0.579	0.623	0.668	0.712	0.757	0.801	0.846	0.890	0.935	0.979	1.024	1.068	1.113	1.157	1.202	1.246	1.291	İ
1000	-	-	253	0.329	0.376	0.423	0.470	0.517	0.564	0.611	0.658	0.705	0.752	0.799	0.846	0.893	0.940	0.987	1.034	1.081	1.128	1.175	1.222	1.269	1.316	1.363	Ī
1050	-	10	-	0.347	0.396	0.446	0.495	0.545	0.594	0.644	0.693	0.743	0.792	0.842	0.891	0.941	0.990	1.040	1.089	1.139	1.188	1.238	1.287	1.337	1.386	-	Î
1100	-	<u></u>		-	0.416	0.468	0.520	0.572	0.624	0.676	0.728	0.780	0.832	0.884	0.936	0.988	1.040	1.092	1.144	1.196	1.248	1.300	1.352	1.404	2	-	Ī
1150	-			-	0.436	0.491	0.545	0.600	0.654	0.709	0.763	0.818	0.872	0.927	0.981	1.036	1.090	1.145	1.199	1.254	1.308	1.363	1.417				Î
1200	-	-	-	-	0.456	0.513	0.570	0.627	0.684	0.741	0.798	0.855	0.912	0.969	1.026	1.083	1.140	1.197	1.254	1.311	1.368	1.425		- 20	-	-	İ
1250	-	1	-	-		0.536	0.595	0.655	0.714	0.774	0.833	0.893	0.952	1.012	1.071	1.131	1.190	1.250	1.309	1.369	1.428	-	-	-		-	Î
1300	-	-		•	-	0.558	0.620	0.682	0.744	0.806	0.868	0.930	0.992	1.054	1.116	1.178	1.240	1.302	1.364	1.426	-		-	-	1.	-	Í
1350	-	-	-			0.581	0.645	0.710	0.774	0.839	0.903	0.968	1.032	1.097	1.161	1.226	1.290	1.355	1.419	-	-	-	-	-	-		t
1400	-	-	-	-	-	-	0.670	0.737	0.804	0.871	0.938	1.005	1.072	1.139	1.206	1.273	1.340	1.407	2	-	-	-	-	-	-	-	t
1450	-	-	-	-	-	-	0.695	0.765	0.834	0.904	0.973	1.043	1.112	1.182	1.251	1.321	1.390	-	-	-	-	-	-	-	-		t
1500		-	-	-	-	-	0 720	0 792	0.864	0.036	1 008	1 080	1 152	1 224	1 206	1 369	1.440						-	-			t

Damper for smoke control single compartment

Standards:	EN 13501-4; EN 1363-1,3; EN 1366-9,10; EN 12101-8

Classification

E300	30	60	90	120	
E600	30	60	90	120	

Notes:

The classification is completed with the word "single" to indicate suitability for use in a single compartment (single fire compartmentation). Temperature 400/30 (Maximum operating temperature) indicates that the damper can operate (open and close) for a period of

30 min. at temperatures below 400°C (caution: only for E600 classified dampers).

Symbols for installation:

Ved: vertical installation in duct

Vew: vertical installation on wall

Vedw: vertical installation both in duct and on wall

hod: horizontal installation in duct

how: horizontal installation in wall hodw: horizontal installation both in duct and on wall

S: indicates the tightness, the leakage which must be less than 200 m³/h/m². For all dampers not classified "S", a leakage is allowed which must be less than 360 m³/h/m². The leakage is measured both at room temperature and high temperatures.

500 - 1000 - 1500: the value indicates the maximum pressure in Pa measured at room temperature.

AA: automatic activation.

AM: manual activation.

"i -> o" -"i<-o"-"i<->o": indicate the product performance, respectively, internal-external, external-internal or both internal-external sides. C300: indicates that the damper can be used in smoke control only systems.

C10000: indicates that the damper can be used in combined smoke and room control systems.

Cmod: indicates that the modular dampers can be used in combined smoke and room control systems.

Damper for smoke control multiple compartment

		_
Standards:	EN 13501-4; EN 1363-1.3; EN 1366-9.10; EN 12101-8	

Classification

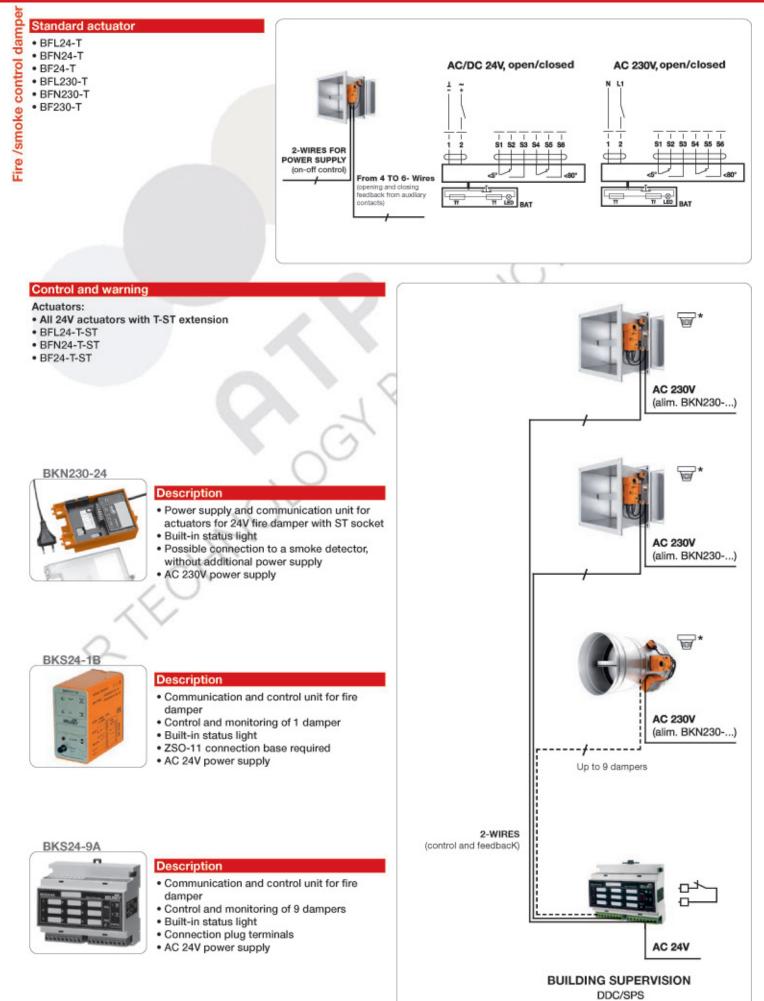
EI	30	60	90	120	
E	30	60	90	120	

Notes:

The classification is completed by the word "Multi" to indicate suitability for use in a multiple compartment (where multiple compartments are combined in the same air duct).

Actuators / Controls / Communication







Actuators / Controls / Communication

KTM



- VDI 6022 HYGIENIC STANDARD
- CERTIFICATION FOR ASSEMBLY OUTSIDE THE WALL UP TO 1 METRE

Description

EI 120 S fire damper according to UNI EN 1366-2 classification UNI EN 13501-3 certificate no. 1438-CPR-0509

CE marking - VDI 6022 hygienic certificate

- . Construction: Z275 galvanised steel frame th. 10/10 male coupling for direct insertion into the duct, offset blade in calcium silicate mounted on steel shafts and brass bearings, intumescent gasket and perimeter gasket for tightness against cold fumes
- Vertical or horizontal installation
- . Leakage Class B of the frame according to EN 1751

Fitted with:

- · Manual version: with 72°C thermal fuse, spring return and microswitch
- · Motorised version: actuators with 72°C thermal fuse, spring return, 24V and 230V dual microswitch
- . Installations in walls with fire resistance classes El 120/90/60 with blade installed in the wall or outside
- Ceilings th. 150 mm
- Low density masonry walls (min. 450 Kg/m³) with th. 115 mm
- Plasterboard walls th. 125 mm
- Outside the wall th. 120 mm up to 1 metre (EI 90S)
- Minimum distance wall or duct 10 mm

El 120 (ve ho i < -> o) S

KTM (male connection) UP (external gaskets), frame 195 mm, with fuse and spring return

KTM-UP - W: frame 195 mm, with fuse, spring return and micro switch (W1 - W2 - W12)

- · W1: limit switch on closing
- W2: limit switch on opening.
- W12: limit switch opening and closing

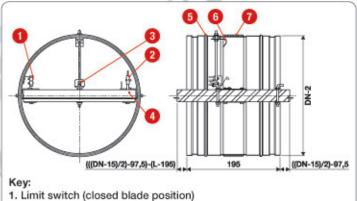
KTM-E24T: with actuator with spring return, thermal fuse and double opening and closing micro limit switch, 24V power supply, male connection, 307 mm frame

KTM-E230T: with servomotor with return spring, thermal fuse and double opening and closing micro limit switch, 230V power supply, male connection, 307 mm frame

Special executions

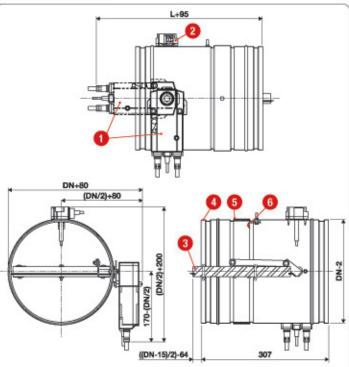
- Execution in AISI 304/316 stainless steel
- · Execution in galvanised steel coated according to the RAL table
- · Blade treated with solvent-free, silicate-based impregnating agent, for
- acidic or very humid environments
- 95°C thermal fuse for motorised version
- Special executions for "cabin/container" metal structures with installation outside the wall
- Additional communication systems (see page 10)





- 2. Limit switch (open blade position)
- 3. Thermal fuse
- 4. Blade
- 5. Frame
- 6. Blade stop
- Internal and external intumescent gasket





Key:

- 1. Electric actuator horizontal and vertical position
- 2. Thermo-electric fuse device
- 3. Blade
- 4. Frame
- 5. Internal and external intumescent gasket

6. Balde stop