

RAPID DELIVERY

Prototype
orders ship
in only

**1 to 2
weeks**

FSI Style Metric Precision Ball Screws

German Engineering, DIN 69051 & North American Manufacturing

The Thomson FSI Style combines the engineering and performance of high-quality, German ball screws with North American manufacturing and logistics.

Only 2% of all ball screws sold in North America are manufactured here, so you'll be able to take advantage of shorter lead times, reduced shipping costs, and enhanced communication with support and service.

The FSI Style provides the best in quality, performance and delivery at a competitive price.

German Engineered

- DIN 69051 compliant
- Patented Precision Screw Forming (PST) technology
- Smooth performance due to unique ball return systems

North American Manufactured

- Regionally stocked/machined/assembled product
 - Tijuana, Mexico to support West Coast
 - Marengo, Illinois to support East Coast
- P5 accuracy screws standard
- Ground quality ball nuts

FSI Style Ball Nuts – Technical Specifications



Standard Lead Accuracy: $\pm 23 \mu\text{m} / 300 \text{mm}^{(1)}$

Internal Return Flanged Ball Nut and Screw

- Flexible solution for standard mounting
- Integral wiper and flange included as standard
- Available in two preload classes (Type Z2, Z3)
 - Z2 – no preload, clearance held to nominal indicated in table (standard unless specified)
 - Z3 – no preload, clearance held to max 0.05 mm

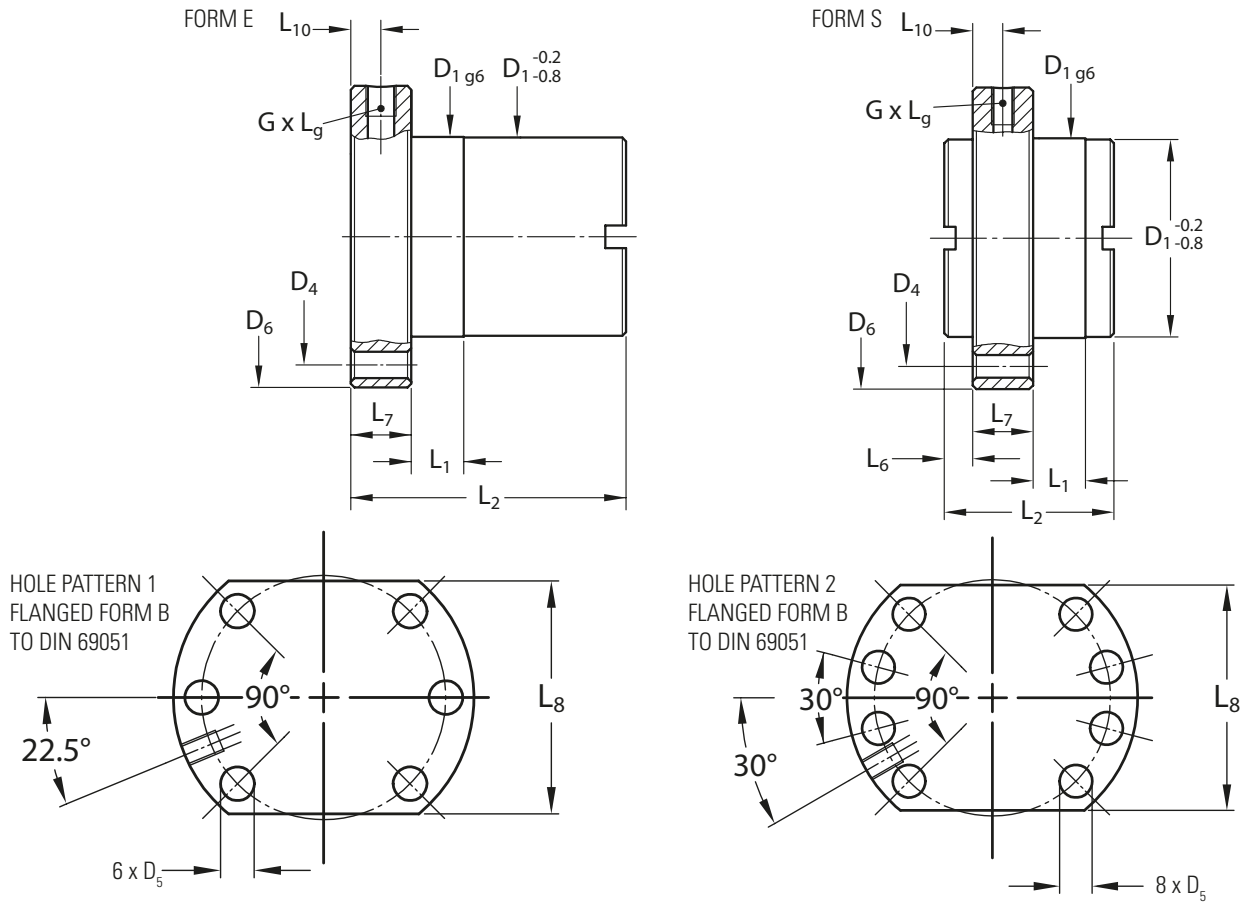
Technical Specifications

Nom. Dia-meter	Lead	Nut Form	Ball Nut P/N	Ball Screw P/N	Performance Data					Screw Specifications				
					Dynamic Load Capacity		Static Load Capacity		Max Axial Backlash	Major Diameter	Minor Diameter	Std Length	Max Length	Screw Weight
					[kN]	[lbs]	[kN]	[lbs]						
16	5	E	7106-448-061	195-9698	9.3	2091	13.1	2945	0.08	15.3	12.9	4000	6000	1.30
16	10	E	7106-448-062	195-9699	15.4	3462	26.5	5958	0.08	15.2	13.0	4000	6000	1.30
20	5	E	7107-448-063	195-9700	10.5	2361	16.6	3732	0.08	19.3	16.9	4000	6000	2.00
25	5	E	7110-448-064	195-9701	12.3	2765	22.5	5058	0.08	24.3	21.9	4000	6000	3.30
25	10	E	7110-448-065	195-9702	13.2	2968	25.3	5688	0.08	24.3	21.9	4000	6000	3.30
25	20	S	7110-448-066	195-9703	13.0	2923	23.3	5238	0.15	24.4	22.0	4000	6000	3.30
25	25	S	7110-448-067	195-9704	16.7	3754	32.2	7239	0.08	24.3	22.0	4000	6000	3.30
32	5	E	7112-448-069	195-9706	21.5	4834	49.3	11084	0.08	31.3	28.9	4000	6000	5.60
32	10	E	7112-448-070	195-9707	33.4	7509	54.5	12253	0.08	32.5	27.3	4000	6000	5.60
32	20	E	7112-448-071	195-9708	29.7	6677	59.8	13444	0.08	31.5	27.9	4000	6000	5.60
40	5	E	7115-448-073	195-9710	23.8	5351	63.1	14186	0.08	39.3	36.9	4000	6000	9.00
40	10	E	7115-448-074	195-9711	38.0	8543	69.1	15535	0.08	39.3	34.1	4000	6000	8.40
40	20	E	7115-448-075	195-9712	33.3	7487	76.1	17109	0.08	39.5	35.9	4000	6000	9.00
40	40	S	7115-448-076	195-9713	35.0	7869	101.9	22909	0.08	38.7	36.3	4000	6000	9.00
50	10	E	7120-448-077	195-9714	68.7	15445	155.8	35027	0.08	49.3	44.1	4000	6000	13.50

1. P3 accuracy class is $\pm 12 \mu\text{m} / 300 \text{mm}$ and is available upon request.

2. Dimension does not comply with DIN 69051.

3. Round flange.



Technical Specifications

	Nom. Diameter	Lead	Hole Pattern	Nut Specifications													Lube Hole (G)	No. of Circuits	Ball Diameter			
				D1 g6	D4	D5	D6	L1	L2	L6	L7	L8	L10	L1	L2	L6				L7	L8	L10
	[mm]	[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
	16	5	1	28	38	6	48	10	42	-	10	40	5	M6x1	3	3.500						
	16	10	1	28	38	6	48	10	55	-	10	40	5	M6x1	6	3.000						
	20	5	1	36	47	7	58	10	42	-	10	44	5	M6x1	3	3.500						
	25	5	1	40	51	7	62	10	42	-	10	48	5	M6x1	3	3.500						
	25	10	1	40	51	7	62	16	55	-	10	48	5	M6x1	3	3.500						
	25	20	1	40	51	7	62	4	35	10.5	10	48	5	M6x1	4	3.500						
	25	25	1	40	51	7	62	9	35	8	10	N/A ^[3]	5	M6x1	5	3.500						
	32	5	1	50	65	9	80	10	55	-	12	62	6	M6x1	5	3.500						
	32	10	1	53 ^[2]	65	9	80	16	69	-	12	62	6	M8x1	3	7.140						
	32	20	1	53 ^[2]	65	9	80	16	80	-	12	62	6	M6x1	4	5.000						
	40	5	2	63	78	9	93	10	57	-	14	70	7	M6x1	5	3.500						
	40	10	2	63	78	9	93	16	71	-	14	70	7	M8x1	3	7.140						
	40	20	2	63	78	9	93	16	80	-	14	70	7	M8x1	4	5.000						
	40	40	2	63	78	9	93	16	85	7.5	14	N/A ^[3]	7	M8x1	8	3.500						
	50	10	2	75	93	11	110	16	95	-	16	85	8	M8x1	5	7.140						

How to Order

This ordering key provides a quick overview of the FSI Style versions available.

To explore additional technical resources and options, contact Thomson customer support.

Ordering Key																	
1	2	3	4	5	6	7	8	9	10	11	12	13					
RM	25	10	Z2	-	xxxx	-	F	L	W	-	BK	S	-	K	X	-	
1. Nut Configuration RM = RH, Metric		4. Backlash Z2 = Standard backlash Z3 = Minimum backlash (0.05 mm max.)		6. Nut interface F = Flanged nut (FSI) style		9/11. Left/Right Side Configuration X = Cut to length K = Machine to print yyy = Annealed Length (mm) BK = Base mount w/Drive BK1 = Base mount w/o Drive BF = Floating base mount w/Drive BF1 = Floating base mount w/o Drive FK = Flange mount w/Drive FK1 = Flange mount w/o Drive FF = Floating flange mount w/Drive FF1 = Floating flange mount w/o Drive WK = Heavy Duty Flange w/ Drive WK1 = Heavy Duty Flange w/o Drive MK = Motor mount		10/12. Left/Right Bearing Support Blank = Annealed end X = No Support S = Support BK, etc.		13. Custom Modifier Blank = Standard M = Custom (1) Custom only, contact customer support.							
2. Diameter 16 = ø 16 mm 20 = ø 20 mm 25 = ø 25 mm 32 = ø 32 mm 40 = ø 40 mm 50 = ø 50 mm		5. Threaded Length xxxx.xx = Length (mm)		7. Nut Direction R = Nut faces right end L = Nut faces left end													
3. Lead Code 05 = 5 mm 10 = 10 mm 20 = 20 mm 25 = 25 mm 40 = 40 mm				8. Wipers W = Plastic wipers (standard metric)													

Code Example: RM2510Z2-271.5-FLW-BKS-KX
This describes a standard lashed Ø25 x 10 mm FSI ball screw assembly that is 271.5 mm in threaded length with a BK driven end with bearing support on the left side and custom specified machining on the right side without bearing support. The flange faces the left side with the BK bearing support.

NOTE: Not all bearing supports are available in all sizes. See catalog or contact customer support for available combinations.

Express Prototypes, Less Lead Time

Prices and lead times are generally higher with other products as 98% of rolled metric ball screws are manufactured outside of North America.

Thomson provides expert application support and the ability to rapidly prototype designs by combining North American manufacturing of metric products with the engineering support of a trusted brand.

Don't pay extra to wait.

Order your Thomson prototype with delivery from our North American facilities in Tijuana or Marengo:

	Standard Lead Time	Express Lead Time (Qualified Prototypes)
Components	1 - 3 days	Same day
Machined Assemblies	1 - 2 weeks	3 - 5 days

USA, CANADA and MEXICO

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Thomson Marengo, IL USA


ISO 9001 certified, 88,000 sq. ft. facility manufacturing Linear Actuators, Ball Screws, Linear Bearings & Shafting, and Step Motors. Founded in 1967, currently with 220 employees.

Thomson Tijuana, Mexico

Engineering and manufacturing Linear Systems, Linear Bearings and Shafting and FSI ball screws. Custom Systems since 1998, currently with 220 employees in a 156,000 sq. ft facility. ISO 9001:2000, QS 9000 certified.

www.thomsonlinear.com

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