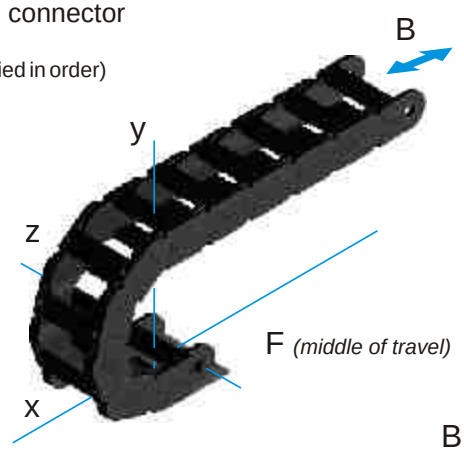
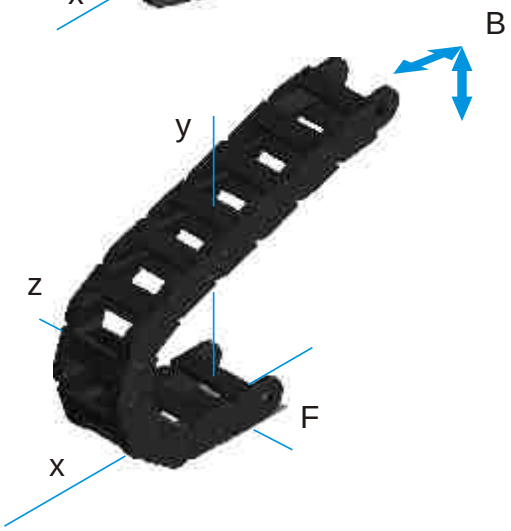
ARRANGEMENTS

B = moving connector
F = fixed connector
normal
(not specified in order)



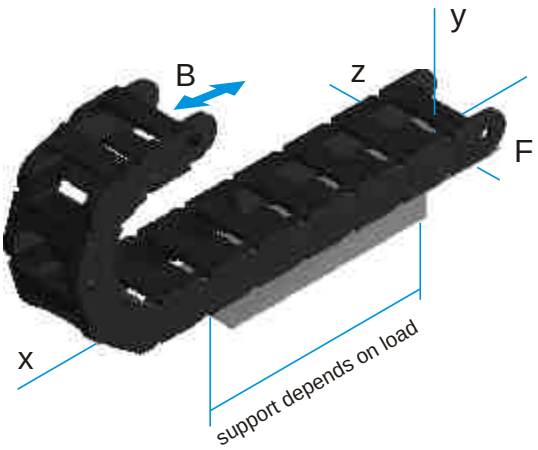
normal arrangement (**n**)

In the **n**ormal arrangement the fixed connector is usually on the first link in the lower strand in the middle of the travel.
The moving end connector is moving the chain in a straight line lengthwise at a height of 2R+c over the entire travel. The upper strand is steadily reduced through the bending of the individual links until the whole chain length is taken to the bottom or in a trough.
This arrangement allows maximum speeds and extreme acceleration with optimum durability.



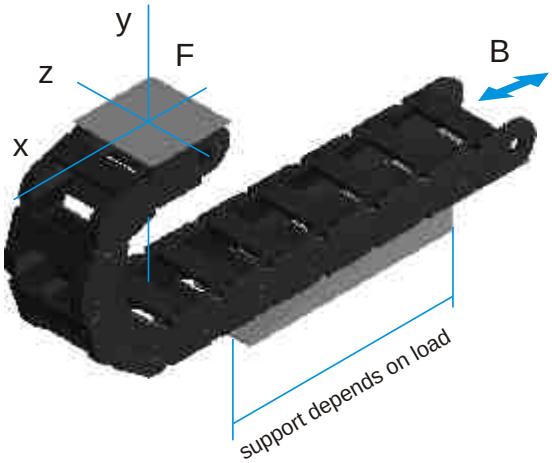
multiaxial (**m**)

In the **m**ultiaxial arrangement is a vertical and horizontal motion of the driver along the x-axis (travel direction) and one or more movement in the y- or z-direction. While running in the y-direction may be done by any conventional energy chain, the movements in the z-direction require the energy chain system ALLROUND.



free overhang (**f**)

In contrast to the normal arrangement the freely exceeding lower strand is supported only partially by a substructure.
Due to the high weight load on the lower strand in this arrangement only significantly reduced travel distance is possible.

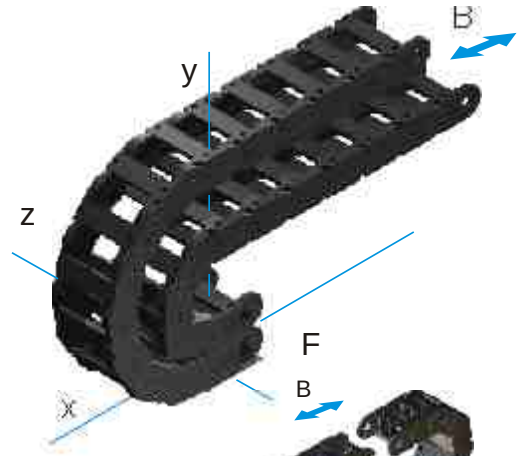


moved end downside (**u**)

If the driver is positioned in the lower, due to the heavy weight only a reduced travel distance is possible (see above).

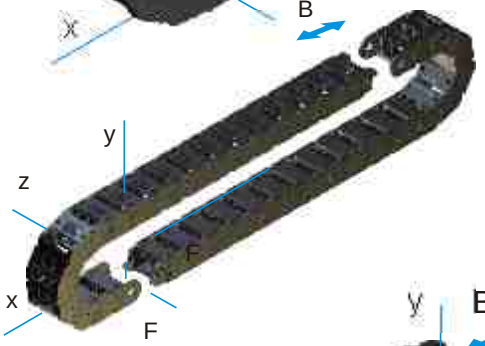
nested travel (**i**)

The arrangement of two or more energy chains with different bending radii or even different energy chains makes sense when using a variety of cables and hoses together. The energy chains are moved together by a common driver.



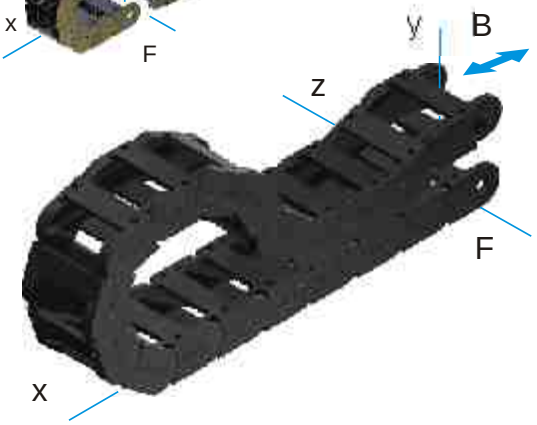
opposite running (g)

Opposite running means two energy chains running in one line synchronuosly or independent of each other.
It is a further possibility to raise the number of moved lines without increasing the necessary space.



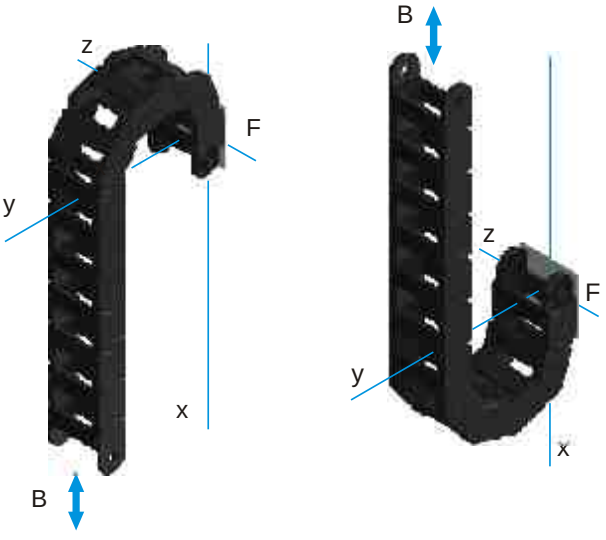
gliding arrangement (**l**)

If the free carrying length is exceeded, the energy chain changes into a gliding state. In this arrangement, use energy chains without pretension. A trough is required (see chapter troughs). Sliders increase the lifespan and can be replaced if necessary.



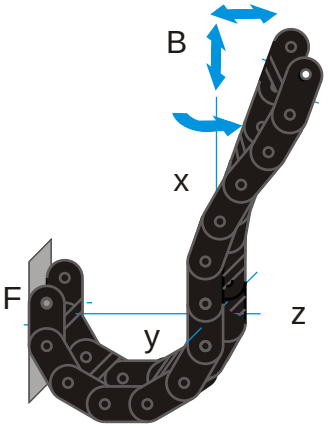
vertical travel (**s**)

Vertical travel arrangements are often installed in systems in which multiple linear axes are coupled. In this arrangement usually energy chains without pretension are used. Vertical arrangement with multiaxial movement needs chains with pretension.
The weight of the lines and of the energy chain has to be placed and pushed by the straight part of the chain. This forces should be caught by a supporting.
The energy chain should be arranged so that optional cross accelerations are in the y-direction



vertically hanging (**h**)

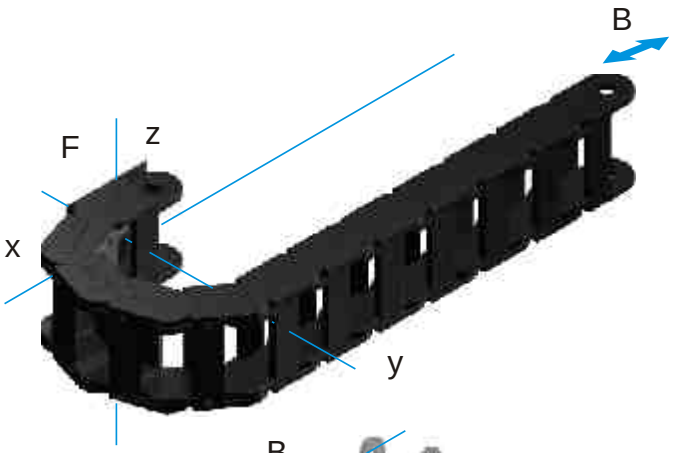
Elevators, high-bay stores and doors are typical applications for energy chains in vertically hanging arrangement. In this arrangement the energy chain is predominantly tensile stressed. Lateral acceleration should be layed if any, in the y-direction. Energy chains are without pretension.



hanging multiaxial (**hm**)

The energy chain ALLROUND provides the combination of linear and rotary motion.

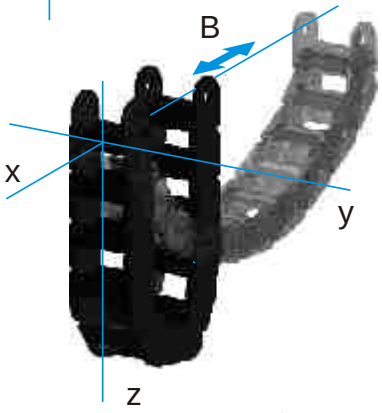
ARRANGEMENTS



horizontal (**w**)

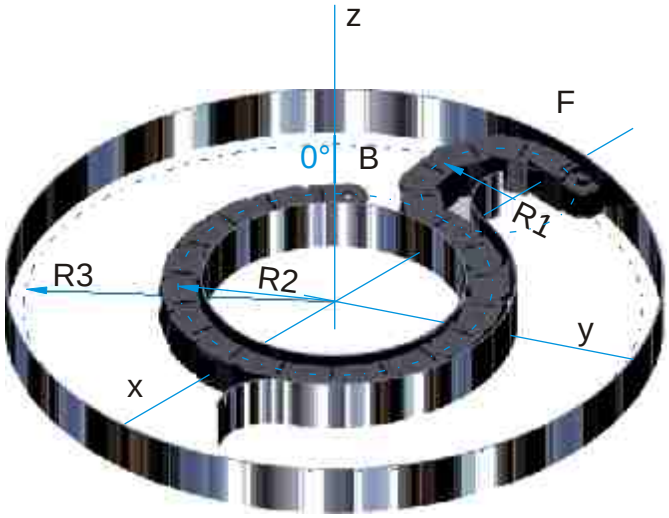
on the side

Energy chains are arranged horizontally lying on their side, for example, if the space does not allow a normal arrangement. In some cases, lying on its side provides an alternative for very long traverse at low speeds and strokes. In this application mainly chains without pretension are used.
In general, suitable guide troughs and gliding discs or rollers are required.



driving apart (**a**)

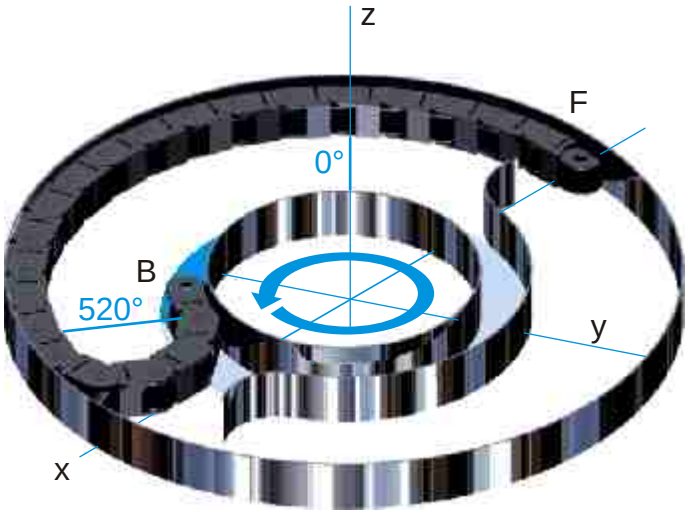
With energy chains moving apart the calculation of the energy chain length does not follow the usual pattern, but be adapted to the individual requirements of the application.



circle (**k**)

on the side

The circular motion is a special form of chain movement. For circle movement a part of the energy chain has to be manufactured with an opposite bending radius R2.
The outer radius R3 is derived from the link height, the bending radius of the energy chain R1 and the opposite radius R2.



This type of horizontal arrangement allows rotation up to 520 °. A customized guide channel is required.