

igubal® Spherical Balls



Maintenance-free, self-lubricating

Corrosion-resistant

High compressive strength

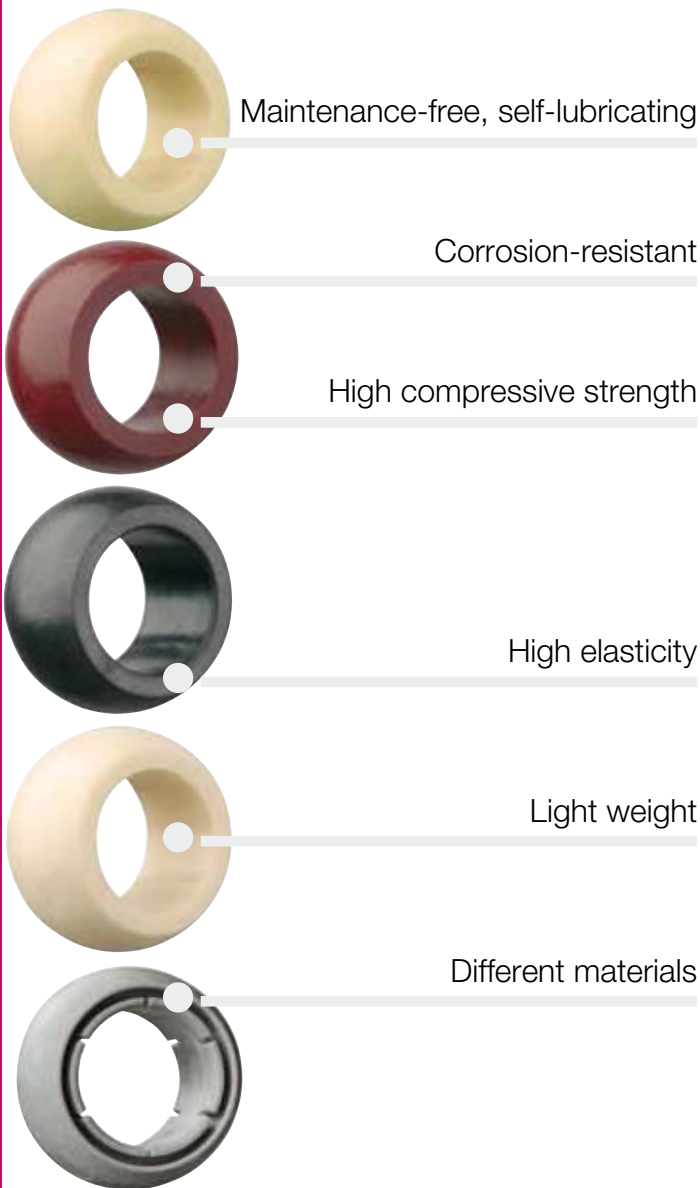
High elasticity

Light weight

Different materials

igubal® Spherical Balls

Every single iglidur® material has its own special properties, which determines the suitability for your special applications and requirements. Today, we offer you spherical bearings from iglidur® materials W300 (standard), J, J4, R, RN248, UW and X.



When to use it?

- If you need maintenance-free material
- When dimensional series E and K components should be installed
- If different iglidur® materials should be tested
- If high compressive strength is required
- If high elasticity is required



When not to use it?

- If temperatures are higher than +250 °C
- If dimensions above 50 mm are necessary
- If rotation speeds higher than 0.5 m/s are required

Temperature

Depend on material

Product Range

6 types
Ø 2–50 mm

Tolerances

The tolerance of the inner diameter is E10. The shaft tolerance should be included between h6 and h9.



igubal® Spherical Balls | Application Examples



Typical sectors of industry and application areas

- Plant construction
- Model building
- Furniture/Industrial design etc.

Improve technology and reduce costs –
110 exciting examples online

► www.igus.eu/igubal-applications



Drum bearing in a tumble dryer



► www.igus.eu/food



Carriage in a crane system



► www.igus.eu/design

igubal® Spherical Balls | Product Overview

standard – igubal® spherical balls

iglidur® W300 (material information ► page XXX)



WKM/WKI
Series K
metric/Inch
► page 727



WEM/WEI
Series E
metric/Inch
► page 727

low-cost – igubal® spherical balls

iglidur® R (material information ► page XXX)



RKM
Series K
metric
► page 728



REM
Series E
metric
► page 728

high temperatures – igubal® spherical balls

iglidur® X (material information ► page XXX)



XKM
Series K
metric
► page 729



XEM
Series E
metric
► page 729

low moisture absorption – igubal® spherical balls

iglidur® J (material information ► page XXX)



JKM
Series K
metric
► page 730



JEM
Series E
metric
► page 730

cost-effective – igubal® spherical balls

iglidur® J4 (material information ► page XXX)



J4KM
Series K
metric
► page 731



J4EM
Series E
metric
► page 731

under water applications – igubal® spherical balls

iglidur® UW (material information ► page XXX)



UWEM
Series E
metric
► page 732

clearance free – igubal® spherical balls

iglidur® J4VEM (material information ► page XXX)



J4VEM
Series E
metric
► page 733

detectable – igubal® spherical balls

iglidur® RN248 (material information ► page XXX)



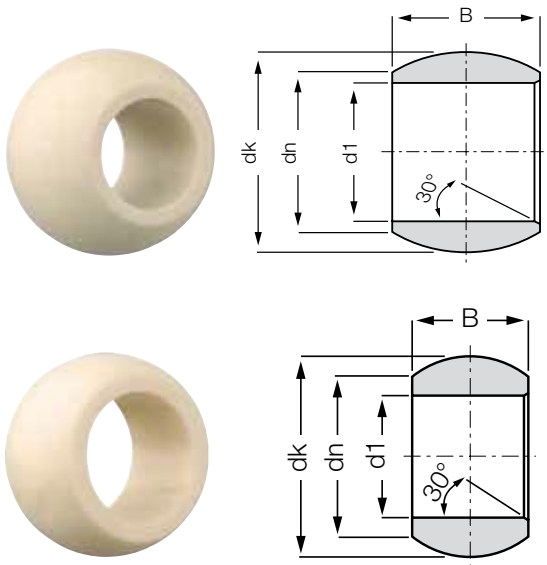
RN248KM
Series K
metric
► page 734



RN248EM
Series E
metric
► page 734

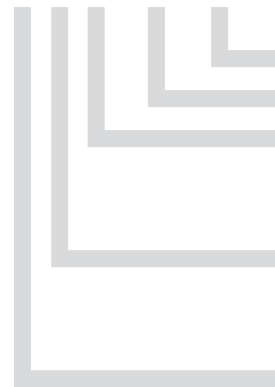
igubal® Spherical Balls | Product Range

Standard spherical balls: WKM and WKI/WEM and WEI



Order key

W...M-02-04



Width B
Inner diameter d1
Measuring system
M = Metric
I = Inch
Dimensional series
K = Series K
E = Series E
Spherical balls made of
igidur® W300

Dimensions [mm]

Part number	d1 E10	dn	dK	B	Weight [g]
WKM-02-04	2.00	3.90	5.10	4.00	0.1
WKM-03-06	3.00	5.10	8.10	6.00	0.3
WKM-05-08	5.00	7.70	11.30	8.00	0.6
WKM-06-09	6.00	8.90	12.80	9.00	0.9
WKM-08-12	8.00	10.30	16.00	12.00	1.6
WKM-10-14	10.00	12.90	19.00	14.00	2.7
WKM-12-16	12.00	15.40	22.10	16.00	4.0
WKM-14-19	14.00	16.80	25.40	19.00	6.0
WKM-16-21	16.00	19.30	28.40	21.00	8.2
WKM-18-23	18.00	21.80	31.50	23.00	10.8
WKM-20-25	20.00	24.30	35.10	25.00	14.5
WKM-22-28	22.00	25.80	38.30	28.00	18.7
WKM-25-31	25.00	29.50	42.90	31.00	26.0
WKM-30-37	30.00	34.80	51.20	37.00	44.7

Dimensions [mm]

Part number	d1 E10	dn	dK	B	Weight [g]
WEM-04-05	4.00	6.25	8.30	5.00	0.2
WEM-05-06	5.00	8.00	10.30	6.00	0.3
WEM-06-06	6.00	8.00	10.30	6.00	0.4
WEM-08-08	8.00	10.00	13.30	8.00	0.7
WEM-10-09	10.00	13.00	16.10	9.00	1.2
WEM-12-10	12.00	15.00	18.10	10.00	1.5
WEM-15-12	15.00	18.00	22.00	12.00	2.4
WEM-16-13	16.00	19.50	24.10	13.00	3.3
WEM-17-14	17.00	20.00	25.10	14.00	3.7
WEM-20-16	20.00	24.00	29.10	16.00	5.3
WEM-25-20	25.00	29.00	35.60	20.00	9.5
WEM-30-22	30.00	34.00	40.90	22.00	12.1

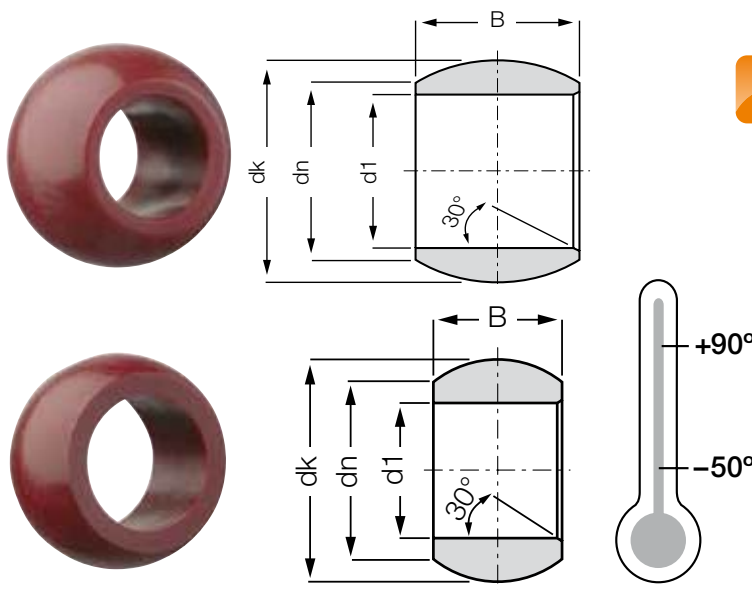
Dimensions [Inch]

Part number	d1 E10	dn	dK	B	Weight [g]
WKI-03	.1900	.307	.444	.312	0.6
WKI-04	.2500	.354	.516	.375	1.0
WKI-05	.3125	.447	.625	.437	1.7
WKI-06	.3750	.504	.718	.500	2.3
WKI-07	.4375	.601	.828	.562	3.5
WKI-08	.5000	.700	.938	.625	5.0
WKI-10	.6250	.838	1.125	.750	8.2
WKI-12	.7500	.978	1.312	.875	12.5
WKI-16	1.0000	1.269	1.750	1.375	31.7

Dimensions [Inch]

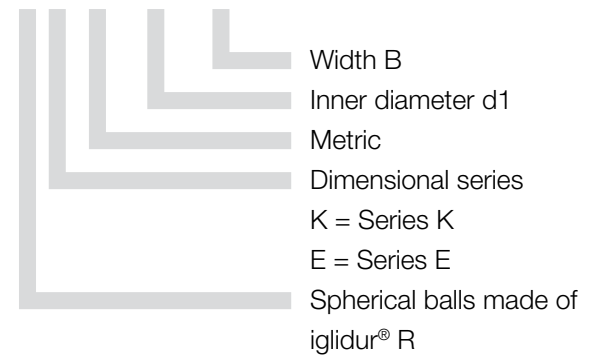
Part number	d1 E10	dn	dK	B	Weight [g]
WEI-03	.1900	.354	.402	.1900	0.3
WEI-04	.2500	.314	.402	.2500	0.3
WEI-05	.3125	.415	.520	.3125	0.7
WEI-06	.3750	.506	.630	.3750	1.3
WEI-07	.4375	.581	.709	.4063	1.6
WEI-08	.5000	.581	.709	.4063	2.6
WEI-10	.6250	.802	.945	.5000	3.1
WEI-12	.7500	.951	1.138	.6250	5.9
WEI-16	1.0000	1.180	1.398	.7500	9.2

Low-cost spherical balls: RKM and REM



Order key

R...M-10-14



Dimensions [mm]

Part number	d1 E10	dn	dK	B	Weight [g]
RKM-10-14	10.00	12.90	19.00	14.00	2.9

Dimensions [mm]

Part number	d1 E10	dn	dK	B	Weight [g]
REM-05-06	5.00	8.00	10.20	6.00	0.4
REM-06-06	6.00	8.00	10.20	6.00	0.4
REM-08-08	8.00	10.00	13.20	8.00	0.8
REM-10-09	10.00	13.00	16.10	9.00	1.3
REM-12-10	12.00	15.00	18.10	10.00	1.6



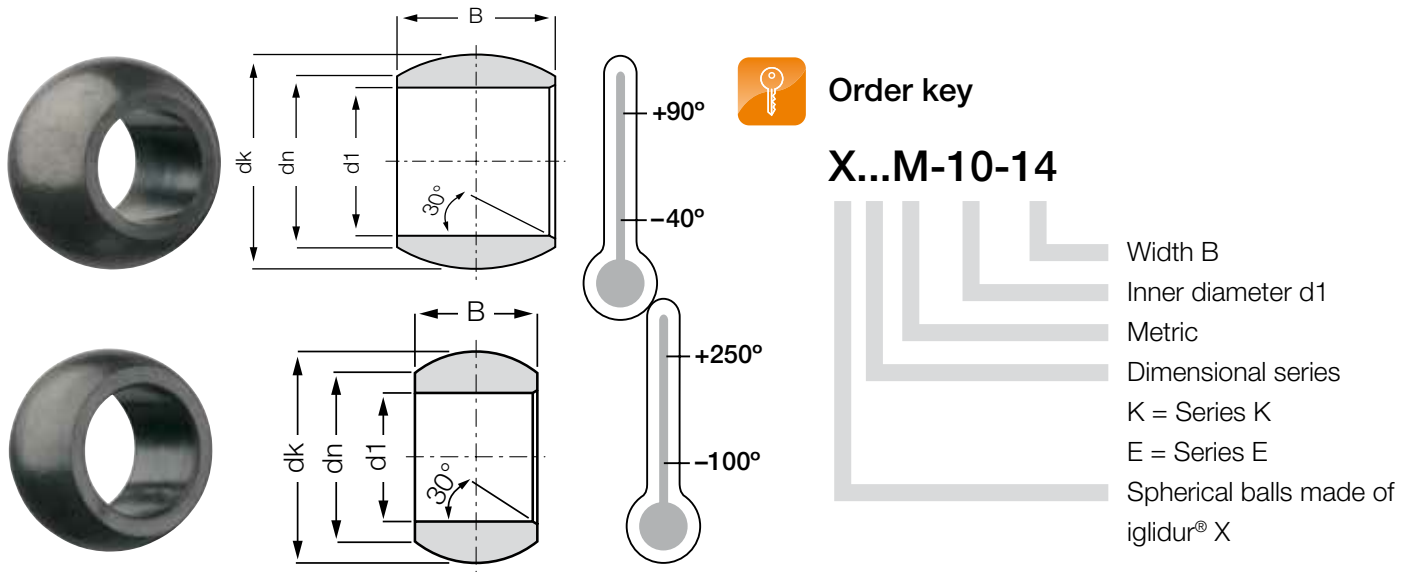
delivery from stock
time



prices price list online
www.igus.eu/eu/rkm

igubal® Spherical Balls | Product Range

High temperatures spherical balls: XKM and XEM



Dimensions [mm]

Part number	d1 E10	dn	dK	B	Weight [g]
XKM-10-14	10.00	12.90	19.10	14.00	2.9

Dimensions [mm]

Part number	d1 E10	dn	dK	B	Weight [g]
XEM-05-06	5.00	8.00	10.30	6.00	0.4
XEM-06-06	6.00	8.00	10.20	6.00	0.4
XEM-08-08	8.00	10.00	13.30	8.00	0.8
XEM-10-09	10.00	13.00	16.10	9.00	1.3
XEM-12-10	12.00	15.00	18.10	10.00	1.6

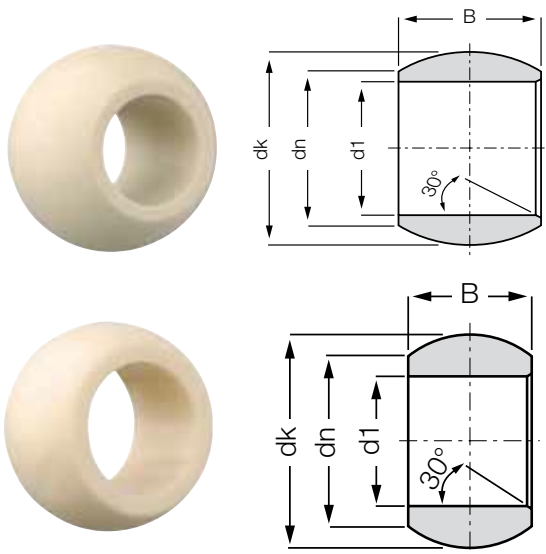


delivery from stock
time



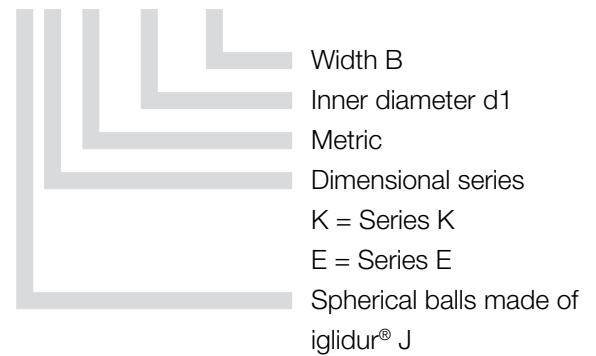
prices price list online
www.igus.eu/eu/xkm

Low moisture absorption spherical balls: JKM and JEM



Order key

J...M-03-06



Dimensions [mm]

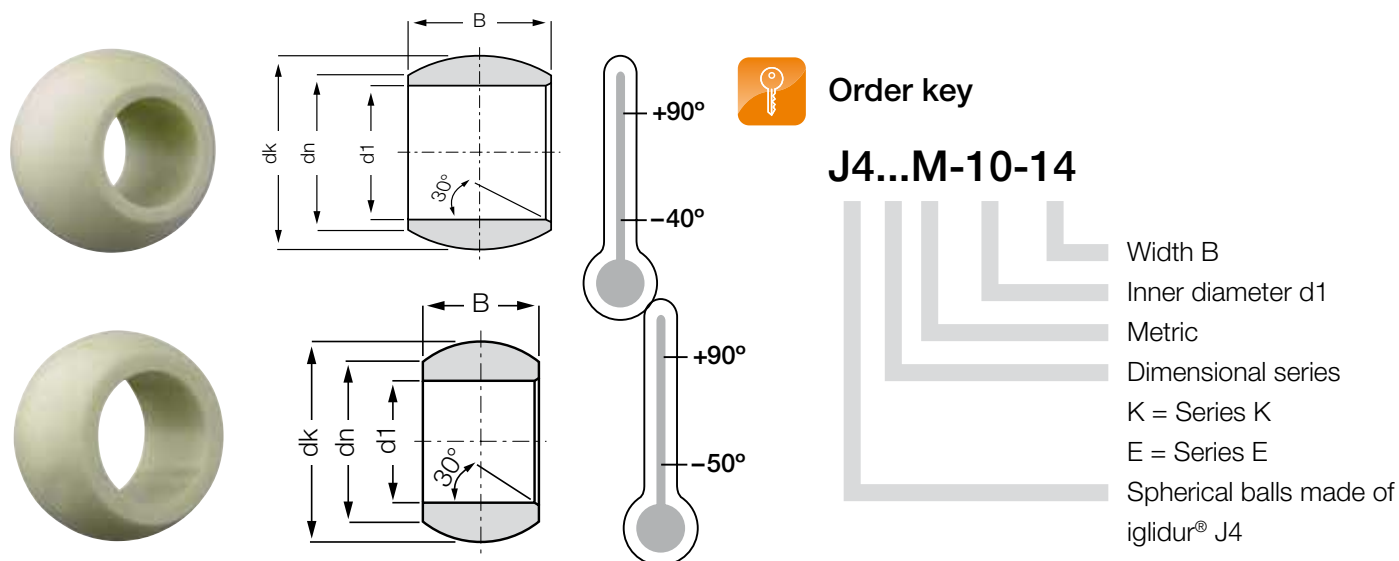
Part number	d1 E10	dn	dK	B	Weight [g]
JKM-03-06	3.00	5.10	8.10	6.00	0.3
JKM-05-08	5.00	7.70	11.30	8.00	0.7
JKM-06-09	6.00	8.90	12.80	9.00	1.0
JKM-08-12	8.00	10.30	15.90	12.00	1.9
JKM-10-14	10.00	12.90	19.00	14.00	3.1
JKM-12-16	12.00	15.40	22.10	16.00	4.7
JKM-16-21	16.00	19.30	28.40	21.00	9.4
JKM-20-25	20.00	24.30	35.10	25.00	17.6
JKM-25-31	25.00	29.50	42.80	31.00	31.6
JKM-30-37	30.00	34.80	51.20	37.00	53.0
JKM-40-49	40.00	44.50	66.30	49.00	54.5
JKM-50-60	50.00	56.50	82.40	60.00	92.1

Dimensions [mm]

Part number	d1 E10	dn	dK	B	Weight [g]
JEM-04-05	4.00	6.25	8.30	5.00	0.3
JEM-05-06	5.00	8.00	10.20	6.00	0.4
JEM-06-06	6.00	8.00	10.20	6.00	0.4
JEM-08-08	8.00	10.00	13.30	8.00	0.8
JEM-10-09	10.00	13.00	16.10	9.00	1.3
JEM-12-10	12.00	15.00	18.10	10.00	1.7
JEM-15-12	15.00	18.00	22.00	12.00	2.9
JEM-16-13	16.00	19.50	24.10	13.00	3.9
JEM-17-14	17.00	20.00	25.20	14.00	4.1
JEM-20-16	20.00	24.00	29.10	16.00	6.4
JEM-25-20	25.00	29.00	35.60	20.00	11.5
JEM-30-22	30.00	34.00	40.90	22.00	14.5

igubal® Spherical Balls | Product Range

Cost-effective spherical balls: J4KM and J4EM



J4...M-10-14

- Width B
- Inner diameter d1
- Metric
- Dimensional series
- K = Series K
- E = Series E
- Spherical balls made of iglidur® J4

Dimensions [mm]

Part number	d1 E10	dn	dK	B	Weight [g]
J4KM-10-14	10.00	12.90	19.10	14.00	3.1

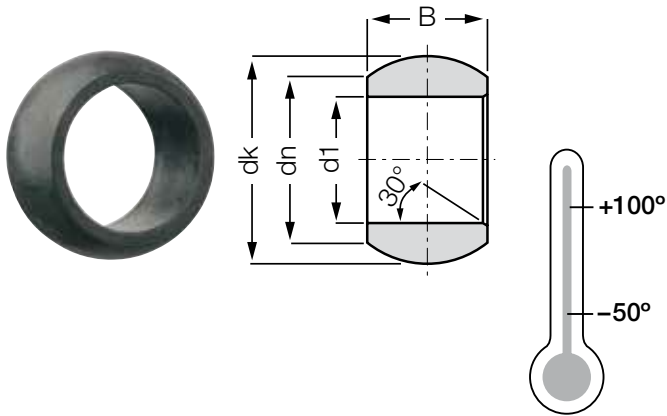
Dimensions [mm]

Part number	d1 E10	dn	dK	B	Weight [g]
J4EM-04-05	4.00	6.25	8.25	5.00	0.3
J4EM-05-06	5.00	8.00	10.20	6.00	0.4
J4EM-06-06	6.00	8.00	10.20	6.00	0.4
J4EM-08-08	8.00	10.00	13.30	8.00	0.8
J4EM-10-09	10.00	13.00	16.00	9.00	1.3
J4EM-12-10	12.00	15.00	18.00	10.00	1.7
J4EM-15-12	15.00	18.00	22.00	12.00	2.9
J4EM-16-13	16.00	19.50	24.00	13.00	3.9
J4EM-17-14	17.00	20.00	25.10	14.00	4.1
J4EM-20-16	20.00	24.00	28.90	16.00	6.4
J4EM-25-20	25.00	29.00	35.50	20.00	11.5
J4EM-30-22	30.00	34.00	40.90	22.00	14.5

 **delivery** from stock
time

 **prices** price list online
www.igus.eu/eu/j4km

Spherical balls for under water applications: UWEM



Order key

UWEM-16-13



Dimension

Inner diameter d1

Metric

Dimensional series E

Spherical balls made of
iglidur® UW

Dimensions [mm]

Part number	d1 E10	dn	dK	B	Weight [g]
UWEM-16-13	16.00	19.50	23.80	13.00	4.0
UWEM-20-16	20.00	24.00	29.10	16.00	6.5
UWEM-25-20	25.00	29.00	35.30	20.00	11.6
UWEM-30-22	30.00	34.00	40.50	22.00	15.2



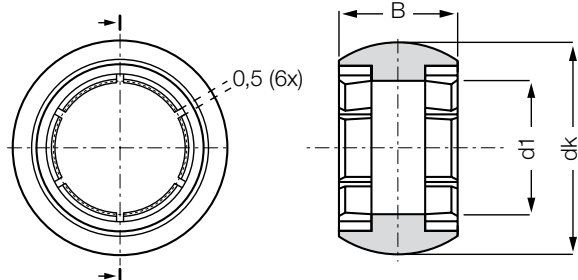
delivery from stock
time



prices price list online
www.igus.eu/eu/uwem

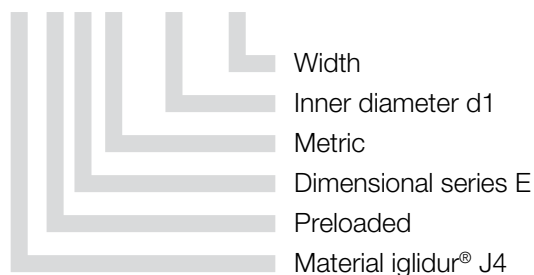
igubal® Spherical Balls | Product Range

Clearance-free, single piece: J4VEM



Order key

J4VEM-08-08



- Can be combined with all series E housings
- Sizes 8 to 20 mm
- Preloaded
- Totally clearance-free in unloaded state

Dimensions [mm]

Part number	d1 E10	dK	B	Weight [g]
J4VEM-08-08	8	13.20	8.00	0.7
J4VEM-10-09	10	16.10	9.00	1.2
J4VEM-12-10	12	18.10	10.00	1.5
J4VEM-16-13	16	24.10	13.00	3.7
J4VEM-20-16	20	29.10	16.00	6.2

5 Sizes available: Ø 8, 10, 12, 16, 20 mm combinable with:

igubal® Rod Ends EA(L)RM	▶ page 646	igubal® Flange Bearing EFSM	▶ page 694
igubal® Rod Ends EB(L)RM	▶ page 644	igubal® Pivoting Bearing EGFM-T	▶ page 713
igubal® Pillow Block Bearing ESTM	▶ page 683	igubal® Pivoting Bearing EGLM	▶ page 709
igubal® Flange Bearing EFOM	▶ page 692	igubal® Double Joint EGZM	▶ page 714

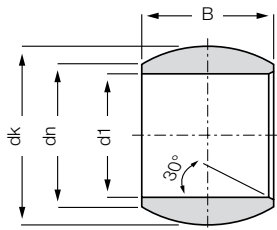


delivery from stock
time



prices price list online
www.igus.eu/eu/j4vem

Spherical balls – detectable: RN248KM and RN248EM

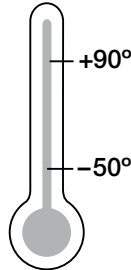
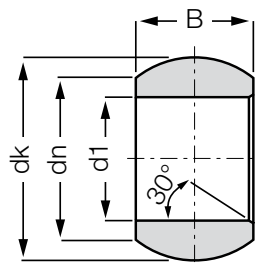


Order key

RN248...M-06-09



Width B
Inner diameter d1
Metric
Dimensional series
K = Series K
E = Series E
Spherical balls made of
iglidur® RN248



Dimensions [mm]

Part number	d1 E10	dn	dK	B	Weight [g]
RN248KM-06-09	6.00	8.90	12.80	9.0	1.0

Dimensions [mm]

Part number	d1 E10	dn	dK	B	Weight [g]
RN248EM-05-06	5.00	8.00	10.30	6.00	0.4
RN248EM-06-06	6.00	8.00	10.20	6.00	0.4
RN248EM-08-08	8.00	10.00	13.20	8.00	0.8
RN248EM-10-09	10.00	13.00	16.10	9.00	1.3
RN248EM-12-10	12.00	15.00	18.10	10.00	1.6



delivery from stock
time



prices price list online
www.igus.eu/eu/rn248km