



Drain wire size of individual and overall screens of instrumentation cables

An electrical function in terms of an ampacity (like a ground wire) is not given for a drain wire of a screen. On this account the drain wire is designed as thin as possible (without jeopardising the technical function) to reduce weight and costs of a cable. Drain wires with big cross-sections do not improve the technical behaviour of a cable.

State-of-the-art-standards, like EN 50288-7, do not specify any drain wire size.

For this reason all our instrumentation cables acc. to EN 50288-7, which are used worldwide since many years without any problems, do have the drain wire with 0.34 mm^2 (0.6 mm diameter) for individually screened elements and 0.5 mm^2 for overall screens.

Due to this fact, cables with drain wires with the same cross section like the "main" conductors do not have any technical advantage. On the contrary, these cables are heavier, thicker and more expensive.

Two functions:

From the technical point of view the drain wire of a screen has two functions:

- **connection wire for the screen foil**
- **securing the continuity of the screen, in the case of an interruption of the screen foil.**

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