WILDEBOER BAUTEILE GMBH

# Price list 2026

As at: 2025-11





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#### 1.1 Useful information

#### 1.1.1 General notes

All previous price lists are rendered invalid with the publication of this price list. No liability is accepted for any printing errors. Prices are quoted in € (EURO) ex works, plus statutory value added tax (VAT). Otherwise our General Terms and Conditions of Delivery and Payment apply. Our customer service conditions apply to customer service calls. An individual and spare parts price list applies to spare parts. The place of jurisdiction for all parties involved is Leer/Ostfriesland.

#### For your attention!

Additional prices always apply to original equipment ex works.

If the order includes various components with delivery times of different lengths, delivery will take place according to the product with the longest delivery time.

User manuals with detailed application instructions as well as usability certificates for fire protection products are available for all products in this price list; these are expressly referred to here. Copies of the documents are available. Any variation from the specifications or special use of fire protection products must be agreed with the responsible building authority. Documents online

We always reserve the right to make design changes due to technical advances. Our documents are constantly updated to reflect the latest technical developments, so they can always be requested if necessary. This must be observed when using the product. In special cases, we will issue an express written confirmation of use. All other technical specifications are to be regarded as recommendations.

#### 1.1.2 Express service



We offer you fast product delivery with our express service. Delivery can usually take place within 72 hours after confirmed receipt of order. Non-working days are excluded, subject to prior sale. Please contact our order processing department if you have any questions.

#### 1.1.3 RAL colours

Colour shades of surface coatings correspond to the RAL-CLASSIC colour chart. The prices stated in this price list for RAL colour shades are always additional prices and apply to other customary or standard colour shades according to this colour chart. Pearl and luminous colours according to the RAL colour chart are excluded from this, as are RAL colour shades 9006 and 9007. More than 100 colours are available. For other or special colour shades, structures, gloss levels, in particular for colour shades corresponding to other colour charts, the delivery possibilities and prices must be agreed with us in each individual case. Please contact our order processing department if you have any questions.

Colour sample cards always contain colour tolerances, which can sometimes result in visibly recognisable colour deviations despite the same colour number. Colour variations can never be totally avoided for technical reasons; this is particularly the case for colours RAL 9006 and RAL 9007. It is always advisable to specially match colours in conjunction with surrounding colours, for example, suspended ceilings. We accept no liability for on-site or customer painting of our unpainted products.

#### 1.1.4 Tips for navigation in the PDF

You navigate in this PDF file using links. In most PDF readers, once a link has been selected, the key combination "Alt + arrow left" can be used to return to the previous view/page.

#### 1.1.5 QR codes on product pages

The individual product pages feature QR codes which can either be scanned or clicked. Using the QR codes, you directly access the configuration page of the respective product in Wildeboer Connect. This is where you can make various settings and adjustments.

The implemented functions include:

- Product configurator with customer-specific net prices
- · Comprehensive information on products and orders
- · Transparent real-time order tracking
- Upgraded user management

## 1.1.6 General terms of delivery and payment

Our current general terms and conditions of delivery and payment can be found at:

www.wildeboer.de/agb

#### 1.1.7 Contacts

We aim to always provide personal advice and expert service. You will find the contact details for the respective areas listed below.

#### **Quotations**



Telephone:

+ 49 4951 - 950 100



E-mail:

angebote@wildeboer.de

#### Order processing



Telephone:

+ 49 4951 - 950 150



E-mail:

info@wildeboer.de

#### **Technical Support**



E-mail:

tb@wildeboer.de

To help you find the right contact person, we have integrated a postcode search on our website. www.wildeboer.de/kontakt

#### 2.1 **Decentralised ventilation**

#### WiVent-B ventilation unit 2.1.1



- Ventilation unit ready for connection as master and slave version for supply air, exhaust air and secondary air mode
- For horizontal installation on the parapet of a façade
- With front-facing vertical supply air and exhaust air openings
- Unit casing made of galvanized sheet steel
- Dimensions (B x H x T): 2000 x 800 x 380 mm

Configure your product here



	1		2		3		4		5		6		7		8		9
WVB-		-		-		-		-		-		-		-		-	

Unit version

М Master unit with room air sensor

S Slave unit Exhaust air filter

ISO ePM10 50 % Εī ISO Coarse 85 % E2

- Position of external air & exit air connecting piece

  - Middle М

- Condensation discharge
  - KG Using incline
  - ΚP Using condensation pump

- Heating/cooling unit
  - н Heat only

нк Heating and cooling

- Room control unit
  - None
  - Α Analogue
  - D5 Digital, 5 m cable length D1 Digital, 10 m cable length
  - Digital, 20 m cable length

- Heat exchanger
  - Heat exchanger
  - Ε Enthalpy exchanger

- Colour
  - Standard:
  - ST RAL 9010
  - Option:
  - RAL...

## Outdoor air filter

01 ISO ePM1 70 %

ISO ePM10 50 % 02

#### Price available on request

Discount group D

Accessories WiVent-B ventilation unit

Description	Price
Façade feedthrough with cover element	on request
Façade feedthrough with weather resistant louvre	on request
Cover plate (width: 110 2000 mm, height: 800 mm)	on request
Floor panel (width: 110 2000 mm, height: 35 160 mm)	on request
Termination unit remote from the unit	on request
Floor panels for termination unit	on request
Cover sheet on the unit	on request
Floor panel for cover sheet	on request
Unit feet for WiVent-B, height 47 67 mm (pack of 5)	on request
Unit feet for WiVent-B, height 62 82 mm (pack of 5)	on request
Unit feet for WiVent-B, height 77 127 mm (pack of 5)	on request
Unit feet for WiVent-B, height 110 161 mm (pack of 5)	on request
Installation set for WiVent-B	on request

## 2.2 Air grilles

## 2.2.1 SG/SGS louvre grilles/strips



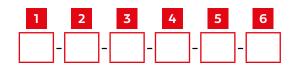
- · For supply air and exhaust air with horizontal or vertical front blades
- · Made of galvanised steel

SG/SGS louvre grille: Widths B: 225 ... 1225 mm Heights H: 75 ... 525 mm

SG/SGS Louvre grille belt: Widths B: 1425 ... 2025 mm (single-piece)

Greater widths possible using split grille strips. Heights H: 75 ... 325 mm Configure your product here





Air grilles

SG With horizontal front bladesSGS With vertical front blades

4 Dimensions

**W** [mm] x **H** [mm]

2 Design

Single-row without quantity control
 Single-row with quantity control
 Single-row with slot slider

DO Double-row without quantity control
DM Double-row with quantity control
DS Double-row with slot slider

5 Installation subframes

Standard:

Without installation subframe

Option:

**ER** With installation subframe

3 Fastening type

Standard:

V Concealed screw fastening

i Louvre grille belt:

Surcharge for concealed screw fastening: +15 %

Option:

W Counterpunched holes

6 Colour

Standard:

RAL 9010

Option:

For further information see > page 1.

SG louvre grille									Discount group L
4				1-	<b>+</b> 2			5	6
Width [mm]	Height [mm]	SG-O	SG-M	SG-S	SG-DO	SG-DM	SG-DS	ER	RAL colour

	3			<u> </u>	<b>+</b> 2			5	6
Width [mm]	Height [mm]	SG-O	SG-M	SG-S	SG-DO	SG-DM	SG-DS	ER	RAL colour
225		16	32	30	29	38	42	6	16
325		17	37-	34	29	46	47	6	17
425		17	41	37:-	30	53	49	9	17
525	125	18	46	37	34	64	53	9	22
625	125	19	51	38	37	72	56	9	22
825		29	64	51	49	90	73	10	31
1025		30	77 <del>.</del> -	56	55	103	86	13	32
1225		32	86	66	60	121	96	13	34
225		19	38	38	32	47	52	6	22
325		19	42	42	37	53	55	9	22
425		22	51	42	41	66	64	9	23
525	225	22	55	49	46	73	70	9	26
625	223	29	64	52	49	85	77	10	31
825		38	79	68	71	112	96	13	44
1025		41	96	78	88	125	125	13	46
1225		46	108	91	107	142	151	15	48
325		24	51	49	42	66	66	9	27
425		29	56	52	49	77	73	9	31
525		32	68	56	52	88	82	10	34
625	325	36	73	64	55	96	88	10	38
825		47	97:-	85	89	131	123	13	52
1025		53	113	95	96	149	138	13	60
1225		55	126	107:-	112	162	160	15	64
625		53	97	-	123	142	-	13	52
825	425	77	126	-	167	193	-	13	76
1025	423	88	148	-	193	220	-	15	87
1225		91	168	-	221	249	-	16	95
1025	525	97	162	-	217	247	-	15	100
1225	323	109	187	-	249	285	-	16	110

SG louvre grille strip Discount group L

	_			11-	<b>-</b> 2			5	6
Width [mm]	Height [mm]	SG-O	SG-M	SG-S	SG-DO	SG-DM	SG-DS	ER	RAL colour
1425		59	139	131	115	258	258	59	39
1625	125	66	159	142	131	294	276	66	39
1825	125	77	178	160	149	334	310	77	39
2025		85	198	177	161	369	345	85	39
1425		78	168	153	153	292	275	78	49
1625	225	89	187	175	173	335	312	89	49
1825	225	99	210	197	198	375	352	99	49
2025		109	237	215	217	414	386	109	49
1425		96	182	187	189	321	299	96	64
1625	325	109	210	214	214	366	383	109	64
1825	323	121	237	238	237	414	394	121	64
2025		136	260	262	267	454	424	136	64
Centre	125	79	190	175	153	357	339	31	39
sections	225	100	228	210	209	399	379	32	49
2000	325	125	249	260	250	443	418	34	64
F., .	125	38	97	90	79	182	175	16	39
End sections 950 – 1010	225	52	115	107	103	202	196	17	49
330 - 1010	325	62	138	119	127	222	214	22	64
F.,	125	59	141	130	115	269	256	23	39
End sections 1070 – 1490	225	78	169	159	153	298	281	24	49
1576 - 1490	325	95	185	196	187	328	312	30	64
End coations	125	78	187	173	150	352	335	31	39
End sections 1550 – 1970	225	99	220	209	207	394	377	32	49
1330 - 1370	325	123	246	232	249	435	414	34	64

SGS louvre grille Discount group L

3G3 loovie grii	_			-	1 3			-	Discount group L
4	1				+ 2			5	6
Width [mm]	Height [mm]	SGS-O	SGS-M	SGS-S	SGS-DO	SGS-DM	SGS-DS	ER	RAL colour
225		13	26	29	26	37	42	6	16
325		17	34	32	29	47	43	6	17
425		19	38	34	34	53	47	9	17
525	75	26	47	38	36	62	49	9	31
625	/5	28	51	46	42	71	55	9	32
825		30	60	49	52	90	70	10	36
1025		34	71	59	59	109	82	13	44
1225		36	82	64	68	121	91	13	46
225		13	29	29	28	42	43	6	16
325		18	34	34	30	49	47	6	22
425		19	42	37	36	60	51	9	26
525	125	26	47	42	42	68	59	9	31
625	125	30	53	47	46	77	60	9	36
825		34	64	55	59	97	81	10	44
1025		37	78	62	68	113	90	13	47
1225		43	89	72	77	130	103	13	49
225		18	37	37	37	59	55	6	22
325		19	38	38	42	60	59	9	26
425		26	47	46	47	71	66	9	31
525	225	29	53	49	53	82	77	9	34
625	223	32	60	55	60	90	82	10	38
825		38	79	68	77	113	100	13	48
1025		47	90	77	88	131	118	13	55
1225		51	103	89	99	149	141	15	64
325		26	47	46	51	77	70	9	31
425		29	53	51	59	85	79	9	34
525		34	60	59	68	95	89	10	39
625	325	37	71	64	77	109	100	10	47
825		47	90	78	96	130	125	13	55
1025		53	103	90	112	149	144	13	66
1225		62	121	106	130	169	167	15	76

SGS louvre grille strip

Discount group L

									Discount group L
4				1-	<b>+</b> 2			5	6
Width [mm]	Height [mm]	sgs-o	SGS-M	SGS-S	SGS-DO	SGS-DM	SGS-DS	ER	RAL colour
1425		60	118	112	115	178	175	19	36
1625	75	70	135	125	130	202	198	25	36
1825	,,	78	151	141	144	229	220	26	36
2025		86	168	155	157	255	246	33	36
1425		66	135	121	130	198	198	25	39
1625	125	77	151	139	149	229	220	26	39
1825	123	85	169	159	166	247	247	33	39
2025		95	185	175	185	276	280	36	39
1425		77	157	149	155	232	247	26	49
1625	225	85	178	166	179	267	280	33	49
1825	223	95	197	185	202	296	312	36	49
2025		100	217	207	222	328	352	38	49
1425		95	189	177	217	312	316	33	64
1625	325	107	212	198	249	355	360	36	64
1825	323	119	238	222	280	396	406	38	64
2025		131	267	247	309	440	448	42	64
	75	85	168	155	157	247	246	33	36
Centre sec-	125	91	185	169	179	280	275	35	39
2000	225	100	217	203	217	321	346	36	49
2000	325	131	260	240	309	436	446	39	64
	75	41	82	79	81	125	119	17	36
End section	125	47	91	86	90	141	139	18	39
950 1010	225	52	115	100	115	166	177	19	49
	325	66	135	123	153	220	228	25	64
	75	60	121	116	118	185	182	19	36
End section	125	70	138	125	136	212	202	26	39
1070 1490	225	78	168	153	166	240	258	28	49
	325	97	202	187	231	321	328	33	64
	75	82	161	153	179	246	240	33	36
End section	125	91	182	168	215	275	269	35	39
1550 1970	225	100	212	201	232	318	336	36	49
	325	125	258	240	304	427	437	39	64

#### 2.2.2 AG/AGS Louvre grilles/strips



- · For supply air and exhaust air with horizontal or vertical front blades
- · Made of aluminium

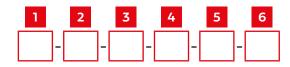
AG/AGS louvre grille: Widths B: 225 ... 1225 mm

Heights H: 75 ... 525 mm

• AG/AGS Louvre grille belt: Widths B: 1425 ... 2025 mm (single-piece)

Greater widths possible using split grille strips. Heights H: 75 ... 325 mm Configure your product here





1 Air grilles

AG With horizontal front blades
AGS With vertical front blades

4 Dimensions

**W** [mm] x **H** [mm]

2 Design

O Single-row without quantity control

M Single-row with quantity control

**S** Single-row with slot slider

DO Double-row without quantity controlDM Double-row with quantity control

**DS** Double-row with slot slider

5 Installation subframes

Standard:

Without installation subframe

Option:

**ER** With installation subframe

3 Fastening type

Standard:

V Concealed screw fastening

i Louvre grille belt:

Surcharge for concealed screw fastening: +15 %

Option:

W Counterpunched holes

6 Colour

Standard:

Aluminium, silver anodised

Option:

RAL...

For further information see > page 1.

AG louvre grille									Discount group L
4			1+2						<mark>6</mark>
Width [mm]	Height [mm]	AG-O	AG-M	AG-S	AG-DO	AG-DM	AG-DS	ER	RAL colour
225		25	48	47	39	59	58	6	32
325		33	59	52	47	73	68	6	34
425		38	68	58	56	89	79	9	36

<u> </u>	4				· <u>-</u>				
Width [mm]	Height [mm]	AG-O	AG-M	AG-S	AG-DO	AG-DM	AG-DS	ER	RAL colour
225		25	48	47	39	59	58	6	32
325		33	59	52	47	73	68	6	34
425		38	68	58	56	89	79	9	36
525	125	40	81	65	77	113	99	9	38
625	125	42	89	68	84	129	113	9	40
825		52	108	81	105	159	138	10	56
1025		64	124	99	121	195	167	13	64
1225		68	142	113	140	222	190	13	68
325		42	77	68	65	98	89	9	44
425		51	89	77	73	113	104	9	47
525		58	105	87	98	142	124	9	49
625	225	65	117	97	113	163	142	10	56
825		73	141	113	136	203	175	13	84
1025		89	169	136	164	249	214	13	87
1225		99	195	159	189	288	252	15	96
425		60	110	91	104	155	121	9	60
525		73	129	108	120	175	155	10	65
625	325	81	146	117	136	202	174	10	76
825	323	97	180	121	167	252	210	13	104
1025		115	214	164	203	301	256	13	116
1225		129	252	189	236	361	295	15	123
625		101	180	-	163	240	-	13	104
825	425	120	215	-	202	301	-	13	151
1025	425	146	262	-	248	364	-	15	171
1225		163	303	-	286	425	-	16	190
1025	525	172	310	-	288	427	-	15	197
1225	525	195	356	_	303	487	_	16	218

AG louvre grille strip	Discount group L

4			1+2						6
Width [mm]	Height [mm]	AG-O	AG-M	AG-S	AG-DO	AG-DM	AG-DS	ER	RAL colour
1425		205	363	346	254	408	402	22	79
1625	125	240	411	394	286	464	454	23	79
1825	125	264	462	441	322	523	514	30	79
2025		293	514	487	360	577	566	32	79
1425		244	441	416	327	514	506	23	101
1625	225	280	501	476	364	588	575	30	101
1825	225	313	559	533	415	655	644	32	101
2025		346	619	592	461	728	715	34	101
1425		286	526	501	394	633	606	30	123
1625	325	327	600	569	446	720	694	32	123
1825	323	364	678	644	502	806	771	34	123
2025		407	747	709	555	896	861	36	123
Centre sec-	125	288	506	481	352	569	559	32	79
tion	225	343	614	587	453	715	704	34	101
2000	325	402	737	699	551	883	854	36	123
F	125	149	256	244	180	288	282	16	79
End section 950 1010	225	172	313	300	229	364	360	17	101
950 1010	325	203	376	356	280	446	443	22	123
Ford anation	125	215	377	363	262	425	416	23	79
End section 1070 1490	225	256	458	437	342	539	527	24	101
10/0 1490	325	300	548	523	411	663	644	30	123
F., d.,	125	296	514	487	360	577	566	32	79
End section 1550 1970	225	346	617	591	461	729	715	33	101
1330 1370	325	403	747	709	555	896	867	34	123

AGS louvre grille Discount group L

Accepted gill	_			1	+ 2			5	6
Width [mm]	Height [mm]	AGS-O	AGS-M	AGS-S	AGS-DO	AGS-DM	AGS-DS	ER	RAL colour
225		34	58	52	39	60	58	6	32
325		40	68	64	47	73	68	6	38
425		47	82	68	58	89	81	9	47
525	75	58	97	81	65	104	89	9	56
625	75	65	105	87	74	115	98	9	64
825		79	129	110	91	141	120	10	72
1025		93	155	124	105	167	140	13	84
1225		108	180	149	123	195	167	13	87
225		38	60	56	42	68	64	6	32
325		47	74	68	52	82	74	6	40
425		52	93	74	65	101	84	9	49
525	125	65	105	82	74	117	99	9	60
625	125	69	117	93	87	133	113	9	72
825		87	146	117	105	163	140	10	84
1025		101	172	136	121	195	172	13	89
1225		117	202	162	142	229	194	13	101
325		52	91	77	68	105	91	9	48
425		65	110	91	81	123	108	9	60
525		73	124	104	93	142	133	9	68
625	225	81	142	113	113	169	155	10	76
825		104	179	138	132	208	186	13	95
1025		120	210	167	155	245	203	13	113
1225		136	245	194	183	288	252	15	124
425		72	124	104	97	150	124	9	68
525		82	146	117	113	172	159	10	79
625	325	97	169	132	133	205	174	10	89
825	323	117	210	162	162	253	235	13	113
1025		140	252	189	189	301	262	13	131
1225		162	288	215	221	355	296	15	151

AGS louvre grille strip

Discount group L

4				1	+ 2			5	6
Width [mm]	Height [mm]	AGS-O	AGS-M	AGS-S	AGS-DO	AGS-DM	AGS-DS	ER	RAL colour
1425		140	240	229	162	260	256	17	72
1625	75	162	265	256	181	292	290	23	72
1825	/5	180	303	292	205	330	327	24	72
2025		200	337	330	223	364	363	30	72
1425		155	264	256	189	301	300	22	79
1625	125	175	303	290	210	344	335	23	79
1825	125	195	342	326	240	386	380	30	79
2025		215	380	363	262	427	420	32	79
1425		181	325	305	240	380	377	23	101
1625	225	208	368	351	276	434	425	30	101
1825	225	235	416	395	304	484	477	32	101
2025		256	462	437	337	541	528	34	101
1425		210	391	368	290	467	446	30	123
1625	325	244	442	420	331	528	507	32	123
1825	323	265	498	475	370	596	569	33	123
2025		300	555	527	408	663	636	36	123

#### 2.2.3 ABG/ACG Profile louvre grilles/strips

For supply air and exhaust air with fixed and straight profile louvre grilles or profile louvre grilles with 15° inclination, and with individually adjustable stream directing blades in double row

Configure your product here



Made of aluminium

ABG/ACG louvre grille: 225 ... 1225 mm Widths B:

Heights H: 75 ... 425 mm

1425 ... 2025 mm (single-piece) ABG/ACG Louvre grille belt: Widths B:

> Greater widths possible using split grille strips. 75 ... 325 mm Heights H:



Air grilles

ABG With fixed straight profile blades ACG With fixed 15° inclined profile blades Dimensions

**W** [mm] x **H** [mm]

Design

0 Single-row without quantity control

М Single-row with quantity control

s Single-row with slot slider

DO Double-row without quantity control

DM Double-row with quantity control

Double-row with slot slider

Installation subframes

Standard:

Without installation subframe

Option:

ER With installation subframe

Fastening type

Standard:

ν Concealed screw fastening

Profile louvre grille strip:

Surcharge for concealed screw fastening: +15 %

Option:

i

Counterpunched holes

Colour

Standard:

Aluminium, silver anodised

Option:

RAL...

For further information see ▶ page 1.

ABG/ACG profile louvre grille

Discount group L

4 4 ABG/ACG PION	_			1	+ 2			5	6
	Height	ABG-O	ABG-M	ABG-S	ABG-DO	ABG-DM	ABG-DS		
Width [mm]	[mm]	ACG-O	ACG-M	ACG-S	ACG-DO	ACG-DM	ACG-DS	ER	RAL colour
225		39	64	58	56	87	79	6	32
325		42	73	65	59	99	89	6	38
425		50	89	72	69	115	99	9	47
525	75	58	101	82	73	129	110	9	56
625	/5	60	113	89	87	140	121	9	64
825		73	133	112	105	169	150	10	72
1025		89	159	129	121	198	171	13	84
1225		101	181	150	136	227	202	13	87
225		47	79	68	68	97	87	6	32
325		56	90	81	73	115	104	6	40
425		65	108	89	89	133	115	9	49
525	125	72	121	101	99	154	130	9	60
625	125	84	136	110	108	171	146	9	72
825		104	167	136	133	211	180	10	84
1025		121	198	162	155	249	211	13	89
1225		136	227	183	179	284	244	13	101
325		79	128	105	104	151	132	9	48
425		91	150	121	121	180	155	9	60
525		108	171	140	136	205	180	9	68
625	225	121	192	155	151	236	202	10	76
825		151	240	194	195	293	249	13	95
1025		179	284	235	227	346	296	13	113
1225		203	322	270	260	402	346	15	124
425		121	190	155	155	232	202	9	68
525		142	219	181	179	265	229	10	79
625	325	162	249	203	198	304	256	10	89
825	323	200	312	249	254	380	319	13	113
1025		240	370	296	300	451	377	13	131
1225		280	434	343	344	526	441	15	151
625		200	305	-	240	364	-	13	104
825	425	236	380	-	300	417	-	13	151
1025	423	280	454	-	351	492	-	15	171
1225		312	523	-	394	563	-	16	190

12

ABG/ACG profile louvre grille strip

ABG/ACG profil		, strip		1	+ 2			5	Discount group I
		ABG-O	ABG-M	ABG-S	ABG-DO	ABG-DM	ABG-DS		
Width [mm]	Height [mm]	ACG-O	ACG-M	ACG-S	ACG-DO	ACG-DM	ACG-DS	ER	RAL colour
1425		140	254	249	211	331	313	17	72
1625		159	288	284	241	377	363	23	72
1825	75	180	327	314	271	425	403	24	72
2025		202	363	346	300	473	451	30	72
1425		192	313	310	264	415	394	22	79
1625		215	360	352	304	477	446	23	79
1825	125	241	402	394	343	528	502	30	79
2025		271	443	437	377	588	557	32	79
1425		284	451	445	385	588	552	23	101
1625	225	326	514	506	441	672	631	30	101
1825		363	575	569	494	754	706	32	101
2025		402	639	633	548	836	785	34	101
1425	325	380	591	587	514	767	715	30	121
1625		436	672	663	587	875	818	32	121
1825		487	754	745	655	981	918	33	121
2025		541	836	827	730	1089	1016	36	121
	75	198	-	-	-	-	-	30	72
Centre sec-	125	264	-	-	-	-	-	32	79
tion 2000	225	400	-	-	-	-	-	33	101
2000	325	533	-	-	-	-	-	36	121
	75	101	-	-	-	-	-	15	72
End section	125	133	-	-	-	-	-	16	79
950 1010	225	202	-	-	-	-	-	17	101
	325	271	-	-	-	-	-	22	121
	75	149	-	-	-	-	-	17	72
End section	125	202	-	-	-	-	-	23	79
1070 1490	225	296	-	-	-	-	-	24	101
	325	400	-	-	-	-	-	30	121
	75	194	-	-	-	-	-	30	72
End section	125	262	-	-	-	-	-	32	79
1550 1970	225	394	-	-	-	-	-	33	101
	325	526	-	-	-	-	-	34	121

#### 2.2.4 ATG gymnasium grilles/strips

For supply air and exhaust air in gymnasiums with fixed, horizontal profile louvre grilles, and with individually adjustable stream deflection blades in

Configure your product here

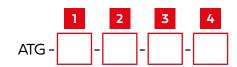
Made of aluminium, silver anodised

ATG Gymnasium grille: 325 ... 1225 mm Widths B: Heights H: 125 ... 325 mm

ATG Gymnasium grille belt: Widths B: 1425 ... 2025 mm (one-piece)

> Larger widths possible via split mesh belts. Heights H: 125 ... 325 mm





Design

0 Single-row without flow control

Single-row with flow control М

Single-row with hit-and-miss damper S DO Double-row without flow control

DM Double-row with flow control Double-row with hit-and-miss damper Dimensions

**W** [mm] x **H** [mm]

Fastening type

Option:

w Counterpunched holes Installation subframes

Standard:

Without installation subframe

Option:

ER With installation subframe

ATG gymnasium grilles

3	3		<u> </u>					4
Width [mm]	Height [mm]	ATG-O	ATG-M	ATG-S	ATG-DO	ATG-DM	ATG-DS	ER
325		70	108	91	87	129	112	6
425		82	125	108	101	150	129	9
525		95	141	120	112	171	150	9
625	125	108	159	132	127	196	170	9
825		129	196	163	159	236	205	10
1025		151	229	193	190	279	243	13
1225		177	269	226	220	319	284	13
325		106	150	130	125	177	158	9
425		125	179	151	148	206	186	9
525		137	203	175	163	242	214	9
625	225	156	222	193	180	269	236	10
825		185	272	226	229	329	285	13
1025		218	319	272	262	384	334	13
1225		246	376	309	304	445	390	15
425		163	229	198	198	272	242	9
525		185	262	222	220	311	272	10
625	325	203	288	243	238	347	301	10
825	325	243	355	292	297	421	361	13
1025		284	421	336	338	498	425	13
1225		319	485	384	390	570	483	15

ATG aymnasium arille strip	Discount aroup L

3	_				1			4
Width [mm]	Height [mm]	ATG-O	ATG-M	ATG-S	ATG-DO	ATG-DM	ATG-DS	ER
1425		227	347	335	304	426	415	22
1625	75	254	384	377	334	472	456	23
1825	/5	284	453	445	371	516	505	30
2025		304	465	453	405	561	548	32
1425	225	318	481	465	421	578	561	23
1625		361	538	524	474	652	630	30
1825	225	398	601	582	524	716	698	32
2025		438	659	639	573	785	760	34
1425	325	415	616	601	539	739	719	30
1625		469	692	673	612	828	806	32
1825		516	775	752	679	916	891	33
2025		573	854	828	739	1005	976	36
Centre sec-	125	304	-	-	-	-	-	32
tion	225	438	-	-	-	-	-	33
2000	325	573	-	-	-	-	-	36
	125	175	-	-	-	-	-	16
End section 950 1010	225	246	-	-	-	-	-	17
930 1010	325	318	-	-	-	-	-	22
F-d	125	258	-	-	-	-	-	23
End section 1070 1490	225	368	-	-	-	-	-	24
10/0 1490	325	474	-	-	-	-	-	30
F	125	334	-	-	-	-	-	32
End section 1550 1970	225	469	-	-	-	-	-	33
1550 1970	325	614	-	-	-	-	-	34

#### 2.2.5 ABF floor grilles/strips



- For supply air and exhaust air with fixed, horizontal profile louvre grilles
- Made of aluminium, silver anodised

ABG Floor grille: Widths B: 225 ... 1225 mm

Heights H: 75 ... 425 mm

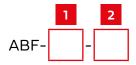
ABG floor grille strip: Widths B: 1425 ... 2025 mm (one-piece)

> Larger widths possible via split mesh belts. Heights H: 75 ... 325 mm

Configure your product here



Discount group L



Design

Single-row without flow control 0

Single-row with hit-and-miss damper

Dimensions **W** [mm] x **H** [mm]

ABF floor grilles

ABF floor grille	Discount group			
2	1			

ABF floor grille		Discount group L				
2			1			
Width [mm]	Height [mm]	ABF-O	ABF-S			
225		56	73			
325		68	89			
425	75	79	104			
525		89	115			
625	/3	99	129			
825		121	155			
1025		142	183			
1225		167	214			
225		68	89			
325		82	105			
425		97	121			
525	125	108	133			
625	123	121	150			
825		150	183			
1025		175	215			
1225		198	264			
325		110	136			
425		129	159			
525		146	180			
625	225	164	202			
825		200	240			
1025		236	288			
1225		271	335			
425		159	195			
525		189	229			
625	325	214	254			
825	323	264	312			
1025		310	364			
1225		356	420			
625		264	-			
825	425	314	-			
1025	723	370	-			
1225		423	-			

ABI 11001 grille:	2	1			
	Height				
Width [mm]	[mm]	ABF-O	ABF-S		
1425		229	343		
1625	75	262	394		
1825	/5	290	436		
2025		326	484		
1425		282	403		
1625	125	314	461		
1825	125	356	516		
2025		395	569		
1425		377	543		
1625	225	429	617		
1825		484	695		
2025		532	768		
625		492	699		
825	725	559	796		
1025	325	631	901		
1225		698	999		
	75	322	-		
Centre sec- tion	125	394	-		
2000	225	527	-		
2000	325	694	-		
	75	162	-		
Centre sec-	125	202	-		
tion 950 1010	225	270	-		
330 1010	325	351	-		
	75	240	-		
Centre sec- tion	125	290	-		
1070 1490	225	394	-		
1070 1430	325	516	-		
6	75	313	-		
Centre sec-	125	380	-		
tion 1550 1970	225	523	-		
1550 1570	325	683	-		

#### 2.2.6 ASG sight protection grille



- with fixed V-shaped profile louvre grilles
- Made of aluminium, silver anodised

Widths B: 225 ... 1225 mm · Heights H: 125 ... 525 mm

Configure your product here



ASG-

Design

Standard:

Without blind frame

Option:

With frame

Blind frames and installation subframes cannot be combined with each other.

Installation subframes

Standard:

Without installation subframe

Option:

With installation subframe ER

Blind frames and installation subframes cannot be combined with each other.

Dimensions **W** [mm] x **H** [mm] Colour

Standard:

Aluminium, silver anodised

Option:

RAL...

For further information see > page 1.

ASG sight protection grille

	2		]	3	4
Width [mm]	Height [mm]	ASG	ASG-T	ER	RAL colour
225		38	52	6	31
325		40	60	6	38
425		51	69	9	47
525	125	58	81	9	54
625	125	65	91	9	66
825		81	113	10	79
1025		97	124	13	82
1225		113	150	13	91
325		52	74	9	46
425		65	89	9	54
525		73	99	9	64
625	225	82	113	10	69
825		105	136	13	87
1025		123	159	13	104
1225		142	183	15	116
425		79	105	9	64
525		91	117	10	72
625	325	105	133	10	82
825	323	124	163	13	104
1025		155	190	13	120
1225		175	221	15	139
625		123	155	13	95
825	425	155	189	13	139
1025	425	181	222	15	157
1225		213	260	16	173
1025	525	210	256	15	181
1225	323	245	292	16	199

#### 2.2.7 ALG light protection grille



- · With fixed W-shaped profile louvre grilles
- · Made of aluminium, silver anodised
- Widths B: 225 ... 1225 mm

· Heights H: 125 ... 525 mm

Configure your product here





1 Design

Standard:

Without blind frame

Option:

**T** With frame

i

Blind frames and installation subframes cannot be combined with each other.

3 Installation subframes

Standard:

Without installation subframe

Option:

**ER** With installation subframe

Blind frames and installation subframes cannot be combined with each other.

2 Dimensions W [mm] x H [mm]

ALG light protection grille

	2			3
Width [mm]	Height [mm]	ALG	ALG-T	ER
225		60	79	6
325		69	91	6
425		81	101	9
525	125	91	113	9
625	125	99	123	9
825		115	149	10
1025		136	169	13
1225		155	194	13
325		82	108	9
425		98	117	9
525		113	133	9
625	225	121	150	10
825		149	175	13
1025		172	208	13
1225		195	236	15
425		115	140	9
525		129	158	10
625	325	146	174	10
825	323	174	208	13
1025		208	245	13
1225		236	279	15
625		167	202	13
825	425	203	240	13
1025	425	240	280	15
1225		279	322	16
1025	525	276	319	15
1225	525	317	364	16

## 2.2.8 SR pipe grille



· For installation in ventilation pipelines for supply and exhaust air

 With individually adjustable, horizontal or vertical stream deflection grilles and slot slider

Made of galvanised steel

Widths B: 425 ... 1025 mm
 Heights H: 75 ... 225 mm

Configure your product here



1 2

1 Grille arrangement

SR With horizontal blades

SRS With vertical blades

Dimensions
W [mm] x H [mm]

SR pipe grille

	2		]
Width [mm]	Height [mm]	SR	SRS
425		-	48
525		-	52
625	75	-	56
825		-	87
1025		-	97
425		49	53
525		53	59
625	125	58	68
825		92	104
1025		106	115
425		52	57:-
525	225	58	67
625		68	77:-
825		100	110
		•	

#### 2.2.9 SK duct grille



- · For installation in ventilation ducts for supply and exhaust air
- With individually adjustable, horizontal or vertical stream deflection grilles and slot slider
- Made of galvanised steel
- · Widths B: 425 ... 1025 mm
- · Heights H: 125 ... 325 mm

Configure your product here





Grille arrangement

**SK** With horizontal blades

SKS With vertical blades

2

Dimensions
W [mm] x H [mm]

SK duct grille

	2		
Width [mm]	Height [mm]	SK	SKS
425		37	41
525		39	46
625	125	39	53
825		53	59
1025		58	70
425		44	50
525	225	50	55
625	225	53	59
825		68	76
425		53	55
525	325	58	62
625	325	62	71. <del>-</del>
825		83	88

## 2.3 Air diffusers

#### 2.3.1 LFQ linear air diffusers



- · For supply air and exhaust air
- · Square front plate with slot-shaped, fixed air deflection blades
- Made of galvanised steel, powder coated, colour RAL 9010 or different RAL colour
- Nominal sizes: 325 ... 625 mm
- · Hole pattern: 325 ... 600 mm

Configure your product here





Front plate

Q With central fastening

QW With counterpunched hole fastening

5 Nominal connection width

For further information see 🕨 LFQ user manual

2 Front plate size

325

400

500

600

625

6 Installation parts for plenum box

Standard:

Without installation parts

Option:

**D** With damper

L With air deflector plate

**DL** With damper and air deflector plate

3 Front plate

Standard:

ST Front plate and cap RAL 9010

Option:

FL Front plate RAL ..., Cap RAL 9017

**FS** Front plate and cap RAL ...

**R** Galvanized version

For further information see > page 1

7 Colour of plenum box

Standard:

 ${\bf VK}~{\sf Galvanised}$ 

Option:

**KL** Box exterior in RAL ...

**SK** Black inside and outside

4 Connecting piece

Standard:

Without plenum box

Option:

K1 One side-entry connecting piece

**K2** Two side-entry connecting pieces

K3 Upper connecting piece

8 Lip seal

Standard:

Without lip seal

Option:

**LD** With lip seal

#### LFQ air diffuser with *plenum box K1* and K3

#### Discount group L

1 -	+ 2		3			4		5		6		7	8
Size	LFQ/ LFQW	FL	FS	R	Size	Nozzle	K1 / K3	Nozzle change	D	L	DL	KL / SK	LD
325	41	27	33	-	325	160	42	16	9	10	19	39	5
400	51	32	38	-	400	200	46	17:-	14	10	24	46	5
500	63	38	44	-	500	200	55	24	14	10	24	47	5
600	77:-	46	52	ı	600	250	57:-	25	16	10	26	49	5
625	79	46	52	-	600	250	57:-	25	16	10	26	49	5

#### LFQ air diffuser with *plenum box K2*

1	+ 2		3			4		5		6		7	8
Size	LFQ/ LFQW	FL	FS	R	Size	Nozzle	К2	Nozzle change	D	L	DL	KL / SK	LD
325	41	27	33	-	325	DN	67	-	18	10	28	39	10
400	51	32	38	-	400	DN	72	-	28	10	38	46	10
500	63	38	44	-	500	DN	85	-	28	10	38	47	10
600	77:-	46	52	-	600	DN	90	-	32	10	42	49	10
625	79	46	52	-	600	DN	90	-	32	10	42	49	10

#### 2.3.2 DX swirl diffusers



- · For supply air and exhaust air
- Circular or square front plate with radially aligned, repositionable air deflection blades
- Made of galvanised steel, powder coated, colour RAL 9010 or different RAL colour
- Nominal sizes: 325 ... 825 mm
- Hole pattern: 325 ... 800 mm





	1		2		3		4		5		6		7		8		9		10
DX-		-		-		-		-		-		-		-		-		_	

Front plate shape

Q0 Square with circular hole pattern

Q1 Square with rectangular hole pattern

**RO** Circular

6 Connecting piece

Standard:

Without plenum box

Option:

**K1** Square, one side-entry connecting piece

- **K2** Square, two side-entry connecting pieces
- K3 Square, upper connecting piece
- **R1** Circular, one side-entry connecting piece

For further information see > DX user manual

R3 Circular, upper connecting piece

2 Front plate size

325 800

400 825

500

600 625

3 Front plate

Standard:

ST Front plate RAL 9010, cap RAL 9010

Option:

FL Front plate RAL ..., Cap RAL 9017

**FS** Front plate and cap RAL...

For further information see > page 1

8 Installation parts for plenum box

Nominal connection width

Standard:

Without installation parts

Option:

**D** With damper

L With air deflector plate

**DL** With damper and air deflector plate

4 Direction of air flow

ML Supply air with black blades

**WL** Supply air with white blades

**OL** Exhaust air (without blades)

9 Colour of plenum box

Standard:

**VK** Galvanised

Option:

**KL** Box exterior in RAL ...

**SK** Black inside and outside

5 Number of blades

64

20 Hole pattern 500

Hole pattern 500, hole pattern 600

28 Hole pattern 600

32 Hole pattern 600

56 Hole pattern 800

Hole pattern 800

Standard:

Without lip seal

Option:

Lip seal

LD With lip seal

#### DXQ0 supply air with plenum box K1 and K3

#### Discount group L

	2 + 5		1+4	E	3		6		7		8		9	10
Size	Hole pattern	Number of slats	DXQ0-ML / DXQ0-WL	FL	FS	Size	Nozzle	K1 / K3	Nozzle change	D	L	DL	KL / SK	LD
325	325	8	69	27	33	325	160	42	16	9	10	19	39	5
400	400	16	79	32	38	400	200	46	17:-	14	10	24	46	5
500	500	20	87	38	44	500	200	55	24	14	10	24	47	5
300	300	24	90	38	44	500	200	55	24	14	10	24	47	5
	325	8	99	46	52	325	160	42	16	9	10	19	39	5
	400	16	99	46	52	400	200	46	17:-	14	10	24	46	5
	500	20	99	46	52	500	200	55	24	14	10	24	47	5
600	300	24	99	46	52	500	200	55	24	14	10	24	47	5
		24	94	46	52	600	250	57 <del>.</del> -	25	16	10	26	49	5
	600	28	94	46	52	600	250	57 <del>.</del> -	25	16	10	26	49	5
		32	95	46	52	600	250	57	25	16	10	26	49	5
	325	8	99	46	52	325	160	42	16	9	10	19	39	5
	400	16	99	46	52	400	200	46	17:-	14	10	24	46	5
	500	20	99	46	52	500	200	55	24	14	10	24	47	5
625	300	24	99	46	52	500	200	55	24	14	10	24	47	5
		24	94	46	52	600	250	57 <del>.</del> -	25	16	10	26	49	5
	600	28	94	46	52	600	250	57 <del>.</del> -	25	16	10	26	49	5
	600	32	95	46	52	600	250	57	25	16	10	26	49	5
800	800	56	157	64	96	800	315	75	34	16	12	28	65	8
800	800	64	162	64	96	800	315	75	34	16	12	28	65	8
925	825 800	56	157	64	96	800	315	75	34	16	12	28	65	8
625	800	64	162	64	96	800	315	75	34	16	12	28	65	8

#### DXQ0 supply air with plenum box K2

	113	ptenum bo												TOUP L
	2 + 5		1 + 4	2	3		6		7		8		9	10
Size	Hole pattern	Number of slats	DXQ0-ML / DXQ0-WL	FL	FS	Size	Nozzle	К2	Nozzle change	D	٦	DL	KL / SK	LD
325	325	8	69	27	33	325	DN	67	-	18	10	28	39	10
400	400	16	79	32	38	400	DN	72	-	28	10	38	46	10
500	500	20	87	38	44	500	DN	85	-	28	10	38	47	10
300	300	24	90	38	44	500	DN	85	-	28	10	38	47	10
	325	8	99	46	52	325	DN	67	-	18	10	28	39	10
	400	16	99	46	52	400	DN	72	-	28	10	38	46	10
	500	20	99	46	52	500	DN	85	-	28	10	38	47	10
600	300	24	99	46	52	500	DN	85	-	28	10	38	47	10
		24	94	46	52	600	DN	90	-	32	10	42	49	10
	600	28	94	46	52	600	DN	90	-	32	10	42	49	10
		32	95	46	52	600	DN	90	-	32	10	42	49	10
	325	8	99	46	52	325	DN	67	-	18	10	28	39	10
	400	16	99	46	52	400	DN	72	-	28	10	38	46	10
	500	20	99	46	52	500	DN	85	-	28	10	38	47	10
625	300	24	99	46	52	500	DN	85	-	28	10	38	47	10
		24	94	46	52	600	DN	90	-	32	10	42	49	10
	600	28	94	46	52	600	DN	90	-	32	10	42	49	10
	800	32	95	46	52	600	DN	90	-	32	10	42	49	10
800	800	56	157	64	96	800	DN	122	-	32	12	44	65	16
800	800	64	162	64	96	800	DN	122	-	32	12	44	65	16
825	800	56	157	64	96	800	DN	122	-	32	12	44	65	16
023	800	64	162	64	96	800	DN	122	-	32	12	44	65	16

#### DXQ0 exhaust air with plenum box K1 and K3

#### Discount group L

	2 + 5		1+4	E	3		6		7		8		9	10
Size	Hole pattern	Number of slats	DXQ0-OL	FL	FS	Size	Nozzle	К1 / К3	Nozzle change	D	L	DL	KL / SK	LD
325	325	8	44	27	33	325	160	42	16	9	10	19	39	5
400	400	16	50	32	38	400	200	46	17:-	14	10	24	46	5
500	500	20	54	38	44	500	200	55	24	14	10	24	47	5
300	300	24	54	38	44	500	200	55	24	14	10	24	47	5
	325	8	59	46	52	325	160	42	16	9	10	19	39	5
	400	16	59	46	52	400	200	46	17	14	10	24	46	5
	500	20	59	46	52	500	200	55	24	14	10	24	47	5
600	300	24	59	46	52	500	200	55	24	14	10	24	47	5
		24	59	46	52	600	250	57	25	16	10	26	49	5
	600	28	59	46	52	600	250	57	25	16	10	26	49	5
		32	59	46	52	600	250	57:-	25	16	10	26	49	5
	325	8	59	46	52	325	160	42	16	9	10	19	39	5
	400	16	59	46	52	400	200	46	17:-	14	10	24	46	5
	500	20	59	46	52	500	200	55	24	14	10	24	47	5
625	300	24	59	46	52	500	200	55	24	14	10	24	47	5
		24	59	46	52	600	250	57:-	25	16	10	26	49	5
	600	28	59	46	52	600	250	57:-	25	16	10	26	49	5
		32	59	46	52	600	250	57:-	25	16	10	26	49	5
800	800	56	105	64	96	800	315	75	34	16	12	28	65	8
800	800	64	108	64	96	800	315	75	34	16	12	28	65	8
825	800	56	105	64	96	800	315	75	34	16	12	28	65	8
025	800	64	108	64	96	800	315	75	34	16	12	28	65	8

#### DXQ0 exhaust air With plenum box K2

	2 + 5	<u>.</u>	1+4	Į.	3		6		7		8		9	10
Size	Hole pattern	Number of slats	DXQ0-OL	FL	FS	Size	Nozzle	К2	Nozzle change	D	L	DL	KL / SK	LD
325	325	8	44	27	33	325	DN	67	-	18	10	28	39	10
400	400	16	50	32	38	400	DN	72	-	28	10	38	46	10
500	500	20	54	38	44	500	DN	85	-	28	10	38	47	10
300	300	24	54	38	44	500	DN	85	-	28	10	38	47	10
	325	8	59	46	52	325	DN	67	-	18	10	28	39	10
	400	16	59	46	52	400	DN	72	-	28	10	38	46	10
	500	20	59	46	52	500	DN	85	-	28	10	38	47	10
600	300	24	59	46	52	500	DN	85	-	28	10	38	47	10
		24	59	46	52	600	DN	90	-	32	10	42	49	10
	600	28	59	46	52	600	DN	90	-	32	10	42	49	10
		32	59	46	52	600	DN	90	-	32	10	42	49	10
	325	8	59	46	52	325	DN	67	-	18	10	28	39	10
	400	16	59	46	52	400	DN	72	-	28	10	38	46	10
	500	20	59	46	52	500	DN	85	-	28	10	38	47	10
625	300	24	59	46	52	500	DN	85	-	28	10	38	47	10
		24	59	46	52	600	DN	90	-	32	10	42	49	10
	600	28	59	46	52	600	DN	90	-	32	10	42	49	10
		32	59	46	52	600	DN	90	-	32	10	42	49	10
800	800	56	105	64	96	800	DN	122	-	32	12	44	65	16
800	800	64	108	64	96	800	DN	122	-	32	12	44	65	16
825	800	56	105	64	96	800	DN	122	-	32	12	44	65	16
025	800	64	108	64	96	800	DN	122	-	32	12	44	65	16

#### DXQ1 supply air with plenum box K1 and K3

#### Discount group L

	2 + 5		1 + 4	E	3		6		7		8		9	10
Size	Hole pattern	Number of slats	DXQ1-ML / DXQ1-WL	FL	FS	Size	Nozzle	К1 / К3	Nozzle change	D	L	DL	KL / SK	LD
325	325	8	104	27	33	325	160	42	16	9	10	19	39	5
400	400	16	118	32	38	400	200	46	17:-	14	10	24	46	5
500	500	28	135	38	44	500	200	55	24	14	10	24	47	5
	325	8	150	46	52	325	160	42	16	9	10	19	39	5
600	400	16	150	46	52	400	200	46	17	14	10	24	46	5
800	500	28	150	46	52	500	200	55	24	14	10	24	47	5
	600	44	145	46	52	600	250	57:-	25	16	10	26	49	5
	325	8	150	46	52	325	160	42	16	9	10	19	39	5
625	400	16	150	46	52	400	200	46-	17	14	10	24	46	5
025	500	28	150	46	52	500	200	55	24	14	10	24	47	5
	600	44	145	46	52	600	250	57:-	25	16	10	26	49	5
800	800	84	234	64	96	800	315	75	34	16	12	28	65	8
825	800	84	234	64	96	800	315	75	34	16	12	28	65	8

#### DXQ1 supply air with plenum box K2

#### Discount group L

	2 + 5		1+4	E	3		6		7		8		9	10
Size	Hole pattern	Number of slats	DXQ1-ML / DXQ1-WL	FL	FS	Size	Nozzle	К2	Nozzle change	D	L	DL	KL / SK	LD
325	325	8	104	27	33	325	DN	67	-	18	10	28	39	10
400	400	16	118	32	38	400	DN	72	-	28	10	38	46	10
500	500	28	135	38	44	500	DN	85	=	28	10	38	47	10
	325	8	150	46	52	325	DN	67	ı	18	10	28	39	10
600	400	16	150	46	52	400	DN	72	-	28	10	38	46	10
800	500	28	150	46	52	500	DN	85	-	28	10	38	47	10
	600	44	145	46	52	600	DN	90	-	32	10	42	49	10
	325	8	150	46	52	325	DN	67	-	18	10	28	39	10
625	400	16	150	46	52	400	DN	72	-	28	10	38	46	10
625	500	28	150	46	52	500	DN	85	-	28	10	38	47	10
	600	44	145	46	52	600	DN	90	-	32	10	42	49	10
800	800	84	234	64	96	800	DN	122	1	32	12	44	65	16
825	800	84	234	64	96	800	DN	122	-	32	12	44	65	16

#### DXQ1 exhaust air with plenum box K1 and K3

Dite Cit	naast an wit	pterium be	x relation to									D150	ourne g	,, oup L
	2 + 5		1+4		3		6		7		8		9	10
Size	Hole pattern	Number of slats	DXQ1-OL	FL	FS	Size	Nozzle	К1 / К3	Nozzle change	D	L	DL	KL / SK	LD
325	325	8	66	27	33	325	160	42	16	9	10	19	39	5
400	400	16	74	32	38	400	200	46	17:-	14	10	24	46	5
500	500	28	83	38	44	500	200	55	24	14	10	24	47	5
	325	8	94	46	52	325	160	42	16	9	10	19	39	5
600	400	16	94	46	52	400	200	46	17	14	10	24	46	5
800	500	28	94	46	52	500	200	55	24	14	10	24	47	5
	600	44	91	46	52	600	250	57	25	16	10	26	49	5
	325	8	94	46	52	325	160	42	16	9	10	19	39	5
625	400	16	94	46	52	400	200	46	17	14	10	24	46	5
025	500	28	94	46	52	500	200	55	24	14	10	24	47	5
	600	44	91	46	52	600	250	57:-	25	16	10	26	49	5
800	800	84	133	64	96	800	315	75	34	16	12	28	65	8
825	800	84	133	64	96	800	315	75	34	16	12	28	65	8

#### DXQ1 exhaust air with plenum box K2

#### Discount group L

	2 + 5		1 + 4	E	3		6		7		8		9	10
Size	Hole pattern	Number of slats	DXQ1-OL	FL	FS	Size	Nozzle	К2	Nozzle change	D	L	DL	KL/ SK	LD
325	325	8	66	27	33	325	DN	67	-	18	10	28	39	10
400	400	16	74	32	38	400	DN	72	-	28	10	38	46	10
500	500	28	83	38	44	500	DN	85	-	28	10	38	47	10
	325	8	94	46	52	325	DN	67	ı	18	10	28	39	10
600	400	16	94	46	52	400	DN	72	-	28	10	38	46	10
800	500	28	94	46	52	500	DN	85	-	28	10	38	47	10
	600	44	91	46	52	600	DN	90	-	32	10	42	49	10
	325	8	94	46	52	325	DN	67	-	18	10	28	39	10
625	400	16	94	46	52	400	DN	72	=	28	10	38	46	10
625	500	28	94	46	52	500	DN	85	-	28	10	38	47	10
	600	44	91	46	52	600	DN	90	-	32	10	42	49	10
800	800	84	133	64	96	800	DN	122	1	32	12	44	65	16
825	800	84	133	64	96	800	DN	122	1	32	12	44	65	16

#### DXRO supply air with plenum box R1 and R3

#### Discount group L

	2 + 5		1 + 4	E	3		6		7		8		9	10
Size	Hole pattern	Number of slats	DXR0-ML / DXR0-WL	FL	FS	Size	Nozzle	R1 / R3	Nozzle change	D	L	DL	KL / SK	LD
325	325	8	69	27	33	325	160	49	16	9	10	19	39	5
400	400	16	79	32	38	400	200	55	17:-	14	10	24	46	5
500	500	20	87	38	44	500	200	62	24	14	10	24	47	5
300	300	24	90	38	44	500	200	62	24	14	10	24	47	5
		24	94	46	52	600	250	71	25	16	10	26	49	5
600	600	28	94	46	52	600	250	71	25	16	10	26	49	5
		32	95	46	52	600	250	71	25	16	10	26	49	5
800	800	56	157	64	70	800	315	85	34	16	16	32	65	8
800	800	64	162	64	70	800	315	85	34	16	16	32	65	8

## DXRO exhaust air with plenum box R1 and R3

	2 + 5		1+4	E	3		6		7		8		9	10
Size	Hole pattern	Number of slats	DXR0-OL	FL	FS	Size	Nozzle	R1 / R3	Nozzle change	D	L	DL	KL / SK	LD
325	325	8	44	27	33	325	160	49	16	9	10	19	39	5
400	400	16	50	32	38	400	200	55	17:-	14	10	24	46	5
500	500	20	54	38	44	500	200	62	24	14	10	24	47	5
300	300	24	54	38	44	500	200	62	24	14	10	24	47	5
		24	59	46	52	600	250	71	25	16	10	26	49	5
600	600	28	59	46	52	600	250	71	25	16	10	26	49	5
		32	59	46	52	600	250	71	25	16	10	26	49	5
800	800	56	105	64	70	800	315	85	34	16	16	32	65	8
800	800	64	108	64	70	800	315	85	34	16	16	32	65	8

#### 2.3.3 DT swirl diffusers



- For supply air and exhaust air
- Circular and square front plate with high-performance, progressively twisted
- Made of galvanised steel, powder coated, colour RAL 9010 or different RAL
- Nominal sizes: 325 mm ... 625 mm
- Hole pattern: 325 mm ... 600 mm





Front plate shape

Q square circular Nominal connection width

For further information see DT user manual

Front plate size

325 525 350 600

400 625 425

500

Installation parts for plenum box

Standard:

Without installation parts

Option:

D With damper

L With air deflector plate

DL With damper and air deflector plate

Hole pattern size

325

400

500 600

Colour of plenum box

Standard:

VK Galvanised

Option:

KL Box exterior in RAL ...

SK Black inside and outside

Colour of front plate

Standard:

ST Front plate RAL 9010, cap RAL 9010

Option:

Front plate RAL ..., Cap RAL 9017 FL

Front plate and cap RAL...

For further information see ▶ page 1

Lip seal

Standard:

Without lip seal

Option:

With lip seal LD

Connecting piece

Standard:

Without plenum box

Option:

K1 Square, one side-entry connecting piece

К2 Square, two side-entry connecting pieces

К3 Square, upper connecting piece

R1 Circular, one side-entry connecting piece

R3 Circular, upper connecting piece

#### DTQ0 with plenum box K1 and K3

#### Discount group L

2	+ 3	1		•		5		6		7		8	9
Size	Hole pattern	DTQ0	FL	FS	Size	Nozzle	K1 / K3	Nozzle change	D	L	DL	KL / SK	LD
325	325	56	27	33	325	160	42	16	9	10	19	39	5
400	400	63	32	38	400	200	46	17:-	14	10	24	46	5
500	500	74	38	44	500	200	55	24	14	10	24	47	5
	325	80	46	52	325	160	42	16	9	10	19	39	5
600	400	80	46	52	400	200	46	17:-	14	10	24	46	5
000	500	80	46	52	500	200	55	24	14	10	24	47	5
	600	78 <i>-</i>	46	52	600	250	57	25	16	10	26	49	5
	325	80	46	52	325	160	42	16	9	10	19	39	5
625	400	80	46	52	400	200	46	17:-	14	10	24	46	5
025	500	80	46	52	500	200	55	24	14	10	24	47	5
	600	78	46	52	600	250	57:-	25	16	10	26	49	5

DTQ0 with plenum box K2

#### Discount group L

2	+ 3	1		7		5		6		7		8	9
Size	Hole pattern	DTQ0	FL	FS	Size	Nozzle	К2	Nozzle change	D	L	DL	KL / SK	LD
325	325	56	27	33	325	DN	67	-	18	10	28	39	10
400	400	63	32	38	400	DN	72	-	28	10	38	46	10
500	500	74	38	44	500	DN	85	-	28	10	38	47	10
	325	80	46	52	325	DN	67	-	18	10	28	39	10
600	400	80	46	52	400	DN	72	-	28	10	38	46	10
000	500	80	46	52	500	DN	85	-	28 <i>-</i>	10	38	47	10
	600	78	46	52	600	DN	90	-	32	10	42	49	10
	325	80	46	52	325	DN	67	-	18	10	28	39	10
625	400	80	46	52	400	DN	72	-	28	10	38	46	10
025	500	80	46	52	500	DN	85	-	28	10	38	47	10
	600	78	46	52	600	DN	90	-	32	10	42	49	10

DTR0 with *plenum box R1* and *R1* 

#### Discount group L

2	+ 3	1		1		5		6		7		8	9
Size	Hole pattern	DTR0	FL	FS	Size	Nozzle	R1 / R3	Nozzle change	D	L	DL	KL / SK	J
325	325	56	27	33	325	160	49	16	9	10	19	39	5
400	400	63	32	38	400	200	55	17:-	14	10	24	46	5
500	500	74	38	44	500	200	62	24	14	10	24	47	5
600	600	78	46	52	600	250	71	25	16	10	26	49	5

DTQ0 in version as enlarged front plate

			Discouri	t group L
2	+3	1	<u> </u>	1
Size	Hole pattern	DTQ0	FL	FS
350	325	59	31	59
425	400	69	34	69
525	500	78 <i>-</i> -	40	78
625	600	78	46	78

#### **DV** swirl diffusers 2.3.4



- For supply air and exhaust air
- Circular or square front plate with radially and asymmetrically aligned air deflection blades
- Made of galvanised steel, powder coated, colour RAL 9010 or different RAL
- Nominal sizes: 325 ... 825 mm
- Hole pattern: 325 ... 800 mm





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Front plate shape

Q square with circular hole pattern

RO Circular Connecting piece

Standard:

Without plenum box

Option:

- K1 Square, one side-entry connecting piece
- K2 Square, two side-entry connecting pieces
- КЗ Square, upper connecting piece
- R1 Circular, one side-entry connecting piece
- R3 Circular, upper connecting piece

Front plate size

325 800

400 825

500

600 625

Hole pattern size

325

400

500

600

800

Nominal connection width

For further information see > DV user manual

Colour of front plate Standard:

S1 Front plate and cap RAL 9010, blade RAL 7016 Option:

S2 Front plate, cap RAL 9010; blade RAL 9010

**S3** Front plate, cap RAL ....; blade RAL 7016

Front plate, cap RAL ....; blade RAL 9010 **S4** FL

Front plate, blade RAL ....; cap RAL 9017

FS Front plate, blade and cap RAL ...

For further information see ▶ page 1.

Colour of plenum box Standard:

Standard:

Option:

D

L

VK Galvanised

Option:

Box exterior in RAL... KL

Black inside and outside

Installation parts for plenum box

With air deflector plate

With damper and air deflector plate

Without installation parts

With damper

Direction of air flow

Supply air (with blades)

OL Exhaust air (without blades)

Lip seal Standard:

Without lip seal

Option:

With lip seal

#### DVQ0 supply air with plenum box K1 and K3

Discount group L

	2 + 3		1+5		4			6		7		8		9	10
Size	Hole pattern	Number of slats	DVQ0-ML	S2 / S3 / S4	FL	FS	Size	Nozzle	К1 / К3	Nozzle change	D	L	DL	KL/ SK	LD
325	325	8	128	27	41	47	325	160	42	16	9	10	19	39	5
400	400	16	146	32	46	52	400	200	46	17	14	10	24	46	5
500	500	24	169	38	53	59	500	200	55	24	14	10	24	47	5
	325	8	185	46	62	68	325	160	42	16	9	10	19	39	5
600	400	16	195	46	62	68	400	200	46	17	14	10	24	46	5
000	500	24	189	46	62	68	500	200	55	24	14	10	24	47	5
	600	32	185	46	62	68	600	250	57:-	25	16	10	26	49	5
	325	8	185	46	62	68	325	160	42	16	9	10	19	39	5
625	400	16	195	46	62	68	400	200	46	17:-	14	10	24	46	5
025	500	24	189	46	62	68	500	200	55	24	14	10	24	47	5
	600	32	185	46	62	68	600	250	57:-	25	16	10	26	49	5
800	800	32	282	64	86	112	800	315	75 <i>-</i> -	34	16	12	28	65	8
825	800	32	282	64	86	112	800	315	75 <i>-</i> -	34	16	12	28	65	8

#### DVQ0 supply air with plenum box K2

Discount group L

	2+3		1+5		4			6		7		8		9	10
Size	Hole pattern	Number of slats	DVQ0-ML	S2 / S3 / S4	FL	FS	Size	Nozzle	К2	Nozzle change	D	L	DL	KL / SK	LD
325	325	8	128	27	41	47	325	DN	67	-	18	10	28	39	10
400	400	16	146	32	46	52	400	DN	72	1	28	10	38	46	10
500	500	24	169	38	53	59	500	DN	85	-	28	10	38	47	10
	325	8	185	46	62	68	325	DN	67	-	18	10	28	39	10
600	400	16	195	46	62	68	400	DN	72	-	28	10	38	46	10
800	500	24	189	46	62	68	500	DN	85	-	28	10	38	47	10
	600	32	185	46	62	68	600	DN	90	-	32	10	42	49	10
	325	8	185	46	62	68	325	DN	67	-	18	10	28	39	10
625	400	16	195	46	62	68	400	DN	72	-	28	10	38	46	10
025	500	24	189	46	62	68	500	DN	85	-	28	10	38	47	10
	600	32	185	46	62	68	600	DN	90	-	32	10	42	49	10
800	800	32	282	64	86	112	800	DN	122	-	32	12	44	65	16
825	800	32	282	64	86	112	800	DN	122	-	32	12	44	65	16

### DVQ0 exhaust air with plenum box K1 and K3

	2 + 3		1+5	<u> </u>	4		6		7		8		9	10
Size	Hole pattern	Number of slats	DVQ0-OL	FL	FS	Size	Nozzle	K1 / K3	Nozzle change	D	L	DL	KL / SK	LD
325	325	8	70	27	33	325	160	42	16	9	10	19	39	5
400	400	16	77:-	32	38	400	200	46	17:-	14	10	24	46	5
500	500	24	90	38	44	500	200	55	24	14	10	24	47	5
	325	8	108	46	52	325	160	42	16	9	10	19	39	5
600	400	16	105	46	52	400	200	46	17	14	10	24	46	5
800	500	24	104	46	52	500	200	55	24	14	10	24	47	5
	600	32	96	46	52	600	250	57	25	16	10	26	49	5
	325	8	108	46	52	325	160	42	16	9	10	19	39	5
625	400	16	105	46	52	400	200	46	17:-	14	10	24	46	5
625	500	24	104	46	52	500	200	55	24	14	10	24	47	5
	600	32	96	46	52	600	250	57	25	16	10	26	49	5
800	800	32	167-	64	90	800	315	75	34	16	12	28	65	8
825	800	32	167	64	90	800	315	75	34	16	12	28	65	8

#### DVQ0 exhaust air with plenum box K2

#### Discount group L

	2 + 3		1+5	<u> </u>	4		6		7		8		9	10
Size	Hole pattern	Number of slats	DVQ0-OL	FL	FS	Size	Nozzle	К2	Nozzle change	D	L	DL	KL / SK	LD
325	325	8	70	27	33	325	DN	67	-	18	10	28	39	10
400	400	16	77	32	38	400	DN	72	-	28	10	38	46	10
500	500	24	90	38	44	500	DN	85	ı	28	10	38	47	10
	325	8	108	46	52	325	DN	67	ï	18	10	28	39	10
600	400	16	105	46	52	400	DN	72	-	28	10	38	46	10
800	500	24	104	46	52	500	DN	85	-	28	10	38	47	10
	600	32	96	46	52	600	DN	90	-	32	10	42	49	10
	325	8	108	46	52	325	DN	67	-	18	10	28	39	10
625	400	16	105	46	52	400	DN	72	ï	28	10	38	46	10
025	500	24	104	46	52	500	DN	85	-	28	10	38	47	10
	600	32	96	46	52	600	DN	90	-	32	10	42	49	10
800	800	32	167	64	90	800	DN	122	-	32	12	44	65	16
825	800	32	167	64	90	800	DN	122	ï	32	12	44	65	16

#### DVQ0 supply air with plenum box R1 and R3

#### Discount group L

2+3		1+5	4			6			7	8			9	10	
Size	Hole pattern	Number of slats	DVR0-ML	S2 / S3 / S4	FL	FS	Size	Nozzle	R1 / R3	Nozzle change	D	L	DL	KL/ SK	LD
325	325	8	128	27	41	47	325	160	49	16	9	10	19	39	5
400	400	16	146	32	46	52	400	200	55	17:-	14	10	24	46	5
500	500	24	169	38	53	59	500	200	62	24	14	10	24	47	5
600	600	32	185	46	62	68	600	250	71	25	16	10	26	49	5
800	800	32	282	64	86	92	800	315	85	34	16	16	32	65	8

#### DVRO exhaust air with plenum box R1 and R3

2 + 3		1+5	4		6			7	8			9	10	
Size	Hole pattern	Number of slats	DVR0-OL	FL	FS	Size	Nozzle	R1 / R3	Nozzle change	D	L	DL	KL / SK	LD
325	325	8	70	27	33	325	160	49	16	9	10	19	39	5
400	400	16	77:-	32	38	400	200	55	17:-	14	10	24	46	5
500	500	24	90	38	44	500	200	62	24	14	10	24	47	5
600	600	32	96	46	52	600	250	71	25	16	10	26	49	5
800	800	32	167	64	70	800	315	85	34	16	16	32	65	8

#### 2.3.5 DSQ swirl diffusers



- · For supply air and exhaust air
- · Square front plate with fixed, large-scale radially aligned air deflection blades
- Made of galvanised steel, powder coated, colour RAL 9010 or different RAL colour

· Nominal sizes: 325 ... 625 mm

Configure your product



	1	2	3	4	5	6	7
DSQ-		-	]-[	]-	]-	-	-

Front plate size

325

400

500 600

625

5 Installation parts for plenum box

Standard:

Without installation parts

Option:

**D** With damper

L With air deflector plate

**DL** With damper and air deflector plate

2 Colour of front plate

Standard:

ST Front plate RAL 9010

Option:

**FL** Front plate RAL ...; cap RAL 9017

FS Front plate and cap RAL ....

For further information see > page 1.

6 Colour of plenum box

Standard:

**VK** Galvanised

Option:

KL Box exterior in RAL...

**SK** Black inside and outside

3 Connecting piece

Standard:

Without plenum box

Option:

**K1** Square, one side-entry connecting piece

**K2** Square, two side-entry connecting pieces

**K3** Square, upper connecting piece

**Lip seal** Standard:

Without lip seal

Option:

**LD** With lip seal

4 Nominal connection width

For further information see DSQ user manual

DSQ with *plenum box K1* and K3

Discount group L

_	•											J ,
1 2		2	3			4		5	6	7		
Size	DSQ	FL	FS	Size	Nozzle	К1 / К3	Nozzle change	D	L	DL	KL / SK	LD
325	79	27	33	325	160	42	16	9	10	19	39	5
400	88	32	38	400	200	46	17:-	14	10	24	46	5
500	104	38	44	500	200	55	24	14	10	24	47	5
600	110	46	52	600	250	57:-	25	16	10	26	49	5
625	110	46	52	600	250	57:-	25	16	10	26	49	5

DSQ with plenum box K2

	1	2	2		3		4	5			6	7
Size	DSQ	FL	FS	Size	Nozzle	К2	Nozzle change	D	L	DL	KL / SK	LD
325	79	27	33	325	DN	67	-	18	10	28	39	10
400	88	32	38	400	DN	72	-	28	10	38	46	10
500	104	38	44	500	DN	85	-	28	10	38	47	10
600	110	46	52	600	DN	90	-	32	10	42	49	10
625	110	46	52	600	DN	90	-	32	10	42	49	10

#### 2.3.6 DF swirl diffusers



- · For supply air and exhaust air
- Circular and square front plate with radial deflector blades as air deflection elements
- Made of galvanised sheet steel, powder coated, colour RAL 9010 or different RAL colour
- Size: DN100 ... DN355

Configure your product





Front plate shape

**RO** Circular

Q0 Square, smallH0 Square 600

GO Square 625

5 Nominal connection width

For further information see > DF user manual

2 Front plate size

100 315

125 355

160

200

250

6 Installation parts for plenum box

Standard:

Without installation parts

Option:

**D** With damper

L With air deflector plate

**DL** With damper and air deflector plate

3 Colour of front plate

Standard:

ST Front plate RAL 9010, cap RAL 9010

Option:

FL Front plate RAL ....; cap RAL 9017

FS Front plate and Cap RAL...

For further information see > page 1

7 Colour of plenum box

Standard:

VK Galvanised

Option:

KL Box exterior in RAL ...

**SK** Black inside and outside

4 Connecting piece

Standard:

Without

Option:

L With perforated plate

R With reduction

**RK** With clamping reduction

**K4** Square plenum box with side-entry

connecting piece

8 Lip seal

Standard:

Without lip seal

Option:

**LD** With lip seal

## DFRO with plenum box K4

# Discount group L

1 -	<b>+</b> 2	3	3		4		5	6		7	8	
Size	DFRO	FL	FS	Size	Nozzle	К4	Nozzle change	D	L	DL	KL / SK	LD
100	26	23	30	325	100	49	-	8	10	18	39	5
125	30	23	30	325	100	49	16	8	10	18	39	5
160	32	23	30	325	125	49	16	8	10	18	39	5
200	40	27	34	400	160	55	17:-	10	10	20	46	5
250	47	27	34	500	200	64	24	10	10	20	47	5
315	58	32	39	500	250	64	24	10	10	20	47	5
355	76	34	41	600	280	72	25	14	10	24	49	8

## DFQ0 with plenum box K4

## Discount group L

1-	+ 2	2	3		4		5	6		7	8	
Size	DFQ0	FL	FS	Size	Nozzle	К4	Nozzle change	D	L	DL	KL / SK	LD
100	26	23	30	325	100	49	-	8	10	18	39	5
125	32	23	30	325	100	49	16	8	10	18	39	5
160	36	23	30	325	125	49	16	8	10	18	39	5
200	41	27	34	400	160	55	17:-	10	10	20	46	5
250	51	27	34	500	200	64	24	10	10	20	47	5
315	60	32	39	500	250	64	24	10	10	20	47	5
355	82	34	41	600	280	72	25	14	10	24	49	8

# **DFHO** and **DFGO** with **plenum box K4**

1	+ 2	E	3		4		5	6		7	8	
Size	DFH0 / DFG0	FL	FS	Size	Nozzle	К4	Nozzle change	D	L	DL	KL / SK	LD
100	47	46	53	325	100	49	-	8	10	18	39	5
125	52	46	53	325	100	49	16	8	10	18	39	5
160	56	46	53	325	125	49	16	8	10	18	39	5
200	59	46	53	400	160	55	17:-	10	10	20	46	5
250	69	46	53	500	200	64	24	10	10	20	47	5
315	80	46	53	500	250	64	24	10	10	20	47	5
355	107:-	46	53	600	280	72	25	14	10	24	49	8

## DFRO with plenum box K4

# Discount group L

11 -	+ <mark>2</mark>	3	3	4			
Size	DFR0	FL	FS	L	R	RK	
100	26	23	30	1-	-	-	
125	30	23	30	2	9	36	
160	32	23	30	2	10	42	
200	40	27	34	2	17:-	46	
250	47	27	34	2	25	50	
315	58	32	39	6	31	54	
355	76	34	41	8	36	60	

## DFQ0 with connecting element L, R or RK

#### Discount group L

11-	H <mark>2</mark>	2	3	4			
Size	DFQ0	FL	FS	L	R	RK	
100	26	23	30	1-	-	-	
125	32	23	30	2	9	36	
160	36	23	30	2	10	42	
200	41	27	34	2	17:-	46	
250	51	27	34	2	25	50	
315	60	32	39	6	31	54	
355	82	34	41	8	36	60	

## DFHO and DFGO with connecting element L, R or RK

1 -	⊦ <mark>2</mark>	2	3	4			
Size	DFH0 / DFG0	FL	FS	L	R	RK	
100	47	46	53	1	-	-	
125	52	46	53	2	9	36	
160	56	46	53	2	10	42	
200	59	46	53	2	17:-	46	
250	69	46	53	2	25	50	
315	80	46	53	6	31	54	
355	107	46	53	8	36	60	

## 2.3.7 AS Slot diffusers



- · For supply air and exhaust air
- With blind frame
- Made of aluminium in 1 ... 4 rows side-by-side
- Standard single length: L = 400 ... 2000 mm
- Slot diffuser tapes: L > 2000 mm

Configure your product



1 Slotted rows

**1** 1-row

2 2-row3 3-row

**4** 4-row

4 Connecting piece

O Without plenum box

**K** With plenum box

2 Direction of air flow

**Z** Supply air (with radiating element)

A Exhaust air (without radiating element)

5 Dimensions

Length L = ... mm

Frame

**B** With frame

6 Colour RAL...

For further information see > page 1.

AS slot diffusers with plenum box

5		1	- 4				6		
Length L [mm]		AS-A	-В-К						
from 400 mm to	1- row	2- row	3- row	4- row	1- row	2- row	3- row	4- row	RAL
600	112	137	170	200	129	177	224	271	98
700	120	148	179	212	137	188	241	285	105
800	123	155	190	232	146	200	252	310	107
900	129	169	205	243	153	211	270	328	113
1000	137	174	216	256	158	224	282	347	120
1100	141	187	232	278	170	241	304	370	123
1200	153	197	247	282	179	252	326	397	129
1300	158	205	261	314	188	268	346	424	137
1400	169	216	279	330	198	281	364	446	141
1500	174	232	295	352	207	296	385	474	151
1600	182	241	310	370	216	310	405	497	155
1700	190	249	322	385	232	326	425	524	162
1800	198	256	337	405	236	346	446	547	169
1900	205	270	354	426	247	354	468	577	174
2000	212	279	370	446	256	369	489	599	182

AS slot diffusers without plenum box

Discount group L

5		1	- 4			1	- 4		6
Length L [mm]		AS-A	-B-0						
from 400 mm to	1- row	2- row	3- row	4- row	1- row	2- row	3- row	4- row	RAL
600	48	72	97	106	69	107	151	190	98
700	54	76	106	129	72	118	158	205	105
800	55	84	113	141	80	126	172	224	107
900	64	90	121	153	84	134	187	241	113
1000	69	98	129	163	90	146	200	256	120
1100	72	106	140	177	97	155	216	278	123
1200	76	112	151	188	105	163	232	295	129
1300	83	118	158	200	107	177	246	314	137
1400	85	123	170	212	118	187	256	330	141
1500	90	129	179	232	123	198	278	350	151
1600	97	134	190	241	129	211	285	369	155
1700	101	141	200	252	134	216	304	385	162
1800	106	151	211	263	141	232	320	405	169
1900	112	155	222	279	151	243	333	424	174
2000	118	158	232	285	156	252	350	440	182

AS Slot diffusers *End caps* (prices for 1 pair)

ASEKB with	RAL			
1- row	2- row	3- row	4- row	
14	16	18	22	15

## 2.4 Air valves

## 2.4.1 VS air valves



- · For supply air and exhaust air
- Made of sheet steel, powder coated, colour RAL 9010 (white)
- · Installation subframe galvanized
- Sizes: DN80 ... DN200

Configure your product here



1 2 VS - -

1 Design

A Exhaust airZ Supply air

Nominal size 80

100 125

160 200

_							
1)	ISC	$\cap$ I	ın	t c	r	П	рL

	9 ,
2	1
Nominal size	VSA / VSZ
80	4.90
100	7.00
125	9.00
160	13.90
200	20.70

## 2.5 Mechanical volume flow controllers and limiters

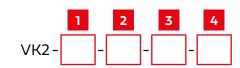
## 2.5.1 VK2 Volume Flow Controller



- Maintenance-free, mechanical controller without auxiliary power supply for constant volume flows
- For freely positionable installation in ventilation ducts for supply and exhaust air
- · Casing and control mechanism made of galvanized sheet steel
- · Widths B: 200 mm ... 600 mm
- Heights H: 100 mm ... 300 mm

Configure your product here





Dimensions
W [mm] x H [mm]

Acoustic insulation
Standard:
Without acoustic insulation
Option:
DS With acoustic insulation

2 Actuator Standard: Without drive Option:

M1 230 V AC two-point/three-point actuator
 M2 24 V AC/DC two-point/three-point actuator
 M3 24 V AC/DC continuous actuator

4 Set points
Standard:
Without presets
Option:

Volumetric flow  $\dot{V} = ... \text{ m}^3/\text{h}$ 

i For SKE-V sound attenuator for volume flow and pressure controller see 
page 162.

VK2 Volume Flow Controller

Discount group V

	1			2		3
Width [mm]	Height [mm]	VK2	M1	M2	M3	DS
	100	148	158	158	209	123
200	150	153	158	158	209	124
	200	169	191	191	277	131
	100	151	158	158	209	129
	150	156	158	158	209	129
300	200	171	158	158	209	131
	250	235	191	191	277	136
	300	341	243	243	349	137
	200	179	158	158	209	133
400	250	237	191	191	277	137:-
	300	350	191	191	277	139
	200	187	158	158	209	146
500	250	245	191	191	277	146
	300	356	191	191	277	149
	200	214	158	158	209	151
600	250	252	243	243	349	153
	300	366	243	243	349	156

i All specified prices for M1, M2, M3 apply to original equipment ex works.

#### 2.5.2 VR1 Volume Flow Controller



- Maintenance-free, mechanical controller without auxiliary power supply for constant volume flows
- For freely positionable installation in ventilation pipelines for supply and exhaust air
- · Casing and control mechanism made of galvanized sheet steel
- Sizes: DN80 ... DN315

Configure your product



Nominal size

80 250 100 315

125

160 200 4 Acoustic insulation

Standard:

Without acoustic insulation

Option:

**DS** With acoustic insulation

2 Actuator

Standard:

Without drive

Option:

M1 230 V AC two-point/three-point actuator

M2 24 VAC/DC two-point/three-point actuator

M3 24 VAC/DC continuous actuator

5 Set points

Standard:

Without presets

Option:

Volume flow  $\dot{V} = ... \text{ m}^3/\text{h}$ 

Lip seal

Standard:

Without lip seal

Option:

**LD** with two lip seals

i For SRC duct silencer for volume flow and pressure controller see > page 163.

#### VR1 Volume Flow Controller

#### Discount group V

1		2			3	4
Nominal size	VRI	M1	M2	M3	LD	DS
80	91	158	158	209	14	91
100	91	158	158	209	14	97
125	97	158	158	209	14	106
160	101	158	158	209	14	112
200	107-	158	158	209	14	124
250	118	158	158	209	14	137:-
315	141	158	158	209	16	156

i All specified prices for M1, M2, M3 apply to original equipment ex works.

#### 2.5.3 VR1-N Volume Flow Controller



- Maintenance-free, mechanical controller without auxiliary power supply for constant volume flows
- · For use at low flow velocities and variable pressures
- For freely positionable installation in ventilation pipelines for supply and exhaust air
- Casing and control mechanism made of galvanized sheet steel
- Sizes: DN80 ... DN315

Configure your product



	1		2		3		4		5
VR1-N-		-		-		-		-	

Nominal size

80 250 100 315 125

160 200 4 Acoust

Acoustic insulation

Standard: without acoustic insulation

Option

**DS** With acoustic insulation

2 Actuator

Standard: Without drive

Ontion

Option:

M1 230 V AC two-point/three-point actuator

M2 24 VAC/DC two-point/three-point actuator

M3 24 VAC/DC continuous actuator

5 Set points

Standard:

Without presets

Option:

Volume flow  $\dot{V} = ... \text{ m}^3/\text{h}$ 

3 Lip seal

Standard:

Without lip seal

Option:

**LD** With two lip seals

i For SRC duct silencer for volume flow and pressure controller see > page 163.

VR1-N Volume Flow Controller

Discount group V

1			2	3	4	
Nominal size	VR1-N	M1	M2	M3	LD	DS
80	91	158	158	209	14	91
100	91	158	158	209	14	97-
125	97	158	158	209	14	106
160	101	158	158	209	14	112
200	107-	158	158	209	14	124
250	118	158	158	209	14	137
315	141	158	158	209	16	156

i All specified prices for M1, M2, M3 apply to original equipment ex works.

#### 2.5.4 VRL1 volume flow limiter



- Maintenance-free, mechanical controller without auxiliary power supply for constant volume flows
- For freely positionable installation in ventilation pipelines for supply and exhaust air
- Casing and control mechanism made of special anti-static and microberesistant plastic
- · With lip seals on both sides
- Sizes: DN80 ... DN250

Configure your product



VRL1 - - - - -

Nominal size 80 100 125 160 200 250 3 Actuator Standard: Without drive Option:

M1 230 VAC two-point/three-point actuatorM2 24 VAC/DC two-point/three-point actuator

M3 24 V AC/DC continuous actuator

Accessories
Standard:
Without accessories
Option:

S with sliding sleeveR with duct sleeve

i For SRC duct silencer for volume flow and pressure controller see > page 163.

#### VRL1 volume flow limiter

	sco	unt	aro	unl	1
וט	SCO	unic	gio	up '	v

		2				
Nominal size	VRLI	S	R	M1	M2	M3
80	30.60	47.00	35.00	188.00	215.00	281.00
100	31.90	48.00	37.00	188.00	215.00	281.00
125	37.30	53.00	41.00	188.00	215.00	281.00
160	45.50	59.00	50.00	188.00	215.00	281.00
200	62.40	75.00	71.00	188.00	215.00	281.00
250	80.40	91.00	87.00	188.00	215.00	281.00

All specified prices for M1, M2, M3 apply to original equipment ex works.

#### Accessories VRL1 volume flow limiter

Ordering data	Description	Price
ВК1	Drilling template for sizes DN80 - DN125 with 1 inspection cover	11
BG1	Drilling template for sizes DN160 - DN250 with 1 inspection cover	11
BK10	Drilling template for sizes DN80 - DN125 with 10 inspection cover	47
BG10	Drilling template for sizes DN160 - DN250 with 10 inspection cover	60

# 2.6 Electronic volume flow and pressure controllers

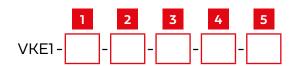
#### 2.6.1 VKE1 Volume Flow Controller



- Maintenance-free, electronic volume flow controller for constant and variable volume flows
- · For freely positionable installation in ventilation ducts for supply and exhaust air
- · Casing and control mechanism made of galvanized sheet steel
- · Widths B: 200 mm ... 800 mm
- · Heights H: 100 mm ... 400 mm

Configure your product here





Dimensions
W [mm] x H [mm]

4 Operation mode
Standard:
01 Variable, 0 ... 10 V

Option: **KO** Constant

4P 4-point
21 Variable, <2 V, 2 ... 10 V</li>
28 Variable, <2 V, 2 ... 8 V, >8 V

2 Actuator Standard:

**M1** Actuator 24 V AC/DC (with display screen) Option:

M2 Actuator 24 V AC/DC (without display screen)

5 Set points

Constant reference volume flow  $\text{OVF}_{\text{const}}$  = Minimum reference volume flow  $\text{OVF}_{\text{min}}$  = 1st mean reference volume flow  $\text{OVF}_{\text{mid}}$  = 2nd mean reference volume flow  $\text{OVF}_{\text{mid}}$  = Maximum reference volume flow  $\text{OVF}_{\text{max}}$  = Entries depend on operation mode

3 Acoustic insulation

Standard:

Without acoustic insulation

Option:

**DS** With acoustic insulation

For SKE-V sound attenuator for volume flow and pressure controller see > page 162.

#### VKE1 volume flow controller

## Discount group V

			2		
Width [mm]	Height [mm]	VKE1-M1	VKE1-M2	DS	
200	100	522	480	129	
200	200	577	535	136	
	100	535	493	131	
300	200	595	553	144	
	300	631	589	147	
	100	547	505	142	
400	200	612	570	148	
400	300	648	606	153	
	400	697	655	157	
	100	556	514	149	
500	200	625	583	155	
500	300	663	621	159	
	400	711	669	167	
	100	571	529	153	
600	200	647	605	161	
800	300	678	636	168	
	400	729	687	170	
	200	659	617	168	
700	300	690	648	171	
	400	746	704	178	
	200	678	636	171	
800	300	706	664	185	
	400	763	721	187	

#### Accessories VKE1 volume flow controller

Ordering data	Description	Price
SM-01	Interface module	82

#### 2.6.2 VRE1 Volume Flow Controller



- Maintenance-free, electronic volume flow controller for constant and variable volume flows
- For freely positionable installation in ventilation pipelines for supply and exhaust air
- · Casing and control mechanism made of galvanized sheet steel
- Sizes: DN100 ... DN400

Configure your product



Nominal size

100 315 125 400

160

200 250 4 Acoustic insulation

Standard:

Without acoustic insulation

Option:

**DS** With acoustic insulation

2 Actuator

Standard:

**M1** Actuator 24 V AC/DC (with display screen) Option:

M2 Actuator 24 V AC/DC (without display screen)

5 Operation mode

Standard:

**01** Variable, 0 ... 10 V

Option:

**KO** Constant

**4P** 4-point

**21** Variable, <2 V, 2 ... 10 V

**28** Variable, <2 V, 2 ... 8 V, >8 V

3 Lip seal

Standard:

Without lip seal

Option:

**LD** With two lip seals

6 Set points

Constant reference volume flow **OVF**<sub>const</sub> = Minimum reference volume flow **OVF**<sub>min</sub> =

1st mean reference volume flow **OVF**<sub>mid1</sub> =

2nd mean reference volume flow  $OVF_{mid2}$  =

Maximum reference volume flow **OVF**<sub>max</sub> =

Entries depend on operation mode

i For SRC duct silencer for volume flow and pressure controller see page 163.

VRE1 volume flow controller

Discount group V

1	<u> </u>	3	3	4
Nominal size	VRE1-M1	VRE1-M2	LD	DS
100	466	434	13	96
125	468	436	13	100
160	473	441	13	115
200	485	453	13	131
250	497	465	13	145
315	516	484	16	164
400	537-	505	16	196

Accessories VRE1 volume flow controller

Ordering data	Description	Price
SM-01	Interface module	82

#### 2.6.3 VRE1-N Volume Flow Controller



- Maintenance-free, electronic volume flow controller for constant and variable volume flows at low flow velocities
- For freely positionable installation in ventilation pipelines for supply and exhaust air
- · Casing and control mechanism made of galvanized sheet steel
- Sizes: DN100 ... DN400

Configure your product



Nominal size

100 315125 400

160 200

250

4 Acoustic insulation

Standard:

Without acoustic insulation

Option:

**DS** With acoustic insulation

2 Actuator

Standard:

M1 Actuator 24 V AC/DC (with display screen)

Option:

M2 Actuator 24 V AC/DC (without display screen)

5 Operation mode

Standard:

**01** Variable, 0 ... 10 V

Option:

**KO** Constant

**4P** 4-point

**21** Variable, <2 V, 2 ... 10 V

**28** Variable, <2 V, 2 ... 8 V, >8 V

3 Lip seal

Standard:

Without lip seal

Option:

**LD** With two lip seals

6 Set points

Constant reference volume flow **OVF**<sub>const</sub> =

Minimum reference volume flow  $\mathbf{OVF}_{\mathbf{min}}$  =

1st mean reference volume flow  $\mathbf{OVF}_{\mathbf{mid1}}$  =

2nd mean reference volume flow  $OVF_{mid2}$  =

Maximum reference volume flow **OVF**<sub>max</sub> =

Entries depend on operation mode

i For SRC duct silencer for volume flow and pressure controller see page 163.

#### VRE1-N volume flow controller

#### Discount group V

1	2		3	4
Nominal size	VRE1-N-M1	VRE1-N-M2	LD	DS
100	466	434	13	96
125	468	436	13	100
160	473	441	13	115
200	485	453	13	131
250	497	465	13	145
315	516	484	16	164
400	537-	505	16	196

#### Accessories VRE1-N volume flow controller

Ordering data	Description	Price
SM-01	Interface module	82

## 2.6.4 VKup Volume flow controller



- Maintenance-free, electronic volume flow controller for constant and variable volume flows
- For freely positionable installation in ventilation ducts for supply and exhaust air
- Casing and control mechanism made of galvanized sheet steel; measuring cross made of aluminium
- · Widths: 200 ... 1000 mm
- Heights: 100... 1000 mm

Configure your product



Dimensions
W [mm] x H [mm]

4 Operation mode
Standard:
01 Variable, 0 ... 10 V
Option:
K01 Constant (U = 0 ... 10 V)
K21 Constant (U = 2 ... 10 V)
3P 3-level

Variable, 2 ... 10 VVA Adjustable setting Lower limit UG = Upper limit OG =

2 Communication type
Standard:
AN Analogue
Option:
MP MP-Bus
KNX KNX-Bus

MOD Modbus, BACnet, MP-Bus

Acoustic insulation
Standard:
Without acoustic insulation
Option:
DS With acoustic insulation

Set points

Constant reference volume flow  $V_{const} = Minimum reference volume flow <math>V_{min} = Average reference volume flow <math>V_{mid} = Maximum reference volume flow <math>V_{max} = Maximum reference volume flow V_{max}$ 

System height
Values from 0 ... 3000 m AH=

For SKE-V sound attenuator for volume flow and pressure controller see ▶ page 162.
 For accessories see ▶ page 57.

VKup Volume flow controller

vitop volonie no					2.566	diff group v
			E	2		4
Width [mm]	Height [mm]	AN	MP	KNX	MOD	DS
200	100	596	625	765	706	132
200	200	655	684	824	765	139
	100	601	630	770	711	134
300	200	681	694	833	779	148
	300	731	744	883	829	150
	100	610	639	779	720	147
400	200	689	702	841	787	151
400	300	743	756	895	841	157
	400	793	806	945	891	161
	200	749	762	901	847	158
500	300	806	819	958	904	163
300	400	856	869	1008	954	171
	500	957	970	1109	1055	191
	200	761	774	913	859	165
600	300	816	829	968	914	172
800	400	870	883	1022	968	174
	500	-	967	-	-	196
700	300	826	839	978	924	175
800	300	837	850	989	935	189
800	400	896	909	1048	994	191
	500	-	1031	-	-	239
1000	600	-	1099	-	-	255
	1000	-	1343	-	-	293

#### 2.6.5 VKpro Volume flow controller



- Maintenance-free, electronic volume flow controller for constant and variable volume flows
- For freely positionable installation in ventilation ducts for supply and exhaust
- Casing and control mechanism made of galvanized sheet steel; measuring cross made of aluminium
- Widths B: 200 mm ... 1000 mm
- Heights H: 100 mm ... 1000 mm

Configure your product



Dimensions **W** [mm] x **H** [mm] Operation mode Standard: Variable, 0 ... 10 V Option: K01 Constant (U = 0 ... 10 V) K21 Constant (U = 2 ... 10 V)

Variable, 2 ... 10 V VA Adjustable setting Lower limit UG = Upper limit OG =

Actuator and differential pressure sensor **5DN** Standard actuator, 500 Pa dynamic 5DF Spring return actuator, 500 Pa dynamic 5DQ

High-speed actuator, 500 Pa dynamic 6SN Standard actuator, 600 Pa static Spring return actuator, 600 Pa static 6SF 6SQ High-speed actuator, 600 Pa static

Set points Constant reference volume flow  $V_{const}$  = Minimum reference volume flow  $V_{min}$  = Maximum reference volume flow  $V_{max}$  =

Working direction of spring return actuator

Normally closed NO Normally open

System height Values from 0 ... 3000 m AH=

Acoustic insulation

Standard:

Without acoustic insulation

Option:

With acoustic insulation

- For SKB-V sound attenuator for volume flow and pressure controller see ▶ page 162.
  - For accessories see ▶ page 57.

VKpro Volume flow controller	Discount aroup V

1				2				4
Width [mm]	Height [mm]	5DN	5DF	5DQ	6SN	6SF	6SQ	DS
200	100	785	1008	961	1135	1358	1311	132
200	200	836	1059	1012	1186	1409	1362	139
	100	793	1016	969	1143	1366	1319	134
300	200	850	1068	1021	1200	1418	1371	148
	300	899	1117	1070	1249	1467	1420	150
	100	800	1023	976	1150	1373	1326	147
400	200	859	1077	1030	1209	1427	1380	151
400	300	911	1129	1082	1261	1479	1432	157
	400	961	1179	1132	1311	1529	1482	161
	200	917	1135	1088	1267	1485	1438	158
500	300	970	1188	1141	1320	1538	1491	163
300	400	1023	1241	1297	1373	1591	1647	171
	500	1125	1343	1399	1475	1693	1749	191
	200	930	1148	1101	1280	1498	1451	165
600	300	985	1203	1156	1335	1553	1506	172
800	400	1040	1258	1314	1390	1608	1664	174
	500	1155	1343	1412	1505	1693	1762	196
700	300	995	1213	1269	1345	1563	1619	175
800	300	1007	1225	1281	1357	1575	1631	189
800	400	1065	1283	1339	1415	1633	1689	191
	500	1218	1406	1475	1568	1756	1825	239
1000	600	1287	1475	1544	1637	1825	1894	255
	1000	1533	1721	-	1883	2071	-	293

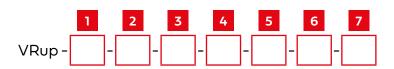
## 2.6.6 VRup Volume flow controller



- Maintenance-free, electronic volume flow controller for constant and variable volume flows
- For freely positionable installation in ventilation pipelines for supply and exhaust air
- Casing and control mechanism made of galvanized steel; measuring cross made of aluminium
- · Sizes: DN100 ... DN400

Configure your product





Nominal size

100 400

125

160

200

250 315 5 Operation mode

Standard:

**01** Variable, 0 ... 10 V

Option:

**K01** Constant (U = 0 ... 10 V)

**K21** Constant (U = 2 ... 10 V)

**3P** 3-level

**21** Variable, 2 – 10 V

VA Adjustable setting Lower limit UG =

Lower limit UG = Upper limit OG =

2 Communication type

Standard:

AN Analogue

Option:

MP MP-Bus

KNX KNX-Bus

MOD Modbus, BACnet, MP-Bus

6 Set points

Constant reference volume flow **V** const = Minimum reference volume flow **V**<sub>min</sub> =

Average reference volume flow  $V_{mid}$  =

Maximum reference volume flow  $V_{max}$  =

3 Lip seal

Standard:

Without lip seals

Option:

**LD** With two lip seals

7 System height

Values from 0 ... 3000 m **AH=** 

4. Acoustic insulation

Standard:

Without acoustic insulation

Option:

**BD** For on-site insulation

**DS** With acoustic insulation

■ For SRC duct silencer for volume flow and pressure controller see ▶ page 163.

■ For accessories see ▶ page 57.

VRup Volume flow controller

ח	isco	un	t a	rou	ın V

v Rup volume no		DISCO	bunt group v			
1		2	3	4		
Nominal size	AN	MP	KNX	MOD	LD	DS
100	441	488	701	636	13	105
125	442	489	702	637	13	112
160	448	490	706	640	13	122
200	459	505	720	654	13	133
250	473	519	735	668	13	148
315	500	537-	743	677	16	166
400	532	570	773	709	16	206

#### 2.6.7 VRpro volume flow controller



- Maintenance-free, electronic volume flow controller for constant and variable volume flows
- For freely positionable installation in ventilation pipelines for supply and exhaust air
- Casing and control mechanism made of galvanized steel; measuring cross made of aluminium
- Size: DN100 ... DN400

Configure your product here



	1		2		3		4		5		6		7		8
VRpro-		-		-		-		-		-		-		-	

Nominal size

100 315125 400

160

200 250 5 Acoustic insulation

Standard:

Without acoustic insulation

Option:

BD For on-site insulation

DS With acoustic insulation

- 2 Actuator and differential pressure sensor
  - **5DN** Standard actuator, 500 Pa dynamic
  - **5DF** Spring return actuator, 500 Pa dynamic
  - **5DQ** High-speed actuator, 500 Pa dynamic
  - **6SN** Standard actuator, 600 Pa static
  - **6SF** Spring return actuator, 600 Pa static
  - Spring retorn actuator, 600 Paratation
  - **6SQ** High-speed actuator, 600 Pa static
- 6 Operation mode

Standard:

**01** Variable, 0 ... 10 V

Option:

**K01** Constant (U = 0 ... 10 V)

**K21** Constant (U = 2 ... 10 V)

21 Variable, 2 ... 10 V

**VA** Adjustable setting Lower limit UG =

Upper limit OG =

- Working direction of spring return actuator
  - NC Normally closed
  - NO Normally open

7 Set points

Constant reference volume flow  $V_{const}$  = Minimum reference volume flow  $V_{min}$  =

Maximum reference volume flow  $V_{max}$  =

- 4 Lip seal
  - Standard:

Without lip seals

Option:

**LD** With two lip seals

8 System height

Values from 0 ... 3000 m **AH = ...** 

- i
- For SRC duct silencer for volume flow and pressure controller see <u>page 163.</u>
- For accessories see ▶ page 57.

VRpro volume flow controller

1			4	5				
Nominal size	5DN	5DF	5DQ	6SN	6SF	6SQ	LD	DS
100	612	887	779	1002	1277:-	1169	13	105
125	617:-	890	782	1007	1280	1172	13	112
160	637	914	806	1027:-	1304	1196	13	122
200	639	920	812	1029	1310	1202	13	133
250	655	939	831	1045	1329	1221	13	148
315	702	954	907	1092	1344	1297-	16	166
400	734	992	945	1124	1382	1335	16	206

#### 2.6.8 **DKpro Pressure controller**



- Maintenance-free, electronic pressure controller for constant and variable pressures
- For freely positionable installation in ventilation ducts for supply and exhaust air
- Casing and control mechanism made of galvanized sheet steel; measuring cross made of aluminium
- Widths B: 200 mm ... 1000 mm
- Heights H: 100 mm ... 1000 mm

Configure your product



DKpro

Dimensions **W** [mm] x **H** [mm]

Operation mode Standard: Variable, 0 ... 10 V

Option:

KO1

Constant (U = 0 ... 10 V) K21 Constant (U = 2 ... 10 V) 21 Variable, 2 – 10 V Adjustable setting VA Lower limit UG = Upper limit

Actuator and differential pressure sensor 5DN Standard actuator, 500 Pa dynamic 5DF Spring return actuator, 500 Pa dynamic **5DQ** High-speed actuator, 500 Pa dynamic **1SN** Standard actuator, 75 Pa static 1SF Spring return actuator, 75 Pa static **1SQ** High-speed actuator, 75 Pa static 6SN Standard actuator, 600 Pa static **6SF** Spring return actuator, 600 Pa static

6SQ High-speed actuator, 600 Pa static

Set points Constant reference pressure P<sub>const</sub> = Minimum reference pressure  $P_{min}$  = Maximum reference pressure  $P_{max}$  =

Working direction of spring return actuator NC Normally closed NO Normally open

System height Values from 0 ... 3000 m AH=

Acoustic insulation Standard: Without acoustic insulation Option:

With acoustic insulation

- For SKB-V sound attenuator for volume flow and pressure controller see ▶ page 162.
- For accessories see ▶ page 57.

DKpro Pressure controller											ınt group V
	2										4
Width [mm]	Height [mm]	5DN	5DF	5DQ	1SN	1SF	1SQ	6SN	6SF	6SQ	DS

	2										
Width [mm]	Height [mm]	5DN	5DF	5DQ	1SN	1SF	1SQ	6SN	6SF	6SQ	DS
200	100	903	1119	1075	1168	1384	1340	1186	1402	1358	139
200	200	973	1189	1145	1238	1454	1410	1256	1472	1428	148
	100	912	1128	1084	1177	1393	1349	1195	1411	1367	144
300	200	991	1201	1157	1256	1466	1422	1274	1484	1440	157
	300	1063	1273	1229	1328	1538	1494	1346	1556	1512	159
	100	921	1137	1093	1186	1402	1358	1204	1420	1376	155
400	200	1002	1212	1168	1267	1477	1433	1285	1495	1451	161
400	300	1078	1288	1244	1343	1553	1509	1361	1571	1527	168
	400	1147	1357	1313	1412	1622	1578	1430	1640	1596	170
	200	1033	1243	1199	1298	1508	1464	1316	1526	1482	176
500	300	1112	1322	1278	1377	1587	1543	1395	1605	1561	179
300	400	1184	1394	1472	1449	1659	1737	1467	1677	1755	189
	500	1278	1488	1566	1543	1753	1831	1561	1771	1849	202
	200	1047	1257	1213	1312	1522	1478	1330	1540	1496	185
600	300	1126	1336	1292	1391	1601	1557	1409	1619	1575	191
000	400	1202	1412	1490	1467	1677	1755	1485	1695	1773	194
	500	1316	1495	1587	1581	1760	1852	1599	1778	1870	210
700	300	1142	1352	1430	1407	1617	1695	1425	1635	1713	198
800	300	1157	1367	1445	1422	1632	1710	1440	1650	1728	209
800	400	1238	1448	1526	1503	1713	1791	1521	1731	1809	210
	500	1396	1575	1667	1661	1840	1932	1679	1858	1950	254
1000	600	1493	1672	1764	1758	1937	2029	1776	1955	2047	267
	1000	1835	2014	-	2100	2279	-	2118	2297	-	296

#### 2.6.9 DRpro volume flow controller



- Maintenance-free, electronic pressure controller for constant and variable
- For freely positionable installation in ventilation pipelines for supply and exhaust air
- Casing and control mechanism made of galvanized steel; measuring cross made of aluminium
- Size: DN100 ... DN400

Configure your product



	1	2		3	4	5	6	7	8
DRpro -		-	]-[		-	-	-	]-	]-

Nominal size

100 315 400

125 160

200 250

Standard:

Without acoustic insulation

Acoustic insulation

Option:

BD For on-site insulation With acoustic insulation

Actuator and differential pressure sensor

5DN Standard actuator, 500 Pa dynamic

**5DF** Spring return actuator, 500 Pa dynamic

**5DQ** High speed actuator, 500 Pa dynamic

1SN

Standard actuator, 75 Pa static 1SF

Spring return actuator, 75 Pa static

**1SQ** High-speed actuator, 75 Pa static

**6SN** Standard actuator, 600 Pa static **6SF** Spring return actuator, 600 Pa static

6SQ High-speed actuator, 600 Pa static

NO Normally open Operation mode

Standard:

01 Variable, 0 – 10 V

Option:

K01 Constant (U = 0 - 10 V)

K21 Constant (U = 2 - 10 V)

Variable, 2 – 10 V 21

Adjustable setting

Lower limit UG = Upper limit OG =

Working direction of spring return actuator

NC Normally closed

Set points

Constant reference volume flow  $P_{const}$  = Minimum reference volume flow  $P_{min}$  =

Maximum reference volume flow  $P_{max}$  =

Lip seal

Standard:

Without lip seals

Option:

With two lip seals

System height

Values from 0 ... 3000 m **AH = ...** 

- For SRC duct silencer for volume flow and pressure controller see ▶ page 163.
- For accessories see ▶ page 57.

#### DRpro Pressure controller Discount group V 1 2 4 5 1SQ LD Nominal size 5DN 5DF 5DQ 1SN 1SF 6SN 6SF 6SQ DS 100 790.-1012.-882.-1051.-1273.-1143.-1068.-1290.-1160.-13.-110.-125 795.-1017:-887.-1056.-1278.-1148.-1073.-1295.-1165.-13.-118.-160 811.-1033.-903.-1072.-1294.-1164.-1089.-1311.-1181.-13.-128.-200 815.-1037.-907:-1076.-1298.-1168.-1093.-1315.-1185.-13.-140.-250 831.-1053.-923.-1092.-1314.-1184.-1109.-1331.-1201.-13.-156.-315 868.-1067.-954.-1129.-1328.-1215.-1146.-1345.-1232.-16.-174.-400 905.-1104.-991.-1166.-1365.-1252.-1183.-1382.-1269.-16.-218.-

# Accessories Volume flow and pressure controllers (XXup/XXpro)

Discount group V

Ordering data	Description	Price
VD	VD volume flow measuring device, dynamic (specify size of pressure controller when ordering)	424
VS	VS volume flow measuring device, static (specify size of pressure controller when ordering)	564

Ordering data	Description	Price
ZUB 0102	ZTH-EU programming unit (including USB, ZK1-GEN, ZK2-GEN)	739
ZUB 0105	ZK4-GEN connection cable, 5 m	82
ZUB 0101	Pressure tapping set	44

#### 2.7 Multileaf dampers and pressure relief dampers

#### 2.7.1 JKS multileaf damper



- Maintenance-free control and shut-off dampers for ventilation and air conditioning systems
- Made of galvanised sheet steel
- Leaktightness according to DIN EN 1751: Casing class C, shut-off damper class 1
- Widths B: 200 mm ... 1200 mm (in 1-mm increments)
- Heights H: 100 mm ... 1500 mm (in 5-mm increments)
- · Construction length L: 120 mm

Configure your product here





Dimensions **W** [mm] x **H** [mm] Limit switch Standard: Without Option:

> S1 With 1 switch With 2 switches

Blade coupling

GG Counter-rotation Synchronisation

Installation subframes

Standard: Without Option:

MR Wall installation subframe

Actuator

Standard: Without

Option:

With actuating lever and locking device

Reversing actuators: MBN230 230 V AC 24 VAC/DC MBN24

Emergency spring return actuators:

MBF230 230 V AC MBF24 24 VAC/DC Continuously variable actuators:

MBN24-SR 24 VAC/DC

MBF24-SR 24 VAC/DC, spring return actuator

High-speed actuators: MBQ24 24 VAC/DC

For assignment of actuators see

▶ JKS/JLS user manual

Working direction of spring return actuator

NO Normally open

Normally closed

- For surcharges see ▶ page 62.
- For accessories see ▶ page 63.

Counter flange

Standard: Without Option:

1GF 1 x counter flange 2GF 2 x counter flange

JKS multileaf	KS multileaf Discount group L												
					,	Width [mm	]						
Height [mm]	200	300	400	500	600	700	800	900	1000	1100	1200		
100	95	97	101	104	107	112	114	117	119	122	125		
200	129	134	138	141	147	150	155	157	163	166	170		
300	159	165	170	175	179	186	189	194	199	202	208		
400	192	198	202	208	215	220	224	231	237	241	248		
500	215	220	226	232	239	245	251	257	262	270	275		
600	248	255	261	269	277	283	290	297	304	312	319		
700	257	262	271	278	288	294	300	308	314	324	330		
800	284	291	300	308	317	324	333	340	347	357	364		
900	311	320	328	336	346	356	364	373	381	392	399		
1000	337	346	357	365	376	386	395	406	414	424	436		
1100	357	365	376	386	396	407	416	425	437	446	456		
1200	384	394	404	414	425	437	447	458	467	479	490		
1300	408	419	431	444	455	466	478	489	499	511	523		
1400	416	428	440	451	465	477	489	499	511	523	534		
1500	444	455	467	479	492	504	518	529	542	556	566		

Intermediate sizes are priced at the next higher or next wider standard size.

#### 2.7.2 JLS multileaf damper



- Maintenance-free control and shut-off dampers for ventilation and air conditioning systems made of galvanised sheet steel
- Leaktightness according to DIN EN 1751: Casing class C, GL: Shut-off damper class 2, GG: Shut-off damper class 4 (airtight according to DIN 1946-4)
- Widths B: 200 mm ... 1200 mm (in 1-mm increments)
- · Heights H: 100 mm ... 1500 mm (in 5-mm increments)
- · Construction length L: 120 mm

Configure your product



 1
 2
 3
 4
 5
 6
 7

 JLS

Dimensions
W [mm] x H [mm]

5 Limit switch
Standard:
Without
Option:

S1 With 1 switchS2 With 2 switches

2 Blade coupling
GG Counter-rotation
GL Synchronisation

6 Installation subframes
Standard:
Without

Option:

MR Wall installation subframe

3 Actuator Standard:

Without Option:

**F** With actuating lever and locking device

Reversing actuators: MBN230 230 V AC MBN24 24 V AC/DC

Emergency spring return actuators:

**MBF230** 230 VAC **MBF24** 24 VAC/DC

Continuously variable actuators:

MBN24-SR 24 VAC/DC

MBF24-SR 24 VAC/DC, spring return actuator

High-speed actuators: MBQ24 24 VAC/DC

For assignment of actuators see

▶ JKS/JLS user manual

Working direction of spring return actuator

NC Normally closedNO Normally open

■ For surcharges see ▶ page 62.

■ For accessories see ▶ page 63.

7 Counter flange Standard:

Without Option:

1GF 1 x counter flange2GF 2 x counter flange

#### JLS multileaf dampers with *GL* synchronisation

Discount group L

1 + 2					,	Width [mm	]				
Height [mm]	200	300	400	500	600	700	800	900	1000	1100	1200
100	118	121	126	129	135	138	142	148	152	157	161
200	165	170	176	183	189	194	201	207	214	221	226
300	207	216	223	232	240	248	255	262	273	280	288
400	250	258	270	278	289	299	310	319	328	339	349
500	290	303	314	327	339	351	362	374	385	397	409
600	297	310	321	334	344	358	370	381	393	407	416
700	335	349	362	376	390	403	416	429	443	458	470
800	344	359	373	387	402	415	431	444	458	474	488
900	380	395	410	425	443	458	474	490	505	521	537
1000	399	414	431	447	463	481	497	514	529	547	563
1100	438	455	474	491	510	528	544	563	581	600	617
1200	473	490	510	529	549	568	586	608	626	647	666
1300	504	526	545	566	586	609	630	651	670	692	713
1400	515	537	559	579	602	624	646	666	687	710	730
1500	547	570	593	616	641	663	686	710	731	753	778

i Intermediate sizes are priced at the next higher or next wider standard size.

#### JLS multileaf dampers with **GG** counter-rotation

Discount group L

1+2					١	Width [mm	]				
Height [mm]	200	300	400	500	600	700	800	900	1000	1100	1200
200	185	192	199	206	214	218	226	233	240	248	254
300	236	245	254	262	273	282	290	297	306	319	327
400	288	297	305	319	328	341	352	362	373	385	395
500	335	349	360	374	387	400	414	426	440	454	466
600	390	406	419	436	449	465	481	496	511	528	543
700	438	455	473	489	506	526	542	559	577	595	611
800	486	504	523	543	563	582	601	621	641	660	681
900	533	552	575	596	618	641	662	683	705	728	750
1000	579	603	626	651	675	698	722	745	770	794	818
1100	634	662	687	713	738	766	790	817	842	870	897
1200	685	713	742	768	797	824	852	882	907	937	965
1300	734	763	793	823	854	883	913	943	974	1003	1034
1400	780	812	845	875	909	942	974	1006	1038	1071	1103
1500	830	863	898	931	967	1001	1034	1068	1103	1138	1172

i Intermediate sizes are priced at the next higher or next wider standard size.

#### JKS/JLS multileaf dampers **Actuators**

#### Discount group L

3 Ordering data	Description		Price
F	Adjusting lever and locking device		17
		5 Nm	190
MBN230	230 V AC reversing actuator	10 Nm	238
MBNZ3U	250 V AC reversing actuator	1	
		40 Nm	309
		5 Nm	190
MBN24	24 V AC/DC reversing actuator	10 Nm	238
MBINZ4	24 V AC/ DC reversing dctodtor	20 Nm	262
		40 Nm	309
		5 Nm	261
MBN24-SR	24 V AC/DC continuously variable actuator	10 Nm	369
I IDINZ4-SK	24 VAC/ DC COntinioodsity Variable activator	20 Nm	375
		40 Nm	400
		10 Nm	405
MBF230	230 VAC emergency spring return actuator	20 Nm	424
		30 Nm	784
		10 Nm	346
MBF24	24 V AC/DC emergency spring return actuator	20 Nm	370
		30 Nm	686
		10 Nm	392
MBF24-SR	24 V AC/DC emergency and continuously variable spring return actuator	20 Nm	434
		30 Nm	734
MBQ24	24 V AC/DC reversible high-speed actuator	8 Nm	385
I IDQ24	24 V AC/ DC (CVC) 3IDIE HIGH Speed dctodtol	16 Nm	418

#### JKS/JLS multileaf dampers Limit switch

5 Ordering data	Description	Price
S1	Auxiliary switch with 1 switch (for MBN230, MBN24, MBN24-SR and MBQ24)	62
S2	Auxiliary switch with 2 switches (for MBN230, MBN24, MBN24-SR and MBQ24)	80
S2	Auxiliary switch with 2 switches (for MBF230, MBF24, MBF24-SR)	117

- i
- No auxiliary switch S2 (S2A-F) for actuator MBF230, MBF24, MBF24-SR size 4.
- All prices quoted refer to original equipment ex works.

## **MR** wall installation subframes and **GF** counter flanges

## Discount group L

6 + 7					,	Width [mm	1				
Height [mm]	200	300	400	500	600	700	800	900	1000	1100	1200
100	32	33	36	39	39	46	47	50	50	54	54
200	32	33	36	39	39	46	47	50	50	54	54
300	33	36	39	39	46	47	49	54	54	63	63
400	34	38	39	44	47	48	49	54	54	63	63
500	38	39	44	46	48	49	50	56	56	65	65
600	40	46	48	49	50	54	55	65	65	68	68
700	46	48	50	50	55	56	64	68	68	71	71
800	46	48	50	50	55	56	64	68	68	71	71
900	49	50	54	55	63	65	68	71	71	76	76
1000	49	50	54	55	63	65	68	71	71	76	76
1100	54	55	63	64	65	68	69	73	73	80	80
1200	56	63	65	68	69	71	73	80	80	84	84
1300	56	63	65	68	69	71	73	80	80	84	84
1400	65	66	68	71	73	73	80	82	82	87	87
1500	65	66	68	71	73	73	80	82	82	87	87

i

Intermediate sizes are priced at the next higher or next wider standard size.

# Accessories, JKS/JLS multileaf dampers

Ordering data	Description	Price
ZUB 0123	Tabs for assembly Same widths one on top of the other: Width < 1000 mm Same heights next to each other: Height < 1000 mm	32
ZUB 0124	Tabs for assembly Same widths one on top of the other: Width ≥ 1000 mm Same heights next to each other: Height ≥ 1000 mm	49

#### 2.7.3 JK multileaf damper



- Control and shut-off dampers for air conditioning systems
- Made of galvanized sheet steel
- Widths B: 400 mm ... 2000 mm
- Heights H: 180 mm ... 1995 mm
- Construction length L: 120 mm

L: 180 mm (heights and widths in 1-mm increments)

Configure your product



Bushes

Ν Made of plastic

Made of brass

Actuator

Standard:

Without

Option:

F Locking device

Electrically reversing actuator:

MO 100 ... 240 VAC

M1 24 VAC/DC

M2 100 ... 240 V AC + 1 auxiliary switches

M3 100 ... 240 V AC + 2 auxiliary switches

M4 24 VAC/DC + 1 auxiliary switches

24 V AC/DC + 2 auxiliary switches M5

Spring return actuators:

M6 230 VAC + integrated limit switch

M7 24 VAC/DC + integrated limit switch

Axle extension for on-site actuators:

A1 18 mm Ø (for actuators M0 ... M5)

12 x 12 mm (for actuators M6 and M7) Α2

12 mm Ø, 150 mm long (for adjusting lever)

Dimensions

**W** [mm] x **H** [mm] x **L** [mm]

Installation subframes

Standard:

Without installation subframe

Option:

MR Wall installation frame

Blade direction

Counter-rotating linkage

- Linkage in the same direction
- Internal linkage

Accessories

Standard: Without

Option:

**1GF** 1 x counter flange

**2GF** 2 x counter flange

- For surcharges see ▶ page 75.
- For accessories see ▶ page 75.

64

JK multileaf dampers with bushes N made of plastic

Discount group L

2					Width [mm]				
Height [mm]	400	600	800	1000	1200	1400	1600	1800	2000
180	88	101	106	118	131	139	150	157	163
345	106	116	125	136	151	159	171	185	192
510	144	154	169	185	194	209	221	232	241
675	171	191	203	206	238	253	262	277	288
840	207	226	241	258	274	291	310	322	335
1005	240	254	277	297	322	341	355	371	386
1170	268	288	312	328	346	371	394	409	426
1335	297	320	343	362	387	410	432	449	470
1500	328	352	378	400	426	456	476	500	518
1665	365	387	411	439	470	498	521	542	563
1830	397	419	449	476	511	544	563	584	602
1995	429	456	486	514	549	584	608	630	649

Intermediate sizes in increments of 1 mm are available for construction length 180 mm. Intermediate sizes are priced at the next higher or next wider standard size.

JK multileaf dampers with bushes M made of brass

Discount group L

2					Width [mm]				
Height [mm]	400	600	800	1000	1200	1400	1600	1800	2000
180	96	104	114	121	136	154	158	168	171
345	114	121	131	139	154	169	179	185	194
510	158	168	176	192	201	215	223	231	239
675	194	208	223	236	250	261	273	283	291
840	236	253	265	278	291	310	322	334	346
1005	274	289	310	327	346	362	378	393	406
1170	311	327	351	365	381	406	424	438	451
1335	346	367	387	407	429	448	469	486	502
1500	385	407	432	451	475	502	521	542	558
1665	429	449	473	497	526	551	570	591	610
1830	466	488	515	542	572	602	621	638	655
1995	506	533	560	584	618	648	674	694	712

Intermediate sizes in increments of 1 mm are available for construction length 180 mm.
Intermediate sizes are priced at the next higher or next wider standard size.

#### 2.7.4 JL multileaf damper



- Control and shut-off dampers in ventilation and air conditioning systems, in particular in hospitals
- · Made of galvanised sheet steel
- Air tight as per DIN 1946-4 and leak tightness class 4 as per EN 1751 at 100 [Pa] static pressure difference.
- Widths B: 200 mm ... 2000 mm
- · Heights H: 180 mm ... 1995 mm
- · Construction length L: 180 mm

Configure your product here



 1
 2
 3
 4

 JL

Dimensions
B [mm] x H [mm]

Installation subframes
Standard:
Without
Option:

MR Wall installation subframe

2 Actuator Standard:

Without Option:

**F** Locking device

Electrically reversing actuators:

**MO** 100 ... 240 VAC

**M1** 24 VAC/DC

M2 100 ... 240 VAC + 1 auxiliary switches

M3 100 ... 240 VAC + 2 auxiliary switches

M4 24 VAC/DC + 1 auxiliary switches

M5 24 VAC/DC + 2 auxiliary switches

Spring return actuators:

M6 230 V AC + integrated limit switchM7 24 V AC/DC + integrated limit switch

Axle extension for on-site actuators:

**A1** 18 mm Ø (for actuators M0 ... M5)

A2 12 x 12 mm (for actuators M6 and M7)

12 mm Ø, 150 mm long (for adjusting lever)

4 Accessories

Standard:

Without

Option:

**1GF** 1 x counter flange

**2GF** 2 x counter flange

■ For surcharges see ▶ page 75.

■ For accessories see ▶ page 75.

JL multileaf

Discount group L

1		Width [mm]												
Height [mm]	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000	
180	166	169	169	174	182	193	201	219	ı	-	ı	-	-	
345	213	214	219	229	240	249	262	283	294	315	333	352	371	
510	284	288	290	302	316	329	343	368	384	410	437	462	488	
675	358	361	365	377	392	410	423	454	479	509	537	570	600	
840	425	429	432	455	466	490	506	542	571	606	643	678	711	
1005	490	498	502	530	544	571	587	629	692	735	779	820	866	
1170	539	567	593	612	643	660	692	741	786	833	882	932	977	
1335	589	625	669	691	719	741	775	829	879	934	985	1040	1093	
1500	641	683	735	764	795	822	855	918	972	1030	1090	1145	1205	
1665	692	740	808	837	871	901	936	1002	1063	1130	1191	1255	1319	
1830	743	801	879	890	950	974	1019	1090	1156	1225	1295	1363	1433	
1995	829	882	952	987	1024	1064	1100	1175	1251	1324	1398	1473	1545	

# 2.7.5 UK pressure relief damper



- For ventilation and air conditioning systems
- · For installation between ventilation ducts and on walls inside a building
- Made of galvanised sheet steel
- · Widths B: 200 mm ... 1600 mm
- · Heights H: 263 mm ... 1665 mm

Configure your product





Dimensions
W [mm] x H [mm]

Counter flange
Standard:
Without
Option:

1GF 1 x counter flange2GF 2 x counter flange

2 Installation subframes
Standard:
Without
Option:

MR Wall installation subframe

i For accessories see ▶ page 75.

UK pressure relief dampers with flanges

1				Width	[mm]			
Height [mm]	200	400	600	800	1000	1200	1400	1600
263	69	73	82	95	120	130	143	151
345	82	88	95	109	143	156	171	174
428	95	103	117	125	171	186	205	206
510	109	117	130	145	199	209	232	234
675	121	130	142	156	225	241	261	264
840	135	145	158	175	253	269	288	288
1005	151	157	175	193	281	296	318	317
1170	175	188	206	229	339	352	378	372
1335	205	214	237	261	384	408	432	432
1500	232	241	269	300	441	469	501	495
1665	258	270	300	329	494	525	547	549

# 2.7.6 UE Pressure relief damper



- · For ventilation and air conditioning systems
- · With blind frames for installation in walls
- Made of galvanised sheet steel
- · Widths B: 200 mm ... 1600 mm
- · Heights H: 263 mm ... 1665 mm

Configure your product





- Direction of air flow
  - 1 For exit air
  - 2 For supply air

3 Installation subframes

Standard:

Without

Option:

MR Wall installation subframe

- Dimensions
  W [mm] x H [mm]
- i For accessories see ▶ page 75.

UE pressure relief dampers with angle frame for wall installation Discount group L

2				Width	[mm]			
Height [mm]	200	400	600	800	1000	1200	1400	1600
263	49	49	54	63	82	86	95	105
345	55	63	69	73	103	111	121	135
428	69	73	82	88	130	138	151	162
510	81	83	92	103	153	162	173	189
675	89	95	105	114	173	188	202	217
840	103	106	120	130	199	213	225	240
1005	111	120	132	132	224	236	253	266
1170	136	142	156	173	271	287	304	321
1335	156	166	184	205	318	339	357	383
1500	178	188	208	234	366	390	413	441
1665	199	208	236	261	413	441	470	495

# 2.8 Weather resistant louvres and combinations

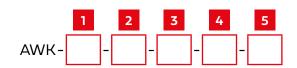
## 2.8.1 AWK weather resistant louvre



- · For external air and for exit air of ventilation and air conditioning systems
- Frame and blades made of extruded aluminium profiles, protective grille made of stainless steel
- · Option: with additional fly screen
- Widths B: 225 mm ... 1225 mm
- · Heights H: 125 mm ... 525 mm

Configure your product here





Fly screen

Standard:

Without

Option:

**F** With additional fly screen

4 Colour

Standard:

Without, silver anodised

Option:

RAL.

For further information see page 1

2 Dimensions

**W** [mm] x **H** [mm]

5 Installation frames

Standard:

With counter punched holes

Option:

**OB** Without counter-punched holes

3 Installation subframes

Standard:

Without

Option:

**ER** With installation subframe

i For accessories see ▶ page 75.

AWK weather resistant louvre with 16 mm mesh size

Discount group L

2	Width [mm]							
Height [mm]	225	325	425	525	625	825	1025	1225
125	40	47	51	54	66	73	81	82
225	56	66	72	77:-	83	96	106	116
325	74	82	89	96	105	120	133	144
425	89	101	110	116	125	144	159	173
525	110	118	125	135	150	169	186	203

i Surcharge for varying from RAL colour shade: +65 %.

AWK**-F** weather resistant louvre with 16 mm mesh size

Discount group L

2	Width [mm]							
Height [mm]	225	325	425	525	625	825	1025	1225
125	50	54	65	69	74	87	92	104
225	70	77	83	90	101	118	125	136
325	87	101	110	118	125	144	157	171
425	110	121	131	139	151	171	192	208
525	131	141	151	163	175	202	223	243

i Surcharge for varying from RAL colour shade: +65 %.

**ER** installation subframe

3	Width [mm]							
Height [mm]	225	325	425	525	625	825	1025	1225
125	6	6	9	9	9	10	13	13
225	6	9	9	9	10	13	13	15
325	9	9	9	10	10	13	13	15
425	9	9	10	10	13	13	15	16
525	9 -	10 -	10 -	13 -	13 -	15 -	15 -	16 -

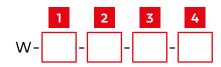
# 2.8.2 W weather resistant louvre



- · For external air and for exit air of ventilation and air conditioning systems
- · Frame and blades made of galvanized sheet steel
- Widths B: 300 mm ... 2100 mm (in 1-mm increments)
- · Heights H: 345 mm ... 2078 mm (in 1-mm increments)

Configure your product





Dimensions
W [mm] x H [mm]

Colour Standard: Without Option: RAL ...

For further information see > page 1

Installation subframe
Standard:
Without
Option:
M With wall installation subframe

4 Installation frames
Standard:
With front frame holes
Option:

**OB** Without front frame holes

i For accessories see ▶ page 75.

W weather resistant louvre

$\Box$	iscoi	ınt	aroi	ın I

	1					Width	[mm]				
Height [mm]		300	500	700	900	1100	1300	1500	1700	1900	
Heigh	ic įmmį	400	600	800	1000	1200	1400	1600	1800	2000	2100
	345	54	68	73	85	95	105	124	149	169	182
428	510	69	81	91	104	114	129	155	177	203	218
593	675	82	96	108	121	132	155	181	206	236	246
758	840	96	110	123	141	155	179	206	236	269	279
923	1005	110	124	141	157	171	204	236	269	297	310
1088	1170	121	141	157	172	191	228	259	295	325	341
1253	1335	139	155	171	195	212	254	286	322	356	375
1418	1500	151	169	190	212	232	278	314	350	387	403
1583	1665	165	187	206	230	254	302	339	382	423	441
1748	1830	177	199	224	249	270	325	366	410	451	468
1913	1995	190	218	241	269	290	350	394	437	482	500
2078		198	222	249	274	304	362	408	450	494	516

i

- $\blacksquare$  Surcharge for varying from RAL colour shade: +50 %.
- The price for the next highest or the next widest standard size applies as the price for intermediate sizes in 1-mm increments.

## 2.8.3 AW weather resistant louvre



- · For external air and for exit air of ventilation and air conditioning systems
- Frame and blades made of extruded aluminium profiles with untreated surfaces
- Widths B: 300 mm ... 2100 mm (in 1-mm increments)
- Heights H: 345 mm ... 2078 mm (in 1-mm increments)

Configure your product



Dimensions
W [mm] x H [mm]

Colour Standard: Without Option: RAL ...

For further information see > page 1

Installation subframes
Standard:
Without
Option:
MR With wall installation subframe

4 Installation frames
Standard:
With front frame holes
Option:

**OB** Without front frame holes

i For accessories see ▶ page 75.

AW weather resistant louvre

Discount group L	
------------------	--

	1					Width	[mm]				
Height [mm]		300	500	700	900	1100	1300	1500	1700	1900	
Heigh	it [mm]	400	600	800	1000	1200	1400	1600	1800	2000	2100
	345	96	116	131	150	166	201	218	236	253	261
428	510	107	131	151	171	198	254	278	303	324	335
593	675	134	159	191	221	245	314	343	374	400	411
758	840	166	207	245	280	318	390	424	456	488	505
923	1005	193	239	280	320	362	447	486	521	558	577
1088	1170	222	271	318	362	406	505	549	586	626	648
1253	1335	248	302	352	400	448	562	610	654	697	719
1418	1500	277	329	386	440	493	623	671	719	766	789
1583	1665	305	362	422	482	538	679	734	785	834	859
1748	1830	327	393	456	521	584	735	795	848	905	936
1913	1995	354	424	491	562	625	793	857	914	975	1006
2078		369	440	507	584	648	819	889	946	1011	1040

- i
- $\blacksquare$  Surcharge for varying from RAL colour shade: +50 %.
- The price for the next highest or the next widest standard size applies as the price for intermediate sizes in 1-mm increments.

# 2.8.4 AWE weather resistant louvre



- · For external air and for exit air of ventilation and air conditioning systems
- Frame and blades made of extruded aluminium profiles with silver anodised surfaces
- Widths B: 300 mm ... 2100 mm (in 1-mm increments)
- Heights H: 345 mm ... 2078 mm (in 1-mm increments)

Configure your product here





Dimensions
W [mm] x H [mm]

3 Installation frames
Standard:
With front frame holes
Option:

**OB** Without front frame holes

2 Installation subframes
Standard:
Without

Option:

MR With wall installation subframe

i For accessories see ▶ <u>page 75.</u>

<b>∧\∧/</b> ⊏	woathor	resistant	louvro

_							
D	isc	ou	nt	ar	OU.	D	L

	1					Width	[mm]				
Height [mm]		300	500	700	900	1100	1300	1500	1700	1900	
neigi	ic (iiiiii)	400	600	800	1000	1200	1400	1600	1800	2000	2100
	345	131	155	181	203	228	274	297	322	345	356
428	510	151	179	206	237	270	346	380	416	443	459
593	675	189	221	259	302	338	433	473	509	547	568
758	840	228	285	336	384	437	534	582	623	669	689
923	1005	269	326	384	441	497	614	665	712	767	788
1088	1170	304	369	437	497	555	693	750	805	868	887
1253	1335	338	410	483	549	616	769	838	894	952	1064
1418	1500	379	452	531	606	678	851	920	984	1048	1080
1583	1665	416	497	577	661	737	926	1001	1074	1144	1178
1748	1830	448	536	623	712	794	1005	1090	1161	1239	1279
1913	1995	484	581	671	769	855	1083	1173	1253	1333	1375
2078		503	601	696	794	890	1125	1215	1296	1380	1425

The price for the next highest or the next widest standard size applies as the price for intermediate sizes in 1-mm increments.

### 2.8.5 Weather resistant louvre combinations



- For external air and for exit air
- Combination of weather resistant louvre with a multileaf damper or a pressure relief damper
- Widths B: 400 ... 2000 mm
- · Heights H: 345 ... 1995 mm

Configure your product





Dimensions **W** [mm] x **H** [mm] Installation subframes Standard: Without

Option:

MR With wall installation subframe

Weather resistant louvre

Option:

w Steel, galvanised

AW Aluminium, untreated

AWE Aluminium, silver anodised

page 72 ▶ page 73

▶ page 71

Counter flange Standard:

Without

Option:

GF With counter flange

Combined component

Option:

JK-N180 ▶ page 64 JK-N180G ▶ page 64

JK-N180I ▶ page 64

JK-M180 ▶ page 64

JK-M180G ▶ page 64

JK-M180I ▶ page 64

JL ▶ page 66

UKI ▶ page 67

UK2 ▶ page 67 Standard: With front frame holes

Installation frames

Option:

**OB** Without front frame holes

Actuator

Standard:

Without

Option:

Locking device

Electrically reversing actuator:

MO 100 ... 240 VAC

24 VAC/DC MΊ

M2 100 ... 240 V AC and 1 auxiliary switch

М3 100 ... 240 VAC and 2 auxiliary switch

Μ4 24 V AC/DC and 1 auxiliary switches

24 VAC/DC and 2 auxiliary switches M5

Spring return actuators:

M6 230 VAC and integrated limit switches

24 V AC/DC and integrated limit switches

Axle extension for on-site actuators:

Δ1 18 mm Ø (for actuators M0 ... M5) Α2 12 x 12 mm (for actuators M6 and M7)

Α3 12 mm Ø, 150 mm long (for adjusting lever)

For accessories see ▶ page 75.

Colour shade (for W and AW)

Standard:

Without

Option:

For further information see ▶ page 1

Assignment of weather resistant louvre combinations

	size of the nation		size of the istant louvre	Nominal size of the Nominal size of the Nominal size re JK multileaf damper JL multileaf damper UK love					
Width B [mm]	Height H [mm]	Width B [mm]	Height H [mm]	Width B [mm]	Height H [mm]	Width B [mm]	Height H [mm]	Width B [mm]	Height H [mm]
400	345	500	428	400	345	400	345	400	345
600	510	700	593	600	510	600	510	600	510
800	675	900	758	800	675	800	675	800	675
1000	840	1100	923	1000	840	1000	840	1000	840
1200	1005	1300	1088	1200	1005	1200	1005	1200	1005
1400	1170	1500	1253	1400	1170	1400	1170	1400	1170
1600	1335	1700	1418	1600	1335	1600	1335	1600	1335
1800	1500	1900	1583	1800	1500	1800	1500	-	1500
2000	1665	2100	1748	2000	1665	2000	1665	-	1665
-	1830	-	1913	-	1830	-	1830	-	-
_	1995	-	2078	-	1995	-	1995	-	-

- i
- Specify the air direction of the UK louvre:
- Weather protection grille aspirating: **UK1**
- Weather protection grille blowing out: **UK2**

Assembly of weather resistant louvre combinations

isc				

1				V	/idth [mn	n]			
Height [mm]	400	600	800	1000	1200	1400	1600	1800	2000
345	23	36	39	44	49	51	54	56	57
510	36	43	49	51	56	57	62	63	68
675	39	49	53	57	62	65	70	73	75
840	44	51	57	62	68	73	75	76	81
1005	49	56	62	68	73	75	80	82	89
1170	51	57	65	73	75	80	83	91	94
1335	53	62	68	75	80	83	91	94	99
1500	56	63	73	76	82	91	94	99	105
1665	57	68	75	80	89	94	99	104	109
1830	57	70	76	82	92	98	101	109	113
1995	62	73	80	89	94	101	109	113	118

# Accessories: Multileaf dampers, pressure relief dampers and weather resistant louvres

# Adjustment devices and electric actuators

# Discount group L

Ordering data	Description	Price
F	Locking device for adjusting lever	16
M0	Reversing actuator, 100 240 V AC	187-
M1	Reversing actuator, 24 V AC/DC	187-
M2	Reversing actuator, 100 240 V AC with auxiliary switch	221
M3	Reversing actuator, 100 240 V AC, with two auxiliary switches	235
M4	Reversing actuator, 24 V AC/DC with auxiliary switch	221
M5	Reversing actuator, 24 V AC/DC, with two auxiliary switches	235
M6	Spring return actuator, 230 V AC, with integrated limit switches	364
M7	Spring return actuator, 24 V AC/DC, with integrated limit switches	345

# Axle extension for on-site actuators

Ordering data	Description	Price
A1	JK, JL: 18 mm diameter for actuators M0 M5	33
A2	JK, JL: 12 x 12 mm for actuators M6 and M7	33
А3	JK, JL: 12 mm diameter, 150 mm long (for adjusting lever)	33

Tabs for assembly

Discount group L

Ordering data	Description	Price
ZUB 0123	For JK, JL and UK Same widths one on top of the other: Width < 1000 mm Same heights next to each other: Height < 1000 mm	32
ZUB 0124	For JK, JL and UK Same widths one on top of the other: Width ≥ 1000 mm Same heights next to each other: Height ≥ 1000 mm	49
ZUB 0129	For UE, W, AW and AWE Same widths one on top of the other: Width < 1000 mm Same heights next to each other: Height < 1005 mm	32
ZUB 0130	For UE, W, AW and AWE Same widths one on top of the other: Width ≥ 1000 mm Same heights next to each other: Height ≥ 1005 mm	49

 ${\it MR}$  wall installation frame and  ${\it GF}$  counter flange

								Width	[mm]						
Heigh	nt [mm]	200	300	400	500	600	700	800	900	1100	1300	1500	1700	1900	
									1000	1200	1400	1600	1800	2000	2100
180		31	32	33	36	39	40	46	49	54	63	65	69	73	76
263		32	33	36	39	39	46	47	50	54	64	68	72	76	80
345		33	36	39	39	46	47	49	54	63	65	69	73	80	81
428		34	38	39	44	47	48	49	54	63	68	71	76	81	82
510		38	39	44	46	48	49	50	56	65	68	72	79	82	85
593	675	40	46	48	49	50	54	55	65	68	72	79	82	87	88
758	840	46	48	50	50	55	56	64	68	71	76	82	85	88	95
923	1005	49	50	54	55	63	65	68	71	76	81	85	89	95	99
1088	1170	54	55	63	64	65	68	69	73	80	84	88	95	100	101
1253	1335	56	63	65	68	69	71	73	80	84	88	95	100	104	106
1418	1500	65	66	68	71	73	73	80	82	87	91	99	104	108	110
1583	1665	68	69	72	73	79	81	82	87	91	99	101	108	114	116
1748	1830	71	73	76	80	82	84	85	89	96	101	106	113	117	118
1913	1995	73	76	80	82	85	85	88	95	101	106	110	116	120	124
	2078	76	80	82	84	85	88	91	99	105	108	114	118	123	126

The price for the next highest or the next widest standard size applies as the price for intermediate sizes in 1-mm increments.

# Fire protection

# 3.1 Fire dampers

# 3.1.1 FK90 fire damper (series FK92)



- Maintenance-free fire damper according to EN 15650
- Fire classifications: EI 30/60/90/120 ( $v_e h_{ov}$  i  $\Leftrightarrow$  o) S C10000
- Leak tightness C according to DIN EN 1751
- Widths: 200 mm ... 1500 mm and heights: 200 mm ... 800 mm (in 5-mm increments)
- Widths: 200 mm ... 1000 mm and heights: 200 mm ... 1000 mm (in 5-mm increments)
- · Lengths: 400 mm and 500 mm

Configure your product here



1 2 3 4 5 6 7 8 9 10 FK92- - - - - - - - - - - - - - - - - - -

1 Dimensions

**W** [mm] x **H** [mm] x **L** [mm]

i Also available in short length ▶ page 92.

4 Casing design

Standard:

Casing made of galvanized sheet steel

Option:

Casing inside and outside with epoxy resin powder coating

Installation and mounting frame

Standard:

Without installation subframe and mounting frame

Option for L = 400 mm and L = 500 mm:

ER1 For metal stud walls

**ER8** For wooden walls and ceilings and for ceilings with steel frames

AR2 For remote from walls and ceilings

Option for L = 500: ER4 For sliding ceiling connection 5 Additional casing openings

Standard:

Without

Option:

132 mm Ø with cover; installation position:

top, bottom, top + bottom

3 Damper blade design

Standard:

Metal frame made of galvanized steel

Option:

Metal frame made from 1.4301 stainless steel

Galvanised metal cover

Metal frame and metal cover made of 1.4301 stainless steel

6 Release temperature

Standard:

70 °C

Option:

95 °C

**70 °C** corrosion-resistant

Limit switch for thermal-mechanical release mechanism (TMA)

Standard:

Without limit switch

Option:

**E-ZU** One limit switch CLOSED **E-AUF** One limit switch OPEN

**E-ZU+AUF** Two limit switches CLOSED+OPEN **EX-ZU** One explosion-protected limit switch

**CLOSED** 

**EX-AUF** One explosion-protected limit switch OPEN

**EX-ZU+AUF** Two explosion-protected limit switches

CLOSED+OPEN

8 Actuators and release elements

Standard:

Thermal-mechanical release mechanism (TMA)

Option:

M220-9/H Actuator 230 V (Standard)
M24-9/H Actuator 24 V (Standard)

 M220-10/H
 Actuator 230 V

 M24-10/H
 Actuator 24 V

 M220-11/H
 Actuator 230 V

 M24-11/H
 Actuator 24 V

GU24 With magnetic clamp on TMA WU220 With magnetic clamp on TMA G24 With lifting solenoid on TMA W220 With lifting solenoid on TMA Р With pneumatic cylinder on TMA P2 With pneumatic cylinder on TMA N/Ex Explosion-protected TMA EM-1 Explosion-protected actuator RM-1 Explosion-protected actuator EM-2 Explosion-protected actuator

■ Corresponding price tables ▶ from page 82.

■ Further accessories ▶ from page 109.

9 Smoke detector

Standard:

Without

Option:

**4B** OR4 basic

**4P** OR4 pro

Ü-FK (series OR4) for air transfer applications

NO OR32 standard

N2 OR32 with MC and relay module

Ü-FK (series OR32) for air transfer applications

Installed accessories

Standard:

Without

Option:

Al AB-01 connection box for spring return actuators with 24 VAC/DC

A3 AB-02 connection box for spring return actuators with 230 V AC

**AS** AS-i module for spring return actuators 24 VAC/DC, mounted above the actuator

# Fire protection

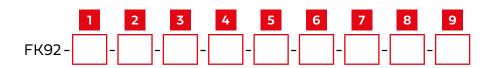
### Ü-FK (series OR4) fire damper for air transfer applications 3.1.2



- Maintenance-free fire damper according to EN 15650
- Fire classifications: EI 30/60/90/120 ( $v_e h_{or} i \Leftrightarrow o$ ) S C10000
- General Building Inspectorate Approval / General Type Approval: Z-6.50-2132
- With electric actuator or magnetic clamp 230 VAC or 24 VAC/DC
- With OR4 smoke detector
- Widths B: 200 mm ... 1500 mm (in 5-mm increments)
- Heights H: 200 mm ... 800 mm (in 5-mm increments)
- Lengths L: 400 mm and 500 mm

Configure your product here





Dimensions

**W** [mm] x **H** [mm] x **L** [mm]

Release temperature

Standard:

70 °C

Installation and mounting frame

Standard:

Without installation subframe and mounting frame

Option for L = 400 mm and L = 500 mm:

ER1 for metal stud walls

ER8 for wooden walls and ceilings and for ceilings

with steel frames

AR2 for remote from walls and ceilings

Limit switch for thermal-mechanical release mechanism (TMA) in conjunction with magnetic clamp

Standard:

Without limit switch

Option:

E-ZU One limit switch CLOSED F-ALIF One limit switch OPFN

E-ZU+AUF Two limit switches CLOSED+OPEN

Damper blade design

Standard:

Metal frame made of galvanized steel

Option:

Galvanized metal cover

Actuators and release elements

M220-9/H Actuator 230 V (Standard) M24-9/H Actuator 24 V (Standard)

M220-10/H Actuator 230 V M24-10/H Actuator 24 V M220-11/H Actuator 230 V M24-11/H Actuator 24 V

GU24 With magnetic clamp on TMA WU220 With magnetic clamp on TMA

Casing design

Standard:

Casing made of galvanized sheet steel

Option:

Casing inside and outside with epoxy resin powder coating

Smoke detector

For installation in extension VEUFK02

Standard:

Without

Option:

OR4 basic 4B 4P OR4 pro

Actuator position:

Standard:

Right (installation position OR4 in extension: right)

Option:

Left (installation position OR4 in extension: left) Bottom(installation position OR4 in extension:

Prices for extension VEUFK02 must also be taken into account

Additional casing openings

Standard:

Without

Option:

132 mm Ø with cover; installation position:

top, bottom, top + bottom

Further accessories > from page 109.

Description	Price
Additional price for factory assembly and wiring of FK92 and OR4	135

- i
- Suitable extension VERL
- Suitable extension VEUFK02
- Suitable protective grilles
- ▶ page 109.
- ▶ page 111.
- ▶ page 113.

# Fire protection

### Ü-FK (series OR32) fire damper for air transfer applications 3.1.3



- Maintenance-free fire damper according to EN 15650
- Fire classifications: EI 30/60/90/120 ( $v_e h_{or} i \Leftrightarrow o$ ) S C10000
- General Building Inspectorate Approval / General Type Approval: Z-6.50-2132
- With electric actuator or magnetic clamp 230 VAC or 24 VAC/DC
- With OR32 smoke detector for use in particularly confined spaces
- Widths B: 200 mm ... 1500 mm (in 5-mm increments)
- Heights H: 200 mm ... 800 mm (in 5-mm increments)
- Lengths L: 400 mm and 500 mm





	1	2	3	4	5	6	7	8	9
FK92-	_		-	-	]-	]-		-	-

Dimensions

**W** [mm] x **H** [mm] x **L** [mm]

Nominal temperature

Standard:

70 °C

Installation and mounting frame

Standard:

Without installation subframe and mounting frame

Option for L = 400 mm and L = 500 mm:

ER1 For metal stud walls

ER8 For wooden walls and ceilings and for ceilings with

steel frames

AR2 For remote from walls and ceilings

Limit switch for thermal-mechanical release mechanism (TMA) in conjunction with magnetic clamp

Standard:

Without limit switch

Option:

E-ZU One limit switch CLOSED

E-AUF One limit switch OPFN

E-ZU+AUF Two limit switches CLOSED+OPEN

Damper blade design

Standard:

Metal frame made of galvanized steel

Option:

Galvanized metal cover

Actuators and release elements

M220-9/H Actuator 230 V (Standard) M24-9/H Actuator 24 V (Standard)

M220-10/H Actuator 230 V M24-10/H Actuator 24 V M220-11/H Actuator 230 V M24-11/H Actuator 24 V

GU24 With magnetic clamp on TMA WU220 With magnetic clamp on TMA

Casing design

Standard:

Casing made of galvanized sheet steel

Option:

Casing inside and outside with epoxy resin powder coating

Smoke detector

Standard: Without

Option:

NO OR32 standard

N2 OR32 with MC and relay module

Additional casing openings

Standard:

90 mm diameter for installation of the OR32 smoke detector

Opening at the top for OR32 - (actuator position left) Option:

Opening left for OR32 - (actuator position below) Opening right for OR32 - (actuator position left)

Further accessories > from page 109.

Description	Price
Additional price for factory assembly and wiring of FK92 and OR32	135

- Suitable extension VERL, VEUFK01
- Suitable protective grilles
- ▶ from page 109.
- page 113.

FK90 fire damper (series FK92) Construction lengths 400 and 500 mm

Discount group B

1								Wi	dth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	189	189	189	189	189	191	191	198	198	204	211	219	221	229	236	239	246
225	190	190	190	190	190	195	195	200	200	205	212	221	224	235	239	243	249
250	190	190	190	190	190	195	195	200	200	205	212	221	224	235	239	243	249
275	190	190	190	190	190	198	198	203	203	206	215	222	228	236	241	246	252
300	191	191	191	191	191	198	198	204	204	207	218	224	229	236	241	249	254
325	195	195	195	195	195	200	200	205	205	212	220	229	235	239	246	254	259
350	198	198	198	198	198	203	203	207	207:-	218	221	230	236	243	251	257:-	262
375	199	199	199	199	199	205	205	211	211	219	224	235	238	246	255	261	269
400	200	200	200	200	200	206	206	215	215	221	229	237:-	241	251	261	268	271
450	205	205	205	205	205	212	212	220	220	228	236	246	251	259	269	274	278
500	211	211	211	211	211	220	220	224	224	235	241	252	257:-	269	276	284	290
550	220	220	220	220	220	228	228	235	235	241	252	262	270	278	287	297:-	304
600	221	221	221	221	221	230	230	237:-	237:-	246	255	269	274	284	293	302	310
650	229	229	229	229	229	238	238	246	246	255	268	279	285	297	306	318	325
700	235	235	235	235	235	241	241	252	252	261	271	285	290	304	315	325	337
750	238	238	238	238	238	246	246	257:-	257:-	269	278	290	298	310	322	333	343
800	241	241	241	241	241	252	252	262	262	274	285	298	305	318	330	339	350
850	270	270	270	270	270	281	281	290	290	302	314	326	334	346	358	369	378
900	298	298	298	298	298	309	309	319	319	331	341	355	363	375	386	397:-	405
950	325	325	325	325	325	336	336	346	346	358	369	382	388	402	413	424	434
1000	353	353	353	353	353	363	363	372	372	385	396	409	417:-	428	441	451	459

1						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	252	257:-	263	270	278	285	285	290	298	309	318	330
225	255	262	270	276	284	289	289	298	306	315	323	338
250	255	262	270	276	284	289	289	298	306	315	323	338
275	257:-	263	271	278	285	293	293	302	310	319	326	341
300	261	269	273	279	287:-	295	295	304	313	321	330	343
325	263	271	278	285	293	302	302	310	319	326	338	353
350	270	276	284	289	298	306	306	315	323	336	345	358
375	274	281	287	295	304	313	313	321	330	341	353	364
400	278	285	290	298	309	318	318	325	337	346	356	372
450	287-	295	304	313	321	330	330	339	350	362	375	388
500	298	306	315	323	333	343	343	354	364	378	388	405
550	313	321	329	338	347:-	360	360	372	382	396	410	426
600	319	326	338	346	356	369	369	379	387	403	420	437:-
650	337	345	355	363	376	387	387	397-	408	425	442	464
700	346	355	364	375	386	397-	397-	410	424	440	456	476
750	354	363	375	384	396	410	410	424	437	452	468	491
800	362	372	384	396	408	420-	420	435	450	466	483	506
850	388	402	412	424	-	-	-	-	-	-	-	-
900	418	432	441	452	-	-	-	-	-	-	-	-
950	444	457:-	467	481	-	-	-	-	-	-	-	-
1000	473	484	494	506	-	-	-	-	-	-	-	-

i Intermediate sizes are priced at the next higher or next wider standard size.

FK90 fire dampers (series FK92) with *galvanised metal cover* Construction lengths 400 and 500 mm

1+3								Wi	dth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	198	198	198	198	198	200	200	206	206	215	221	229	235	239	246	252	257
225	199	199	199	199	199	204	204	211	211	219	224	235	237	243	251	255	262
250	199	199	199	199	199	204	204	211	211	219	224	235	237	243	251	255	262
275	200	200	200	200	200	205	205	212	212	219	224	235	238	245	254	259	263
300	200	200	200	200	200	206	206	215	215	220	228	236	239	246	255	261	269
325	204	204	204	204	204	211	211	219	219	224	230	239	243	251	259	263	271
350	205	205	205	205	205	212	212	220	220	228	235	241	246	255	262	270	276
375	206	206	206	206	206	215	215	221	221	229	236	245	251	259	269	274	281
400	211	211	211	211	211	219	219	224	224	232	239	249	254	262	273	278	285
450	218	218	218	218	218	222	222	230	230	238	246	257	262	273	281	287	290
500	221	221	221	221	221	230	230	236	236	245	254	263	271	281	289	298	305
550	230	230	230	230	230	237	237	245	245	254	263	276	281	290	302	310	319
600	235	235	235	235	235	241	241	249	249	259	270	281	287	298	309	318	325
650	239	239	239	239	239	251	251	259	259	270	278	293	298	310	322	333	343
700	245	245	245	245	245	255	255	263	263	274	285	298	305	319	330	341	354
750	251	251	251	251	251	261	261	270	270	281	290	305	314	325	338	347	360
800	255	255	255	255	255	263	263	274	274	286	298	313	321	333	346	356	366
850	284	284	284	284	284	293	293	305	305	318	329	343	351	364	376	386	397
900	314	314	314	314	314	323	323	336	336	347	358	372	380	394	405	417	426
950	341	341	341	341	341	353	353	364	364	376	386	402	409	420	435	444	454
1000	370	370	370	370	370	380	380	392	392	404	416	432	437	450	464	474	483

1+3						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	263	271	278	284	290	298	298	306	314	323	333	346
225	270	276	284	289	297	304	304	313	321	330	341	355
250	270	276	284	289	297	304	304	313	321	330	341	355
275	271	278	285	290	298	306	306	315	323	336	345	358
300	274	279	286	293	302	310	310	319	326	338	347	360
325	278	285	290	298	306	315	315	325	336	345	355	369
350	284	289	297	304	313	321	321	330	341	353	362	378
375	287	295	302	309	319	326	326	338	346	358	369	384
400	290	298	306	314	323	333	333	343	354	363	375	392
450	302	310	319	326	338	346	346	356	366	379	393	408
500	314	322	330	339	350	360	360	372	382	396	408	425
550	326	338	346	355	366	378	378	388	401	417	432	450
600	336	345	354	363	375	386	386	396	405	424	441	459
650	353	362	372	380	394	405	405	417	428	444	465	484
700	362	372	382	393	404	417	417	432	443	459	476	499
750	372	382	393	403	417	428	428	443	458	475	493	515
800	379	392	403	416	428	441	441	457	473	491	507	531
850	409	420	434	444	-	-	-	-	-	-	-	-
900	440	451	464	475	-	-	-	-	-	-	-	-
950	467	481	491	503	-	-	-	-	-	-	-	-
1000	497	507	520	532	-	-	-	-	-	-	-	-

i Intermediate sizes are priced at the next higher or next wider standard size.

FK90 fire dampers (series FK92) with *powder coated casing* Construction lengths 400 and 500 mm

Discount group B

00115010001	Discourt group B																
1 + 4								W	dth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	263	263	263	263	263	270	270	276	276	285	295	305	310	319	326	337	345
225	263	263	263	263	263	273	273	279	279	289	298	310	315	325	336	341	347
250	263	263	263	263	263	273	273	279	279	289	298	310	315	325	336	341	347
275	269	269	269	269	269	274	274	284	284	290	301	313	318	326	338	345	354
300	269	269	269	269	269	276	276	285	285	293	302	315	321	330	339	347	355
325	271	271	271	271	271	279	279	289	289	298	305	319	325	336	345	354	362
350	276	276	276	276	276	284	284	290	290	302	310	323	329	339	353	360	369
375	278	278	278	278	278	286	286	295	295	305	315	326	336	346	358	364	375
400	281	281	281	281	281	289	289	298	298	309	319	330	338	353	364	372	379
450	287	287	287	287	287	297	297	305	305	318	326	345	353	363	376	382	388
500	295	295	295	295	295	305	305	315	315	326	339	354	362	375	387	396	405
550	305	305	305	305	305	315	315	326	326	339	354	369	376	388	403	416	425
600	310	310	310	310	310	321	321	333	333	346	358	376	382	396	410	423	434
650	321	321	321	321	321	333	333	345	345	358	372	392	400	416	432	443	458
700	326	326	326	326	326	339	339	354	354	364	379	400	408	424	441	457	473
750	333	333	333	333	333	346	346	360	360	375	388	408	418	435	451	466	481
800	339	339	339	339	339	354	354	366	366	382	397	417	428	443	464	476	491
850	378	378	378	378	378	393	393	408	408	424	440	457	467	484	502	516	530
900	418	418	418	418	418	433	433	448	448	464	479	498	507	525	541	556	568
950	456	456	456	456	456	470	470	484	484	502	516	535	544	561	577	592	607
1000	493	493	493	493	493	507	507	523	523	539	555	573	583	600	617	631	645

1+4						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	354	362	369	379	388	400	400	408	418	433	443	464
225	358	366	376	386	396	405	405	417	428	442	456	474
250	358	366	376	386	396	405	405	417	428	442	456	474
275	362	371	379	387	400	410	410	423	433	444	459	476
300	364	375	382	392	401	413	413	425	437	451	464	481
325	372	380	388	400	410	423	423	434	444	459	474	493
350	378	387	396	405	417	428	428	442	456	467	483	502
375	382	393	403	412	424	437	437	450	464	476	493	514
400	388	400	408	418	433	443	443	458	473	484	499	520
450	401	413	424	435	450	464	464	476	491	506	523	544
500	418	432	441	452	466	481	481	494	509	530	544	568
550	437	450	462	474	490	502	502	519	536	555	575	599
600	444	459	473	484	499	515	515	530	542	567	587	615
650	468	483	498	509	527	542	542	558	571	595	619	649
700	483	498	509	523	541	558	558	575	591	615	637	668
750	494	509	523	538	555	573	573	591	612	633	656	688
800	506	520	536	552	571	587	587	609	630	654	678	707
850	544	561	576	592	-	-	-	-	-	-	-	-
900	586	603	617	633	-	-	-	-	-	-	-	-
950	623	640	655	671	-	-	-	-	-	-	-	-
1000	661	678	693	709	-	-	-	-	-	-	-	-

i Intermediate sizes are priced at the next higher or next wider standard size.

FK90 fire dampers (series FK92) with *powder coated casing and metal frame made of stainless steel* Construction lengths 400 and 500 mm

1,3,4 Width [mm]																	
1,3,4								Wi	dth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	313	313	313	313	313	319	319	326	326	338	347	362	369	379	388	400	408
225	315	315	315	315	315	323	323	330	330	341	354	366	375	386	397	405	413
250	315	315	315	315	315	323	323	330	330	341	354	366	375	386	397	405	413
275	315	315	315	315	315	325	325	336	336	345	355	369	376	387	400	410	418
300	318	318	318	318	318	326	326	338	338	347	358	372	379	392	403	412	423
325	321	321	321	321	321	330	330	341	341	354	362	379	386	396	410	418	428
350	325	325	325	325	325	337	337	346	346	358	366	382	392	403	416	425	435
375	329	329	329	329	329	339	339	353	353	362	372	387	396	410	424	433	442
400	333	333	333	333	333	343	343	354	354	366	379	393	401	417	433	441	450
450	341	341	341	341	341	353	353	362	362	378	388	408	416	432	443	452	464
500	350	350	350	350	350	362	362	372	372	387	401	418	428	443	459	473	483
550	362	362	362	362	362	375	375	387	387	401	418	435	444	462	476	491	503
600	366	366	366	366	366	380	380	394	394	410	425	443	456	473	486	500	515
650	380	380	380	380	380	396	396	410	410	425	441	464	474	493	509	527	542
700	387	387	387	387	387	403	403	418	418	433	450	474	483	502	523	541	558
750	396	396	396	396	396	412	412	425	425	443	459	483	497	515	535	551	569
800	403	403	403	403	403	418	418	434	434	452	473	494	507	530	549	564	582
850	449	449	449	449	449	465	465	483	483	502	520	542	555	574	595	612	625
900	494	494	494	494	494	514	514	531	531	550	567	589	603	622	641	660	674
950	539	539	539	539	539	558	558	574	574	595	612	633	648	668	687	704	720
1000	584	584	584	584	584	603	603	619	619	640	656	679	691	711	732	750	765

1,3,4						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	418	428	437	448	459	474	474	484	498	514	530	549
225	424	435	444	457	468	482	482	494	507	523	538	560
250	424	435	444	457	468	482	482	494	507	523	538	560
275	428	440	450	459	474	484	484	499	514	530	543	564
300	433	442	452	464	476	491	491	503	518	534	549	569
325	440	451	462	473	484	499	499	515	530	543	560	583
350	448	459	468	482	494	507	507	523	538	555	571	598
375	456	466	479	490	502	518	518	534	549	564	583	607
400	462	474	484	498	514	527	527	542	558	576	591	617
450	476	491	502	516	534	549	549	564	582	600	619	648
500	497	509	523	536	551	569	569	586	603	625	648	672
550	519	534	547	560	581	598	598	617	633	657	681	707
600	531	543	559	575	591	612	612	628	645	670	696	727
650	558	573	587	603	623	645	645	661	674	704	736	769
700	575	587	603	619	639	661	661	681	703	731	754	788
750	586	603	621	638	657	679	679	702	724	751	778	816
800	600	619	638	655	674	696	696	723	746	773	804	842
850	648	668	686	704	-	-	-	-	-	-	-	-
900	694	712	732	751	-	-	-	-	-	-	-	-
950	739	759	776	795	-	-	-	-	-	-	-	-
1000	784	804	821	842	-	-	-	-	-	-	-	-

i Intermediate sizes are priced at the next higher or next wider standard size.

FK90 fire dampers (series FK92) with *powder coated casing and metal frame made of stainless steel and metal cover made of stainless steel* 

Construction lengths 400 and 500 mm

Discount group B

CONSCIOCUON	Piscount group B																
1,3,4								Wi	idth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	329	329	329	329	329	337	337	345	345	355	366	380	387	400	410	420	432
225	330	330	330	330	330	339	339	350	350	360	372	387	394	405	418	426	435
250	330	330	330	330	330	339	339	350	350	360	372	387	394	405	418	426	435
275	333	333	333	333	333	343	343	354	354	363	376	388	396	410	423	432	441
300	336	336	336	336	336	345	345	355	355	366	379	393	400	412	424	435	443
325	339	339	339	339	339	350	350	360	360	372	382	400	405	418	432	442	452
350	345	345	345	345	345	354	354	364	364	379	387	404	412	425	437	450	459
375	346	346	346	346	346	358	358	369	369	382	393	408	417	433	444	457	466
400	353	353	353	353	353	362	362	375	375	386	400	413	423	440	457	465	474
450	360	360	360	360	360	372	372	382	382	396	410	432	437	452	468	479	486
500	369	369	369	369	369	382	382	393	393	408	424	442	451	467	483	498	507
550	382	382	382	382	382	394	394	408	408	424	441	459	468	486	502	516	532
600	387	387	387	387	387	401	401	416	416	433	448	468	479	498	514	530	542
650	401	401	401	401	401	417	417	432	432	450	465	486	499	518	536	552	571
700	408	408	408	408	408	424	424	441	441	457	474	499	509	531	550	569	587
750	417	417	417	417	417	433	433	450	450	466	484	509	520	543	564	583	600
800	424	424	424	424	424	442	442	458	458	479	498	520	535	555	577	595	614
850	473	473	473	473	473	490	490	509	509	531	549	573	584	606	625	646	661
900	522	522	522	522	522	541	541	559	559	581	599	622	637	656	678	695	710
950	569	569	569	569	569	587	587	606	606	625	646	669	682	703	724	742	759
1000	616	616	616	616	616	637	637	654	654	674	693	718	731	751	772	789	805

1,3,4						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	441	451	464	473	484	499	499	510	523	541	555	577
225	448	458	468	482	494	507	507	520	535	551	568	589
250	448	458	468	482	494	507	507	520	535	551	568	589
275	451	464	474	484	499	514	514	527	542	558	575	598
300	457	466	479	486	502	516	516	532	547	561	581	600
325	465	475	486	498	514	527	527	542	558	575	591	615
350	473	483	497	507	520	535	535	551	568	584	603	628
375	479	493	502	515	531	544	544	561	577	598	615	639
400	484	499	510	523	541	555	555	571	587	606	623	653
450	500	516	531	544	561	577	577	595	614	632	654	681
500	523	536	550	567	583	600	600	619	638	661	681	709
550	547	561	576	591	612	630	630	650	670	695	718	748
600	559	575	589	606	623	646	646	661	679	705	736	768
650	587	603	619	637	656	678	678	696	712	743	773	810
700	603	621	638	654	672	696	696	719	740	769	794	834
750	619	637	655	671	695	715	715	739	765	791	821	859
800	632	653	671	691	712	736	736	759	786	818	846	886
850	682	703	721	742	-	-	-	-	-	-	-	-
900	732	752	772	793	-	-	-	-	-	-	-	-
950	779	801	819	838	-	-	-	-	-	-	-	-
1000	826	846	867	887	-	-	-	-	-	-	-	-

i Intermediate sizes are priced at the next higher or next wider standard size.

Installation subframe ER1 for FK90 fire dampers (series FK92) Construction lengths 400 and 500 mm

<b>-</b> ·			
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2								Wi	idth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	141	141	141	141	141	148	148	150	150	155	161	167	169	174	177:-	183	188
225	145	145	145	145	145	149	149	151	151	157:-	162	169	170	177:-	183	187-	189
250	145	145	145	145	145	149	149	151	151	157:-	162	169	170	177:-	183	187-	189
275	145	145	145	145	145	149	149	151	151	159	166	170	174	177:-	183	188	190
300	148	148	148	148	148	150	150	155	155	161	166	170	174	178	187-	189	194
325	149	149	149	149	149	151	151	157:-	157:-	162	167:-	174	175	180	188	194	196
350	150	150	150	150	150	155	155	159	159	166	169	175	178	187	190	195	202
375	150	150	150	150	150	157:-	157:-	161	161	167:-	170	177	180	189	195	198	204
400	151	151	151	151	151	159	159	162	162	169	174	178	183	190	198	204	207:-
450	157:-	157:-	157:-	157:-	157:-	161	161	167:-	167	174	177	188	190	196	204	210	213
500	161	161	161	161	161	167:-	167	170	170	177:-	183	194	195	204	211	215	220
550	167	167:-	167	167:-	167	171	171	177:-	177:-	183	190	202	205	211	218	224	230
600	169	169	169	169	169	175	175	180	180	189	195	204	210	215	223	230	235
650	174	174	174	174	174	180	180	188	188	195	204	213	215	224	232	243	249
700	177	177:-	177:-	177:-	177:-	187-	187-	190	190	198	207	215	222	230	238	249	255
750	180	180	180	180	180	189	189	195	195	204	211	222	229	235	247:-	254	261
800	187	187	187	187	187	194	194	198	198	210	215	224	232	243	251	257:-	265

2						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	190	195	202	207	211	215	215	222	229	235	243	251
225	195	198	205	210	215	220	220	229	232	243	248	256
250	195	198	205	210	215	220	220	229	232	243	248	256
275	196	202	207	211	215	223	223	229	235	245	249	257:-
300	198	204	210	213	218	223	223	230	237	247	251	261
325	202	207	213	215	223	229	229	235	245	249	256	269
350	207	211	215	220	229	232	232	243	248	255	263	272
375	210	213	218	223	230	237:-	237	247	251	257	265	277:-
400	211	215	222	229	235	243	243	249	255	263	272	284
450	218	223	230	237	245	251	251	257	265	276	284	295
500	229	232	238	247	254	261	261	269	277:-	286	295	310
550	237	247	251	256	265	272	272	284	292	302	311	326
600	245	249	256	263	272	281	281	288	295	309	320	331
650	255	263	270	276	286	295	295	303	311	322	336	352
700	263	270	277:-	284	293	303	303	312	322	335	345	363
750	269	276	286	293	302	311	311	322	331	345	358	371
800	276	284	293	302	311	320	320	330	343	355	366	386



<sup>•</sup> Intermediate sizes are priced at the next higher or next wider standard size.

Surcharge for factory assembly with FK90 fire damper: +56.-

# Installation subframe ER8 for FK90 fire dampers (series FK92) Construction lengths 400 and 500 mm

CONSTRUCTION	Tiengths 400 and 500 mm																
2								W	idth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	141	141	141	141	141	148	148	150	150	155	161	167	169	174	177:-	183	188
225	145	145	145	145	145	149	149	151	151	157:-	162	169	170	177:-	183	187	189
250	145	145	145	145	145	149	149	151	151	157:-	162	169	170	177:-	183	187	189
275	145	145	145	145	145	149	149	151	151	159	166	170	174	177:-	183	188	190
300	148	148	148	148	148	150	150	155	155	161	166	170	174	178	187	189	194
325	149	149	149	149	149	151	151	157:-	157:-	162	167-	174	175	180	188	194	196
350	150	150	150	150	150	155	155	159	159	166	169	175	178	187	190	195	202
375	150	150	150	150	150	157:-	157:-	161	161	167:-	170	177	180-	189	195	198	204
400	151	151	151	151	151	159	159	162	162	169	174	178	183	190	198	204	207:-
450	157:-	157:-	157:-	157:-	157:-	161	161	167	167-	174	177	188	190-	196	204	210	213
500	161	161	161	161	161	167	167-	170	170	177	183	194	195	204	211	215	220
550	167	167-	167	167:-	167-	171	171	177:-	177:-	183	190	202	205	211	218	224	230
600	169	169	169	169	169	175	175	180	180	189	195	204	210	215	223	230	235
650	174	174	174	174	174	180	180	188	188	195	204	213	215	224	232	243	249
700	177	177	177:-	177:-	177:-	187	187	190	190	198	207:-	215	222	230	238	249	255
750	180	180	180	180	180	189	189	195	195	204	211	222	229	235	247:-	254	261
800	187	187	187	187-	187	194	194	198	198	210	215	224	232	243	251	257:-	265

2						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	190	195	202	207	211	215	215	222	229	235	243	251
225	195	198	205	210	215	220	220	229	232	243	248	256
250	195	198	205	210	215	220	220	229	232	243	248	256
275	196	202	207	211	215	223	223	229	235	245	249	257:-
300	198	204	210	213	218	223	223	230	237	247	251	261
325	202	207	213	215	223	229	229	235	245	249	256	269
350	207	211	215	220	229	232	232	243	248	255	263	272
375	210	213	218	223	230	237:-	237	247	251	257	265	277
400	211	215	222	229	235	243	243	249	255	263	272	284
450	218	223	230	237	245	251	251	257:-	265	276	284	295
500	229	232	238	247	254	261	261	269	277:-	286	295	310
550	237:-	247:-	251	256	265	272	272	284	292	302	311	326
600	245	249	256	263	272 <i>-</i>	281	281	288	295	309	320	331
650	255	263	270	276	286	295	295	303	311	322	336	352
700	263	270	277:-	284	293	303	303	312	322	335	345	363
750	269	276	286	293	302	311	311	322	331	345	358	371
800	276	284	293	302	311	320	320	330	343	355	366	386

- Intermediate sizes are priced at the next higher or next wider standard size.
- Surcharge for factory assembly with FK90 fire damper: +56.-

# **Mounting frame AR2** for FK90 fire dampers (series FK92) Construction lengths 400 and 500 mm

CONSCIOUN	bir lengths 400 that 500 thin																
2								Wi	dth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	366	371	374	378	380	384	391	393	397	403	411	418	426	434	441	450	454
225	371	374	378	380	384	391	393	397	400	408	416	423	429	437	445	452	460
250	374	378	380	384	391	393	397	400	403	411	418	426	434	441	450	454	464
275	378	380	384	391	393	397	400	403	408	416	423	429	437	445	452	460	467
300	380	384	391	393	397	400	403	408	411	418	426	434	441	450	454	464	470
325	384	391	393	397	400	403	408	411	416	423	429	437	445	452	460	467	474
350	391	393	397	400	403	408	411	416	418	426	434	441	450	454	464	470	479
375	393	397	400	403	408	411	416	418	423	429	437	445	452	460	467	474	482
400	397	400	403	408	411	416	418	423	426	434	441	450	454	464	470	479	486
450	403	408	411	416	418	423	426	429	434	441	450	454	464	470	479	486	492
500	411	416	418	423	426	429	434	437	441	450	454	464	470	479	486	492	500
550	418	423	426	429	434	437	441	445	450	454	464	470	479	486	492	500	507
600	426	429	434	437	441	445	450	452	454	464	470	479	486	492	500	507	516
650	434	437	441	445	450	452	454	460	464	470	479	486	492	500	507	516	523
700	441	445	450	452	454	460	464	467	470	479	486	492	500	507	516	523	531
750	450	452	454	460	464	467	470	474	479	486	492	500	507	516	523	531	539
800	454	460	464	467	470	474	479	482	486	492	500	507	516	523	531	539	544

2						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	464	470	479	486	492	500	507	516	523	531	544	560
225	467	474	482	489	498	505	511	520	526	534	548	563
250	470	479	486	492	500	507	516	523	531	539	552	567
275	474	482	489	498	505	511	520	526	534	541	558	572
300	479	486	492	500	507	516	523	531	539	544	560	575
325	482	489	498	505	511	520	526	534	541	548	563	579
350	486	492	500	507	516	523	531	539	544	552	567	582
375	489	498	505	511	520	526	534	541	548	558	572	586
400	492	500	507	516	523	531	539	544	552	560	575	591
450	500	507	516	523	531	539	544	552	560	567	582	597
500	507	516	523	531	539	544	552	560	567	575	591	606
550	516	523	531	539	544	552	560	567	575	582	597	613
600	523	531	539	544	552	560	567	575	582	591	606	620
650	531	539	544	552	560	567	575	582	591	597	613	628
700	539	544	552	560	567	575	582	591	597	606	620	633
750	544	552	560	567	575	582	591	597	606	613	628	642
800	552	560	567	575	582	591	597	606	613	620	633	649

<sup>•</sup> Intermediate sizes are priced at the next higher or next wider standard size.

<sup>■</sup> Factory-assembled.

# Installation subframe ER4 for FK90 fire dampers (series FK92)

663.-

669.-

657.-

800

674.-

682.-

689.-

691.-

699.-

704.-

713.-

729.

737.-

748.-

761.-

772.-

784.-

794.-

Discount group B Installation length 500 mm Width [mm] Height 200 225 250 275 300 325 350 375 400 450 500 550 600 650 700 750 800 [mm] 200 544.-552.-558.-561.-569.-574.-579.-584.-591.-603.-614.-623.-639.-649.-660.-672.-683. 225 551.-558.-561.-567.-574.-579.-584.-591.-597.-609.-620.-630.-641.-655.-663.-674.-689.-250 556. 561.-566. 572.-576.-582.-588.-596. 601.-613.-622. 633.-648. 657.-668.-682. 691.-275 560. 566. 572. 576. 580.-588. 596. 601.-604.-619.-628. 640.-650. 661.-673.-687.-696. 604. 300 563. 569. 575. 580.-586. 595. 599. 612.-621.-646. 656. 668. 678. 690 702.-632. 325 569.-574.-580. 586. 595.-597.-603. 612.-623.-640. 649. 660. 672.-683. 695. 707.-615.-350 574.-579.-584. 591.-597.-603. 609. 614.-620.-630.-655. 666. 689. 699. 710.-642. 674.-375 579.-584. 588. 596. 601.-609. 613.-619.-622.-633.-648. 657.-669. 682.-694. 704.-715.-400 582.-588.-596. 601.-606.-613.-619.-622.-629.-641.-650.-663.-673.-689.-696.-709.-719.-450 595.-599.-604.-612.-615.-620.-628.-632.-640.-649.-661.-672.-683.-695.-707.-718.-730.-500 603.-609. 613.-620.-623.-630.-633.-641.-649.-657.-669.-682.-694.-704.-715.-729.-738.-550 612.-619.-622.-641.-648.-650.-656.-668.-678.-691.-702.-713.-728.-737.-748.-628.-632.-600 620.-623.-630.-640.-642.-649. 655.-660. 666. 677.-690. 701.-711.-727.-736.-745. 756.-650 630. 633 641.-648. 654.-657.-663.-669. 674.-689. 699. 710.-721.-735. 745.-755. 765.-646. 700 640. 650. 656. 661.-668. 673. 678. 687.-696. 709. 719.-730.-744.-753.-765. 776.-750 649. 655. 660. 666. 672.-677. 683.-690. 695. 707.-718. 729. 740.-751.-764.-775. 787.-

2						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	695	707	718	729	740	751	764	775	787	796	822	844
225	699	710	721	735	745	755	770	778	791	802	825	846
250	704	713	728	737	748	761	772	784	794	806	829	852
275	709	719	731	744	754	765	776	789	797	814	833	858
300	711	728	736	747	756	771	783	792	805	817	842	862
325	718	730	740	753	764	775	787	796	809	822	844	868
350	721	735	745	755	770	780	791	803	816	825	846	870
375	729	737	751	761	775	784	794	806	818	829	852	876
400	731	744	754	765	778	789	802	814	824	835	860	879
450	740	753	764	776	787	797	809	824	832	844	868	890
500	751	763	775	784	796	806	822	829	844	852	876	900
550	761	771	784	792	805	817	828	842	851	863	886	909
600	770	783	791	805	816	826	836	850	862	871	895	919
650	778	789	802	814	825	835	846	860	870	879	904	926
700	788	797	810	824	833	845	858	869	879	891	914	939
750	796	809	822	832	844	853	868	878	887	903	924	947
800	806	818	829	843	852	863	876	886	900	909	932	957

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- Intermediate sizes are priced at the next higher or next wider standard size.
- Factory-assembled.

5 Additional casing openings	
Description	Price
132 mm diameter with cover; mounting position: top, bottom, top + bottom	0

# Discount group B

6 Release temperature	
Description	Price
Coated release element 70°C	17:-
Coated release element 95°C	17:-
Release element for thermal-electrical release 95°C	39

# Discount group B

7 Limit switch for thermal-mechanical release mechanism										
Ordering data	Description	Price								
E-ZU	Changeover with gold-plated contacts for 5 A at 250 V AC or 24 V DC	16								
E-AUF	Changeover with gold-plated contacts for 5 A at 250 V AC or 24 V DC	16								
E-ZU+AUF	Two changeovers with gold-plated contacts for 5 A at 250 V AC or 24 V DC	33								
EX-ZU	With normally closed contact and normally open contact for 6 A at $\leq$ 250 V AC or 0.25 A at $\leq$ 230 V DC	289								
EX-AUF	With normally closed contact and normally open contact for 6 A at $\leq$ 250 V AC or 0.25 A at $\leq$ 230 V DC	289								
EX-ZU+AUF	With normally closed contact and normally open contact for 6 A at $\leq$ 250 V AC or 0.25 A at $\leq$ 230 V DC	559								

# Discount group B

8 Actuators a	nd release elements	
Ordering data	Description	Price
M220-9/H	Electric spring return actuator with 70°C release element, 230 V AC	368
M24-9/H	Electric spring return actuator with 70°C release element, 24 V AC/DC	368
M220-11/H	Electric spring return actuator with 70°C release element, 230 V AC	414
M24-11/H	Electric spring return actuator with 70°C release element, 24 V AC/DC	414
M220-10/H	Electric spring return actuator with 70°C release element, 230 V AC	368
M24-10/H	Electric spring return actuator with 70°C release element, 24 V AC/DC	368
M24-8	Electric spring return actuator with 70°C release element, 24 V AC/DC	678
M24-8/MP	Electric spring return actuator with 70°C release element, 24 V AC/DC	868
G24	Lifting solenoid 24 V DC	231
W220	Lifting solenoid 230 V AC	282
Р	Lift cylinder 4 8 bar	249
P2	Lift cylinder 1.2 8 bar	315
GU24	Magnetic clamp 24 V DC	121
WU220	Magnetic clamp 230 V AC	188
N/Ex	Thermal-mechanical release mechanism (explosion-protected)	60
EM-1	Electric spring return actuator with 70°C release element, 24 240 V AC/DC, 10 Nm	4286
EM-2	Electric spring return actuator with 70°C release element, 24 240 V AC/DC, 15 Nm	4711
RM-1	Electric spring return actuator with 70°C release element, 24 240 V AC/DC, 10 Nm	3823

# Discount group B

9 Smoke dete	9 Smoke detector										
Ordering data	Description	Price									
4B	OR4 basic	936									
4P	OR4 pro	1003									
NO	OR32 Standard	1031									
N2	OR32 with MC and relay module	1256									

■ Prices for extension VEUFK02 for OR4 must also be taken into account. Further accessories ▶ from page 111.

■ It is recommended to replace the smoke switch after an operating period of 8 years ▶ Price list for individual parts and spare parts.

# Discount group B

10 Installed accessories										
Ordering data	Description	Price								
A1	AB-01 connection box for spring return actuators 24 V AC/DC	145								
A3	AB-02 connection box for spring return actuators with 230 VAC	145								
os	AS-i module for spring return actuators 24 V AC/DC, mounted above the actuator	464								

i All prices apply to original equipment ex works.

# 3.1.4 FK90 fire damper (series FK92) in short length



- Maintenance-free fire damper according to EN 15650
- Fire classifications: EI 30/60/90/120 ( $v_e h_o$ ,  $i \Leftrightarrow o$ ) S C10000
- Leak tightness C according to DIN EN 1751
- Widths B: 200 mm ... 1500 mm (in 5-mm increments)
- Heights H: 200 mm ... 800 mm (in 5-mm increments)
- Short lengths: 346 mm and 355 mm

Configure your product





Dimensions

**W** [mm] x **H** [mm] x **L** [mm]

4 Casing design

Standard:

Casing made of galvanized sheet steel

Option:

Casing inside and outside with epoxy resin

powder coating

2 Installation and mounting frame

Standard:

Without installation subframe and mounting frame

Always required for L = 355 mm:

ER2 For rigid walls and ceilings

**ER3** For metal stud walls

Option for L = 346 mm:

AR1 For mounting on rigid walls and ceilings

5 Additional casing openings

Standard:

Without

Option:

132 mm  $\ensuremath{\text{\emptyset}}$  with cover; installation position: top, bottom,

top + bottom

3 Damper blade design

Standard:

Metal frame made of galvanized steel

Option:

92

Metal frame made from 1.4301 stainless steel

Galvanised metal cover

Metal frame and metal cover made of 1.4301 stainless steel

6 Release temperature

Standard:

70 °C

Option:

95 °C

70°C corrosion-resistant

Limit switch for thermal-mechanical release mechanism (TMA)

**E-ZU** One limit switch CLOSED **E-AUF** One limit switch OPEN

E-ZU+AUF Two limit switches CLOSED+OPEN

EX-ZU One EX-protected limit switch CLOSED

EX-AUF One EX-protected limit switch OPEN

EX-ZU+AUF Two explosion-protected limit switches

CLOSED+OPEN

9 Smoke detector

Standard:

Without

Option: **4B** OR4 basic

**4B** OR4 basic **4P** OR4 pro

Ü-FK (series OR4) for air transfer applications in short length

NO OR32 standard

N2 OR32 with MC and relay module

Ü-FK (series OR32) for air transfer applications in short length

## 8 Actuators and release elements

Standard:

Thermal-mechanical release mechanism (TMA)

Option:

M220-9/H Actuator 230 V (Standard)
M24-9/H Actuator 24 V (Standard)

M220-10/H Actuator 230 V M24-10/H Actuator 24 V M220-11/H Actuator 230 V M24-11/H Actuator 24 V

GU24 With magnetic clamp on TMA WU220 With magnetic clamp on TMA G24 With lifting solenoid on TMA W220 With lifting solenoid on TMA With pneumatic cylinder on TMA P2 With pneumatic cylinder on TMA N/Ex Explosion-protected TMA EM-1 Explosion-protected actuator RM-1 Explosion-protected actuator EM-2 Explosion-protected actuator

10 Installed accessories

Standard:

Without

Option:

Al AB-01 connection box for spring return actuators 24 V AC/DC

A3 AB-02 connection box for spring return actuators 230 V AC

AS AS-i module for spring return actuators 24 V AC/ DC, mounted above the actuator



- Corresponding price tables ▶ from page 98.
- Further accessories ▶ from page 109.

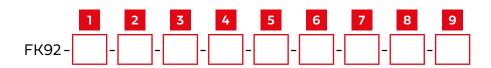
# 31.5 Ü-FK (series OR4) fire damper for air transfer applications in short length



- · Maintenance-free fire damper according to EN 15650
- Fire classifications: EI 30/60/90/120 ( $v_e h_o$ ,  $i \leftrightarrow o$ ) S C10000
- General Building Inspectorate Approval / General Type Approval: Z-6.50-2132
- With electric actuator or magnetic clamp 230 V AC or 24 V AC/DC
- · With OR4 smoke detector
- · Widths B: 200 mm ... 1500 mm (in 5-mm increments)
- · Heights H: 200 mm ... 800 mm (in 5-mm increments)
- Lengths L: 346 mm and 355 mm

Configure your product here





1 Dimensions

W [mm] x H [mm] x L [mm]

4 Casing design

Standard:

Casing made of galvanized sheet steel

Option:

Casing inside and outside with epoxy resin powder coating

2 Installation and mounting frame

Standard:

Without installation subframe and mounting frame

Option:

Always required for L = 355 mm:

ER2 for rigid walls and ceilings

ER3 for metal stud walls

Option:

Always required for L = 346 mm:

AR1 for mounting on rigid walls and ceilings

5 Additional casing openings

Standard:

Without

Option:

132 mm Ø with cover; installation position:

top, bottom, top + bottom

3 Damper blade design

Standard:

Metal frame made of galvanized steel

Option:

Galvanized metal cover

6 Release temperature

Standard:

70 °C

Limit switch for thermal-mechanical release mechanism (TMA) in conjunction with magnetic **clam**p

Standard:

Without limit switch

Option:

E-ZU One limit switch CLOSED E-AUF One limit switch OPEN

E-ZU+AUF Two limit switches CLOSED+OPEN Smoke detector

For installation in extension VEUFK02

Standard: Without

Option:

OR4 basic 4B 4P OR4 pro Actuator position:

Standard: Right (installation position OR4 in extension: right)

Option:

Left (installation position OR4 in extension: left) **Bottom**(installation position OR4 in extension: right)

Prices for extension VEUFK02 must also be taken into account

Actuators and release elements

M220-9/H Actuator 230 V (standard) M24-9/H Actuator 24 V (standard)

M220-10/H Actuator 230 V M24-10/H Actuator 24 V M220-11/H Actuator 230 V M24-11/H Actuator 24 V

GU24 With magnetic clamp on TMA WU220 With magnetic clamp on TMA

Further accessories > from page 109.

Description	Price
Additional price for factory assembly and wiring of FK92 and OR4	135

- Suitable extension VERL
- ▶ page 109.
- Suitable extension VEUFK02
- ▶ page 111.
- Suitable protective grilles
- ▶ page 113.

# 31.6 Ü-FK (series OR32) fire damper for air transfer applications in short length



- · Maintenance-free fire damper according to EN 15650
- Fire classifications: EI 30/60/90/120 ( $v_e h_o$ ,  $i \leftrightarrow o$ ) S C10000
- General Building Inspectorate Approval / General Type Approval: Z-6.50-2132
- With electric actuator or magnetic clamp 230 V AC or 24 V AC/DC
- · With OR32 smoke detector for use in particularly confined spaces
- Widths B: 200 mm ... 1500 mm (in 5-mm increments)
- · Heights H: 200 mm ... 800 mm (in 5-mm increments)
- Lengths L: 346 mm and 355 mm

Configure your product here



THE SECOND SECON

1 Dimensions

W [mm] x H [mm] x L [mm]

4 Casing design

Standard:

Casing made of galvanized sheet steel

Casing inside and outside with epoxy resin powder coating

2 Installation and mounting frame

Standard:

Without installation subframe and mounting frame Option:

Always required for L = 355 mm:

ER2 for rigid walls and ceilings

ER3 for metal stud walls

Option:

Always required for L = 346 mm:

AR1 for mounting on rigid walls and ceilings

5 Additional casing openings

Standard:

90 mm diameter for installation of the OR32 smoke detector

Opening at the top for OR32 - (actuator position left) Option:

**Opening left** for OR32 - (actuator position below) **Opening right** for OR32 - (actuator position left)

3 Damper blade design

Standard:

Metal frame made of galvanized steel

Option:

Galvanized metal cover

6 Release temperature

Standard:

70 °C

Limit switch for thermal-mechanical release mechanism (TMA) in conjunction with magnetic **clam**p

Standard:

Without limit switch

Option:

E-ZU One limit switch CLOSED E-AUF One limit switch OPEN

**E-ZU+AUF** Two limit switches CLOSED+OPEN

8 Actuators and release elements

M220-9/H Actuator 230 V (standard) M24-9/H Actuator 24 V (standard)

M220-10/H Actuator 230 V M24-10/H Actuator 24 V M220-11/H Actuator 230 V M24-11/H Actuator 24 V

GU24 With magnetic clamp on TMA WU220 With magnetic clamp on TMA

Further accessories ▶ from page 109.

Smoke detector

Standard: Without

Option:

NO OR32 standard

N2 OR32 with MC and relay module

Description	Price
Additional price for factory assembly and wiring of FK92 and OR32	135

- Suitable extension VERL, VEUFK01 ▶ from page 109.
- Suitable protective grilles
- ▶ page 113.

FK90 fire dampers (series FK92) in short length Construction lengths 346 and 355 mm

CONSCIOCTION																count g	
1								W	dth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	254	254	254	254	254	259	259	268	268	274	284	295	301	309	318	323	333
225	255	255	255	255	255	262	262	270	270	278	287	298	304	314	323	329	337
250	255	255	255	255	255	262	262	270	270	278	287	298	304	314	323	329	337
275	257	257	257	257	257	263	263	273	273	281	289	302	306	315	325	333	339
300	257	257	257	257	257	268	268	274	274	284	290	304	309	319	326	336	343
325	262	262	262	262	262	270	270	278	278	287	295	309	314	323	333	341	347
350	268	268	268	268	268	274	274	284	284	290	298	313	318	326	338	346	355
375	269	269	269	269	269	276	276	285	285	295	304	315	321	333	345	354	360
400	271	271	271	271	271	279	279	287	287	298	309	319	325	338	353	358	364
450	278	278	278	278	278	286	286	295	295	306	318	333	338	350	362	369	376
500	285	285	285	285	285	295	295	304	304	315	325	341	347	360	375	382	393
550	295	295	295	295	295	305	305	315	315	325	339	355	362	376	387	400	410
600	298	298	298	298	298	310	310	321	321	333	346	362	369	382	396	408	418
650	309	309	309	309	309	321	321	333	333	346	358	376	386	400	416	428	441
700	315	315	315	315	315	326	326	339	339	353	364	384	394	410	425	440	452
750	321	321	321	321	321	336	336	346	346	360	375	394	403	418	435	450	464
800	326	326	326	326	326	341	341	354	354	369	384	403	412	428	444	459	473

1		Width [mm]													
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500			
200	339	347	356	364	375	384	384	394	403	417	428	444			
225	345	354	362	372	380	393	393	403	413	425	437	457			
250	345	354	362	372	380	393	393	403	413	425	437	457			
275	347	356	364	375	386	394	394	405	417	432	442	459			
300	353	360	369	376	387	400	400	410	423	434	444	464			
325	358	366	376	384	394	405	405	418	432	442	457	474			
350	364	375	382	393	403	413	413	425	437	451	465	484			
375	369	379	388	397	410	423	423	434	444	459	474	494			
400	376	386	394	403	417	428	428	441	452	467	482	502			
450	387	400	410	420	433	444	444	459	473	490	503	527			
500	403	416	425	437	450	464	464	476	493	509	527	547			
550	423	434	443	457	473	484	484	500	516	535	552	576			
600	432	442	457	466	482	498	498	509	523	544	568	591			
650	452	466	479	491	507	523	523	536	550	575	598	623			
700	466	479	493	503	520	536	536	552	571	591	615	645			
750	476	491	506	519	535	551	551	571	589	614	632	662			
800	486	502	519	534	550	568	568	586	607	631	654	685			



- Intermediate sizes are priced at the next higher or next wider standard size.
- Prices do not include the installation subframe which is always required!

FK90 fire dampers (series FK92) in short length with *galvanised metal cover* Construction lengths 346 and 355 mm

1+3								Wi	dth [m	m]						20 4.110 9	
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	269	269	269	269	269	271	271	279	279	287	298	309	315	323	333	339	347
225	270	270	270	270	270	276	276	284	284	290	302	314	319	329	339	346	354
250	270	270	270	270	270	276	276	284	284	290	302	314	319	329	339	346	354
275	270	270	270	270	270	278	278	285	285	295	304	315	321	330	341	347	356
300	271	271	271	271	271	279	279	287	287	297	305	319	323	336	345	353	360
325	274	274	274	274	274	284	284	290	290	302	310	322	329	339	347	358	366
350	278	278	278	278	278	286	286	297	297	305	314	326	333	345	355	363	372
375	281	281	281	281	281	289	289	298	298	309	319	330	338	350	362	371	379
400	285	285	285	285	285	293	293	302	302	313	322	336	341	355	369	376	382
450	290	290	290	290	290	302	302	310	310	321	333	347	355	366	380	387	394
500	298	298	298	298	298	310	310	319	319	330	343	358	364	379	393	401	412
550	310	310	310	310	310	319	319	330	330	343	356	372	380	394	408	418	432
600	314	314	314	314	314	325	325	337	337	350	362	380	387	401	416	428	440
650	323	323	323	323	323	338	338	347	347	363	376	394	403	418	435	450	464
700	330	330	330	330	330	345	345	356	356	369	382	403	412	428	444	462	476
750	338	338	338	338	338	353	353	363	363	379	393	412	424	440	458	473	484
800	345	345	345	345	345	358	358	371	371	387	403	423	433	451	467	482	497

1+3						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	356	364	375	382	393	403	403	413	424	437	451	467
225	362	372	380	388	401	410	410	423	434	444	459	479
250	362	372	380	388	401	410	410	423	434	444	459	479
275	364	375	384	393	403	416	416	425	437	451	465	483
300	369	379	387	394	405	418	418	432	442	457	468	486
325	376	386	394	403	416	425	425	440	451	465	479	498
350	382	393	401	410	423	434	434	444	459	474	490	507
375	387	397	408	417	432	442	442	456	467	483	498	518
400	394	403	413	424	437	450	450	464	476	491	506	527
450	405	418	432	442	456	467	467	482	497	514	530	551
500	424	435	444	458	473	484	484	500	516	534	551	575
550	442	456	466	479	494	509	509	527	542	560	582	606
600	452	465	479	491	506	520	520	535	549	571	595	621
650	476	490	502	515	532	549	549	561	577	601	625	655
700	491	502	516	530	547	564	564	582	600	621	646	672
750	500	515	531	543	561	581	581	599	617	640	665	696
800	514	530	543	560	577	595	595	616	637	661	686	718

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- Intermediate sizes are priced at the next higher or next wider standard size.
- Prices do not include the installation subframe which is always required!

FK90 fire dampers (series FK92) in short length with *powder coated casing* construction lengths 346 mm and 355 mm

construction	lenguis	5 340 111	iiii uiiu	اااا ددد	11										DISC	count g	тоир в
1+4								Wi	dth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	355	355	355	355	355	362	362	372	372	386	396	412	418	432	442	452	465
225	358	358	358	358	358	366	366	378	378	388	403	418	425	440	452	462	473
250	358	358	358	358	358	366	366	378	378	388	403	418	425	440	452	462	473
275	360	360	360	360	360	371	371	380	380	393	405	423	428	442	457	465	476
300	362	362	362	362	362	372	372	386	386	396	408	424	433	444	458	468	481
325	366	366	366	366	366	378	378	388	388	403	413	432	440	452	466	476	490
350	372	372	372	372	372	382	382	394	394	408	418	437	443	459	474	484	498
375	376	376	376	376	376	387	387	400	400	412	424	442	451	466	483	494	503
400	379	379	379	379	379	392	392	403	403	417	432	444	457	474	493	500	510
450	388	388	388	388	388	401	401	413	413	428	442	465	474	491	506	516	527
500	400	400	400	400	400	413	413	424	424	442	458	476	486	506	523	535	549
550	413	413	413	413	413	425	425	442	442	458	476	498	507	525	543	559	575
600	418	418	418	418	418	434	434	450	450	466	483	506	516	535	552	571	586
650	433	433	433	433	433	451	451	466	466	484	500	527	538	560	582	599	617
700	442	442	442	442	442	458	458	476	476	493	510	538	550	573	595	615	633
750	451	451	451	451	451	467	467	484	484	503	523	550	564	586	612	630	649
800	458	458	458	458	458	476	476	494	494	516	536	561	577	600	623	645	661

1+4						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	476	486	499	509	523	538	538	551	567	583	600	623
225	483	497	507	519	534	549	549	564	577	598	614	638
250	483	497	507	519	534	549	549	564	577	598	614	638
275	486	499	514	523	538	552	552	569	584	601	619	645
300	493	503	516	527	542	558	558	575	589	607	625	649
325	500	514	527	536	552	569	569	584	601	621	638	664
350	509	523	535	549	564	577	577	598	614	632	653	679
375	516	531	543	558	573	589	589	607	623	646	662	691
400	525	538	551	567	583	600	600	617	633	655	672	703
450	542	558	573	587	607	623	623	645	661	685	704	736
500	564	582	595	612	630	649	649	668	688	711	736	768
550	589	607	622	639	661	679	679	702	724	750	773	808
600	603	621	638	654	672	696	696	715	734	765	793	827
650	633	653	669	688	709	734	734	751	771	804	836	874
700	654	670	688	704	731	751	751	776	803	828	859	898
750	668	688	705	726	750	773	773	801	825	855	887	928
800	685	704	726	748	771	793	793	821	851	883	912	956

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- Intermediate sizes are priced at the next higher or next wider standard size.
- Prices do not include the installation subframe which is always required!

FK90 fire dampers (series FK92) with in short length with *powder coated casing* and metal frame made of stainless steel -construction lengths 346 mm and 355 mm

1,3,4								W	dth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	423	423	423	423	423	432	432	442	442	457	473	490	498	510	525	536	550
225	424	424	424	424	424	435	435	448	448	464	476	497	503	520	536	547	558
250	424	424	424	424	424	435	435	448	448	464	476	497	503	520	536	547	558
275	426	426	426	426	426	440	440	451	451	466	481	499	507	523	541	551	564
300	428	428	428	428	428	442	442	457	457	468	483	502	514	530	543	558	569
325	435	435	435	435	435	448	448	464	464	476	491	509	519	536	551	567	581
350	441	441	441	441	441	452	452	467	467	483	497	516	530	543	560	575	589
375	443	443	443	443	443	458	458	474	474	490	502	523	534	552	571	584	598
400	450	450	450	450	450	464	464	479	479	494	509	530	541	561	583	595	606
450	459	459	459	459	459	475	475	491	491	507	525	550	560	582	600	614	623
500	473	473	473	473	473	491	491	502	502	523	542	567	577	599	619	633	653
550	491	491	491	491	491	506	506	523	523	542	564	589	600	622	646	662	681
600	498	498	498	498	498	515	515	534	534	552	575	600	615	633	657	674	695
650	514	514	514	514	514	534	534	551	551	575	595	625	639	664	688	709	734
700	523	523	523	523	523	543	543	564	564	584	606	638	654	679	704	731	752
750	534	534	534	534	534	555	555	575	575	599	621	654	669	696	723	746	769
800	543	543	543	543	543	567	567	584	584	614	637	668	686	711	739	765	784

1,3,4						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	564	577	591	606	621	638	638	654	670	691	711	739
225	573	587	601	617	632	650	650	669	687	705	727	755
250	573	587	601	617	632	650	650	669	687	705	727	755
275	577	591	607	621	638	655	655	672	693	712	735	765
300	583	598	614	625	645	662	662	681	699	720	742	771
325	592	609	623	638	655	672	672	695	712	736	755	787
350	603	619	633	650	669	687	687	705	727	750	772	805
375	615	630	646	661	679	699	699	719	739	765	786	820
400	622	638	654	670	691	711	711	734	752	776	801	834
450	640	661	679	699	719	739	739	765	784	810	836	873
500	669	688	704	724	746	769	769	791	818	844	873	908
550	701	719	739	756	783	806	806	832	858	890	918	957
600	715	736	755	775	801	825	825	846	869	906	941	981
650	751	773	793	816	843	868	868	891	912	953	991	1039
700	773	793	816	836	862	892	892	920	947	981	1018	1065
750	791	816	836	860	890	918	918	945	977	1015	1051	1099
800	810	835	860	886	912	941	941	975	1008	1047	1083	1134



- Intermediate sizes are priced at the next higher or next wider standard size.
- Prices do not include the installation subframe which is always required!

FK90 fire dampers (series FK92) in short length *with powder coating casing and metal frame and metal cover made of stainless steel* - construction lengths 346 mm and 355 mm

1,3,4								W	dth [m	ml						ee ame g	
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	443	443	443	443	443	452	452	465	465	481	498	515	523	538	552	568	582
225	448	448	448	448	448	459	459	473	473	486	502	523	532	549	567	576	587
250	448	448	448	448	448	459	459	473	473	486	502	523	532	549	567	576	587
275	450	450	450	450	450	464	464	476	476	491	506	527	535	551	569	583	592
300	451	451	451	451	451	465	465	481	481	494	509	531	541	558	573	586	600
325	458	458	458	458	458	473	473	486	486	502	516	536	549	564	583	598	612
350	465	465	465	465	465	479	479	494	494	509	523	544	555	575	591	606	621
375	468	468	468	468	468	483	483	499	499	515	531	551	561	583	603	617	631
400	474	474	474	474	474	490	490	503	503	520	536	558	569	591	615	625	639
450	484	484	484	484	484	500	500	516	516	536	552	582	591	614	632	646	657
500	498	498	498	498	498	516	516	531	531	551	571	598	609	631	654	669	687
550	516	516	516	516	516	534	534	551	551	571	592	621	633	656	679	699	718
600	523	523	523	523	523	542	542	560	560	583	606	632	648	669	693	711	734
650	541	541	541	541	541	561	561	583	583	606	625	657	672	701	726	750	772
700	551	551	551	551	551	573	573	592	592	616	639	671	688	718	743	771	793
750	561	561	561	561	561	584	584	606	606	631	655	688	704	734	762	786	810
800	573	573	573	573	573	598	598	617	617	646	671	703	723	751	781	804	826

1,3,4						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	595	609	623	638	655	671	671	689	705	731	751	781
225	603	619	633	650	668	686	686	704	724	743	768	796
250	603	619	633	650	668	686	686	704	724	743	768	796
275	612	623	639	655	671	691	691	709	732	752	773	805
300	616	630	646	657	679	699	699	718	737	759	783	811
325	625	640	656	671	691	709	709	732	751	775	796	828
350	638	654	669	686	704	724	724	743	768	789	816	846
375	648	662	679	696	718	737	737	756	781	805	827	861
400	655	671	689	705	731	750	750	772	793	820	844	877
450	678	696	718	736	756	781	781	804	826	854	883	920
500	704	726	743	765	787	810	810	835	860	891	920	959
550	737	756	778	801	822	851	851	875	906	937	968	1009
600	754	775	794	818	844	869	869	892	914	953	991	1035
650	791	816	836	859	887	912	912	940	961	1005	1043	1093
700	818	836	860	883	909	940	940	970	1000	1039	1074	1124
750	835	859	885	907	939	965	965	998	1030	1067	1107	1160
800	854	879	907	936	961	991	991	1026	1062	1103	1142	1194

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- Intermediate sizes are priced at the next higher or next wider standard size.
- Prices do not include the installation subframe which is always required!

**Installation subframe ER2** for FK90 fire dampers (series FK92) in short length Installation length 355 mm

																ount g	
2								W	dth [m	mJ							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	135	135	135	135	135	137	137	141	141	145	149	156	159	163	168	171	178
225	137	137	137	137	137	140	140	142	142	146	153	159	161	165	171	174	179
250	137	137	137	137	137	140	140	142	142	146	153	159	161	165	171	174	179
275	137	137	137	137	137	140	140	145	145	149	153	160	161	165	171	178	181
300	137	137	137	137	137	141	141	145	145	149	156	161	163	168	174	178	182
325	140	140	140	140	140	142	142	146	146	153	156	163	165	171	178	181	183
350	141	141	141	141	141	145	145	149	149	156	159	165	168	174	179	182	189
375	141	141	141	141	141	146	146	150	150	156	161	165	170	178	182	187	190
400	142	142	142	142	142	146	146	153	153	159	163	168	171	181	183	189	191
450	146	146	146	146	146	150	150	156	156	161	168	178	179	183	190	194	200
500	149	149	149	149	149	156	156	161	161	165	171	181	183	190	198	201	206
550	156	156	156	156	156	161	161	165	165	171	181	189	190	200	204	209	219
600	159	159	159	159	159	163	163	170	170	178	182	190	194	201	208	216	222
650	163	163	163	163	163	170	170	178	178	182	189	200	202	209	220	227	231
700	165	165	165	165	165	174	174	181	181	187	191	202	206	216	224	231	241
750	170	170	170	170	170	178	178	182	182	190	200	206	213	222	230	239	245
800	174	174	174	174	174	181	181	187	187	194	202	213	219	227	236	242	248

2						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	181	183	189	191	200	202	202	206	213	220	227	236
225	182	189	190	198	201	206	206	213	219	227	231	241
250	182	189	190	198	201	206	206	213	219	227	231	241
275	183	189	191	198	202	208	208	216	222	227	235	242
300	187	190	194	200	204	208	208	219	224	230	236	245
325	189	191	200	202	208	216	216	222	227	235	241	249
350	191	198	201	206	213	219	219	227	231	239	246	256
375	194	201	204	208	216	222	222	230	236	242	249	263
400	200	202	206	213	220	227	227	231	241	246	254	265
450	204	208	216	222	230	236	236	242	248	256	265	277
500	213	219	224	230	239	245	245	249	260	269	277	289
550	224	230	235	241	248	256	256	265	275	283	291	304
600	228	235	241	246	254	264	264	269	276	287	301	313
650	241	246	250	260	268	276	276	284	289	302	316	330
700	246	250	260	265	276	284	284	291	302	313	324	339
750	249	260	268	275	284	291	291	301	312	324	332	350
800	256	265	275	283	289	301	301	309	319	332	343	361

i Intermediate sizes are priced at the next higher or next wider standard size.

# Installation subframe ER2 with powder coating for FK90 fire dampers (series FK92) in short length Installation length 355 mm

installation is	engui 5	וווווו ככי													DISC	count g	тоир в
2								Wi	dth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	189	189	189	189	189	190	190	198	198	202	208	219	222	228	235	241	246
225	189	189	189	189	189	194	194	200	200	206	213	222	224	231	241	245	248
250	189	189	189	189	189	194	194	200	200	206	213	222	224	231	241	245	248
275	190	190	190	190	190	198	198	201	201	206	213	224	227	235	241	246	249
300	190	190	190	190	190	198	198	202	202	208	216	224	230	235	242	248	254
325	191	191	191	191	191	200	200	206	206	213	219	228	231	239	246	249	260
350	198	198	198	198	198	201	201	208	208	216	222	230	235	242	249	256	264
375	200	200	200	200	200	204	204	209	209	219	224	235	239	246	254	263	268
400	201	201	201	201	201	206	206	213	213	222	228	236	241	249	260	265	272
450	204	204	204	204	204	213	213	219	219	227	235	246	249	260	268	275	277
500	208	208	208	208	208	219	219	224	224	235	242	249	256	268	276	284	289
550	219	219	219	219	219	227	227	235	235	242	249	264	268	277	286	293	302
600	222	222	222	222	222	230	230	239	239	246	256	268	275	284	291	301	309
650	230	230	230	230	230	239	239	246	246	256	265	277	284	293	306	317	325
700	235	235	235	235	235	242	242	249	249	263	272	284	289	302	316	325	335
750	239	239	239	239	239	246	246	256	256	268	277	289	297	312	324	331	342
800	242	242	242	242	242	249	249	263	263	275	284	297	304	317	330	339	350

2						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	249	256	264	269	277	284	284	291	297	309	317	330
225	254	264	268	276	283	289	289	297	306	316	324	335
250	254	264	268	276	283	289	289	297	306	316	324	335
275	256	265	272	276	284	291	291	301	309	317	327	339
300	260	268	275	277	286	293	293	302	312	323	331	342
325	265	272	277	284	291	301	301	309	317	327	336	350
350	269	276	284	289	297	306	306	316	324	332	343	360
375	275	280	286	293	302	312	312	323	330	339	350	365
400	277	284	291	297	309	317	317	325	335	345	357	371
450	286	293	302	312	319	330	330	339	350	361	372	387
500	297	306	316	324	332	342	342	351	365	377	387	406
550	312	319	330	336	346	360	360	371	383	394	409	427
600	319	327	335	343	357	368	368	377	387	402	418	437
650	335	343	354	364	373	384	384	394	409	425	440	461
700	343	354	365	372	384	394	394	410	421	437	454	474
750	351	364	372	383	394	409	409	420	435	453	468	489
800	361	372	383	392	409	418	418	432	450	466	483	503

i Intermediate sizes are priced at the next higher or next wider standard size.

*Installation subframe ER3* for FK90 fire dampers (series FK92) in short length Installation length 355 mm

mstanation	9															count g	
2								W	dth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	213	213	213	213	213	216	216	221	221	229	236	246	251	258	261	270	276
225	214	214	214	214	214	218	218	226	226	233	238	251	253	260	269	274	280
250	214	214	214	214	214	218	218	226	226	233	238	251	253	260	269	274	280
275	214	214	214	214	214	218	218	228	228	233	240	252	254	261	270	276	281
300	216	216	216	216	216	221	221	229	229	235	241	253	258	265	273	278	287
325	217	217	217	217	217	226	226	233	233	238	246	258	260	269	276	285	290
350	221	221	221	221	221	228	228	235	235	241	251	260	265	274	281	288	295
375	223	223	223	223	223	229	229	236	236	246	253	261	269	278	287	295	299
400	226	226	226	226	226	233	233	240	240	251	258	268	270	281	292	297	305
450	232	232	232	232	232	238	238	246	246	254	261	276	281	292	300	308	314
500	236	236	236	236	236	246	246	253	253	261	273	285	290	299	310	317	327
550	246	246	246	246	246	253	253	261	261	273	281	295	300	314	324	333	341
600	251	251	251	251	251	259	259	268	268	278	288	300	308	317	328	340	350
650	258	258	258	258	258	269	269	276	276	288	297	314	321	333	344	357	367
700	261	261	261	261	261	273	273	281	281	295	305	321	327	341	355	364	377
750	269	269	269	269	269	278	278	288	288	299	313	327	335	350	363	372	386
800	273	273	273	273	273	285	285	295	295	308	318	335	343	357	370	384	395

2						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	285	290	297	305	313	321	321	328	336	349	357	370
225	287	295	300	310	317	325	325	335	344	355	364	379
250	287	295	300	310	317	325	325	335	344	355	364	379
275	290	297	306	313	321	328	328	340	349	357	369	384
300	292	299	308	314	324	330	330	341	351	363	371	386
325	297	306	314	318	328	340	340	350	357	369	379	395
350	300	310	317	325	335	344	344	355	364	376	388	404
375	308	315	324	330	341	351	351	360	370	384	395	411
400	314	321	328	336	349	357	357	367	377	390	403	416
450	324	330	341	351	360	370	370	384	395	406	417	437
500	336	344	355	363	372	386	386	396	409	424	437	456
550	351	360	370	379	393	404	404	416	431	445	460	481
600	358	369	377	388	403	413	413	425	434	452	473	492
650	377	388	397	409	422	434	434	447	458	478	496	521
700	388	397	409	417	433	447	447	460	477	493	507	534
750	396	409	417	433	445	460	460	475	489	506	528	550
800	406	417	432	445	458	473	473	488	505	523	543	568

i Intermediate sizes are priced at the next higher or next wider standard size.

Installation subframe ER3 with powder coated connection profile for FK90 fire dampers (series FK92) in short length Installation length 355 mm

Installation le	ingtii 5.	JJ 1111111															
2								W	dth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	296	296	296	296	296	300	300	310	310	321	330	343	350	358	369	377	386
225	297	297	297	297	297	306	306	314	314	325	335	349	355	364	376	385	393
250	297	297	297	297	297	306	306	314	314	325	335	349	355	364	376	385	393
275	299	299	299	299	299	308	308	317	317	327	336	351	357	367	377	388	396
300	299	299	299	299	299	310	310	321	321	328	340	352	360	370	384	390	399
325	306	306	306	306	306	314	314	325	325	335	344	358	364	376	388	397	406
350	310	310	310	310	310	317	317	328	328	340	349	363	370	384	395	404	413
375	314	314	314	314	314	321	321	330	330	344	352	367	372	388	403	409	417
400	315	315	315	315	315	325	325	336	336	349	358	371	379	395	409	416	425
450	324	324	324	324	324	333	333	344	344	357	369	386	395	407	422	431	437
500	330	330	330	330	330	344	344	352	352	367	379	397	406	422	434	445	456
550	344	344	344	344	344	355	355	367	367	379	396	413	422	437	452	463	478
600	350	350	350	350	350	360	360	372	372	388	404	422	431	445	460	475	488
650	360	360	360	360	360	372	372	388	388	404	416	439	449	466	485	496	514
700	367	367	367	367	367	384	384	396	396	409	425	449	458	477	493	511	529
750	372	372	372	372	372	390	390	404	404	417	437	458	468	488	506	523	540
800	384	384	384	384	384	397	397	411	411	431	447	468	481	499	521	534	549

2	Width [mm]											
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	396	406	414	425	437	449	449	458	470	485	499	521
225	403	413	422	433	445	456	456	468	484	495	507	530
250	403	413	422	433	445	456	456	468	484	495	507	530
275	406	416	425	434	449	460	460	475	486	499	515	534
300	409	417	431	439	452	463	463	478	492	505	522	540
325	416	429	437	449	460	473	473	486	499	515	530	550
350	425	434	445	456	468	484	484	495	507	526	542	566
375	431	441	452	463	477	489	489	505	521	534	550	574
400	437	449	458	470	485	499	499	514	529	543	564	585
450	451	463	477	489	505	521	521	534	549	568	585	611
500	470	484	495	506	523	540	540	552	571	593	611	638
550	492	505	516	530	548	566	566	584	603	623	644	670
600	502	515	530	543	564	578	578	593	610	632	660	687
650	528	542	556	571	588	610	610	624	640	667	697	727
700	542	560	571	585	605	624	624	644	666	687	714	748
750	552	571	587	604	624	642	642	664	685	711	738	772
800	568	585	604	622	640	660	660	684	705	731	760	795

i Intermediate sizes are priced at the next higher or next wider standard size.

750

800

458.-

473.-

463.-

478.-

473.-

486.-

478.-

492.-

486.-

499.-

492.-

505.-

# Mounting frame ARI for FK90 fire dampers (series FK92) in short length

Discount group B Installation length 346 mm Width [mm] Height 200 225 250 275 300 325 350 375 400 450 500 550 600 650 700 750 800 [mm] 200 313.-317.-325. 330.-340.-344.-351.-358.-364.-377.-393.-406.-417.-432.-445.-458. 473. 225 317.-325. 330. 340.-344.-351.-358.-364. 371.-386. 397.-411.-425.-439.-452.-463. 478.-250 325.-330.-340. 344.-351.-358.-364.-371.-377.-393.-406. 417.-432.-445.-458.-473.-486. 275 330.-340.-344. 351.-358.-364. 371.-377.-386. 397.-411.-425.-439.-452.-463.-478.-492.-300 340. 344. 351.-358. 364.-371.-377.-386. 393.-406. 417.-432.-445.-458.-473.-486. 499. 325 344.-351.-358. 371.-377.-386.-393. 397.-411.-425.-439.-452.-463.-478.-492.-505. 364. 350 351.-358. 364. 377.-393.-397.-406. 417.-432. 445.-458.-473.-486. 499.-511.-371.-386. 375 358.-364. 371.-377.-386.-393.-397.-406. 411.-425.-439.-452.-463. 478.-492.-505.-521.-400 364.-371.-377.-386.-393.-397.-406.-411.-417.-432.-445.-458.-473.-486.-499.-511.-526. 450 377.-386.-393.-397.-406.-411.-417.-425.-432.-445.-458.-473.-486.-499.-511.-526.-540.-500 393.-397.-406.-411.-417.-425.-432.-439.-445.-458.-473.-486.-499.-511.-526.-540.-550. 550 406.-411.-417.-425.-432.-439.-445.-452.-458.-473.-486.-499.-511.-526.-540.-550.-567.-600 417.-425.-432.-439.-445.-452.-458.-463.-473.-486.-499.-511.-526.-540.-550.-567.-578. 432.-439.-445.-452.-458.-463.-473.-478.-486.-499.-511.-526.-540.-550.-567.-578.-591.-650 445.-452.-458.-473.-478.-486.-492.-499.-511.-540.-550.-567.-578.-700 463.-526.-591.-605.-

505.-

521.-

499.-

511.-

511.-

526.-

526.-

540.-

540.-

550.-

550.-

567.-

567.-

578.-

578.-

591.-

591.-

605.-

605.-

621.-

621.-

631.-

2						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	486	499	511	526	540	550	567	578	591	605	631	659
225	492	505	521	533	543	560	571	585	601	612	639	666
250	499	511	526	540	550	567	578	591	605	621	648	670
275	505	521	533	543	560	571	585	601	612	624	652	679
300	511	526	540	550	567	578	591	605	621	631	659	685
325	521	533	543	560	571	585	601	612	624	639	666	692
350	526	540	550	567	578	591	605	621	631	648	670	700
375	533	543	560	571	585	601	612	624	639	652	679	705
400	540	550	567	578	591	605	621	631	648	659	685	712
450	550	567	578	591	605	621	631	648	659	670	700	727
500	567	578	591	605	621	631	648	659	670	685	712	740
550	578	591	605	621	631	648	659	670	685	700	727	751
600	591	605	621	631	648	659	670	685	700	712	740	766
650	605	621	631	648	659	670	685	700	712	727	751	781
700	621	631	648	659	670	685	700	712	727	740	766	794
750	631	648	659	670	685	700	712	727	740	751	781	804
800	648	659	670	685	700	712	727	740	751	766	794	818

- i
- The price applied for intermediate sizes is the next highest or next widest standard size.
- Factory-assembled.

5 Additional casing openings	
Description	Price
132 mm diameter with cover; mounting position: top, bottom, top + bottom	0

### Discount group B

6 Release temperature	
Description	Price
Coated release element 70°C	17:-
Coated release element 95°C	17:-
Release element for thermal-electrical release 95°C	39

# Discount group B

7 Limit switch for thermal-mechanical release mechanism										
Ordering data	Description	Price								
E-ZU	Changeover with gold-plated contacts for 5 A at 250 V AC or 24 V DC	16								
E-AUF	Changeover with gold-plated contacts for 5 A at 250 V AC or 24 V DC	16								
E-ZU+AUF	Two changeovers with gold-plated contacts for 5 A at 250 V AC or 24 V DC	33								
EX-ZU	With normally closed contact and normally open contact for 6 A at $\leq$ 250 V AC or 0.25 A at $\leq$ 230 V DC	289								
EX-AUF	With normally closed contact and normally open contact for 6 A at $\leq$ 250 V AC or 0.25 A at $\leq$ 230 V DC	289								
EX-ZU+AUF	With normally closed contact and normally open contact for 6 A at $\leq$ 250 V AC or 0.25 A at $\leq$ 230 V DC	559								

### Discount group B

8 Actuators a	nd release elements	
Ordering data	Description	Price
M220-9/H	Electric spring return actuator with 70°C release element, 230 V AC	368
M24-9/H	Electric spring return actuator with 70°C release element, 24 V AC/DC	368
M220-11/H	Electric spring return actuator with 70°C release element, 230 V AC	414
M24-11/H	Electric spring return actuator with 70°C release element, 24 V AC/DC	414
M220-10/H	Electric spring return actuator with 70°C release element, 230 V AC	368
M24-10/H	Electric spring return actuator with 70°C release element, 24 V AC/DC	368
M24-8	Electric spring return actuator with 70°C release element, 24 V AC/DC	678
M24-8/MP	Electric spring return actuator with 70°C release element, 24 V AC/DC	868
G24	Lifting solenoid 24 V DC	231
W220	Lifting solenoid 230 V AC	282
Р	Lift cylinder 4 8 bar	249
P2	Lift cylinder 1.2 8 bar	315
GU24	Magnetic clamp 24 V DC	121
WU220	Magnetic clamp 230 V AC	188
N/Ex	Thermal-mechanical release mechanism (explosion-protected)	60
EM-1	Electric spring return actuator with 70°C release element, 24 240 V AC/DC, 10 Nm	4286
EM-2	Electric spring return actuator with 70°C release element, 24 240 V AC/DC, 15 Nm	4711
RM-1	Electric spring return actuator with 70°C release element, 24 240 V AC/DC, 10 Nm	3823

### Discount group B

9 Smoke dete	9 Smoke detector										
Ordering data	Description	Price									
4B	OR4 basic	936									
4P	OR4 pro	1003									
NO	OR32 Standard	1031									
N2	OR32 with MC and relay module	1256									

■ Prices for extension VEUFK02 for OR4 must also be taken into account. Further accessories ▶ from page 111.

It is recommended to replace the smoke switch after an operating period of 8 years Price list for individual parts and spare parts.

### Discount group B

10 Installed accessories										
Ordering data	Description	Price								
A1	AB-01 connection box for spring return actuators 24 V AC/DC	145								
A3	AB-02 connection box for spring return actuators with 230 V AC	145								
os	AS-i module for spring return actuators 24 V AC/DC, mounted above the actuator	464								

i All specified prices apply to original equipment ex works.

# Accessories: FK90 fire dampers (series FK92)

### Extension VERL for FK90 fire dampers (series FK92)

Installation length 175 mm

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$\Box$	lice	011	ınt	ar	$\alpha$	n	F
-	130	υu	111	91	υu	$\sim$	_

								W	idth [m	m]							
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	64	64	64	66	66	68	68	68	68	70	78	78	80	82	84	84	84
225	64	66	66	68	68	68	68	70	70	78	78	80	82	84	84	86	86
250	64	66	66	68	68	68	68	70	70	78	78	80	82	84	84	86	86
275	66	66	66	68	68	70	70	78	78	78	80	82	82	84	86	88	88
300	66	68	68	70	70	78	78	78	78	80	80	82	84	84	88	88	92
325	68	68	68	78	78	78	78	80	80	80	82	84	84	86	88	92	92
350	68	70	70	78	78	78	78	80	80	80	82	84	84	86	88	92	94
375	68	70	70	78	78	80	80	80	80	82	82	84	84	88	88	92	94
400	70	78	78	78	78	80	80	80	80	82	84	84	86	88	92	92	94
450	78	78	78	80	80	82	82	82	82	84	84	88	88	92	94	94	96
500	80	80	80	82	82	84	84	84	84	84	88	92	92	92	94	96	98
550	80	82	82	84	84	84	84	84	84	88	92	94	94	94	96	98	109
600	82	82	82	84	84	86	86	88	88	88	92	94	94	96	98	109	109
650	82	84	84	88	88	88	88	92	92	92	94	96	98	98	109	111	111
700	84	86	86	92	92	92	92	94	94	94	96	98	98	109	111	111	111
750	84	88	88	92	92	92	92	94	94	94	96	98	109	111	111	113	115
800	86	92	92	94	94	94	94	96	96	96	98	109	109	111	113	115	119

						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	88	88	92	94	94	96	96	98	109	111	113	119
225	88	92	92	94	96	98	98	109	111	111	115	121
250	88	92	92	94	96	98	98	109	111	111	115	121
275	92	92	94	94	98	98	98	109	111	113	115	121
300	92	94	94	96	98	109	109	111	111	115	119	123
325	94	94	96	98	109	109	109	111	113	115	119	125
350	94	94	96	98	109	111	111	111	115	115	119	125
375	94	96	98	98	109	111	111	113	115	119	121	125
400	96	98	98	109	111	111	111	115	119	119	121	127
450	98	98	109	111	111	113	113	115	119	121	123	127
500	98	109	111	111	113	115	115	119	121	121	125	133
550	109	111	111	115	115	119	119	121	123	125	127	137
600	111	111	113	115	119	119	119	121	123	125	127	139
650	113	115	115	119	121	121	121	125	125	127	133	141
700	115	115	119	121	121	123	123	125	127	133	137	144
750	115	119	121	121	123	125	125	127	133	133	139	144
800	119	121	121	123	125	127	127	127	133	137	139	148

- Intermediate sizes are priced at the next higher or next wider standard size.
- Surcharge for extension VERL with powder coating: +40 %.

### Extension VEUFK01 for OR32 for FK90 fire dampers (series FK92)

Discount group B Installation length 175 mm Width [mm] Height 200 300 500 550 600 650 700 225 250 275 325 350 375 400 450 750 800 [mm] 200 107.-107.-108.-108.-109.-109.-110.-110.-112.-113.-113.-114.-116.-117.-118.-120.-121.-225 107.-108. 108. 109. 109.-110.-110.-112.-113.-113.-114.-115.-116.-117.-118.-121.-122.-250 108.-108. 109. 109. 110.-110.-112.-113.-113.-113.-114.-116. 117.-118.-120.-121.-122.-275 108.-109. 109. 110.-110.-112.-113.-113.-113.-114.-115.-116.-117.-118.-121.-122.-123.-300 109. 109. 110.-110 -112.-113.-113.-113.-113.-114.-116 -117.-118.-120.-121 -122.-123.-325 109.-110.-110.-112 -113.-113.-113.-113.-114.-115.-116.-117.-118.-121 -122.-123.-123.-350 110.-110 -112.-113.-113.-113.-113.-114.-114.-116.-117.-118.-120.-121 -122.-123 -123.-375 110.-112 -113.-113.-113.-113 -114 -114.-115.-116.-117.-118.-121.-122 -123.-123 -124 -112.-113.-113.-113.-113.-114.-114.-115.-117.-120.-121.-123.-123.-125.-400 116.-118.-122.-113.-113.-113.-114.-115.-116.-116.-117.-123.-125.-450 114.-118.-120.-121.-122.-123.-126.-113.-117.-117.-122.-500 114. 114. 115.-116.-116.-118.-120.-121.-123.-123.-125.-126. 128.-550 114.-115.-116.-116.-117.-117.-118.-118.-120.-121.-122.-123.-123.-125.-126.-128. 129.-600 116.-116.-117. 117.-118.-118.-120.-121.-121.-122.-123. 123.-125.-126.-128.-129. 130. 650 117.-117.-118. 118.-120.-121.-121.-122.-122.-123.-123. 125.-126.-128.-129.-130. 131.-700 118.-118.-120. 121.-121.-122.-122.-123.-123.-123.-125. 126.-128.-129.-130.-131.-133. 750 120.-121.-121.-122.-122.-123.-123.-123.-123.-125.-126.-128.-129.-130.-131.-133.-133.-

124.-

125.

126.

128

129.-

130.-

131.-

133.-

133.

134.-

						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	122	123	123	125	126	128	130	131	132	133	134	138
225	123	123	124	125	126	129	130	131	132	133	136	138
250	123	123	125	126	128	130	131	132	133	133	136	139
275	123	124	125	126	128	130	131	132	133	134	137	139
300	123	125	126	128	129	131	132	133	133	134	138	140
325	124	125	126	128	130	131	132	133	134	136	138	140
350	125	126	128	129	130	132	133	133	134	136	139	141
375	125	126	128	130	131	132	133	134	136	137	139	141
400	126	128	129	130	131	133	133	134	136	138	140	142
450	128	129	130	131	133	133	134	136	138	139	141	142
500	129	130	131	133	133	134	136	138	139	140	142	145
550	130	131	133	133	134	136	138	139	140	141	142	146
600	131	133	133	134	136	138	139	140	141	142	145	148
650	133	133	134	136	138	139	140	141	142	142	146	149
700	133	134	136	138	139	140	141	142	142	145	148	150
750	134	136	138	139	140	141	142	142	145	146	149	151
800	136	138	139	140	141	142	142	145	146	148	150	153

i

800

121.-

122.

122.

123.

123.-

123.

123.

- Intermediate sizes are priced at the next higher or next wider standard size.
- Surcharge for extension VEUFK01 with powder coating: +40 %.

### Extension VEUFK02 for OR4 for FK90 fire dampers (series FK92)

Discount group B Installation length 175 mm Width [mm] Height 200 250 300 500 550 600 650 700 800 225 275 325 350 375 400 450 750 [mm] 200 108.-108.-109.-116.-107.-107.-109.-110.-110.-112.-113.-113.-114.-117.-118.-120.-121.-115.-225 107.-108. 108.-109.-109.-110.-110.-112.-113.-113.-114.-116.-117.-118.-121.-122.-113.-250 108.-108. 109. 109. 110.-110.-112.-113.-113.-114.-116.-117.-118.-120.-121.-122.-275 108.-109. 109. 110.-110.-112.-113.-113.-113.-114.-115.-116.-117.-118.-121.-122.-123.-300 109.-109. 110.-110.-112.-113.-113.-113.-113.-114.-116.-117.-118.-120.-121.-122.-123.-325 109.-110.-110.-112.-113.-113.-113.-113.-114.-115.-116.-117.-118.-121.-122.-123.-123.-350 110.-110.-112.-113.-113.-113.-113.-114.-114.-116.-117.-118.-120.-121.-122.-123 -123.-375 110.-112.-113.-113.-113 -113 -114.-114.-115.-116.-117.-118.-121.-122.-123 -123 -124 -400 112.-113.-113.-113.-113.-114 -114.-115.-116.-117.-118.-120.-121.-123.-123.-125.-122.-450 113.-113.-113.-114.-115.-116.-116.-117.-118.-120.-123.-125.-114.-121.-122.-123.-126.-113.-117.-117.-122.-500 114. 114. 115.-116.-116.-118.-120.-121.-123.-123.-125.-126. 128. 114.-115.-550 116.-116.-117.-117.-118.-118.-120.-121.-122.-123.-123.-125.-126.-128. 129.-600 116.-116.-117. 117.-118.-118.-120.-121.-121.-122.-123. 123.-125.-126.-128.-129. 130. 650 117.-117.-118. 118.-120.-121.-121.-122.-122.-123.-123. 125.-126.-128.-129.-130. 131.-700 118.-118.-120. 121.-121.-122.-122.-123.-123.-123.-125. 126.-128.-129.-130.-131.-133. 750 120.-121.-121.-122.-122.-123.-123.-123.-123.-125.-126.-128.-129.-130.-131.-133.-133.-

124.-

125.

126.

128

129.-

130.-

131.-

133.-

133.

134.-

						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	122	123	123	125	126	128	130	131	132	133	134	138
225	123	123	124	125	126	129	130	131	132	133	136	138
250	123	123	125	126	128	130	131	132	133	133	136	139
275	123	124	125	126	128	130	131	132	133	134	137	139
300	123	125	126	128	129	131	132	133	133	134	138	140
325	124	125	126	128	130	131	132	133	134	136	138	140
350	125	126	128	129	130	132	133	133	134	136	139	141
375	125	126	128	130	131	132	133	134	136	137	139	141
400	126	128	129	130	131	133	133	134	136	138	140	142
450	128	129	130	131	133	133	134	136	138	139	141	142
500	129	130	131	133	133	134	136	138	139	140	142	145
550	130	131	133	133	134	136	138	139	140	141	142	146
600	131	133	133	134	136	138	139	140	141	142	145	148
650	133	133	134	136	138	139	140	141	142	142	146	149
700	133	134	136	138	139	140	141	142	142	145	148	150
750	134	136	138	139	140	141	142	142	145	146	149	151
800	136	138	139	140	141	142	142	145	146	148	150	153

i

800

121.-

122.

122.

123.-

123.-

123.

123.

- Intermediate sizes are priced at the next higher or next wider standard size.
- Surcharge for extension VEUFK02 with powder coating: +40 %

Flexible connecting piece for FK90 fire dampers (series FK92)

_												_
- 11	10	-	71	1	n	+	$\alpha$	rr	٦ı	1	n	В

	Width [mm]																
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	76	81	81	84	84	87	87	88	88	91	96	101	104	106	110	114	117:-
225	81	82	82	87	87	89	89	95	95	96	100	104	106	110	114	117:-	120
250	81	82	82	87	87	89	89	95	95	96	100	104	106	110	114	117:-	120-
275	82	85	85	88	88	91	91	96	96	100-	101	106	108	114	117:-	120	121
300	84	87	87	91	91	95	95	99	99	101	105	110	113	116	118	121	124
325	85	88	88	95	95	96	96	100	100	101	106	110	114	117:-	120	121	126
350	87-	89	89	95	95	99	99	100	100	104	106	113	114	117:-	120	123	126
375	88	91	91	96	96	100	100	101	101	105	108	114	116	118	121	124	129
400	88	95	95	99	99	100	100	104	104	106	110	116	117:-	120	123	126	129
450	91	96	96	101	101	104	104	106	106	110	114	117:-	120	123	126	131	133
500	96	100-	100	105	105	106	106	110	110	114	117:-	120	123	126	131	133	134
550	101	104	104	110	110	113	113	116	116	117:-	120	124	126	131	133	137:-	139
600	104	106	106	113	113	114	114	117:-	117:-	120	123	126	129	133	137:-	139	141
650	108	113	113	116	116	117:-	117	121	121	123	129	132	133	137:-	141	145	149
700	110	114	114	118	118	120	120	123	123	126	131	133	137:-	140	145	149	150
750	114	117:-	117:-	121	121	123	123	126	126	131	133	137:-	139	145	149	151	153
800	117:-	120	120	124	124	126	126	129	129	133	134	139	141	148	150	153	156

	Width [mm]											
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	120	123	126	131	134	137	137:-	141	148	151	157:-	164
225	123	126	131	133	137:-	141	141	148	150	156	161	166
250	123	126	131	133	137	141	141	148	150	156	161	166
275	124	129	132	134	139	145	145	149	153	157:-	164	167-
300	129	131	134	137	141	148	148	151	155	158	165	169
325	129	132	134	139	141	149	149	151	156	161	166	171
350	131	133	137:-	139	145	150	150	153	157:-	164	166	172
375	131	134	137:-	140	148	151	151	155	157:-	165	169	173
400	132	134	139	141	148	151	151	156	158	165	169	177
450	134	139	141	148	151	155	155	158	164	169	172	179
500	139	141	148	150-	153	157:-	157:-	164	166	171	177:-	183
550	145	148	151	153	157:-	164	164	166	171	177:-	183	188
600	148	150	153	156	158	165	165 <i>-</i>	169	172	179	183	190
650	151	155	157:-	158	165	169	169	172	179	183	189	195
700	153	156	158	164	166	171	171	177:-	181	187	190	198
750	156	158	164	166	169	172	172	179	183	189	195	199
800	158	164	166	169	172	177:-	177:-	182	188	191	198	203

i Intermediate sizes are priced at the next higher or next wider standard size.

### Protective grille for FK90 fire dampers (series FK92)

		Width [mm]															
Height [mm]	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800
200	36	36	36	38	38	39	39	39	39	40	44	44	46	47	48	48	48
225	36	38	38	39	39	39	39	40	40	44	44	46	47	48	48	49	49
250	36	38	38	39	39	39	39	40	40	44	44	46	47	48	48	49	49
275	38	38	38	39	39	40	40	44	44	44	46	47	47:-	48	49	50	50
300	38	39	39	40	40-	44	44	44	44	46	46	47	48	48	50	50	52
325	39	39	39	44	44	44	44	46	46	46	47	48	48	49	50	52	52
350	39	40	40	44	44	44	44	46	46	46	47	48	48	49	50	52	54
375	39	40	40	44	44	46	46	46	46	47	47	48	48	50	50	52	54
400	40	44	44	44	44	46	46	46	46	47	48	48	49	50	52	52	54
450	44	44	44	46	46	47	47:-	47	47	48	48	50	50	52	54	54	55
500	46	46	46	47:-	47:-	48	48	48	48	48	50	52	52	52	54	55	56
550	46	47	47	48	48	48	48	48	48	50	52	54	54	54	55	56	63
600	47	47	47	48	48	49	49	50	50	50	52	54	54	55	56	63	63
650	47	48	48	50	50	50	50	52	52	52	54	55	56	56	63	64	64
700	48	49	49	52	52	52	52	54	54	54	55	56	56	63	64	64	64
750	48	50	50	52	52	52	52	54	54	54	55	56	63	64	64	65	66
800	49	52	52	54	54	54	54	55	55	55	56	63	63	64	65	66	68

	Width [mm]											
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
200	50	50	52	54	54	55	55	56	63	64	65	68
225	50-	52	52	54	55	56	56	63	64	64	66	69
250	50-	52	52	54	55	56	56	63	64	64	66	69
275	52	52	54	54	56	56	56	63	64	65 <i>-</i> -	66	69
300	52	54	54	55	56	63	63	64	64	66	68 <i>.</i> -	71
325	54	54	55	56	63	63	63	64	65	66	68	72
350	54	54	55	56	63	64	64	64	66	66	68	72
375	54	55	56	56	63	64	64	65	66	68	69	72
400	55	56	56	63	64	64	64	66	68 <i>.</i> -	68 <i>.</i> -	69	73
450	56	56	63	64	64	65	65	66	68	69	71	73
500	56	63	64	64	65	66	66	68	69	69	72	76
550	63	64	64	66	66	68	68	69	71	72	73	79
600	64	64	65 <i>-</i> -	66	68 <i>.</i> -	68 <i>.</i> -	68 <i>.</i> -	69	71	72	73	80
650	65	66	66	68	69	69	69	72	72	73	76	81
700	66	66	68	69	69	71	71	72	73	76	79	82
750	66	68	69	69	71	72	72	73	76	76	80	82
800	68	69	69	71	72	73	73	73	76	79	80	84



- Intermediate sizes are priced at the next higher or next wider standard size.
- Surcharge for protective grille with powder coating in specific RAL colour: +75 %.

### Loose accessories: FK90 fire dampers (series FK92)

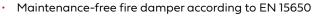
Discount group B

Ordering data	Description	Price
ZUB 0302	Suspended ceiling position indicator, per pack of 2 pieces	31
ZUB 0336	FK90 connection brackets, per pack of 4 pieces	39
ZUB 0339	AW suspension bracket for mounting frame AR2, per pack of 6 pieces	93
ZUB 0412	AB-01 connection box for spring return actuators 24 V AC/DC	88
ZUB 0413	AB-02 connection box for spring return actuators with 230 VAC	88

# $\textit{Pipe connecting piece} \ \mathsf{made} \ \mathsf{of} \ \mathsf{galvanised} \ \mathsf{sheet} \ \mathsf{steel} \ \mathsf{with} \ \mathsf{square} \ \mathsf{connecting} \ \mathsf{plate}$

Width [mm]	Height [mm]	Nozzle [mm]	Without lip seal	With lip seal
200	200	158	31	37
200	200	198	31	37:-
225	225	198	31	37:-
250	250	248	32	38
275	275	248	33	39
300	300	298	34	43
325	325	298	34	43
323	525	313	34	43
350	350	313	40	49
375	375	353	47	56

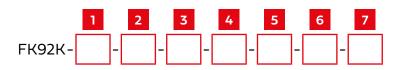
### 3.1.7 FK90K fire damper (series FK92K)



- Fire classifications: El 30/60/90 (ve ho, i ↔ o) S C10000
- Leak tightness C according to DIN EN 1751
- Widths B: 100 mm ... 800 mm
- Heights H: 100 mm ... 250 mm
- Length L: 260 mm

Configure your product





Dimensions

**W** [mm] x **H** [mm] x **L** [mm]

Limit switch for

thermal-mechanical release mechanism (TMA)

Standard:

Without limit switch

Option:

E-ZU One limit switch CLOSED E-AUF One limit switch OPEN

E-ZU+AUF Two limit switches CLOSED+OPEN

Installation options

Standard:

Without

Option:

ER5 Installation subframe for sliding ceiling

DS Set of gaskets for installation remote from rigid walls and ceilings

Actuators and release elements

Standard:

Thermal-mechanical release mechanism (TMA)

Option:

M220-9/H Actuator 230 V M24-9/H Actuator 24 V

M220-10/H Actuator 230 V (Standard) M24-10/H Actuator 24 V (Standard)

M220-11/H Actuator 230 V M24-11/H Actuator 24 V

GU24 With magnetic clamp on TMA WU220 With magnetic clamp on TMA G24 With lifting solenoid on TMA W220 With lifting solenoid on TMA Ρ With pneumatic cylinder on TMA P2 With pneumatic cylinder on TMA

Casing design

Standard:

Connection profiles galvanised

Option:

Connection profiles with epoxy resin coating

Installed accessories

Standard:

Without

Option:

AB-01 connection box for spring return actuators A2 24 V AC/DC

Α4 AB-02 connection box for spring return actuators 230 V AC

AS AS-i module for spring return actuators 24 VAC/ DC, mounted above the actuator

AS-i module for spring return actuators 24 V AC/ DC, mounted below the actuator

Nominal temperature

Standard:

70 °C

Option:

95 °C

70 °C corrosion-resistant

Further accessories ▶ page 118.

### FK90K fire dampers (series FK92K)

### Discount group B

1					Width	[mm]				
Height [mm]	100	150	200	250	300	400	500	600	700	800
100	253	253	253	261	269	285	301	319	335	352
125	259	259	259	269	278	293	310	326	343	360
150	270	270	270	279	289	305	323	339	358	375
175	276 <i>-</i> -	276	276	285	293	312	330	350	367	383
200	280	280	280	290	300	319	336	354	371	391
225	292	292	292	301	310	331	352	369	386	408
250	302	302	302	314	323	345	366	384	403	423

i The scope of delivery includes 4 FK90K angle brackets.

**ER5** installation subframe for sliding ceiling connection

Discount group B

2		Width [mm]								
Height [mm]	100	150	200	250	300	400	500	600	700	800
100	425	436	448	456	466	484	503	523	543	561
125	433	441	451	462	470	489	509	530	549	567
150	436	448	456	466	475	494	515	534	551	571
175	441	451	462	470	481	499	519	538	558	576
200	448	456	466	475	484	503	523	543	561	582
225	451	462	470	481	489	509	530	549	567	586
250	456	466	475	484	494	515	534	551	571	591

i Factory-assembled

DS set of gaskets

Discount group B

2		Width [mm]								
Height [mm]	100	150	200	250	300	400	500	600	700	800
100	106	108	110	113	114	117:-	121	124	129	132
125	108	110	112	113	114	118	121	126	129	133
150	108	110	113	114	116	120	123	126	131	133
175	110	112	113	114	117:-	120	124	128	132	134
200	110	113	114	116	117:-	121	124	129	132	136
225	112	113	114	117:-	118	121	126	129	133	136
250	113	114	116	117:-	120	123	126	131	133	137:-

i Factory-assembled

Discount group B

3 Casing design	
Description	Price
Connection profiles with epoxy resin coating	48

### Discount group B

4 Release temperature					
Description	Price				
Coated release element 70°C	17:-				
Coated release element 95°C	17:-				
Release element for thermal-electrical release 95°C	39				

### Discount group B

5 Limit switch for thermal-mechanical release mechanism									
Ordering data	Description	Price							
E-ZU	Changeover with gold-plated contacts for 5 A at 250 V AC or 24 V DC	16							
E-AUF	Changeover with gold-plated contacts for 5 A at 250 V AC or 24 V DC	16							
E-ZU+AUF	Two changeovers with gold-plated contacts for 5 A at 250 VAC or 24 V DC	33							

# Discount group B

6 Actuators and release elements								
Ordering data	Description	Price						
M220-9/H	Electric spring return actuator with 70°C release element, 230 V AC	368						
M24-9/H	Electric spring return actuator with 70°C release element, 24 V AC/DC	368						
M220-11/H	Electric spring return actuator with 70°C release element, 230 V AC	414						
M24-11/H	Electric spring return actuator with 70°C release element, 24 V AC/DC	414						
M220-10/H	Electric spring return actuator with 70°C release element, 230 V AC	368						
M24-10/H	Electric spring return actuator with 70°C release element, 24 V AC/DC	368						
M24-8	Electric spring return actuator with 70°C release element, 24 V AC/DC	678						
M24-8/MP	Electric spring return actuator with 70°C release element, 24 V AC/DC	868						
G24	Lifting solenoid 24 V DC	231						
W220	Lifting solenoid 230 V AC	282						
Р	Lift cylinder 4 8 bar	249						
P2	Lift cylinder 1.2 8 bar	315						
GU24	Magnetic clamp 24 V DC	121						
WU220	Magnetic clamp 230 VAC	188						

### Discount group B

7 Installed accessories									
Ordering data	Description	Price							
A2	AB-01 connection box for spring return actuators 24 V AC/DC	145							
A4	AB-02 connection box for spring return actuators with 230 V AC	145							
os	AS-i module for spring return actuators 24 V AC/DC, mounted above the actuator	464							
AU	AS-i module for spring return actuators 24 V AC/DC, mounted below the actuator	464							

All prices quoted refer to original equipment ex works.

# Loose accessories: FK90K fire dampers (series FK92K)

Protective grille for FK90K fire dampers (series FK92K)

Discount group B

		Width [mm]											
Height [mm]	100	150	200	250	300	400	500	600	700	800			
100	38	38	38	40	40	41	46	46	50	50			
125	38	38	38	40	40	41	46	46	50-	50			
150	38	38	38	40-	40-	41	46	46	50-	50			
175	38	38	38	40	40-	41	46	46	50	50			
200	38	38	38	40	40	41	46	46	50	50			
225	38	38	38	40	40	41	48	48	50	50			
250	38	38	38	40	40	41	48	48	50	50			

Flexible connecting piece for FK90K fire dampers (series FK92K)

Discount group B

		Width [mm]											
Height [mm]	100	150	200	250	300	400	500	600	700	800			
100	94	94	94	103	103	111	126	126	144	144			
125	94	94	94	103	103	111	126	126	144	144			
150	94	94	94	103	103	111	126	126	144	144			
175	94	94	94	103	103	111	126	126	144	144			
200	94	94	94	103	103	111	126	126	144	144			
225	98	98	98	109	109	115	131	131	147	147			
250	98	98	98	109	109	115	131	131	147	147			

Accessories for FK90K fire dampers (series FK92K)

Ordering data	Description	Price
ZUB 0304	FK90 angle brackets, pack of 4 pieces	16
ZUB 0308	FK90 ceiling brackets, pack of 2 pieces	16
ZUB 0305	FK90K connectors, pack of 4 pieces	16
ZUB 0311	FK90K tabs, pack of 4 pieces	16
ZUB 0307	FK90K cross connectors, pack of 2 pieces	16
ZUB 0310	FK90K filling F1, in 1250 mm long strips	22
ZUB 0412	AB-01 connection box for spring return actuators 24 V AC/DC	88
ZUB 0413	AB-02 connection box for spring return actuators with 230 VAC	88

# Fire protection

### 3.1.8 FR90 fire damper (series FR92)



- Maintenance-free fire damper according to EN 15650
- Fire classifications: EI 30/60/90/120 ( $v_e h_o$ , i  $\Leftrightarrow$  o) S C10000
- Leak tightness C according to DIN EN 1751
- Sizes: DN100 ... DN800

Configure your product



	1		2		3		4		5		6		7		8		9
FR92-		-		-		_		-		-		-		-		-	

Nominal size

100 200 355 630 125 224 400 710 250 450 800 140 160 280 500 180 315 560

4 Casing design

Standard:

Casing made of galvanized sheet steel

Option:

Casing inside and outside with epoxy resin powder coating

2 Installation and mounting frame

Standard:

Without installation subframe and mounting frame

Option:

RE100

RE150

RH100

RH150

RR150

ΑE

ER6

RV

Connection frame

- <u>.</u>
- ER6 frames are supplied factory-assembled.
  - AE and RV are delivered for on-site installation.

5 Release temperature

Standard:

70 °C Option:

95 °C

70 °C corrosion-resistant

3 Damper blade design

Standard:

Made of calcium silicate

Option:

Metal cover made of galvanized steel Metal cover made of 1.4301 stainless steel Limit switch for

Thermal-mechanical release mechanism (TMA)

Standard:

Without limit switch

Option:

**E-ZU** One limit switch CLOSED **E-AUF** One limit switch OPEN

**E-ZU+AUF** Two limit switches CLOSED+OPEN **EX-ZU** One explosion-protected limit switch

CLOSED

**EX-AUF** One EX-protected limit switch OPEN

**EX-ZU+AUF** Two explosion-protected limit switches

CLOSED+OPEN

### 7 Actuators and release elements

Standard:

Thermal-mechanical release mechanism (TMA)

Option:

M220-9/HActuator 230 V (Standard)M24-9/HActuator 24 V (Standard)M220-10/FActuator 230 V (Standard)M24-10/FActuator 24 V (Standard)

**M220-11/H** Actuator 230 V **M24-11/H** Actuator 24 V

GU24 With magnetic clamp on TMA
WU220 With magnetic clamp on TMA
G24 With lifting solenoid on TMA
W220 With lifting solenoid on TMA
P With pneumatic cylinder on TMA
P2 With pneumatic cylinder on TMA

N/Ex EX-protected TMA

EM-1 Explosion-protected actuator
RM-1 Explosion-protected actuator
EM-2 Explosion-protected actuator

### 8 Smoke detector

Standard:

Without

Option:

B OR4 basic

P OR4 pro

U-FR (series OR4) for air transfer applications

OR32 standard

2 OR32 with MC and relay module

Ü-FR (series OR32) for air transfer applications

- $\Box$
- Corresponding price tables ▶ from page 123.
- Further accessories
- ▶ page 125.

### 9 Installed accessories

Standard:

Without

Option:

- A2 AB-01 connection box for spring return actuators 24 V AC/DC
- A4 AB-02 connection box for spring return actuators 230 VAC
- AS AS-i module for spring return actuators 24 VAC/DC, mounted above the actuator
- AU AS-i module for spring return actuators 24 VAC/DC, mounted below the actuator

### 31.9 Ü-FR (series OR4) fire damper for air transfer applications



- Maintenance-free fire damper according to EN 15650
- Fire classifications: EI 30/60/90/120 ( $v_e h_{o'}$  i  $\Leftrightarrow$  o) S C10000
- General Building Inspectorate Approval / General Type Approval: Z-6.50-2133
- With electric actuator or magnetic clamp 230 V AC or 24 V AC/DC
- · With OR4 smoke detector
- Size: DN100 ... DN800

Configure your product here



	1	2	3	4	5	6	7	8
FR92-		-	-	-	]-[	-	-	]-

Nominal size

100 200 355 630 125 224 400 710 250 800 140 450 160 280 500 180 315 560

5 Release temperature

Standard: 70 °C

Installation and mounting frame

Standard:

Without installation subframe and mounting frame

Option:

RE100 RR150

RE150 RH100

RH150 RR100 6 Limit switch for thermal-mechanical release mechanism (TMA) in conjunction with magnetic clamp

Standard:

Without limit switch

Option:

**E-ZU** One limit switch CLOSED **E-AUF** One limit switch OPEN

**E-ZU+AUF** Two limit switches CLOSED+OPEN

3 Damper blade design

Standard:

Made of calcium silicate

Option:

Metal cover made of galvanized steel

7 Actuators and release elements

M220-9/HActuator 230 V (Standard)M24-9/HActuator 24 V (Standard)M220-10/FActuator 230 V (Standard)M24-10/FActuator 24 V (Standard)

**M220-11/H** Actuator 230 V **M24-11/H** Actuator 24 V

GU24 With magnetic clamp on TMAWU220 With magnetic clamp on TMA

4 Casing design

Standard:

Casing made of galvanized sheet steel

8 Smoke detector

For installation in extension Ü-FR

Standard:

Without

Option:

**B** OR4 basic

P OR4 pro

Actuator position:

Standard:

Right (installation position OR4 in extension: top)

Option:

**Left** (installation position OR4 in extension: top) **Bottom**(installation position OR4 in extension: top)

i Prices for extension Ü-FR must also be taken into account

	3
Description	Price
Additional price for factory assembly and wiring of FR92 and OR4	135

- Suitable extension Ü-FR ▶ page 125. (An extension is always required for factory assembly)
- Suitable protective grilles ▶ page 125.

### Ü-FR (series OR32) fire damper for air transfer applications 3.1.10



- Maintenance-free fire damper according to EN 15650
- Fire classifications: EI 30/60/90/120 ( $v_e h_{or} i \Leftrightarrow o$ ) S C10000
- General Building Inspectorate Approval / General Type Approval: Z-6.50-2133
- With electric actuator or magnetic clamp 230 V AC or 24 V AC/DC
- With OR32 smoke detector for use in particularly confined spaces
- Size: DN100 ... DN800





	1	2	3	4	5	6	7	8
FR92-		-	-	-	]-[	-	-	]-

Nominal size

100 200 355 630 125 400 224 710 250 140 450 800 280 160 500 315 560

Release temperature

Standard: 70 °C

Installation and mounting frame

Standard:

Without installation subframe and mounting frame

Option:

**RE100 RR150** 

**RE150 RH100 RH150** 

Limit switch for thermal-mechanical release mechanism (TMA) in conjunction with magnetic clamp

Standard:

Without limit switch

Option:

E-ZU One limit switch CLOSED F-AUF One limit switch OPEN

E-ZU+AUF Two limit switches CLOSED+OPEN

Damper blade design

Standard:

**RR100** 

Made of calcium silicate

Option:

Metal cover made of galvanized steel

Actuators and release elements

M220-9/H Actuator 230 V (Standard) M24-9/H Actuator 24 V (Standard) M220-10/F Actuator 230 V (Standard) M24-10/F Actuator 24 V (Standard) M220-11/H Actuator 230 V

**M24-11/H** Actuator 24 V

GU24 With magnetic clamp on TMA WU220 With magnetic clamp on TMA

Casing design

Casing made of galvanized sheet steel

Smoke detector

For installation in extension Ü-FR

Standard: Without

Option:

0 OR32 standard

OR32 with MC and relay module 2

Actuator position:

Right (installation position OR32 in extension: top)

Option:

Left (installation position OR32: top) Bottom(installed position OR32: top)

Prices for extension Ü-FR must also be taken into account

Discount group B

	3 ,
Description	Price
Additional price for factory assembly and wiring of FR92 and OR32	135



Suitable protective grilles ▶ page 125.

FR90 fire damper (series FR92)

Discount group B

1	2											
Nominal size	FR92	RE100	RE150	RH100	RH150	RR100	RR150	AE	ER6	RV	Connection frame	
100	141	96	138	96	138	97	140	122	555	154	76	
125	144	104	147	104	147	105	149	132	566	164	79	
140	147	109	157:-	109	157:-	111	159	140	575	171	81	
160	147	113	162	113	162	114	164	148	589	181	82	
180	155	121	172	121	172	122	175	161	601	195	85	
200	155	128	182	128	182	129	186	169	615	205	88	
224	173	133	197	133	197	135	200	183	632	219	93	
250	179	146	213	146	213	148	216	201	652	237	97	
280	195	162	235	162	235	164	238	220	677	259	104	
315	202	179	260	179	260	181	264	245	705	288	112	
355	248	248	366	248	366	-	-	308	822	320	120	
400	270	274	404	274	404	-	-	346	865	366	131	
450	350	310	454	310	454	-	-	395	918	416	145	
500	374	345	509	345	509	-	-	447	975	470	158	
560	436	392	581	392	581	-	-	513	1047	547	177	
630	468	453	674	453	674	-	-	600	1137	644	203	
710	508	528	787-	528	787-	-	-	706	1245	747	232	
800	571	625	932	625	932	-	-	839	1377	915	270	

Surcharge for factory assembly with FR90 fire damper: +16. Factory-assembled frames cannot be sent by express delivery

3 + 4 Damper blade and casing design										
Nominal	Casing: Standard	Casing: with epoxy resin coating	Casing: with epoxy resin coating							
size	Damper blade: with metal cover made of galvanized steel	Damper blade: Standard	Damper blade: Metal cover made of stainless steel							
100	31	68	104							
125	31	69	105							
140	-	-	110							
160	31	73	111							
180	-	-	116							
200	32	79	123							
224	-	-	192							
250	32	149	197							
280	-	-	205							
315	34	157:-	212							
355	49	164	230							
400	50	171	242							
450	-	-	261							
500	-	-	280							
560	-	-	305							
630	-	-	334							
710	-	-	370							
800	-	-	416							

### Discount group B

5 Release temperature	
Description	Price
Coated release element 70°C	17:-
Coated release element 95°C	17:-
Release element for thermal-electrical release 95°C	39

### Discount group B

6 Limit switch for thermal-mechanical release mechanism						
Ordering data	Description	Price				
E-ZU	Changeover with gold-plated contacts for 5 A at 250 V AC or 24 V DC	16				
E-AUF	Changeover with gold-plated contacts for 5 A at 250 V AC or 24 V DC	16				
E-ZU+AUF	Two changeovers with gold-plated contacts for 5 A at 250 V AC or 24 V DC	33				
EX-ZU	With normally closed contact and normally open contact for 6 A at $\leq$ 250 V AC or 0.25 A at $\leq$ 230 V DC	289				
EX-AUF	With normally closed contact and normally open contact for 6 A at $\leq$ 250 V AC or 0.25 A at $\leq$ 230 V DC	289				
EX-ZU+AUF	With normally closed contact and normally open contact for 6 A at $\leq$ 250 V AC or 0.25 A at $\leq$ 230 V DC	559				

# Discount group B

7 Actuators a	7 Actuators and release elements						
Ordering data	Description	Price					
M220-9/H	Electric spring return actuator with 70°C release element, 230 V AC	368					
M24-9/H	Electric spring return actuator with 70°C release element, 24 V AC/DC	368					
M220-11/H	Electric spring return actuator with 70°C release element, 230 V AC	414					
M24-11/H	Electric spring return actuator with 70°C release element, 24 V AC/DC	414					
M220-10/F	Electric spring return actuator with 70°C release element, 230 V AC	360					
M24-10/F	Electric spring return actuator with 70°C release element, 24 V AC/DC	360					
M24-8	Electric spring return actuator with 70°C release element, 24 V AC/DC	678					
M24-8/MP	Electric spring return actuator with 70°C release element, 24 V AC/DC	868					
G24	Lifting solenoid 24 V DC	231					
W220	Lifting solenoid 230 VAC	282					
P	Lift cylinder 4 8 bar	249					
P2	Lift cylinder 1.2 8 bar	315					
GU24	Magnetic clamp 24 V DC	121					
WU220	Magnetic clamp 230 V AC	188					
N/Ex	Thermal-mechanical release mechanism (explosion-protected)	60					
EM-1	Electric spring return actuator with 70°C release element, 24 240 V AC/DC, 10 Nm	4286					
EM-2	Electric spring return actuator with 70°C release element, 24 240 V AC/DC, 15 Nm	4711					
RM-1	Electric spring return actuator with 70°C release element, 24 240 V AC/DC, 10 Nm	3823					

### Discount group B

8 Smoke dete	8 Smoke detector						
Ordering data	Description	Price					
В	OR4 basic	936					
Р	OR4 pro	1003					
0	OR32 Standard	1031					
2	OR32 with MC and relay module	1256					

■ Prices for extension Ü-FR for OR4 and OR32 must also be taken into account ▶ page 125.

■ It is recommended to replace the smoke switch after an operating period of 8 years ▶ Price list for individual parts and spare parts.

### Discount group B

9 Installed ac	9 Installed accessories						
Ordering data	Description	Price					
A2	AB-01 connection box for spring return actuators 24 V AC/DC	145					
Α4	AB-02 connection box for spring return actuators with 230 V AC	145					
os	AS-i module for spring return actuators 24 V AC/DC, mounted above the actuator	464					
AU	AS-i module for spring return actuators 24 V AC/DC, mounted below the actuator	464					

i All prices quoted refer to original equipment ex works.

# Loose accessories: FR90 fire dampers (series FR92)

### Accessories for FR90 fire dampers (series FR92)

Discount group B

Nominal size	Protective grille	Extension Ü-FR	Saddle tee, loose	flexible connector
			•	
100	22	131	73	31
125	24	133	73	33
140	27	136	73 <i>.</i> -	36
160	27-	137	73	40
180	31	138	73	44
200	31	139	73	46
224	36	157	73	47
250	36	158	73	48
280	44	166	73	50
315	44	174	73	56
355	46	183	73	56
400	47	206	73	57:-
450	48	210	73	60
500	52	232	73	64
560	55	255	73	65
630	56	272	73	72
710	65	282	166	73
800	69	301	166	76

### Accessories for FR90 fire dampers (series FR92)

Ordering data	Description	Price
ZUB 0347	PROMASEAL® Mastic fireproof sealant, cartridge of 310 ml	52
ZUB 0412	AB-01 connection box for spring return actuators 24 V AC/DC	88
ZUB 0413	AB-02 connection box for spring return actuators with 230 V AC	88

# 3.1.11 FR90 fire damper (series FR92K)



- Maintenance-free fire damper according to EN 15650
- Fire classifications: EI 30/60/90/120 ( $v_e h_{o'} i \Leftrightarrow o$ ) S
- Leak tightness C according to DIN EN 1751
- Size: DN100 ... DN315

Configure your product here





Nominal size
100 315
125
160
200
250

2 Limit switch
Standard:
Without limit switch
Option:

**ES** With limit switch for on-site installation

### Discount group B

Nominal size	Price						
100	83						
125	84						
160	91						
200	97						
250	120						
315	147						

### Discount group B

2 Limit switch		
Ordering data	Description	Price
ES	Limit switch with changeover contact ≤ 250 V AC / 5 A, 24 VDC / 5 A	16

# Accessories: FR90 fire dampers (series FR92K)

### Discount group B

Nominal size	AS	AR	S1	S2	RB
100	24	-	22	22	15
125	27:		24	24	17:-
160	160 27- 56-		27:-	27:-	22
200	31	64	31	31	24

Please state the length when ordering AS: 55 mm (not available for DN200), 75 mm, 100 mm
 Please state the length when ordering RB: 50 mm, 100 mm

# Fire protection

### 3.1.12 FK90 fire damper for commercial kitchen exhaust air (series FK90 kitchen)



- Fire classification: El 90 ( $v_e h_{o'} i \Leftrightarrow o$ ) S
- General Building Inspectorate Approval: Z-41.3-670
- Leak tightness B according to DIN EN 1751
- Widths B: 275 mm ... 1500 mm
- Heights H: 275 mm ... 800 mm

Configure your product here





Dimensions **W** [mm] x **H** [mm]

Actuator MAN Manual opening **MOT** Motorised opening

Installation subframes Standard: Without installation subframe Option:

ER7

Direction of air flow LR1 air direction from the operation side LR2 air direction from the non-operation side

Control unit Standard:

FKKUE-02 Option:

FKKUE-03 For connection to the Wildeboer-Net communication system

### FK90 fire damper (series FK90 kitchen) for manual opening

### Discount group K

1		Width [mm]												
Height [mm]	275	300	325	350	375	400	450	500	550	600	650	700	750	800
275	5603	5603	5615	5615	5633	5633	5647	5662	5685	5692	5709	5730	5743	5757
300	-	5609	5620	5620	5638	5638	5654	5668	5690	5699	5715	5736	5749	5765
325	-	-	5628	5628	5646	5646	5658	5674	5699	5706	5727	5743	5761	5774
350	-	-	-	5633	5653	5653	5668	5683	5705	5715	5736	5750	5772	5784
375	-	-	-	-	5655	5655	5674	5690	5708	5723	5745	5764	5779	5793
400	-	-	-	-	-	5661	5681	5699	5716	5730	5753	5779	5788	5805
450	-	-	-	-	-	-	5697	5709	5743	5750	5774	5796	5811	5825
500	-	-	-	-	-	-	-	5736	5761	5773	5793	5817	5834	5851
550	-	-	-	-	-	-	-	-	5784	5796	5821	5843	5862	5884
600	-	-	-	-	-	-	-	-	-	5811	5834	5858	5878	5899
650	-	-	-	-	-	-	-	-	-	-	5863	5893	5915	5937
700	-	-	-	-	-	-	-	-	-	-	-	5910	5935	5957
750	-	-	-	-	-	-	-	-	-	-	-	-	5953	5977
800	-	1	-	-	-	-	-	-	-	-	-	1	-	5996

1						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
275	5773	5787	5805	5818	5841	5858	5858	5877	5900	5921	5946	5981
300	5779	5793	5811	5825	5844	5863	5863	5885	5907	5931	5954	5987
325	5790	5807	5825	5839	5861	5877	5877	5900	5921	5946	5969	6005
350	5798	5817	5831	5851	5869	5894	5894	5914	5938	5958	5985	6022
375	5811	5828	5844	5861	5880	5902	5902	5930	5950	5977	6002	6037
400	5821	5841	5857	5875	5899	5916	5916	5942	5966	5988	6013	6055
450	5843	5862	5880	5902	5925	5947	5947	5970	5996	6026	6052	6094
500	5868	5893	5910	5930	5953	5977	5977	6004	6029	6057	6091	6132
550	5902	5925	5942	5967	5989	6019	6019	6044	6074	6107	6136	6182
600	5921	5940	5962	5985	6011	6036	6036	6057	6084	6122	6162	6206
650	5959	5983	6002	6026	6054	6079	6079	6108	6131	6171	6210	6264
700	5983	6003	6027	6048	6077	6107	6107	6134	6167	6204	6241	6295
750	6002	6026	6051	6074	6106	6132	6132	6166	6198	6235	6277	6326
800	6021	6046	6074	6099	6131	6162	6162	6190	6222	6267	6307	6363

### Discount group K

4 Actuator		
Ordering data	Description	Price
MAN	Manual opening	0
мот	Motorised opening	1954

### Discount group K

5 Control unit								
Ordering data	Description	Price						
FKKUE-02	Control unit	0						
FKKUE-03	Control unit for connection to the Wildeboer-Net communication system	0						

All prices quoted refer to original equipment ex works.

**ER7 installation subframe** for FK90 fire dampers (series FK90 kitchen)

2							Width	[mm]						
Height [mm]	275	300	325	350	375	400	450	500	550	600	650	700	750	800
275	147	147	151	151	154	154	162	169	172	177	179	187	191	193
300	-	150	152	152	157	157	163	169	172	177	180	189	192	196
325	-	-	154	154	159	159	164	170	177	178	183	191	196	199
350	-	-	-	157	162	162	169	171	178	180	189	193	198	205
375	-	-	-	-	163	163	170	172	179	183	192	198	201	207
400	-	-	-	-	-	164	171	177	180	187	193	201	207	210
450	-	-	-	-	-	-	177	179	191	193	199	207	213	216
500	-	-	-	-	-	-	-	187	196	198	207	214	218	223
550	-	-	-	-	-	-	-	-	205	208	214	221	229	233
600	-	-	-	-	-	-	-	-	-	213	218	228	233	238
650	-	-	-	-	-	-	-	-	-	-	229	236	246	253
700	-	-	-	-	-	-	-	-	-	-	-	241	253	259
750	-	-	-	-	-	-	-	-	-	-	-	-	258	265
800	-	1	-	-	-	-	1	-	-	1	-	-	-	270

2						Width	[mm]					
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500
275	199	205	210	214	218	228	228	232	238	248	253	261
300	201	207	213	216	221	228	228	233	240	251	254	265
325	205	210	216	218	228	232	232	238	248	253	260	273
350	210	214	218	223	232	236	236	246	252	259	268	276
375	213	216	221	228	233	240	240	251	254	261	270	281
400	214	218	226	232	238	246	246	253	259	268	276	288
450	221	228	233	240	248	254	254	261	270	280	288	299
500	232	236	241	251	258	265	265	273	281	290	299	314
550	240	251	254	260	270	276	276	288	296	306	315	330
600	248	253	260	268	276	285	285	292	299	313	325	336
650	259	268	274	280	290	299	299	308	315	327	341	357
700	268	274	281	288	297	308	308	317	327	340	351	369
750	273	280	290	297	306	315	315	327	336	351	363	377
800	280	288	297	306	315	325	325	335	349	360	371	393

i Surcharge for factory assembly with FK90 fire damper (series FK90 kitchen): +57-

# Accessories: FK90 fire damper (series FK90 kitchen)

Flexible connectors for FK90 fire dampers (series FK90 kitchen)

_								
11	ICI	$\sim$	11	nt	$\alpha r$	$\sim$	qı	ĸ
	15	$ \circ$	u	11	чı	-	12	<i>,</i> ,

		Width [mm]												
Height [mm]	275	300	325	350	375	400	450	500	550	600	650	700	750	800
275	144	144	151	151	157:-	157:-	161	163	171	175	186	191	194	199
300	-	151	154	154	158	158	163	170	176	181	187	192	199	203
325	-	-	157:-	157:-	161	161	163	171	176	186	191	194	199	206
350	-	-	-	158	161	161	168	171	181	186	191	194	201	206
375	-	-	-	-	163	163	170	175	186	187-	192	199	203	208
400	-	-	-	-	-	168	171	176	187	191	194	201	206	208
450	-	-	-	-	-	-	173	186	191	194	201	206	210	218
500	-	-	-	-	-	-	-	191	194	201	206	210	218	221
550	-	-	-	-	-	-	-	-	203	206	210	218	223	226
600	-	-	-	-	-	-	-	-	-	208	218	223	226	232
650	-	-	-	-	-	-	-	-	-	-	223	232	233	240
700	-	-	-	-	-	-	-	-	-	-	-	233	240	241
750	-	-	-	-	-	-	-	-	-	-	-	-	245	246
800	-	-	-	-	-	-	-	-	-	-	-	-	-	254

	Width [mm]												
Height [mm]	850	900	950	1000	1050	1100	1150	1200	1250	1300	1400	1500	
275	203	208	214	221	226	233	233	240	246	255	265	274	
300	208	210	221	223	232	238	238	245	250	259	268	275	
325	208	214	221	226	232	240	240	245	254	261	271	278	
350	210	218	223	226	233	241	241	246	255	265	271	282	
375	210	221	223	229	238	245	245	250	255	268	275	283	
400	214	221	226	232	238	245	245	254	259	268	275	288	
450	221	226	232	238	245	250	250	259	265	275	282	289	
500	226	232	238	241	246	255	255	265	271	278	288	297:-	
550	233	238	245	246	255	265	265	271	278	288	297:-	303	
600	238	241	246	254	259	268	268	275	282	289	297:-	311	
650	245	250	255	259	268	275	275	282	289	297:-	306	314	
700	246	254	259	265	271	278	278	288	291	302	311	320	
750	254	259	265	271	275	282	282	289	297:-	306	314	324	
800	259	265	271	275	282	288	288	295	303	312	320	328	

Accessories		
Ordering data	Description	Price
ZUB 0411	HM-02 manual release	180

# Fire protection

### 3.1.13 FKU30 fire damper (series FKU31) for suspended ceilings



- · For suspended ceilings with 30 minute fire resistance period
- · Fire classification: K30U
- General Building Inspectorate Approval / General Type Approval: Z-41.3-714
- Size: 325, 400, 500, 600

Configure your product here



	1		2		3		4		5		6
FKU31-		-		-		-		-		-	

1 Nominal size

325

400

500 600 4 Actuators and release elements

Standard:

TM Thermal-mechanical

Option:

M1 Thermal-electrical, 230 VAC

M2 Thermal-electrical, 24 V AC/DC

**K** Release element 70°C corrosion-protected for

thermal mechanical release

2 Nominal connection width

125

160

200

250 315

Air deflector plate

Without air deflector plate

1 With air deflector plate

5 Limit switch for thermal-mechanical release

Standard:

Without limit switch

Option:

E-AUF One limit switch OPEN

E-ZU One limit switch CLOSED

6 Release element for suspended ceiling

Standard:

Without

Option:

AL Release element, 70 °C, in the suspended ceiling

i Suitable air diffusers ▶ <u>from page 21.</u>

FKU30 fire damper (series FKU31)

1 + 2 + 3	1 + 2 + 3											
Nominal size	Connecting piece DN	0	1									
325	125	526	-									
325	160	562	603									
400	160	644	691									
400	200	691	742									
500	200	821	877:-									
300	250	891	952									
600 / 635	250	1039	1102									
600 / 625	315	1150	1229									

### Discount group B

4 Actuators and release elements							
Ordering data	Description	Price					
MI	Electric spring return actuator with 70°C release element, 230 V AC						
M2	Electric spring return actuator with 70°C release element, 24 V AC/DC	418					
K Release element 70°C corrosion-protected for thermal-mechanical release							

### Discount group B

5 Limit switch for thermal-mechanical release							
Ordering data	Description	Price					
E-ZU	Changeover with gold-plated contacts for 5 A at 250 V AC or 24 V DC	16					
E-AUF	Changeover with gold-plated contacts for 5 A at 250 V AC or 24 V DC	16					
E-ZU+AUF	Two changeovers with gold-plated contacts for 5 A at 250 V AC or 24 V DC	33					

### Discount group B

6 Release element for suspended ceiling							
Ordering data	Description	Price					
AL	Release element in the suspended ceiling	82					

i All prices quoted refer to original equipment ex works.

Ordering data	Description	Price
ZUB 0312	Extended central fastening for suspended ceilings $d \le 70$ mm, pack of 1 pc.	34
ZUB 0511	Fastening bracket 1 for FKU31, nominal size 325, for metal suspended ceilings, Promat 420.96, pack of 8 pcs.	16
ZUB 0512	Fastening bracket 2 for FKU31, nominal size 325, for suspended ceilings, OWA, pack of 4 pcs.	28
ZUB 0513	Fastening bracket 2 for FKU31, nominal size 400, for suspended ceilings, OWA, pack of 4 pcs.	36
ZUB 0514	Fastening bracket 2 for FKU31, nominal size 500, for suspended ceilings, OWA, pack of 4 pcs.	47
ZUB 0515	Fastening bracket 2 for FKU31, nominal size 600, for suspended ceilings, OWA, pack of 4 pcs.	56

# Fire protection

### 3.1.14 FKU90 fire damper (series FKU91) for suspended ceilings



- · For suspended ceilings with 90 minute fire resistance period
- · Fire classification: K90U
- General Building Inspectorate Approval / General Type Approval: Z-41.3-714
- Size: 325, 400, 500, 600

Configure your product here



	1		2		3		4		5		6
FKU91-		-		-		-		-		-	

1 Nominal size

325

400

500 600 4 Actuators and release elements

Standard:

TM Thermal-mechanical

Option:

M1 Thermal-electrical, 230 VAC

M2 Thermal-electrical, 24 VAC/DC

**K** Release element 70°C corrosion-protected for

thermal mechanical release

2 Nominal connection width

125

160

200

250 315

3 Air deflector plate

Without air deflector plate

1 With air deflector plate

5 Limit switch for thermal-mechanical release

Standard:

Without limit switch

Option:

E-AUF One limit switch OPEN

E-ZU One limit switch CLOSED

6 Release element for suspended ceiling

Standard:

Without

Option:

AL Release element, 70 °C, in the suspended ceiling

i Suitable air diffusers ▶ <u>from page 21.</u>

FKU90 fire damper (series FKU91)

1+2+3									
Nominal size	Connecting piece DN	0	1						
325	125	975	-						
325	160	1044	1116						
400	160	1070	1145						
400	200	1155	1237-						
500	200	1213	1297						
300	250	1309	1400						
600 / 635	250	1400	1499						
600 / 625	315	1540	1649						

# Discount group B

4 Actuators and release elements						
Ordering data	Description	Price				
MI	Electric spring return actuator with 70°C release element, 230 V AC	418				
M2	Electric spring return actuator with 70°C release element, 24 V AC/DC	418				
К	Release element 70°C corrosion-protected for thermal-mechanical release	21				

### Discount group B

5 Limit switch for thermal-mechanical release							
Ordering data	Description	Price					
E-ZU	Changeover with gold-plated contacts for 5 A at 250 V AC or 24 V DC	16					
E-AUF	Changeover with gold-plated contacts for 5 A at 250 V AC or 24 V DC	16					
E-ZU+AUF	Two changeovers with gold-plated contacts for 5 A at 250 V AC or 24 V DC	33					

### Discount group B

6 Release element for suspended ceiling							
Ordering data	Description	Price					
AL	Release element in the suspended ceiling	82					

i All prices quoted refer to original equipment ex works.

Ordering data	Description	Price
ZUB 0312	Extended central fastening, pack of 1 piece	34

# Fire protection

### 3.2 Fire protection valves

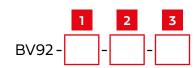
### 3.2.1 BV90 fire protection valve (series BV92)



- Maintenance-free fire protection valve as per EN 15650
- Fire classifications: EI30/60/90 (ve ho, i  $\Leftrightarrow$  o) S
- General Type Approval Z-41.8-697 for installation in suspended ceilings
- Sizes: DN100 ... DN200

Configure your product here





Nominal size

100 125

160

200

Accessories

Standard:

Without accessories

Option:

F1 Backing board 50 mm thick F2 Backing board 30 mm thick

IM Insulating jacket

ER Installation pipe

Limit switch

Standard:

Without limit switch

Option:

With limit switch Ε

Are included loose in the delivery

BV90 fire protection valve (series BV92)

l l	1	2	3							
Nominal size	BV92	E	F1	F2	IM	ER				
100	133	48	49	36	23	56				
125	145	48	56	43	23	56				
160	172	48	65	49	27:-	85				
200	193	48	72	56	28	108				

### 3.3 Smoke extraction and smoke protection

### EK90 smoke control damper (series EK92) 3.3.1



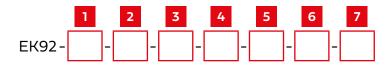
- Maintenance-free smoke control damper according to EN 12101-8
- Fire classification:

EI90 ( $v_{edw}$  –  $h_{odw'}$  i  $\Leftrightarrow$  o) S1500 Cmod HOT400/30 MA multi Leak tightness C according to DIN EN 1751

- Widths B: 200 mm ... 1500 mm (in 5-mm increments)
- Heights H: 200 mm ... 800 mm (in 5-mm increments)
- Lengths L: 350 mm ... 850 mm (in 5-mm increments)

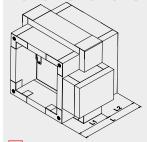
Configure your product here





Dimensions

**W** [mm] x **H** [mm] x **L** [mm]



Specify the total length when ordering: L = L1 + L2

Actuator

24 V AC/DC MΊ

M2 230 V AC

24 V AC/DC, continuously variable **M3** 

Actuator accessories

Standard: Without Option:

KL Terminal strip for motor drive

Additional casing for control units

Special design Standard: Without

Option:

EA special design

Shear protection brackets

For non-operation side attachment В For operation side attachment

Partial length L1 L1 = 330 ... 480 mm (in 5-mm increments)

Intermediate sizes are priced at the next higher or next wider standard size.

Flat casing frame

Standard:

Standard frame height

Option:

NL Motor drive left NR Motor drive right

EK90 smoke control damper (series EK92), construction length 600

			<u> </u>	<u> </u>		<i>"</i>														
1										Width	[mm]									
Height [mm]	200	250	300	350	400	450	500	550	600	650	700	750	800	900	1000	1100	1200	1300	1400	1500
200	1548	1584	1613	1650	1688	1724	1766	1802	1839	1876	1913	1949	1986	2057	2132	2208	2282	2354	2428	2503
250	1584	1621	1651	1690	1728	1766	1806	1845	1882	1921	1959	1995	2034	2109	2184	2259	2335	2411	2487	2560
300	1621	1659	1691	1729	1768	1806	1849	1887	1926	1964	2003	2041	2081	2158	2235	2312	2388	2466	2543	2620
350	1658	1696	1729	1768	1807	1847	1891	1930	1970	2008	2048	2087	2128	2206	2285	2365	2444	2523	2600	2678
400	1695	1735	1768	1807	1849	1890	1932	1972	2014	2054	2094	2133	2175	2255	2335	2417	2497	2576	2659	2739
450	1730	1770	1806	1847	1890	1930	1975	2016	2056	2099	2140	2180	2223	2303	2386	2469	2552	2633	2715	2799
500	1768	1812	1846	1887	1930	1971	2017	2061	2101	2143	2186	2227	2269	2352	2437	2523	2607	2691	2775	2857
550	1805	1847	1884	1928	1970	2014	2061	2102	2146	2188	2230	2273	2317	2402	2488	2574	2660	2745	2832	2917
600	1843	1885	1923	1968	2009	2054	2101	2146	2189	2233	2277	2321	2364	2450	2538	2628	2714	2801	2889	2977
650	1879	1923	1961	2007	2051	2095	2143	2188	2233	2278	2322	2367	2411	2500	2589	2678	2769	2857	2947	3035
700	1916	1961	2000	2046	2091	2137	2186	2230	2277	2322	2368	2412	2458	2550	2638	2732	2822	2914	3004	3093
750	1953	1999	2039	2085	2131	2178	2227	2273	2321	2367	2412	2459	2505	2598	2691	2784	2877	2968	3062	3154
800	1990	2037	2078	2125	2172	2219	2269	2317	2364	2411	2458	2505	2552	2647	2740	2837	2930	3025	3119	3213

### Surcharges EK90 smoke control dampers (series EK92)

### Discount group B

Description	Price
Surcharge for lengths >600 mm	10 %
No surcharge for lengths <600 mm	-
No surcharge for variant with reduced frame height	-

### Discount group B

2 Special desi	gn	
Ordering data	Description	Price
EA	Special design	257

### Discount group B

5 Actuator		
Ordering data	Description	Price
M3	Electrical drive motor 24 V, continuously variable	146

### Discount group B

6 Actuator ac	cessories	
Ordering data	Description	Price
KL	Terminal strip for motor drive	32
Z	Additional casing for control units	189

i All prices quoted refer to original equipment ex works.

### Protective grille for EK90 smoke control dampers (series EK92)

### Discount group B

	(con-																	= 10 00 0 1110 9 10 0 10		
Height										Width	[mm]									
[mm]	200	250	300	350	400	450	500	550	600	650	700	750	800	900	1000	1100	1200	1300	1400	1500
200	36	36	38	39	39	40	44	44	46	47	48	48	48	50	54	55	56	64	65	68
250	36	38	39	39	40	44	44	46	47	48	48	49	49	52	54	56	63	64	66	69
300	38	39	40	44	44	46	46	47:-	48	48	50	50	52	54	55	63	64	66	68	71
350	39	40	44	44	46	46	47:-	48	48	49	50	52	54	54	56	64	64	66	68	72
400	40	44	44	46	46	47:-	48	48	49	50	52	52	54	56	63	64	66	68	69	73
450	44	44	46	47	47	48	48	50	50	52	54	54	55	56	64	65	66	69	71	73
500	46	46	47	48	48	48	50	52	52	52	54	55	56	63	64	66	68	69	72	76
550	46	47:-	48	48	48	50	52	54	54	54	55	56	63	64	66	68	69	72	73	79
600	47:-	47:-	48	49	50	50	52	54	54	55	56	63	63	64	66	68	69	72	73	80
650	47:-	48	50	50-	52	52	54	55	56	56	63	64	64	66	68	69	72	73	76	81
700	48	49	52	52	54	54	55	56	56	63	64	64	64	66	69	71	72	76	79	82
750	48	50	52	52	54	54	55	56	63	64	64	65	66	68	69	72	73	76	80	82
800	49	52	54	54	55	55	56	63	63	64	65	66	68	69	71	73	73	79	80	84

i Surcharge for protective grille with powder coating in specific RAL colour: +75 %.

### 3.3.2 EKM90 smoke control damper



- Maintenance-free smoke control damper according to EN 12101-8
- Fire classification:
  - EI 90/120 ( $v_{edw}$   $h_{odw}$  i  $\Leftrightarrow$  o) S1000 C $_{mod}$  HOT400/30 MA multi
- · Leaktightness according to DIN EN 1751: Casing class C
- Nominal widths NW: 200 mm ... 1200 mm (in 50-mm increments)
- · Nominal heights NH: 200 mm ... 2000 mm (in 200-mm increments)
- · Lengths L: 220 mm (all sizes)

Configure your product here



1 2 3 4 EKM90 - - - - -

Dimensions

NW [mm] x NH [mm]

3 Actuator accessories

Standard:

Without

Option:

**KL** Terminal strip for motor drive

2 Actuator

**M1** 24 V AC/DC

**M2** 230 V AC

M3 24 VAC/DC, continuously variable (for NH ≤ 600 mm only)

4 Additional casing

Standard:

Without

Option:

M Additional casing/casing width extension for customer's own control units

EKM90 smoke control damper, series 220

Discount group B

Height								W	idth [m	m]							
[mm]	200	250	300	350	400	450	500	550	600	650	700	750	800	900	1000	1100	1200
200	2255	2282	2308	2332	2357	2381	2405	2429	2450	2472	2494	2516	2539	2583	2625	2665	2703
400	2364	2388	2413	2437	2461	2482	2506	2529	2550	2572	2593	2616	2637	2681	2722	2763	2801
600	2580	2604	2629	2653	2675	2699	2720	2743	2764	2786	2807	2830	2850	2894	2935	2976	3015
800	2824	2849	2873	2897	2920	2943	2967	2989	3012	3033	3056	3077	3101	3145	3204	3276	3360
1000	3046	3069	3094	3134	3172	3195	3219	3258	3296	3335	3375	3415	3455	3535	3617	3694	3784
1200	3334	3359	3385	3409	3435	3459	3501	3544	3586	3628	3670	3721	3775	3882	3989	4092	4207
1400	4302	4331	4358	4383	4410	4436	4461	4487	4511	4535	4559	4594	4630	4701	4770	4833	4907
1600	4637	4663	4689	4715	4740	4764	4789	4814	4837	4860	4883	4929	4975	5064	5152	5233	5319
1800	4882	4909	4937	4963	4989	5015	5040	5065	5091	5146	5202	5249	5294	5387	5474	5593	5743
2000	5193	5223	5250	5278	5306	5332	5359	5385	5411	5437	5495	5543	5590	5752	5913	6076	6238

The price applied for intermediate sizes is the next widest standard size.

### Surcharges, EKM90 smoke control damper

Discount group B

2 Actuator		
Ordering data	Description	Price
M3	Electrical drive motor 24 V, continuously variable (for NH ≤ 600 mm only)	146

Discount group B

3 + 4 Access	sories	<u> </u>
Ordering data	Description	Price
KL	Terminal strip for motor drive	30
М	Casing width extension for customer's own control units with nominal height = 200 mm	131
	Casing width extension for customer's own control units with nominal height = 400 mm	181
	Casing width extension for customer's own control units with nominal height = 600 mm	232
	Additional casing for customer's own control units with nominal height≥ 800 mm	64

i All prices quoted refer to original equipment ex works.

### Extension frame VK for EKM90 smoke control damper

Discount group B

Height	t Width [mm]																
[mm]	200	250	300	350	400	450	500	550	600	650	700	750	800	900	1000	1100	1200
200	49	52	56	58	63	66	68	72	75	77	81	84	87	93	99	106	113
400	63	66	68	72	75	77	81	84	87	90	93	96	99	106	113	118	124
600	75	77	81	84	87	90	93	96	99	104	106	109	113	118	124	131	137
800	87	90	93	96	99	104	106	109	113	115	118	122	124	131	137	142	150
1000	99	104	106	109	113	115	118	122	124	128	131	133	137	142	150	156	163
1200	113	115	118	122	124	128	131	133	137	140	142	147	150	156	163	169	174
1400	124	128	131	133	137	140	142	147	150	154	156	159	163	169	174	181	188
1600	137	140	142	147	150	154	156	159	163	165	169	172	174	181	188	194	200
1800	150	154	156	159	163	165	169	172	174	178	181	183	188	194	200	206	212
2000	163	165	169	172	174	178	181	183	188	191	194	197	200	206	212	219	224

The price applied for intermediate sizes is the next widest standard size.

### Connecting frame A1 for EKM90 smoke control damper

Discount group B

Height								w	idth [m	m]							
[mm]	200	250	300	350	400	450	500	550	600	650	700	750	800	900	1000	1100	1200
200	80	81	83	84	87	88	89	91	92	93	96	97	98	101	106	109	112
400	84	85	88	89	90	92	93	95	97	98	99	101	104	107	110	113	116
600	89	90	91	93	95	96	98	99	101	104	105	107	108	112	114	117	121
800	92	95	96	98	99	100	104	105	106	108	109	110	113	115	118	122	125
1000	98	100	101	105	106	108	109	110	112	114	115	116	118	121	124	128	131
1200	105	106	107	108	110	112	113	115	116	118	120	121	123	125	129	132	136
1400	108	109	112	113	114	116	117	120	121	122	124	125	126	130	133	136	139
1600	113	114	116	117	118	121	122	123	125	126	128	130	131	134	138	140	145
1800	117	118	120	122	123	124	126	128	129	131	132	134	136	139	141	146	148
2000	121	123	124	126	128	129	131	132	133	136	137	138	140	142	147	150	154

The price applied for intermediate sizes is the next widest standard size.

### Connecting frame A2 for EKM90 smoke control damper

Discount group B

Height								W	idth [m	m]							
[mm]	200	250	300	350	400	450	500	550	600	650	700	750	800	900	1000	1100	1200
200	64	67	71	73	76	80	82	85	89	91	95	98	100	108	114	120	126
400	76	80	82	85	89	91	95	98	100	105	108	110	114	120	126	132	139
600	89	91	95	98	100	105	108	110	114	117	120	123	126	132	139	146	151
800	100	105	108	110	114	117	120	123	126	130	132	136	139	146	151	158	164
1000	117	121	124	126	130	133	137	139	142	147	149	153	156	162	167	174	180
1200	130	133	137	139	142	147	149	153	156	158	162	165	167	174	180	187	194
1400	142	147	149	153	156	158	162	165	167	171	174	177	180	187	194	199	205
1600	156	158	162	165	167	171	174	177	180	183	187	190	194	199	205	212	218
1800	167	171	174	177	180	183	187	190	194	196	199	203	205	212	218	224	231
2000	180	183	187	190	194	196	199	203	205	208	212	214	218	224	231	237	244

i

The price applied for intermediate sizes is the next widest standard size.

### Protective grille for EKM90 smoke control damper

Height								w	idth [m	m]							
[mm]	200	250	300	350	400	450	500	550	600	650	700	750	800	900	1000	1100	1200
200	46	49	51	55	57	60	64	67	69	73	75	79	81	87	92	98	105
400	57	60	64	67	69	73	75	79	81	84	87	90	92	98	105	110	116
600	69	73	75	79	81	84	87	90	92	96	98	101	105	110	116	122	128
800	81	84	87	90	92	96	98	101	105	108	110	114	116	122	128	133	139
1000	92	96	98	101	105	108	110	114	116	120	122	125	128	133	139	146	151
1200	105	108	110	114	116	120	122	125	128	131	133	137	139	146	151	157	163
1400	116	120	122	125	128	131	133	137	139	142	146	149	151	157	163	169	174
1600	128	131	133	137	139	142	146	149	151	155	157	161	163	169	174	180	187
1800	139	142	146	149	151	155	157	161	163	166	169	172	174	180	187	192	198
2000	151	155	157	161	163	166	169	172	174	178	180	183	187	192	198	204	210



- The price applied for intermediate sizes is the next widest standard size.
- Surcharge for protective grille with powder coating in specific RAL colour: +65 %.

# 3.3.3 JR smoke protection damper



- · To prevent the spread of smoke via ventilation ducts
- Made of galvanised sheet steel
- · General Building Inspectorate Approval or General Type Approval: Z-78.4-40
- Widths B: 200 mm ... 2000 mm
- · Heights H: 180 mm ... 1995 mm
- · Construction length: 180 mm

Configure your product here





Dimensions
W [mm] x H [mm]

3 Installation subframes
Standard:
Without
Option:

MR With wall installation subframe

2 Actuator M6 230 V AC M7 24 V AC/DC 4 Accessories counter flange 1GF 1 x counter flange 2GF 2 x counter flange

JR smoke protection damper construction length 180 mm

Discount group B

1+2							Width	[mm]						
Height [mm]	200	300	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000
180	699	699	704	709	712	720	726	727	736	750	760	769	779	787
345	720	720	727	732	740	743	752	755	763	779	793	804	818	826
510	772	772	781	784	793	796	810	813	827	843	859	870	886	894
675	813	813	826	834	845	851	861	867	883	901	917	929	947	959
840	861	861	875	884	900	900	916	918	936	955	976	992	1010	1027
1005	907	907	924	925	941	947	969	973	992	1019	1040	1057	1079	1095
1170	950	950	969	970	989	996	1017	1018	1039	1062	1091	1114	1134	1152
1335	991	991	1013	1017	1039	1042	1064	1065	1089	1117	1145	1165	1193	1213
1500	1035	1035	1062	1062	1087	1089	1117	1117	1145	1174	1210	1231	1260	1279
1665	1087	1087	1111	1112	1138	1138	1165	1169	1198	1232	1267	1294	1319	1344
1830	1130	1130	1155	1158	1186	1191	1216	1222	1254	1294	1329	1354	1376	1399
1995	1178	1178	1206	1210	1239	1240	1270	1275	1304	1346	1387	1418	1443	1467

MR wall installation frames and GF counter flanges for JR smoke protection dampers

L	)is	cou	unt	g	rou	p	В

3 + 4	Width [mm]													
Height [mm]	200	300	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000
180	31	32	33	36	39	40	46	49	49	54	63	65	69	73
345	33	36	39	39	46	47	49	54	54	63	65	69	73	80
510	38	39	44	46	48	49	50	56	56	65	68	72	79	82
675	40	46	48	49	50	54	55	65	65	68	72	79	82	87
840	46	48	50	50	55	56	64	68	68	71	76	82	85	88
1005	49	50	54	55	63	65	68	71	71	76	81	85	89	95
1170	54	55	63	64	65	68	69	73	73	80	84	88	95	100
1335	56	63	65	68	69	71	73	80	80	84	88	95	100	104
1500	65	66	68	71	73	73	80	82	82	87	91	99	104	108
1665	68	69	72	73	79	81	82	87	87	91	99	101	108	114
1830	71	73	76	80	82	84	85	89	89	96	101	106	113	117
1995	73	76	80	82	85	85	88	95	95	101	106	110	116	120

### 3.4 Smoke detectors

### 3.4.1 RL4 smoke detectors for ventilation ducts



- For activation of fans and for forwarding of signals to a central fire alarm system or the building management system
- · With optical smoke switch
- Power supply 230 VAC | 24 VAC/DC
- · VdS approval (G221008)

Configure your product here





Basic version
Option:

basic RL4 basic variantpro RL4 pro variant

n n						
Basic version	RL4					
basic	534					
pro	652					

- Γi
- For accessories see ▶ page 143.
- It is recommended to replace the smoke switch after an operating period of 8 years ▶ Price list for individual parts and spare parts.

### Fire protection

### 3.4.2 OR4 smoke detector



- For activation of fire dampers and fans, and for forwarding of signals to a central fire alarm system or the building management system
- · With optical smoke switch
- Power supply 230 V AC | 24 V AC/DC
- · General Technical Approval: Z-78.6-250
- VdS approval (G221008)

Configure your product here





Basic version
Option:

basic OR4 basic variantpro OR4 pro variant

Basic version OR4				
basic	936			
pro	1003			

### **Accessories** for RL4 smoke detector and OR4 smoke detector and release device

Discount group B

Ordering data	Description	Price
ZUBR ORSTU10	Pack saddle tee for DN 100	73
ZUBR ORSTU12	Pack saddle tee for DN 125	73
ZUBR ORSTU14	Pack saddle tee for DN 140	73
ZUBR ORSTU15	Pack saddle tee for DN 150	73
ZUBR ORSTU16	Pack saddle tee for DN 160	73
ZUBR ORSTU18	Pack saddle tee for DN 180	73
ZUBR ORSTU20	Pack saddle tee for DN 200	73
ZUBR ORSTU22	Pack saddle tee for DN 224	73
ZUBR ORSTU25	Pack saddle tee for DN 250	73
ZUBR ORSTU28	Pack saddle tee for DN 280	73
ZUBR ORSTU31	Pack saddle tee for DN 315	73
ZUBR ORSTU35	Pack saddle tee for DN 355	73
ZUBR ORSTU40	Pack saddle tee for DN 400	73
ZUBR ORSTU45	Pack saddle tee for DN 450	73
ZUBR ORSTU50	Pack saddle tee for DN 500	73
ZUBR ORSTU56	Pack saddle tee for DN 560	73
ZUBR ORSTU63	Pack saddle tee for DN 630	73
ZUBR ORSTU71	Pack saddle tee for DN 710	166
ZUBR ORSTU80	Pack saddle tee for DN 800	166

### Accessories for RL4 smoke detector and OR4 smoke detector and release device

Discount group E

Ordering data	Description	Price
ZUB 0475	Cover for installation base (PU = 4 piece)	31

It is recommended to replace the smoke switch after an operating period of 8 years Price list for individual parts and spare parts.

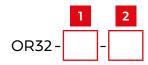
### 3.4.3 OR32 smoke detector and release device



- For activation of fire dampers, smoke protection dampers, fans and for air transfer applications
- With optical smoke switch as per EN 54-7
- Supply voltage 230 VAC
- General Building Inspectorate Approval: Z-78.6-123
- Installation in air transfer applications:

with FK90 fire dampers: Type approval Z-6.50-2132 with FR90 fire dampers: Type approval Z-6.50-2133 Configure your product here





**Basic version** 

Standard for installation in ventilation ducts ко

К2 With MC and relay module for installation in ventilation ducts

R0 Standard for installation in ventilation ducts or circular ventilation ducts

With MC and relay module for installation in ventilation ducts or circular ventilation ducts Accessories

Standard:

Without accessories

Option:

Control panel

Discount group B

1 Basic version		
Ordering data	Description	Price
КО	Standard for installation in ventilation ducts	1031
K2	With MC and relay module for installation in ventilation ducts	1256
R0	Standard for installation in ventilation ducts or circular ventilation ducts	1031
R2	With MC and relay module for installation in ventilation ducts or circular ventilation ducts	1256

Discount group B

2 Accessories		
Ordering data	Description	Price
Т	Control panel for operation display, manual release and reset	85

### Accessories for OR32 smoke detector and release devices

Discount group B

Description	Price
Saddle socket, loose (DN 100 DN 630)	73
Saddle socket, loose (DN 710/DN 800)	166
Flanged collar, loose	73

It is recommended to replace the smoke switch after an operating period of 8 years 🕨 Price list for individual parts and spare parts.

### Fire protection

### 3.5 Products for DIN 18017-03

### 3.5.1 TS18 TopSchott



- Maintenance-free shut-off device against fire and smoke in ventilation systems according to or based on DIN 18017-3
- Leak tightness C according to DIN EN 1751
- General Building Inspectorate Approval / General Type Approval: Z-41.3-556
   ⇒ Fire classification: K30-18017 / K60-18017 / K90-18017
- VKF recognition no. 14204 ⇒ Fire classification: F90
- Size: DN80 ... DN200

Configure your product here



TS18 -

1	Nominal size
	80
	100
	125
	140
	160
	180
	200

### TS18 TopSchott

### Discount group B

1					
Nominal size	TS18				
80	60				
100	70				
125	81				
140	89				
160	109				
180	121				
200	131				

### Accessories for TS18 TopSchott

Ordering data	Description	Price
ZUB 0314	Mortar anchor (310 mm long), pack of 2 pieces	28

### 4.1 Sound attenuator

### 4.1.1 SE-A absorber splitters



 Absorber sound attenuator splitters for attenuation in the medium and higher frequency range

• Thickness of splitters: 100 mm ... 300 mm

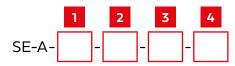
Nominal height: 100 mm ... 2500 mm (in 1-mm increments)

• Lengths: 500 mm, 750 mm, 1000 mm, 1250 mm and 1500 mm

 Greater heights and lengths can be produced by assembling several splitters together







Thickness of splitters [mm]

100 200 150 215 170 230 185 300 3 Length [mm] 500 1500 750 1000 1250

Nominal height
100 mm ... 2500 mm

Perforated metal covering
Standard:

Without perforated sheet metal covering Option:

**L4** With perforated metal covering, 4-sided

The price applied for intermediate sizes is the next highest standard size.

SE-A absorber splitters Thickness of splitters 100 mm

Discount group S

Discount group 3					
2 + 3	Length [mm]				
Height [mm]	500	750	1000	1250	1500
150	13.90	17.30	21.70	25.50	28.00
200	16.50	20.30	25.40	29.60	32.60
250	18.90	23.20	29.00	33.80	37.10
300	19.10	24.50	30.50	35.20	38.70
350	21.40	25.90	32.10	36.50	40.40
400	23.70	28.50	35.30	40.20	44.30
450	26.00	31.00	38.50	43.80	48.20
500	28.20	33.70	41.70	47.40	52.20
550	28.60	34.30	41.90	48.70	55.40
600	29.00	34.70	42.10	50.10	59.20
650	29.30	37.10	44.90	53.40	63.10
700	31.30	39.30	47.70	56.70	67.00
750	33.10	41.70	50.50	60.00	70.80
800	35.00	44.00	53.30	63.30	74.70
850	35.50	44.60	54.00	67.90	78.60
900	36.00	46.90	56.70	71.20	82.50
950	37.80	49.20	59.40	74.60	86.30
1000	39.50	51.40	62.10	77.90	90.30
1100	43.10	56.00	67.60	84.80	98.10
1200	46.60	60.40	73.00	91.50	105.90
1300	47.30	62.50	82.80	101.80	117.80
1400	50.60	66.90	88.50	108.80	125.90
1500	53.90	71.20	94.20	115.80	133.90
1600	113.30	143.80	174.10	195.20	216.30
1700	120.30	152.50	184.50	206.90	229.30
1800	127.10	161.00	195.10	218.60	242.20

SE-A absorber splitters Thickness of splitters 150 mm

Discount group S					
2 + 3	Length [mm]				
Height [mm]	500	750	1000	1250	1500
150	17.50	21.80	27.60	32.40	35.70
200	20.80	25.70	32.30	37.80	41.60
250	24.00	29.50	36.90	43.20	47.40
300	24.30	31.30	39.00	45.00	49.60
350	27.20	32.90	41.10	46.80	51.80
400	30.10	36.30	45.20	51.40	56.80
450	33.00	39.70	49.40	56.10	61.90
500	35.90	43.20	53.50	60.80	67.10
550	36.40	43.80	53.80	62.60	71.10
600	36.90	44.40	54.00	64.40	76.20
650	37.50	47.40	57.60	68.60	81.10
700	39.80	50.40	61.20	73.00	86.20
750	42.30	53.40	64.80	77.20	91.20
800	44.70	56.40	68.40	81.50	96.30
850	45.40	57.20	69.30	87.40	101.20
900	46.10	60.10	72.90	91.70	106.30
950	48.30	63.10	76.40	96.00	111.30
1000	50.60	66.00	79.80	100.40	116.30
1100	55.20	71.90	86.90	109.30	126.60
1200	59.70	77.70	93.90	118.00	136.70
1300	60.50	80.30	106.70	131.30	152.00
1400	64.80	85.90	114.10	140.30	162.50
1500	69.00	91.50	121.40	149.40	172.80
1600	126.30	160.70	195.10	220.20	245.40
1700	133.90	170.40	206.80	233.40	260.00
1800	141.60	180.00	218.50	246.50	274.60

SE-A absorber splitters Thickness of splitters 170 mm

Discount group S

70 mm Discount group					group 3
2 + 3	Length [mm]				
Height [mm]	500	750	1000	1250	1500
150	18.90	23.70	29.90	35.20	38.80
200	22.50	27.90	35.10	41.00	45.10
250	26.00	32.10	40.20	46.90	51.50
300	26.40	33.90	42.40	49.00	53.90
350	29.60	35.80	44.60	50.90	56.30
400	32.70	39.50	49.20	56.00	61.90
450	35.90	43.20	53.70	61.10	67.40
500	39.00	46.90	58.20	66.10	73.00
550	39.60	47.60	58.50	68.10	77.50
600	40.30	48.30	58.80	70.10	82.90
650	40.80	51.50	62.70	74.70	88.40
700	43.40	54.90	66.70	79.40	93.90
750	46.10	58.20	70.60	84.00	99.40
800	48.60	61.40	74.50	88.70	104.80
850	49.40	62.30	75.60	95.10	110.30
900	50.10	65.50	79.40	99.90	115.80
950	52.60	68.60	83.10	104.60	121.30
1000	55.10	71.80	86.90	109.40	126.80
1100	60.00	78.20	94.70	119.10	138.10
1200	65.00	84.60	102.30	128.70	149.00
1300	65.90	87.50	116.20	143.10	165.80
1400	70.50	93.60	124.30	153.00	177.20
1500	75.10	99.70	132.30	162.80	188.50
1600	131.40	167.50	203.60	230.30	257.10
1700	139.40	177.60	215.70	244.10	272.30
1800	147.30	187.60	227.90	257.70	287.60

SE-A absorber splitters Thickness of splitters 185 mm

185 mm	Discount group 3					
2 + 3	Length [mm]					
Height [mm]	500	750	1000	1250	1500	
150	19.00	25.20	30.80	36.10	41.10	
200	22.60	29.50	36.10	42.20	47.80	
250	26.10	33.90	41.40	48.20	54.60	
300	26.40	36.00	43.60	48.50	57.20	
350	29.50	38.00	45.70	53.90	59.70	
400	32.60	41.90	50.40	59.40	65.60	
450	35.80	45.70	55.10	64.80	71.50	
500	38.90	49.70	59.70	70.20	77.50	
550	39.80	50.50	61.10	72.30	82.20	
600	40.80	51.20	62.30	74.40	88.10	
650	41.70	54.80	66.60	79.40	93.90	
700	44.40	58.20	70.70	84.40	99.70	
750	47.10	61.70	74.90	89.20	105.60	
800	49.80	65.20	79.10	94.20	111.40	
850	50.60	66.10	80.20	101.00	117.20	
900	53.20	69.60	84.20	106.10	123.00	
950	55.80	72.90	88.30	111.10	128.90	
1000	58.40	76.20	92.30	116.10	134.70	
1100	63.70	83.10	100.60	126.50	146.70	
1200	68.90	89.80	108.60	136.60	158.30	
1300	69.90	92.80	123.40	152.00	176.10	
1400	74.80	99.40	132.00	162.50	188.20	
1500	79.70	105.80	140.40	172.90	200.30	
1600	135.40	172.60	209.90	237.80	265.80	
1700	143.60	183.00	222.40	252.00	281.60	
1800	151.60	193.30	234.90	266.10	297.40	

SE-A absorber splitters Thickness of splitters 200 mm

Discount group S

200 mm	Discount group S						
2 + 3		Length [mm]					
Height [mm]	500	750	1000	1250	1500		
150	19.50	25.40	31.60	36.40	43.40		
200	23.10	29.80	36.90	42.50	50.50		
250	26.80	34.40	42.40	48.60	57.80		
300	28.50	36.30	44.60	49.60	57.90		
350	30.10	38.20	46.80	55.10	64.20		
400	33.40	42.10	51.50	60.70	70.60		
450	36.60	46.10	56.30	66.10	77.00		
500	39.80	50.00	61.10	71.70	83.40		
550	40.80	51.60	61.50	74.80	86.90		
600	41.60	53.20	65.90	80.10	93.20		
650	42.40	56.80	70.40	85.50	99.40		
700	45.20	60.40	74.80	90.90	105.50		
750	47.90	64.10	79.30	96.20	111.70		
800	50.70	67.70	83.60	101.50	117.80		
850	51.40	68.60	84.90	110.70	124.00		
900	54.00	72.10	89.10	116.30	130.20		
950	56.70	75.60	93.40	121.80	136.30		
1000	59.40	79.10	97.60	127.30	142.50		
1100	64.80	86.20	106.40	138.70	155.10		
1200	70.10	93.20	114.90	149.80	167.60		
1300	73.90	100.20	128.20	160.80	183.10		
1400	79.10	107.10	137.00	171.90	195.70		
1500	84.40	114.10	145.90	183.00	208.20		
1600	139.20	177.70	216.20	245.40	274.60		
1700	147.60	188.40	229.00	260.00	290.80		
1800	156.00	199.00	242.00	274.60	307.10		

SE-A absorber splitters Thickness of splitters 215 mm

215 mm	Discount group S				
2 + 3		Le	ngth [m	m]	
Height [mm]	500	750	1000	1250	1500
150	20.80	27.10	33.80	39.10	46.60
200	24.70	32.10	39.70	45.70	54.40
250	28.70	36.90	45.60	52.50	62.40
300	29.00	39.10	48.10	53.60	62.60
350	32.40	41.20	50.60	59.60	69.60
400	35.90	45.40	55.80	65.70	76.60
450	39.40	49.80	61.00	71.80	83.60
500	41.10	54.10	66.20	77.80	90.70
550	42.60	55.90	66.80	81.40	94.60
600	44.20	57.60	71.60	87.10	101.40
650	45.70	61.60	76.50	93.00	108.30
700	48.70	65.50	81.40	98.90	115.00
750	51.80	69.40	86.10	104.70	121.80
800	54.80	73.40	91.00	110.60	128.50
850	55.60	74.50	92.30	120.70	135.40
900	58.50	78.20	97.00	126.80	142.10
950	61.40	82.10	101.60	132.90	148.90
1000	64.20	85.90	106.30	138.90	155.70
1100	70.10	93.70	115.90	151.40	169.60
1200	75.90	101.30	125.20	163.50	183.20
1300	80.00	108.90	139.70	175.70	200.30
1400	85.60	116.40	149.50	187.90	214.10
1500	91.30	124.10	159.20	200.00	227.90
1600	145.20	185.90	226.70	258.00	289.50
1700	153.90	197.10	240.10	273.40	306.70
1800	162.70	208.10	253.70	288.80	323.90

SE-A absorber splitters Thickness of splitters 230 mm

230 mm				Discount	group S
2 + 3		Le	ngth [m	m]	
Height [mm]	500	750	1000	1250	1500
150	21.80	28.50	35.50	41.10	49.00
200	26.00	33.60	41.80	48.10	57.20
250	30.10	38.80	48.00	55.20	65.50
300	31.40	40.70	49.40	58.30	68.10
350	35.20	45.40	55.10	64.90	75.80
400	39.00	50.20	60.70	71.50	83.40
450	42.70	55.00	66.30	78.10	91.10
500	46.60	59.80	72.00	84.80	98.70
550	47.50	60.50	75.50	90.30	106.80
600	48.30	65.10	80.90	96.80	114.50
650	51.80	69.60	86.40	103.20	122.10
700	55.20	74.00	91.90	109.70	129.80
750	58.60	78.50	97.40	116.20	137.40
800	61.90	82.90	102.90	122.80	145.10
850	61.90	84.40	106.50	129.30	150.20
900	65.10	88.70	111.90	135.80	157.70
950	68.30	93.00	117.30	142.30	165.30
1000	71.50	97.30	122.60	148.80	172.80
1100	78.00	106.10	133.70	162.20	188.30
1200	84.50	114.80	144.50	175.20	203.40
1300	87.50	118.90	152.60	185.00	218.40
1400	93.70	127.30	163.10	197.80	233.50
1500	99.80	135.60	173.80	210.50	248.50
1600	149.20	191.20	233.20	266.00	298.70
1700	158.10	202.70	247.20	281.70	316.40
1800	167.20	214.10	261.00	297.60	334.00

SE-A absorber splitters Thickness of splitters 300 mm

150   26.20   34.20   42.50   49.20   5   200   31.20   40.30   50.00   57.50   6   250   36.10   46.40   57.40   65.90   7	500 88.70 88.50 88.30 82.70
[mm]         500         750         1000         1250         1.           150         26.20         34.20         42.50         49.20         5           200         31.20         40.30         50.00         57.50         6           250         36.10         46.40         57.40         65.90         7	8.50 8.30 82.70
200     31.20     40.30     50.00     57.50     6       250     36.10     46.40     57.40     65.90     7	8.50 8.30 82.70
<b>250</b> 36.10 46.40 57.40 65.90 7	8.30 82.70
	32.70
700 76.70 /060 6000 7000 6	
<b>300</b>   36.30   48.60   60.90   70.80   8	1.90
<b>350</b>   40.80   54.30   67.80   78.80   9	
<b>400</b>   45.10   59.90   74.80   86.70   10	01.10
<b>450</b> 49.60 65.60 81.80 94.70 11	0.30
<b>500</b>   53.90   71.30   88.70   102.70   11	9.50
<b>550</b>   55.40   73.60   92.90   111.20   12	29.30
<b>600</b>   56.80   79.00   99.70   119.10   13	88.50
<b>650</b>   60.80   84.40   106.40   127.10   14	47.80
<b>700</b>   64.80   89.70   113.10   135.10   15	57.00
<b>750</b>   68.70   95.10   120.00   143.00   16	6.20
<b>800</b>   72.70   100.60   126.70   151.00   17	75.40
<b>850</b> 73.90 102.40 131.10 159.00 18	34.60
<b>900</b> 77.70 107.50 137.80 166.90 19	3.90
<b>950</b> 81.60 112.80 144.40 174.90 2	03.10
<b>1000</b> 85.40 118.00 151.00 183.00 2	12.30
<b>1100</b> 93.30 128.80 164.70 199.30 2	31.30
<b>1200</b>   100.90   139.20   177.90   215.30   24	49.70
<b>1300</b>   106.50   149.60   191.20   231.20   26	58.20
<b>1400</b>   114.10   160.00   204.40   247.30   28	36.60
<b>1500</b> 121.50 170.50 217.70 263.20 30	05.00
<b>1600</b> 165.10 211.70 271.10 324.90 38	32.50
<b>1700</b> 175.00 224.20 287.10 344.10 40	05.00
<b>1800</b>   184.90   236.80   303.20   363.30   4.	

### Perforated metal covering for SE-A absorber splitters

### Discount group S

4	Length [mm]						
Height [mm]	500	750	1000	1250	1500		
150	9.60	12.00	14.20	15.60	16.60		
200	12.80	16.00	19.00	20.40	22.00		
250	16.00	19.80	23.80	25.60	27.40		
300	19.00	23.80	28.60	30.80	33.00		
350	22.40	27.80	33.40	35.80	38.20		
400	25.40	31.60	38.00	41.00	43.80		
450	28.60	35.80	42.80	46.20	49.20		
500	31.60	39.80	47.60	51.20	54.60		
550	32.80	40.80	48.80	52.60	56.40		
600	35.60	44.60	53.40	57.40	61.20		
650	38.60	48.20	57.80	62.00	66.40		
700	41.40	51.80	62.00	66.80	71.40		
750	44.60	55.40	66.60	71.60	76.60		
800	47.40	59.20	71.00	76.40	81.80		
850	46.80	58.40	70.20	75.40	80.60		
900	49.40	61.80	74.40	79.60	85.20		
950	52.20	65.20	78.20	84.20	90.00		
1000	55.00	68.80	82.40	88.60	94.80		
1100	60.40	75.60	90.60	97.40	104.40		
1200	66.00	82.40	99.00	106.40	113.80		
1300	71.40	89.20	107.20	115.20	123.20		
1400	77.00	96.20	115.20	124.00	132.60		
1500	82.40	103.00	123.60	132.80	142.20		
1600	44.00	55.00	65.90	70.90	75.90		
1700	46.70	58.40	70.10	75.30	80.50		
1800	49.50	61.80	74.20	79.70	85.30		

### **Accessories** SE-A absorber splitters

Ordering data	Description	Price
ZUB 0572	Height connector set	13
ZUB 0573	Length connector	6

### 4.1.2 **SE-B** broadband splitters



Broadband sound attenuator splitters for attenuation in the lower and medium frequency range

Thickness of splitters: 100 mm ... 230 mm

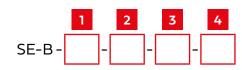
100 mm ... 2500 mm (in 1-mm increments) Nominal height:

Lengths: 500 mm, 750 mm, 1000 mm, 1250 mm and 1500 mm

Greater heights and lengths can be produced by assembling several splitters together



Configure your



Thickness of splitters [mm]

100 200 150 215 170 230 185

Length [mm] 500 1500 750

1000 1250

Nominal height 100 mm ... 2500 mm Perforated metal covering

Standard:

Without perforated sheet metal covering Option:

with perforated metal covering, alternating between the sides

The price applied for intermediate sizes is the next highest standard size.

SE-B broadband splitters Thickness of splitters 100 mm

100 mm	Discount group S				
2 + 3		Le	ngth [m	m]	
Height [mm]	500	750	1000	1250	1500
150	15.30	17.00	20.50	23.60	26.20
200	18.70	20.70	25.00	28.80	31.90
250	22.10	24.50	29.50	33.80	37.60
300	22.80	26.80	32.80	37.60	43.30
350	25.80	30.30	37.20	42.50	49.00
400	28.80	33.90	41.50	47.50	54.60
450	31.80	37.50	45.90	52.50	60.30
500	34.90	41.00	50.20	57.40	66.10
550	35.80	42.00	51.90	60.00	69.00
600	36.60	43.00	53.40	64.80	74.50
650	37.50	46.20	57.30	69.60	80.00
700	38.30	49.30	61.30	74.30	85.50
750	40.70	52.50	65.20	79.10	90.90
800	43.20	55.70	69.10	83.80	96.40
850	44.30	56.40	70.10	84.90	99.70
900	45.30	59.40	73.80	89.40	105.10
950	47.70	62.50	77.60	94.00	110.40
1000	50.00	65.50	81.40	98.50	115.80
1100	54.60	71.70	89.00	107.80	126.70
1200	59.30	77.70	96.60	117.00	137.30
1300	61.40	82.10	104.10	123.40	144.90
1400	65.80	88.00	111.60	132.30	155.40
1500	70.30	94.00	119.10	141.20	165.80
1600	74.80	100.00	126.80	150.30	176.50
1700	79.30	106.00	134.30	159.20	186.90
1800	83.70	111.90	141.90	168.10	197.40

SE-B broadband splitters Thickness of splitters 150 mm

150 mm	Discount group S				
2 + 3		Le	ngth [m	m]	
Height [mm]	500	750	1000	1250	1500
150	18.70	23.00	28.30	32.20	37.90
200	22.90	27.80	34.40	39.00	45.90
250	26.90	32.80	40.40	45.70	53.80
300	27.50	34.20	41.10	48.00	54.30
350	31.30	38.60	46.50	54.20	61.30
400	34.90	43.20	51.90	60.40	68.30
450	38.50	47.60	57.10	66.70	75.30
500	42.10	52.10	62.50	72.90	82.30
550	43.10	52.90	64.60	74.80	84.20
600	44.00	53.70	66.70	80.60	90.90
650	44.80	57.60	71.50	86.50	97.50
700	47.90	61.60	76.40	92.40	104.00
750	51.00	65.50	81.20	98.20	110.60
800	54.00	69.40	86.10	104.10	117.30
850	55.10	74.80	87.40	105.60	123.80
900	58.00	78.80	92.00	111.20	130.40
950	61.00	82.80	96.70	116.90	137.00
1000	63.90	86.80	101.30	122.40	143.60
1100	69.90	94.90	110.70	133.80	157.00
1200	75.90	103.00	120.10	145.10	170.20
1300	81.80	111.00	129.40	156.40	183.30
1400	87.70	118.90	138.70	167.70	196.50
1500	93.60	127.00	148.00	178.80	209.70
1600	99.60	135.10	157.50	190.30	223.10
1700	105.50	143.10	166.80	201.50	236.30
1800	111.40	151.10	176.20	212.80	249.40

SE-B broadband splitters Thickness of splitters 170 mm

1/0 mm	Discount group S						
2 + 3		Length [mm]					
Height [mm]	500	750	1000	1250	1500		
150	20.10	24.60	30.40	34.60	40.70		
200	24.50	29.90	36.70	41.70	49.10		
250	28.90	35.10	43.20	49.00	57.50		
300	29.50	36.50	44.00	51.30	58.10		
350	33.40	41.30	49.70	58.00	65.40		
400	37.30	46.10	55.40	64.50	72.90		
450	41.20	50.80	61.00	71.10	80.30		
500	45.00	55.60	66.70	77.70	87.80		
550	46.10	56.50	68.90	79.80	89.80		
600	47.00	57.30	71.10	86.00	96.80		
650	47.90	61.60	76.30	92.20	103.80		
700	51.20	65.70	81.50	98.40	110.70		
750	54.50	69.90	86.50	104.60	117.80		
800	57.80	74.10	91.70	110.80	124.70		
850	58.80	79.80	93.00	112.40	131.80		
900	62.00	84.00	98.00	118.30	138.70		
950	65.10	88.30	102.90	124.30	145.70		
1000	68.30	92.50	107.80	130.30	152.80		
1100	74.60	101.20	117.90	142.40	166.90		
1200	80.90	109.70	127.80	154.40	180.90		
1300	87.30	118.20	137.80	166.30	194.90		
1400	93.60	126.80	147.60	178.20	208.90		
1500	99.90	135.30	157.50	190.20	222.80		
1600	106.30	144.00	167.60	202.30	237.10		
1700	112.60	152.50	177.50	214.30	251.10		
1800	118.90	160.90	187.40	226.30	265.10		

SE-B broadband splitters Thickness of splitters 185 mm

185 mm	Discount group S						
2 + 3		Length [mm]					
Height [mm]	500	750	1000	1250	1500		
150	21.10	25.90	32.00	36.30	42.70		
200	25.70	31.40	38.60	43.80	51.50		
250	30.30	36.80	45.30	51.30	60.30		
300	30.90	38.40	46.10	53.80	60.90		
350	35.10	43.40	52.10	60.70	68.50		
400	39.10	48.30	58.00	67.60	76.30		
450	43.20	53.30	63.90	74.40	84.00		
500	47.30	58.20	69.80	81.40	91.80		
550	48.30	59.10	72.10	83.40	94.00		
600	49.40	60.00	74.40	89.90	101.20		
650	50.30	64.50	79.80	96.50	108.60		
700	53.70	68.80	85.20	102.90	115.80		
750	57.10	73.20	90.60	109.40	123.20		
800	60.50	77.50	95.90	115.90	130.40		
850	61.60	83.50	97.30	117.50	137.80		
900	64.90	88.00	102.50	123.70	145.00		
950	68.20	92.40	107.60	130.00	152.20		
1000	71.50	96.90	112.80	136.20	159.60		
1100	78.20	105.90	123.40	148.80	174.40		
1200	84.90	114.80	133.60	161.40	189.00		
1300	91.40	123.70	144.00	173.80	203.60		
1400	98.00	132.60	154.30	186.30	218.20		
1500	104.60	141.50	164.70	198.70	232.80		
1600	111.40	150.60	175.20	211.50	247.60		
1700	118.00	159.50	185.60	223.90	262.20		
1800	124.60	168.40	195.90	236.30	276.80		

SE-B broadband splitters Thickness of splitters 200 mm

200 mm	Discount group S				
2 + 3		Le	ngth [m	m]	
Height [mm]	500	750	1000	1250	1500
150	21.50	27.10	33.50	38.10	44.80
200	26.20	32.80	40.50	46.00	54.00
250	30.80	38.60	47.40	53.70	63.10
300	32.00	40.20	48.20	56.30	63.50
350	36.10	45.30	54.40	63.40	71.60
400	40.30	50.50	60.50	70.60	79.70
450	44.50	55.70	66.80	77.80	87.80
500	48.60	60.90	73.00	85.00	95.80
550	48.90	61.90	75.30	87.10	98.10
600	49.00	62.80	77.70	93.90	105.70
650	52.60	67.40	83.30	100.70	113.30
700	56.20	71.90	89.00	107.40	120.90
750	59.70	76.50	94.60	114.20	128.40
800	63.30	81.00	100.20	121.00	136.10
850	64.50	87.30	101.50	122.60	143.70
900	67.90	91.90	106.90	129.10	151.20
950	71.30	96.60	112.30	135.60	158.90
1000	74.80	101.10	117.80	142.10	166.40
1100	81.80	110.60	128.80	155.40	182.00
1200	88.70	119.90	139.50	168.30	197.10
1300	95.60	129.20	150.30	181.20	212.30
1400	102.50	138.50	161.00	194.30	227.50
1500	109.40	147.80	171.80	207.20	242.60
1600	116.40	157.20	182.80	220.50	258.10
1700	123.30	166.50	193.50	233.40	273.30
1800	130.20	175.70	204.30	246.40	288.50

SE-B broadband splitters Thickness of splitters 215 mm

213 111111				Discount	group 3
2 + 3		Le	ngth [m	m]	
Height	500	750	1000	1250	1500
[mm]					
150	22.90	28.90	35.60	40.50	47.70
200	27.80	35.00	43.10	49.00	57.50
250	32.80	41.10	50.50	57.30	67.40
300	33.90	42.70	51.40	60.00	67.90
350	38.40	48.30	58.10	67.70	76.50
400	42.80	53.80	64.60	75.30	85.10
450	47.40	59.30	71.20	83.00	93.80
500	51.90	64.90	77.80	90.70	102.40
550	52.10	65.90	80.40	93.00	104.80
600	52.20	67.00	83.00	100.30	112.90
650	56.00	71.80	89.00	107.50	121.10
700	59.80	76.70	95.00	114.80	129.20
750	63.70	81.60	101.00	122.00	137.30
800	67.50	86.40	107.00	129.30	145.40
850	69.20	89.50	108.50	131.00	150.40
900	71.00	94.30	114.30	138.00	158.40
950	74.50	99.00	120.00	144.90	166.20
1000	78.10	103.80	125.80	151.80	174.20
1100	85.50	113.50	137.40	166.00	190.40
1200	92.70	123.10	149.00	179.90	206.40
1300	98.00	132.60	160.50	189.70	217.60
1400	105.10	142.10	172.00	203.30	233.10
1500	112.20	151.70	183.60	216.90	248.70
1600	119.30	161.40	195.30	230.80	264.50
1700	126.40	171.00	206.80	244.40	280.20
1800	133.50	180.50	218.40	257.90	295.70

SE-B broadband splitters Thickness of splitters 230 mm

230 mm				Discount	group S
2 + 3		Le	ngth [m	m]	
Height [mm]	500	750	1000	1250	1500
150	23.90	30.10	37.30	43.80	51.50
200	29.10	36.50	44.90	52.80	62.10
250	34.30	42.80	52.70	61.80	72.70
300	36.50	46.20	56.50	68.50	79.10
350	41.40	52.10	63.80	77.20	89.10
400	46.20	58.10	71.00	85.90	99.00
450	50.90	64.00	78.20	94.60	109.10
500	55.80	70.00	85.50	103.40	119.10
550	56.60	72.70	88.60	104.60	123.30
600	57.40	75.20	91.60	112.80	127.30
650	61.70	80.70	98.20	120.90	136.50
700	65.80	86.20	104.80	129.10	145.60
750	70.10	91.60	111.50	137.10	154.80
800	74.20	97.10	118.10	145.20	163.90
850	74.80	98.60	120.00	147.40	166.40
900	75.50	100.20	126.40	149.60	175.20
950	79.30	105.30	132.70	157.00	184.00
1000	83.10	110.20	139.10	164.60	192.80
1100	90.90	120.60	152.00	179.90	210.70
1200	98.50	130.70	164.80	194.90	228.30
1300	102.20	138.10	174.00	210.00	245.90
1400	109.50	148.00	186.50	225.00	263.50
1500	116.90	157.90	198.90	240.00	281.10
1600	124.40	168.10	211.70	255.30	299.00
1700	131.80	177.90	224.20	270.30	316.60
1800	139.10	187.90	236.60	285.50	334.20

### Perforated metal covering for SE-B broadband splitters

Discount group S

4			Length [mm]		
Height [mm]	500	750	1000	1250	1500
150	4.80	6.00	7.10	7.80	8.30
200	6.40	8.00	9.50	10.20	11.00
250	8.00	9.90	11.90	12.80	13.70
300	9.50	11.90	14.30	15.40	16.50
350	11.20	13.90	16.70	17.90	19.10
400	12.70	15.80	19.00	20.50	21.90
450	14.30	17.90	21.40	23.10	24.60
500	15.80	19.90	23.80	25.60	27.30
550	16.40	20.40	24.40	26.30	28.20
600	17.80	22.30	26.70	28.70	30.60
650	19.30	24.10	28.90	31.00	33.20
700	20.70	25.90	31.00	33.40	35.70
750	22.30	27.70	33.30	35.80	38.30
800	23.70	29.60	35.50	38.20	40.90
850	23.40	29.20	35.10	37.70	40.30
900	24.70	30.90	37.20	39.80	42.60
950	26.10	32.60	39.10	42.10	45.00
1000	27.50	34.40	41.20	44.30	47.40
1100	30.20	37.80	45.30	48.70	52.20
1200	33.00	41.20	49.50	53.20	56.90
1300	35.70	44.60	53.60	57.60	61.60
1400	38.50	48.10	57.60	62.00	66.30
1500	41.20	51.50	61.80	66.40	71.10
1600	44.00	55.00	65.90	70.90	75.90
1700	46.70	58.40	70.10	75.30	80.50
1800	49.50	61.80	74.20	79.70	85.30

### **Accessories** SE-B broadband splitters

Ordering data	Description	Price
ZUB 0572	Height connector set	13
ZUB 0573	Length connector	6

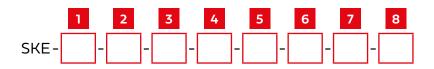
### 4.1.3 SKE sound attenuator



- Designed as absorber or broadband sound attenuator
- · With built-in SE-A or SE-B splitters
- Widths B: 150 mm ... 4800 mm (in 1-mm increments)
- Heights H: 150 mm ... 3600 mm (in 1-mm increments)
- Lengths L: 500 mm, 750 mm, 1000 mm, 1250 mm and 1500 mm
- Greater widths, heights and lengths can be achieved by combining several sound attenuators.







1 Design

- A Absorber sound attenuators
- **B** Broadband sound attenuators

5 Frame profile

Standard: V10 frame profile Option:

- 2 Frame profile S20, 20 mm in height
- 4 Frame profile S40, 40 mm in height

Width 150 mm ... 4800 mm 6 Higher leak tightness class

Standard:

No higher leak tightness class

Option:

**2C** Higher leak tightness class

3 Height 150 mm ... 3600 mm 7 Higher pressure level

Standard:

No higher pressure level

Option:

**3A** Higher pressure level

4 Length [mm]

500

750

1000

1250

1500

8 Division

Standard:

Without division

Option:

- **B** Divided in width
- H Divided in height

The price for the SKE sound attenuator is composed as follows:

- Price for the SKE sound attenuator casing page 159.
- Number of splitters x Price for SE-A absorber splitters > page 146. or Number of splitters x Price for SE-B broadband splitters > page 152.
- i Intermediate sizes are priced at the next higher or next wider standard size.

SKE sound attenuator casing (construction length 500 mm)

2 -	+ 3	19 (201132)					Width	B [mm]				21300411	
Length L [mm]	Height H [mm]	200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	150	58.00	71.70	85.50	99.30	112.90	126.70	140.40	154.20	167.90	181.60	195.40	209.20
	200	61.50	75.10	88.90	102.70	116.40	130.10	143.90	157.60	171.40	185.10	198.80	212.60
	250	64.90	78.70	92.30	106.10	119.90	133.60	147.30	161.00	174.80	188.60	202.20	216.00
	300	68.30	82.10	95.70	109.50	123.30	137.00	150.70	164.50	178.20	192.00	205.70	219.40
	350	70.00	83.40	96.80	110.20	123.60	138.70	152.20	165.80	179.50	193.00	206.60	220.10
	400	73.40	86.70	100.20	113.50	127.00	140.30	153.80	167.20	180.60	194.00	207.40	220.80
	450	76.70	90.10	103.50	117.00	130.30	143.80	157.10	170.60	183.90	197.40	210.70	224.20
	500	80.00	93.50	106.80	120.30	133.60	147.10	160.40	173.90	187.30	200.70	214.10	227.50
	550	83.40	96.80	110.20	123.60	137.00	150.40	163.80	177.20	190.60	204.00	217.50	230.80
	600	86.70	100.20	113.50	127.00	140.30	153.80	167.20	180.60	194.00	207.40	220.80	234.20
	650	87.80	100.90	114.90	128.10	141.30	155.00	168.30	181.50	194.80	208.00	221.30	235.00
	700	88.80	101.50	116.20	129.20	142.10	156.30	169.40	182.50	195.50	208.70	221.70	235.90
500	750	92.00	104.70	117.50	130.20	142.90	157.50	170.60	183.40	196.30	209.30	222.10	236.70
300	800	95.10	107.80	120.60	133.30	146.00	158.80	171.60	184.30	197.10	209.80	222.50	237.50
	850	98.30	111.10	123.80	136.50	149.20	162.00	174.70	187.40	200.20	212.90	225.60	238.40
	900	101.50	114.30	127.00	139.70	152.50	165.20	177.90	190.60	203.40	216.10	228.80	241.60
	950	104.70	117.50	130.20	142.90	155.70	168.40	181.10	193.90	206.60	219.30	232.00	244.80
	1000	107.80	120.60	133.30	146.00	158.80	171.60	184.30	197.10	209.80	222.50	235.30	248.00
	1100	111.30	123.70	136.00	148.40	160.80	173.30	185.70	198.00	210.40	222.80	238.40	251.00
	1200	117.50	129.90	142.20	154.60	167.00	179.50	191.90	204.20	216.60	229.00	241.50	253.90
	1300	123.70	136.00	148.40	160.80	173.30	185.70	198.00	210.40	222.80	235.30	247.70	260.00
	1400	129.90	142.20	154.60	167.00	179.50	191.90	204.20	216.60	229.00	241.50	253.90	266.20
	1500	136.00	148.40	160.80	173.30	185.70	198.00	210.40	222.80	235.30	247.70	260.00	272.40
	1600	142.20	154.60	167.00	179.50	191.90	204.20	216.60	229.00	241.50	253.90	266.20	278.60
	1700	148.40	160.80	173.30	185.70	198.00	210.40	222.80	235.30	247.70	260.00	272.40	284.80
	1800	154.60	167.00	179.50	191.90	204.20	216.60	229.00	241.50	253.90	266.20	278.60	291.00

### **SKE sound attenuator casing** (construction length 750 mm)

2 -	- 3	Width B [mm]											
Length L [mm]	Height H [mm]	200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	150	59.60	76.20	92.80	109.40	126.10	142.70	159.30	176.00	192.60	209.20	225.80	242.50
	200	63.80	80.30	97.00	113.60	130.20	146.90	163.50	180.10	196.80	213.40	230.00	246.60
	250	67.90	84.60	101.10	117.80	134.30	151.00	167.70	184.20	200.90	217.60	234.10	250.80
	300	72.00	88.70	105.30	121.90	138.60	155.10	171.80	188.50	205.00	221.70	238.40	254.90
	350	75.10	91.50	108.00	124.30	140.80	157.10	173.50	189.90	206.30	222.70	239.10	255.50
	400	79.30	95.60	112.00	128.40	144.80	161.30	177.60	194.00	210.40	226.80	243.20	259.60
	450	83.30	99.80	116.10	132.50	148.90	165.30	181.70	198.10	214.60	230.90	247.30	263.70
	500	87.50	103.80	120.30	136.60	153.00	169.40	185.80	202.20	218.60	235.00	251.40	267.80
	550	91.50	108.00	124.30	140.80	157.10	173.50	189.90	206.30	222.70	239.10	255.50	271.90
	600	95.60	112.00	128.40	144.80	161.30	177.60	194.00	210.40	226.80	243.20	259.60	276.00
	650	97.60	113.60	129.70	145.70	161.80	179.10	195.20	211.50	227.60	243.70	260.80	277.10
	700	99.50	115.20	130.80	146.60	162.30	180.50	196.40	212.40	228.30	244.30	262.00	278.10
750	750	103.40	119.00	134.80	150.50	166.20	181.80	197.60	213.30	229.00	244.70	263.20	279.10
750	800	107.30	123.00	138.70	154.40	170.20	185.80	201.50	217.20	232.90	248.60	264.30	280.10
	850	111.30	126.90	142.60	158.40	174.10	189.70	205.40	221.20	236.80	252.50	268.30	284.00
	900	115.20	130.80	146.60	162.30	177.90	193.60	209.40	225.10	240.70	256.50	272.20	287.90
	950	119.00	134.80	150.50	166.20	181.80	197.60	213.30	229.00	244.70	260.40	276.10	291.80
	1000	123.00	138.70	154.40	170.20	185.80	201.50	217.20	232.90	248.60	264.30	280.10	295.70
	1100	130.80	146.60	162.30	177.90	193.60	209.40	225.10	240.70	256.50	272.20	287.90	303.60
	1200	138.70	154.40	170.20	185.80	201.50	217.20	232.90	248.60	264.30	280.10	295.70	311.40
	1300	146.60	162.30	177.90	193.60	209.40	225.10	240.70	256.50	272.20	287.90	303.60	319.30
	1400	154.40	170.20	185.80	201.50	217.20	232.90	248.60	264.30	280.10	295.70	311.40	327.20
	1500	162.30	177.90	193.60	209.40	225.10	240.70	256.50	272.20	287.90	303.60	319.30	335.00
	1600	170.20	185.80	201.50	217.20	232.90	248.60	264.30	280.10	295.70	311.40	327.20	342.90
	1700	177.90	193.60	209.40	225.10	240.70	256.50	272.20	287.90	303.60	319.30	335.00	350.70
	1800	185.80	201.50	217.20	232.90	248.60	264.30	280.10	295.70	311.40	327.20	342.90	358.50

SKE sound attenuator casing (construction length 1000 mm)

2 -	- 3						Width	B [mm]					
Length L [mm]	Height H [mm]	200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	150	62.00	81.10	100.30	119.40	138.60	157.70	176.90	196.00	215.20	234.30	253.50	272.60
	200	66.80	85.90	105.10	124.20	143.30	162.50	181.60	200.80	219.90	239.10	258.20	277.40
	250	71.60	90.70	109.80	129.00	148.10	167.30	186.40	205.60	224.70	243.80	263.00	282.10
	300	76.40	95.50	114.70	133.80	153.00	172.10	191.30	210.40	229.50	248.60	267.80	286.90
	350	78.70	97.30	115.80	134.30	155.40	174.20	193.00	211.90	230.70	249.50	268.40	287.20
	400	83.30	101.80	120.50	139.00	157.60	176.20	194.70	213.30	231.80	250.40	269.00	287.50
	450	88.00	106.50	125.10	143.70	162.20	180.80	199.30	217.90	236.50	255.00	273.70	292.20
	500	92.60	111.20	129.80	148.30	166.80	185.50	204.00	222.50	241.20	259.70	278.20	296.80
	550	97.30	115.80	134.30	153.00	171.50	190.00	208.70	227.20	245.80	264.30	282.90	301.50
	600	101.80	120.50	139.00	157.60	176.20	194.70	213.30	231.80	250.40	269.00	287.50	306.00
	650	103.20	121.20	141.40	159.70	177.90	196.10	214.50	232.80	251.00	270.80	289.10	307.40
	700	107.70	125.60	143.70	161.70	179.70	197.60	215.60	233.60	251.60	272.40	290.60	308.70
1000	750	112.20	130.20	148.20	166.10	184.10	202.10	220.10	238.00	256.10	274.10	292.10	310.00
1000	800	116.60	134.70	152.70	170.70	188.60	206.60	224.60	242.60	260.60	278.50	296.50	314.50
	850	121.20	139.20	157.10	175.10	193.10	211.10	229.00	247.10	265.10	283.10	301.00	319.00
	900	125.60	143.70	161.70	179.70	197.60	215.60	233.60	251.60	269.50	287.50	305.50	323.50
	950	130.20	148.20	166.10	184.10	202.10	220.10	238.00	256.10	274.10	292.10	310.00	328.00
	1000	134.70	152.70	170.70	188.60	206.60	224.60	242.60	260.60	278.50	296.50	314.50	332.50
	1100	151.30	168.70	186.10	203.50	220.90	238.30	255.70	273.10	290.50	307.90	325.30	342.70
	1200	160.00	177.40	194.80	212.20	229.60	247.00	264.40	281.80	299.20	316.60	334.00	351.40
	1300	168.70	186.10	203.50	220.90	238.30	255.70	273.10	290.50	307.90	325.30	342.70	360.10
	1400	177.40	194.80	212.20	229.60	247.00	264.40	281.80	299.20	316.60	334.00	351.40	368.90
	1500	186.10	203.50	220.90	238.30	255.70	273.10	290.50	307.90	325.30	342.70	360.10	377.60
	1600	194.80	212.20	229.60	247.00	264.40	281.80	299.20	316.60	334.00	351.40	368.90	386.30
	1700	203.50	220.90	238.30	255.70	273.10	290.50	307.90	325.30	342.70	360.10	377.60	395.00
	1800	212.20	229.60	247.00	264.40	281.80	299.20	316.60	334.00	351.40	368.90	386.30	403.60

SKE sound attenuator casing (construction length 1250 mm)

2 -	<b>- 3</b>	Width B [mm]											
Length L [mm]	Height H [mm]	200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	150	65.60	87.50	109.30	131.10	153.00	174.80	196.80	218.60	240.40	262.30	284.10	305.90
	200	71.00	92.90	114.80	136.60	158.50	180.30	202.10	224.10	245.90	267.80	289.60	311.40
	250	76.50	98.30	120.30	142.10	163.90	185.80	207.60	229.50	251.40	273.20	295.10	316.90
	300	82.00	103.80	125.60	147.50	169.40	191.30	213.10	234.90	256.80	278.60	300.60	322.40
	350	84.70	105.80	126.90	148.10	172.00	193.40	215.00	236.50	257.90	279.40	301.00	324.30
	400	89.90	111.10	132.20	153.40	174.50	195.60	216.80	237.90	259.10	280.30	301.40	326.10
	450	95.20	116.30	137.40	158.70	179.80	200.90	222.10	243.20	264.40	285.60	306.70	327.90
	500	100.50	121.60	142.80	163.90	185.10	206.30	227.40	248.50	269.70	290.80	311.90	333.20
	550	105.80	126.90	148.10	169.20	190.30	211.60	232.70	253.80	275.00	296.10	317.20	338.40
	600	111.10	132.20	153.40	174.50	195.60	216.80	237.90	259.10	280.30	301.40	322.60	343.70
	650	116.30	137.40	158.70	179.80	200.90	222.10	243.20	264.40	285.60	306.70	327.90	349.00
	700	121.60	142.80	163.90	185.10	206.30	227.40	248.50	269.70	290.80	311.90	333.20	354.30
1250	750	126.90	148.10	169.20	190.30	211.60	232.70	253.80	275.00	296.10	317.20	338.40	359.60
1230	800	132.20	153.40	174.50	195.60	216.80	237.90	259.10	280.30	301.40	322.60	343.70	364.80
	850	137.40	158.70	179.80	200.90	222.10	243.20	264.40	285.60	306.70	327.90	349.00	370.10
	900	142.80	163.90	185.10	206.30	227.40	248.50	269.70	290.80	311.90	333.20	354.30	375.40
	950	148.10	169.20	190.30	211.60	232.70	253.80	275.00	296.10	317.20	338.40	359.60	380.80
	1000	153.40	174.50	195.60	216.80	237.90	259.10	280.30	301.40	322.60	343.70	364.80	386.10
	1100	179.60	200.70	221.90	243.00	264.10	285.30	306.50	327.60	348.80	369.90	391.00	412.20
	1200	190.10	211.20	232.50	253.60	274.70	295.90	317.00	338.20	359.40	380.50	401.70	422.80
	1300	200.70	221.90	243.00	264.10	285.30	306.50	327.60	348.80	369.90	391.00	412.20	433.40
	1400	211.20	232.50	253.60	274.70	295.90	317.00	338.20	359.40	380.50	401.70	422.80	443.90
	1500	221.90	243.00	264.10	285.30	306.50	327.60	348.80	369.90	391.00	412.20	433.40	454.50
	1600	232.50	253.60	274.70	295.90	317.00	338.20	359.40	380.50	401.70	422.80	443.90	465.10
	1700	243.00	264.10	285.30	306.50	327.60	348.80	369.90	391.00	412.20	433.40	454.50	475.70
	1800	253.60	274.70	295.90	317.00	338.20	359.40	380.50	401.70	422.80	443.90	465.10	486.20

### SKE sound attenuator casing (construction length 1500 mm)

### Discount group S

Length L H	leight H [mm] 150	200											
	150		400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
	.50	65.80	89.10	112.30	135.60	158.80	182.10	205.20	228.50	251.80	275.00	298.30	321.50
	200	71.60	94.90	118.10	141.40	164.70	187.90	211.10	234.30	257.60	280.80	304.10	327.30
	250	77.50	100.70	124.00	147.20	170.50	193.60	216.90	240.10	263.40	286.60	309.90	333.10
	300	83.30	106.50	129.80	153.00	176.30	199.40	222.70	245.90	269.20	292.40	315.70	338.90
	350	85.90	108.40	130.70	155.90	178.70	201.50	224.40	247.20	270.00	292.80	317.50	340.50
	400	91.50	114.00	136.30	158.80	181.10	203.60	225.90	248.40	270.80	293.20	319.40	342.10
	450	97.10	119.50	141.90	164.40	186.70	209.20	231.50	254.00	276.30	298.80	321.20	343.60
	500	102.70	125.10	147.50	169.90	192.40	214.80	237.20	259.60	282.00	304.40	326.90	349.20
	550	108.40	130.70	153.20	175.50	198.00	220.40	242.80	265.20	287.60	310.00	332.40	354.80
	600	114.00	136.30	158.80	181.10	203.60	225.90	248.40	270.80	293.20	315.60	338.00	360.40
	650	119.50	141.90	164.40	186.70	209.20	231.50	254.00	276.30	298.80	321.20	343.60	366.00
	700	125.10	147.50	169.90	192.40	214.80	237.20	259.60	282.00	304.40	326.90	349.20	371.70
1500	750	130.70	153.20	175.50	198.00	220.40	242.80	265.20	287.60	310.00	332.40	354.80	377.30
1500	800	136.30	158.80	181.10	203.60	225.90	248.40	270.80	293.20	315.60	338.00	360.40	382.80
	850	141.90	164.40	186.70	209.20	231.50	254.00	276.30	298.80	321.20	343.60	366.00	388.40
	900	147.50	169.90	192.40	214.80	237.20	259.60	282.00	304.40	326.90	349.20	371.70	394.00
	950	153.20	175.50	198.00	220.40	242.80	265.20	287.60	310.00	332.40	354.80	377.30	399.60
	1000	158.80	181.10	203.60	225.90	248.40	270.80	293.20	315.60	338.00	360.40	382.80	405.20
	1100	194.00	217.20	240.40	263.70	286.90	310.20	333.40	356.70	379.80	403.10	426.30	449.60
	1200	205.60	228.80	252.10	275.30	298.60	321.80	345.10	368.30	391.50	414.70	438.00	461.20
	1300	217.20	240.40	263.70	286.90	310.20	333.40	356.70	379.80	403.10	426.30	449.60	472.90
	1400	228.80	252.10	275.30	298.60	321.80	345.10	368.30	391.50	414.70	438.00	461.20	484.50
	1500	240.40	263.70	286.90	310.20	333.40	356.70	379.80	403.10	426.30	449.60	472.90	496.10
	1600	252.10	275.30	298.60	321.80	345.10	368.30	391.50	414.70	438.00	461.20	484.50	507.70
	1700	263.70	286.90	310.20	333.40	356.70	379.80	403.10	426.30	449.60	472.90	496.10	519.40
	1800	275.30	298.60	321.80	345.10	368.30	391.50	414.70	438.00	461.20	484.50	507.70	531.00

### Discount group S

5 Frame profile		
Ordering data	Description	Surcharge
2	Frame profile S20, 20 mm in height	+15 %
4	Frame profile S40, 40 mm in height	+30 %

### Discount group S

6 Higher leak tight	tness class	
Ordering data	Description	Surcharge
2C	Higher leak tightness class	+80 %

### Discount group S

7 Higher pressure	level	
Ordering data	Description	Surcharge
3 A	Higher pressure level	+150 %

8 Division		
Ordering data	Description	Surcharge
В	Divided in width, assembled side by side	+30 %
Н	Divided in height, assembled on top of each other	+30 %

## Noise protection

### 4.1.4 SKE-V sound attenuator for volume flow and pressure controllers



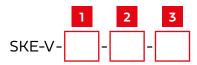
With built-in SE-B broadband splitters Thickness of splitters: 100 mm

200, 300, 400, 500, 600, 700, 800, 1000 mm Widths B: 100, 200, 250, 300, 400, 500, 600, 1000 mm Heights H:

Length L: 1500 mm

Configure your product





Width B [mm]

200 600 300 700

400 800

500 1000 Perforated metal covering

Standard: without perforated metal covering

Option:

With perforated metal covering

Height H [mm]

150 400

200 500

250 600

300 1000

SKE-V sound attenuator

Discount group S

1+2	Number of splitters							
	1	1	2	2	3	3	4	5
Height H [mm]	Sound attenuator width [mm]							
[]	200	300	400	500	600	700	800	1000
150	96.70	109.10	-	-	-	-	-	-
200	108.70	121.10	165.40	177.90	222.20	234.60	279.00	-
250	-	133.00	183.10	195.50	245.50	-	-	-
300	-	145.00	200.70	213.10	268.80	281.20	337.00	-
400	_	-	220.60	233.00	292.50	304.90	364.30	-
500	-	-	-	246.00	305.80	-	-	450.20
600	-	-	-	-	-	-	-	504.60
1000	-	-	-	-	-	-	-	717.90

### Perforated metal covering for SKE-V sound attenuators

3	Number of splitters								
	1	1	2	2	3	3	4	5	
Height H [mm]	Sound attenuator width [mm]								
[]	200	300	400	500	600	700	800	1000	
150	7.10	7.10	-	-	-	-	-	-	
200	9.50	9.50	19.00	19.00	28.60	28.60	38.10	-	
250	-	11.90	23.80	23.80	35.70	-	-	-	
300	-	14.30	28.60	28.60	42.80	42.80	57.10	-	
400	-	-	38.10	38.10	57.10	57.10	76.20	-	
500	-	-	-	47.60	71.40	-	-	119.00	
600	-	-	-	-	-	-	-	133.50	
1000	-	-	-	-	-	-	-	206.00	

## loise protection

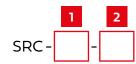
### 4.1.5 SRC duct silencer



- · Made of galvanised sheet steel
- With lip seals
- Size: DN80 .. DN400
- · Lengths: 600 mm and 900 mm
- Packing thickness: 50 mm

Configure your product





1	Nominal size	2	Length [mm]
	80		600
	100		900
	125		
	160		
	200		
	250		
	315		
	400		

SRC duct silencer

1 + 2	Length [mm]				
Nominal size	600	900			
80	74	-			
100	67	89			
125	73	99			
160	84	117			
200	110	139			
250	114	170			
315	135	177:-			
400	-	362			

# Building control system

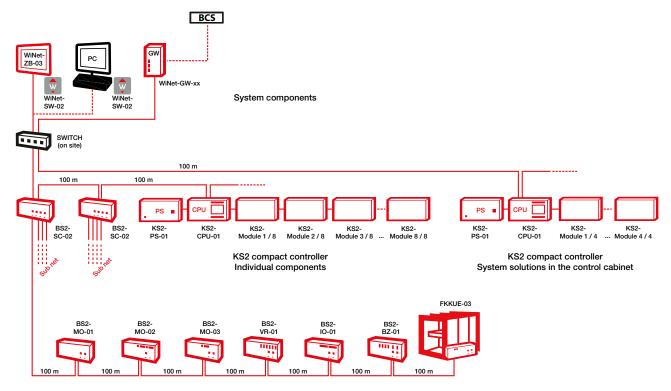
### 5.1 Communication system Wildeboer-Net



- · For control, monitoring and analysis of connected modules
- · Automatic commissioning and address assignment
- · With clear operating interface
  - Functions, such as: Logged function test, release group and calendar control, fan shutdown, sequential circuits, etc.

Configure your product here





BS2 bus controller

### 5.1.1 Wildeboer-Net system components

		Discount group G
Ordering data	Description	Price
WiNet-SW-02	Wildeboer-Net Software (Delivered on USB stick)	59
WiNet-ZB-03	Central operating unit with pre-installed Wildeboer-Net software WiNet-SW-02	5351
WiNet-GW-01	Gateway for BACnet/Modbus + OPC Server DA 2.0 with 200 data points	1546
WiNet-GW-02	Gateway for BACnet/Modbus + OPC Server DA 2.0 with 1100 data points	2616
WiNet-GW-03	Gateway for BACnet/Modbus + OPC Server DA 2.0 + LON with 200 data points	2140
WiNet-GW-04	Gateway for BACnet/Modbus + OPC Server DA 2.0 + LON with 1100 data points	3210
WiNet-GW-05	Gateway for BACnet/Modbus + OPC Server DA 2.0 + KNX with 200 data points	1784
WiNet-GW-06	Gateway for BACnet/Modbus + OPC Server DA 2.0 + KNX with 1100 data points	2854
WiNet-AP-01	Commissioning support for Wildeboer-Net	on request

### 5.1.2 BS2 bus system

		Discount group G
Ordering data	Description	Price
BS2-SC-02	Subnet controller	1427-
BS2-VR-01	Volume flow and pressure controller module	832
BS2-MO-01	Motor module, connection type: 2 x AMP connector	595
BS2-MO-02	Motor module, connection type: 2 x plug-in screw terminals	595
BS2-MO-03	Motor module, connection type: 1 x AMP connector and 1 x plug-in screw terminal	595
BS2-IO-01	IO module	713
BS2-BZ-01	BMZ module	951

### 5.1.3 KS2 compact controller

		Discount group G
Ordering data	Description	Price
KS2-CP-01	Main control unit	1070
KS2-PS-01	Power unit	226
KS2-MO-04	Motor module	713
KS2-MR-01	Motor and smoke detector module	713
KS2-DI-01	Digital input module	428
KS2-MI-01	Multi-IO module	654
KS2-LA-01	Line termination	72
KS2-CO-01	Top hat rail connector	125

### 5.1.4 System solutions in the control cabinet

	Disc.	count group G
Ordering data	Description	Price
WiNet control cabinet ZB-03	Control cabinet, pre-fabricated and ready for connection with central operating unit WiNet-ZB-03 and pre-installed Wildeboer-Net software WiNet-SW-02	5965
KS2 control cabinet 06/230	Control cabinet for connection of up to 6 x fire dampers, multileaf dampers or smoke protection dampers with 230 V AC spring return actuators and integrated limit switches	3197
KS2 control cabinet 06/24	Control cabinet for connection of up to 6 x fire dampers, multileaf damper or smoke protection dampers with 24 V AC/DC spring return actuators and integrated limit switches	3272
KS2 control cabinet 12/230	Control cabinet for connection of up to 12 x fire dampers, multileaf dampers or smoke protection dampers with 230 VAC spring return actuators and integrated limit switches	4703
KS2 control cabinet 12/24	Control cabinet for connection of up to 12 x fire dampers, multileaf damper or smoke protection dampers with 24 V AC/DC spring return actuators and integrated limit switches	4758
KS2 control cabinet 18/230	Control cabinet for connection of up to 18 x fire dampers, multileaf dampers or smoke protection dampers with 230 V AC spring return actuators and integrated limit switches	5554
KS2 control cabinet 18/24	Control cabinet for connection of up to 18 x fire dampers, multileaf damper or smoke protection dampers with 24 V AC/DC spring return actuators and integrated limit switches	5669
KS2 control cabinet 24/230	Control cabinet for connection of up to 24 x fire dampers, multileaf dampers or smoke protection dampers with 230 V AC spring return actuators and integrated limit switches	6408
KS2 control cabinet 24/24	Control cabinet for connection of up to 24 x fire dampers, multileaf damper or smoke protection dampers with 24 V AC/DC spring return actuators and integrated limit switches	6524

### Accessories for Wildeboer-Net communication system

		Discount group B
Ordering data	Description	Price
ZUB 0412	AB-01 connection box for spring return actuators 24 V AC/DC	88
ZUB 0413	AB-02 connection box for spring return actuators with 230 VAC	88-

### Always there for you

Locations & contact

