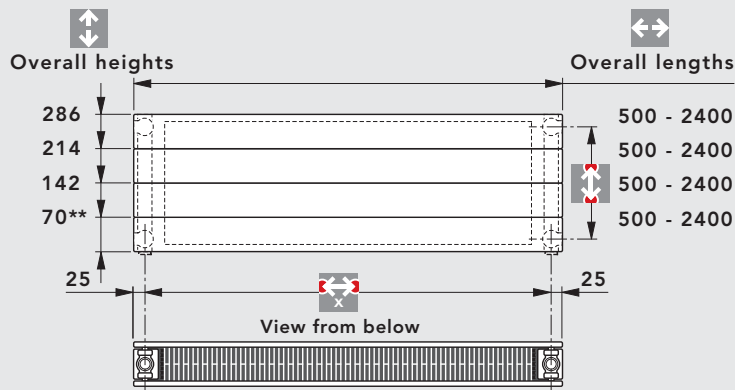
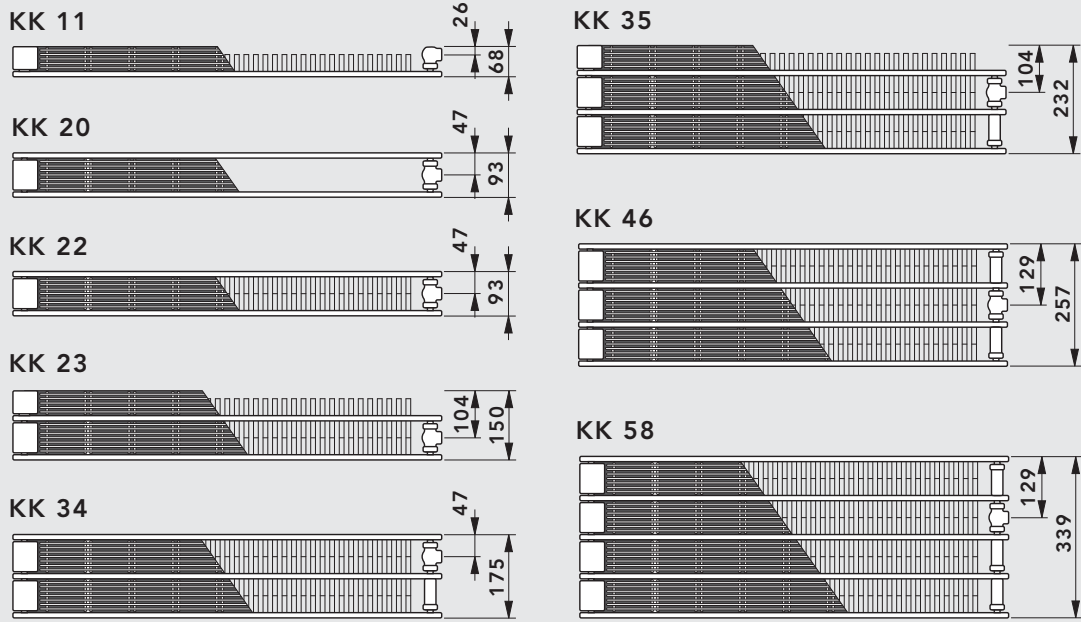
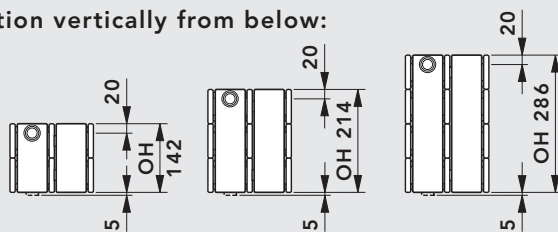


Horizontal design, KK models

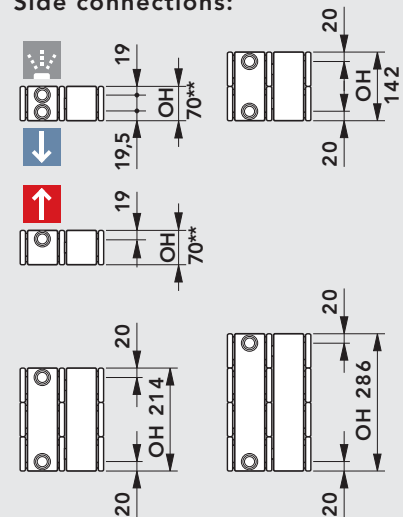


*Connection vertically from below:



Note: with an OH of 70 mm, vertical connection from below is not available!

Side connections:



* Models with an overall height of 142, 214 or 286 mm can also be delivered with supply and return connections vertically from below (as special designs and with a supplementary charge).

** Only available with top-bottom, opposite-ends, side-connection.

Overall height [mm]	↕	70**	142	214	286
Boss spacing NA [mm]	↕	32	102	174	246
Boss spacing NAS* [mm]	↕	Overall length - 50 mm			

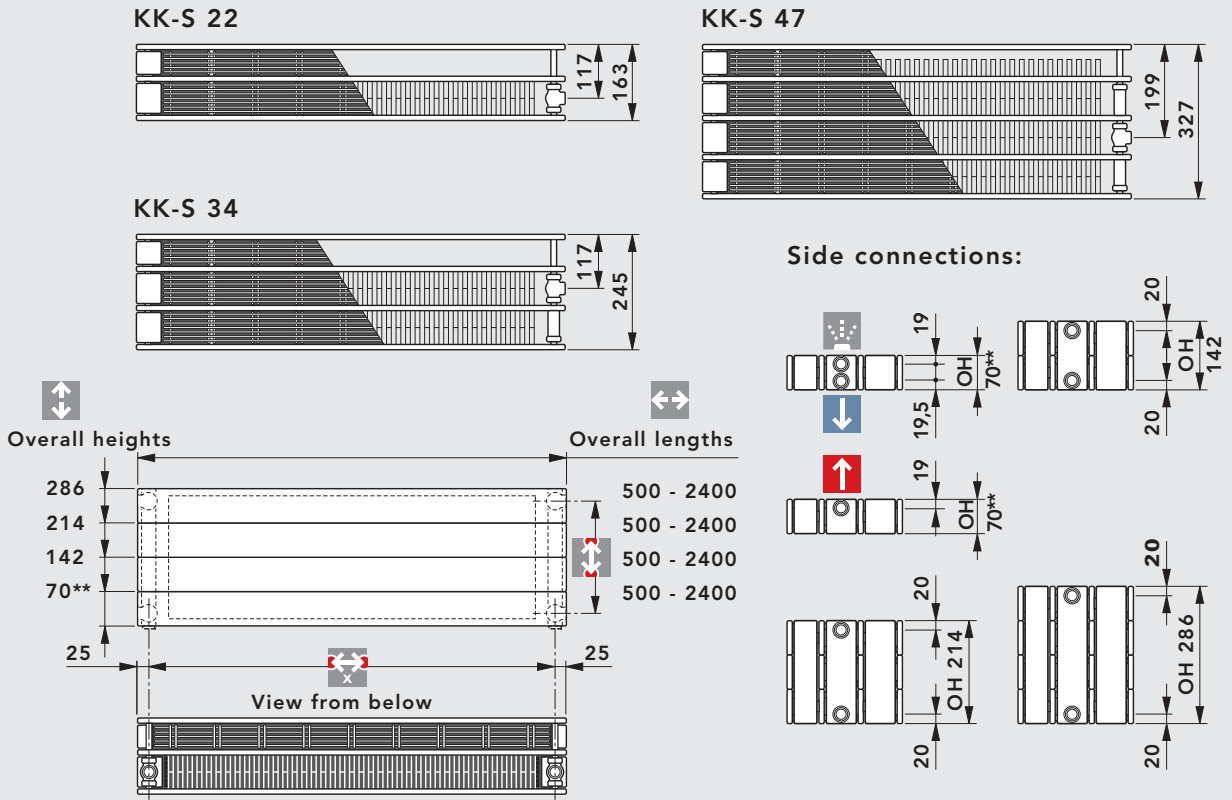
Schematic diagram

Model	KK 11	KK 20	KK 22	KK 23	KK 34	KK 35	KK 46	KK 58								
Overall height	-	-	-	142	70	142	70	142	70	142	70	142	70	142	70	142
↕	214	286	214	286	214	286	214	286	214	286	214	286	214	286	214	286
[mm]																
Overall length	500 - 2400 mm (for special overall lengths see output charts), model 58 up to 2200 mm															
↔																
[mm]																
Increments	100 mm (for an overall length of 1400 mm and greater: 200 mm)															

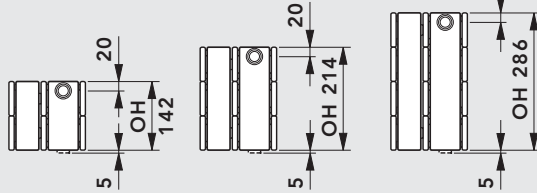
The KK-S models

With their factory-welded heat reflector (no water-flow), the WVO designs return a major part of the otherwise lost heat to the room. They do so by means of convection between radiator and heat reflector.

Model overview / connection dimensions: KK-S models, horizontal design



*Connection vertically from below:



* Models with an overall height of 142, 214 or 286 mm can also be delivered with supply and return connections vertically from below (as special designs and with a supplementary charge).

** Only available with top-bottom, opposite-ends, side-connection.

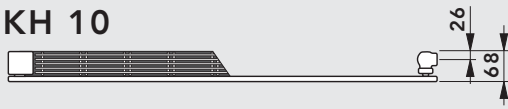
Note: with an OH of 70 mm, vertical connection from below is not available!

Overall height [mm]	↕	70**	142	214	286	Schematic diagram
Boss spacing NA [mm]	↕	32	102	174	246	
Boss spacing NAS* [mm]	↕	Overall length - 50 mm				

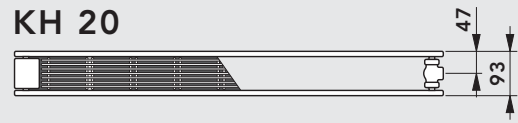
Model	KK-S 22				KK-S 34				KK-S 47			
Overall height [mm]	70	142	214	286	70	142	214	286	70	142	214	286
Overall length [mm]	500 – 2400 mm (for special overall lengths see output charts)											
Increments	100 mm (for an overall length of 1400 mm and greater: 200 mm)											

KH models horizontal design

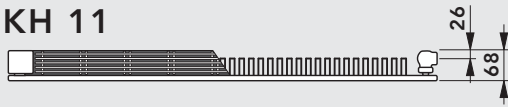
KH 10



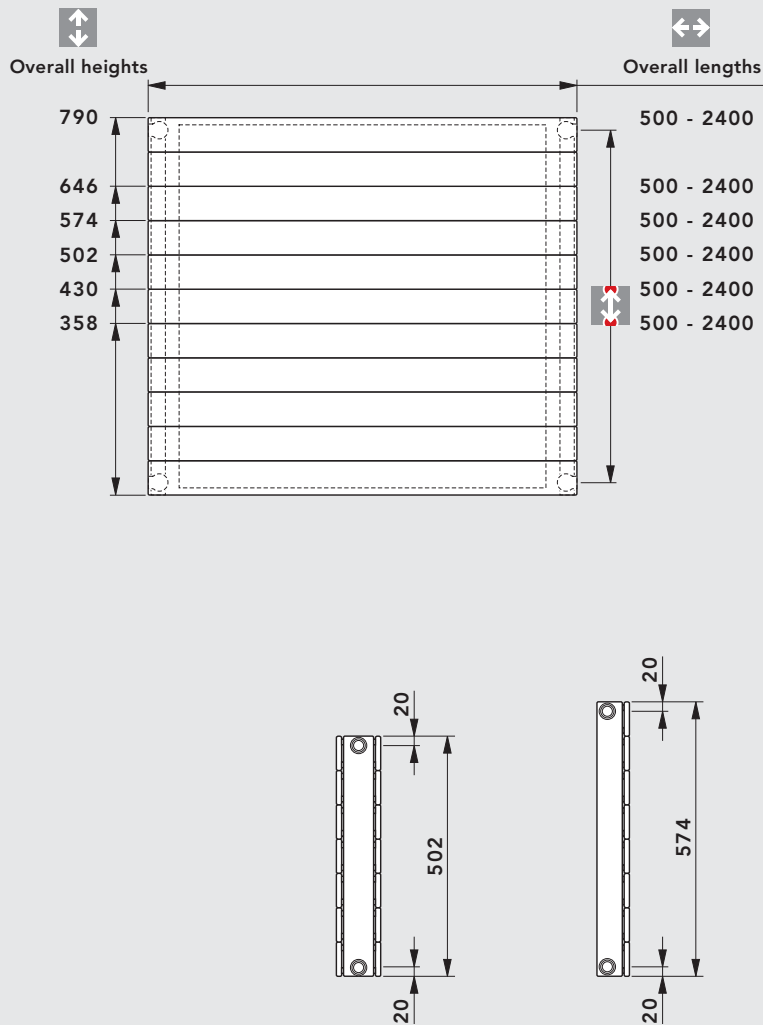
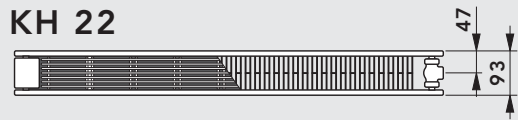
KH 20



KH 11



KH 22



Overall height [mm] 358 430 502 574 646 790 Schematic diagram

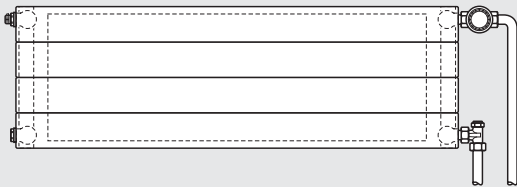
Boss spacing NA [mm] 318 390 462 534 606 750

Model	KH 10			KH 11			KH 20			KH 22		
Overall height [mm]	358	430	502	358	430	502	358	430	502	358	430	502
	574	646	790	574	646	790	574	646	790	574	646	790
Overall length [mm]	500 – 2400 mm (for special overall lengths see output charts)											
Increments	100 mm (for an overall length of 1400 mm and greater: 200 mm)											

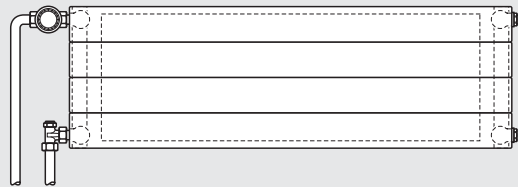
KK and KK-S models

Double-pipe system

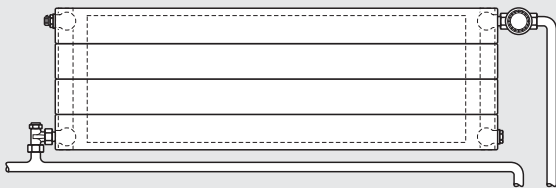
Single-sided connection, right



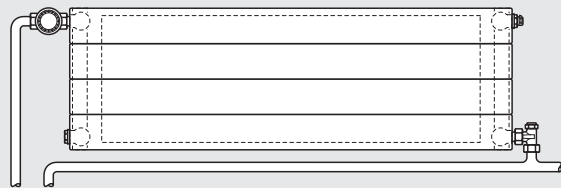
Single-sided connection, left



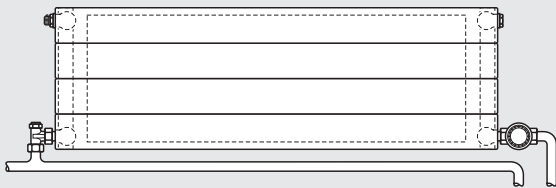
Top-bottom, opposite-end, side-connection, right-side supply



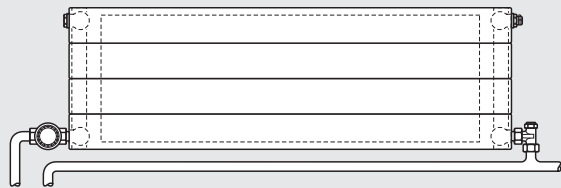
Top-bottom, opposite-end, side-connection, left-side supply



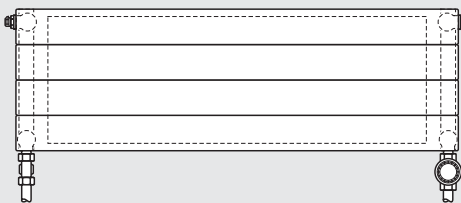
Bottom-only, opposite-end, side-connection, right-side supply
Note: reduced heat output



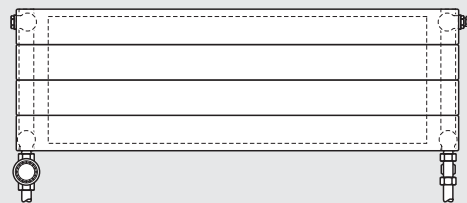
Bottom-only, opposite-end, side-connection, left-side supply
Note: reduced heat output



Vertical connection from below, bottom-only, opposite-end, right-side supply
Note: reduced heat output



Vertical connection from below, bottom-only, opposite-end, left-side supply
Note: reduced heat output

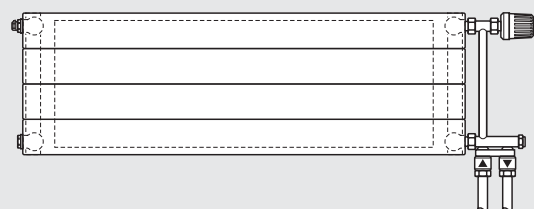


Single-pipe system

KONTEC convectors can easily be converted for use with a single-pipe system. In this case, however, 4-way valves with a by-pass pipe need to be used.

Recommendation:

For reasons of appearance the VONARIS valve design is the preferred option for this connection mode.



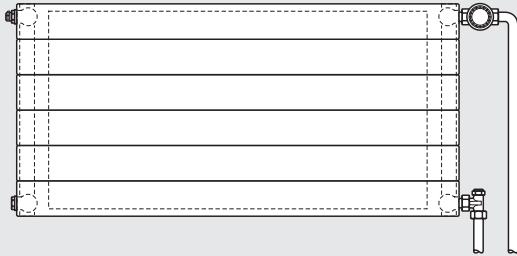
Schematic diagram

Note: when ordering your KONTEC convector (see page 76 "Description of the Ordering Process") the 4 connections must be accurately specified and assigned. This is for technical production reasons. No subsequent changes to the connections on your KONTEC convector are possible!

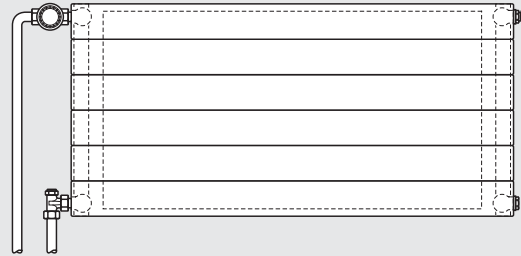
KH models

Double-pipe system

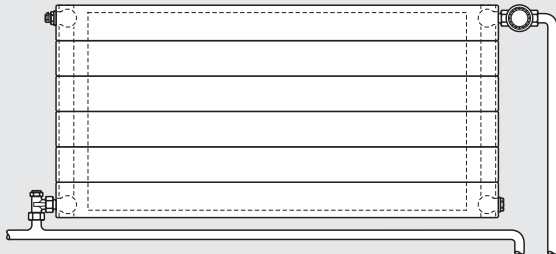
Single-sided connection, right



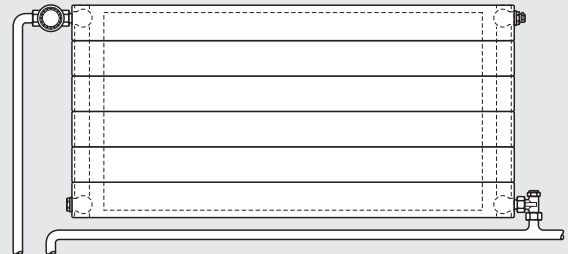
Single-sided connection, left



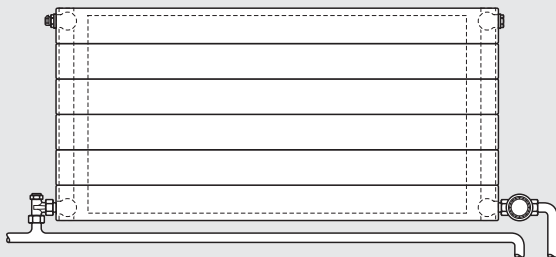
Top-bottom, opposite-end, side-connection, right-side supply



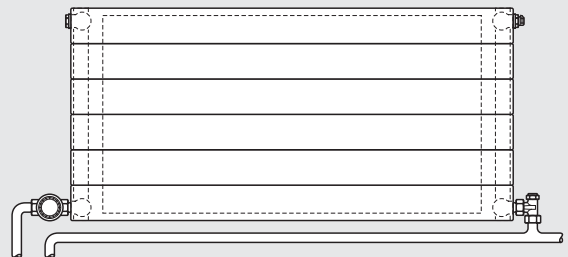
Top-bottom, opposite-end, side-connection, left-side supply



Bottom-only, opposite-end, side-connection, right-side supply
Note: reduced heat output



Bottom-only, opposite-end, side-connection, left-side supply
Note: reduced heat output

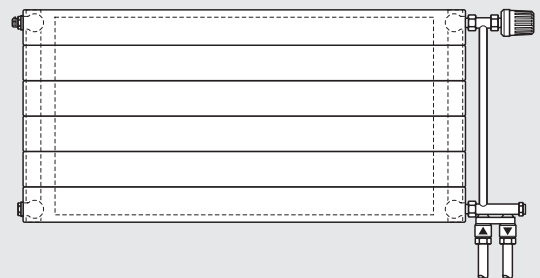


Single-pipe system

KONTEC convectors can easily be converted for use with a single-pipe system. In this case, however, 4-way valves with a by-pass pipe need to be used.

Recommendation:

For reasons of appearance the **VONARIS** valve design is the preferred option for this connection mode.



Schematic diagram

Note: when ordering your KONTEC KH model heating panels, (see page 77, "Description of the Ordering Process") the 4 connections must be accurately specified and assigned. This is for technical production reasons. No subsequent changes to the connections on your KONTEC KH model heating panels are possible!

KH 20 and KH 22 models, horizontal designs**The new heat reflector**

- is available for the KH 20 (OH 358 – 574 mm) and the KH 22 (OH 358 - 646 mm) models in horizontal design
- returns a major part of the otherwise lost heat to the room, by means of convection between the KONTEC heating panel and the heat reflector.

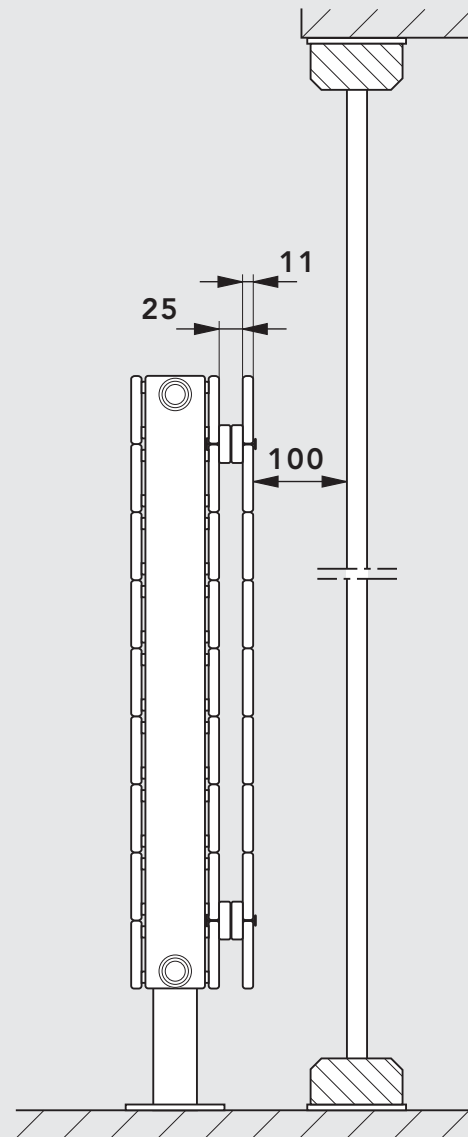
Design:

Electrophoretic coating and finish in RAL 9016 (on request and at an extra charge, in a range of RAL and Sanitary Ware colours); delivered with 8 push-in brackets, 8 stabilising brackets, 4 Z-brackets, an installation sheet, and packaging

Note: when ordering one of the horizontal designs with a heat reflector, it is also essential to use either an **SK 22 (KH 20)** or an **SK 23 (KH 22) stand console**.

KONTEC heating panel with fitted heat reflector
 (see image to the right)

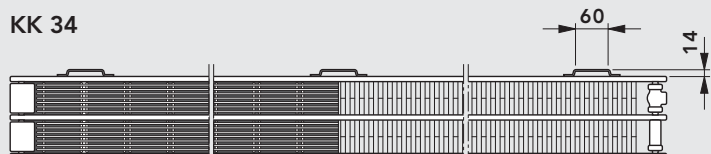
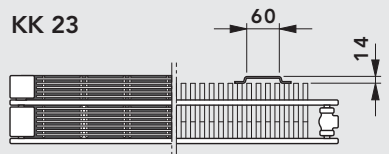
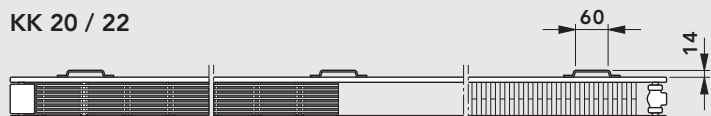
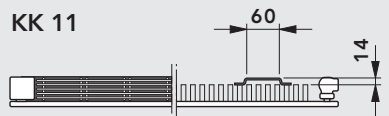
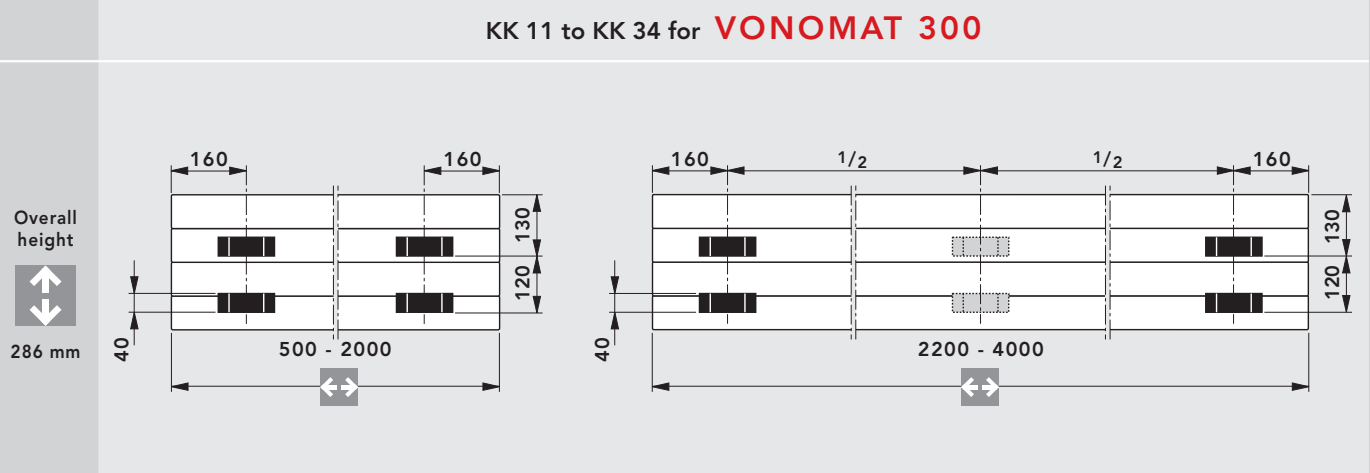
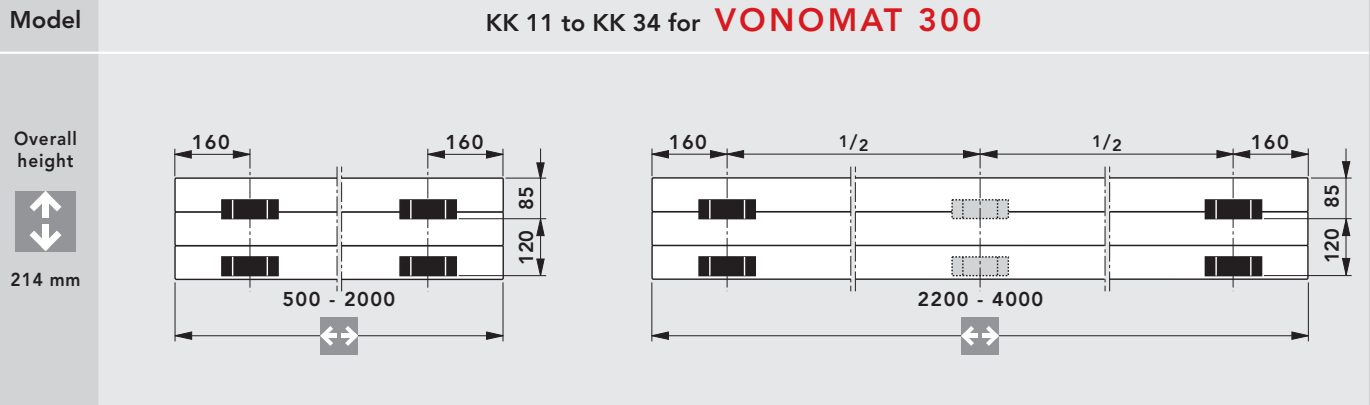
Width:	11 mm	heat reflector
Internal depth:	25 mm	between heating pipe and heat reflector
Minimum clearance*:	100 mm	between window surface and heat reflector



Schematic diagram

* The minimum clearance between window surface and heat reflector (100 mm) complies with the recommendations of leading window surface manufacturers.

VONOMAT wall console for KK models (convectors)



Schematic diagram

Note! By default convectors are delivered without brackets. If a **VONOMAT** wall console is used, the convector must be ordered as a special design with brackets. Convectors with an OH of 70 or 142 mm cannot be delivered with wall mounting brackets.

VONOMAT wall console for KH models (heating panels, horizontal design)

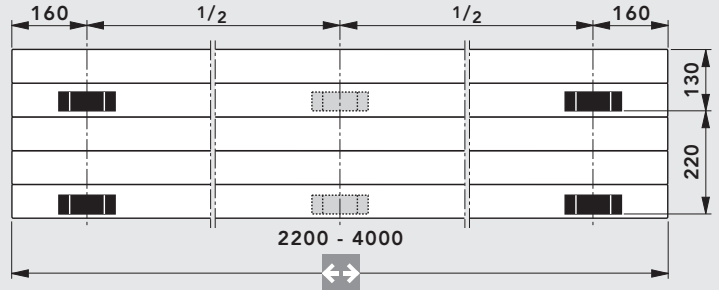
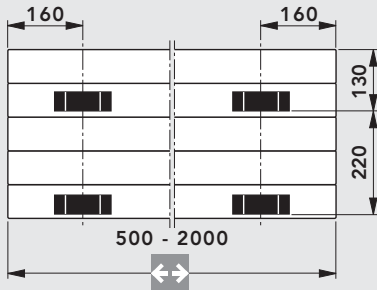
Model

KH 10 to KH 22 for **VONOMAT 400**

Overall height



from 358 mm to 502 mm

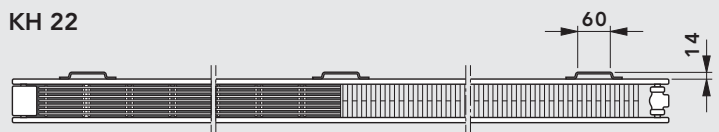
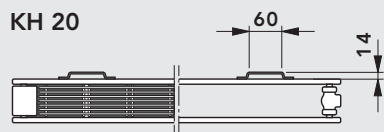
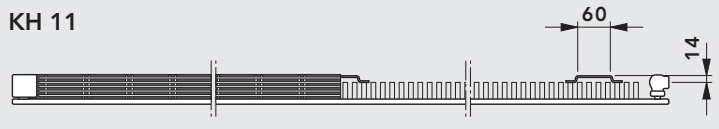
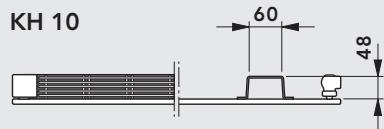
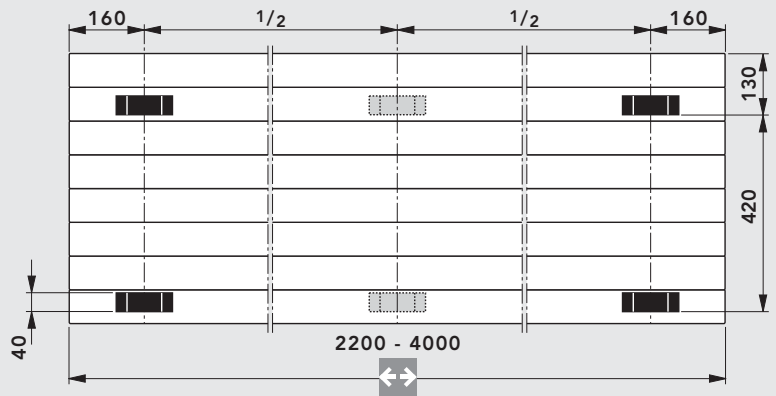
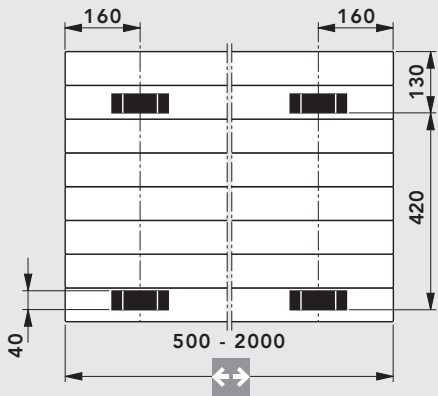


KH 10 to KH 22 for **VONOMAT 600**

Overall height



from 574 mm to 790 mm




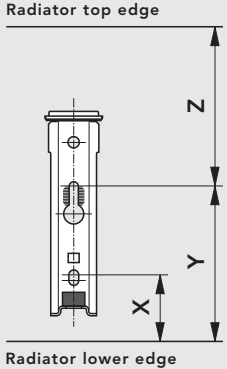
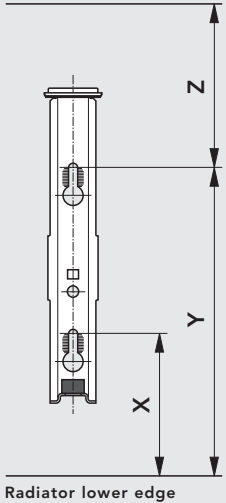
Schematic diagram

VONOMAT wall console for KK models (convectors) and KH models (heating panels, horizontal design)

KONTEC convectors and KONTEC heating panels can be installed easily, quickly and securely, whilst they are still in their wrappers. This is made possible by the VONOMAT wall console for KK model convectors (OH 214 and 286 mm, with fitted brackets) and for KH heating panels (OH 358 – 790 mm).

Wall rails for OH 214 – 790 mm

Drilling measurements for the VONOMAT 300 – 600

Wall rail for OH 214 / 286 mm	Overall radiator height [mm] 	Value X [mm]	Value Y [mm]	Value Z [mm]	Wall rail for BH 358 – 790 mm
 <p>Radiator top edge</p> <p>Radiator lower edge</p>	214	34	114	100	 <p>Radiator top edge</p> <p>Radiator lower edge</p>
	286	61	141	145	
	358	58	209	149	
	430	130	281	149	
	502	202	353	149	
	574	74	425	149	
	646	146	497	149	
	790	290	641	149	


Schematic diagram

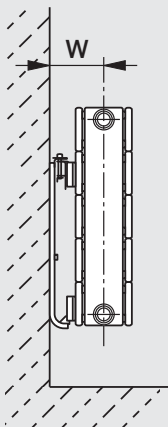
The VONOMAT wall console with integrated connection and displacement locking features consists of:

- 2 or *3 consoles with sound-proofing,
- 2 or *3 snap-on elements,
- 2 or *3 mounting screws with dowels and safety washers

*For an overall length of 2200 mm and greater

Connection – wall clearance

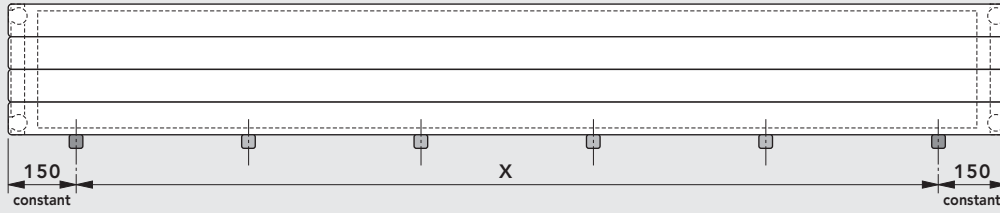
Convactor and heating panel models	Overall height [mm] 	Measurement W [mm]
KK 11	214, 286	43
KK 20, KK 22, KK 34	214, 286	87
KK 23	214, 286	121,5
KH 10, KH 11	358 - 790	43
KH 20, KH 22	358 - 790	87



The VONOMAT wall console complies with the requirements of the TÜV Rheinland (for physical load-bearing purposes).

Schematic diagram

Wall consoles WK 10 – 13: positioning for KK models (convectors)



Note: when using more than 2 wall consoles the additional wall consoles must be placed at regular intervals along the line X.

WK 10 wall console

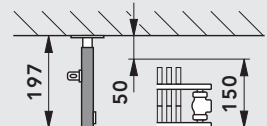
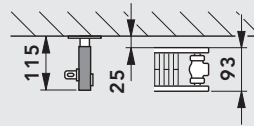
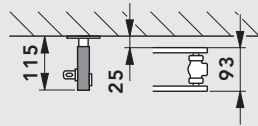
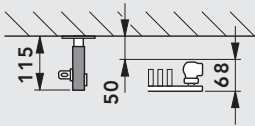
WK 11 wall console

KK 11

KK 20

KK 22

KK 23



WK 11 wall console

WK 12 wall console

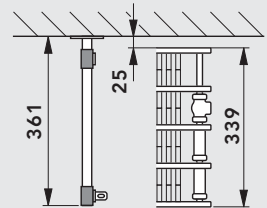
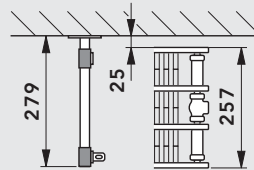
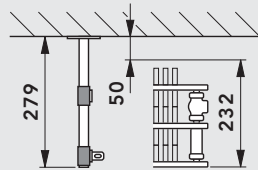
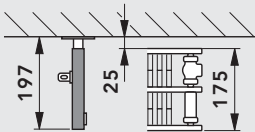
WK 13 wall console

KK 34

KK 35

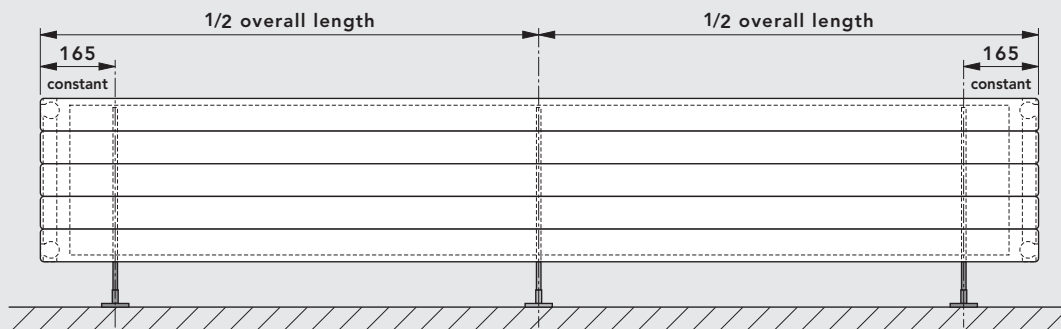
KK 46

KK 58



Schematic diagram

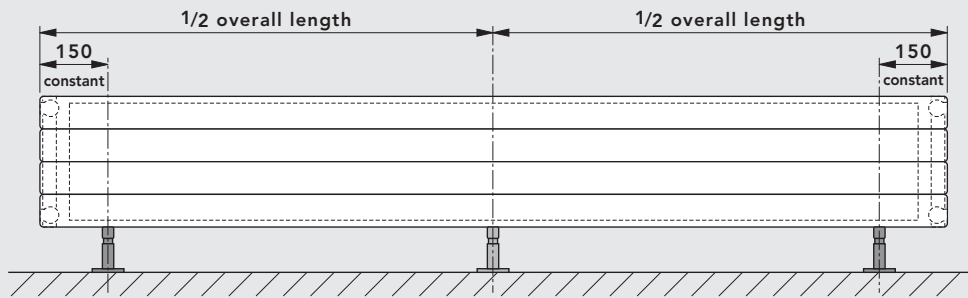
Stand consoles SK 22 and SK 23: positioning for KH models (horizontal design heating panels)



Note: for an overall length of 2200 mm and greater, a 3rd stand console must be used!

Schematic diagram

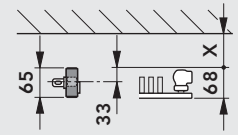
Stand consoles SK 10 – 19: positioning for the KK / KK-S models



Note: for an overall length of 2200 mm and greater, a 3rd stand console must be used!

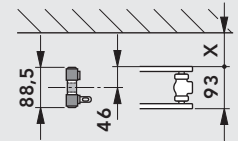
SK 10 / SK 11

KK 11



SK 12 / SK 13

KK 20



SK 12 / SK 13

SK 14 / SK 15

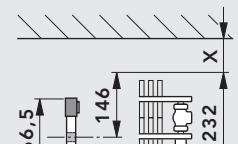
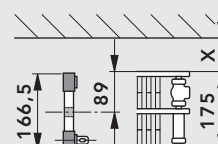
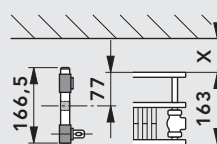
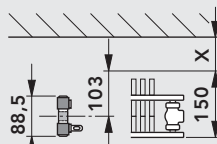
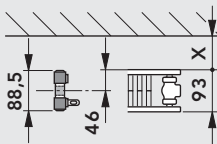
KK 22

KK 23

KK-S 22

KK 34

KK 35



SK 14 / SK 15

SK 16 / SK 17

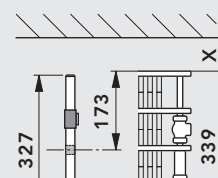
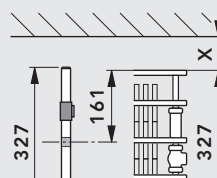
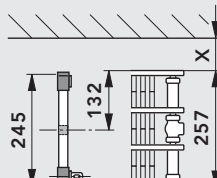
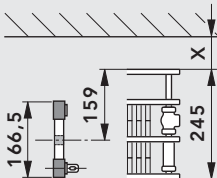
SK 18 / SK 19

KK-S 34

KK 46

KK-S 47

KK 58

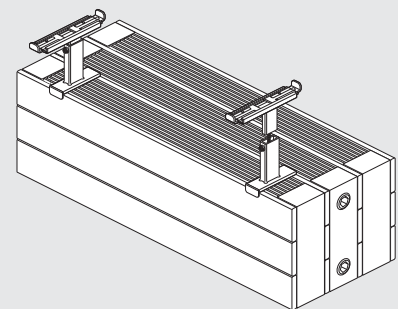
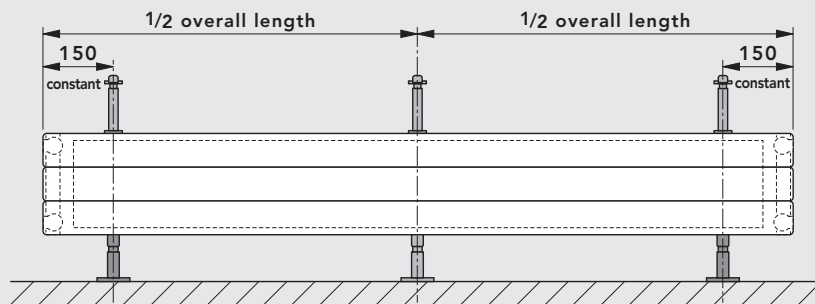


Measurement X:
chosen distance between the wall or window surface and the back of the convector.

Schematic diagram

Window sill support FBT 20: positioning for KK / KK-S models

Window sill support for subsequent installation with the KK / KK-S 22 – 58 models of KONTEC convectors



Note: for an overall length of more than 2200 mm, a 3rd window sill support must be used!

Schematic diagram