

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

UCP 205

Pillow block ball bearing unit with extended inner ring and set screw 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 strong and stiff, and is suitable for applications with both constant and alternating directions of rotation. It has an inner ring extended on both sides and is locked onto the shaft by tightening a set screw on the inner ring, making it easy to mount.

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

Overview

Dimensions

Attachment bolt diameter	10 mm
Shaft diameter	25 mm
Centre height (pillow block)	36.5 mm
Housing overall width	38 mm
Centre distance between bolt holes	105 mm
Bearing width, total	34 mm

Performance

Basic dynamic load rating	14 kN
Basic static load rating	7.8 kN
Limiting speed	5 850 r/min
Note	Limiting speed with shaft tolerance h6

Properties

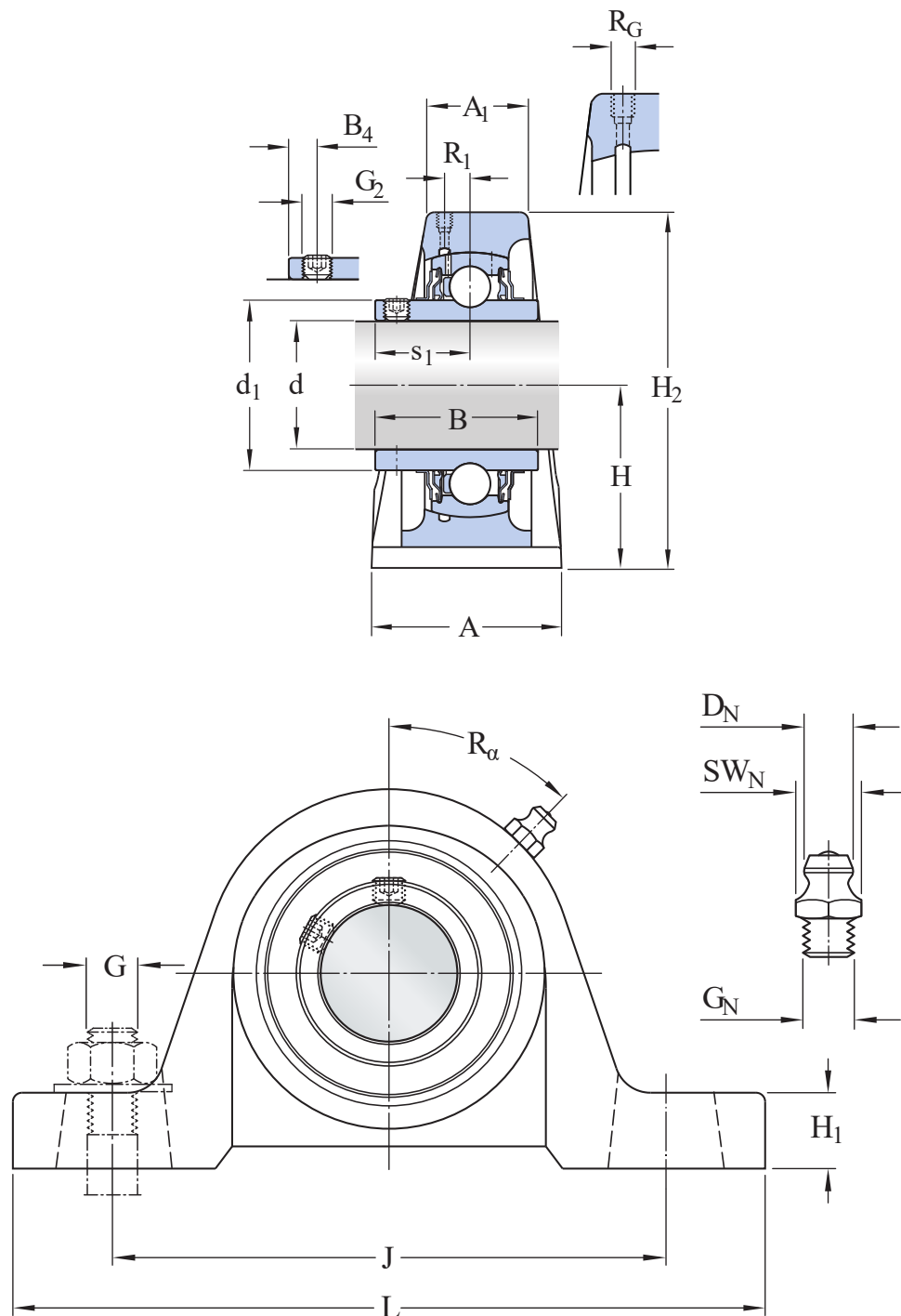
Housing type	Pillow block, normal base
Number of bolt holes for fasteners	2
Fastening bolt hole type	Plain
Retaining feature, inner ring	Set screws
Bore type	Cylindrical
Rubber seating ring	Without
Material, housing	Cast iron
Material, bearing	Bearing steel
Coating	Without
Sealing, bearing	Seal and flinger on both sides
Sealing type	Contact, standard
Sealing, unit	Without
Lubricant	Grease
Relubrication hole	With
Grease fitting	With

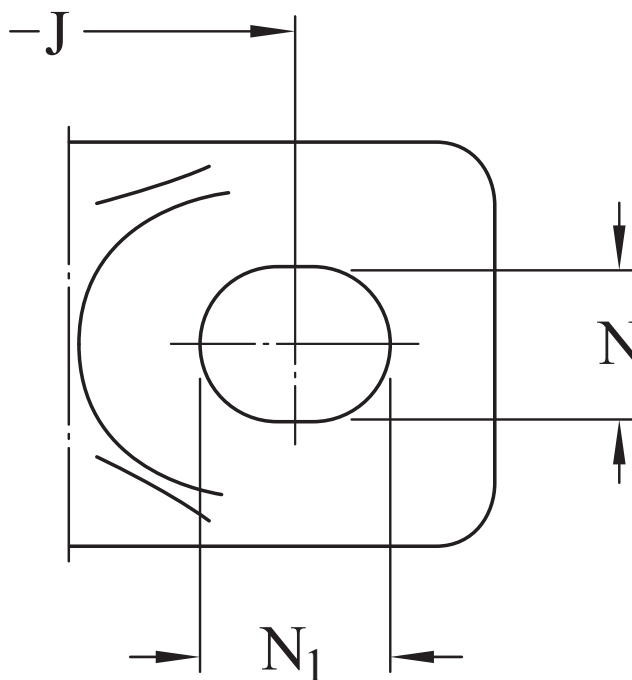
Logistics

Product net weight	0.8 kg
eClass code	23-05-16-02
UNSPSC code	31171536

Technical specification

Compliance with standard	JIS
Purpose specific	For material handling applications
Material, housing	Cast iron
Sealing, bearing	Seal and flinger on both sides
Sealing type, bearing	Contact, standard
Sealing, unit	Without
Coating	Without





Dimensions

d	25 mm	Bore diameter
d_1	≈ 33.7 mm	Shoulder diameter of inner ring
A	38 mm	Base width
A_1	23 mm	Top width
B	34 mm	Width of inner ring
B_4	5.5 mm	Distance from locking device side face to thread centre
H	36.5 mm	Height of spherical seat centre
H_1	16 mm	Foot height
H_2	70.5 mm	Overall height
J	105 mm	Distance between attachment bolts
J	max. 110 mm	Maximum distance between attachment bolts
J	min. 100 mm	Minimum distance between attachment bolts
L	139.5 mm	Overall length
N	13 mm	Diameter of attachment bolt hole
N_1	18 mm	Length of attachment bolt hole
s_1	19.7 mm	Distance from locking device side face to raceway centre

THREADED HOLE

R_G	1/4-28 UNF	Housing thread for the grease fitting
R_1	1.5 mm	Axial position of the housing thread
R_α	45 °	Angular position of the housing thread

GREASE FITTING

D_N	6.6 mm	Diameter of head sphere of grease fitting
SW_N	7.94 mm	Hexagonal key size for the grease fitting
G_N	1/4-28 UNF	Thread of grease fitting

Calculation data

Basic dynamic load rating	C	14 kN
Basic static load rating	C_0	7.8 kN
Fatigue load limit	P_u	0.335 kN
Limiting speed		5 850 r/min
		Limiting speed with shaft tolerance h6

Mounting information

Set screw	G_2	M6x1
Hexagonal key size for set screw		3.05 mm
Recommended tightening torque for set screw		4 N·m
Recommended diameter for attachment bolts, mm	G	10 mm
Recommended diameter for attachment bolts, inch	G	0.375 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](#)



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