

Wiring point of movement for cable

Wiring method is important to devise improvement of the service life of the movement for cable and to become stabilized. We propose a wiring point to you to use sufficiently excellent movement characteristics of our movement for the cable.

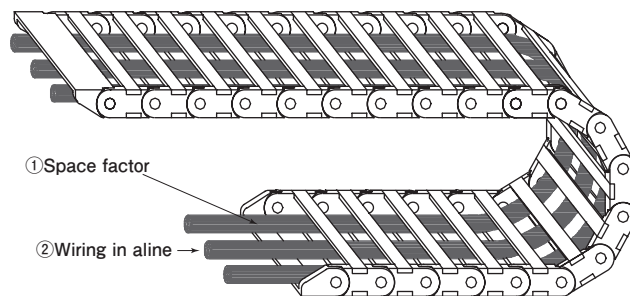
1. Common items

Wiring point :Example U-shaped folded portion.

- ① Allowable bending radius.....6D or more※D represents the cable outer diameter
- ② Allowable moving tension.....conductor cross-sectional area 1 mm² per 19.6N below
- ③ Cable fixed part.....tightening diameter, -0.2 to 0.5mm
- ④ Guide diameter and tube diameter.....1.2~1.3D
- ⑤ Other
 - a) preventing the twist of the cable
 - b) Hydraulic, the air hose, may not wire simultaneously as much as possible. Unavoidably If you want to bracket, you have to consider the curing or expansion part.
 - c) Bundling in moving parts, it is not performed as much as possible.
 - d) When insert a plurality of cables to the flexible pipe or the like, the space factor is 40% or less, the variation in the length of the cable is small.
 - e) When winding the spiral tube on a cable is to select the inner diameter size enough not to tighten the cable

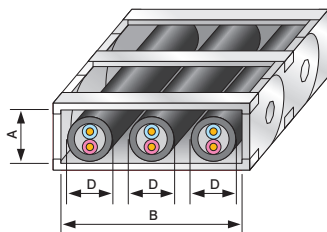
2. Using a drag chain

Except for the common item, in order to avoid mutual interference between the cable please note the following items.



① Space factor... 30% or less

About calculation method of the space factor



To explain the left as an example figure, In theory it becomes like the following.

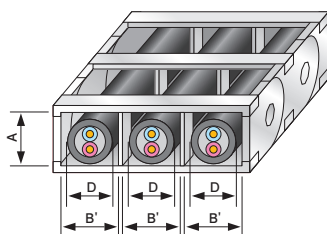
$$\text{Space factor(\%)} = 3 \times \frac{\pi D^2}{4} \div (A \times B) \times 100$$

If you want to wire to the drag chain, it is impossible to wire at the center of the cable track, please wire with about 30% of the margin for the cable outer diameter.

It is.

(A= 1.3D, B = 3 x 1.3D is lowest effective space)

However, if there is a partition in the drag chain and it is possible to fixed, It can be wired to nearly medium.



$$\text{Space factor becomes } \frac{\pi D^2}{4} \div (A \times B') \times 100$$

② Wiring in a line... It is possible to wire in line.