



LM Guide

Replacement Model RSR-M1 to Model RSX-M1

1030-A-T2502971E
October 17, 2025
THK CO., LTD.
SE Dept.

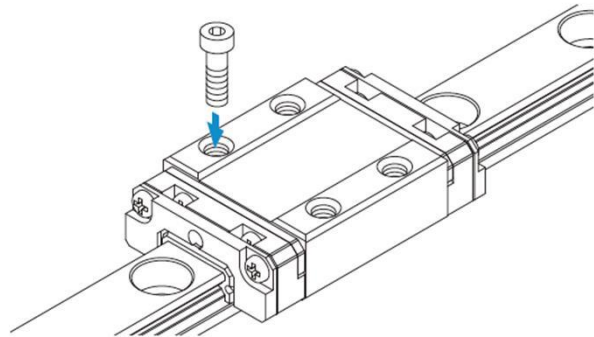
- Replacement
- Model RSR-M1
- Model RSX-M1

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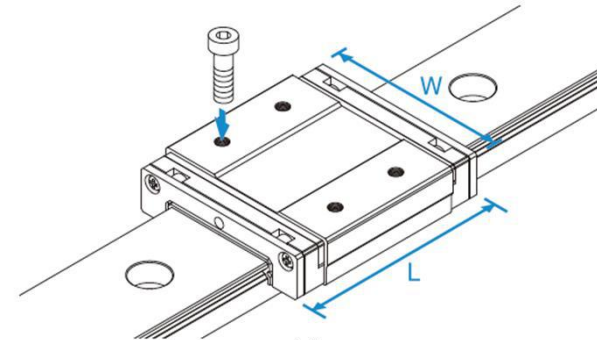


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Features of Model RSX-M1/M1W



Standard Type



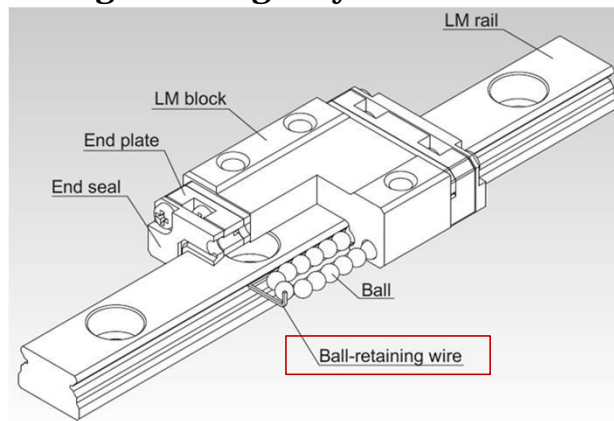
Wide Type

Model RSX9M1/12M1/15M1 is the successor to Model RSR9M1/12M1/15M1

Model RSX9M1W/12M1W/15M1W is the successor to Model RSR9M1W/12M1W/15M1W

Retains Balls ※

This model incorporates a ball-retaining wire that prevents balls from falling out when the LM block is removed from and inserted onto the LM rail, making mounting easy.

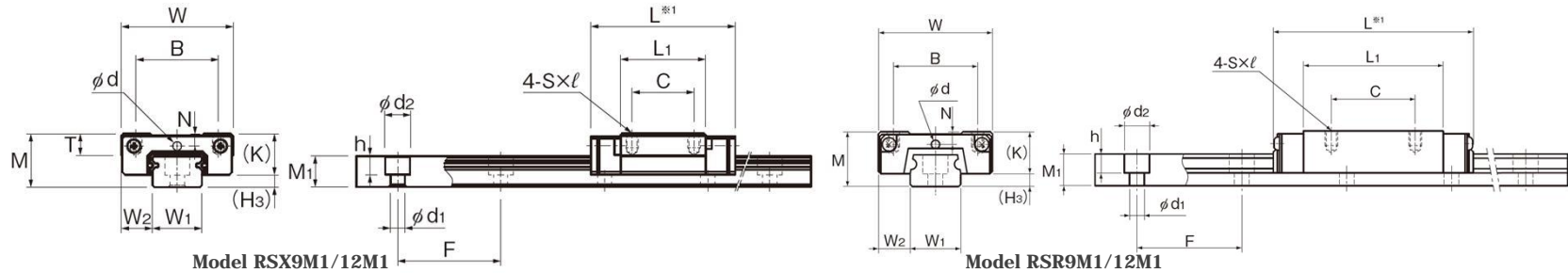


※Specifications not available for Model RSR-M1

Model RSX-M1, Model RSR-M1



Specification Table 9/12 -1



Model RSX-M1

Unit: mm

Model No.	Outer dimensions			LM block dimensions										Grease nipple	H ₃
	Height	Width	Length	B	C	Sxℓ	L ₁	T	K	N	E	Lubrication Hole			
	M	W	L									d			
RSX9M1	10	20	30.8	15	10	M3x2.8	19.8	---	7.8	2.4	---	1.6	---	2.2	
RSX9M1N	10	20	40.8	15	16	M3x2.8	29.8	---	7.8	2.4	---	1.6	---	2.2	
RSX12M1	13	27	35	20	15	M3x3.5	20.6	5.3	10	3	---	2	---	3	
RSX12M1N	13	27	47.7	20	20	M3x3.5	33.3	5.3	10	3	---	2	---	3	

Model RSR-M1

Unit: mm

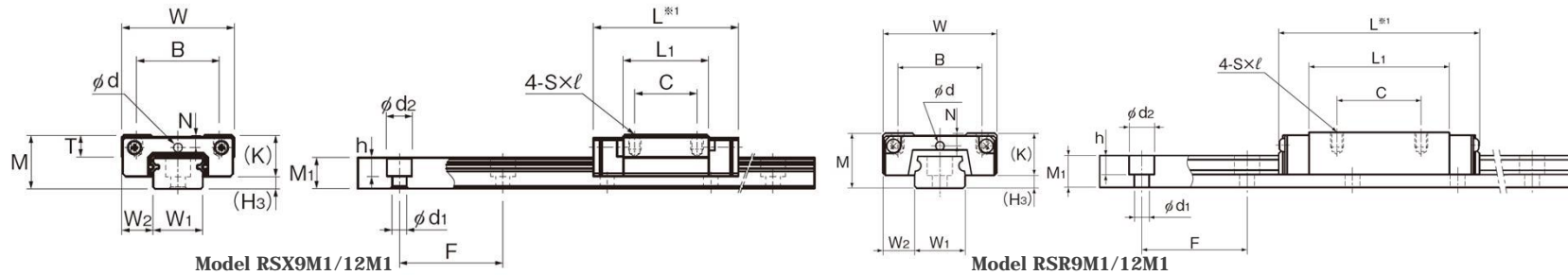
Model No.	Outer dimensions			LM block dimensions										Grease nipple	H ₃
	Height	Width	Length	B	C	Sxℓ	L ₁	T	K	N	E	Lubrication Hole			
	M	W	L									d			
RSR9M1K	10	20	30.8	15	10	M3x3	19.8	---	7.8	---	---	---	---	2.2	
RSR9M1N	10	20	41	15	16	M3x3	29.8	---	7.8	---	---	---	---	2.2	
RSR12M1V	13	27	35	20	15	M3x3.5	20.6	---	10	3	---	2	---	3	
RSR12M1N	13	27	47.7	20	20	M3x3.5	33.3	---	10	3	---	2	---	3	

different

Model RSX-M1, Model RSR-M1



Specification Table 9/12 -2



Model RSX-M1

Unit: mm

Model No.	LM rail dimensions						Basic load rating		Static permissible moment N·m					Mass		
	Width		Height	Pitch	Length		C	C ₀	M _A		M _B		M _C	LM block	LM レール	
	W ₁	W ₂	M ₁	F	d ₁ x d ₂ x h	Max	kN	kN	1 block	2 blocks	1 block	2 blocks	1 block	kg	kg/m	
RSX9M1	9	0/-0.02	5.5	5.5	20	3.5x6x3.3	1240	2.22	3.06	9.87	57.9	11.4	66.9	14.1	0.018	0.32
RSX9M1N	9	0/-0.02	5.5	5.5	20	3.5x6x3.3	1240	2.94	4.59	21.1	111	24.4	128	21.1	0.024	0.32
RSX12M1	12	0/-0.02	7.5	7.5	25	3.5x6x4.5	2000	3.36	4.21	14.2	92.5	14.2	92.5	27.6	0.037	0.65
RSX12M1N	12	0/-0.02	7.5	7.5	25	3.5x6x4.5	2000	4.72	6.83	34.8	195	34.8	195	44.7	0.047	0.65

Model RSR-M1

Unit: mm

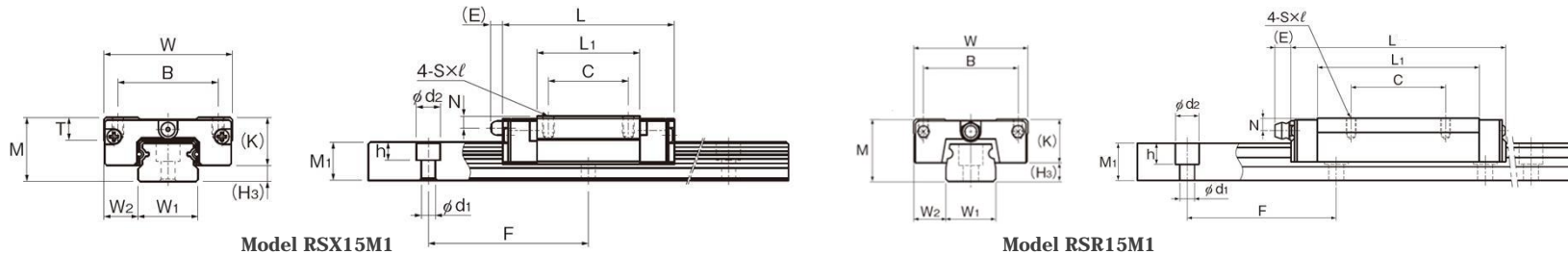
Model No.	LM rail dimensions						Basic load rating		Static permissible moment N·m					Mass		
	Width		Height	Pitch	Length		C	C ₀	M _A		M _B		M _C	LM block	LM レール	
	W ₁	W ₂	M ₁	F	d ₁ x d ₂ x h	Max	kN	kN	1 block	2 blocks	1 block	2 blocks	1 block	kg	kg/m	
RSR9M1K	9	0/-0.02	5.5	5.5	20	3.5x6x3.3	1240	1.47	2.25	7.34	43.3	7.34	43.3	10.4	0.018	0.32
RSR9M1N	9	0/-0.02	5.5	5.5	20	3.5x6x3.3	1240	2.6	3.96	18.4	97	18.4	97	18.4	0.027	0.32
RSR12M1V	12	0/-0.025	7.5	7.5	25	3.5x6x4.5	1430	2.65	4.02	11.4	74.9	10.1	67.7	19.2	0.037	0.58
RSR12M1N	12	0/-0.025	7.5	7.5	25	3.5x6x4.5	1430	4.3	6.65	28.9	163	25.5	145	31.8	0.055	0.58

different

Model RSX-M1, Model RSR-M1



Specification Table 15 - 1



Model RSX-M1

Unit: mm

Model No.	Outer dimensions			LM block dimensions										Lubrication Hole d	Grease nipple PB107	H ₃
	Height	Width	Length	B	C	Sxℓ	L ₁	T	K	N	E					
	M	W	L													
RSX15M1	16	32	42.9	25	20	M3x4	25.7	5.8	12	3	4	---	PB107	4		
RSX15M1N	16	32	60.7	25	25	M3x4	43.5	5.8	12	3	4	---	PB107	4		

Model RSR-M1

Unit: mm

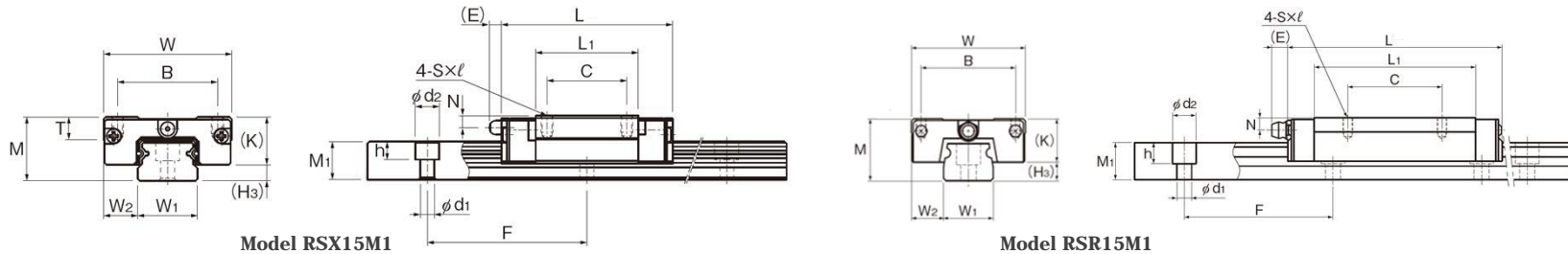
Model No.	Outer dimensions			LM block dimensions										Lubrication Hole d	Grease nipple PB107	H ₃
	Height	Width	Length	B	C	Sxℓ	L ₁	T	K	N	E					
	M	W	L													
RSR15M1V	16	32	43	25	20	M3x4	25.7	---	12	3.5	3.6	---	PB107	4		
RSR15M1V	16	32	61	25	25	M3x4	43.5	---	12	3.5	3.7	---	PB107	4		

different

Model RSX-M1, Model RSR-M1



Specification Table 15 -2



Model RSX-M1

Unit: mm

Model No.	LM rail dimensions						Basic load rating		Static permissible moment N·m					Mass		
	Width		Height	Pitch		Length	C	C ₀	M _A		M _B		M _C	LM block	LM レール	
	W ₁	W ₂	M ₁	F	d ₁ x d ₂ x h	Max	kN	kN	1 block	2 blocks	1 block	2 blocks	1 block	kg	kg/m	
RSX15M1	15	0/-0.02	8.5	9.5	40	3.5x6x4.5	2000	5.59	6.78	29	186	29	186	48.1	0.069	0.96
RSX15M1N	15	0/-0.02	8.5	9.5	40	3.5x6x4.5	2000	8.27	11.8	82.1	432	82.1	432	84.3	0.089	0.96

Model RSR-M1

Unit: mm

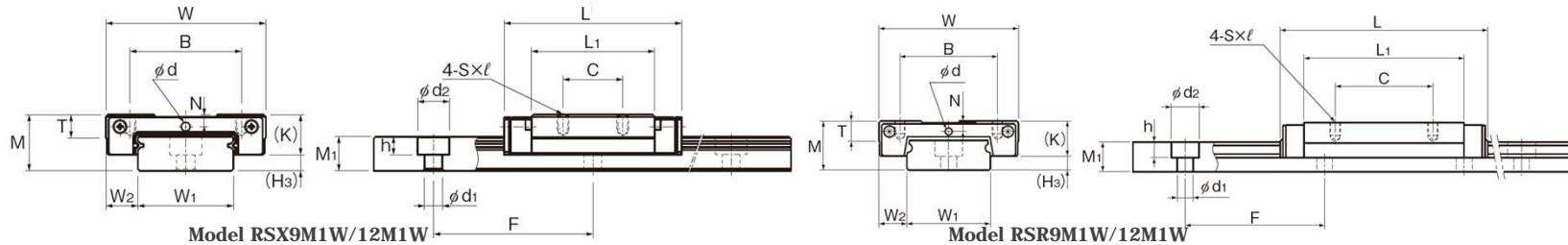
Model No.	LM rail dimensions						Basic load rating		Static permissible moment N·m					Mass		
	Width		Height	Pitch		Length	C	C ₀	M _A		M _B		M _C	LM block	LM レール	
	W ₁	W ₂	M ₁	F	d ₁ x d ₂ x h	Max	kN	kN	1 block	2 blocks	1 block	2 blocks	1 block	kg	kg/m	
RSR15M1V	15	0/-0.025	8.5	9.5	40	3.5x6x4.5	1600	4.41	6.57	23.7	149	21.1	135	38.8	0.069	0.925
RSR15M1V	15	0/-0.025	8.5	9.5	40	3.5x6x4.5	1600	7.16	10.7	63.1	330	55.6	293	63	0.093	0.925

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Model RSX-M1W, Model RSR-M1W



Specification Table 9/12 -1



Model RSX-M1W

Unit: mm

Model No.	Outer dimensions			LM block dimensions										Lubrication Hole d	Grease nipple	H ₃
	Height	Width	Length	B	C	Sxℓ	L ₁	T	K	N	E					
	M	W	L													
RSX9M1W	12	30	39	21	12	M3x2.8	27	---	8.3	2.3	---	1.6	---	3.7		
RSX9M1WN	12	30	50.7	23	24	M3x2.8	38.7	---	8.3	2.3	---	1.6	---	3.7		
RSX12M1W	14	40	44.5	28	15	M3x3.5	30.9	4.5	10	3	---	2	---	4		
RSX12M1WN	14	40	59.5	28	28	M3x3.5	45.9	4.5	10	3	---	2	---	4		

Model RSR-M1W

Unit: mm

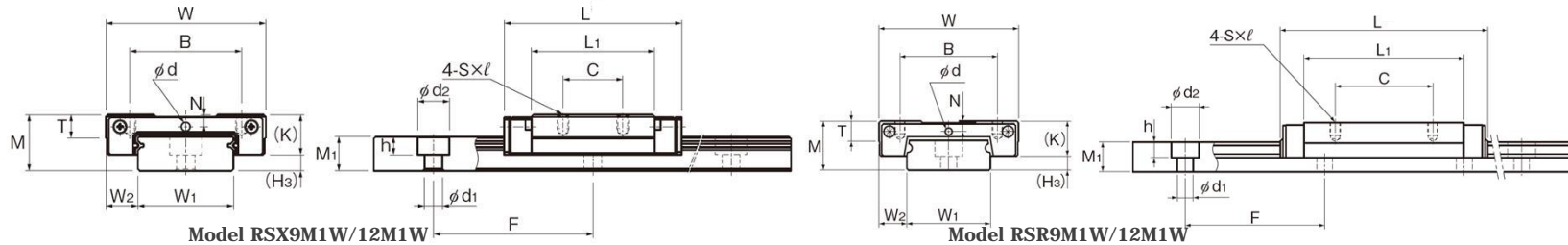
Model No.	Outer dimensions			LM block dimensions										Lubrication Hole d	Grease nipple	H ₃
	Height	Width	Length	B	C	Sxℓ	L ₁	T	K	N	E					
	M	W	L													
RSR9M1WV	12	30	39	21	12	M2.6x3	27	---	7.8	2	---	1.6	---	4.2		
RSR9M1WN	12	30	50.7	23	24	M3x3	38.7	---	7.8	2	---	1.6	---	4.2		
RSR12M1WV	14	40	44.5	28	15	M3x3.5	30.9	4.5	10	3	---	2	---	4		
RSR12M1WN	14	40	59.5	28	28	M3x3.5	45.9	4.5	10	3	---	2	---	4		

different

Model RSX-M1W, Model RSR-M1W



Specification Table 9/12 -2



Model RSX-M1W

Unit: mm

Model No.	LM rail dimensions							Basic load rating		Static permissible moment N·m					Mass		
	Width		W ₂	W ₃	Height	Pitch	Length	C	C ₀	M _A		M _B		M _C	LM Block kg	LM レール kg/m	
	W ₁									1 block	2 blocks	1 block	2 blocks				1 block
RSX9M1W	18	0/-0.02	6	---	7.5	30	3.5x6x4.5	1430	2.8	4.28	18.5	99.3	21.4	115	40.5	0.035	1.01
RSX9M1WN	18	0/-0.02	6	---	7.5	30	3.5x6x4.5	1430	3.48	5.81	33.2	172	38.3	199	54.9	0.048	1.01
RSX12M1W	24	0/-0.02	8	---	8.5	40	4.5x8x4.5	2000	4.46	6.31	30	171	30	171	79.2	0.075	1.52
RSX12M1WN	24	0/-0.02	8	---	8.5	40	4.5x8x4.5	2000	5.93	9.46	64.7	332	64.7	332	119	0.091	1.52

Model RSR-M1W

Unit: mm

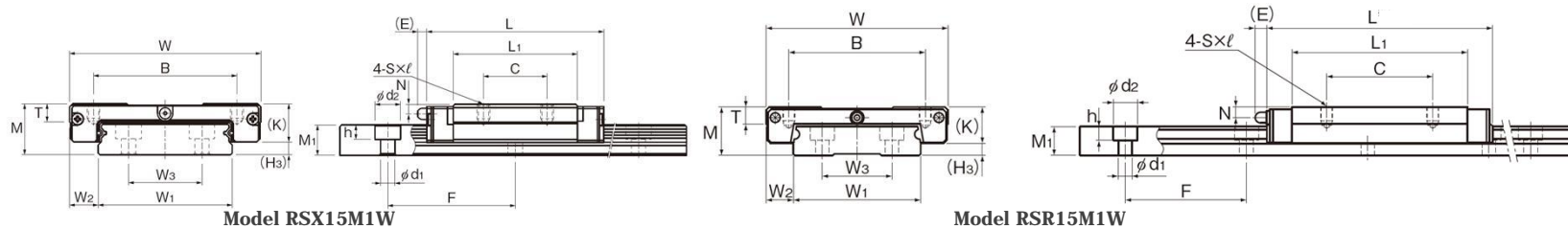
Model No.	LM rail dimensions							Basic load rating		Static permissible moment N·m					Mass		
	Width		W ₂	W ₃	Height	Pitch	Length	C	C ₀	M _A		M _B		M _C	LM block kg	LM レール kg/m	
	W ₁									1 block	2 blocks	1 block	2 blocks				1 block
RSR9M1WV	18	0/-0.05	6	---	7.5	30	3.5x6x4.5	1430	2.45	3.92	16	92.9	16	92.9	36	0.035	1.08
RSR9M1WN	18	0/-0.05	6	---	7.5	30	3.5x6x4.5	1430	3.52	5.37	31	161	31	161	49.4	0.051	1.08
RSR12M1WV	24	0/-0.05	8	---	8.5	40	4.5x8x4.5	1600	4.02	6.08	24.5	138	21.7	123	59.5	0.075	1.5
RSR12M1WN	24	0/-0.05	8	---	8.5	40	4.5x8x4.5	1600	5.96	9.21	53.9	274	47.3	242	90.1	0.101	1.5

different

Model RSX-M1W, Model RSR-M1W



Specification Table 15 - 1



Model RSX-M1W

Unit: mm

Model No.	Outer dimensions			LM block dimensions										Lubrication Hole d	Grease nipple PB107	H ₃
	Height	Width	Length	B	C	Sxℓ	L ₁	T	K	N	E					
	M	W	L													
RSX15M1W	16	60	55.5	45	20	M4x4.5	38.9	5.6	12	3	4	---	PB107	4		
RSX15M1WN	16	60	74.5	45	35	M4x4.5	57.9	5.6	12	3	4	---	PB107	4		

Model RSR-M1W

Unit: mm

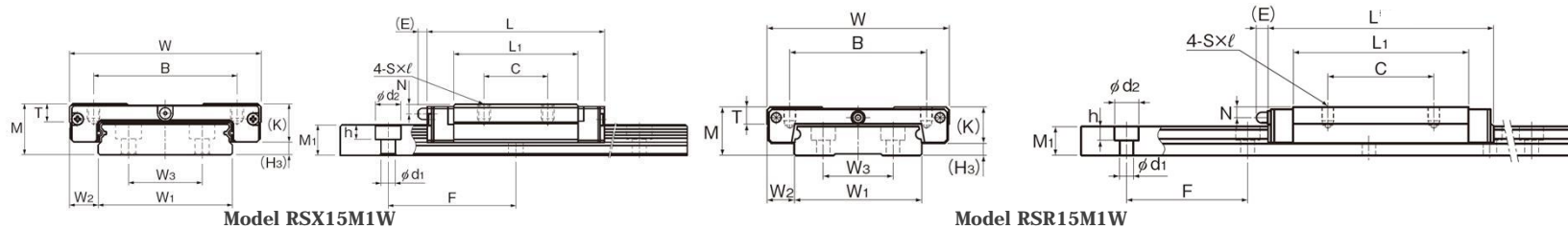
Model No.	Outer dimensions			LM block dimensions										Lubrication Hole d	Grease nipple PB107	H ₃
	Height	Width	Length	B	C	Sxℓ	L ₁	T	K	N	E					
	M	W	L													
RSR15M1WV	16	60	55.5	45	20	M4x4.5	38.9	5.6	12	3.5	3	---	PB107	4		
RSR15M1WN	16	60	74.5	45	35	M4x4.5	57.9	5.6	12	3.5	3	---	PB107	4		

different

Model RSX-M1W, Model RSR-M1W



Specification Table 15 -2



Model RSX-M1W

Unit: mm

Model No.	LM rail dimensions								Basic load rating		Static permissible moment N·m					Mass	
	Width		W ₂	W ₃	Height M ₁	Pitch F	Length d ₁ x d ₂ x h Max	C kN	C ₀ kN	M _A		M _B		M _C	LM block kg	LM レール kg/m	
	W ₁									1 block	2 blocks	1 block	2 blocks	1 block			
RSX15M1W	42	0/-0.02	9	23	9.5	40	4.5x8x4.5	2000	7.43	10.1	61.4	343	61.4	343	211	0.17	2.87
RSX15M1WN	42	0/-0.02	9	23	9.5	40	4.5x8x4.5	2000	9.87	15.2	133	670	133	670	316	0.195	2.87

Model RSR-M1W

Unit: mm

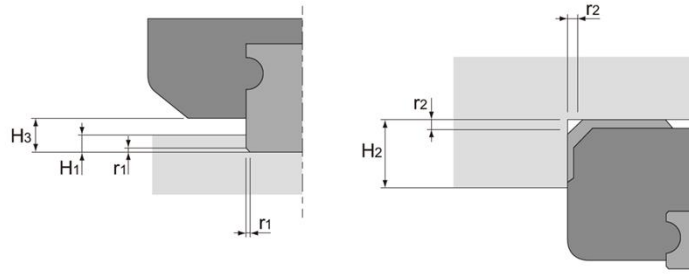
Model No.	LM rail dimensions								Basic load rating		Static permissible moment N·m					Mass	
	Width		W ₂	W ₃	Height M ₁	Pitch F	Length d ₁ x d ₂ x h Max	C kN	C ₀ kN	M _A		M _B		M _C	LM block kg	LM レール kg/m	
	W ₁									1 block	2 blocks	1 block	2 blocks	1 block			
RSR15M1WV	42	0/-0.05	9	23	9.5	40	4.5x8x4.5	1800	6.66	9.8	50.3	278	44.4	248	168	0.17	3
RSR15M1WN	42	0/-0.05	9	23	9.5	40	4.5x8x4.5	1800	9.91	14.9	110	555	97.3	490	255	0.21	3

different

Model RSX-M1, Model RSR-M1



Shoulder Height of the Mounting Base and the Corner Radius



Shoulder for the LM Rail

Shoulder for the LM Block

Unit: mm

Model RSX-M1

Model No.	Corner radius for the LM rail r_1 (max)	Corner radius for the LM block r_2 (max)	Shoulder height for the LM rail H_1	Shoulder height for the LM block H_2	H_3
RSX9M1/M1N	0.1	0.3	1.1	3.3	2.2
RSX12M1/M1N	0.3	0.3	1.5	5.3	3
RSX15M1/M1N	0.3	0.4	2.2	5.8	4

Model RSR-M1

Unit: mm

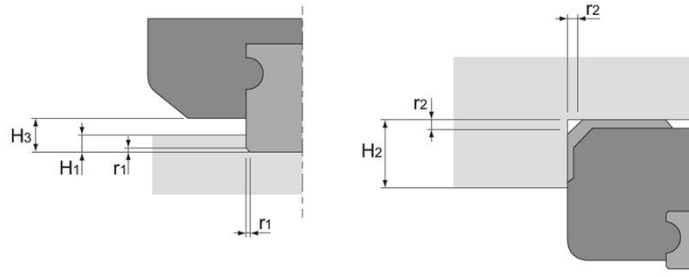
Model No.	Corner radius for the LM rail r_1 (max)	Corner radius for the LM block r_2 (max)	Shoulder height for the LM rail H_1	Shoulder height for the LM block H_2	H_3
RSR9M1K/M1N	0.3	0.5	1.9	3	2.2
RSR12M1V/M1N	0.3	0.3	1.4	4	3
RSR15M1V/M1N	0.3	0.3	2.3	5	4

different

Model RSX-M1W, Model RSR-M1W



Shoulder Height of the Mounting Base and the Corner Radius



Shoulder for the LM Rail

Shoulder for the LM Block

Model RSX-M1W

Unit: mm

Model No.	Corner radius for the LM rail r_1 (max)	Corner radius for the LM block r_2 (max)	Shoulder height for the LM rail H_1	Shoulder height for the LM block H_2	H_3
RSX9M1W/M1WN	0.1	0.5	2.5	3.3	3.7
RSX12M1W/M1WN	0.3	0.3	2.5	5.8	4
RSX15M1W/M1N	0.3	0.3	2.2	5.7	4

Model RSR-M1W

Unit: mm

Model No.	Corner radius for the LM rail r_1 (max)	Corner radius for the LM block r_2 (max)	Shoulder height for the LM rail H_1	Shoulder height for the LM block H_2	H_3
RSR9M1WV/M1WN	0.1	0.1	3.9	3	4.2
RSR12M1WV/M1WN	0.3	0.3	3.7	4	4
RSR15M1WV/M1WN	0.3	0.3	3.7	5	4

different