

This fixed-focus lens is designed for use with Panasonic's applicable projectors.

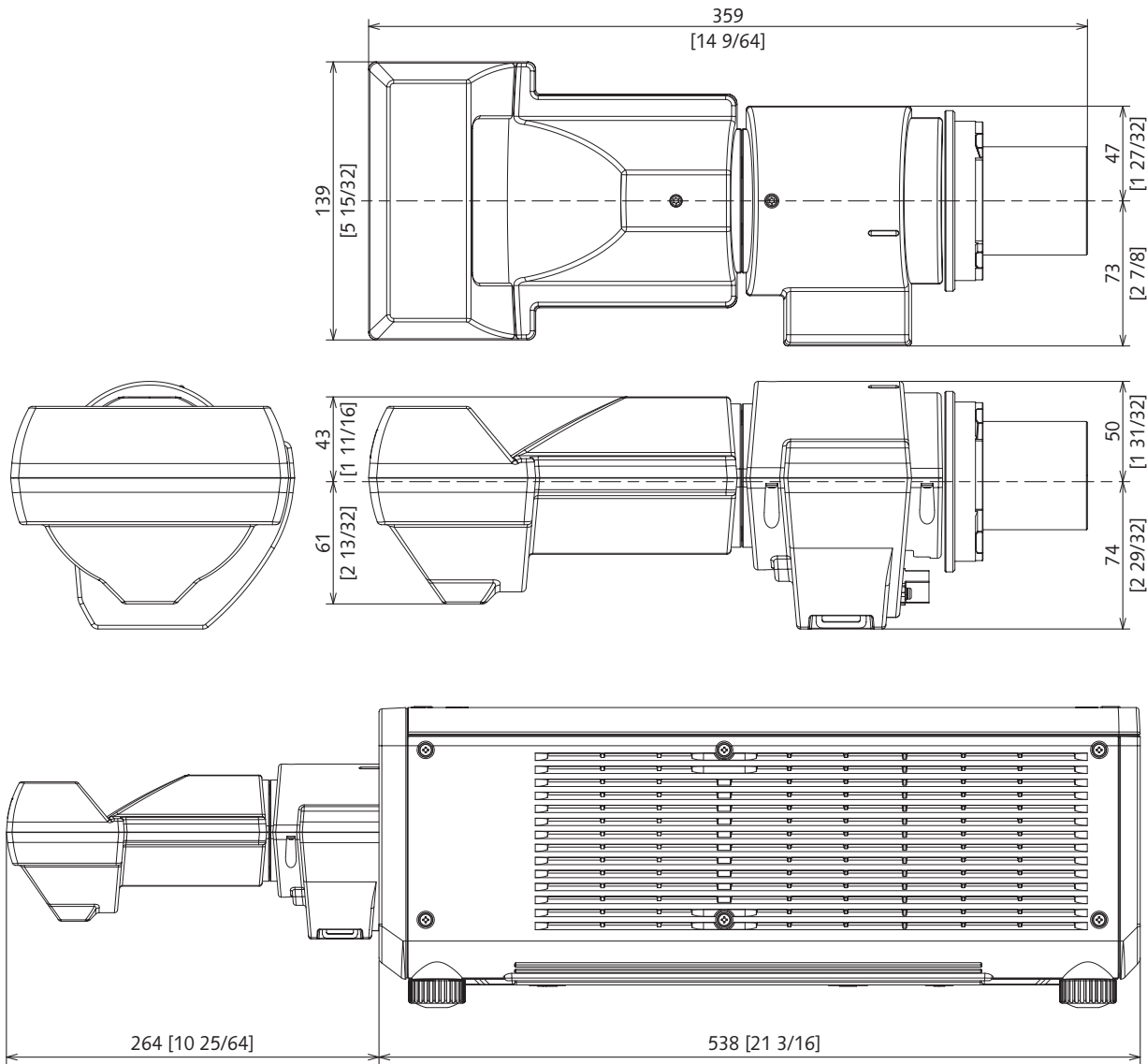
**Please use the lens only on the specified Panasonic projector.*

Specifications (Specifications subject to change without notice.)

F-number		2.0
Focal distance (f)		6.48 mm [1/4 in]
Throw ratio		0.380:1 (16:10 aspect ratio)
		0.379:1 (16:9 aspect ratio)
		0.455:1 (4:3 aspect ratio)
		0.379:1 (21:9 aspect ratio)
Dimensions	Width	139 mm [5 15/32 in]
	Height	124 mm [4 7/8 in]
	Depth	359 mm [14 9/64 in]
Weight		Approx. 2.2 kg (4.85 lbs)
Applicable projector		PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80/PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80

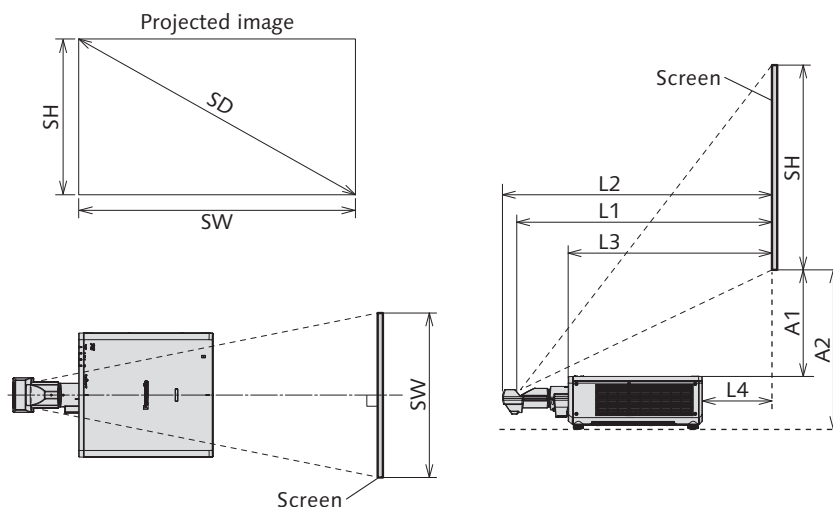
Dimensions

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



Dimensional relationship diagram

The dimensional relationship between the screen and the projector is shown below.



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.

SH	Projected image height
SW	Projected image width
SD	Projected image size
L1	Projection distance (from the screen to the mirror reflection surface ¹)
L2	Distance from the front end of the projection lens to the screen
L3	Distance between the projector and the screen (from the screen to the front surface of the projector)
L4	Distance between the projector and the screen (from the screen to the rear surface of the projector)
A1	Distance between the projector and the screen (from the screen bottom edge to the projector top)
A2	Distance between the projector and the screen (from the screen bottom edge to the projector bottom)

¹ The mirror reflection surface cannot be seen from the outside, because it is located inside the Fixed-focus Lens.

unit : m

Distance from the projector to the screen		Formula	
		Min.	Max.
L2		$= L1 + 0.0156$	
L3		$= L1 - 0.2477$	
L4		$= L1 - 0.7857$	
A1	Screen aspect ratio 16:10	$= SH \times 0.28 - 0.09$	$= SH \times 0.38 - 0.09$
	Screen aspect ratio 16:9	$= SH \times 0.37 - 0.09$	$= SH \times 0.48 - 0.09$
	Screen aspect ratio 4:3	$= SH \times 0.28 - 0.09$	$= SH \times 0.38 - 0.09$
	Screen aspect ratio 21:9	$= SH \times 0.66 - 0.09$	$= SH \times 0.80 - 0.09$
A2	Screen aspect ratio 16:10	$= SH \times 0.28 + 0.122$	$= SH \times 0.38 + 0.122$
	Screen aspect ratio 16:9	$= SH \times 0.37 + 0.122$	$= SH \times 0.48 + 0.122$
	Screen aspect ratio 4:3	$= SH \times 0.28 + 0.122$	$= SH \times 0.38 + 0.122$
	Screen aspect ratio 21:9	$= SH \times 0.66 + 0.122$	$= SH \times 0.80 + 0.122$

Projection distance

A $\pm 5\%$ error in listed projection distances may occur.

When [KEYSTONE] is used, distance is corrected to become smaller than the specified image size.

Screen aspect ratio 16:10

Unit: meters

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80					
Throw ratio				0.380:1					
Diagonal (SD)		Height (SH)	Width (SW)	L1	L2	L3	L4	A1	A2
m	inches								
2.540	100	1.346	2.154	0.82	0.84	0.58	0.04	0.29 - 0.42	0.50 - 0.63
2.794	110	1.481	2.369	0.90	0.92	0.66	0.12	0.32 - 0.47	0.54 - 0.68
3.048	120	1.615	2.585	0.99	1.00	0.74	0.20	0.36 - 0.52	0.57 - 0.74
3.302	130	1.750	2.800	1.07	1.08	0.82	0.28	0.40 - 0.58	0.61 - 0.79
3.556	140	1.885	3.015	1.15	1.16	0.90	0.36	0.44 - 0.63	0.65 - 0.84
3.810	150	2.019	3.231	1.23	1.24	0.98	0.44	0.48 - 0.68	0.69 - 0.89
5.080	200	2.692	4.308	1.63	1.64	1.38	0.84	0.66 - 0.93	0.88 - 1.15
6.350	250	3.365	5.385	2.03	2.05	1.78	1.24	0.85 - 1.19	1.06 - 1.40
7.620	300	4.039	6.462	2.43	2.45	2.18	1.65	1.04 - 1.44	1.25 - 1.66
8.890	350	4.712	7.539	2.83	2.85	2.59	2.05	1.23 - 1.70	1.44 - 1.91
10.160	400	5.385	8.616	3.24	3.25	2.99	2.45	1.42 - 1.96	1.63 - 2.17
12.700	500	6.731	10.770	4.04	4.06	3.79	3.25	1.79 - 2.47	2.01 - 2.68

• The throw ratio is based on the value during projection with the projected image size of 3.810 m [150 in]

Screen aspect ratio 16:10

Unit: feet

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80					
Throw ratio				0.380:1					
Diagonal (SD)		Height (SH)	Width (SW)	L1	L2	L3	L4	A1	A2
m	inches								
2.540	100	4.417	7.067	2.70	2.76	1.89	0.13	0.94 - 1.38	1.64 - 2.08
2.794	110	4.858	7.773	2.97	3.02	2.16	0.39	1.07 - 1.55	1.76 - 2.25
3.048	120	5.300	8.480	3.23	3.29	2.42	0.65	1.19 - 1.72	1.88 - 2.41
3.302	130	5.742	9.187	3.50	3.55	2.68	0.92	1.31 - 1.89	2.01 - 2.58
3.556	140	6.183	9.893	3.76	3.81	2.95	1.18	1.44 - 2.05	2.13 - 2.75
3.810	150	6.625	10.600	4.02	4.08	3.21	1.45	1.56 - 2.22	2.26 - 2.92
5.080	200	8.833	14.133	5.34	5.40	4.53	2.76	2.18 - 3.06	2.87 - 3.76
6.350	250	11.042	17.667	6.66	6.72	5.85	4.08	2.80 - 3.90	3.49 - 4.60
7.620	300	13.250	21.200	7.98	8.03	7.17	5.40	3.41 - 4.74	4.11 - 5.44
8.890	350	15.458	24.733	9.30	9.35	8.49	6.72	4.03 - 5.58	4.73 - 6.27
10.160	400	17.667	28.267	10.62	10.67	9.81	8.04	4.65 - 6.42	5.35 - 7.11
12.700	500	22.083	35.333	13.26	13.31	12.44	10.68	5.89 - 8.10	6.58 - 8.79

• The throw ratio is based on the value during projection with the projected image size of 3.810 m [150 in]

Screen aspect ratio 16:9

Unit: meters

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80					
Throw ratio				0.379:1					
Diagonal (SD)		Height (SH)	Width (SW)	L1	L2	L3	L4	A1	A2
m	inches								
2.540	100	1.245	2.214	0.85	0.86	0.60	0.06	0.37 - 0.50	0.58 - 0.72
2.794	110	1.370	2.435	0.93	0.95	0.68	0.14	0.41 - 0.56	0.62 - 0.78
3.048	120	1.494	2.657	1.01	1.03	0.76	0.23	0.46 - 0.62	0.67 - 0.84
3.302	130	1.619	2.878	1.09	1.11	0.85	0.31	0.50 - 0.68	0.72 - 0.90
3.556	140	1.743	3.099	1.18	1.19	0.93	0.39	0.55 - 0.74	0.76 - 0.95
3.810	150	1.868	3.321	1.26	1.28	1.01	0.47	0.59 - 0.80	0.81 - 1.01
5.080	200	2.491	4.428	1.67	1.69	1.43	0.89	0.82 - 1.10	1.04 - 1.31
6.350	250	3.113	5.535	2.09	2.10	1.84	1.30	1.05 - 1.40	1.26 - 1.61
7.620	300	3.736	6.641	2.50	2.52	2.25	1.71	1.28 - 1.69	1.49 - 1.91
8.890	350	4.358	7.748	2.91	2.93	2.66	2.13	1.51 - 1.99	1.72 - 2.20
10.160	400	4.981	8.855	3.33	3.34	3.08	2.54	1.74 - 2.29	1.95 - 2.50
12.700	500	6.226	11.069	4.15	4.17	3.90	3.37	2.19 - 2.88	2.40 - 3.10

- The throw ratio is based on the value during projection with the projected image size of 3.810 m [150 in]

Screen aspect ratio 16:9

Unit: feet

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80					
Throw ratio				0.379:1					
Diagonal (SD)		Height (SH)	Width (SW)	L1	L2	L3	L4	A1	A2
m	inches								
2.540	100	4.086	7.263	2.78	2.83	1.97	0.20	1.20 - 1.66	1.90 - 2.35
2.794	110	4.494	7.989	3.05	3.10	2.24	0.47	1.35 - 1.85	2.05 - 2.55
3.048	120	4.903	8.716	3.32	3.37	2.51	0.74	1.50 - 2.05	2.20 - 2.74
3.302	130	5.311	9.442	3.59	3.65	2.78	1.01	1.65 - 2.24	2.35 - 2.94
3.556	140	5.720	10.168	3.86	3.92	3.05	1.28	1.80 - 2.44	2.50 - 3.13
3.810	150	6.128	10.895	4.13	4.19	3.32	1.56	1.95 - 2.63	2.65 - 3.33
5.080	200	8.171	14.526	5.49	5.54	4.68	2.91	2.70 - 3.61	3.40 - 4.30
6.350	250	10.214	18.158	6.84	6.90	6.03	4.27	3.45 - 4.58	4.15 - 5.28
7.620	300	12.257	21.789	8.20	8.25	7.39	5.62	4.20 - 5.56	4.89 - 6.26
8.890	350	14.299	25.421	9.56	9.61	8.74	6.98	4.95 - 6.54	5.64 - 7.23
10.160	400	16.342	29.053	10.91	10.97	10.10	8.33	5.70 - 7.51	6.39 - 8.21
12.700	500	20.428	36.316	13.62	13.68	12.81	11.04	7.19 - 9.46	7.89 - 10.16

- The throw ratio is based on the value during projection with the projected image size of 3.810 m [150 in]

Screen aspect ratio 4:3

Unit: meters

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80					
Throw ratio				0.455:1					
Diagonal (SD)		Height (SH)	Width (SW)	L1	L2	L3	L4	A1	A2
m	inches								
2.540	100	1.524	2.032	0.93	0.95	0.68	0.14	0.34 - 0.49	0.55 - 0.70
2.794	110	1.676	2.235	1.02	1.04	0.77	0.24	0.38 - 0.55	0.59 - 0.76
3.048	120	1.829	2.438	1.11	1.13	0.86	0.33	0.42 - 0.60	0.63 - 0.82
3.302	130	1.981	2.642	1.20	1.22	0.96	0.42	0.46 - 0.66	0.68 - 0.87
3.556	140	2.134	2.845	1.29	1.31	1.05	0.51	0.51 - 0.72	0.72 - 0.93
3.810	150	2.286	3.048	1.39	1.40	1.14	0.60	0.55 - 0.78	0.76 - 0.99
5.080	200	3.048	4.064	1.84	1.86	1.59	1.06	0.76 - 1.07	0.98 - 1.28
6.350	250	3.810	5.080	2.30	2.31	2.05	1.51	0.98 - 1.36	1.19 - 1.57
7.620	300	4.572	6.096	2.75	2.77	2.50	1.97	1.19 - 1.65	1.40 - 1.86
8.890	350	5.334	7.112	3.21	3.22	2.96	2.42	1.40 - 1.94	1.62 - 2.15
10.160	400	6.096	8.128	3.66	3.68	3.41	2.88	1.62 - 2.23	1.83 - 2.44
12.700	500	7.620	10.160	4.57	4.59	4.32	3.79	2.04 - 2.81	2.26 - 3.02

- The throw ratio is based on the value during projection with the projected image size of 3.810 m [150 in]

Screen aspect ratio 4:3

Unit: feet

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80					
Throw ratio				0.455:1					
Diagonal (SD)		Height (SH)	Width (SW)	L1	L2	L3	L4	A1	A2
m	inches								
2.540	100	5.000	6.667	3.05	3.11	2.24	0.48	1.10 - 1.60	1.80 - 2.30
2.794	110	5.500	7.333	3.35	3.41	2.54	0.77	1.24 - 1.79	1.94 - 2.49
3.048	120	6.000	8.000	3.65	3.70	2.84	1.07	1.38 - 1.98	2.08 - 2.68
3.302	130	6.500	8.667	3.95	4.00	3.14	1.37	1.52 - 2.17	2.22 - 2.87
3.556	140	7.000	9.333	4.25	4.30	3.43	1.67	1.66 - 2.36	2.36 - 3.06
3.810	150	7.500	10.000	4.55	4.60	3.73	1.97	1.80 - 2.55	2.50 - 3.25
5.080	200	10.000	13.333	6.04	6.09	5.23	3.46	2.50 - 3.50	3.20 - 4.20
6.350	250	12.500	16.667	7.53	7.59	6.72	4.95	3.20 - 4.45	3.90 - 5.15
7.620	300	15.000	20.000	9.03	9.08	8.21	6.45	3.90 - 5.40	4.60 - 6.10
8.890	350	17.500	23.333	10.52	10.57	9.71	7.94	4.60 - 6.35	5.30 - 7.05
10.160	400	20.000	26.667	12.01	12.07	11.20	9.43	5.30 - 7.30	6.00 - 8.00
12.70	500	25.000	33.333	15.00	15.05	14.18	12.42	6.70 - 9.20	7.40 - 9.90

- The throw ratio is based on the value during projection with the projected image size of 3.810 m [150 in]

Screen aspect ratio 21:9

Unit: meters

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80					
Throw ratio				0.379:1					
Diagonal (SD)		Height (SH)	Width (SW)	L1	L2	L3	L4	A1	A2
m	inches								
2.540	100	0.987	2.340	0.89	0.91	0.65	0.11	0.56 - 0.70	0.77 - 0.92
2.794	110	1.086	2.574	0.98	1.00	0.73	0.20	0.62 - 0.78	0.83 - 0.99
3.048	120	1.185	2.808	1.07	1.09	0.82	0.28	0.69 - 0.86	0.90 - 1.07
3.302	130	1.283	3.042	1.16	1.17	0.91	0.37	0.75 - 0.94	0.96 - 1.15
3.556	140	1.382	3.276	1.24	1.26	1.00	0.46	0.82 - 1.02	1.03 - 1.23
3.810	150	1.481	3.510	1.33	1.35	1.08	0.55	0.88 - 1.10	1.09 - 1.31
5.080	200	1.975	4.681	1.77	1.78	1.52	0.98	1.20 - 1.50	1.42 - 1.71
6.350	250	2.468	5.851	2.20	2.22	1.96	1.42	1.53 - 1.89	1.74 - 2.11
7.620	300	2.962	7.021	2.64	2.66	2.39	1.86	1.85 - 2.29	2.06 - 2.50
8.890	350	3.456	8.191	3.08	3.09	2.83	2.29	2.18 - 2.69	2.39 - 2.90
10.160	400	3.949	9.361	3.51	3.53	3.27	2.73	2.50 - 3.08	2.71 - 3.30
12.700	500	4.936	11.701	4.39	4.40	4.14	3.60	3.15 - 3.88	3.36 - 4.09

- The throw ratio is based on the value during projection with the projected image size of 3.810 m [150 in]

Screen aspect ratio 21:9

Unit: feet

Projector model				PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80 PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80					
Throw ratio				0.379:1					
Diagonal (SD)		Height (SH)	Width (SW)	L1	L2	L3	L4	A1	A2
m	inches								
2.540	100	3.239	7.678	2.93	2.99	2.12	0.36	1.83 - 2.31	2.52 - 3.00
2.794	110	3.563	8.446	3.22	3.27	2.41	0.64	2.04 - 2.57	2.74 - 3.26
3.048	120	3.887	9.214	3.51	3.56	2.69	0.93	2.25 - 2.83	2.95 - 3.52
3.302	130	4.211	9.981	3.79	3.85	2.98	1.21	2.47 - 3.09	3.16 - 3.78
3.556	140	4.535	10.749	4.08	4.13	3.27	1.50	2.68 - 3.35	3.37 - 4.04
3.810	150	4.859	11.517	4.37	4.42	3.55	1.79	2.89 - 3.61	3.59 - 4.31
5.080	200	6.478	15.356	5.80	5.85	4.99	3.22	3.95 - 4.91	4.65 - 5.61
6.350	250	8.098	19.195	7.23	7.29	6.42	4.65	5.01 - 6.21	5.71 - 6.91
7.620	300	9.718	23.034	8.66	8.72	7.85	6.09	6.08 - 7.51	6.77 - 8.21
8.890	350	11.337	26.873	10.10	10.15	9.28	7.52	7.14 - 8.82	7.83 - 9.51
10.160	400	12.957	30.712	11.53	11.58	10.72	8.95	8.20 - 10.12	8.89 - 10.81
12.70	500	16.196	38.390	14.40	14.45	13.58	11.82	10.32 - 12.72	11.02 - 13.42

- The throw ratio is based on the value during projection with the projected image size of 3.810 m [150 in]

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 the value.

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

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

Screen aspect ratio 16:10

Unit: m

Projector model	Projection distance (L) formula
PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80	$=0.3165 \times SD + 0.0204$
PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80	

Screen aspect ratio 16:9

Unit: m

Projector model	Projection distance (L) formula
PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80	$=0.3253 \times SD + 0.0204$
PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80	

Screen aspect ratio 4:3

Unit: m

Projector model	Projection distance (L) formula
PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80	$=0.3583 \times SD + 0.0204$
PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80	

Screen aspect ratio 21:9

Unit: m

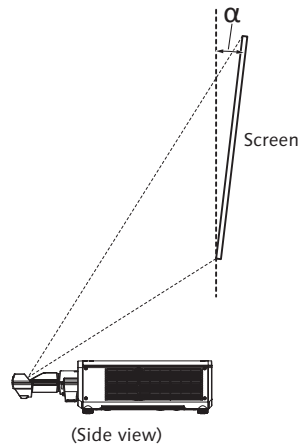
Projector model	Projection distance (L) formula
PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80	$=0.3439 \times SD + 0.0204$
PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80	

Adjustment range by the lens position shift (optical shift)

Based on the standard projection position using the optical axis shift function, the projection position can be adjusted in the range shown in the following figure.

Following figure shows the adjustment range when the projector is installed on the floor.

Projector model	PT-REQ15/PT-REQ12/PT-REQ10/PT-REQ80/PT-REZ15/PT-REZ12/PT-REZ10/PT-REZ80 is mounted.
Lens shift range	0.09 SW Projected image width SW 0.09 SW Projected image height SH 0.10 SH 0.78 SH Standard projection position Optical axis center

Keystone distortion correctionCorrection feasible angle (α): 0 - 5°

When attaching this lens for use, regardless of the projector model, set up the projector so that the projected image is rectangular and the back of the projector and the screen are parallel. In addition, depending on the projector used, keystone distortion correction may be feasible after setup. Keystone distortion in the vertical direction greater than this angle and keystone distortion in the horizontal direction can be corrected but the projected image overall will no longer be in focus.