

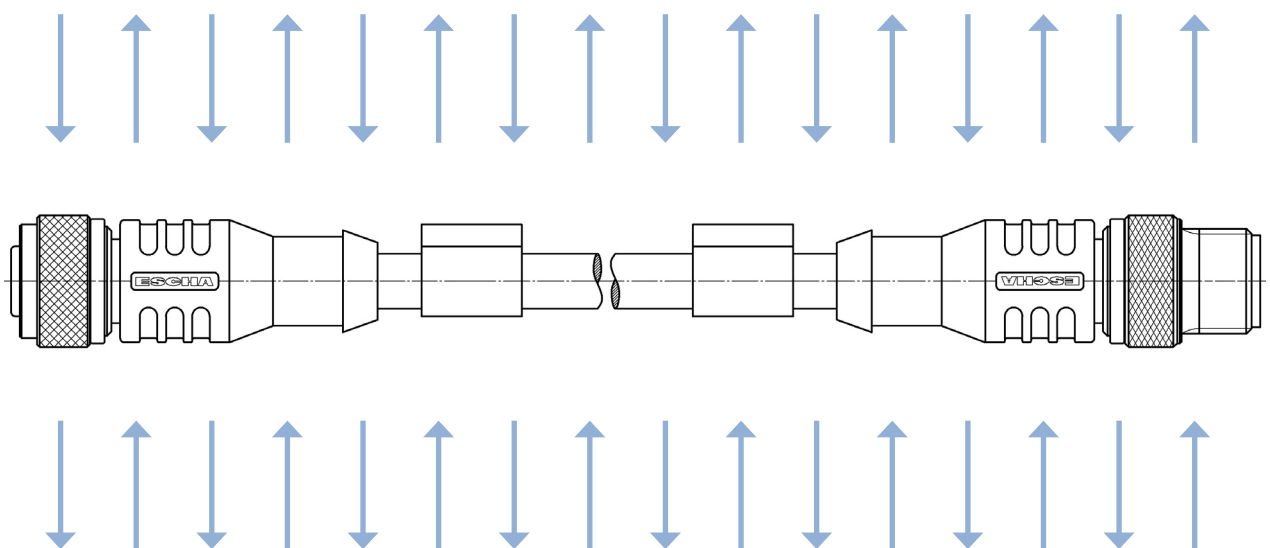
Shielding

EMC of devices has gained more significance since the publication of the law on electromagnetic compatibility.

The devices have to be made in such a way that:

1. The generation of electromagnetic interferences is so limited that a proper operation of these devices is possible (running-out arrows).
2. The devices have an adequate stability against electromagnetic interferences so that a proper operation is possible (running-in arrows).

EMC-radiation



In order to meet the manufacturers' requirements, shielded connectors, to which shielded cables can be connected, are being used more and more frequently. Conductive housings which can be connected with the cable-shield are used.

In case of round connectors, care should be taken that the shield-mesh of the cable is carefully attached to the shield-end of the connector. An all around contact surface (of 360°) is optimal. Good (often sufficient in practice) shielding-values are often achieved if the shield-mesh is firmly connected with the conductive housing. All-plastic connectors without metal bushings on which the shield-mesh cannot be laid on, are insufficient.

Furthermore, it is still important to obtain a faultless contact with the counter connector when plugging and the latter itself has a good contact with the device chassis. The shield damping is given in decibel (db) and is dependent on the frequency. Good shielding has a high shield-damping which does not significantly drop throughout a wide frequency range (MHz).