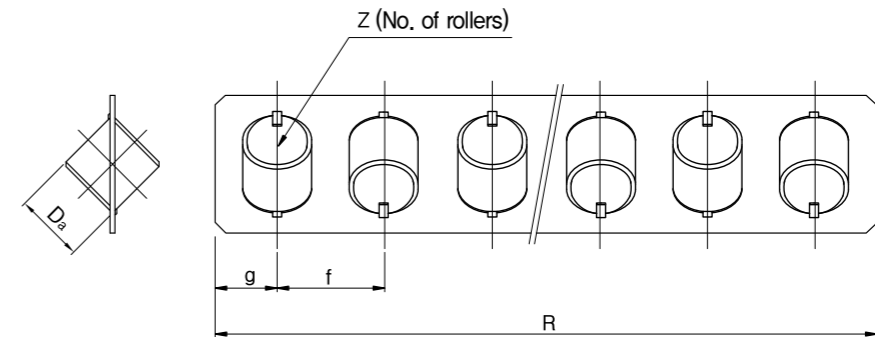
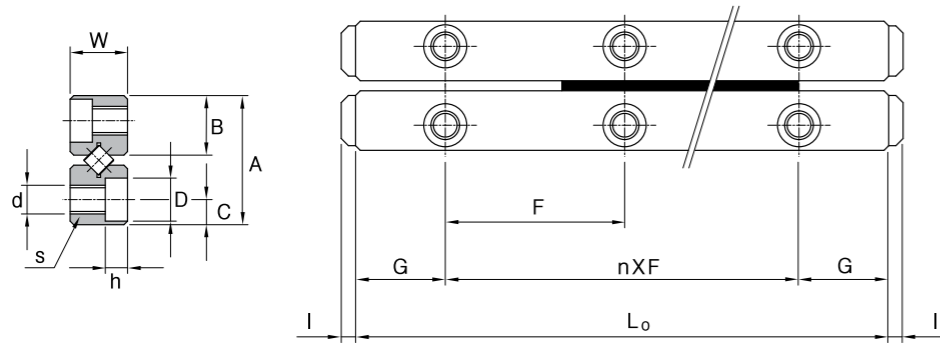


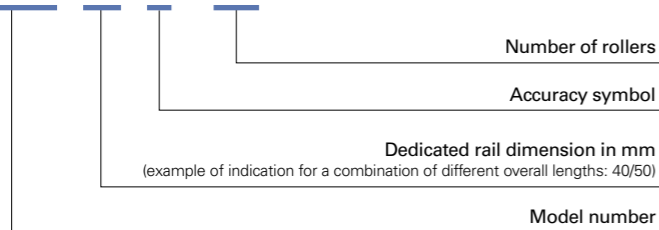
# AVR1 type



Model number	Max. stroke	Major								
		Dimensions for combination			Dimensions for					
		A	W	L <sub>0</sub>	nxF	G	B	C	s	d
AVR1-20× 5Z	12	8.5	4	12	1×10	5	3.8	1.8	M2×0.4	1.65
AVR1-30× 7Z	22			30	2×10					
AVR1-40×10Z	27			40	3×10					
AVR1-50×13Z	32			50	4×10					
AVR1-60×16Z	37			60	5×10					
AVR1-70×19Z	42			70	6×10					
AVR1-80×21Z	52			80	7×10					

• Examples of model number formation

**AVR1 -20 H X 5Z**

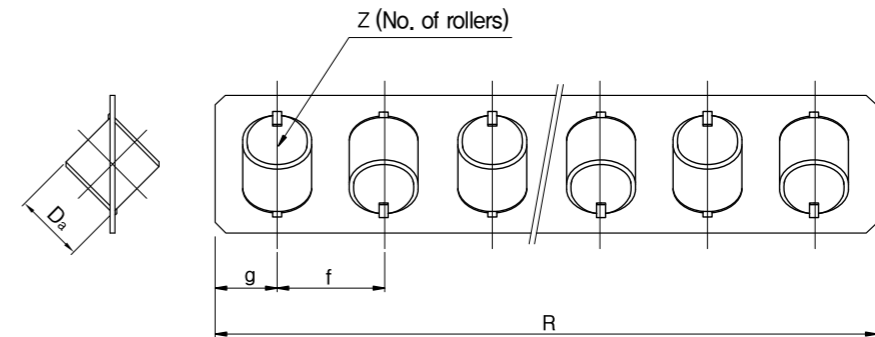
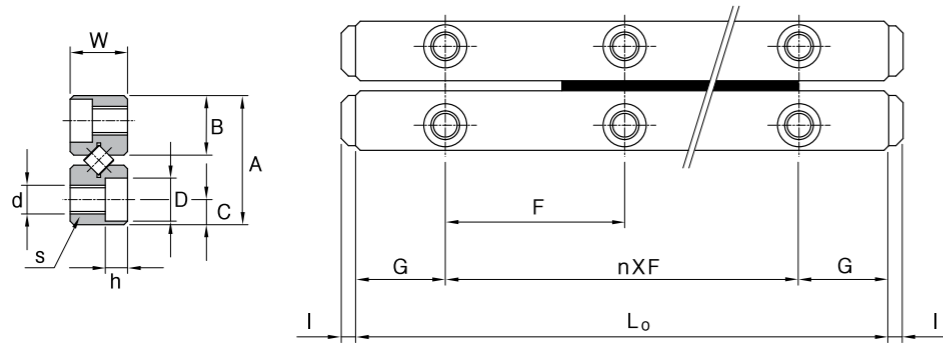


(Unit: mm)

dimensions							Permissible preload $\delta$ $\mu\text{m}$	Basic load rating(per roller)		Weight g/1set
fixing			D <sub>a</sub>	R	g	f		No. of roller Z	C <sub>Z</sub> kN	
D	h	l								
3	1.4	1.5	1.5	14	2	2.5	5	0.098	0.069	9.0
				19			7			13.0
				26.5			10			17.0
				34			13			21.0
				41.5			16			25.0
				49			19			29.0
				54			21			33.0

- Note (1) There may be some errors in weight values on dimension tables according to packing conditions of products.  
 (2) It is possible to manufacture stainless steel type products with excellent corrosion resistance, where in the stainless steel type products are marked as AVR1-SU-20×5Z using a sign SU.  
 (3) Please use cross recessed caised countersunk head screws (no.0) for precision machinery as screws for assembling exclusive rails.  
 • Cross recessed caised countersunk head screws JIS B 111  
 • Cross recessed pan head screws M1.4×0.3  
 (4) "One set" in the model no. left indicates a combination of four rails and two cages, eight stoppers.

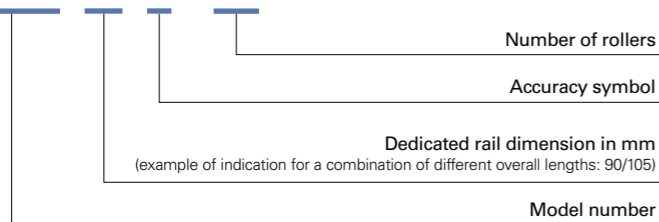
# AVR2 type



Model number	Max. stroke	Major								
		Dimensions for combination			Dimensions for					
		A	W	L <sub>0</sub>	nxF	G	B	C	s	d
AVR2- 30× 5Z	18	12	6	30	1×15	7.5	5.6	2.5	M3×0.5	2.55
AVR2- 45× 8Z	24			45	2×15					
AVR2- 60×11Z	30			60	3×15					
AVR2- 75×13Z	44			75	4×15					
AVR2- 90×16Z	50			90	5×15					
AVR2-105×18Z	64			105	6×15					
AVR2-120×21Z	70			120	7×15					
AVR2-135×23Z	84			135	8×15					
AVR2-150×26Z	90			150	9×15					
AVR2-165×29Z	96			165	10×15					
AVR2-180×32Z	102			180	11×15					

• Examples of model number formation

**AVR2 -30 H X 5Z**

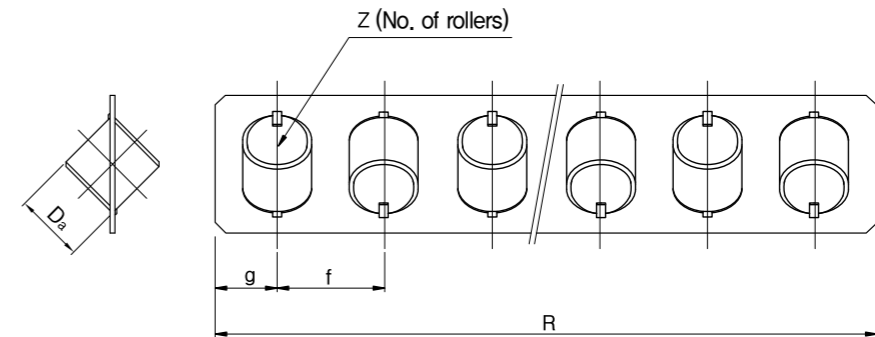
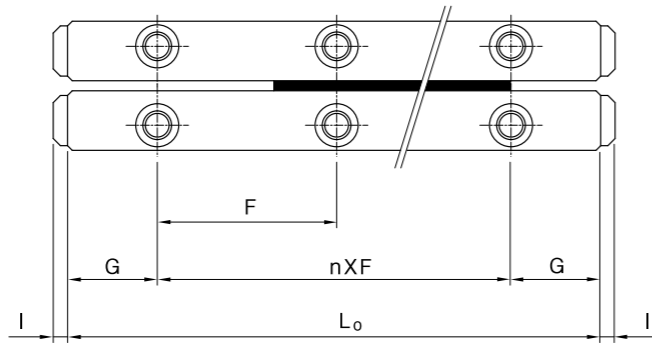
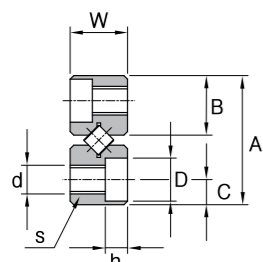


(Unit: mm)

dimensions							Permissible preload $\delta$ $\mu\text{m}$	Basic load rating(per roller)		Weight g/1set	
fixing			D <sub>a</sub>	R	g	f		No. of roller Z	C <sub>Z</sub> kN		C <sub>0Z</sub> kN
D	h	l									
4.4	2	2	2	21	2.5	4	5	-3	0.176	0.127	27.0
				33			8				40.3
				45			11				53.7
				53			13				67.0
				65			16				80.4
				73			18				93.7
				85			21				107.1
				93			23				120.4
				105			26				133.8
				117			29				147.1
				129			32				160.5

- Note (1) There may be some errors in weight values on dimension tables according to packing conditions of products.  
 (2) It is possible to manufacture stainless steel type products with excellent corrosion resistance, where in the stainless steel type products are marked as AVR2-SU-30×5Z using a sign SU.  
 (3) Please use cross recessed caised countersunk head screws (no.0) for precision machinery as screws for assembling exclusive rails.  
 • Cross recessed caised countersunk head screws JIS B 111  
 • Cross recessed pan head screws M2×0.4  
 (4) "One set" in the model no. left indicates a combination of four rails and two cages, eight stoppers.

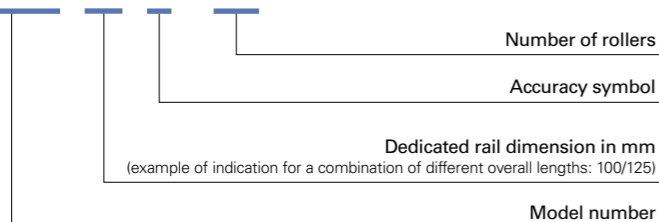
# AVR3 type



Model number	Max. stroke	Major									
		Dimensions for combination			Dimensions for						
		A	W	L <sub>0</sub>	nxF	G	B	C	s	d	
AVR3- 50× 7Z	28	18	8	50	1×25	12.5	8.3	3.5	Lower-part fastening M4×0.7	3.3	
AVR3- 75×10Z	48			75	2×25						
AVR3-100×14Z	58			100	3×25						
AVR3-125×17Z	78			125	4×25						
AVR3-150×21Z	88			150	5×25						
AVR3-175×24Z	108			175	6×25						
AVR3-200×28Z	118			200	7×25						
AVR3-225×31Z	138			225	8×25						
AVR3-250×35Z	148			250	9×25						Upper-part fastening S3
AVR3-275×38Z	168			275	10×25						
AVR3-300×42Z	178			300	11×25						

• Examples of model number formation

**AVR3 -50 H X 5Z**

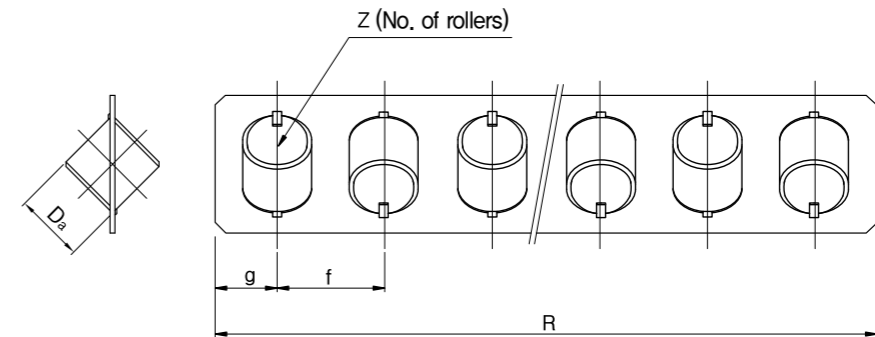
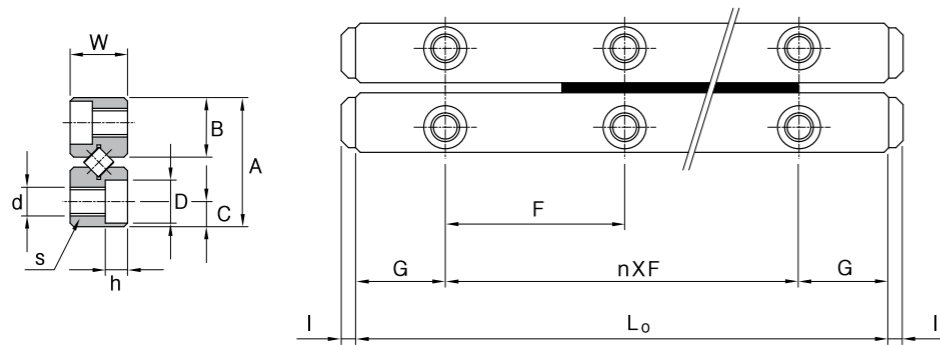


(Unit: mm)

dimensions							Permissible preload δ μm	Basic load rating(per roller)		Weight g/1set	
fixing			D <sub>a</sub>	R	g	f		No. of roller Z	C <sub>Z</sub> kN		C <sub>0Z</sub> kN
D	h	l									
6	3.1	2.5	3	36	3	5	7	-4	0.363	0.275	96.0
				51			10				142.2
				71			14				188.4
				86			17				234.6
				106			21				280.8
				121			24				327.0
				141			28				373.2
				156			31				419.4
				176			35				465.6
				191			38				511.8
				211			42				558.0

- Note (1) There may be some errors in weight values on dimension tables according to packing conditions of products.
- (2) It is possible to manufacture stainless steel type products with excellent corrosion resistance, where in the stainless steel type products are marked as AVR3-SU-50×7Z using a sign SU.
- (3) Specialized bolt should be used when fastening the upper part. (Refer to <Table.4> for customized specification of C-65 specialized bolt.)
- (4) "One set" in the model no. left indicates a combination of four rails and two cages, eight stoppers.

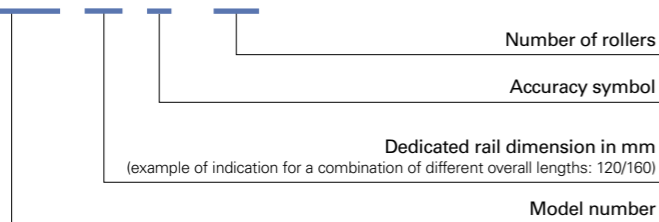
# AVR4 type



Model number	Max. stroke	Major									
		Dimensions for combination			Dimensions for						
		A	W	L <sub>0</sub>	nxF	G	B	C	s	d	
AVR4-80×7Z	58	22	11	80	1×40	20	10.2	4.5	Lower-part fastening M5×0.8	4.3	
AVR4-120×11Z	82			120	2×40						
AVR4-160×15Z	106			160	3×40						
AVR4-200×19Z	130			200	4×40						
AVR4-240×23Z	154			240	5×40						
AVR4-280×27Z	178			280	6×40						
AVR4-320×31Z	202			320	7×40						
AVR4-360×35Z	226			360	8×40						
AVR4-400×39Z	250			400	9×40						Upper-part fastening S4
AVR4-440×43Z	274			440	10×40						
AVR4-480×47Z	298			480	11×40						

• Examples of model number formation

**AVR4 -80 H X 7Z**

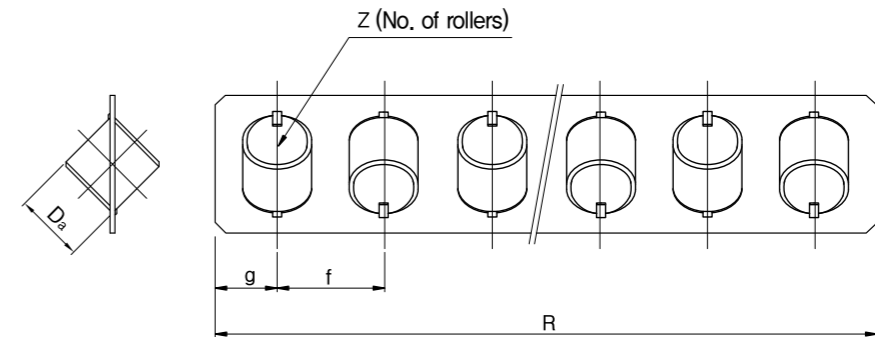
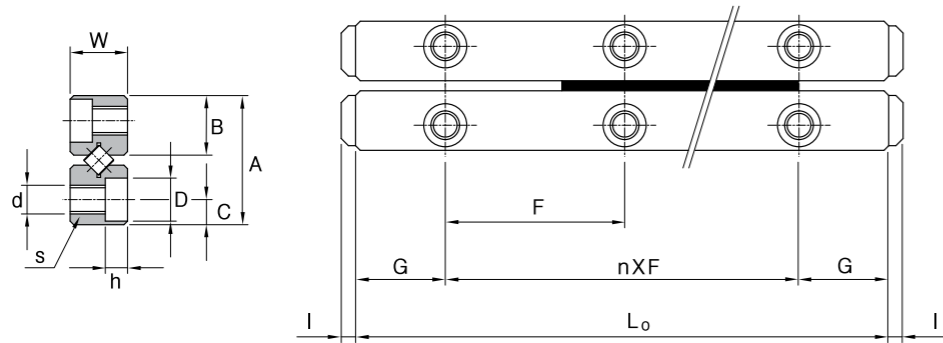


(Unit: mm)

dimensions							Permissible preload δ μm	Basic load rating(per roller)		Weight g/1set
fixing			D <sub>a</sub>	R	g	f		No. of roller Z	C <sub>Z</sub> kN	
D	h	l								
8	4.2	2.5	4	51	4.5	7	7	0.764	0.637	254.0
				79			11			380.0
				107			15			506.0
				135			19			632.0
				163			23			758.0
				191			27			884.0
				219			31			1010.0
				247			35			1136.0
				275			39			1262.0
				303			43			1388.0
				331			47			1514.0

- Note (1) There may be some errors in weight values on dimension tables according to packing conditions of products.
- (2) It is possible to manufacture stainless steel type products with excellent corrosion resistance, where in the stainless steel type products are marked as AVR4-SU-80×7Z using a sign SU.
- (3) Specialized bolt should be used when fastening the upper part. (Refer to <Table.4> for customized specification of C-65 specialized bolt.)
- (4) "One set" in the model no. left indicates a combination of four rails and two cages, eight stoppers.

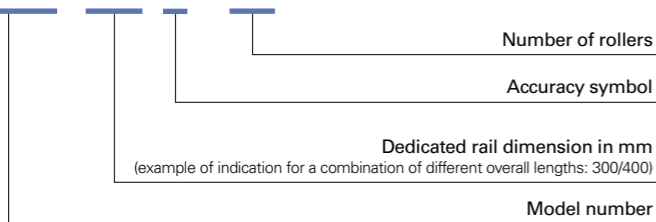
# AVR(EU)6 type



Model number	Max. stroke	Major									
		Dimensions for combination			Dimensions for						
		A	W	L <sub>0</sub>	nxF	G	B	C	s	d	
AVR6-100× 7Z	56	30(31)	15	100	1×50	25	14(14)	6	Lower-part fastening M6×1.0	5.2(5.3)	
AVR6-150×10Z	96			150	2×50						
AVR6-200×13Z	136			200	3×50						
AVR6-250×17Z	156			250	4×50						
AVR6-300×20Z	196			300	5×50						
AVR6-350×24Z	216			350	6×50						
AVR6-400×27Z	256			400	7×50						
AVR6-450×31Z	276			450	8×50						
AVR6-500×34Z	316			500	9×50						Upper-part fastening S6
AVR6-550×38Z	336			550	10×50						
AVR6-600×41Z	376			600	11×50						

• Examples of model number formation

## AVR6 -100 H X 7Z

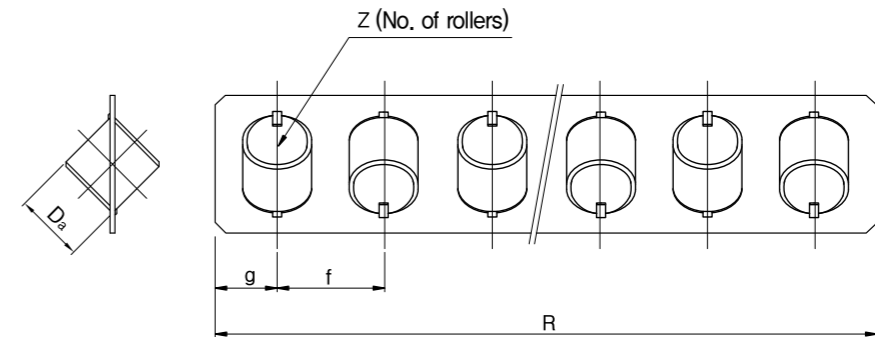
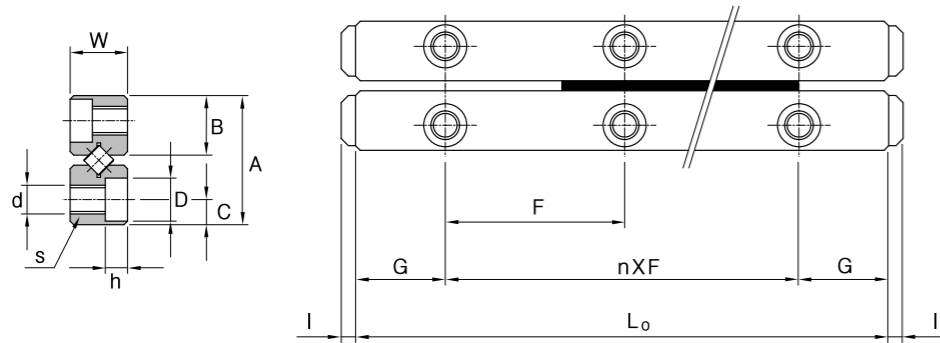


(Unit: mm)

dimensions							Permissible preload δ μm	Basic load rating(per roller)		Weight g/1set	
fixing			D <sub>a</sub>	R	g	f		No. of roller Z	C <sub>Z</sub> kN		C <sub>0Z</sub> kN
D	h	l									
9.5	5.2	3	6	72	6	10	7	-7	1.91	1.76	619.0
				102			10				930.8
				132			13				1246.0
				172			17				1554.4
				202			20				1866.2
				242			24				2178.0
				272			27				2489.8
				312			31				2801.6
				342			34				3113.4
				382			38				3425.2
				412			41				3737.0

- Note (1) There may be some errors in weight values on dimension tables according to packing conditions of products.
- (2) It is possible to manufacture stainless steel type products with excellent corrosion resistance, where in the stainless steel type products are marked as AVR6-SU-100×7Z using a sign SU.
- (3) Specialized bolt should be used when fastening the upper part.  
(Refer to <Table.4> for customized specification of C-65 specialized bolt.)
- (4) The Exclusive Mounting Bolts are capable of corresponding to both combination heights 30mm and 31mm, where in dimensions within the parentheses are those of AVREU.
- (5) "One set" in the model no. left indicates a combination of four rails and two cages, eight stoppers.

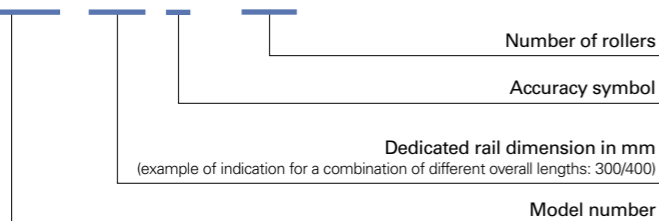
# AVREU9 type



Model number	Max. stroke	Major									
		Dimensions for combination			Dimensions for						
		A	W	L <sub>0</sub>	nxF	G	B	C	s	d	
AVR9- 200×10Z	118	44	22	200	1×100	50	20.2	9	Lower-part fastening M8×1.25	6.8	
AVR9- 300×15Z	178			300	2×100						
AVR9- 400×20Z	238			400	3×100						
AVR9- 500×25Z	298			500	4×100						
AVR9- 600×30Z	358			600	5×100						
AVR9- 700×35Z	418			700	6×100						
AVR9- 800×40Z	478			800	7×100						
AVR9- 900×45Z	538			900	8×100						
AVR9-1000×50Z	598			1000	9×100						Upper-part fastening S9
AVR9-1100×55Z	658			1100	10×100						
AVR9-1200×60Z	718			1200	11×100						

• Examples of model number formation

## AVR9 -200 H X 10Z

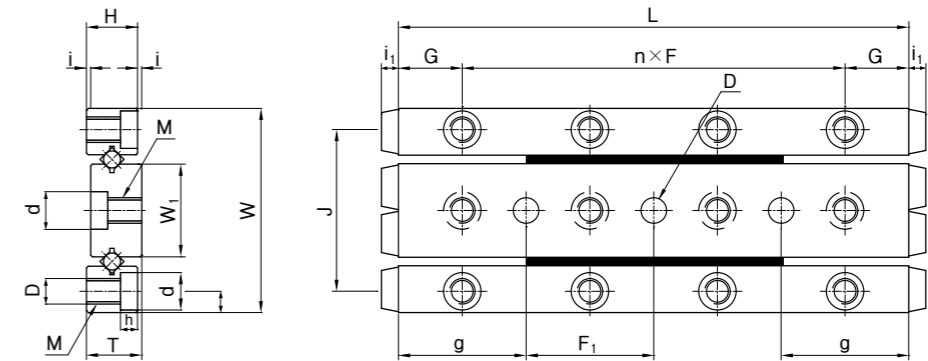
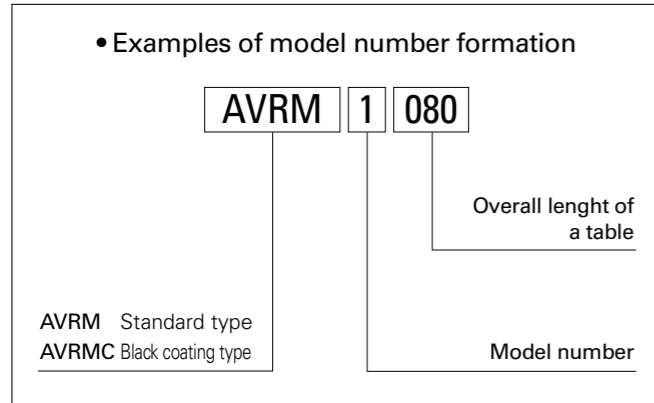


(Unit: mm)

dimensions							Permissible preload δ μm	Basic load rating(per roller)		Weight g/1set
fixing			D <sub>a</sub>	R	g	f		No. of roller Z	C <sub>Z</sub> kN	
D	h	l								
10.5	6.2	4	9	7.5	14	-10	4.31	4.36	141	2260.0
									211	3405.0
									281	4549.9
									351	5694.9
									421	6839.8
									491	7984.8
									561	9129.7
									631	10274.7
									701	11419.6
									771	12564.0
									841	13709.0

- Note (1) There may be some errors in weight values on dimension tables according to packing conditions of products.
- (2) It is possible to manufacture stainless steel type products with excellent corrosion resistance, where in the stainless steel type products are marked as AVR9-SU-200×10Z using a sign SU.
- (3) Specialized bolt should be used when fastening the upper part. (Refer to <Table.4> for customized specification of C-65 specialized bolt.)
- (4) The Exclusive Mounting Bolts are capable of corresponding to both combination heights 30mm and 31mm, where in dimensions within the parentheses are those of AVREU.
- (5) "One set" in the model no. left indicates a combination of four rails and two cages, eight stoppers.

# AVRM1 type



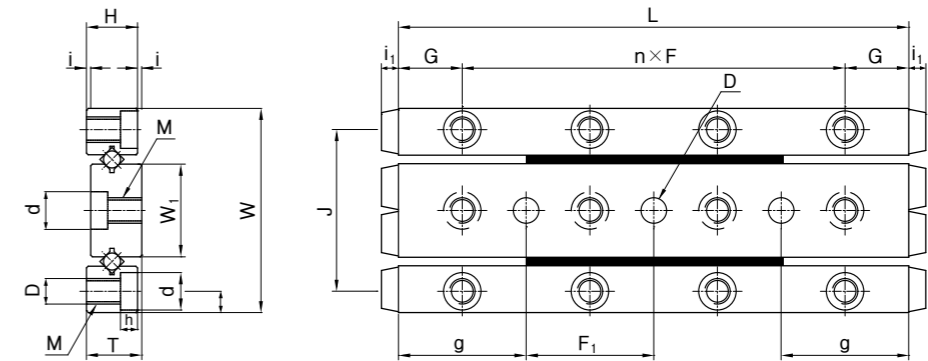
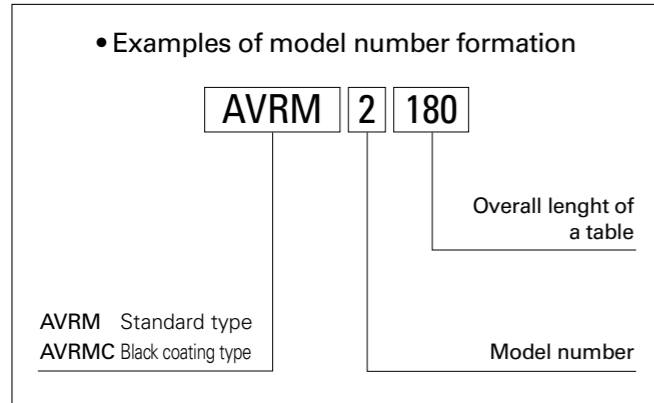
Model number	Max. stroke	Major										
		Width W	Height T	Length L	Dimensions of the side			Dimensions for				
					H	W <sub>1</sub>	i	i <sub>1</sub>	J	n x F	G	e
AVRM1-20	12	17	4.5	20	4	7.8	0.5	1.5	13.4	5	10	1 x 10
AVRM1-30	22			30								2 x 10
AVRM1-40	27			40								3 x 10
AVRM1-50	32			50								4 x 10
AVRM1-60	37			60								5 x 10
AVRM1-70	42			70								6 x 10
AVRM1-80	52			80								7 x 10

Note (1) Width (W) and height (T) of the error range is ± 0.1.  
 (2) "One set" in the model no. above indicates a combination of three rails and two cages, eight stoppers.

(Unit: mm)

dimensions							Permissible preload δ μm	Basic load rating(per roller)		Weight g/1set	
fixing			R	g	f	No. of roller Z		C <sub>Z</sub> kN	C <sub>0Z</sub> kN		
D	M x d x h	D <sub>a</sub>									
2	M20 x 3 x 1.4	1.5	14	10	2.5	5	-2	0.098	0.069	10.0	
			19							7	17.6
			26.5							10	20.0
			34							13	25.0
			41.5							16	30.0
			49							19	35.0
			54							21	40.0

# AVRM2 type



Model number	Max. stroke	Major										
		Width W	Height T	Length L	Dimensions of the side			Dimensions for				
					H	W <sub>1</sub>	i	i <sub>1</sub>	J	n x F	G	e
AVRM2- 30	18	24	6.5	30	6	11	0.5	1.5	19	1 x 15	7.5	15
AVRM2- 45	24			45						2 x 15		
AVRM2- 60	30			60						3 x 15		
AVRM2- 75	44			75						4 x 15		
AVRM2- 90	50			90						5 x 15		
AVRM2-105	64			105						6 x 15		
AVRM2-120	70			120						7 x 15		
AVRM2-135	84			135						8 x 15		
AVRM2-150	90			150						9 x 15		
AVRM2-165	96			165						10 x 15		
AVRM2-180	102	180	11 x 15									

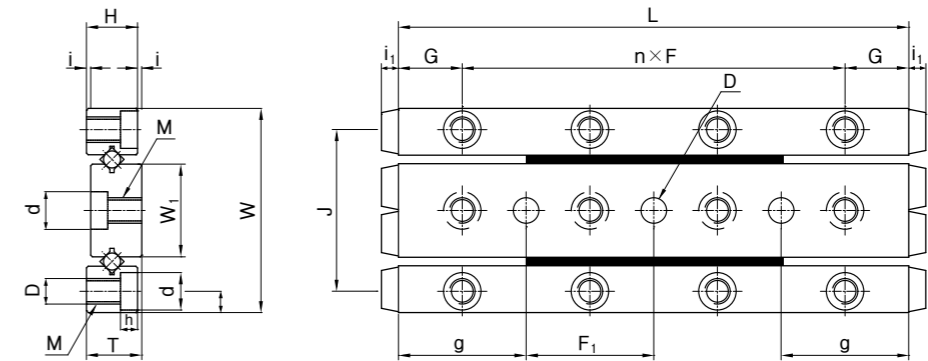
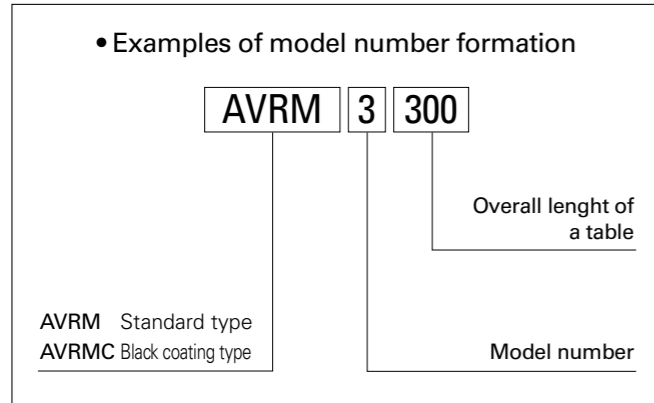
Note (1) Width (W) and height (T) of the error range is ± 0.1.  
 (2) "One set" in the model no. above indicates a combination of three rails and two cages, eight stoppers.

(Unit: mm)

dimensions						Permissible preload δ μm	Basic load rating(per roller)		Weight g/1set
fixing		R	g	f	No. of roller Z		C <sub>Z</sub> kN	C <sub>0Z</sub> kN	
D	M x d x h					D <sub>a</sub>			
3	M3 x 4.4 x 2	2	21	15	5.4	5	0.176	0.127	30
			33			8			45
			45			11			61
			53			13			76
			65			16			91
			73			18			106
			85			21			121
			93			23			136
			105			26			151
			117			29			166
129	32	181							



# AVRM3 type



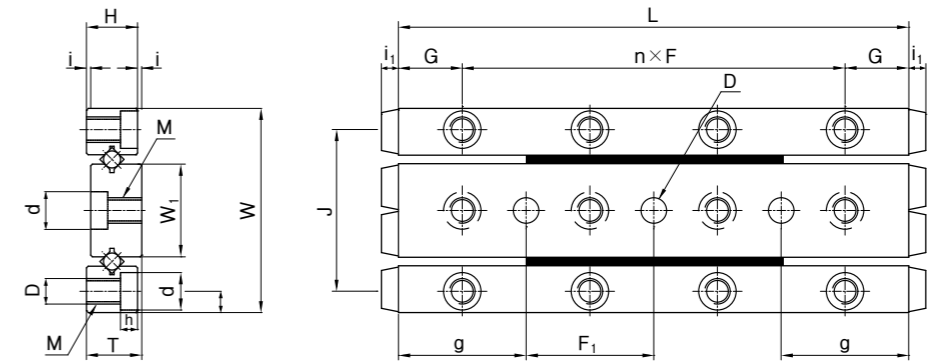
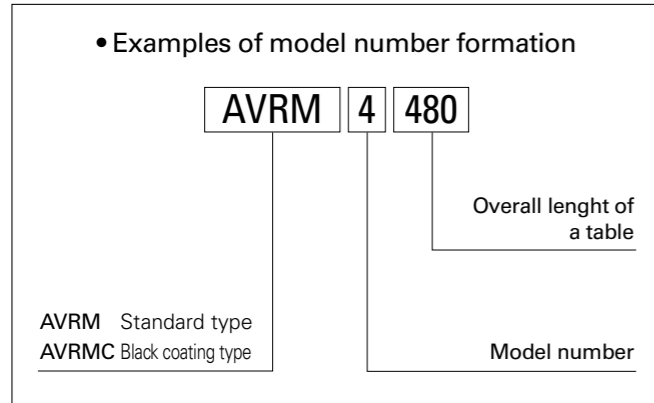
Model number	Max. stroke	Major										
		Width W	Height T	Length L	Dimensions of the side			Dimensions for				
					H	W <sub>1</sub>	i	i <sub>1</sub>	J	n×F	G	e
AVRM3- 50	28	36	8.5	50	8	16.6	0.5	2.5	29	1×25	12.5	25
AVRM3- 75	48			75						2×25		
AVRM3-100	58			100						3×25		
AVRM3-125	78			125						4×25		
AVRM3-150	88			150						5×25		
AVRM3-175	108			175						6×25		
AVRM3-200	118			200						7×25		
AVRM3-225	138			225						8×25		
AVRM3-250	148			250						9×25		
AVRM3-275	168			275						10×25		
AVRM3-300	178			300						11×25		

Note (1) Width (W) and height (T) of the error range is ± 0.1.  
 (2) "One set" in the model no. above indicates a combination of three rails and two cages, eight stoppers.

(Unit: mm)

dimensions							Permissible preload δ μm	Basic load rating(per roller)		Weight g/1set
fixing			R	g	f	No. of roller Z		C <sub>Z</sub> kN	C <sub>0Z</sub> kN	
D	M×d×h	D <sub>a</sub>								
4	M4×6×3.1	3	36	25	5	7	-4	0.363	0.275	102
			51			10				152
			71			14				203
			86			17				254
			106			21				305
			121			24				355
			141			28				406
			156			31				457
			176			35				508
			191			38				559
			211			42				610

# MVRM4 type



Model number	Max. stroke	Major										
		Width W	Height T	Length L	Dimensions of the side			Dimensions for				
					H	W <sub>1</sub>	i	i <sub>1</sub>	J	n x F	G	e
AVRM4- 80	58	44	11.5	80	11	20.4	0.5	2.5	35	1 x 40	20	40
AVRM4-120	82			120						2 x 40		
AVRM4-160	106			160						3 x 40		
AVRM4-200	130			200						4 x 40		
AVRM4-240	154			240						5 x 40		
AVRM4-280	178			280						6 x 40		
AVRM4-320	202			320						7 x 40		
AVRM4-360	226			360						8 x 40		
AVRM4-400	250			400						9 x 40		
AVRM4-440	274			440						10 x 40		
AVRM4-480	298			480						11 x 40		

Note (1) Width (W) and height (T) of the error range is ± 0.1.

(2) "One set" in the model no. above indicates a combination of three rails and two cages, eight stoppers.

(Unit: mm)

dimensions							Permissible preload δ μm	Basic load rating(per roller)		Weight g/1set
fixing			R	g	f	No. of roller Z		C <sub>Z</sub> kN	C <sub>0Z</sub> kN	
D	M x d x h	D <sub>a</sub>								
5	M5 x 8 x 4.2	4	51	40	7	7	-5	0.764	0.637	267.3
			79			11				401.3
			107			15				535.3
			135			19				669.3
			163			23				803.3
			191			27				937.3
			219			31				1071.3
			247			35				1205.3
			275			39				1339.3
			303			43				1473.3
			331			47				1607.3