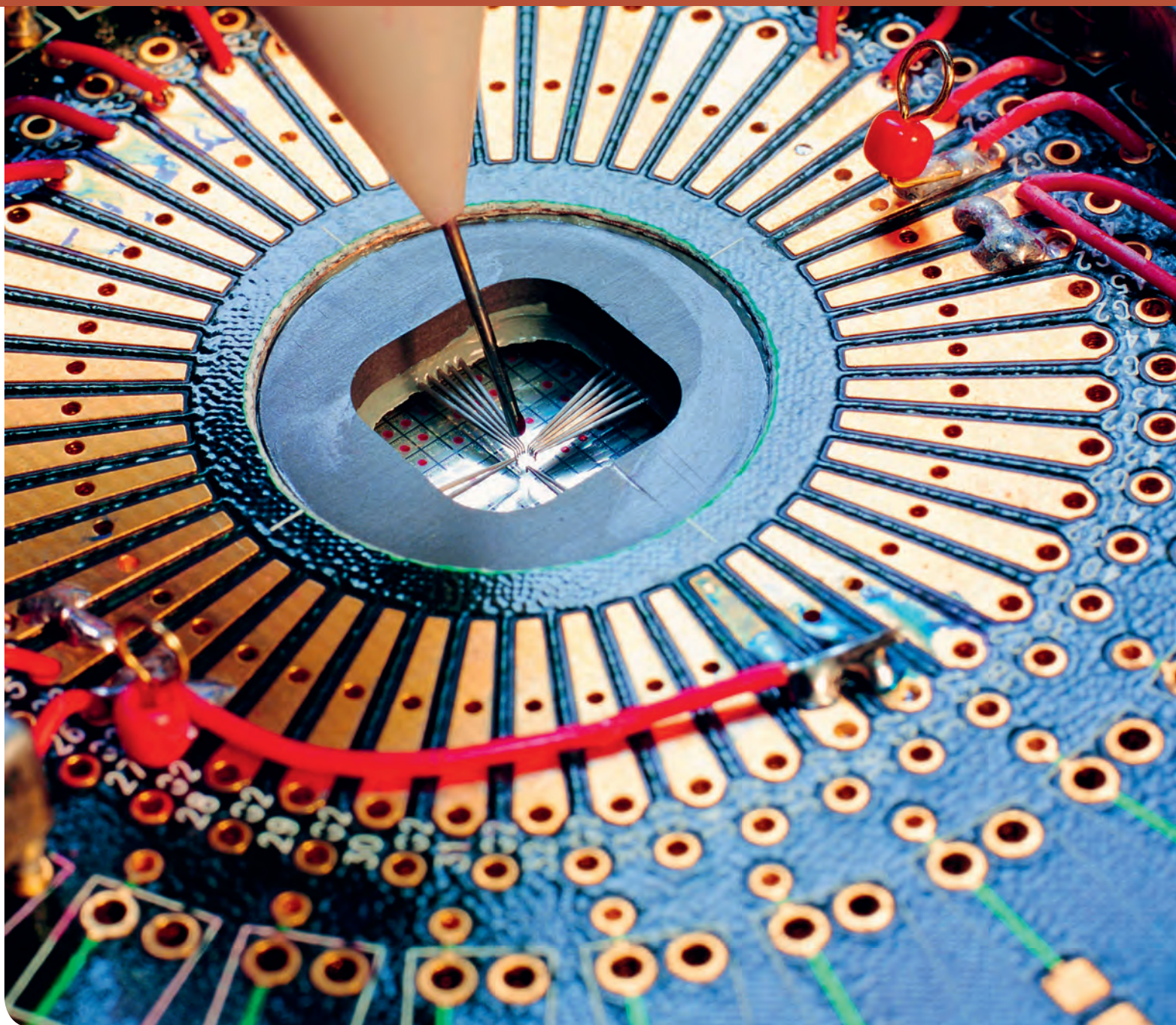


Welcome to where precision is.

Miniature Ball Screws Diameter 3 – 16 mm



BALL SCREWS 3 – 16 MM

Miniature ball screws are used for precision positioning in semiconductor, optics, medical instrument, and metrology applications. There are two different standard shaft styles, Type A and Type B, which are also available in different lengths.

In addition to the ground execution to an accuracy class P5, you can find in this chapter for 8 mm diameter and larger the rolled version in accuracy classes T5 to T10.

Our miniature ball screw product line consists of two spindle series, which can be combined with a total of six different nuts. There are various diameters and pitches as well as several classes of accuracy available.

New technology in miniature ball screws.



Steinmeyer offers miniature ball screws from 3 mm to 16 mm with the optimized technology optiSLITE, providing significant advantages.

Through the use of innovative production technologies, the roughness of the raceway surface of the spindles can be reduced and significantly optimized. By eliminating microscopic irregularities on the raceway surface of the spindle thread, the running characteristics of optiSLITE ball screws can be remarkably improved. Another advantage it provides is a more uniform idling torque over the entire spindle length.

The improved running characteristics are achieved by increased material contact. The material contact area $R_{mr}(c)$ indicates the percentage of material filled path lengths, depending on the depth of cut „c“. The plateau-like surface of the optiSLITE ball screws provide clean, smooth running, while offering improved lubricating properties.

The markedly improved running characteristics also allows ball screws to achieve greater energy efficiency.

In addition to the standard spindle shafts, you can specify reduced or even completely different special designs. These special spindle shafts can again be combined with the standard nuts shown here, or with differing versions.

Please contact us with your applications to find the possibilities with OptiSLITE. We will gladly provide a quotation. For budgetary pricing and lead times, a sketch is sufficient.

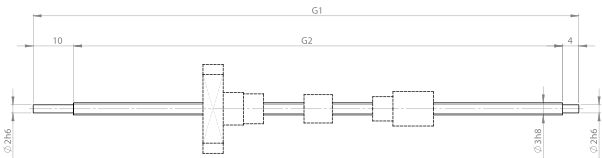
For more information please visit: www.steinmeyer.com

Positioning ball screws 3 - 16 mm

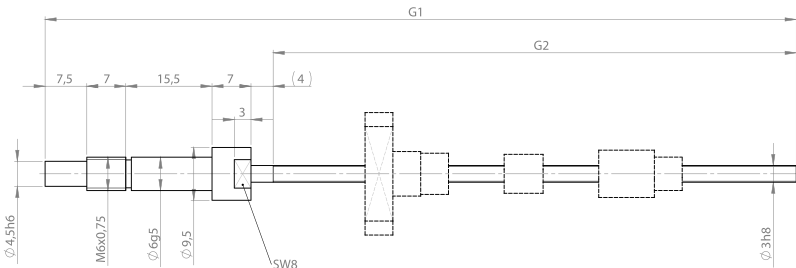
NOMINAL DIAMETER 3 mm

Ground execution with standard bearing journal P0 - P5
Series 1412, 1214, 1112

■ Shaft style A



■ Shaft style B



Screw Type A		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
50	76	90

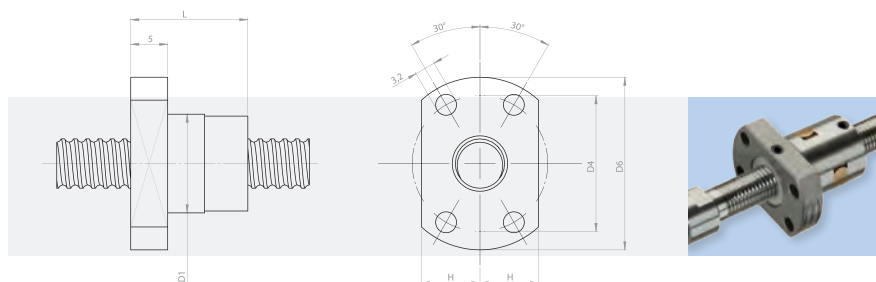
Screw Type B		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
20	44	85
40	64	105
70	94	135

Nuts shown in standard orientation. Select one nut from table. Please follow the advice on page 24/25.

optiSLITE Detailed information page 55.

Technical data							Nut with axial backlash	Nut backlash-free
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Ratin [kN]	Stat. Load Rating [kN]	Max. Axial Play [mm]	Max. Friction Torque Tpr0 [Ncm]
0,5.3.0,6.2	0.5	3	2	0.6	0.09	0.09	0.01	1.0
1.3.0,8.2	1	3	2	0.8	0.24	0.25	0.01	1.0

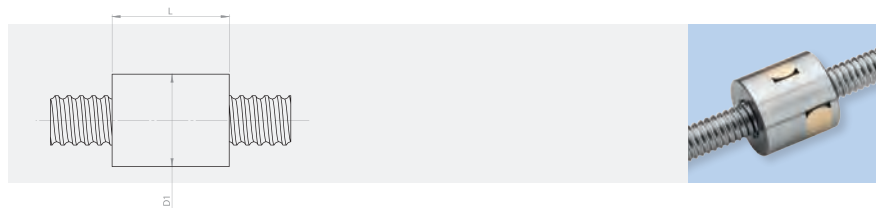
For engineering consultation or to place an order, please contact us by phone +49 (0) 7431 1288-0



FLANGE NUT

■ Series 1412:

Nut with flange and standard wipers on both ends



CYLINDRICAL NUT

■ Series 1214:

Cylindrical nut without wipers



NUT WITH CONNECTING THREAD

■ Series 1112:

Nut with connecting thread without wipers

Dimensions

Flange nut 1412

Nut Length L [mm]	Nut-Ø D1g6 [mm]	Pitch Circle-Ø D4 [mm]	Flange-Ø D6 [mm]	Length L3 [mm]	Flange Flats 2xH [mm]
15	8	15	22	0	14
15	8	15	22	0	14

Cylindrical nut 1214

Nut Length L [mm]	Pilot-Ø D1h6 [mm]
7	7
7	7

Nut with connecting thread 1112

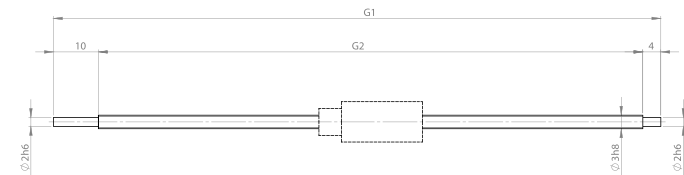
Nut Length L [mm]	Pilot-Ø D1 [mm]
15	8.5
15	8.5

Positioning ball screws 3 - 16 mm

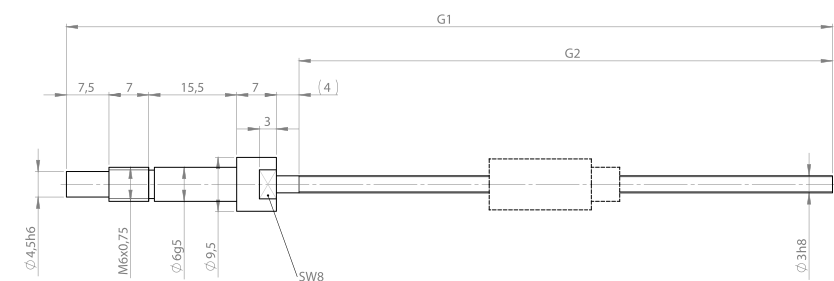
NOMINAL DIAMETER 3 mm

Ground execution with standard bearing journal P0 - P5
Series 1510

■ Shaft style A



■ Shaft style B



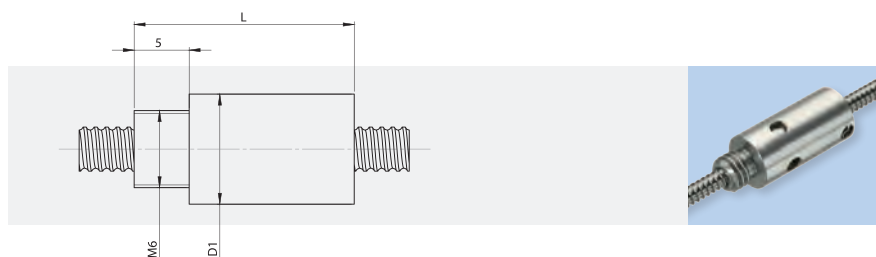
Please follow the advice on page 24/25.

Screw Type A		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
50	76	90

Screw Type B		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
20	44	85
40	64	105
70	94	135

optiSLITE Detailed information page 55.

Technical data							
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Rating [kN]	Stat. Load Rating [kN]	Nut spring preloaded
							Max. Friction Torque Tpr0 [Ncm]
0,5.3.0,6.2	0.5	3	2	0.6	0.09	0.09	0.8
1.3.0,8.2	1	3	2	0.8	0.2	0.3	0.8



NUT WITH CONNECTING THREAD

■ Series 1510:

Spring preloaded double nut in housing with connecting thread without wipers

Dimensions

Nut with connecting thread 1510

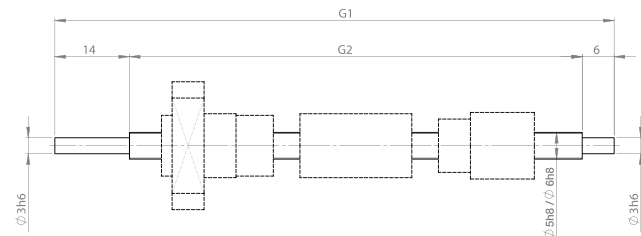
Nut Length L [mm]	Nut-Ø D1 [mm]	Max. Preload F _{prmax} [N]	Max. Axial Load F _{max} [N]
23	9	10	6
23	9	15	10

Positioning ball screws 3 - 16 mm

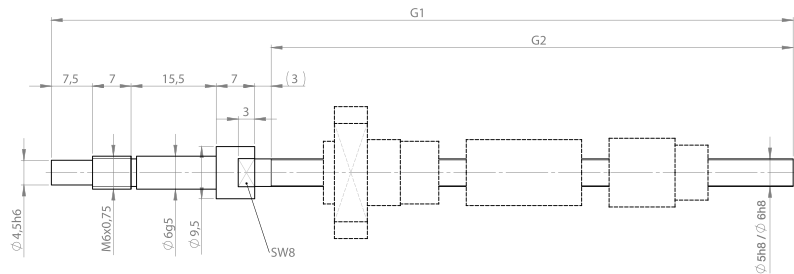
NOMINAL DIAMETER 5 mm / 6 mm

Ground execution with standard bearing journal P0 - P5
Series 1412, 1214, 1112

■ Shaft style A



■ Shaft style B



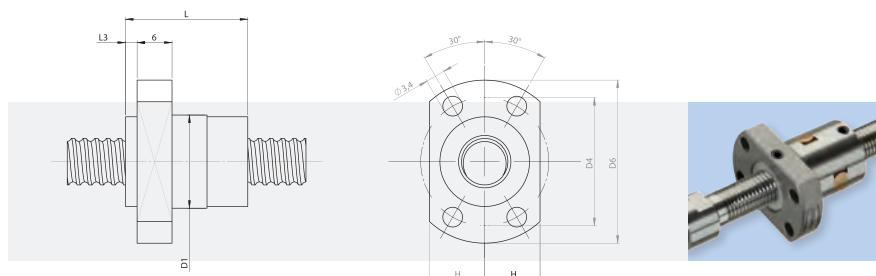
Screw Type A		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
60	90	110

Screw Type B		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
40	65	105
70	95	135
100	125	165

Nuts shown in standard orientation. Select one nut from table. Please follow the advice on page 24/25.

optiSLITE Detailed information page 55.

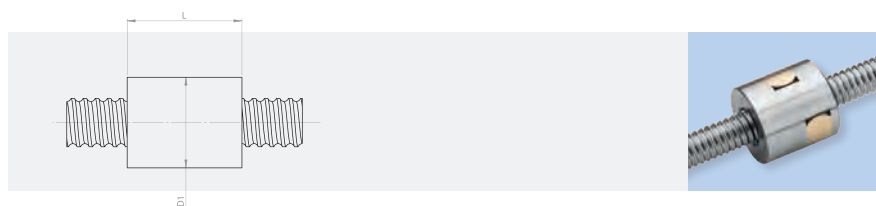
Technical data							Nut with axial backlash	Nut backlash-free
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Rating [kN]	Stat. Load Rating [kN]	Max. Axial Play [mm]	Max. Friction Torque Tpr0 [Ncm]
0,5.5.0,6.3	0.5	5	3	0.6	0.17	0.24	0.01	1.5
1.6.0,8.3	1	6	3	0.8	0.55	0.92	0.01	1.5
1,5.6.1.3	1.5	6	3	1	0.71	1.08	0.02	1.5
2.6.1.3	2	6	3	1	0.71	1.08	0.02	1.5



FLANGE NUT

■ Series 1412:

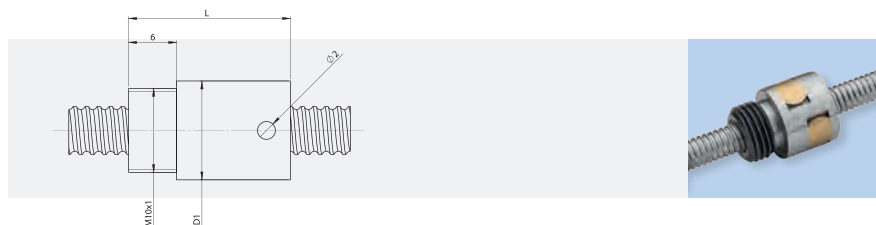
Nut with flange and standard wipers on both ends



CYLINDRICAL NUT

■ Series 1214:

Cylindrical nut without wipers



NUT WITH CONNECTING THREAD

■ Series 1112:

Nut with connecting thread without wipers

Dimensions

Flange nut 1412 / 2412

Nut Length L [mm]	Nut-Ø D1g6 [mm]	Pitch Circle-Ø D4 [mm]	Flange-Ø D6 [mm]	Length L3 [mm]	Flange Flats 2xH [mm]
-------------------------	-----------------------	------------------------------	------------------------	----------------------	-----------------------------

22	12	18	24	0	16
21	12	18	24	0	16
23	12	18	24	0	16
22	12	18	24	0	16

Cylindrical nut 1214

Nut Length L [mm]	Pilot-Ø D1h6 [mm]
-------------------------	-------------------------

12	13
12	12
14	12
13	12

Nut with connecting thread 1112

Nut Length L [mm]	Pilot-Ø D1 [mm]
-------------------------	-----------------------

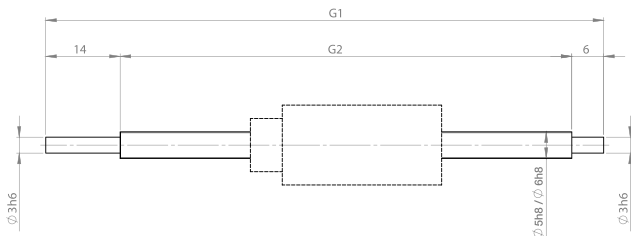
19	12.5
18	12.5
20	12.5
20	12.5

Positioning ball screws 3 - 16 mm

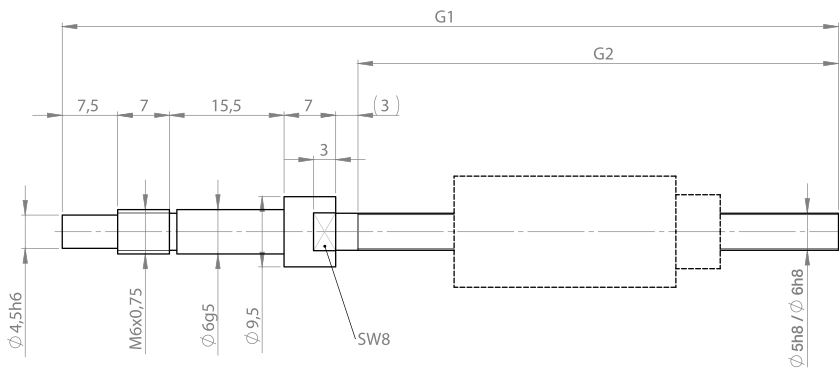
NOMINAL DIAMETER 5 mm / 6 mm

Ground execution with standard bearing journal P0 - P5
Series 1510

■ Shaft style A



■ Shaft style B



Please follow the advice on page 24/25.

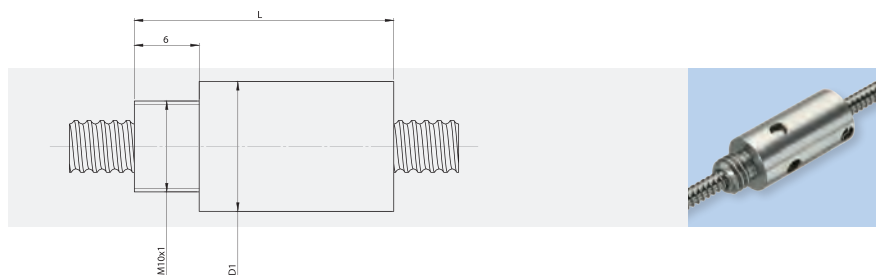
Screw Type A		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
60	90	110

Screw Type B		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
40	65	105
70	95	135
100	125	165

optiSLITE Detailed information page 55.

Technical data							
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Rating [kN]	Stat. Load Rating [kN]	Nut spring preloaded
							Max. Friction Torque Tpr0 [Ncm]
0,5.5.0,6.2	0.5	5	2	0.6	0.12	0.16	1.0
1.6.0,8.2	1	6	2	0.8	0.39	0.61	1.0
1,5.6.1.2	1.5	6	2	1	0.50	0.72	1.0

For more information please visit: www.steinmeyer.com



NUT WITH CONNECTING THREAD

■ Series 1510:

Spring preloaded double nut in housing with connecting thread without wipers

P

Dimensions

Nut with connecting thread 1510

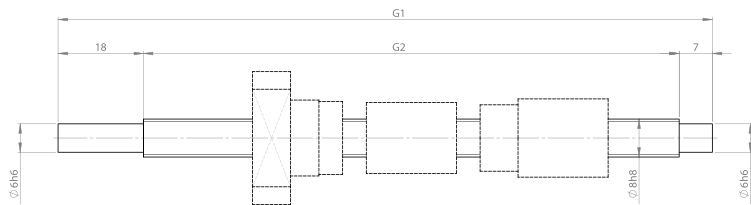
Nut Length L [mm]	Nut-Ø D1 [mm]	Max. Preload F _{prmax} [N]	Max. Axial Load F _{max} [N]
36	15	10	6
36	15	20	15
36	15	20	15

Positioning ball screws 3 - 16 mm

NOMINAL DIAMETER 8 mm

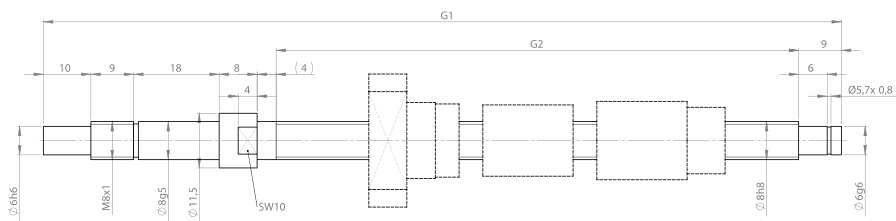
Ground execution with standard bearing journal P0 - P5
Series 1412, 2412, 1214, 1112

■ Shaft style A



Screw Type A		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
100	145	170
200	245	270

■ Shaft style B



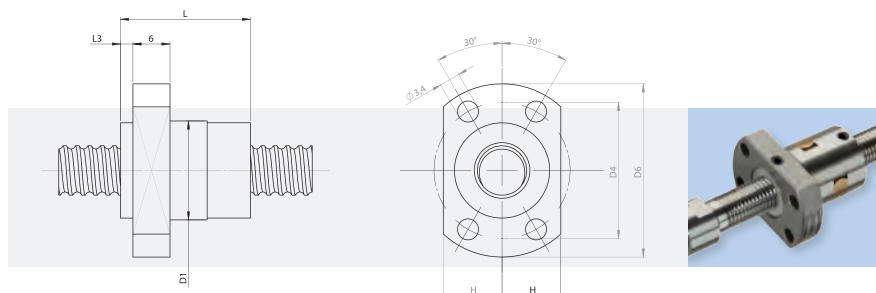
Screw Type B		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
40	80	138
70	110	168
100	140	198
150	190	248

Nuts shown in standard orientation. Select one nut from table. Please follow the advice on page 24/25.

optiSLITE Detailed information page 55.

Technical data							Nut with axial backlash	Nut backlash-free
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Ratin [kN]	Stat. Load Rating [kN]		
0,5.8.0,6.3	0.5	8	3	0.6	0.40	0.50	0.01	2.0
1.8.0,8.3	1	8	3	0.8	0.90	1.20	0.01	2.0
2.8.1,5.3	2	8	3	1.5	2.00	2.10	0.02	2.0
2,5.8.1,5.3	2.5	8	3	1.5	2.00	2.10	0.02	2.0
4.8.1,5.3	4	8	3	1.5	2.00	2.10	0.02	2.0
4.8.1,5.5	4	8	5	1.5	3.00	3.60	0.02	2.0
5.8.1,5.3	5	8	3	1.5	1.90	2.10	0.02	2.0
8.8.1,5.2	8	8	2	1.5	1.20	1.20	0.02	2.0

*nut type 2412 only



FLANGE NUT

■ Series 1412:

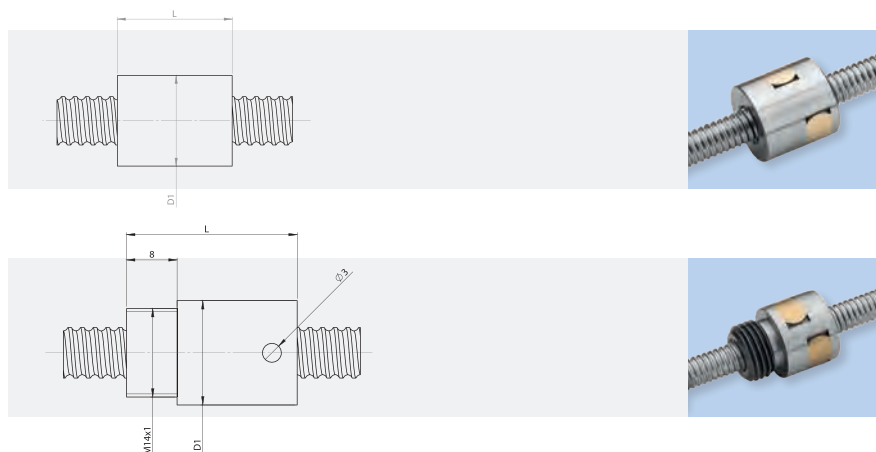
Nut with flange and standard wipers on both ends



■ Series 2412:

Nut with flange and standard wipers on both ends

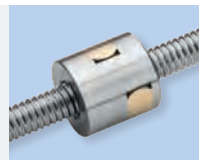
*nut type 2412 only



CYLINDRICAL NUT

■ Series 1214:

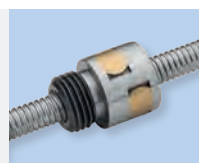
Cylindrical nut without wipers



NUT WITH CONNECTING THREAD

■ Series 1112:

Nut with connecting thread without wipers



Dimensions

Flange nut 1412 / 2412

Nut Length L [mm]	Nut-Ø D1g6 [mm]	Pitch Circle-Ø D4 [mm]	Flange-Ø D6 [mm]	Length L3 [mm]	Flange Flats 2xH [mm]
22	16	22	28	0	19
23	16	22	28	0	19
28	16	22	28	0	19
30	16	22	28	0	19
31	16	22	28	0	19
27	16	22	28	6*	19
22	16	22	28	6*	19
22	16	22	28	6*	19

Cylindrical nut 1214

Nut Length L [mm]	Pilot-Ø D1h6 [mm]
13	15
14	15
19	15
21	15
22	15

Nut with connecting thread 1112

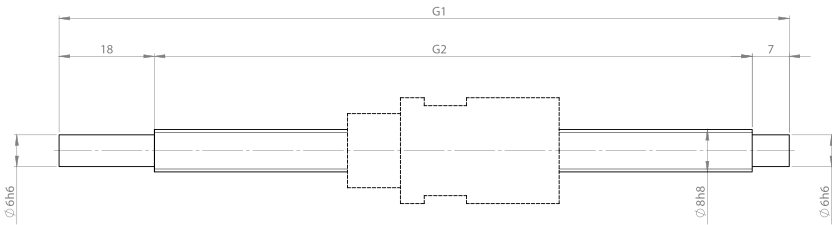
Nut Length L [mm]	Pilot-Ø D1 [mm]
21	16.5
22	16.5
27	16.5
29	16.5
30	16.5

Positioning ball screws 3 - 16 mm

NOMINAL DIAMETER 8 mm

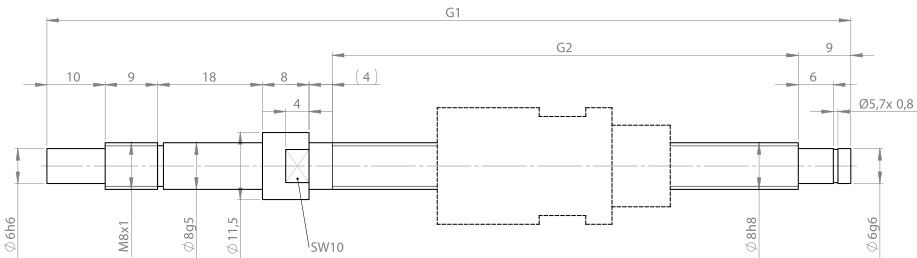
Ground execution with standard bearing journal P0 - P5
Series 1510

■ Shaft style A



Screw Type A		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
100	145	170
200	245	270

■ Shaft style B

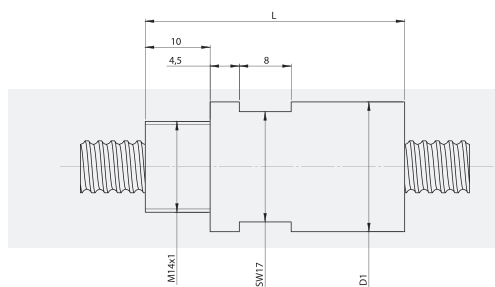


Screw Type B		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
40	80	138
70	110	168
100	140	198
150	190	248

Please follow the advice on page 24/25.

optiSLITE Detailed information page 55.

Technical data							
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Rating [kN]	Stat. Load Rating [kN]	Nut spring preloaded
							Max. Friction Torque Tpr0 [Ncm]
0,5.8.0,6.2	0.5	8	2	0.6	0.20	0.30	1.5
1.8.0,8.2	1	8	2	0.8	0.60	0.80	1.5
2.8.1,5.2	2	8	2	1.5	1.40	1.40	1.5
2,5.8.1,5.2	2.5	8	2	1.5	1.40	1.40	1.5



NUT WITH CONNECTING THREAD

■ Series 1510:

Spring preloaded double nut in housing with connecting thread without wipers

Dimensions

Nut with connecting thread 1510

Nut Length L [mm]	Nut-Ø D1 [mm]	Max. Preload F _{prmax} [N]	Max. Axial Load F _{max} [N]
40	20	15	10
40	20	30	20
40	20	50	40
40	20	50	40

Ground execution with standard bearing journal P0 - P5
Series 1412, 2412, 2422, 1214, 1112

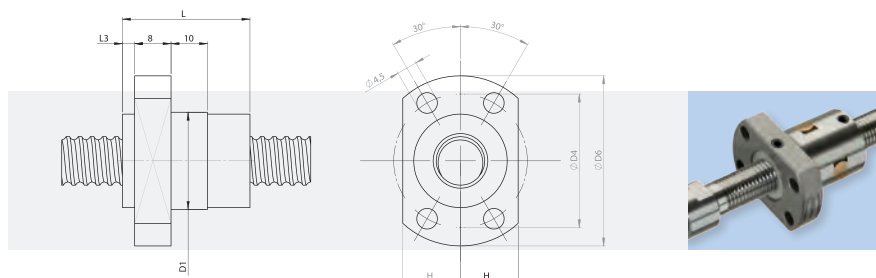
[illegible][illegible]

Screw Type B		
Stroke	Thread length	Overall length
[mm]	G2 [mm]	G1 [mm]
50	110	180
100	160	230
150	210	280
200	260	330
250	310	380
350	410	480
450	510	580

optiSLTE Detailed information page 55.

Technical data								
Nut type	Lead	Nomi- nal-Ø	Circuits	Ball-Ø	Dyn. Load Ratin	Stat. Load Rating	Nut with axial backlash	Nut backlash-free
	[mm]	[mm]		[mm]	[kN]	[kN]	Max. Axial Play [mm]	Max. Friction Torque Tpr0 [Ncm]
1.12.0,8.3	1	12	3	0.8	1.10	2.00	0.01	3.0
2.12.1,5.3	2	12	3	1.5	2.50	3.40	0.02	3.0
3.12.2.3	3	12	3	2	3.60	4.30	0.02	3.0
4.12.2.3	4	12	3	2	3.60	4.30	0.02	3.0
5.12.2.3	5	12	3	2	3.60	4.30	0.02	3.0
5.12.2.5	5	12	5	2	5.60	7.60	0.02	3.0
10.12.2,5.4*	10	12	2 + 2 *	2.5	5.80	7.00	0.03	3.0
10.12.2,5.6*	10	12	3 + 3 *	2.5	8.50	11.00	0.03	3.0

*nut type 2412 / 2422 only



FLANGE NUT

■ Series 1412 :

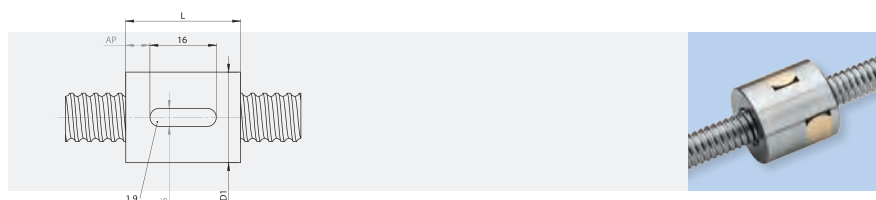
Nut with flange and standard wipers on both ends



■ Series 2412 / 2422:

Nut with flange and standard wipers on both ends

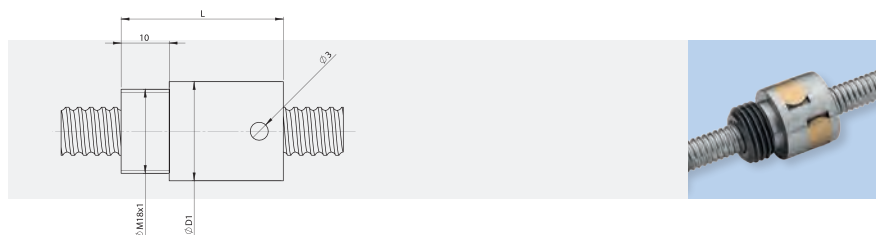
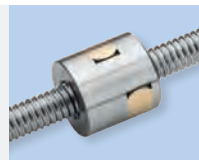
*nut type 2412 / 2422 only



CYLINDRICAL NUT

■ Series 1214:

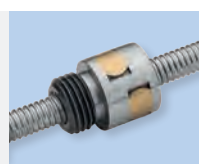
Cylindrical nut without wipers



NUT WITH CONNECTING THREAD

■ Series 1112:

Cylindrical nut without wipers



Dimensions

Flange nut 1412 / 2412 / 2422

Cylindrical nut 1214

Nut with connecting thread 1112

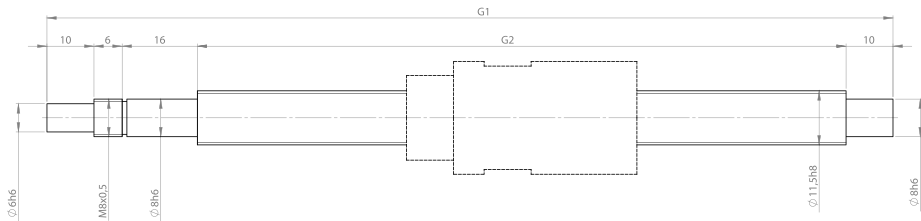
Nut Length L [mm]	Nut-Ø D1g6 [mm]	Pitch Circle-Ø D4 [mm]	Flange-Ø D6 [mm]	Length L3 [mm]	Flange Flats 2xH [mm]	Nut Length L [mm]	Pilot-Ø D1h6 [mm]	Length AP [mm]	Nut Length L [mm]	Pilot-Ø D1 [mm]
25	20	29	37	0	24	17	19	2.5	24	20.5
30	20	29	37	0	24	19	19	1.5	29	20.5
37	22	29	37	0	24	26	19	5	36	20.5
36	22	29	37	0	24	22	19	3.5	33	22.5
39	22	29	37	0	24	26	19	5	36	22.5
33	24	32	40	8*	26					
29	24	32	40	9*	26					
39	24	32	40	9*	26					

Positioning ball screws 3 - 16 mm

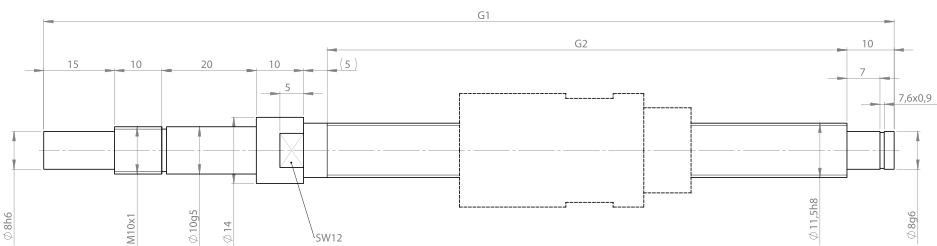
NOMINAL DIAMETER 12 mm

Ground execution with standard bearing journal P0 - P5
Series 1510

■ Shaft style A



■ Shaft style B



Screw Type A		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
300	355	397

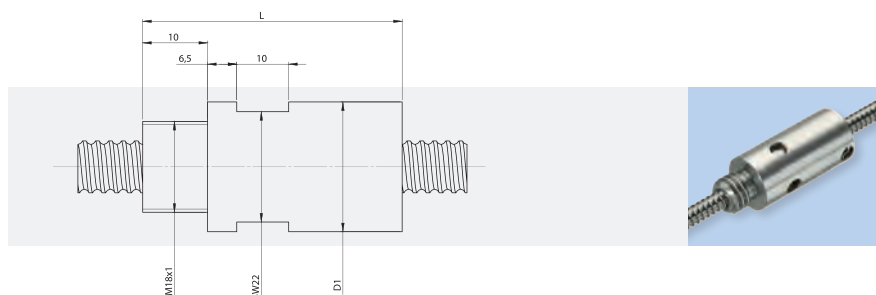
Screw Type B		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
50	110	180
100	160	230
150	210	280
200	260	330
250	310	380
350	410	480
450	510	580

Please follow the advice on page 24/25.

optiSLITE Detailed information page 55.

Technical data							
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Rating [kN]	Stat. Load Rating [kN]	Nut spring preloaded
							Max. Friction Torque Tpr0 [Ncm]
1.12.0,8.2	1	12	2	0.8	0.80	1.30	2.0
2.12.1,5.2	2	12	2	1.5	1.80	2.20	2.0
3.12.2.2	3	12	2	2	2.50	2.80	2.0
4.12.2.2	4	12	2	2	2.50	2.80	2.0
5.12.2.2	5	12	2	2	2.50	2.80	2.0

For engineering consultation or to place an order, please contact us by phone +49 (0) 7431 1288-0



NUT WITH CONNECTING THREAD

■ Series 1510:

Spring preloaded double nut in housing with connecting thread without wipers

P

Dimensions

Nut with connecting thread 1510

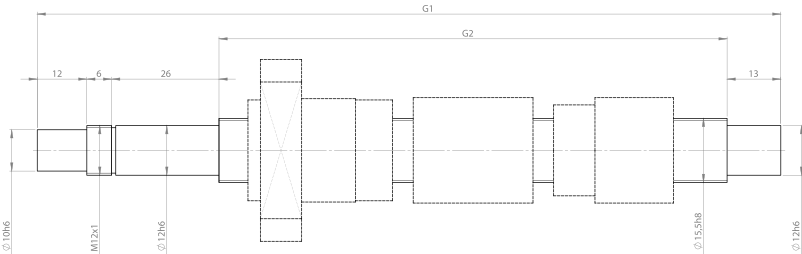
Nut Length L [mm]	Nut-Ø D1 [mm]	Max. Preload F _{prmax} [N]	Max. Axial Load F _{max} [N]
49	24	50	40
49	24	80	70
49	24	80	70
49	24	80	70
49	24	80	70

Positioning ball screws 3 - 16 mm

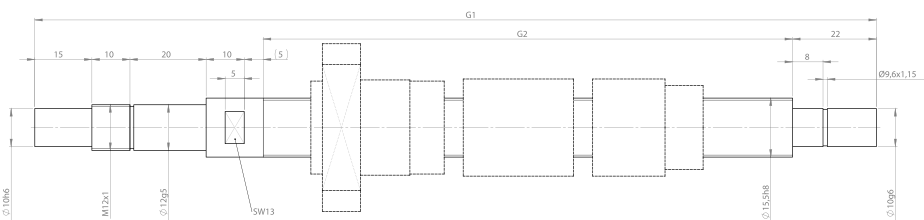
NOMINAL DIAMETER 16 mm

Ground execution with standard bearing journal P0 - P5
Series 1412, 2422, 1214, 1112

■ Shaft style A



■ Shaft style B



Screw Type A		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
400	470	527

Screw Type B		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
50	139	221
100	189	271
150	239	321
200	289	371
300	389	471
400	489	571
600	689	771
800	889	971

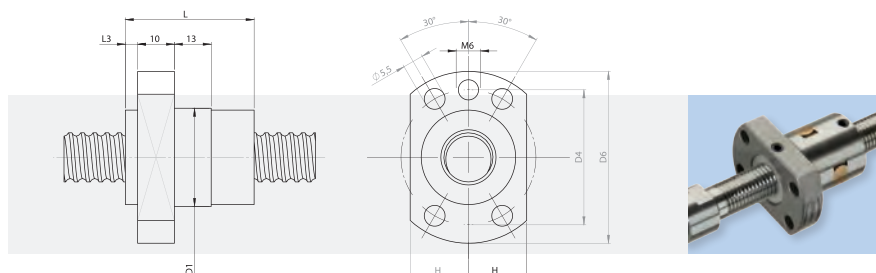
Nuts shown in standard orientation. Select one nut from table. Please follow the advice on page 24/25.

optiSLITE Detailed information page 55.

Technical data								
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Ratin [kN]	Stat. Load Rating [kN]	Nut with axial backlash	Nut backlash-free
							Max. Axial Play [mm]	Max. Friction Torque Tpr0 [Ncm]
2.16.1,5.3	2	16	3	1.5	2.90	4.90	0.02	4.0
4.16.3.3	4	16	3	3	8.90	11.40	0.03	4.0
5.16.3,5.3	5	16	3	3.5	10.10	12.00	0.03	4.0
10.16.3,5.6*	10	16	3 + 3 *	3.5	19.60	27.70	0.03	4.0
10.16.3,5.10*	10	16	5 + 5 *	3.5	31.40	47.30	0.03	4.0

*Please specify the number of circuits

*nut type 2422 only



FLANGE NUT

■ Series 1412:

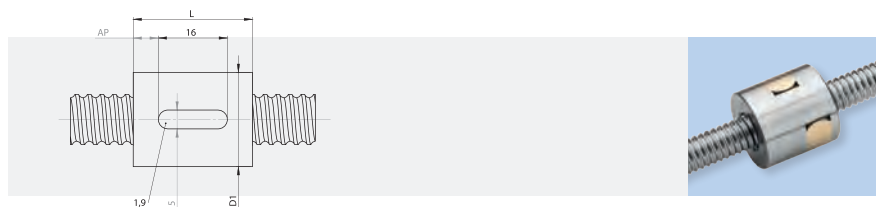
Nut with flange and standard wipers on both ends



■ Series 2422:

Nut with flange and standard wipers on both ends

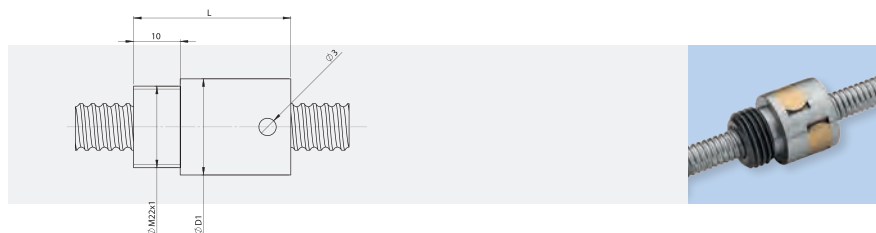
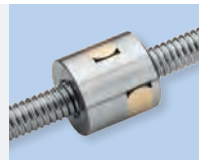
*nut type 2422 only



CYLINDRICAL NUT

■ Series 1214:

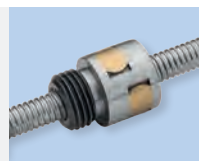
Cylindrical nut without wipers



NUT WITH CONNECTING THREAD

■ Series 1112:

Nut with connecting thread without wipers



Dimensions

Flange nut 1412 / 2422

Nut Length L [mm]	Nut-Ø D1g6 [mm]	Pitch Circle-Ø D4 [mm]	Flange-Ø D6 [mm]	Length L3 [mm]	Flange Flats 2xH [mm]
32	25	35	44	0	29
38	28	38	48	0	31
44	28	38	48	0	31
44	32	42	52	12*	40
64	32	42	52	12*	40

Cylindrical nut 1214

Nut Length L [mm]	Pilot-Ø D1h6 [mm]	Length AP [mm]
19	28	1.5
21	28	2.5
27	28	5.5

Nut with connecting thread 1112

Nut Length L [mm]	Pilot-Ø D1 [mm]
29	25.5
36	28.5
43	28.5

Ground execution with standard bearing journal P0 - P5
Series 1510

100

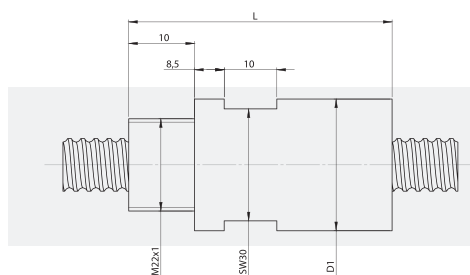


100



op

Technical data							Nut spring preloaded
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Rating [kN]	Stat. Load Rating [kN]	
2.16.1,5.2	2	16	2	1.5	2.10	3.20	3.0
2,5.16.1,5.2	2.5	16	2	1.5	2.10	3.20	3.0
4.16.2.2	4	16	2	2	3.00	4.00	3.0
5.16.2,5.2	5	16	2	2.5	3.90	4.70	3.0



NUT WITH CONNECTING THREAD

■ Series 1510:

Spring preloaded double nut in housing with connecting thread without wipers

Dimensions

Nut with connecting thread 1510

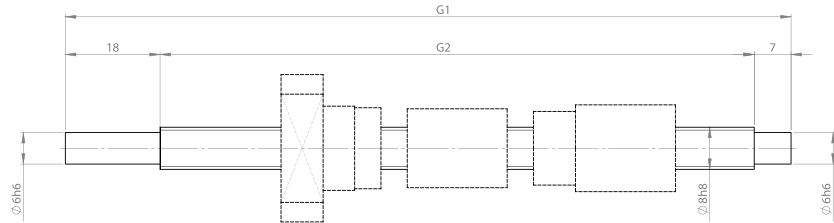
Nut Length L [mm]	Nut-Ø D1 [mm]	Max. Preload F _{prmax} [N]	Max. Axial Load F _{max} [N]
57	33	120	100
57	33	120	100
57	33	120	100
57	33	150	130

Transport ball screws 8 - 16 mm

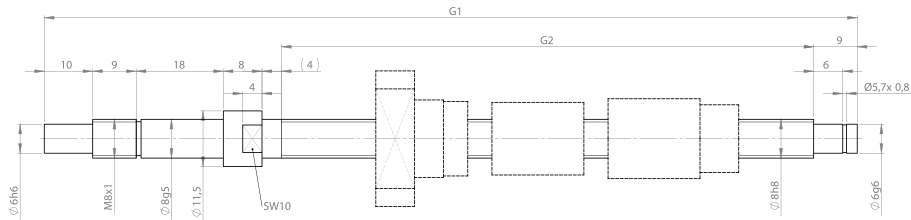
NOMINAL DIAMETER 8 mm

Rolled execution with standard bearing journal T5 - T10
 Series 1432, 2432, 1234, 1132

■ Shaft style A



■ Shaft style B



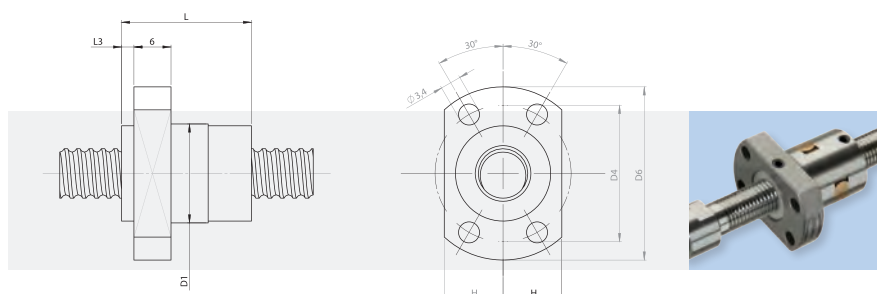
Screw Type A		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
100	145	170
200	245	270

Screw Type B		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
40	80	138
70	110	168
100	140	198
150	190	248

Nuts shown in standard orientation. Select one nut from table. Please follow the advice on page 24/25.

Technical data								
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Ratin [kN]	Stat. Load Rating [kN]	Nut with axial backlash	Nut backlash-free
							Max. Axial Play [mm]	Max. Friction Torque Tpr0 [Ncm]
1.8.1.3	1	8	3	1	1.20	1.50	0.01	0.5
2.8.1,5.3	2	8	3	1.5	2.00	2.10	0.02	0.5
2,5.8.1,5.3	2.5	8	3	1.5	2.00	2.10	0.02	0.5
4.8.1,5.3	4	8	3	1.5	2.00	2.10	0.02	0.5
4.8.1,5.5	4	8	5	1.5	3.00	3.50	0.02	0.5

*nut type 2432 only



FLANGE NUT

■ Series 1432:

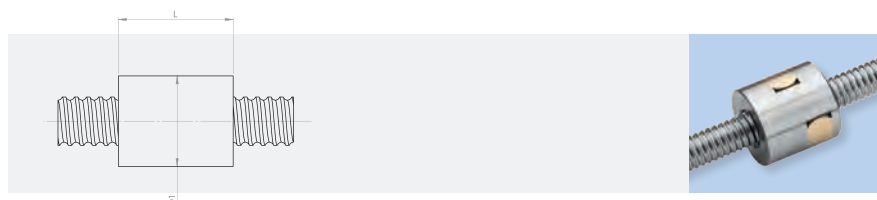
Nut with flange and standard wipers on both ends



■ Series 2432:

Nut with flange and standard wipers on both ends

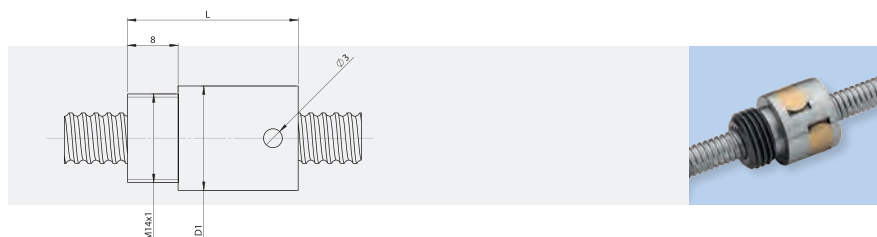
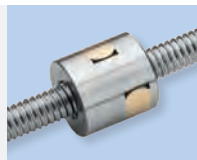
*nut type 2432 only



CYLINDRICAL NUT

■ Series 1234:

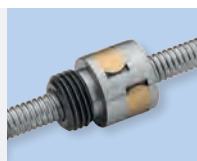
Cylindrical nut without wipers



NUT WITH CONNECTING THREAD

■ Series 1132:

Nut with connecting thread without wipers



Dimensions

Flange nut 1432 / 2432

Nut Length L [mm]	Nut-Ø D1g6 [mm]	Pitch Circle-Ø D4 [mm]	Flange-Ø D6 [mm]	Length L3 [mm]	Flange Flats 2xH [mm]
23	16	22	28	0	19
28	16	22	28	0	19
30	16	22	28	0	19
31	16	22	28	0	19
27	16	22	28	6*	19

Cylindrical nut 1234

Nut Length L [mm]	Pilot-Ø D1h6 [mm]
14	15
19	15
21	15
22	15

Nut with connecting thread 1132

Nut Length L [mm]	Pilot-Ø D1 [mm]
22	16.5
27	16.5
29	16.5
30	16.5

Rolled execution with standard bearing journal T5 - T10
Series 1530

Technical drawing of a shaft assembly. The drawing shows a shaft with a central hub and two end flanges. The shaft is labeled with dimensions: a total length of 18, a distance of 7 from the right end to the center of the hub, and a distance of 18 from the left end to the center of the hub. The shaft diameter is indicated as $\varnothing 5h6$ at both ends. The hub is labeled with dimensions: a total length of 18, a distance of 7 from the right end to the center of the hub, and a distance of 18 from the left end to the center of the hub. The hub diameter is indicated as $\varnothing 5h8$ at both ends. The shaft is labeled with dimensions: a total length of 18, a distance of 7 from the right end to the center of the hub, and a distance of 18 from the left end to the center of the hub. The shaft diameter is indicated as $\varnothing 5h6$ at both ends. The hub is labeled with dimensions: a total length of 18, a distance of 7 from the right end to the center of the hub, and a distance of 18 from the left end to the center of the hub. The hub diameter is indicated as $\varnothing 5h8$ at both ends.

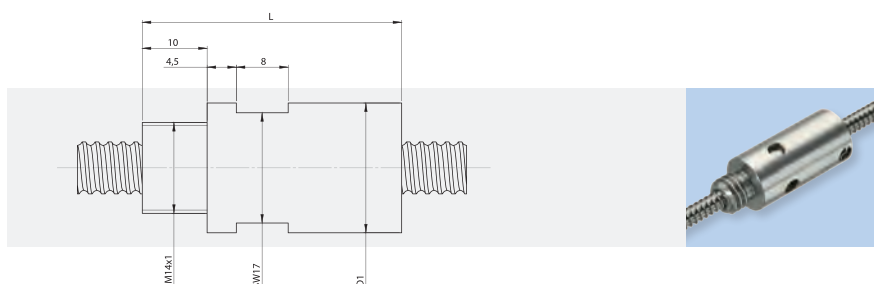
Screw Type B		
Stroke	Thread length	Overall length
[mm]	G2 [mm]	G1 [mm]
40	80	138
70	110	168
100	140	198
150	190	248

Technical drawing of a shaft assembly. The drawing shows a shaft with various diameters and lengths. Key dimensions and labels include:

- Overall length: $G1$
- Section lengths: 10, 9, 18, 8, (4), 6, 9
- Diameters: $\varnothing 6h6$, $M8 \times 1$, $\varnothing 8g5$, $\varnothing 11.5$, $\varnothing 8h8$, $\varnothing 5,7 \times 0,8$, $\varnothing 6g6$
- Feature: SW10 (keyway)
- Section $G2$ is shown in dashed lines.

Please follow the advice on page 24/25.

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NUT WITH CONNECTING THREAD

■ Series 1530:

Spring preloaded double nut in housing with connecting thread without wipers

Dimensions

Nut with connecting thread 1530

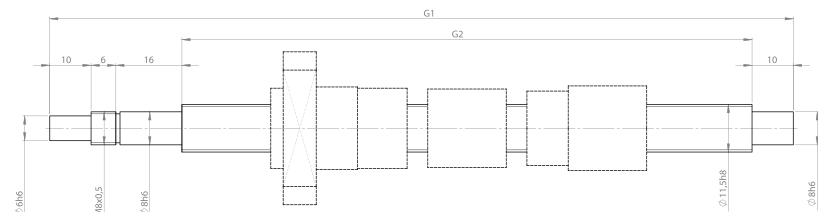
Nut Length L [mm]	Nut-Ø D1 [mm]	Max. Preload F _{prmax} [N]	Max. Axial Load F _{max} [N]
40	20	30	20
40	20	50	40
40	20	50	40

Transport ball screws 8 - 16 mm

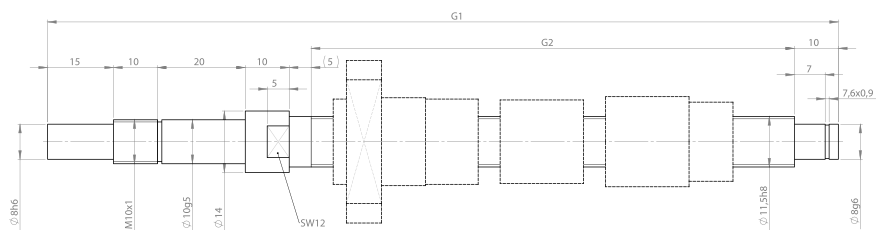
NOMINAL DIAMETER 12 mm

Rolled execution with standard bearing journal T5 - T10
 Series 1432, 2432, 2442, 1234, 1132

■ Shaft style A



■ Shaft style B



Screw Type A		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
300	355	397

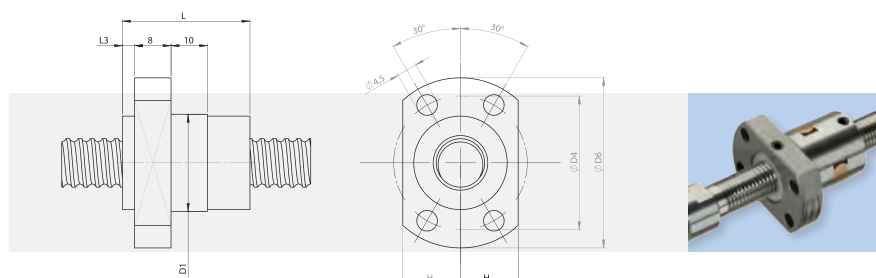
Screw Type B		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
50	110	180
100	160	230
150	210	280
200	260	330
250	310	380
350	410	480
450	510	580

Nuts shown in standard orientation. Select one nut from table. Please follow the advice on page 24/25.

Technical data								
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Ratin [kN]	Stat. Load Rating [kN]	Nut with axial backlash	Nut backlash-free
							Max. Axial Play [mm]	Max. Friction Torque Tpr0 [Ncm]
1.12.1.3	1	12	3	1	1.50	2.40	0.01	1.0
2.12.1,5.3	2	12	3	1.5	2.50	3.40	0.02	1.0
3.12.2.3	3	12	3	2	3.60	4.30	0.02	1.0
4.12.2.3	4	12	3	2	3.60	4.30	0.02	1.0
5.12.2.3	5	12	3	2	3.60	4.30	0.02	1.0
5.12.2.5	5	12	5	2	5.60	7.60	0.02	1.0
10.12.2,5.4*	10	12	2 + 2 *	2.5	5.80	7.00	0.03	1.0
10.12.2,5.6*	10	12	3 + 3 *	2.5	8.50	10.90	0.03	1.0

*Please specify the number of circuits

*nut type 2432 / 2442 only



FLANGE NUT

■ Series 1432:

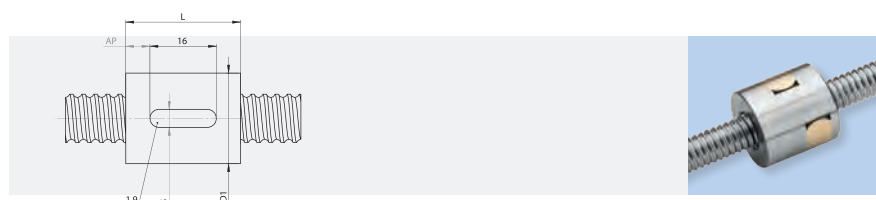
Nut with flange and standard wipers on both ends



■ Series 2432 / 2442:

Nut with flange and standard wipers on both ends

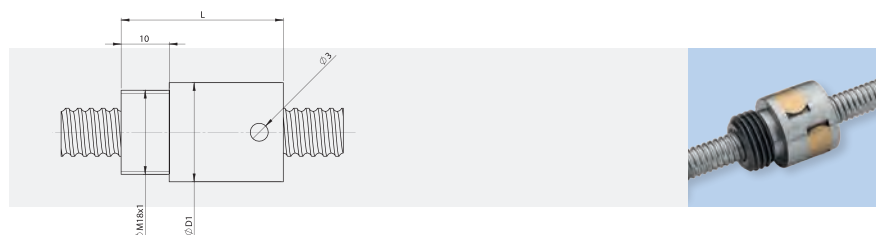
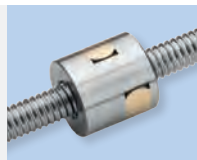
*nut type 2432 / 2442 only



CYLINDRICAL NUT

■ Series 1234:

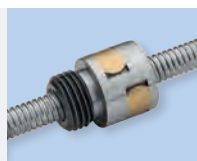
Cylindrical nut without wipers



NUT WITH CONNECTING THREAD

■ Series 1132:

Nut with connecting thread without wipers



Dimensions

Flange nut 1432 / 2432 / 2442

Cylindrical nut 1234

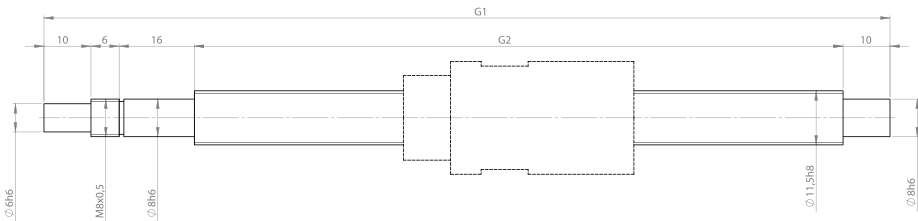
Nut with connecting thread 1132

Nut Length L [mm]	Nut-Ø D1g6 [mm]	Pitch Circle-Ø D4 [mm]	Flange-Ø D6 [mm]	Length L3 [mm]	Flange Flats 2xH [mm]	Nut Length L [mm]	Pilot-Ø D1h6 [mm]	Length AP [mm]	Nut Length L [mm]	Pilot-Ø D1 [mm]
25	20	29	37	0	24	17	19	2.5	24	20.5
30	20	29	37	0	24	19	19	1.5	29	20.5
37	22	29	37	0	24	26	19	5	36	20.5
36	22	29	37	0	24	22	19	3.5	33	22.5
39	22	29	37	0	24	26	19	5	36	22.5
33	24	32	40	8*	26					
29	24	32	40	9*	26					
39	24	32	40	9*	26					

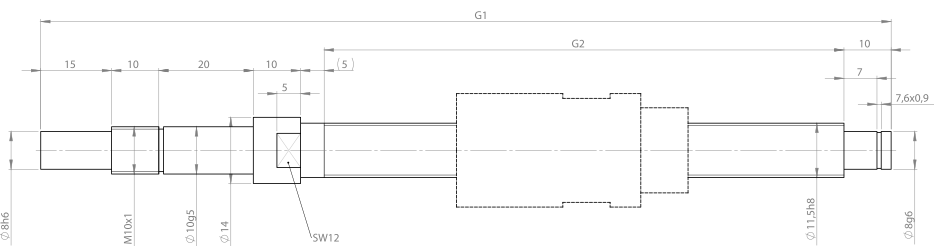
Transport ball screws 8 - 16 mm

NOMINAL DIAMETER 12 mm
Rolled execution with standard bearing journal T5 - T10
Series 1530

■ Shaft style A



■ Shaft style B

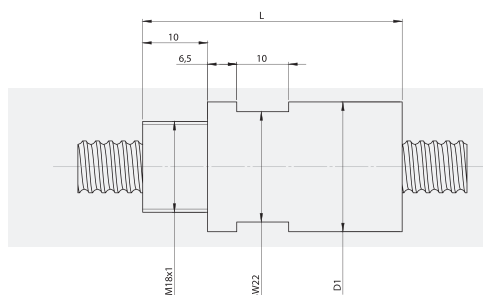


Screw Type A		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
300	355	397

Screw Type B		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
50	110	180
100	160	230
150	210	280
200	260	330
250	310	380
350	410	480
450	510	580

Please follow the advice on page 24/25.

Technical data							
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Rating [kN]	Stat. Load Rating [kN]	Nut spring preloaded
							Max. Friction Torque Tpr0 [Ncm]
1.12.1.2	1	12	2	1	1.10	1.60	2.0
2.12.1,5.2	2	12	2	1.5	1.80	2.20	2.0
3.12.2.2	3	12	2	2	2.50	2.80	2.0
4.12.2.2	4	12	2	2	2.50	2.80	2.0
5.12.2.2	5	12	2	2	2.50	2.80	2.0



NUT WITH CONNECTING THREAD

■ Series 1530:

Spring preloaded double nut in housing with connecting thread without wipers

Dimensions

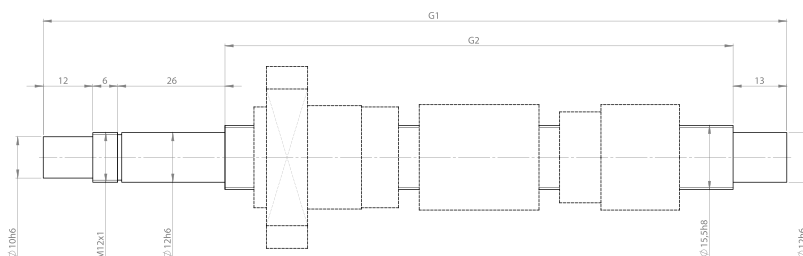
Nut with connecting thread 1530

Nut Length L [mm]	Nut-Ø D1 [mm]	Max. Preload F _{prmax} [N]	Max. Axial Load F _{max} [N]
49	24	50	40
49	24	80	70
49	24	80	70
49	24	80	70
49	24	80	70

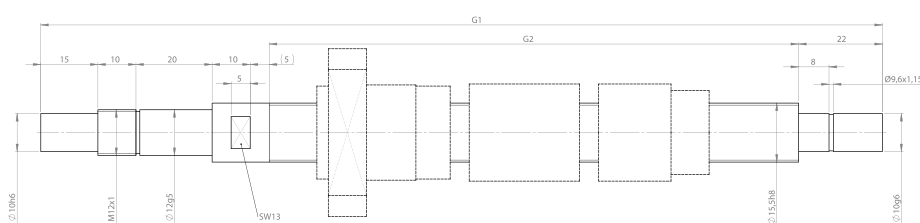
NOMINAL DIAMETER 16 mm

Rolled execution with standard bearing journal T5 - T10
Series 1432, 2442, 1234, 1132

■ Shaft style A



- Shaft style B



Screw Type A		
Stroke	Thread length	Overall length
[mm]	G2 [mm]	G1 [mm]
400	470	527

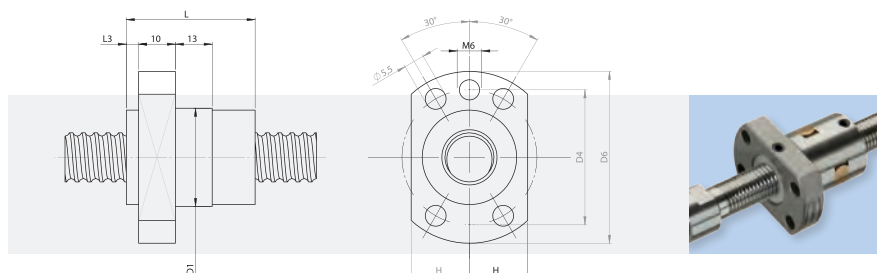
Screw Type B		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
50	139	221
100	189	271
150	239	321
200	289	371
300	389	471
400	489	571
600	689	771
800	889	971

Nuts shown in standard orientation. Select one nut from table. Please follow the advice on page 24/25.

Technical data							Nut with axial backlash	Nut backlash-free
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Ratin [kN]	Stat. Load Rating [kN]	Max. Axial Play [mm]	Max. Friction Torque Tpr0 [Ncm]
2.16.1,5.3	2	16	3	1.5	2.90	4.90	0.02	1.4
4.16.3.3	4	16	3	3	8.90	11.40	0.03	1.4
5.16.3,5.3	5	16	3	3.5	10.10	12.00	0.03	1.4
10.16.3,5.6*	10	16	3 + 3 *	3.5	19.60	27.70	0.03	1.4
10.16.3,5.10*	10	16	5 + 5 *	3.5	31.40	47.80	0.03	1.4

*Please specify the number of circuits

*nut type 2442 only



FLANGE NUT

■ Series 1432:

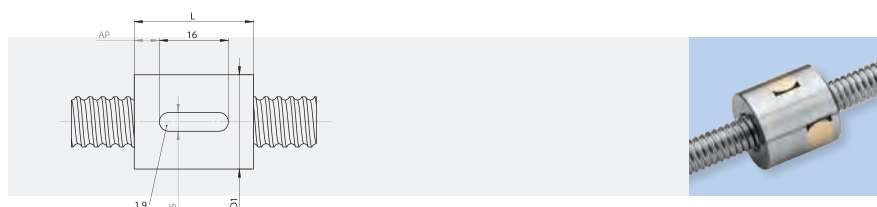
Nut with flange and standard wipers on both ends



■ Series 2442:

Nut with flange and standard wipers on both ends

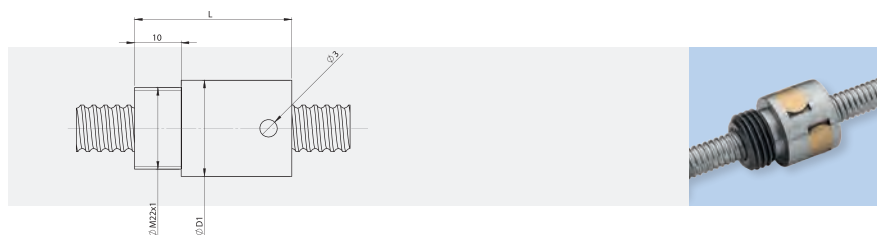
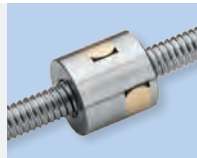
*nut type 2442 only



CYLINDRICAL NUT

■ Series 1234:

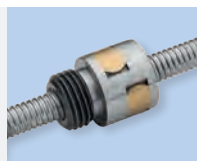
Cylindrical nut without wipers



NUT WITH CONNECTING THREAD

■ Series 1132:

Nut with connecting thread without wipers



Dimensions

Flange nut 1432 / 2442

Nut Length L [mm]	Nut-Ø D1g6 [mm]	Pitch Circle-Ø D4 [mm]	Flange-Ø D6 [mm]	Length L3 [mm]	Flange Flats 2xH [mm]
32	25	35	44	0	29
38	28	38	48	0	31
44	28	38	48	0	31
44	32	42	52	12*	40
64	32	42	52	12*	40

Cylindrical nut 1234

Nut Length L [mm]	Pilot-Ø D1h6 [mm]	Length AP [mm]
19	28	1.5
21	28	2.5
27	28	5.5

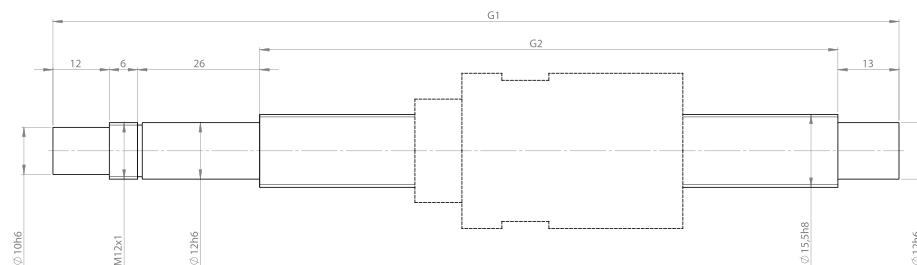
Nut with connecting thread 1132

Nut Length L [mm]	Pilot-Ø D1 [mm]
29	25.5
36	28.5
43	28.5

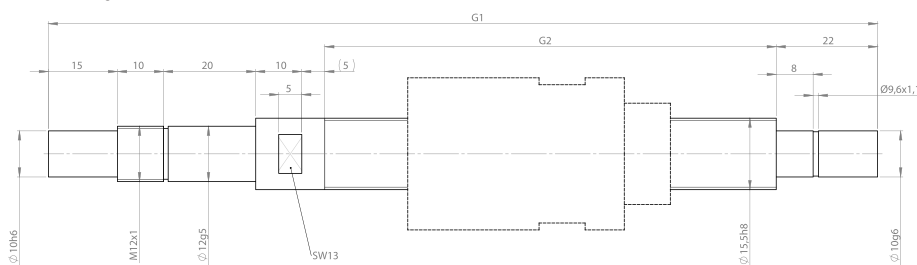
NOMINAL DIAMETER 16 mm

Rolled execution with standard bearing journal T5 - T10
Series 1530

■ Shaft style A



- Shaft style B

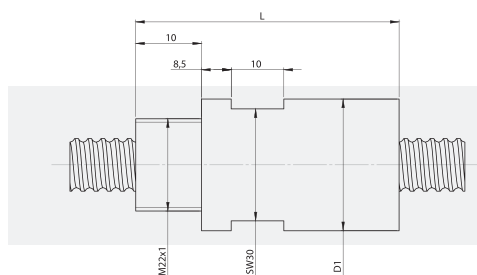


Screw Type A		
Stroke [mm]	Thread length G2 [mm]	Overall length G1 [mm]
400	470	527

Screw Type B		
Stroke	Thread length	Overall length
[mm]	G2 [mm]	G1 [mm]
50	139	221
100	189	271
150	239	321
200	289	371
300	389	471
400	489	571
600	689	771
800	889	971

Please follow the advice on page 24/25.

Technical data							Nut spring preloaded
Nut type	Lead [mm]	Nomi- nal-Ø [mm]	Circuits	Ball-Ø [mm]	Dyn. Load Rating [kN]	Stat. Load Rating [kN]	Max. Friction Torque Tpr0 [Nm]
4.16.2.2	4	16	2	2	3.00	4.00	3.0
5.16.2,5.2	5	16	2	2.5	3.90	4.70	3.0



NUT WITH CONNECTING THREAD

■ Series 1530:

Spring preloaded double nut in housing with connecting thread without wipers

Dimensions

Nut with connecting thread 1530

Nut Length L [mm]	Nut-Ø D1 [mm]	Max. Preload F _{prmax} [N]	Max. Axial Load F _{max} [N]
57	33	120	100
57	33	150	130