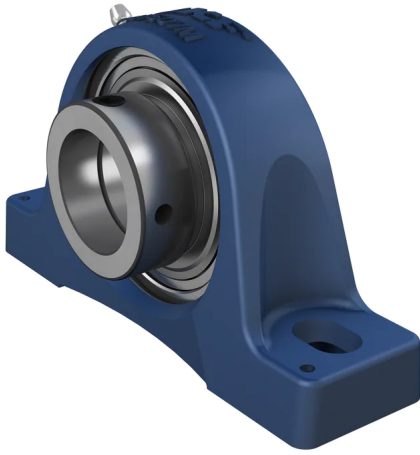


SY 50 FM



Pillow block ball bearing unit with narrow inner ring and eccentric locking collar, cast iron, ISO 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 intended for use in applications where the direction of rotation is constant. It has a narrow inner ring and is locked onto the shaft by an eccentric locking collar, making it easy to mount.

- Strong
- Ready to mount
- Lubricated and sealed bearing
- Designed for rotation in one direction
- Accommodate static initial misalignment

Overview

Dimensions

| | |
|------------------------------------|----------|
| Bearing width, total | 1.72 in |
| Centre distance between bolt holes | 6.181 in |
| Centre height (pillow block) | 2.252 in |
| Housing overall width | 2.126 in |
| Shaft diameter | 1.969 in |

Performance

| | |
|---------------------------|--|
| Basic dynamic load rating | 7 891 lbf |
| Basic static load rating | 5 216 lbf |
| Limiting speed | 4 000 r/min |
| Note | Limiting speed with shaft tolerance h6 |

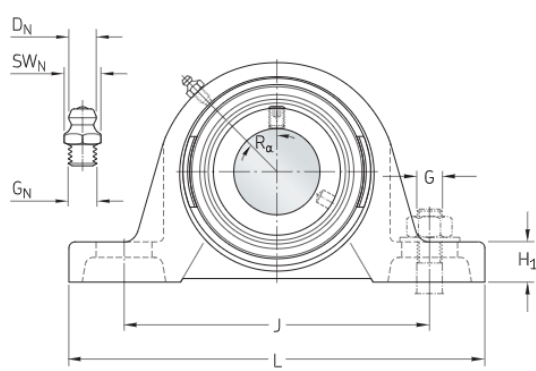
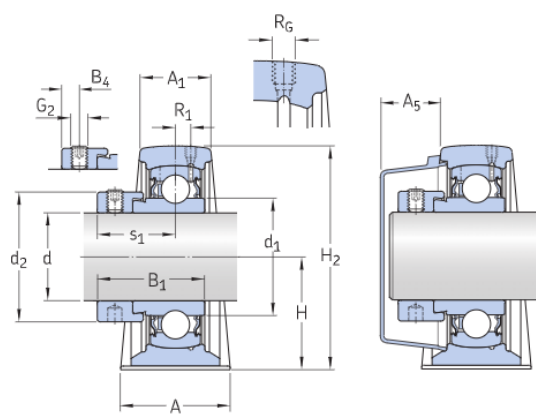
Properties

| | |
|------------------------------------|------------------|
| Bore type | Cylindrical |
| Coating | Without |
| Fastening bolt hole type | Plain |
| Grease fitting | With |
| Housing type | Pillow block |
| Lubricant | Grease |
| Material, bearing | Bearing steel |
| Material, housing | Cast iron |
| Number of bolt holes for fasteners | 2 |
| Relubrication hole | With |
| Retaining feature, inner ring | Eccentric collar |
| Rubber seating ring | Without |

| | |
|------------------|--------------------|
| Sealing type | Contact, standard |
| Sealing, bearing | Seal on both sides |
| Sealing, unit | Optional end cover |

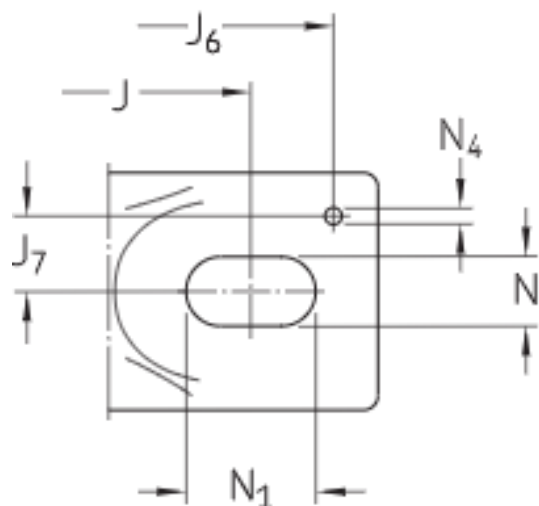
Technical Specification

| | |
|--------------------------|------------------------------------|
| Compliance with standard | ISO |
| Purpose specific | For material handling applications |
| Material, housing | Cast iron |
| Sealing, bearing | Seal on both sides |
| Sealing type, bearing | Contact, standard |
| Sealing, unit | Optional end cover |
| Coating | Without |



Dimensions

| | | |
|----------------|---------------|---|
| d | 1.969 in | Bore diameter |
| d ₁ | ≈ 2.461 in | Shoulder diameter of inner ring |
| d ₂ | 2.646 in | Outside diameter of locking ring |
| A | 2.126 in | Base width |
| A ₁ | 1.339 in | Top width |
| A ₅ | 1.299 in | Standout of end cover |
| B ₁ | 1.72 in | Overall bearing width |
| B ₄ | 0.266 in | Distance from locking device side face to thread centre |
| H | 2.252 in | Height of spherical seat centre |
| H ₁ | 0.866 in | Foot height |
| H ₂ | 4.488 in | Overall height |
| J | 6.181 in | Distance between attachment bolts |
| J | max. 6.496 in | Distance between attachment bolts |
| J | min. 5.866 in | Distance between attachment bolts |
| L | 7.992 in | Overall length |
| N | 0.709 in | Diameter of attachment bolt hole |
| N ₁ | 1.024 in | Length of attachment bolt hole |
| s ₁ | 1.287 in | Distance from locking device side face to |



raceway centre

Threaded hole

| | |
|------------------|--|
| R_c 1/4-28 UNF | Housing thread for the grease fitting |
| R_1 0.157 in | Axial position of the housing thread |
| R_0 45 ° | Angular position of the housing thread |

Grease fitting

| | |
|---------------------|---|
| D_f 0.256 in | Diameter of head sphere of grease fitting |
| S_f 0.276 in | Hexagonal key size for the grease fitting |
| G_f 1/4-28 SAE-LT | Thread of grease fitting |

Dowel pins

| | |
|----------------|-------------------------------------|
| J_6 7.362 in | Distance of dowel pins |
| J_7 0.748 in | Axial offset of dowel pins |
| N_4 0.157 in | Recommended diameter for dowel pins |

Calculation data

| | | |
|---------------------------|-------|--|
| Basic dynamic load rating | C | 7 891 lbf |
| Basic static load rating | C_0 | 5 216 lbf |
| Fatigue load limit | P_u | 220 lbf |
| Limiting speed | | 4 000 r/min |
| | | Limiting speed with shaft tolerance h6 |

Mass

| | |
|-------------------|----------|
| Mass bearing unit | 5.732 lb |
|-------------------|----------|

Mounting information

| | | |
|---|----------------|----------------|
| Set screw | G ₂ | M10x1 |
| Hexagonal key size for set screw | | 0.197 in |
| Recommended tightening torque for set screw | | 146.037 lbf-in |
| Recommended diameter for attachment bolts, mm | G | 16.002 mm |
| Recommended diameter for attachment bolts, inch | G | 0.625 in |

Included products

| | | |
|---------|--|----------|
| Housing | | SY 510 M |
| Bearing | | YET 210 |

Associated products

| | | |
|-----------|--|---------|
| End cover | | ECY 210 |
|-----------|--|---------|

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