

Giant Star Rigel B

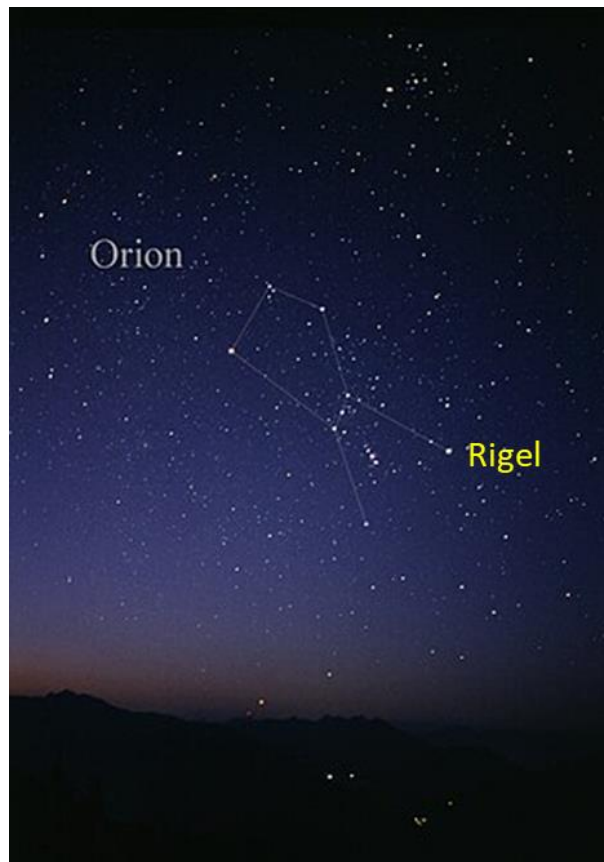


Image: The constellation Orion as it can be seen with the naked eye in the south-east sky (taken in the Alps in 2003).

Author: Till Credner

[https://de.wikipedia.org/wiki/Orion_\(Sternbild\)#/media/Datei:OrionCC.jpg](https://de.wikipedia.org/wiki/Orion_(Sternbild)#/media/Datei:OrionCC.jpg)

Rigel B is a giant star and belongs to the quadruple star system Rigel. The star system is the lower, left foot star of the very easy-to-find constellation of Orion. It is the brightest structure in the constellation and consists of four stars:

- the blue giant star Rigel A
- the two white-blue giant stars Rigel B and Rigel C and
- the orange dwarf star Rigel D.

The star system is very easy to recognise in the firmament even in poor light conditions.

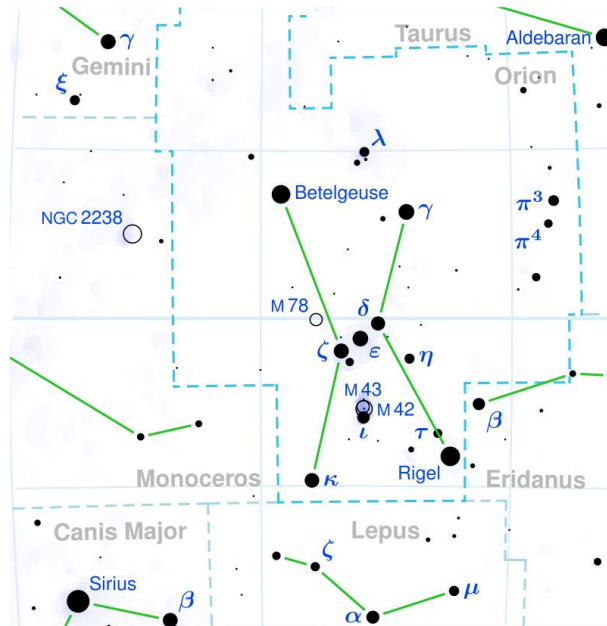


Bild: Sternbild Orion

Author: Orion_constellation_map.png: Torsten Bronger

https://en.wikipedia.org/wiki/Rigel#/media/File:Orion_constellation_map.svg

The name Orion comes from Greek mythology and refers to a giant hunter. The name Rigel comes from Arabic and is called 'Seba-en-Sah', which can be translated as a foot or toe star. Rigel B is a main sequence star and, like the sun, receives its energy from the fusion of hydrogen into helium. Due to its size, it has a shorter lifetime than the Sun and will most likely end up as a neutron star. Rigel B orbits with its similar companion Rigel C around their common centre of mass. They form a binary star system, which in turn orbits together around Rigel A, the largest star in the quadruple system. So far there is hardly any information on the dwarf star Rigel D.

Important Data of Rigel B:

Constellation:	Orion
Distance from the sun:	approx. 770 light years (approx. 7.5 quadrillion km)
Distance to Rigel C:	approx. 28 AU (approx. 4.2 billion km, approximate distance Sun - Neptune)
Distance to Rigel A:	approx. 2,000 AU (approx. 300 billion km), about four times the distance Sun - Sedna)
Apparent brightness:	6.6 mag
Spectral class:	B9 V (white-blue colour)
Absolute visual brightness:	-0.4 mag
Mass:	4 solar masses (approx. $8 \cdot 10^{30}$ kg)
Diameter:	4.1 solar diameter (approx. 5.8 million km)
Luminosity:	approx. 128 times the luminosity of the sun
Effective temperature:	10,500 K
Rotation period:	0.7 days

Link: <https://en.wikipedia.org/wiki/Rigel>