

Miniature Ball Guide Bushings

Compact / Standard

Miniature Ball Guide Bushings

RoHS10

Type				Material	Hardness
Compact		Standard			
Straight	Shoulder	Straight	Shoulder	52100 Bearing Steel	58 HRC min.
BYB	BYH	BGB	BGH		
SSBYB	SSBYH	SSBGB	SSBGH		
				440C Stainless Steel Equivalent	56 HRC min.

Ⓢ Use Ball Slider Compact Type (BYS, SSBYS) with Compact Type; Ball Sliders Standard Type (BGS, SSBGS, SSBPS) with Standard Type.
 Ⓢ Loctite is recommended to fix bushings.

Compact
 Straight: **BYB**, **SSBYB**
 Shouldered: **BYH**, **SSBYH**

Standard
 Straight: **BGB**, **SSBGB**
 Shouldered: **BGH**, **SSBGH**

Compact

Part Number	Type	No.	Y	D	Outer Dia. Tol.	T	H	d
2		10 15 20	5	0	-0.006	2.5	7	3.2
3		10 20 30	6	0	-0.006	3	8	4.2
4		10 20 30	7	0	-0.006	3	9	5.2
5		10 20 30	8	0	-0.011	4	10	6.2
6		20 30 40	9	0	-0.011	4	11	7.2
8		20 30 40	11	0	-0.011	4	13	9.2
10		30 40 50	14	0	-0.011	4	16	12
12		30 40 50	16	0	-0.011	4	18	14

Part Number Example

Part Number	-	Y
BYB5	-	20
SSBYH10	-	40
BGB5	-	20
BGH10	-	40

Standard

Part Number	Type	No.	Y	D	Outer Dia. Tol.	T	H	d	W	B	D ₁
3		10 20 30	7	0	-0.006	2.5	9	5			
4		10 20 30	8	0	-0.006	3	10	6			
5		10 20 30	10	0	-0.011	4	12	7			
6		20 30 40	11	0	-0.011	4	13	8	1.1	10	9.6
8		20 30 40	12	0	-0.011	4	14	10	1.1	20	10.5
10		30 40 50	16	0	-0.011	4	18	12	1.1	30	11.5
12		30 40 50	18	0	-0.011	4	20	14	1.3	40	15.2

Bushings for Miniature Ball Bearing Guides / Ball Sliders

Flanged Type / Compact / Standard Type

Miniature Ball Guide Bushings – Flanged Type

RoHS10

Type	Material	Hardness
BGHT	52100 Bearing Steel	58 HRC min.

Part Number	Type	No.	Y	D	Outer Diameter Tolerance	H	W	P	T	d	d ₁	d ₂	t
5		20	10	0	-0.006	25	16	17	4	7	6	3.5	2.2
6		20 30 40	12	0	-0.011	28	18	20	4	8	6	3.5	2.2
8		20 30 40	14	0	-0.011	29	20	21	4	10	6	3.5	2.2
10		30 40 50	16	0	-0.011	34	22	25	5	12	7.5	4.5	3
12		30 40 50	19	0	-0.011	40	25	29	5	14	7.5	4.5	3

Ⓢ Use in combination with Ball Sliders Standard Type (BGS, SSBGS, SSBPS).

Ball Sliders – Compact Type

RoHS10

Type	Ball Retainer	Material		Hardness
		Balls	Balls	
BYS	JIS C3604 Equivalent (RoHS Compliant)	52100 Bearing Steel	58 HRC min.	
SSBYS	JIS C3604 Equivalent (RoHS Compliant)	440C Stainless Steel Equivalent	56 HRC min.	

Part Number	Type	PD	F	(D)	(D ₁)	B
2				3.1	2.1	0.6
3				4.1	3.1	0.6
4		10 15 20		5.1	4.1	0.6
5		10 15 20		6.1	5.1	0.6
6		15 20 30		7.1	6.1	0.6
8		15 20 30		9.1	8.1	0.6
10		20 30 40		11.8	10.2	1.0
12		20 30 40		13.8	12.2	1.0

Ⓢ Use in combination with Bushings for Miniature Ball Bearing Guides Compact Type (BYB, SSBYB, BYH, SSBYH).
 Ⓢ Basic Load Rating

Ball Sliders – Standard Type

RoHS10

Type	Ball Retainer	Material		Hardness
		Balls	Balls	
BGS	JIS C3604 Equivalent (RoHS Compliant)	52100 Bearing Steel	58 HRC min.	
SSBGS	JIS C3604 Equivalent (RoHS Compliant)	440C Stainless Steel Equivalent	56 HRC min.	
SSBPS	Polyacetal	440C Stainless Steel Equivalent	56 HRC min.	

Feature: Polyacetal Type is superior in anti-corrosion performance compared to brass (JIS C3604 Equivalent) and best for use in environments where corrosion is not desirable.

Part Number	Type	PD	F	(D)	(D ₁)
3				4.8	3.2
4		10 15 20		5.8	4.2
(5)		10 15 20		6.8	5.2
(6)		15 20 30		7.8	6.2
(8)		15 20 30		9.8	8.2
(10)		20 30 40		11.8	10.2
(12)		20 30 40		13.8	12.2

Ⓢ Only PD in () are available for SSBPS.
 Ⓢ Use in combination with Bushings for Miniature Ball Bearing Guides Standard Type (BGB, SSBGB, BGH, SSBGH, BGHT).