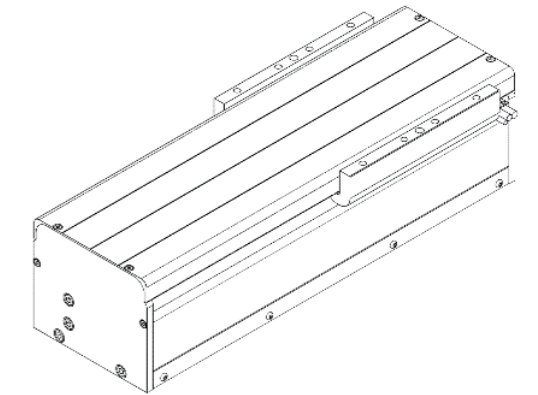


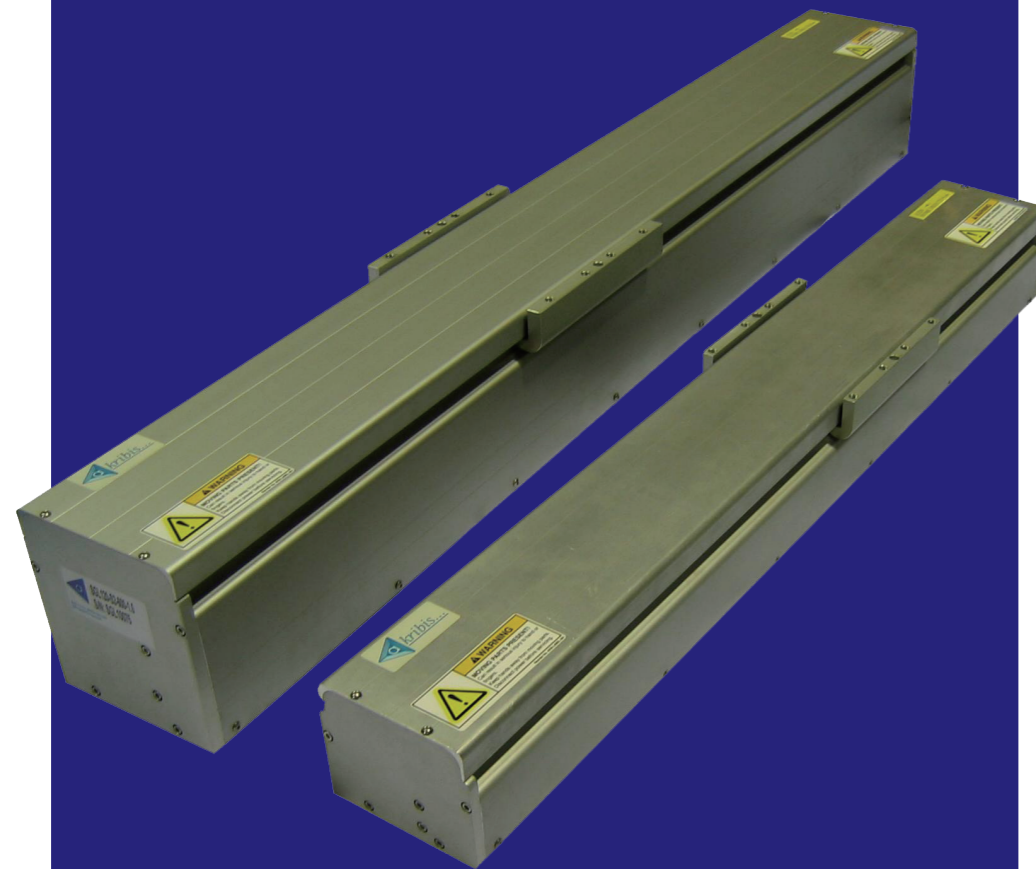
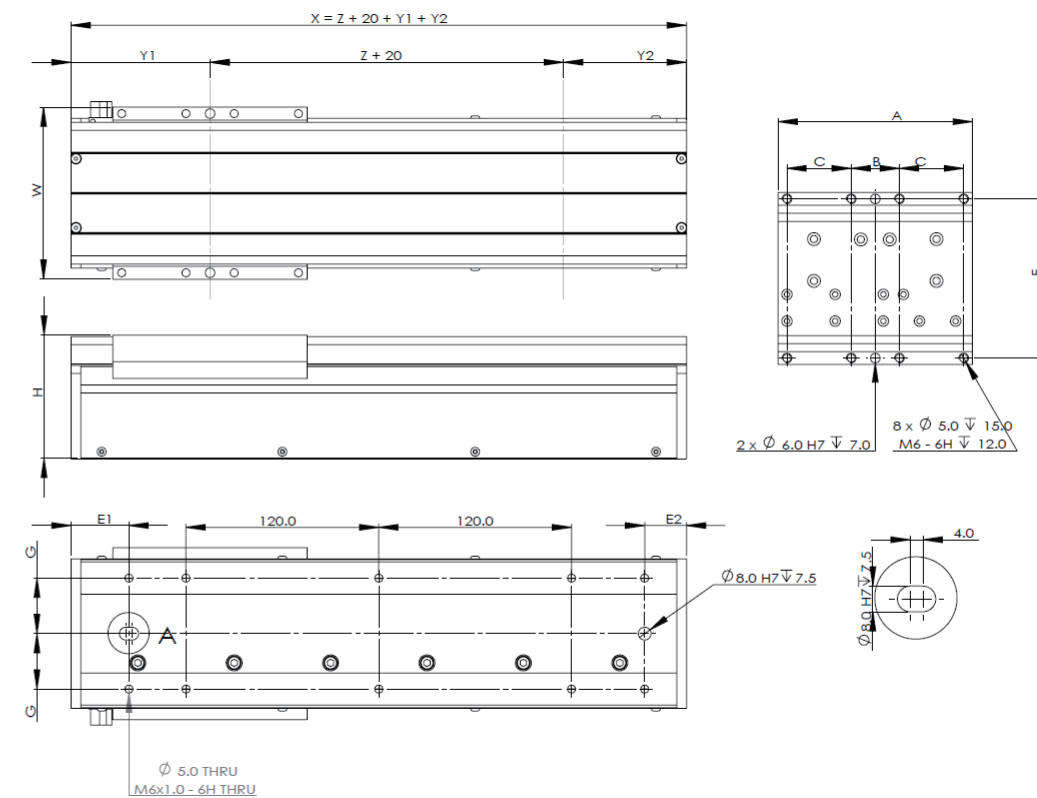
SGL

■ Dimensions

- Direct drive, zero cogging, zero backlash ironless linear motor
- Linear encoder options of 5 μm, 1 μm, and 0.1 μm
- Single size 15 linear guidance rails
- High accelerations (up to 10) and speeds (up to 5m/s)
- Smooth motion at low speeds (low velocity ripple)



■ SGL



SGL Series



Low cogging torque



High speed and high acceleration



High speed and high acceleration



Smooth motion at low speed (low velocity)



High Precision

SGL

Specifications

Model	Motor	Size													Moving Mass (Kg)	Module Mass (Kg)													
		Stroke (Z) (mm)	Total Length(X) (mm)	Carriage Length (A) (mm)	Module Height (H) (mm)	Module Width (W) (mm)	Hard Stop Position (Y1) (mm)	Hard Stop Position (Y2) (mm)	Carriage Mounting Holes (B) (mm)	Carriage Mounting Holes (C) (mm)	Carriage Mounting Holes (F) (mm)	Base Mounting Holes (G) (mm)	Base Mounting Holes (E1) (mm)	Base Mounting Holes (E2) (mm)															
SGL80	AUM2	S2	200	383	121	77	107	86.5	76.5	30	40	99	34.5	36	26	0.84	5												
			300	483												5.5													
			400	583												7.1													
			500	683												8.3													
			600	783												9.2													
			1000	1183												13.1													
		1200	1383	14.4																									
		S3	200	383												121	77	107	86.5	76.5	30	40	99	34.5	36	26	0.86	5	
			300	483																							5.5		
			400	583																							7.1		
			500	683																							8.3		
			600	783																							9.2		
	1000		1183	13.1																									
	1200	1383	14.5																										
	S4	200	383	121	77	107	86.5	76.5	30	40	99	34.5	36	26	0.96												5.1		
		300	483												5.6														
		400	583												7.2														
		500	683												8.4														
		600	783												9.3														
		1000	1183												13.1														
	1200	1383	14.5																										
	SGL100	AUM3	S2												200	407	145	94	132	98.5	88.5	30	40	122	43	36	26	1.5	8.4
															300	507												10.1	
															400	607												11.7	
500															707	13.7													
600															807	15.6													
1000				1207	22.3																								
1200			1407	26.1																									
S3			200	443	145	94	132	116.5	106.5	40	50	122	43	36	26	1.9				9.6									
			300	543												10.8													
			400	643												12.9													
			500	743												14.9													
			600	843												16.3													
		1000	1243	23.5																									
1200		1443	26.5																										
S4		200	503	145				94	132	146.5	136.5					60	70	122	43	36	26	2.4	11.1						
		300	603																			12.5							
		400	703																			14.4							
		500	803																			16.4							
		600	903																			17.8							
		1000	1303		24.9																								
1200		1503	28.3																										
SGL120		AUM4	S2		200	411	181			118.5	132	100.5	90.5	30	40	122	43					38	28	1.7	11.3				
					300	511																		14.1					
					400	611																		16.1					
	500				711	18.9																							
	600				811	21.7																							
	1000			1211	31.2																								
	1200		1411	36.8																									
	S3		200	447	181	118.5		132	118.5			108.5	40	50	122			43	38	28	2.3			13.2					
			300	547																	14.9								
			400	647																	17.9								
			500	747																	20.7								
			600	847																	22.7								
		1000	1247	33																									
	1200	1447	37.8																										
	S4	200	507	181			118.5		132	148.5	138.5	60	70	122		43	38				28	2.7	15.1						
		300	607																			17							
		400	707																			19.8							
		500	807																			22.6							
		600	907																			24.6							
		1000	1307		34.9																								
	1200	1507	39.7																										

SGL

Bearing Parameters/Performance Parameter

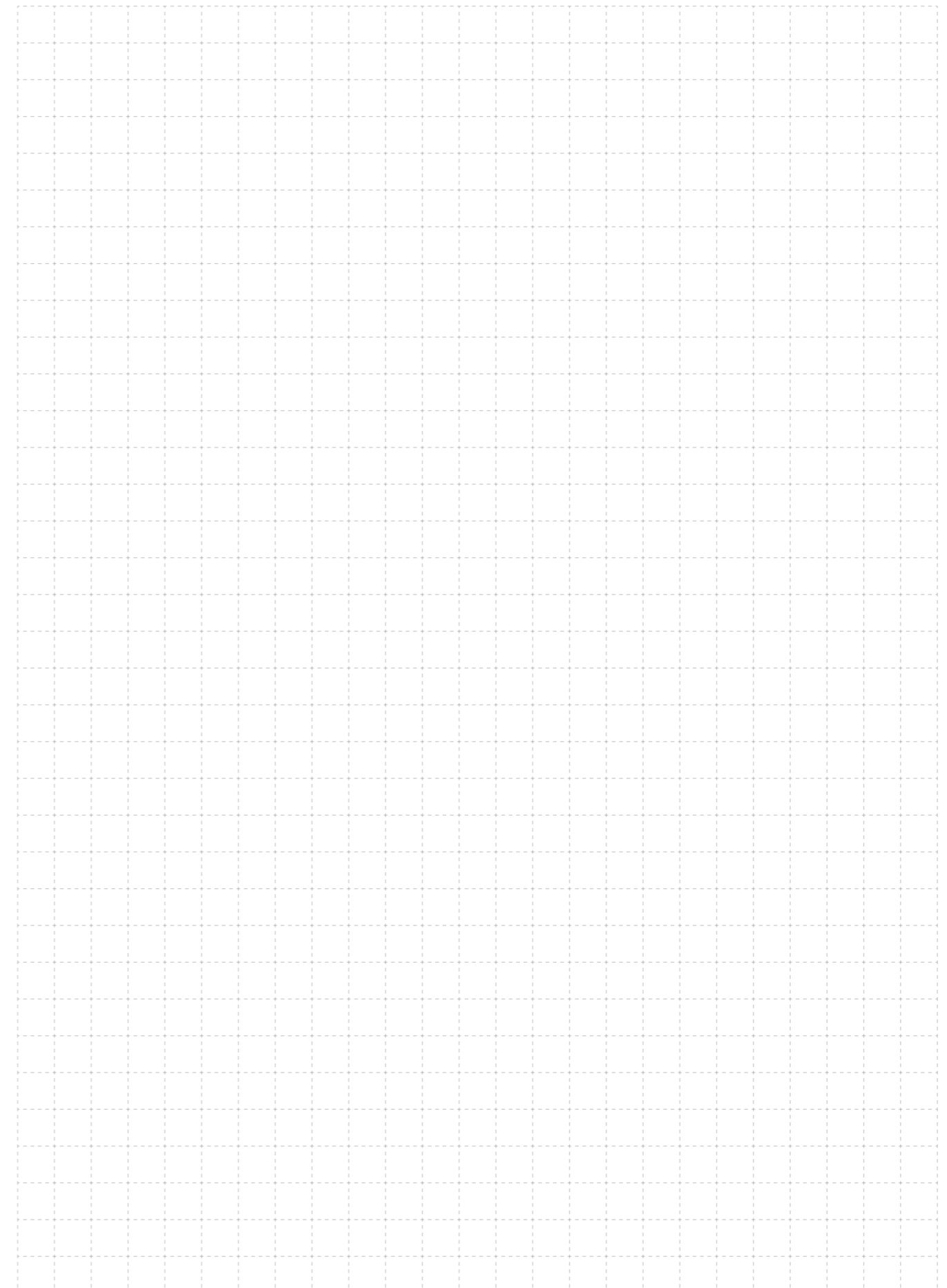
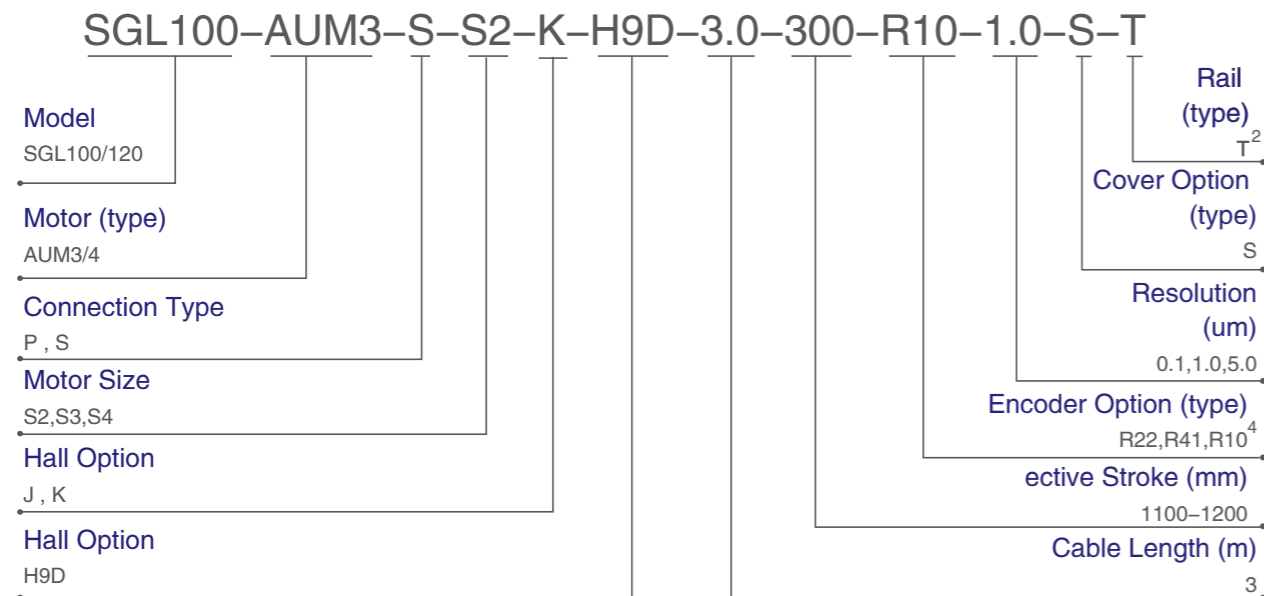
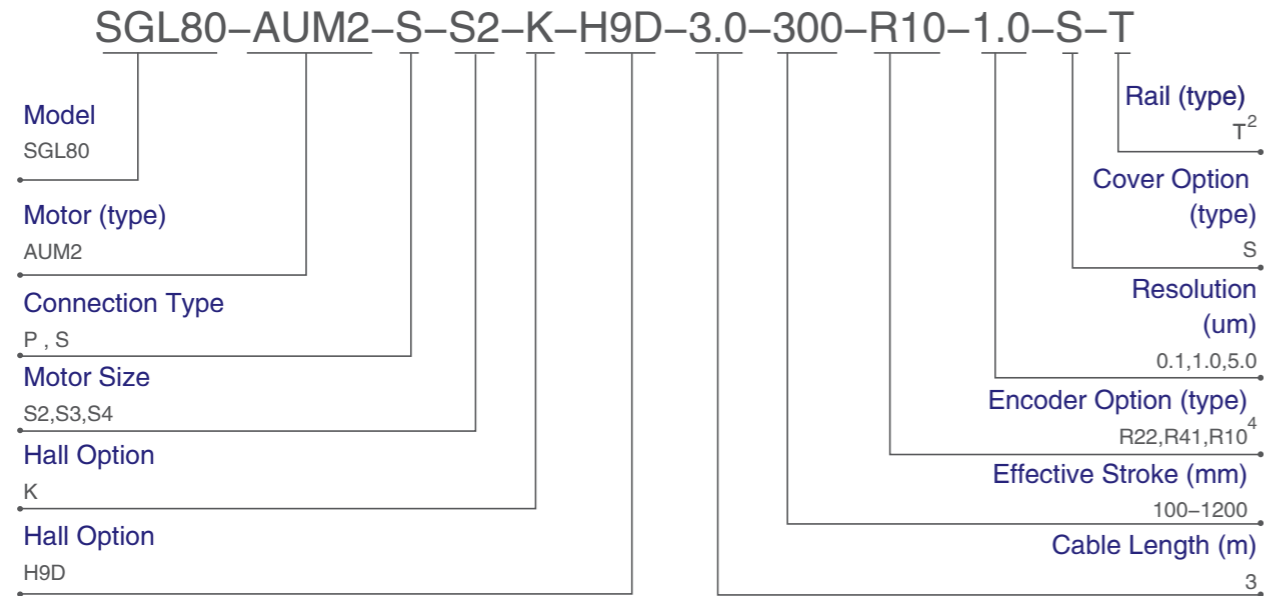
Specifications	Unit	Motors								
		AUM2			AUM3			AUM4		
		S2	S3	S4	S2	S3	S4	S2	S3	S4
Maximum bearing load	N	1360			1560					
Recommended roll moment	Nm	5.2			7.4					
Recommended pitch moment	Nm	103.8			135.4	191.6	285.2	135.4	191.6	285.2
Recommended yaw moment	Nm	103.8			135.4	191.6	285.2	135.4	191.6	285.2

Acceleration	G	10
Velocity(1μm resolution)	m/s	5 (40μm scale pitch and 20MHz counter frequency)
Velocity(0.5μm resolution)		2.5 (20μm scale pitch and 20MHz counter frequency)
Velocity(0.1μm resolution)		1.3 (20μm scale pitch and 20MHz counter frequency)
Velocity(Analogue)	μm	8 (40μm scale pitch and 200kHz input frequency)
		4 (20μm scale pitch and 200kHz input frequency)
Straightness ^③	μm	±3μm/25mm, NTE±10μm/300mm
Flatness ^③		±3μm/25mm, NTE±10μm/300mm
Repeatability(1μm resolution)		±3μm (40μm scale pitch)
Repeatability(0.5μm resolution)		±1.5μm (20μm scale pitch)
Repeatability(0.1μm resolution)		±1μm(20μm scale pitch)
Repeatability(Analogue)		±5 counts

③ All measurement taken when module is mounted on a 5micron flat granite table.

SGL

Part Numbering



- ① For customized stroke length (up to 2.7m), please contact us.
- ② For applications that have specific straightness and flatness requirements, precision class (P) is available, please contact us for more details.
- ③ All measurement taken when module is mounted on a 5micron flat granite table.
- ④ Available for 1um only.