

CSR

LM Guide

B Product Specifications

Dimensional Drawing, Dimensional Table

Model CSR B-154

Standard Length and Maximum Length
of the LM Rail B-156

Tapped-hole LM Rail Type of Model CSR B-157

Options B-223

The LM Block Dimension (Dimension L)
with LaCS and Seals Attached B-228

Cap C B-250

A Technical Descriptions of the Products (Separate)

Technical Descriptions

Structure and features A-245

Types and Features A-246

Rated Loads in All Directions A-246

Equivalent Load A-247

Service Life A-100

Radial Clearance Standard A-114

Accuracy Standards A-122

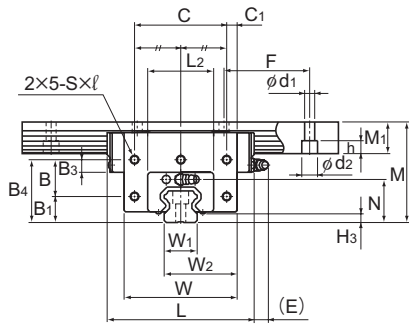
Shoulder Height of the Mounting Base
and the Corner Radius A-326

Error Allowance in the Parallelism
between Two Rails A-333

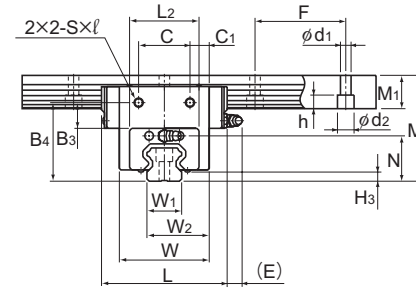
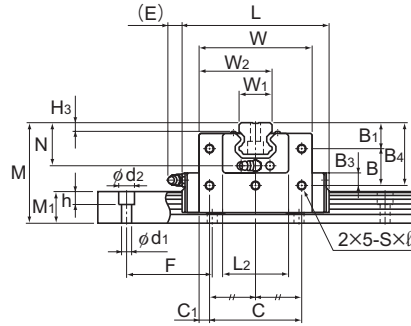
Error Allowance in Vertical Level
between Two Rails A-336

* Please see the separate "A Technical Descriptions of the Products".

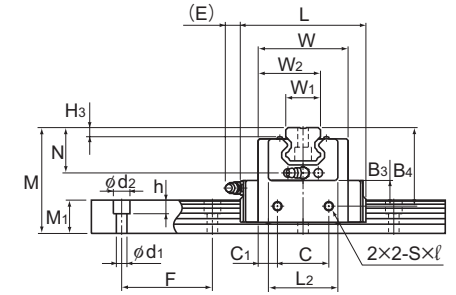
Model CSR



Models CSR20 to 45



Models CSR15, 20S to 30S



Unit: mm

Model No.	Outer dimensions			LM block dimensions											H ₃	LM rail dimensions					Basic load rating		Static permissible moment	Mass			
	Height M	Width W	Length L	B ₁	B ₃	B ₄	B	C	C ₁	S×ℓ	L ₂	H ₃	N	E		Grease nipple	Width W ₁ ±0.05	W ₂	Height M ₁	Pitch F	d ₁ ×d ₂ ×h	Length* Max	C	C ₀	M ₀ kN-m	LM block kg	LM rail kg/m
CSR 15	47	38.8	56.6	—	11.3	34.8	—	20	9.4	M4×6	32	3.5	19.5	5.5	PB1021B	3.5	15	26.9	15	60	4.5×7.5×5.3	2500	8.33	13.5	0.0805	0.34	1.5
CSR 20S CSR 20	57	50.8 66.8	74 90	— 13	13.3 7.8	42.5 37	— 24	30 56	10.4 5.4	M5×8	42	4	25	12	B-M6F	4	20	35.4 43.4	18	60	6×9.5×8.5	3000	13.8 21.3	23.8 31.8	0.19 0.27	0.73 1.3	2.3
CSR 25S CSR 25	70	59.5 78.6	83.1 102.2	— 18	17 9	52 44	— 26	34 64	12.75 7.3	M6×10	46	5.5	30	12	B-M6F	5.5	23	41.25 50.8	22	60	7×11×9	3000	19.9 27.2	34.4 45.9	0.307 0.459	1.2 2.2	3.3
CSR 30S CSR 30	82	70.4 93	98 120.6	— 21	20 12	61 53	— 32	40 76	15.2 8.5	M6×10	58	7	35	12	B-M6F	7	28	49.2 60.5	26	80	9×14×12	3000	28 37.3	46.8 62.5	0.524 0.751	2 3.6	4.8
CSR 35	95	105.8	134.8	24	14	61	37	90	7.9	M8×14	68	7.5	40	12	B-M6F	7.5	34	69.9	29	80	9×14×12	3000	50.2	81.5	1.2	5.3	6.6
CSR 45	118	129.8	170.8	30	16	75	45	110	9.9	M10×15	84	10	50	16	B-PT1/8	10	45	87.4	38	105	14×20×17	3090	80.4	127.5	2.43	9.8	11

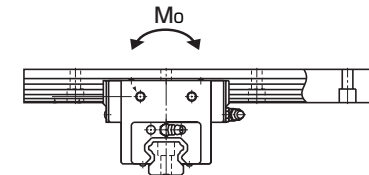
Note) The maximum length under "Length*" indicates the standard maximum length of an LM rail. (See B-156.)

Model number coding

4 CSR25 UU C0 +1200/1000L P

4: Total No. of LM blocks
 CSR25: Model number
 UU: Contamination protection accessory symbol (*1)
 C0: Radial clearance symbol (*2)
 +1200/1000L: LM rail length on the X axis (in mm) / LM rail length on the Y axis (in mm)
 P: Accuracy symbol (*3)
 Precision grade (P)/Super precision grade (SP)
 Ultra precision grade (UP)

(*1) See contamination protection accessory on A-368. (*2) See A-114. (*3) See A-122.



Standard Length and Maximum Length of the LM Rail

Table1 shows the standard lengths and the maximum lengths of model CSR variations. For the G dimension when a special length is required, we recommend selecting the corresponding G value from the table. The longer the G dimension is, the less stable the G area may become after installation, thus causing an adverse impact to accuracy.

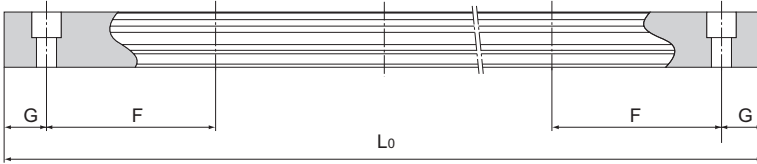


Table1 Standard Length and Maximum Length of the LM Rail for Model CSR

Unit: mm

Model No.	CSR 15	CSR 20	CSR 25	CSR 30	CSR 35	CSR 45
LM rail standard length (L ₀)	160	220	220	280	280	570
	220	280	280	360	360	675
	280	340	340	440	440	780
	340	400	400	520	520	885
	400	460	460	600	600	990
	460	520	520	680	680	1095
	520	580	580	760	760	1200
	580	640	640	840	840	1305
	640	700	700	920	920	1410
	700	760	760	1000	1000	1515
	760	820	820	1080	1080	1620
	820	940	940	1160	1160	1725
	940	1000	1000	1240	1240	1830
	1000	1060	1060	1320	1320	1935
	1060	1120	1120	1400	1400	2040
	1120	1180	1180	1480	1480	2145
	1180	1240	1240	1560	1560	2250
	1240	1360	1300	1640	1640	2355
	1360	1480	1360	1720	1720	2460
	1480	1600	1420	1800	1800	2565
	1600	1720	1480	1880	1880	2670
		1840	1540	1960	1960	2775
		1960	1600	2040	2040	2880
		2080	1720	2200	2200	2985
		2200	1840	2360	2360	3090
		1960	2520	2520		
		2080	2680	2680		
		2200	2840	2840		
		2320	3000	3000		
		2440				
Standard pitch F	60	60	60	80	80	105
G	20	20	20	20	20	22.5
Max length	2500	3000	3000	3000	3000	3090

Note) The maximum length varies with accuracy grades. Contact THK for details.

Tapped-hole LM Rail Type of Model CSR

The model CSR variations include a type with its LM rail bottom tapped. With the X-axis LM rail having tapped holes, this model can be secured with bolts from the top.

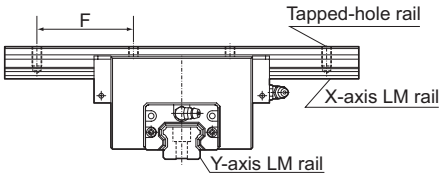


Table2 Dimensions of the LM Rail Tap Unit: mm

Model No.	S ₁	Effective tap depth l_1
15	M5	8
20	M6	10
25	M6	12
30	M8	15
35	M8	17
45	M12	24

Model number coding

4 CSR25 UU C0 +1200L P K/1000L P

T
 Symbol for
 tapped-hole LM rail type