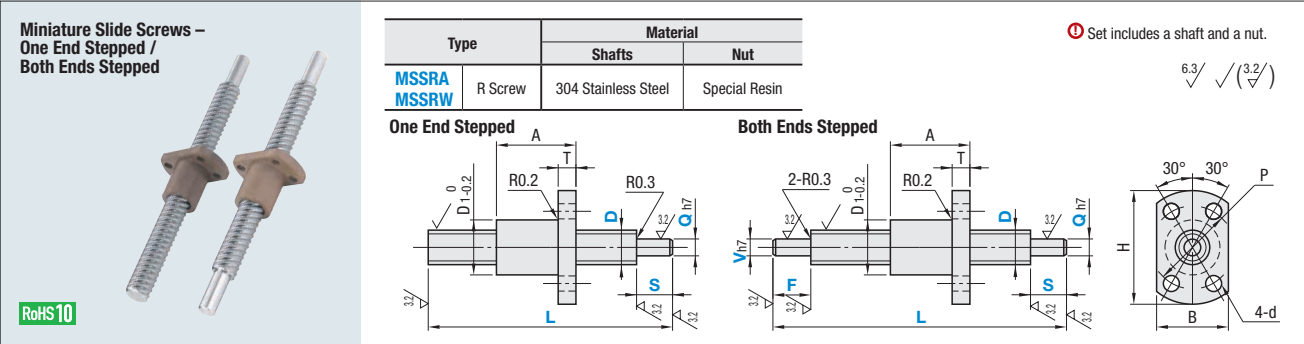


Miniature Slide Screws

One End Stepped / Both Ends Stepped

Lead Screws / Slide Screws



Part Number	1 mm Increment			V / Q	No. of Starts	Resin Nut Dimension							Allowable Axial Load N (reference)	Allowable Rotational Speed rpm (reference)	Tightening Torque Nmm		
	Type	D	Lead			L	F / S	D ₁	H	A	T	B				P	d
MSSRA MSSRW	4	01	30-150	2.5	1	10	23	11.5	3.5	15	15	2.9	50	2500	180		
		02															
	6	01	30-250		2 ≤ F ≤ Vx3 2 ≤ S ≤ Qx3	3 4	1	12	26	14.5	3.5	17	18	3.4	120	2000	400
		02															
		09			*2 ≤ F ≤ Vx4 2 ≤ S ≤ Qx4												
		18															
	8	01	40-250		4 5	1	14	29	18	4	18	21	3.4	200	2000	400	
		02															
		12															
		24															
	10	02	50-250		5 6 7	1	16	33	22	5	21	24	4.5	410	1500	500	
		15															
30																	
02																	
12	18	50-550	6 7 8 9	6	18	35	25	5	22	26	4.5	750	1000	500			
	36																

- Ⓢ There may be a centering hole on machined shaft end.
- * When V and Q=4, S will be less than 3x of Q.
- Ⓢ The tightening torque applies to the screw for mounting the plastic nut.
- Ⓢ Note that positioning repeatability changes when nut is exchanged for maintenance.

Part Number Example

MSSRA812 - 300 - S10 - Q5

MSSRW1202 - 250 - F20 - V6 - S8 - Q6

Part Number Alterations

MSSRA812 - 250 - S10 - Q5 - AC13.3

Part Number	Available Types							
	Type	D	Lead	Min. L-100	L101-200	L201-300	L301-400	L401-500
4	01							
	02							
6	01							
	02							
	09							
	18							
8	01							
	02							
	12							
	24							
10	02							
	15							
	30							
	02							
12	18							
	36							

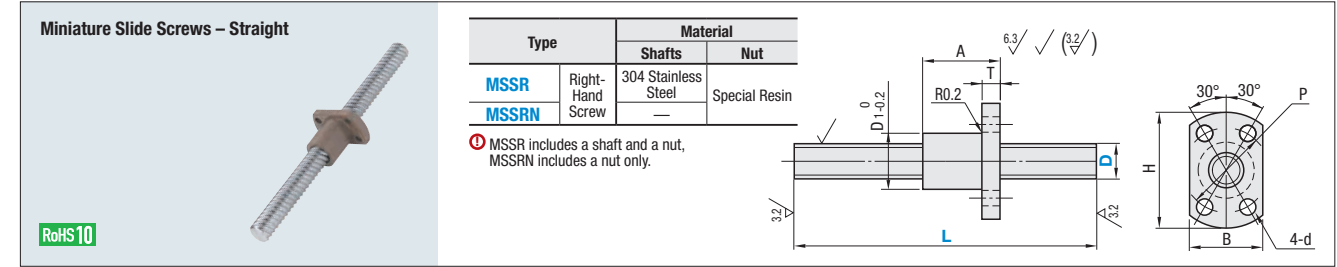
Alterations	Retaining Ring Groove	Width Across Flats	Tapping	Threaded	Square Chamfering	Keyway
	Code: AC (V Part) AQ (Q Part)	Code: SC (V Part) SQ (Q Part)	Code: MC (V Part) MQ (Q Part)	Code: BV (V Part) BC (Q Part)	Code: ZC (V Part) ZQ (Q Part)	Code: KV (V Part) KC (Q Part)
Spec.	V, Q, e Tolerance, m+0.14 0, n Machining Limits	SC(SQ)=0 or SC(SQ)≥2, Applicable when V(Q)≥6, SW=Q(V)-2, 3≤SY≤20	MC = Applied on V part, MQ = Applied on Q part, Ordering Code: MC5, V, Q, MC / MQ (Selection Range)	V(Q)=9 not applicable, BC(BV)≤S(F)- (Screw Pitch x 2), BV, BC≤Mx3, Ordering Code: BC10, BV = Applied on V part, BC = Applied on Q part	A = 1 mm Increment, ZC = Applied on V part, ZQ = Applied on Q part, Applicable to either V or Q, Ordering Code: ZC6-W5-A8, Other alterations may not be combined on the same screw shaft.	KC, KV, C = 1 mm Increment, Ordering Code: KC8-C10, KV = Applied on V part, KC = Applied on Q part, C = Cs(S(F)/2), C+KC(KV)<S(F), KC(KV)≥2, When KC(KV)=0, F(S)-C-KC(KV)≥2

- Ⓢ Specify an alteration position to be 2 mm or more away from the stepped part. For details see P.819.
- Ⓢ Do not specify multiple alterations in such a way that they overlap with each other in the rotating direction on the same shaft. For details see P.819.
- Ⓢ When adding multiple alterations, there must be 2 mm or more clearance between each feature. Furthermore, orientations of those alterations will be random. For details see P.819.

Miniature Slide Screws

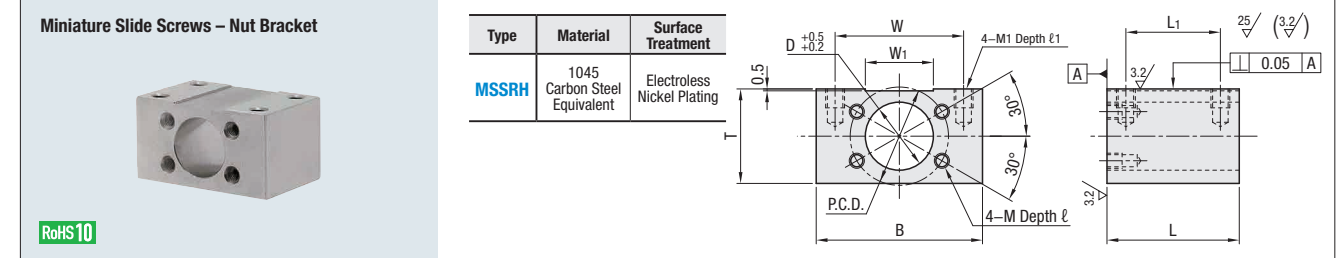
Straight / Nut Bracket

Lead Screws / Slide Screws



Part Number	Type	D	Lead	L	No. of Starts	Resin Nut Dimension							Allowable Axial Load N (reference)	Allowable Rotational Speed rpm (reference)	Tightening Torque Nmm	Mass (Reference) g/100 mm
						D ₁	H	A	T	B	P	d				
4	01	10	23	30-150	1	11.5	3.5	15	15	2.9	50	2500	180	11 (3)		
															60	
6	02	12	26	30-250	1	14.5	3.5	17	18	3.4	120	2000	400	23 (3)		
															60	
															90	
															110	
8	01	14	29	40-250	1	18	4	18	21	3.4	200	2000	400	42 (5)		
															290	
															210	
															210	
10	02	16	33	50-250	1	22	5	21	24	4.5	460	1500	500	59 (6)		
															410	
															440	
															660	
12	18	18	35	50-550	6	25	5	22	26	4.5	750	1000	500	86 (8)		
															410	
															660	
															540	

- Ⓢ The tightening torque applies to the screw for mounting the plastic nut.
- Ⓢ Note that positioning repeatability changes when nut is exchanged for maintenance.
- Ⓢ The dimension in () of mass table is nut mass.



Part Number	Type	D	T	B	L	L ₁	W	W ₁	M	ℓ	M ₁	ℓ ₁	P.C.D.
MSSRH	6	12	19	36	20	10	26	12	3	6	4	8	18
	8	14	20	38	25	15	28	14	3	6	4	8	21
	10	16	23	42	30	20	32	16	4	8	5	10	24
	12	18	25	44	35	25	34	18	4	8	5	10	26

Part Number Example

MSSRH812 - 300

Features

Slide screw's nut is made of special resin composed of PPS as base material and solid lubricant (fluorine, for example) filled to increase sliding properties.

The material is superior in polypropylene, nylon, and polyacetal in tribological properties, heat resistance, and moisture absorbing characteristics. Quieter in comparison to ball screws, and lighter in motion with lower torque compared to lead screws.

Material Properties of Nuts

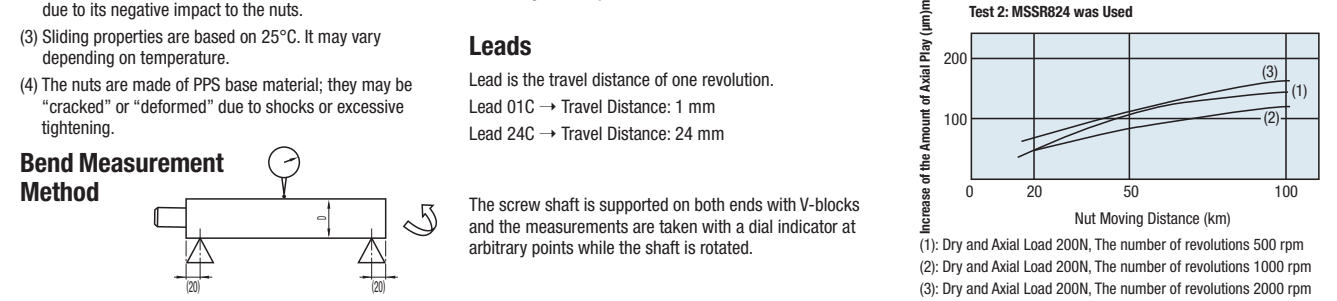
Item	Testing Method	Unit	Values
Base Material			PPS
Specific Gravity	ASTM D792		1.53
Tensile Strength	ASTM D638	MPa	51
Hardness		Rockwell R	110
Elongation	ASTM D638	%	3
Water Absorption Ratio	ASTM D570	%	0.05
Application Limit Temperature		°C	230

Caution

- Positioning repeatability is changed by wear due to usage and exchange of parts during maintenance.
- Do not use molybdenum and silicone based greases due to its negative impact to the nuts.
- Sliding properties are based on 25°C. It may vary depending on temperature.
- The nuts are made of PPS base material; they may be "cracked" or "deformed" due to shocks or excessive tightening.

Screw Accuracies

- Initial Accumulative Lead Error ±0.21/300 mm (Reference Temperature 25°C)
- Bending Accuracy 0.16 or Less



Bend Measurement Method

The screw shaft is supported on both ends with V-blocks and the measurements are taken with a dial indicator at arbitrary points while the shaft is rotated.