

Zoom Lens

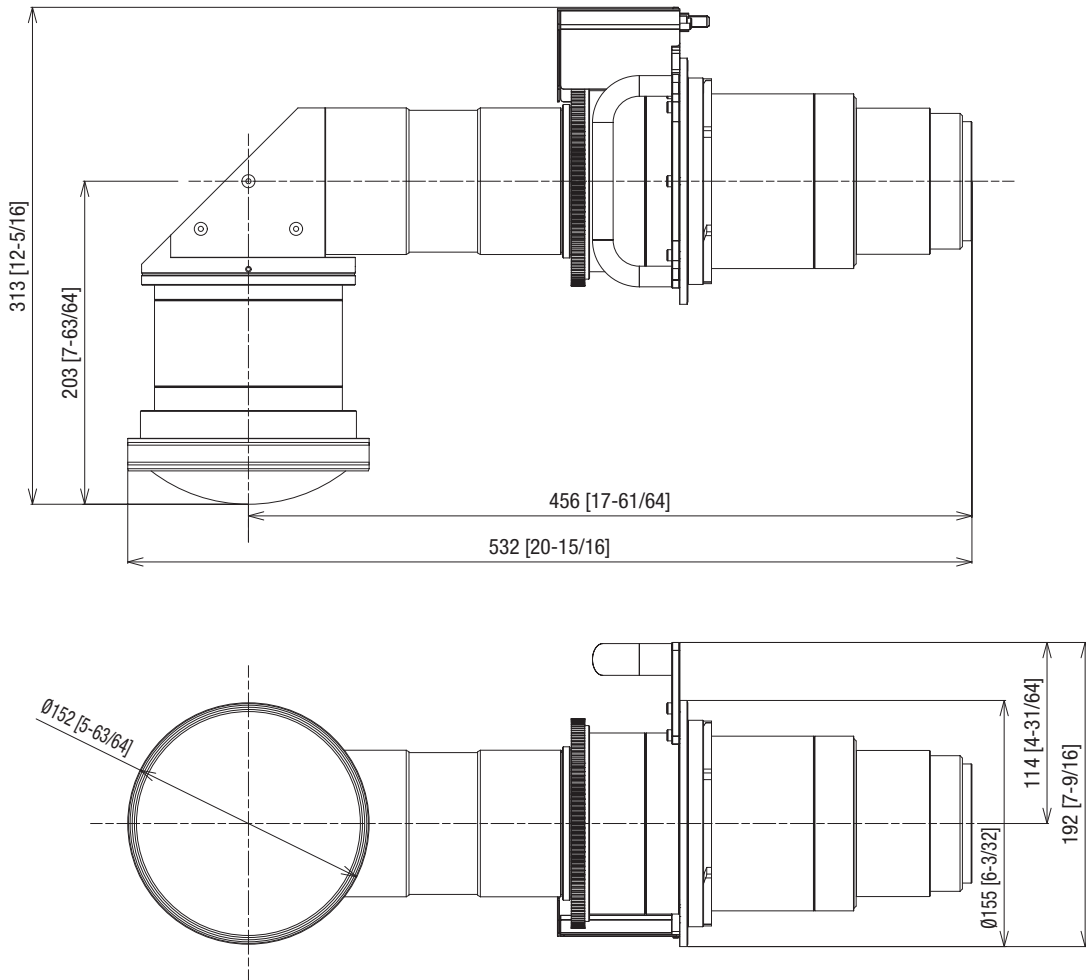
This zoom lens is designed for use with Panasonic's applicable projectors.

*Please use the lens only on the specified Panasonic projector.

Specifications (Specifications are subject to change without notice.)

F value		2.5
Focal distance (f)		17.5 mm–20.7 mm [11/16 –13/16 inch]
Throw ratio		0.548 – 0.650:1 for PT-RQ50K (Aspect 17:9) 0.652 – 0.772:1 for PT-RQ50K (Aspect 16:10) 0.585 – 0.693:1 for PT-RQ50K (Aspect 16:9) 0.785 – 0.929:1 for PT-RQ50K (Aspect 4:3)
Dimensions	Width	313 mm [12-5/16 inch]
	Height	192 mm [7-9/16 inch]
	Depth	532 mm [20-15/16 inch]
Weight		Approx. 11.3 kg (399 ozs)
Applicable projector		PT-RQ50K

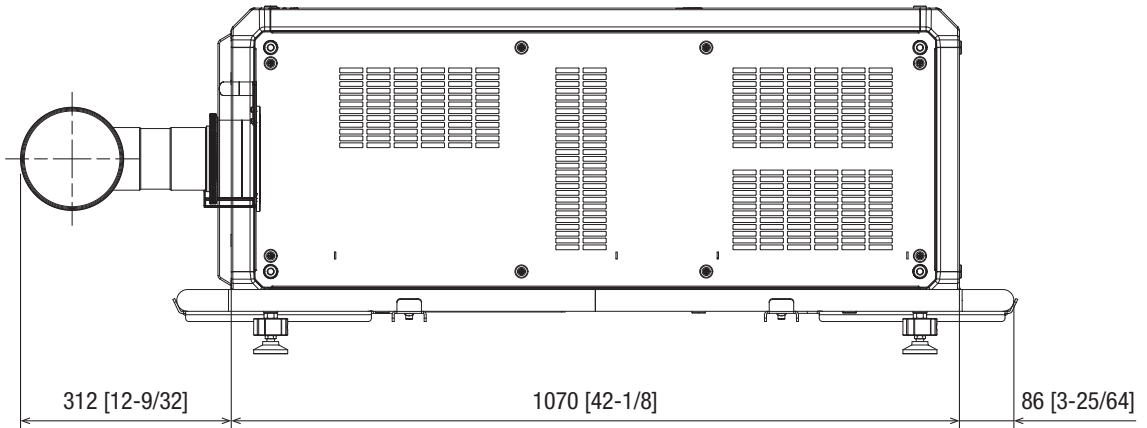
Dimensions



unit : mm [inch]
This illustration is not drawn to scale.

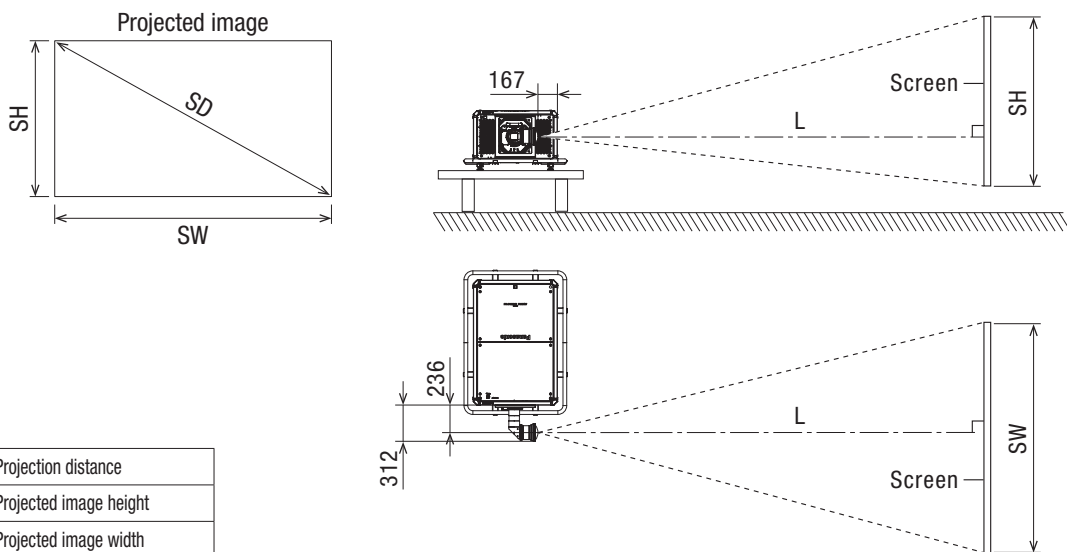
Zoom Lens

Figure attached to the [PT-RQ50K] projector



unit : mm [inch]
This illustration is not drawn to scale.

Projection relationship diagram



L	Projection distance
SH	Projected image height
SW	Projected image width
SD	Projected image size

unit : mm

Note

- This diagram assumes that the size and position of the projected image will be adjusted so that the image fills the entire screen.
- This illustration is not drawn to scale.
- The values are approximate.

Projection distance

Screen aspect ratio 17:9

Unit: m

Screen aspect ratio			17:9 DC4K ; 4096 x 2160	
Throw ratio			0.548 – 0.650:1	
Projection screen size			Projection distance (L)	
Diagonal (SD) m / inch	Height (SH)	Width (SW)	min. (LW)	max. (LT)
2.54 / 100	1.188	2.245	1.19	1.42
3.05 / 120	1.426	2.694	1.44	1.72
3.81 / 150	1.783	3.367	1.82	2.17
5.08 / 200	2.377	4.490	2.46	2.92
6.35 / 250	2.971	5.612	3.10	3.67
7.62 / 300	3.565	6.734	3.73	4.42
8.89 / 350	4.160	7.857	4.37	5.17
10.16 / 400	4.754	8.979	5.00	5.92
12.70 / 500	5.942	11.224	6.27	7.42
15.24 / 600	7.131	13.469	7.54	8.92
17.78 / 700	8.319	15.714	8.82	10.42
20.32 / 800	9.507	17.959	10.09	11.93
22.86 / 900	10.696	20.203	11.36	13.43
25.40 / 1000	11.884	22.448	12.63	14.93
27.94 / 1100	13.073	24.693	13.90	16.43
30.48 / 1200	14.261	26.938	15.17	17.93
33.02 / 1300	15.450	29.183	16.44	19.43
35.56 / 1400	16.638	31.427	17.71	20.93
38.10 / 1500	17.827	33.672	18.98	22.43

Screen aspect ratio 17:9

Unit: feet

Screen aspect ratio			17:9 DC4K ; 4096 x 2160	
Throw ratio			0.548 – 0.650:1	
Projection screen size			Projection distance (L)	
Diagonal (SD) m / inch	Height (SH)	Width (SW)	min. (LW)	max. (LT)
2.54 / 100	3.90	7.37	3.90	4.66
3.05 / 120	4.68	8.84	4.72	5.64
3.81 / 150	5.85	11.05	5.97	7.12
5.08 / 200	7.80	14.73	8.07	9.58
6.35 / 250	9.75	18.41	10.17	12.04
7.62 / 300	11.70	22.09	12.24	14.50
8.89 / 350	13.65	25.78	14.34	16.96
10.16 / 400	15.60	29.46	16.40	19.42
12.70 / 500	19.49	36.82	20.57	24.34
15.24 / 600	23.40	44.19	24.74	29.26
17.78 / 700	27.29	51.55	28.94	34.19
20.32 / 800	31.19	58.92	33.10	39.14
22.86 / 900	35.09	66.28	37.27	44.06
25.40 / 1000	38.99	73.65	41.44	48.98
27.94 / 1100	42.89	81.01	45.60	53.90
30.48 / 1200	46.79	88.38	49.77	58.82
33.02 / 1300	50.69	95.74	53.94	63.75
35.56 / 1400	54.59	103.11	58.10	68.67
38.10 / 1500	58.49	110.47	62.27	73.59

Screen aspect ratio 16:10

Unit: m

Screen aspect ratio			16:10 3456 x 2160	
Throw ratio			0.652 – 0.772:1	
Projection screen size			Projection distance (L)	
Diagonal (SD) m / inch	Height (SH)	Width (SW)	min. (LW)	max. (LT)
2.54 / 100	1.346	2.154	1.36	1.62
3.05 / 120	1.615	2.585	1.65	1.96
3.81 / 150	2.019	3.231	2.08	2.48
5.08 / 200	2.692	4.308	2.81	3.33
6.35 / 250	3.365	5.385	3.53	4.18
7.62 / 300	4.039	6.462	4.25	5.03
8.89 / 350	4.712	7.539	4.97	5.89
10.16 / 400	5.385	8.616	5.69	6.74
12.70 / 500	6.731	10.770	7.14	8.44
15.24 / 600	8.077	12.923	8.58	10.15
17.78 / 700	9.423	15.077	10.03	11.86
20.32 / 800	10.770	17.231	11.47	13.56
22.86 / 900	12.116	19.385	12.92	15.27
25.40 / 1000	13.462	21.539	14.36	16.97
27.94 / 1100	14.808	23.693	15.80	18.68
30.48 / 1200	16.154	25.847	17.25	20.38
33.02 / 1300	17.501	28.001	18.69	22.09
35.56 / 1400	18.847	30.155	20.14	23.79
38.10 / 1500	20.193	32.309	21.58	25.50

Screen aspect ratio 16:10

Unit: feet

Screen aspect ratio			16:10 3456 x 2160	
Throw ratio			0.652 – 0.772:1	
Projection screen size			Projection distance (L)	
Diagonal (SD) m / inch	Height (SH)	Width (SW)	min. (LW)	max. (LT)
2.54 / 100	4.42	7.07	4.46	5.31
3.05 / 120	5.30	8.48	5.41	6.43
3.81 / 150	6.62	10.60	6.82	8.14
5.08 / 200	8.83	14.13	9.22	10.93
6.35 / 250	11.04	17.67	11.58	13.71
7.62 / 300	13.25	21.20	13.94	16.50
8.89 / 350	15.46	24.73	16.31	19.32
10.16 / 400	17.67	28.27	18.67	22.11
12.70 / 500	22.08	35.33	23.42	27.69
15.24 / 600	26.50	42.40	28.15	33.30
17.78 / 700	30.91	49.46	32.91	38.91
20.32 / 800	35.33	56.53	37.63	44.49
22.86 / 900	39.75	63.60	42.39	50.10
25.40 / 1000	44.17	70.67	47.11	55.68
27.94 / 1100	48.58	77.73	51.84	61.29
30.48 / 1200	53.00	84.80	56.59	66.86
33.02 / 1300	57.42	91.87	61.32	72.47
35.56 / 1400	61.83	98.93	66.08	78.05
38.10 / 1500	66.25	106.00	70.80	83.66

- A ±5 % error in listed projection distances may occur. In addition, when [KEYSTONE] is used, distance is corrected to become smaller than the specified screen size.
- The throw ratio is based on the value during projection with the projected image size of 5.08 m [200"].

Screen aspect ratio 16:9

Unit: m

Screen aspect ratio			16:9 3840 x 2160	
Throw ratio			0.585 – 0.693:1	
Projection screen size			Projection distance (L)	
Diagonal (SD) m / inch	Height (SH)	Width (SW)	min. (LW)	max. (LT)
2.54 / 100	1.245	2.214	1.25	1.49
3.05 / 120	1.494	2.657	1.52	1.81
3.81 / 150	1.868	3.321	1.92	2.28
5.08 / 200	2.491	4.428	2.59	3.07
6.35 / 250	3.113	5.535	3.26	3.86
7.62 / 300	3.736	6.641	3.93	4.65
8.89 / 350	4.358	7.748	4.59	5.44
10.16 / 400	4.981	8.855	5.26	6.23
12.70 / 500	6.226	11.069	6.60	7.81
15.24 / 600	7.472	13.283	7.93	9.38
17.78 / 700	8.717	15.497	9.27	10.96
20.32 / 800	9.962	17.710	10.60	12.54
22.86 / 900	11.207	19.924	11.94	14.12
25.40 / 1000	12.453	22.138	13.28	15.69
27.94 / 1100	13.698	24.352	14.61	17.27
30.48 / 1200	14.943	26.566	15.95	18.85
33.02 / 1300	16.188	28.779	17.28	20.43
35.56 / 1400	17.434	30.993	18.62	22.00
38.10 / 1500	18.679	33.207	19.96	23.58

Screen aspect ratio 16:9

Unit: feet

Screen aspect ratio			16:9 3840 x 2160	
Throw ratio			0.585 – 0.693:1	
Projection screen size			Projection distance (L)	
Diagonal (SD) m / inch	Height (SH)	Width (SW)	min. (LW)	max. (LT)
2.54 / 100	4.08	7.26	4.10	4.89
3.05 / 120	4.90	8.72	4.99	5.94
3.81 / 150	6.13	10.90	6.30	7.48
5.08 / 200	8.17	14.53	8.50	10.07
6.35 / 250	10.21	18.16	10.70	12.66
7.62 / 300	12.26	21.79	12.89	15.26
8.89 / 350	14.30	25.42	15.06	17.85
10.16 / 400	16.34	29.05	17.26	20.44
12.70 / 500	20.43	36.32	21.65	25.62
15.24 / 600	24.51	43.58	26.02	30.77
17.78 / 700	28.60	50.84	30.41	35.96
20.32 / 800	32.68	58.10	34.78	41.14
22.86 / 900	36.77	65.37	39.17	46.32
25.40 / 1000	40.86	72.63	43.57	51.48
27.94 / 1100	44.94	79.89	47.93	56.66
30.48 / 1200	49.02	87.16	52.33	61.84
33.02 / 1300	53.11	94.42	56.69	67.03
35.56 / 1400	57.20	101.68	61.09	72.18
38.10 / 1500	61.28	108.95	65.48	77.36

Screen aspect ratio 4:3

Unit: m

Screen aspect ratio			4:3 2880 x 2160	
Throw ratio			0.785 – 0.929:1	
Projection screen size			Projection distance (L)	
Diagonal (SD) m / inch	Height (SH)	Width (SW)	min. (LW)	max. (LT)
2.54 / 100	1.524	2.032	1.55	1.85
3.05 / 120	1.829	2.438	1.88	2.23
3.81 / 150	2.286	3.048	2.37	2.81
5.08 / 200	3.048	4.064	3.19	3.78
6.35 / 250	3.810	5.080	4.01	4.74
7.62 / 300	4.572	6.096	4.82	5.71
8.89 / 350	5.334	7.112	5.64	6.67
10.16 / 400	6.096	8.128	6.46	7.64
12.70 / 500	7.620	10.160	8.09	9.57
15.24 / 600	9.144	12.192	9.73	11.50
17.78 / 700	10.668	14.224	11.36	13.43
20.32 / 800	12.192	16.256	13.00	15.36
22.86 / 900	13.716	18.288	14.63	17.29
25.40 / 1000	15.240	20.320	16.27	19.22
27.94 / 1100	16.764	22.352	17.90	21.16
30.48 / 1200	18.288	24.384	19.54	23.09
33.02 / 1300	19.812	26.416	21.17	25.02
35.56 / 1400	21.336	28.448	22.81	26.95
38.10 / 1500	22.860	30.480	24.44	28.88

Screen aspect ratio 4:3

Unit: feet

Screen aspect ratio			4:3 2880 x 2160	
Throw ratio			0.785 – 0.929:1	
Projection screen size			Projection distance (L)	
Diagonal (SD) m / inch	Height (SH)	Width (SW)	min. (LW)	max. (LT)
2.54 / 100	5.00	6.67	5.09	6.07
3.05 / 120	6.00	8.00	6.17	7.32
3.81 / 150	7.50	10.00	7.78	9.22
5.08 / 200	10.00	13.33	10.47	12.40
6.35 / 250	12.50	16.67	13.16	15.55
7.62 / 300	15.00	20.00	15.81	18.73
8.89 / 350	17.50	23.33	18.50	21.88
10.16 / 400	20.00	26.67	21.19	25.07
12.70 / 500	25.00	33.33	26.54	31.40
15.24 / 600	30.00	40.00	31.92	37.73
17.78 / 700	35.00	46.67	37.27	44.06
20.32 / 800	40.00	53.33	42.65	50.39
22.86 / 900	45.00	60.00	48.00	56.73
25.40 / 1000	50.00	66.67	53.38	63.06
27.94 / 1100	55.00	73.33	58.73	69.42
30.48 / 1200	60.00	80.00	64.11	75.75
33.02 / 1300	65.00	86.67	69.45	82.09
35.56 / 1400	70.00	93.33	74.84	88.42
38.10 / 1500	75.00	100.00	80.18	94.75

- A ±5 % error in listed projection distances may occur. In addition, when [KEYSTONE] is used, distance is corrected to become smaller than the specified screen size.
- The throw ratio is based on the value during projection with the projected image size of 5.08 m [200"].

Calculation of the projection distance

To use a projected image size not listed in this manual, check the projected image size SD (m) and use the respective formula to calculate projection distance.

The unit of all the formulae is m. (Values obtained by the following calculation formulae contain a slight error.)

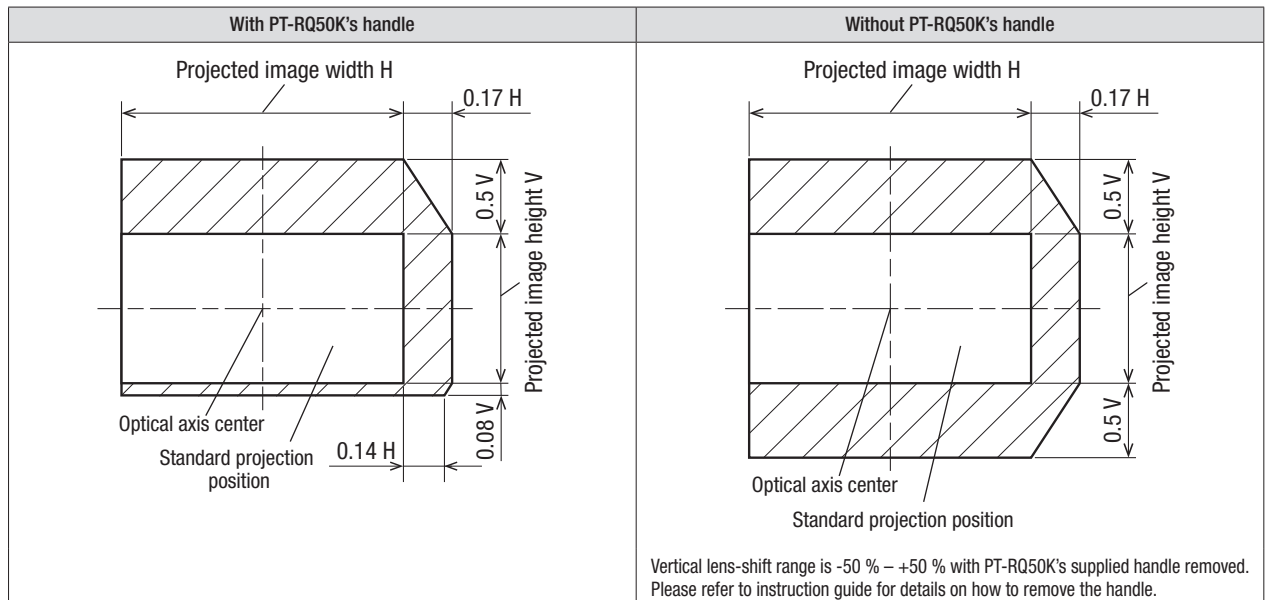
When calculating a projection distance using image size designation (Value in inches), multiply the value in inches by 0.0254 and substitute it into SD in the formula for calculating the projection distance.

Unit: m

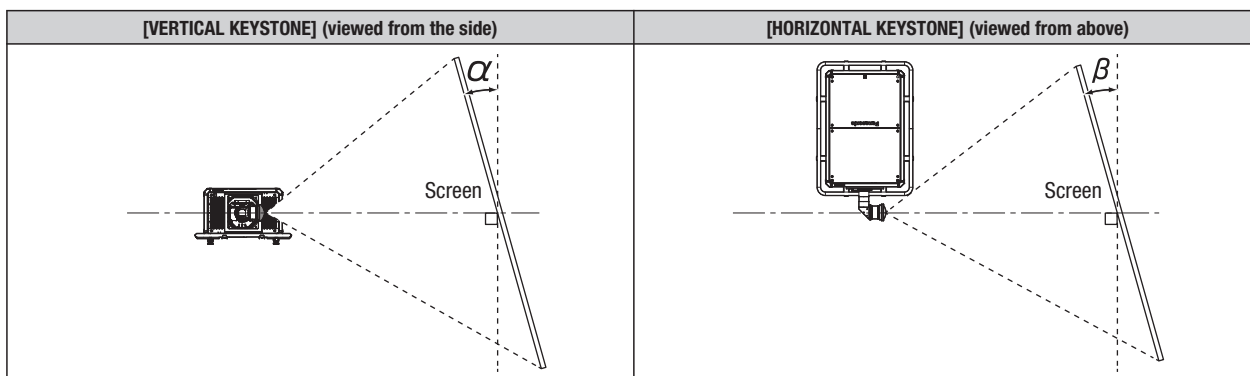
Aspect ratio	Throw ratio	Projection distance (L) calculation formula	
		Minimum (LW)	Maximum (LT)
17:9	0.548 – 0.650 : 1	$=0.5004 \times SD - 0.0820$	$=0.5909 \times SD - 0.0827$
16:10	0.652 – 0.772 : 1	$=0.5686 \times SD - 0.0820$	$=0.6714 \times SD - 0.0827$
16:9	0.585 – 0.693 : 1	$=0.5259 \times SD - 0.0820$	$=0.6211 \times SD - 0.0827$
4:3	0.785 – 0.929 : 1	$=0.6437 \times SD - 0.0820$	$=0.7601 \times SD - 0.0827$

Lens shift range

Optical axis shift function allows to shift the position of a projected image as shown below.



Keystone correction range



[CURVED CORRECTION] is non-compliant.

Projector Model No.	Only [KEYSTONE] used		[KEYSTONE] and [CURVED CORRECTION] used together				Only [CURVED CORRECTION] used	
	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Min. value of R2/L2	Min. value of R3/L3	Min. value of R2/L2	Min. value of R3/L3
PT-RQ50K	±15	±5	-	-	-	-	-	-