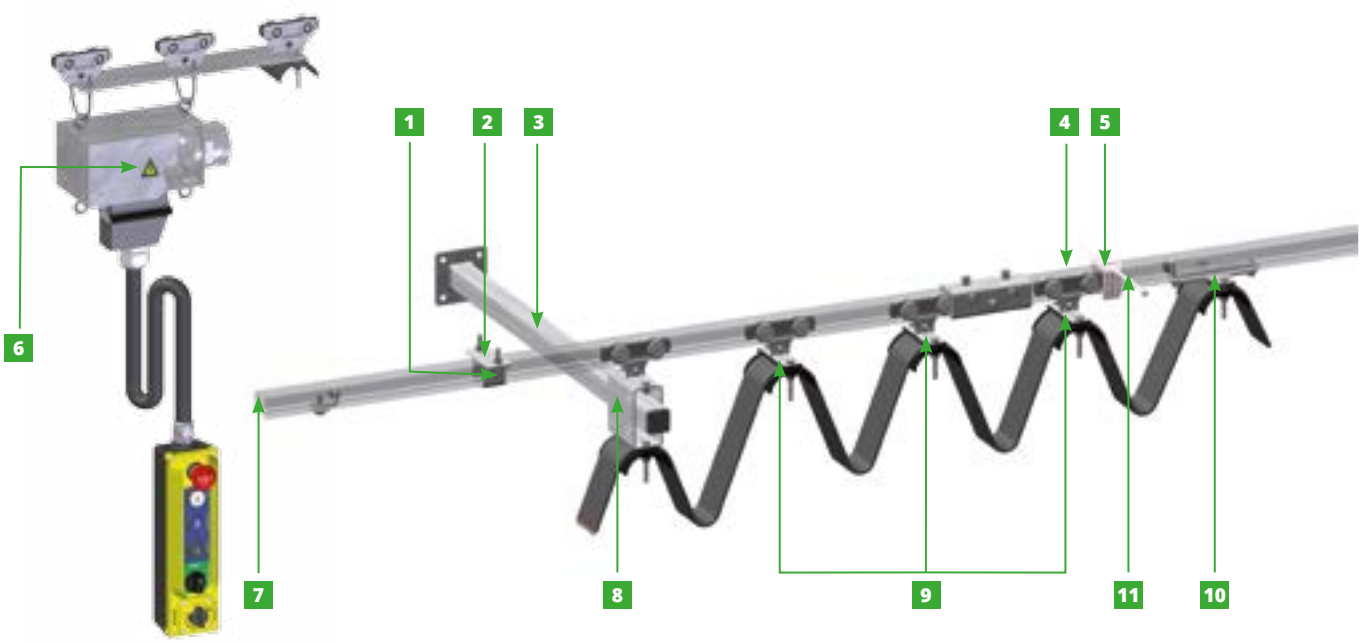
Electrical conduction system to mobile equipment allowing, by means of cable-supporting trolleys, to extend and recollect the conductor cables along the layout. (Festoon System).

SCHEMATIC DESCRIPTION OF COMPONENTS AND THEIR ASSEMBLY



COMPONENTS

1. **Running track:** Defines the route for the trolleys.
2. **Support:** Assures fixing the rolling track to the structure. To be installed, generally speaking, every 1.5 meters, In trolley parking areas, every 1 meter.
3. **Towing arm:** Linked with the mobile equipment, pulley or crane, to pull the first trolley or tow.
4. **Joint:** To join consecutive sections of the rolling track.
5. **Cable fixing clamps:** As a support option of other conductor cables on the rolling track, using the assembly structure.
6. **Pendant station towing trolley with terminal box:** Necessary for supporting terminal box or control element. The connection, disconnection of the terminal box can be by means of terminals or quick plug.
7. **Final stop:** Avoids the mobile trolleys from exiting the line at the end.
8. **Towing trolley:** The first in the installation with movement linked to the mobile element to be supplied.
9. **Cable trolley:** For holding the cable and movement along the rolling track.
10. **End clamp:** Cable-supporting element, without movement. It is assembled to the rolling track.
11. **Electrical cable:** Flexible cable, defined by the number of conductors and their section. Flat-shaped for easier folding when forming loops.

DEFINITION OF CABLE LENGTH AND NUMBER OF CABLE TROLLEYS.

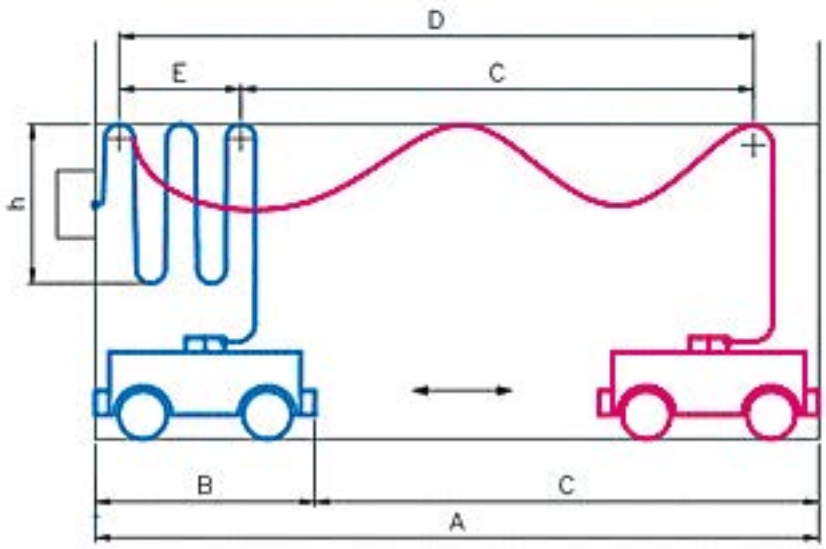
Total length of cables:

L = A (layout) + 10% of A + Distance to the power supplies (at both ends).

Number of cable trolleys:

$$N = \frac{A}{2 \times h}$$

N = number of cable trolleys
A = total length of layout (metres
h = height of cable loop (metres)



A = total length of layout
B = dimension of the trolley or end part
C = movement or run
D = parking + movement
E = parking
h = height of cable loop