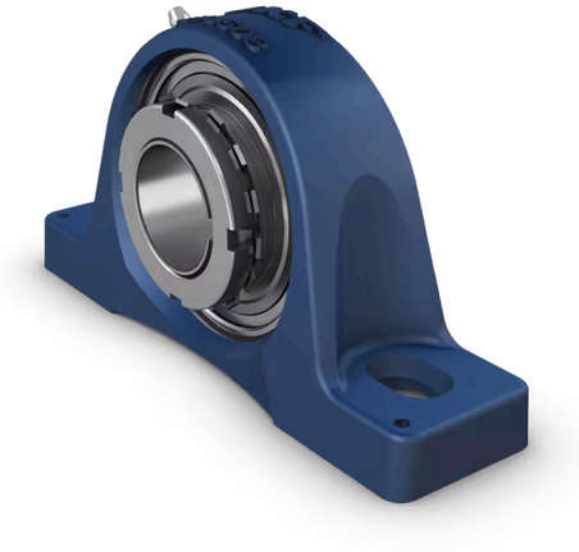


Image may differ from product. See technical specification for details.

SYJ 55 KF

Pillow block ball bearing unit with adapter sleeve locking, cast iron, Japanese standards

Pillow (plummer) block ball bearing units consist of an insert bearing mounted in a cast iron housing that can be bolted to a support surface. This variant is suitable for applications with both constant and alternating directions of rotation. It is locked with an adapter

sleeve, enabling quick and easy mounting onto the shaft. Adapter sleeve needs to be ordered separately.

- Strong
- Ready to mount
- Designed for a constant and alternating rotation
- Lubricated and sealed bearing
- Quick locking onto the shaft
- Cost-effective

Overview

Dimensions

Attachment bolt diameter	16 mm
Shaft diameter	50 mm
Centre height (pillow block)	63.5 mm
Housing overall width	60 mm
Centre distance between bolt holes	171.5 mm
Bearing width, total	39.9 mm

Performance

Basic dynamic load rating	43.6 kN
Basic static load rating	29 kN
Limiting speed	3 600 r/min

Properties

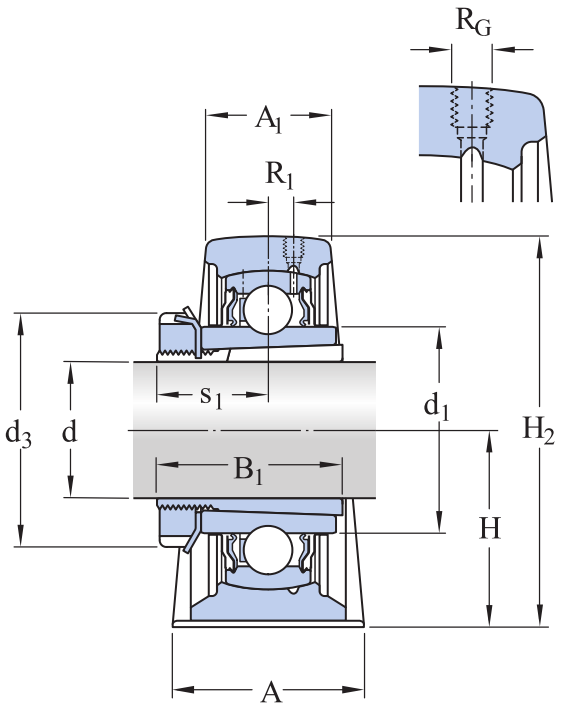
Associated mounting tool	HN 11
Housing type	Pillow block
Number of bolt holes for fasteners	2
Fastening bolt hole type	Plain
Retaining feature, inner ring	Adapter sleeve
Bore type	Tapered
Rubber seating ring	Without
Material, housing	Cast iron
Material, bearing	Bearing steel
Coating	Without
Sealing, bearing	Seal and flinger on both sides
Sealing type	Contact, standard
Sealing, unit	Without
Lubricant	Grease
Relubrication hole	With
Grease fitting	With

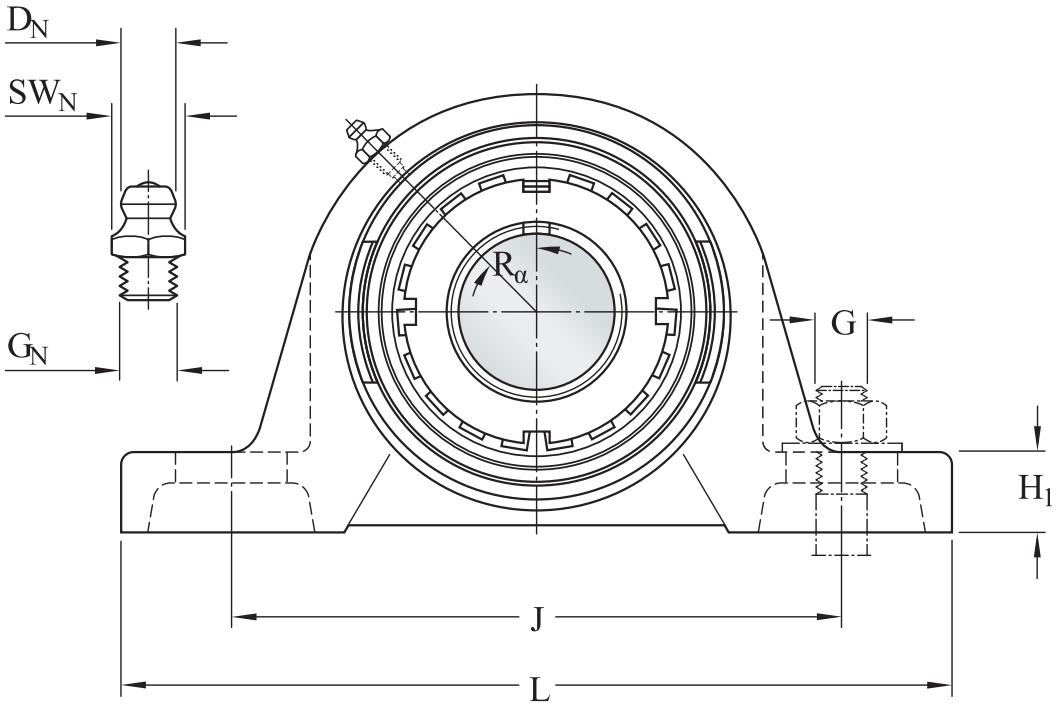
Logistics

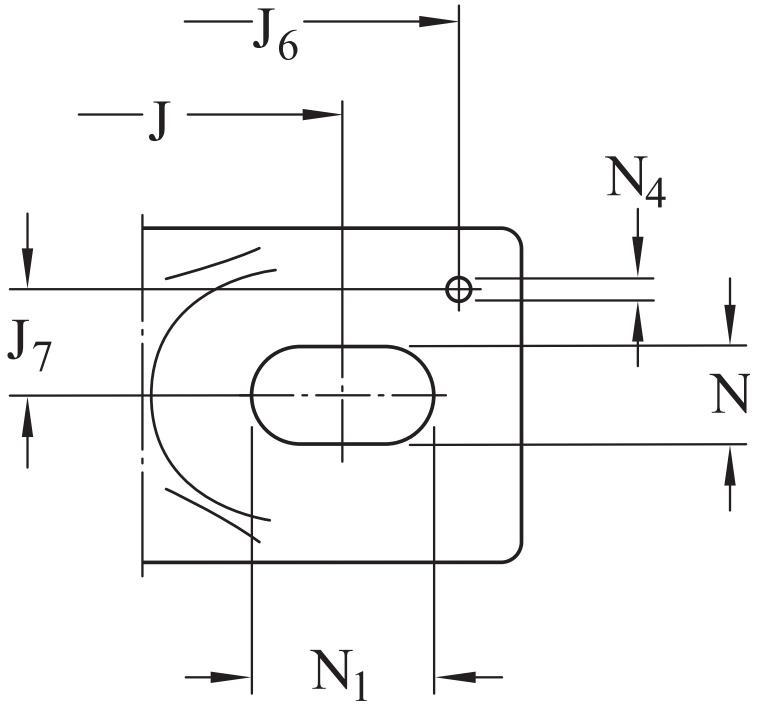
Product net weight	3.4 kg
eClass code	23-05-16-02
UNSPSC code	31171536

Technical specification

Note about ordering information	Order adapter sleeve separately
Compliance with standard	JIS
Material, housing	Cast iron
Sealing, bearing	Seal and flinger on both sides
Sealing type, bearing	Contact, standard
Sealing, unit	Without
Coating	Without







Dimensions

d	50 mm	Bore diameter
d_1	≈ 69.06 mm	Shoulder diameter of inner ring
d_3	75 mm	Outside diameter of lock nut
A	60 mm	Base width

A_1	40 mm	Top width
B_1	39.9 mm	Overall bearing width
B_1	59 mm	Width of sleeve
H	63.5 mm	Height of spherical seat centre
H_1	24 mm	Foot height
H_2	126 mm	Overall height
J	171.5 mm	Distance between attachment bolts
J	max. 180 mm	Maximum distance between attachment bolts
J	min. 163 mm	Minimum distance between attachment bolts
L	219 mm	Overall length
N	20 mm	Diameter of attachment bolt hole
N_1	28.5 mm	Length of attachment bolt hole
s_1	32.5 mm	Distance from locking device side face to raceway centre
	Value specified for s_1 is approximate and before the sleeve is driven into the bearing bore (sleeve and inner ring bore at starting position).	Note dimension(s)

GREASE FITTING

D_N	6.5 mm	Diameter of head sphere of grease fitting
SW_N	7 mm	Hexagonal key size for the grease fitting
G_N	1/4-28 SAE-LT	Thread of grease fitting

DOWEL PINS

J_6	201 mm	Distance of dowel pins
J_7	21 mm	Axial offset of dowel pins
N_4	4 mm	Recommended diameter for dowel pins

THREADED HOLE

R_G	1/4-28 UNF	Housing thread for the grease fitting
R_1	5 mm	Axial position of the housing thread
R_α	45 °	Angular position of the housing thread

Calculation data

Basic dynamic load rating	C	43.6 kN
Basic static load rating	C_0	29 kN
Fatigue load limit	P_u	1.25 kN
Limiting speed		3 600 r/min

Mounting information

Associated spanner		HN 11
Recommended lock nut tightening angle	α	90 °
Recommended diameter for attachment bolts, mm	G	16 mm
Recommended diameter for attachment bolts, inch	G	0.625 in

Tolerances and clearances

The values depend on the included bearing:

- Bore diameter tolerance → table 1
- Radial internal clearance → table 2
- Recommended fit → table 3
- Shaft tolerance → table 4

Compatible products

Component

Pillow block housing for insert bearings, cast iron, Japanese standards	SYJ 511
Insert bearing with tapered bore and adapter sleeve locking	YSA 211-2FK

Recommended product

Adapter sleeve with KM lock nut and MB lock washer, metric dimensions	H 2311

More Information

Product details

- Pillow block units to ISO standards
- Pillow block units to North American standards
- Pillow block units to Japanese Industrial Standards (JIS)
- Pillow block units, not standardized (incl. SKF Food Line)
- Permissible misalignment
- Locating/non-locating support
- Loads
- Temperature limits
- Permissible speed
- Lubrication
- Mounting and dismounting
- Ordering information
- Designation system

Engineering information

- Principles of ball bearing units selection and application - Download catalogue (4.9 MB)
- Principles of selecting mounted bearing solutions
- Bearing failure and how to prevent it

Tools

- SKF Product select
- Bearing Frequency Calculator

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