Radiant ceiling profiles

Office Commercial Industrial halls

ALLFEST

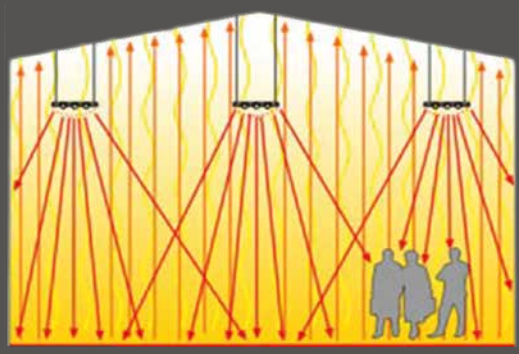
KLIX

Since 1989

Klix coanda 602

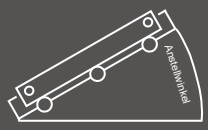
Two radiant heating systems in comparison

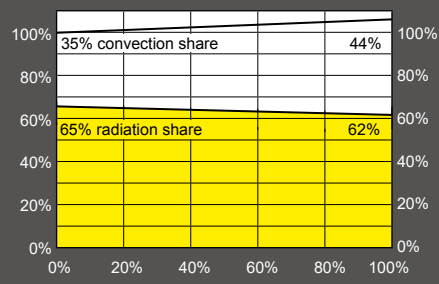
Radiant ceiling panels for heating and cooling operations
Radiant screen approx. 60° - 90° angled downwards for offices and halls from 3.0 m - 30 m room height



Intensive heat radiation on the head area
When outside temperatures drop with rising heating temperatures, increase in radiation intensity and convection with dust swirling up on the floor
- Limited comfort

Compensation for the transmission losson the roof and exterior walls





Compensation mainly from the overheated floor. Approx:
50% by convection and secondary radiation from the floor
35% direct convection at the radiant ceiling panel
Sinking cold air mixes with rising warm air

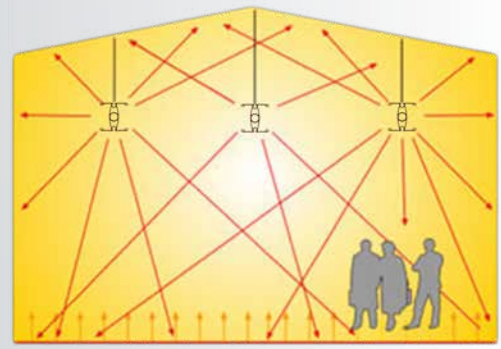
Size ratio and operating weight

M 1:10

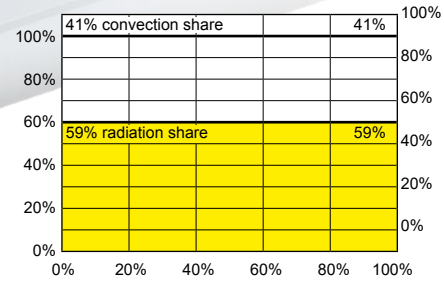
Radiant ceiling panel 600-4 with baked powder coating
Radiant panels welded with steel pipe register
Thermal insulation to the top Without insulation if required
4 flow pipes 1" Press fittings or welding
2-point suspension M8 fixed - pendulum chain
Operating weight **15,4 kg/m**

Complex assembly

KLIX radiant ceiling profiles for heating and cooling operations
Direct 360° all-round radiation on all surrounding surfaces for offices and halls from 2.30 m - 20 m room height



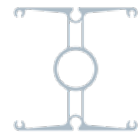
Diagonal radiation with low intensity on persons
This system largely fulfils the requirements for uniform tempered surrounding warmth with low convection and dust whirling up on the floor
- Prerequisite for a high comfort level



Compensation mainly through direct heat radiation. Approx:
62% by radiation on all surrounding surfaces
38% direct convection on KLIX radiant ceiling profile
Radiation exchange between all surrounding surfaces

Example

M 1:10

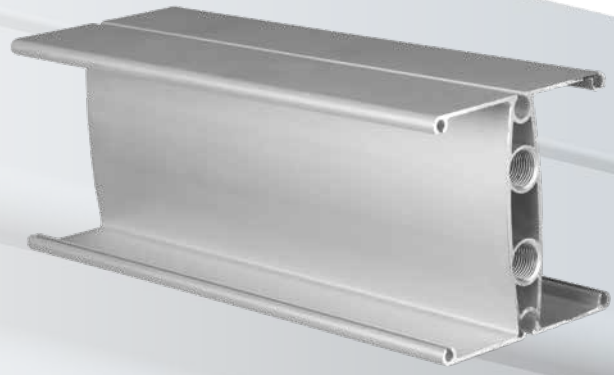


Klix -600 radiant ceiling profile – anodised
x-shaped extruded profile made of corrosion-resistant aluminium alloy
1 flow tube 5/4" internal thread – hemp & putty
1-point suspension M8 movable – pendulum chain
Operating weight **6 kg/m**

50-70% shorter installation times than for radiant ceiling panels

Subject to change

Technical data



KLIX radiant ceiling profiles made of aluminium without thermal insulation – with anodised coating					
	Model	coanda 301	coanda 602	coanda-600	coanda-750
Heat output	Watt / m	229	343	301	354
Pipes	Number	1 x 3/4""	2 x 1/2"	1 x 5/4"	1 x 2"
Profile height x profile width	mm	90 x 90	130 x 130	130 x 130	160 x 160
Heating surface	m² / m	0,52	0,75	0,77	1,3
Water content	Litres / m	0,48	0,6	1,2	2,6
Tare weight	kg / m	3,3	4,7	4,8	6,8
Operating weight	kg / m	3,8	5,3	6,0	9,4

Test temperature 80°C / 70°C / 20°C

Radiant ceiling panels with thermal insulation – Surfaces with powder coating RAL-9010					
	Model	300-2	450-3	600-4	750-5
Heat output	Watt / m	182	247	319	389
Pipes	Number	2 x 1"	3 x1"	4 x 1"	5 x 1"
Profile height x profile width	mm	80 x 300	80 x 450	80 x 600	80 x 750
Heating surface	m² / m	0,39	0,55	0,71	0,87
Water content	Liter / m	0,82	1,23	1,64	2,05
Tare weight	kg / m	7,0	10,2	13,2	16,3
Operating weight	kg / m	8,2	11,8	15,4	19,0

Test temperature 80/70/20°C

KLIX-coanda 301

KLIX-coanda 301

KLIX-coanda 301

KLIX-coanda 600

KLIX-coanda 600

KLIX-coanda 600

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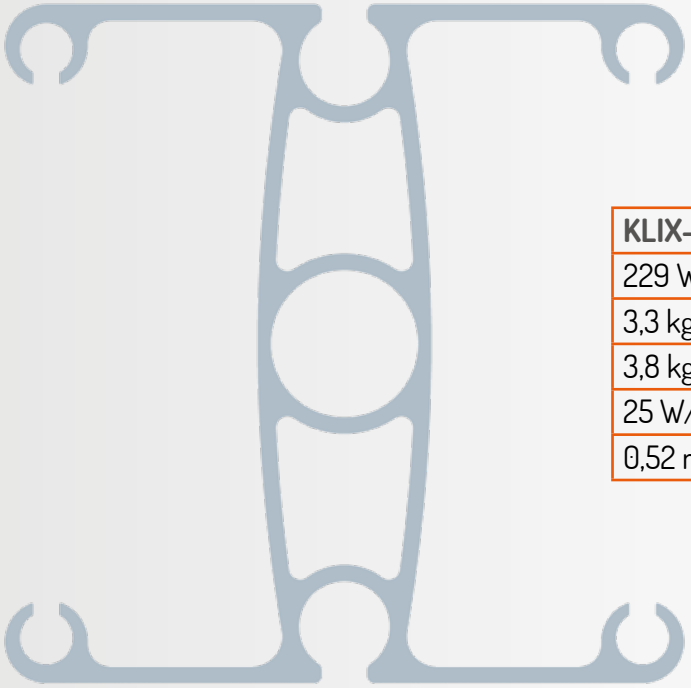
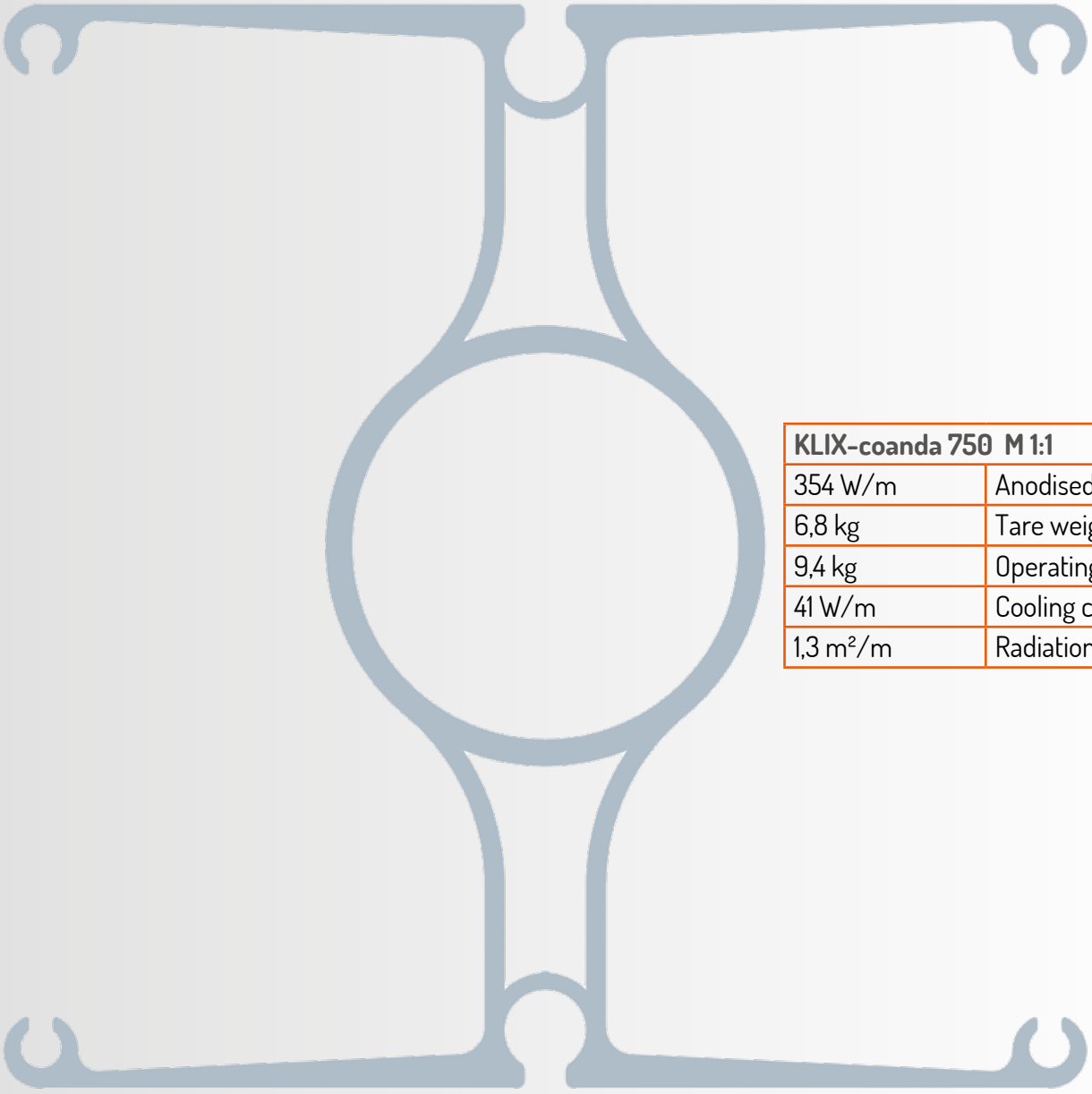
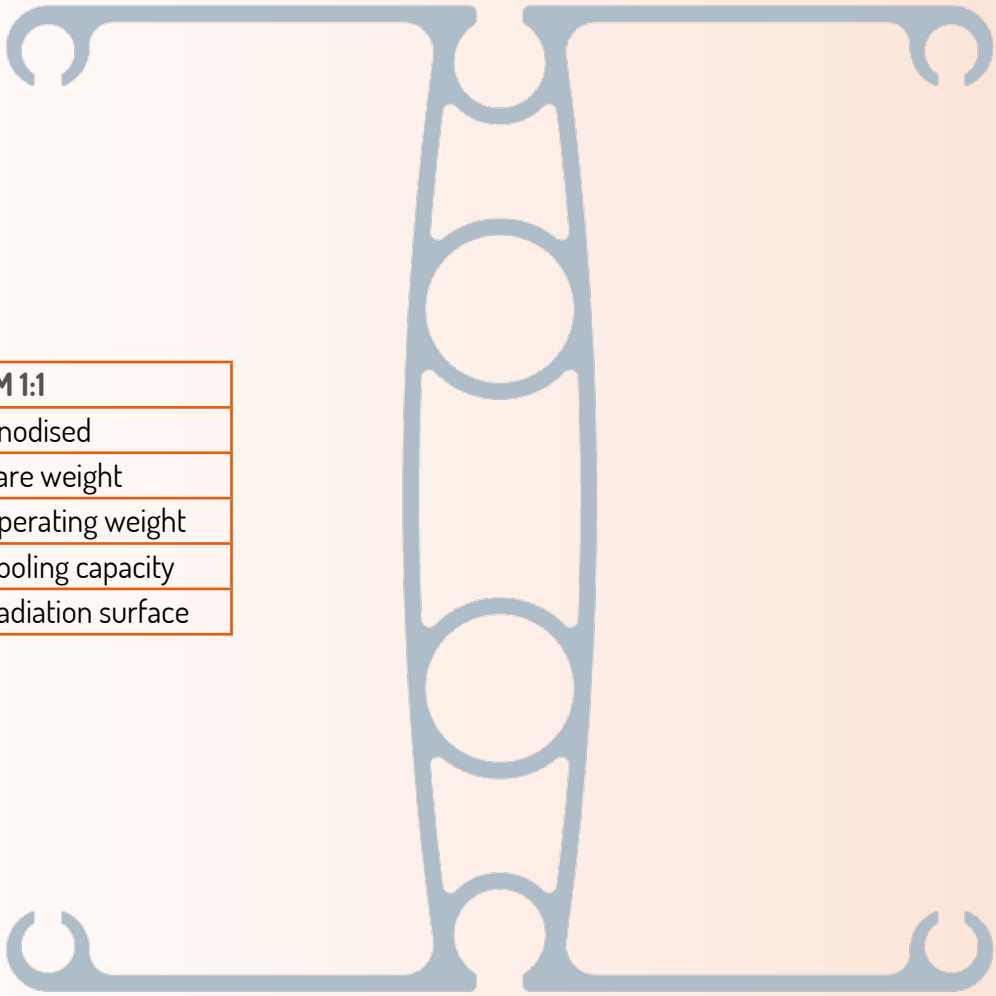


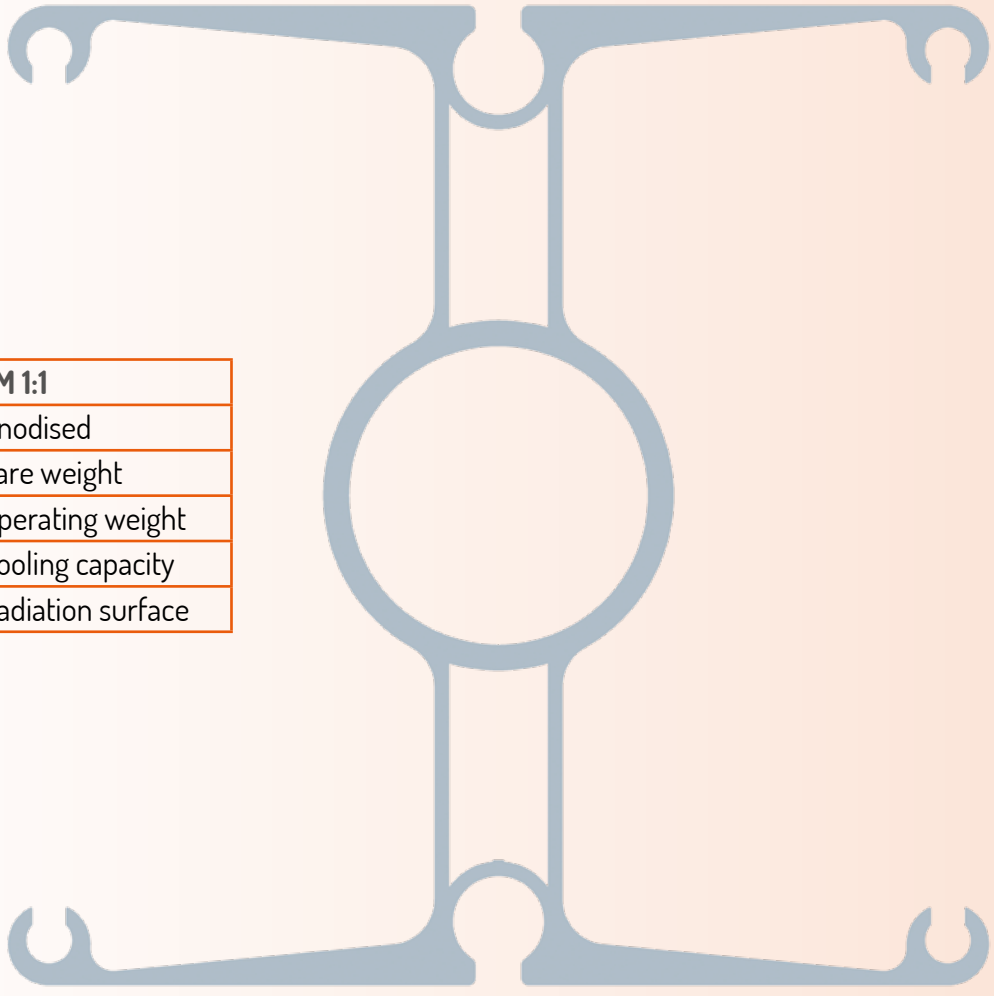
KLIX-coanda 301 M 1:1	
229 W/m	Anodised
3,3 kg	Tare weight
3,8 kg	Operating weight
25 W/m	Cooling capacity
0,52 m²/m	Radiation surface



KLIX-coanda 750 M 1:1	
354 W/m	Anodised
6,8 kg	Tare weight
9,4 kg	Operating weight
41 W/m	Cooling capacity
1,3 m²/m	Radiation surface



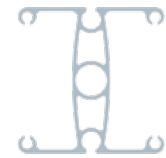
KLIX-coanda 602 M 1:1	
343 W/m	Anodised
4,7 kg	Tare weight
5,3 kg	Operating weight
37 W/m	Cooling capacity
0,75 m²/m	Radiation surface



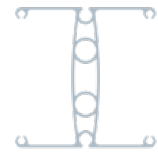
KLIX-coanda 600 M 1:1	
301 W/m	Anodised
4,8 kg	Tare weight
6 kg	Operating weight
34 W/m	Cooling capacity
0,77 m²/m	Radiation surface

Heat output per **1 metre** of radiant profile length **at 20°C** room temperature

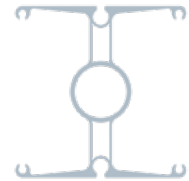
Heating medium temperatures				Surface **natural aluminium** / anodisation E6 EV1			
				Klix-	**Klix-**	**Klix-**	**Klix-**
Overtemp.	**20 K**	**15 K**	**10 K**	coanda	coanda	coanda	coanda
Delta t				**301**	**600**	**602**	**750**
(k)	tv / tr	tv / tr	tv / tr	W / m	W / m	W / m	W / m
12,5		40 / 25		30	40	44	47
15	45 / 25		40 / 30	43	57	63	67
17,5		45 / 30		50	67	74	78
20	50 / 30		45 / 35	63	84	93	98
22,5		50 / 35		71	95	106	111
25	55 / 35		50 / 40	84	112	125	130
27,5		55 / 40		93	124	139	145
30	60 / 40		55 / 45	106	141	158	165
32,5		60 / 45		116	154	173	180
35	65 / 45		60 / 50	129	171	193	200
37,5		65 / 50		140	185	209	216
40	70 / 50		65 / 55	153	202	229	237
42,5		70 / 55		164	217	245	254
45	75 / 55		70 / 60	178	234	266	275
47,5		75 / 60		189	249	283	293
50	80 / 60		75 / 65	203	267	304	314
52,5		80 / 65	**Test temp.**	215	283	322	332
55	85 / 65		**80 / 70**	229	301	343	354
57,5		85 / 70		241	317	361	373
60	90 / 70		85 / 75	256	335	383	395
62,5		90 / 75		268	352	402	414
65	95 / 75		90 / 80	283	371	424	437
67,5		95 / 80		296	378	444	456
70	100 / 70		95 / 85	310	406	466	479
				Recommended maximum profile length			
			10 K	72 m	130 m	32 m	200 m
		15 K		92 m	160 m	42 m	260 m
	20 K			108 m	200 m	50 m	310 m



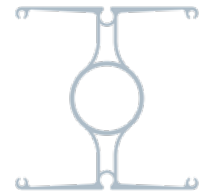
KLIX-coanda 301



KLIX-coanda 602



KLIX-coanda 600



KLIX-coanda 750

Height x width	mm	90 x90	130 x 130	130 x 130	160x160
Internal thread	Inch	3/4“	5/4“	2 x 1/2“	1 x 2“
Tare weight	kg / m	3,3	4,8	4,7	6,8
Operating weight	kg / m	3,8	6,0	5,3	9,4
Water content	Litres / m	0,48	1,2	0,6	2,6
Radiating surface	m^2 / m	0,52	0,77	0,75	1,3
Test report – heating		*1	*2	*3	*4
Test report – cooling		*5	*6	*7	*8
Ceiling bracket mounting		M	M	M	M
Profile distance to ceiling	mm	180	260	260	320
Bracket spacing from start of profile		Between 150 mm and 400			
mm Intermediate bracket spacing		2000 mm to 2500 mm			
With inclined suspension		Secure holder with self-tapping screws			
Aluminium alloy AlMgSi0.5	mm / m	Expansion from 10°C - 85°C = 2 mm / m			
		Approved up to 5 bar operating pressure			
Threaded Joints		Use hemp & putty for threads			
Bearing length – anodised		**1, 2, 3, 4, 5, 6 m**			
Industrial lengths – anodised		**10, 12 m**			

Test centre HLK Stuttgart
*1 DC215 D14.3811
*2 DF17 D14.4419
*3 DC215 D14.3810
*4 DF17 D14.4418

*5 VC215 K14.3802
*6 VF17 K14.4415
*7 VC215 K14.3803
*8 VF17 K14.4416

Subject to change

07/2023/EN

Radiant ceiling profile

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Since 1989

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