RAPID DELIVERY

Prototype orders ship in only **1 to 2 weeks**

Metric Precision Ball Screws

German Engineering, DIN 69051 & North American Manufacturing

Combining 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. Thomson metric ball screws provide 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 in Marengo, Illinios
- P5 accuracy screws standard
- Ground quality ball nuts

THOMSON®

*Linear Motion. **Optimized.***™

www.thomsonlinear.com

Metric Ball Nuts – Technical Specifications

Standard Lead Accuracy: ± 23 µm / 300 mm[1]

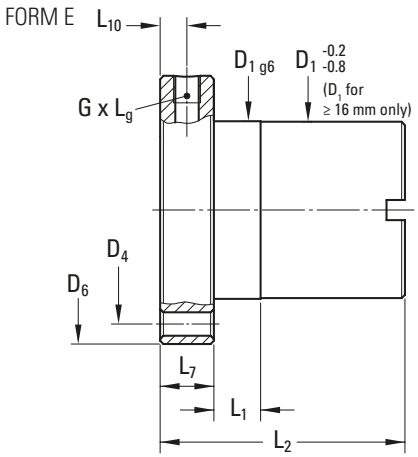
Internal Return Flanged Ball Nut and Screw

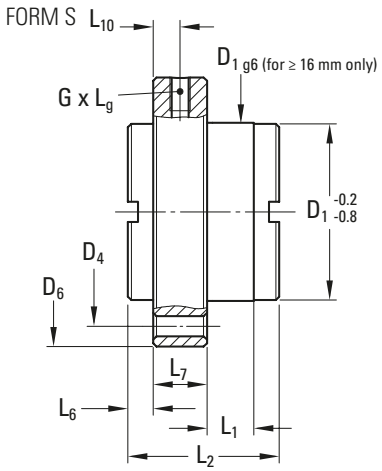
- Flexible solution for standard mounting
- Integral wiper and flange included as standard
- Available in three preload classes (Type Z1, Z2, Z3)
  - Z1 – light preload to 1-2%
  - Z2 – no preload, clearance held to max. indicated in table (standard unless specified)
  - Z3 – no preload, clearance held to max 0.05 mm

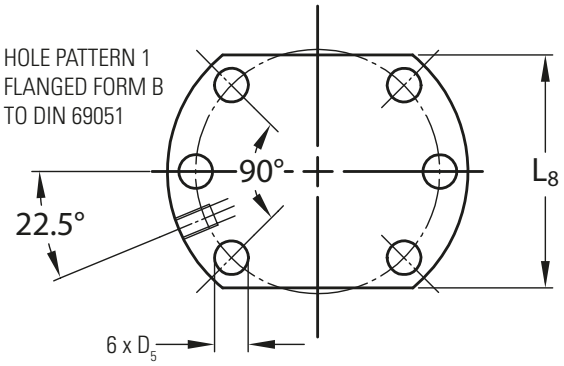
Technical Specifications

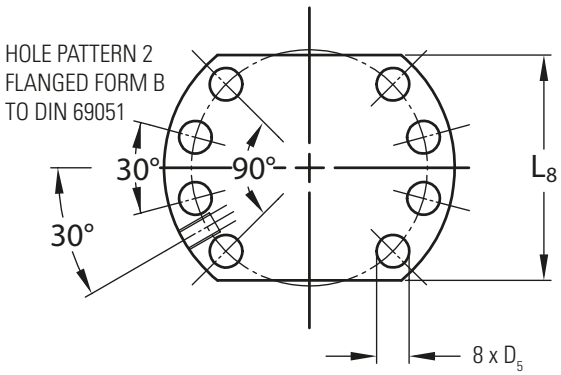
Nom. Diameter	Lead	Nut Form	Ball Nut P/N	Ball Screw P/N	Performance Data					Screw Specifications				
					Dynamic Load Capacity		Static Load Capacity		Max Axial Backlash	Major Diameter	Minor Diameter	Std Length	Max Length	Screw Weight
[mm]	[mm]				[kN]	[lbs]	[kN]	[lbs]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg/m]
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 ± 12 µm / 300 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												
			D1 g6	D4	D5	D6	L1	L2	L6	L7	L8	L10	Lube Hole (G)	No.of Circuits	Ball Diameter
[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 metric ball screw assemblies 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**	**FD**	**Z2-**	**271.5**	**L**	**W-**	**BK**	**S**	**K**	**X**	

1. Nut Configuration
RM = Metric

2. Nominal thread diameter
10 = 10 mm
12 = 12 mm
16 = 16 mm
20 = 20 mm
25 = 25 mm
32 = 32 mm
40 = 40 mm
50 = 50 mm
63 = 63 mm
80 = 80 mm

3. Thread lead
02 = 2 mm
03 = 3 mm
04 = 4 mm
05- = 5 mm
10 = 10 mm
20 = 20 mm
25 = 25 mm
40 = 40 mm

4. Nut style
T = Threaded internal ball return (TSI)
R = Cylindrical internal ball return (RSI)
FD = Flanged internal ball return (FSI)
FK = Flanged (DIN 69051), metal ball return
FN = Flanged, polymer ball return
MD = Flanged (DIN 69051), polymer ball return
MG = Threaded, metal ball return

5. Nut assembly condition
Z1- = Light preload (1-2%)
Z2- = Standard backlash
Z3- = Backlash reduced (0.05 mm max.)

6. Threaded length
xxx.x- = Lenght (mm)

7. Nut orientation
R = Nut faces right end
L = Nut faces left end
X = Nut ships on arbor

8. Wipers
X- = No wipers
W- = Polymer wipers (standard)

9. Left end configuration
X = Cut to length
K = Machine to print with drive
BK = Base mount with drive
BK1 = Base mount without drive
BF = Floating base mount with drive
BK1 = Floating base mount without drive
FK = Flange mount with drive
FK1 = Flange mount without drive
FF = Floating flange mount with drive
FF1 = Floating flange mount without drive
QK = Base mount with drive
QK1 = Base mount without drive
QF = Floating base mount with drive
QK1 = Floating base mount without drive
WK = Heavy duty flange with drive
WK1 = Heavy duty flange without drive
MK = Motor mount with drive

10. Left screw support configuration
X = No support (machined only)
S = Support installed on machined surface

11. Right end configuration
X = Cut to length
K = Machine to print with drive
BK = Base mount with drive
BK1 = Base mount without drive
BF = Floating base mount with drive
BK1 = Floating base mount without drive
FK = Flange mount with drive
FK1 = Flange mount without drive
FF = Floating flange mount with drive
FF1 = Floating flange mount without drive
QK = Base mount with drive
QK1 = Base mount without drive
QF = Floating base mount with drive
QK1 = Floating base mount without drive
WK = Heavy duty flange with drive
WK1 = Heavy duty flange without drive
MK = Motor mount with drive

12. Right screw support configuration
X = No support (machined only)
S = Support installed on machined surface

13. Custom Modifier
blank = Standard
M = Custom

Code Example: RM2510FDZ2-271.5LW-BKSKX
This describes a standard lashed Ø25 x 10 mm FSI ball screw assembly that is 271.5 mm in threaded length with a BK bearing support on the left side with drive extension, BK end bearing support without drive on the right side. The flange faces the left side (the side with the drive extension).
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 facility in Marengo:

	Standard Lead Time	Express Lead Time (Qualified Prototypes)
Components	2 - 3 days	1 day
Machined Assemblies	2 - 4 weeks	1 - 2 weeks

USA, CANADA and MEXICO
Thomson Customer Support
203A West Rock Road
Radford, VA 24141, USA
Phone: 1-540-633-3549
Fax: 1-540-633-0294
E-mail: thomson@thomsonlinear.com
Literature: literature.thomsonlinear.com

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.

www.thomsonlinear.com

Metric_Precision_Rolled_Ball_Screws_BREN-0022-02 | 20200220SK

THOMSON®
*Linear Motion. **Optimized.***™