

## Carriages KWVE45-B (Series KWVE..-B)

standard carriage, four-row, full complement ball set

The datasheet is only an overview of dimensions and basic load ratings of the selected product. Please always observe all the guidelines in these overview pages. Further information is given on many products under the menu item "Description". You can also order comprehensive information via the Catalogue ordering system ([https://www.schaeffler.de/content.schaeffler.de/en/news\\_media/index.jsp](https://www.schaeffler.de/content.schaeffler.de/en/news_media/index.jsp)) or by telephone on +49 (91 32) 82 - 28 97.

|                |               |                                                 |
|----------------|---------------|-------------------------------------------------|
| H              | 60 mm         |                                                 |
| B              | 120 mm        |                                                 |
| L              | 140,6 mm      |                                                 |
|                |               |                                                 |
| 1)             | Locating face |                                                 |
| 2)             | Marking       |                                                 |
| A <sub>1</sub> | 37,5 mm       |                                                 |
| A <sub>2</sub> | 10 mm         |                                                 |
| A <sub>3</sub> | 16,5 mm       |                                                 |
| A <sub>4</sub> | 16,5 mm       |                                                 |
| aL max         | 94 mm         | aL and aR are dependent on the guideway length. |
| aL min         | 20 mm         | aL and aR are dependent on the guideway length. |
| aR max         | 94 mm         | aL and aR are dependent on the guideway length. |
| aR min         | 20 mm         | aL and aR are dependent on the guideway length. |

|                |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| b              | 45 mm   | Tolerance: -0,005/-0,03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| d <sub>1</sub> | 13,4 mm |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| D <sub>2</sub> | 10,6 mm |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| G <sub>2</sub> | M12     | <p>for screws to DIN ISO 4762-12.9</p> <p>Max. tightening torque [MA]:</p> <p>M5 = 5,8 Nm</p> <p>M6 = 10 Nm</p> <p>M8 = 24 Nm</p> <p>M10 = 41 Nm</p> <p>M12 = 83 Nm</p> <p>M14 = 140 Nm</p> <p>The stated torques represent maximum values for the reliable transmission of forces in vibration-free, quasistatic applications (S0=1). We recommend that the tightening torques of the screw connection to the adjacent construction should be determined at the customer under the specific application conditions and operating conditions, observing the data in VDI Guideline 2230 Part 1 (2015) and the data in the description.</p> |
| G <sub>3</sub> | 7 mm    | Maximum permissible screw depth for lubrication connectors.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| G <sub>4</sub> | 7 mm    | Maximum permissible screw depth for lubrication connectors.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| h              | 34,2 mm |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| H <sub>1</sub> | 9,7 mm  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| h <sub>1</sub> | 15,7 mm |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| H <sub>4</sub> | 19,9 mm |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| H <sub>5</sub> | 9,25 mm |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| J <sub>B</sub> | 100 mm  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| J <sub>L</sub> | 80 mm   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

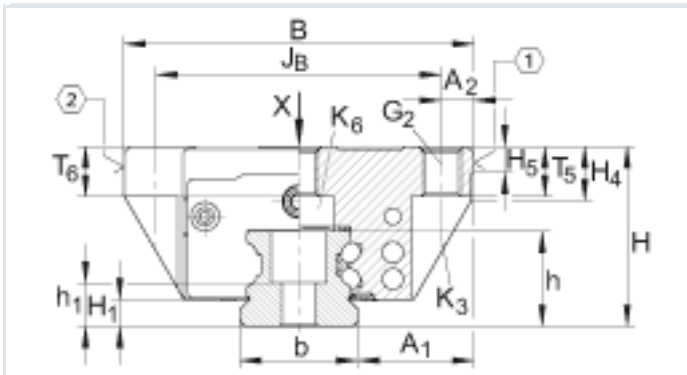
|     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| jL  | 105 mm   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| JL6 | 19,25 mm |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| JLZ | 60 mm    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| K1  | M12      | <p>for screws to DIN ISO 4762-12.9</p> <p>Max. tightening torque [MA]:</p> <p>M4 = 5 Nm</p> <p>M5 = 10 Nm</p> <p>M6 = 17 Nm</p> <p>M8 = 24 Nm</p> <p>M10 = 83 Nm</p> <p>M12 = 140 Nm</p> <p>M14 = 220 Nm</p> <p>The stated torques represent maximum values for the reliable transmission of forces in vibration-free, quasistatic applications (S0=1). We recommend that the tightening torques of the screw connection to the adjacent construction should be determined at the customer under the specific application conditions and operating conditions, observing the data in VDI Guideline 2230 Part 1 (2015) and the data in the description.</p> |
| K3  | M10      | <p>for screws to DIN ISO 4762-12.9</p> <p>Max. tightening torque [MA]:</p> <p>M4 = 5 Nm</p> <p>M5 = 10 Nm</p> <p>M6 = 17 Nm</p> <p>M8 = 24 Nm</p> <p>M10 = 83 Nm</p> <p>M12 = 140 Nm</p> <p>M14 = 220 Nm</p> <p>The stated torques represent maximum values for the reliable transmission of forces in vibration-free, quasistatic applications (S0=1). We recommend that the tightening torques of the screw connection to the adjacent construction should be determined at the customer under the specific application conditions and operating conditions, observing the data in VDI Guideline 2230 Part 1 (2015) and the data in the description.</p> |

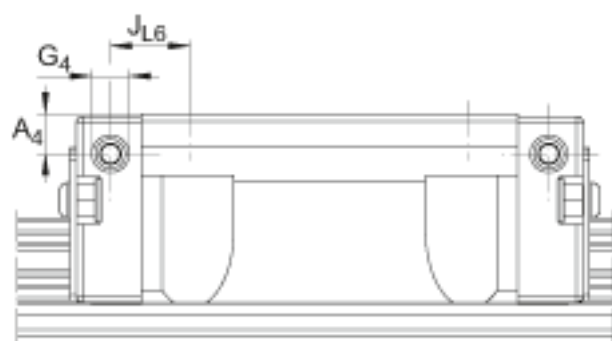
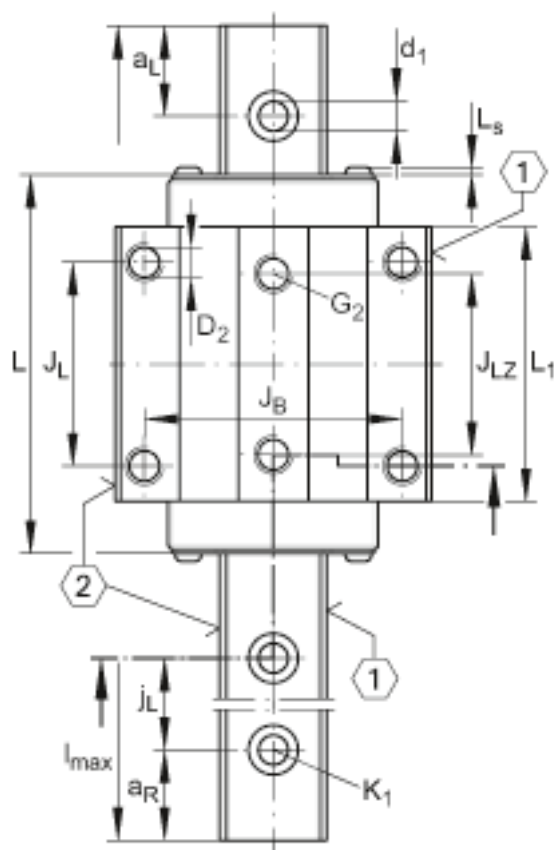
|                  |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| K <sub>6</sub>   | M10      | <p>for screws to DIN 7984-8.8</p> <p>Max. tightening torque [MA]:</p> <p>M4 = 2 Nm</p> <p>M5 = 4 Nm</p> <p>M6 = 8 Nm</p> <p>M8 = 12 Nm</p> <p>The stated torques represent maximum values for the reliable transmission of forces in vibration-free, quasistatic applications (S0=1). We recommend that the tightening torques of the screw connection to the adjacent construction should be determined at the customer under the specific application conditions and operating conditions, observing the data in VDI Guideline 2230 Part 1 (2015) and the data in the description.</p> |
| L <sub>1</sub>   | 102,5 mm |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| l <sub>max</sub> | 5835 mm  | Maximum length of single-piece guideways. Permissible guideway segments, see Technical principles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| L <sub>S</sub>   | 2,2 mm   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| T <sub>5</sub>   | 15 mm    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| T <sub>6</sub>   | 15 mm    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                  |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| m <sub>w</sub>   | 3,3 kg   | Mass of carriage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| m <sub>s</sub>   | 9,2 kg/m | Mass of guideway                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| c                | 69000 N  | Basic dynamic load rating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| C <sub>0</sub>   | 141000 N | Basic static load rating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                  |          | Calculation of basic load rating according to ISO 14728-1. increased basic dynamic load rating possible on the basis of practical experience.                                                                                                                                                                                                                                                                                                                                                                                                                                            |

The full load rating can only be supported if the full thread length is used and the adjacent construction is correspondingly dimensioned.

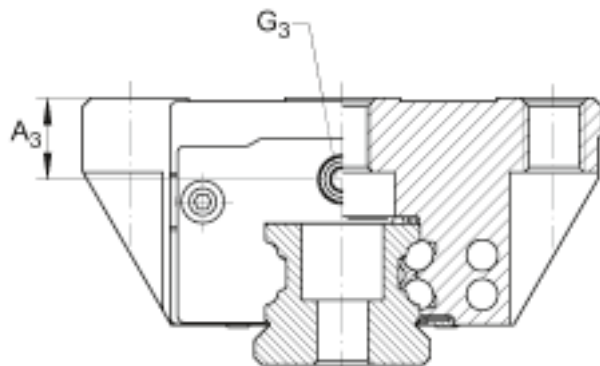
|          |         |                                   |
|----------|---------|-----------------------------------|
| $M_{0x}$ | 3610 Nm | Static moment rating about X axis |
| $M_{0y}$ | 2485 Nm | Static moment rating about Y axis |
| $M_{0z}$ | 2485 Nm | Static moment rating about Z axis |

Lubrication connectors are included loose:  
 S04 with KUVE20-B  
 S05 with KUVE25-B to KUVE55-B  
 S16 with KUVE15-B

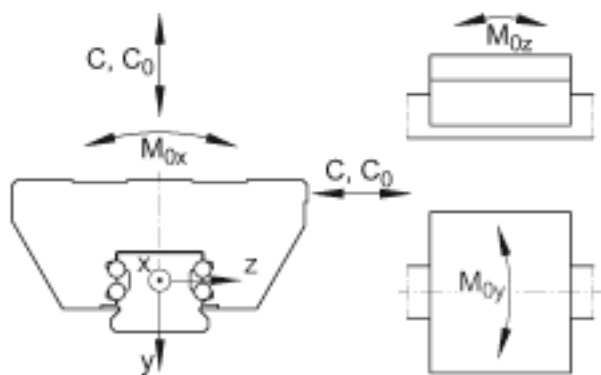




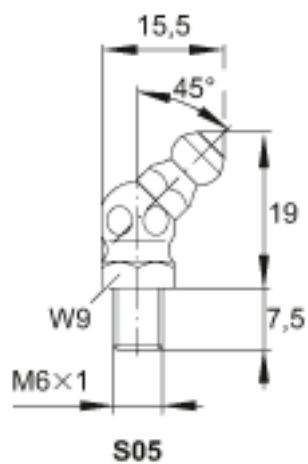
Lubrication connector on lateral face



Lubrication connector on end face



Load directions



Lubrication connector

