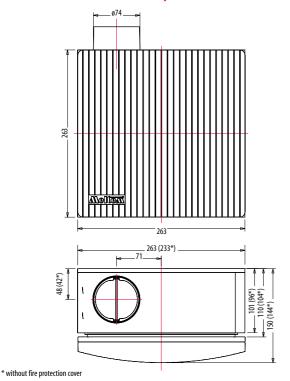
# **VARIO** – Flat ventilation with a system to it



## The VARIO devices – ideal for systematic ventilation of bathrooms, toilets and kitchens



#### The VARIO devices offer many advantages:

- several connections to one common delivery pipe
- fast installation system
- elegant form of the ClassicLine design
- various possible directions of air exhaustion
- can be supplied with various air performance levels
- a wide range of well-tested electronic control systems
- with click-switching
- extremely quiet performance

#### The VARIO devices fulfill all requirements:

- the DIN 18017
- for low voltage (CE) according to EG guidelines (73/23/EWG)
- for electromagnetic compatibility (CE) according to EG guidelines (89/336/EWG)







The employment area: Buildings with special fire protection

The Vario series — ventilation devices of the top class. Whether the air exhaustion is directed upwards or downwards, or it has the double direction valve, the Vario concealed covers are designed for various employments.

#### **VPE 1 / Concealed housing VARIO**

The employment area: Buildings without special fire protection requirement or together with diff. ceiling bar

Type **U** 

Type **U-H** 

Measures:

233 x 233 x 104 mm

#### Type U for bathrooms, toilets and kitchens

- · Plastic housing with cleaning safety cover
- Metal connection sockets DN75
- Two-piece backflow valve
- · Wall and ceiling mounting, air exhaustion upwards, to the right, left
- General building control permission: Z-51.1-70/71
- · Built-in depth only 104mm
- New: Air exhaustion directed backwards (type U-H permission: Z-51.1-72/73)

Order-Nr.	Туре	Model
4000	U	Standard
4001	U-ZR	with double direction
		valve to the right DN75*
4002	U-ZL	with double direction valve to the left DN75*
4003	U-H	Air exhaustion directed backwards
4452	MB-V	Assembly stirrup incl. fastening set

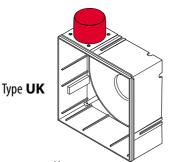
The employment area: Buildings with special fire protection **requirements**, except fire protection shafts (e.g. ceiling construction)

#### Type UK for bathrooms, toilets and kitchens

all features like type U

Order-Nr. Type

- as well as additional premium steel closing device
- does not need any maintenance
- Fire resistance class K90-18017



Measures:	
233 x 233 x 104 n	nm

4010 4011	UK UK-ZR	Standard with double direction value to the right DN75*
4011 4012	UK-ZK UK-ZL	with double direction valve to the right DN75* with double direction valve to the left DN75*
4013	UK-H	Air exhaustion directed backwards
4452	MB-V	Assembly stirrup incl. fastening set

Model

### Type UB for bathrooms/toilets

**requirements** incl. and excluding fire resistant

- · Plastic housing with fire protection and cleaning protection cover
- Fire resistance class K90-18017
- Metal connection sockets DN75
- Two-part backflow valve
- · Wall and ceiling mounting, air exhaustion upwards, to the right, left
- General building control permission: Z-51.1-70/71
- Built-in depth only 110 mm

**UB-ZR** Order-Nr. Type Model Standard 4020 UB

**UB-ZR** with double direction 4021 valve to the right DN75\* with double direction valve 4022 **UB-ZL** 

to the left DN75\* 4452 MB-V Assembly stirrup incl. fastening set

#### Type UBK for bathrooms, toilets and kitchens

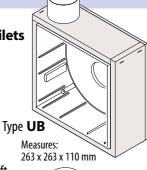
- · all features like type UB as well as additional
- premium steel closing device does not need any maintenance
- **New:** Air exhaustion backwards (Type UBK-H Permission: Z-51.1-72/73)



4030	UBK	Standard
4031	UBK-ZR	with double direction valve to the right DN75*
4032	UBK-ZL	with double direction valve to the left DN75*
4033	UBK-H	Air exhaustion directed backwards
4452	MB-V	Assembly stirrup incl. fastening set

Type **UBK** 

\*Caution: Only ventilation devices with 100m³ are to be used with double direction valve-equipped housings!





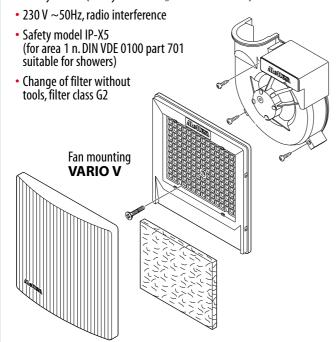
263 x 263 x 110 mm



The ventilation devices Vario, with ellegant ClassicLine design, are available in various performance levels and with various variants of controls.

#### **VPE 2 / Ventilation devices VARIO V**

- Ventilating device complete with filter holder, filter and sucking cover
- Colour: Pure white RAL 9010
- Energy saving, low noise-level and maintenance-free precise externalrotor engine with overcharge protection
- A steep performance-pressure curve (c.e. specifications), thanks to high performance radial gear with cast steel disc.
- Safety class II (safety conductor, PE" is not needed)



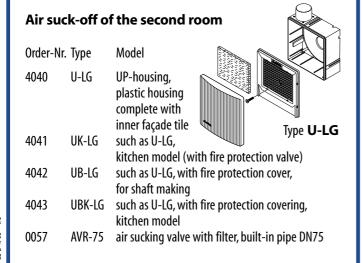
## The employment of ventilation devices VARIO V with one performance level

Order-N	r. Type	Model
4110	V-60	Standard
4111	V-60-N	with slowing down control
4112	V-60-I	with interval control
4120	V-100	Standard
4121	V-100-N	with slowing down control
4122	V-100-I	with interval control

## The employment of ventilation devices VARIO V with two performance levels

Order-Nr. Type		Model
4130 4131 4132 4133 4134 4135 4136	V-40/60 V-40/60-NZ V-40/60-K V-40/60-KF V-40/60-KZ V-40/60-F V-40/60-FF	Standard with slowing down control with comfort control + remote control access with comfort control + central control access with humidity control with humidity control + remote control access
4140 4141 4142 4143 4144 4145 4146	V-40/100 V-40/100-NZ V-40/100-K V-40/100-KF V-40/100-FZ V-40/100-FF	Standard with slowing down control with comfort control + remote control access with comfort control + central control access with humidity control with humidity control + remote control access

#### **VARIO** accessories



#### **Installation equipment**

Order-N	r. Type	Model
4520	BR-25	Mounting frame BR-25 with extended border to cover the cleft (for less then exact and to level out the heights, when the UP-housing protrudes from the plaster or tiles (levelling up to 15mm).  Measures: 325 x325 x25mm
4452	MB-V	Universal-assembly stirrup (incl. fastening material) for all concealed housing of the Vario series

### **Specifications / Vario concealed devices**

Standard devices (cover/fan mounting)	Air performance m³/h	stat. press. difference (Pa)	acoust. perfor. level Lw / dB(A)	noise level* Lp / dB(A)	nominal current A	input power W	net power supply NYM-O
U (B,K)/V-60 U (B,K)/V-100 U (B,K)/V-40/60 U (B,K)/V-40/100	61,9 100 42/61,9 42/100	237 94 237 94	40 49 37/40 37/49	36 45 33/36 33/45	0,14 0,17 0,12/0,14 0,12/0,17	21 36 15/21 15/36	2 x 1,5** 2 x 1,5** 3 x 1,5 3 x 1,5
Devices with air exhausti	ion directed backwards						
U (B,K)-H /V-60 U (B,K)-H /V-100 U (B,K)-H /V-40/60 U (B,K)-H /V-40/100	63,8 98 42/63,8 42/98	220 72 220 72	43 52 39/43 39/52	39 48 35/39 35/48	0,14 0,17 0,12/0,14 0,12/0,17	21 36 15/21 15/36	2 x 1,5** 2 x 1,5** 3 x 1,5 3 x 1,5
* according to DIN 18017 part 3 no. 6.2.4 (footnote 3) concerning AL=10m <sup>2</sup> ** during exchange of the control devices, e.g. V-60-N net power supply NYM-0 3x15							

### Dimensioning of the discharge pipe

#### Pipe diameter at the simultaneity factor of 100%.

The diagrams represent the minimum nominal inside diameter of the pipe and are stated according to DIN 18017 – Part 3 issued on August 1990, on the basis of which a height of one storey of 2,75 m and a length of the riser pipes from the last fan connection of up to 2 m are set.

#### **Caution:**

When using different products, a subsequent calculation of ascending pipe line beneath the groundworks of the available pressure difference is absolutely necessary.

60 m<sup>3</sup>/h

<b>—</b>	▼ Total number of storeys							
20								
19						5		
18						百		
17						占		
16					Б	5		
15					Б	百		
14					6	占		
13					-			
12				Г	Г			
11				Б	Б	5		
10				Б	Б			
9			Б	Г	-			
8			Б	Г	Б			
7		Б	4	Б	5			
6		Б	Б	Г	-			
5	卣	Б	Б	Г	Г			
4	4	П	Ъ	П	Б	5		
3	4	Б	Б	Б	Б	_		
2	-	Б	-	Б	Б	5		
1	4	Ъ	Ъ	Ъ	Ъ	7		
DN	100	125	140	160	180	200		

60 m<sup>3</sup>/h

<b>√</b>	– Total nu	ımber o	f storey:	5		
20						
19						
18						
17						
16						
15						
14						
13						
12						
11						
10						凸
9						6
8					470	670
7				百百	673	66
6			币	673	670	66
5				670	670	6
4		4	6	673	670	670
3	百百	6		6 6	6 6	6
2	60	670	670	673	670	60
1	5	6	6	679	6	670
DN	100	125	140	160	180	200

100 m<sup>3</sup>/h

<b>F</b>								
20								
19								
18								
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10						-		
9					-	-		
8					6	6		
7				4	-	5		
6			D	4	4	-		
5			5	5	6	5		
4			4	4	5	5		
3		4	4	4	7	7		
2		Б	5	5	6	5		
1	Ы	5	5	5	5	5		
DN	100	125	140	160	180	200		

**More information** concerning the dimensioning of the riser pipe, such as curve diagrams, are to be found in the corresponding technical data list, or at: **www.meltem.com** 

We will be glad to consult any difficulties via telephone, fax or email — your local representative

